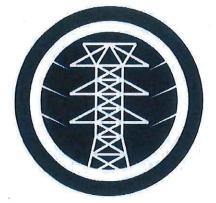
# RFP 81412 Phase 2 Committee Evaluation - Annex A of Notification Letters

Grading Criteria	PUMA Energy Caribe	New Fortress Energía
Experience and Capacity (10%)		
Evidence of experience in previous projects.	4	4
Evidence and success in developing LNG developments of similar scope as the duties described in the RFP.	4	4
Description of Proposed Project Team (names and titles of key members, including design entity selected by proposer, with a brief description of the qualifications and experience of: project manager, engineering and design nmanager, lead engineers, inspector maanger, safety officers, qa/qc managers, envinronmental specialists, other key personnel, including subcontracts.	4	5
Identify and describe potential Subcontractors w/demonstrated proof of technical capabilities necessary to perform their proposed scope of work and services, expected role and experience	4	5
Submitted evidence that the proposer is duly and properly organized and qualified to do business in Puerto Rico or will be prior to contract award.	2	4
Respondents that demonstrate they have the staff available to begin immediately will be scored higher than those who need more time, or whose responses are vague.	4	5
Approach and Methodology (30%) Explain approach to completing the project within the given construction dates and site constraints. Include summary level Critical Path Method Schedule detailing all aspects of the Project. Detailed assessment and response to site conditions constraints.	3	4
Outline a clear and straightforward approach and demonstrated commitment to accomplishing the schedule goal of providing fuel gas no later than March, 2019. Identify key goals and objectives, methods for achieving high standards for the delivery of services to meet or exceed these goals.	2	5
Methods proposer foresees utilizing to accomplish duties at site with sketches or illustrations, if necessary. Approach will include:1. Demonstrate clear and thorough interpretation and acknowledged assimilation of the project work scope as described herein and part of this RFP. 2. Satisfactory demonstrate how the duties will be staged to minimize impacts to PREPA operations. 3. Present a clear and logical approach for the efficient performance of all work tasks across the proposer's entire project team 4. Describe how the proposer's submitted milestone schedule demonstrates a clear understanding and integration of all interrelated duties. 5. Describe how the proposer intends to address and mitigate adverse environmental materials. 6. Provide specific and project proven approach and plan for effective QA/QC across the proposer's outline plan and commitment to safety. 7. Proposers shall explain how they will be organized to effectively deploy support for PREPA	3	4
and clearly identify engagement manager and different work stream leaders.	3	4
Price Proposal (60%) Proposers shall clearly identify Capacity Payment to cover Costs for conversion of units, proposed delivered fuel payment price and proposed fuel price indexes for inflation and changing market conditions. Terms and condition of priced proposal will also be a consideration.	2	4
Evidence of financial ability and resources to adequately perform and manage the contract, manage risks or ability to obtain such resources as are required. If joint venture or newly formed entity, identify appropriate guarantor(s) and provide evidence of financial resources of such guarantor(s). Audited financial statement for the most recent three years, certified by CPA. If Proposer is a partnership of joint venture, then audited financial statements for each corporation, partnership, LLC, sole proprietorship, member of partner holding an interest in the proposer must be submitted for the same 3 year period.	3	3
Letter of support Bonding Company that commits the bonding company to provide the required bonding on behalf of the proposer.	2	4
Letter from insurance company that commits the insurance company to provide the required insurance on behalf of the proposer if the proposer is awarded the contract for the project. See attachments for insurance requirements of the RFP.	4	2
Total Score:	<b>12.1</b> 57.6%	<b>15.6</b> 74.3%

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# Autoridad de Energía Eléctrica

**Puerto Rico Electric Power Authority** 

# Evaluation and Selection Report

Request for Proposals (RFP) 81412

Fuel Supply in the North and Conversions of San Juan Units 5 & 6



#### INTRODUCTION

This request for proposals (RFP) was issued by the Puerto Rico Electric Power Authority (PREPA). The purpose of this RFP is to solicit proposals from interested qualified firms which can provide LNG fuel supply in the North and LNG fuel conversion of San Juan Units 5 and 6.

The Puerto Rico Electric Power Authority (PREPA) electric generating fleet is old and in various states of disrepair. Because the majority of the power generation in Puerto Rico is on the South side of the Island and a majority of the load in on the North Side of the Island in the San Juan area, reliable and economic generation is needed in the north. This became especially critical following the 2017 hurricanes when much of the transmission capability from south to north was destroyed.

PREPA seeks to reduce the cost of generation and improving the compliance with environmental requirements for units required to reliably operate at base load in the San Juan area. One alternative being considered by PREPA is to seek suppliers for an alternate fuel supply to the newer, existing and more efficient combined cycle units at the San Juan generating station (San Juan Units 5 and 6). While the Units 5 and 6 are currently only capable of burning #2 Fuel Oil, PREPA will consider converting these units to an alternative fuel if the cost savings associated with the lower cost fuel supply justifies the power plant conversion modification expenditures.

Depending on the exact heat rate of modified units and assuming an 85% capacity factor, it is estimated that the total annual fuel requirements for the converted San Juan Units 5 and 6 would be approximately 25,000,000 MMBTU/year, or 25 TBTU/year.

PREPA is requesting all-inclusive, turnkey proposals to furnish, install, connect, deliver and operate a safe, stable, and reliable fuel supply system to the San Juan Units 5 and 6 combustion turbine combined cycle power generating plant; to supply the fuel gas for five years to the power generating plant; and to perform all work, including but not limited to: engineering/design, environmental permit support, equipment/materials supply, construction and commissioning, as required for the conversion of San Juan Units 5 and 6 to firing fuel gas. The fuel gas supply shall be liquefied natural gas (LNG) with an annual available quantity of at least 25 TBTU/year (alternative fuels can be proposed provided the combustion turbine equipment manufacturer, Mitsubishi Hitachi Power Systems, can confirm the units can safely and reliably upon being converted to the proposed alternate fuel and that can be cleared by PREPA on a risk assessment).

The intent of this RFP is to award one contract for LNG fuel supply, or any other proposed fuel, in the north and for fuel conversion of San Juan Units 5 and 6. Award of contract will be to those qualified firms whose proposal, conforming to RFP81412, is most advantageous to PREPA, the price and other factors will also be considered therein.

#### PROCESS

On July 13, 2018, PREPA's Governing Board approved a request for proposal process for the acquisition of a new fuel contract for San Juan Units 5 and 6 via Board Resolution 4620. PREPA published a public notice for this request for proposal in PowerAdvocate, PREPA's official electronic sourcing platform on July 30, 2018. Invitations to participate were either sent directly to vendors that PREPA understood could provide these services or interested vendors requested access through PowerAdvocate's Opportunities Dashboard. The RFP event link (invitation) was also



Selection Report RFP81412

Fuel Supply in the North and Conversion of San Juan Units 5 & 6

published on aeepr.com (*Oportunidades de Subastas*). All vendors that requested access before the closing date of the RFP were granted access by the designated points of contact (PREPA Procurement) for this event.

This request for proposals had the following Key Process Events:

- August 9, 2018 RFP Kick-off Meeting
- August 10 and 23; Sept 11 and 13 Site Visits
- August 28, 2018 Questions Deadline
- Sept. 10 and 15 Questions Answered (clarifications to RFP terms were posted as addenda on PowerAdvocate)

By September 25, 2018, the closing date of RFP 81412, approximately sixty-eight companies had been granted access to this event, of which six companies submitted proposals. PREPA received proposals from:

- 1. AES Corporation
- 2. Naturgy Energy
- 3. Lakeside Power and Methane, LLC
- 4. SeaOne Caribbean
- 5. Puma Energy Caribe
- 6. New Fortress Energía

These six submittals were evaluated in accordance with the evaluation requirements set forth in the RFP and the evaluation criteria mentioned in section 3 of the RFP Overview Document.

#### **EVALUATION AND ANALYSIS OF PROPOSALS**

For the evaluation of the proposals, the Chief Executive Officer, Engineer José Ortiz, designated an Evaluation Committee (Committee) on September 24, 2018, which included the following representatives:

- Edgardo Díaz Head, Supply Chain Division
- Jaime Umpierre Head, Engineering and Technical Services Division
- Roberto Rivera Senior Engineer, Planning and Environmental Protection Directorate
- Edgardo Vázquez Administrator, Fuels Office
- Nathan Pollak Filsinger Energy Partners

For phase one of the evaluation, this Committee, with the additional assistance of Paul Harmon and Marcus Klintmalm of Filsinger Energy Partners, evaluated all six proposals based on the following requirements for quality assurance of the proposals received (Section 5.1.a(i) of PREPA's RFP Guide) and as established in Section 3 of the RFP 81412 Overview Document:

#### "Experience and Capacity (10 percent)

Respondents must demonstrate experience and success in developing LNG fuel developments of similar scope as the duties described herein. Proponents shall provide the names and titles of the key members of the Project team (including the Design Entity selected by the Proposer) with a brief description of the qualifications and experience of:

- 1. Project Manager
- 2. Engineering and Design Manager



- 3. Lead Engineers
- 4. Inspector Manager.
- 5. Safety Officers, QA/QC Managers, Environmental specialists.
- 6. Other key personnel required, including subcontractors.

Proponents shall include a clear assignment of responsibility for various project tasks to specific individuals. Proposals shall include resumes identifying the qualifications and experience of all personnel listed above.

Submit a complete list showing all key firms in the Proposer's team. If a partnership and/or joint venture is proposed, clearly explain which parties in the partnership or joint venture will interface with PREPA on design and technical issues, which parties will interface with PREPA on financial or contractual matters, and which member or partner will be responsible to resolve disputes between the Proposer and PREPA.

Identify and describe potential subcontractors with demonstrated proof of the technical capabilities necessary to perform their proposed scope of work and or services.

Submit evidence that the Proposer is duly and properly organized and is qualified to conduct business in Puerto Rico or will be prior to contract award.

Respondents that demonstrate they have the staff available to begin immediately will be scored higher than those who need more time, or whose responses are vague.

#### Approach and Methodology (30 percent)

Explain your approach to completing the Project within the given construction dates and site constraints. Include a summary-level CPM schedule detailing all aspects of the Project. Include a detailed assessment and response to the site condition restraints.

Respondents shall outline a clear and straightforward approach and demonstrated commitment to accomplishing the schedule goal of providing fuel gas for San Juan 5 and 6 no later than March, 2019. Respondents shall identify key goals and objectives, and methods for achieving high standards for the delivery of services, in expectation of meeting or exceeding these goals.

Describe in detail the methods you foresee utilizing to accomplish the duties at the site. Provide sketches or illustrations to explain your approaches if necessary. This approach will include:

- 1. Demonstrating a clear and thorough interpretation and acknowledged assimilation of the project work scope as described herein and that are part of this RFP.
- Satisfactorily demonstrating how the duties will be staged to minimize impacts to PREPA operations.
- 3. Presenting a clear and logical approach for the efficient performance of all work tasks across the Proposer's entire Project Team.
- 4. Describing how the Proposer's submitted milestone schedule demonstrates a clear understanding and integration of all the interrelated duties.
- 5. Describing how the Proposer intends to address and mitigate adverse environmental materials.
- 6. Providing a specific and project-proven approach and plan for effective Quality Assurance/Quality Control across the Proposer's Project Team



7. The Proposer's outline plan and commitment to safety.

Respondents shall explain how they will be organized to effectively deploy support for PREPA and clearly identify engagement manager and different work stream leaders.

#### Price Proposal (60 percent)

Proposals will be scored based on price proposal format provided. Respondents shall clearly identify proposed capacity payment to cover costs for conversion of San Juan 5 and 6, proposed delivered fuel payment price, and proposed fuel price indices for inflation and changing market conditions. Terms and conditions of priced proposal will also be a consideration.

Provide evidence of the Proposer's financial ability and resources to adequately perform and manage the Contract, manage risk or ability to obtain such resources as are required during the performance of the Project. If Proposer is a joint venture or a newly-formed entity, identify appropriate guarantor(s) and provide evidence of the financial resources of such guarantor(s). Submit audited financial statements for the Proposer for the most recent three (3) fiscal years. certified by certified public accountant in accordance with generally accepted accounting principles. If the Proposer is a partnership or joint venture, then audited financial statements for each corporation, partnership, Limited Liability Company, sole proprietorship, member or partner holding an interest in the Proposer must be submitted for the same three (3) year period. If applicable, provide all such information with respect to any guarantor(s).

Provide a letter from a bonding company satisfactory to PREPA that commits the bonding company to provide the required bonding on behalf of the Proposer if the Proposer is awarded the contract for the Project.

Provide a letter from an insurance company, satisfactory to PREPA that commits the insurance company to provide the required insurance on behalf of the Proposer if the Proposer is awarded the contract for the Project. Insurance requirements can be found in Attachments to this RFP. PREPA may request further clarification to assist the Evaluation Committee in gaining additional understanding of proposal. A response to a clarification request must be to clarify or explain portions of the already submitted proposal and may not contain new information not included in the original proposal."

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The above mentioned criteria was graded using a score of 1 to 5, as established in Section 3 of the RFP document and defined as:

- 1 = Inadequate, does not meet RFP expectations.
- 2 = Adequate, criteria is met, below the standards set by the RFP.
- Good, meets the minimum standards set by the RFP. 3 =
- 4 =Very good, meets the standards set by the RFP.
- 5 = Excellent, presents the best proposal that meets the standards set by the RFP.

The evaluation process of proposals carried out by the Committee during various meetings through October 15, 2018, required the impartial analysis of each proposal to determine compliance on each of these criterion and additional requirements established in the RFP. The Evaluation Committee unanimously agreed, after an unbiased review of each proposal, per the criteria, that the following four companies did not meet the quality assurance of the basic requirements of RFP 81412:

1. Lakeside Power and Methane, LLC

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- 2. Naturgy Energy
- 3. SeaOne Caribbean
- 4. AES Corporation

The phase one evaluation table appears as Annex A, *Quality Assurance Evaluation for Short List*. Notification letters for this first evaluation and selection phase of RFP 81412 were sent to all six vendors on October 6, 2018 via PowerAdvocate's Messaging.

The remaining two proposals that best met the quality assurance evaluation and requirements of the RFP, including contract term and evidence of Mitsubishi Hitachi support for the conversion of the units, were selected for this RFP's short list and phase two of the evaluation process.

Phase two allowed **New Fortress Energía and Puma Energy Caribe** to further explain their proposals during presentations held on October 10 and 11, 2018, at PREPA's corporate headquarters with the PREPA Committee members (voting members) as well as Matt Lee and Marcus Klintmalm of Filsinger Energy Partners. During these presentations, the two companies were provided the opportunity to provide additional information regarding non-minor and substantial commercial and technical aspects of their proposals and were informed that, per the RFP document's section 3.1, the Evaluation Committee could alter the scoring of the proposals based upon the presentation. On October 12, 2018, PREPA issued written requests for clarifications to both short list participants regarding information discussed during the presentations, with responses due by October 15, 2018.

The Evaluation Committee then proceeded with a phase two evaluation of New Fortress Energia and Puma Caribe Energy's proposals based on the requirements of the RFP and the grading criteria as established in Section 3 of the RFP documents.

The resulting grading table is included as Appendix B of this Selection Report.

 Puma Energy Caribe – This company ranked second upon completion of the phase one quality assurance evaluation based on the requirements as established in Section 3 of the RFP Overview Document. During the oral presentations held on October 11, 2018, Puma Energy was specifically informed that the RFP states *"there will be no takeor-pay provisions allowed by the contract"* and on October 15, PREPA issued a request for clarifications based on this requirement as set forth in section 4.3.4 of the RFP. Puma Energy responded that their proposal is based on a take-or-pay contractual structure.

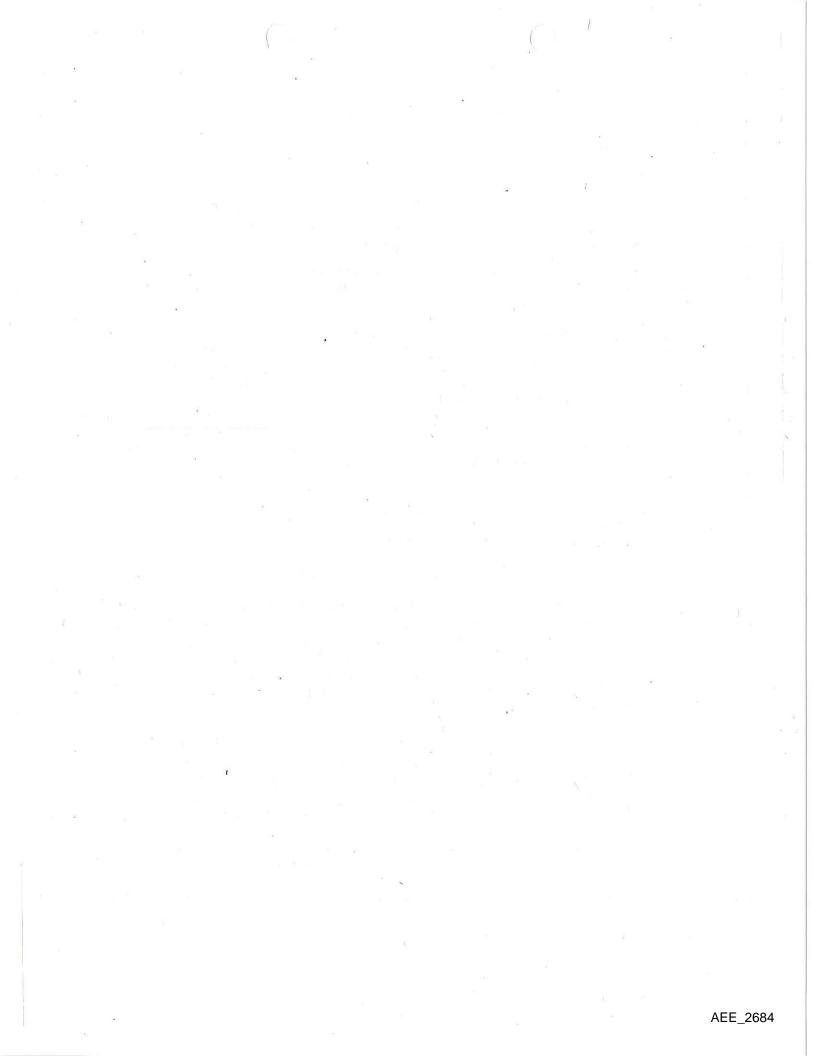
The Committee also requested clarification on Puma's proposed timeline and the proponent confirmed they'd be ready to supply LPG in 13 months and LNG in approximately 18-22 months from a possible contract award. This delivery term would result in significantly less cost savings than those expected by PREPA as mentioned in the RFP documents. See Attachment C for the Proposed Price Evaluation Model.

After a thorough and impartial evaluation based on Puma's proposal, presentation and the RFP scoring criteria and requirements, their resulting score was **57.6**%.

 New Fortress Energía - This company ranked first upon completion of the phase one quality assurance evaluation based on the requirements as established in Section 3 of the RFP Overview Document. The proposal included evidence of New Fortress

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Selection Report RFP81412

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Fuel Supply in the North and Conversion of San Juan Units 5 & 6

Energía's import authorization for LNG issued by the Department of Energy on March 26, 2018; as well as evidence of Jones Act compliance confirmation from the Customs and Border Protection Agency dated April 3, 2018.

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During the oral presentations held on October 10, 2018, New Fortress confirmed their proposal contemplated no exceptions to the criteria and requirements of RFP 81412. They also provided the following update based on their proposal:

 US Coast Guard letter dated September 26, 2018, recommending "that the waterways approaching and entering San Juan Harbor to Wharves A and B in Puerto Nuevo, Puerto Rico be considered suitable for LNG marine traffic...provided to assist (NFE) in the proposal, planning and execution of the concept of operations of (NFE's) facility..."

New Fortress's delivery term of approximately six months to supply LNG to San Juan Units 5 &G would result in cost savings as expected by PREPA and mentioned in the RFP documents. See Attachment C for the Proposed Price Evaluation Model.

After a thorough and impartial evaluation of New Fortress's proposal, presentation and the RFP scoring criteria and requirements, their resulting score was **74.3%** which makes New Fortress Energía's proposal the highest ranking proposal.

#### DETERMINATION

Upon completion of a uniform evaluation of the six proposals received for this request for proposals and according to the requirements established therein, the Evaluation Committee unanimously determined on October 15, 2018, that New Fortress's proposal substantially complies with the intent, specifications, terms and conditions of RFP81412 to provide LNG fuel supply in the north of Puerto Rico and the conversions of San Juan Units 5 and 6.

Approved today, October 25, 2018, in San Juan, Puerto Rico.

Evaluating Committee:

Jaime Umpierre Generation Directorate

Roberto Rivera Medina Planning and Environmental Protection

Filsinger Energy Partners Advisers:

Nathan Pollak

Edgardo Díaz Reyes Supply Chain Division Edgardo Vázquez Báez Fuels Office

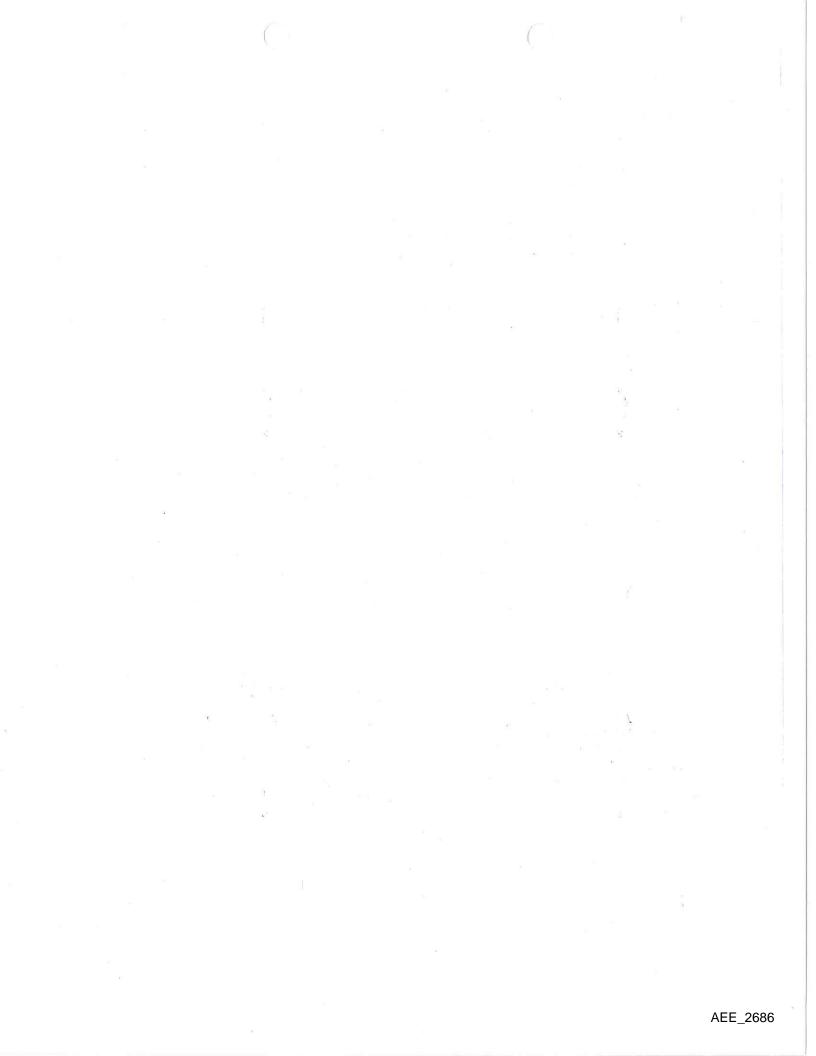
Paul Harmon

Marcus Klintmalm

Matt Lee

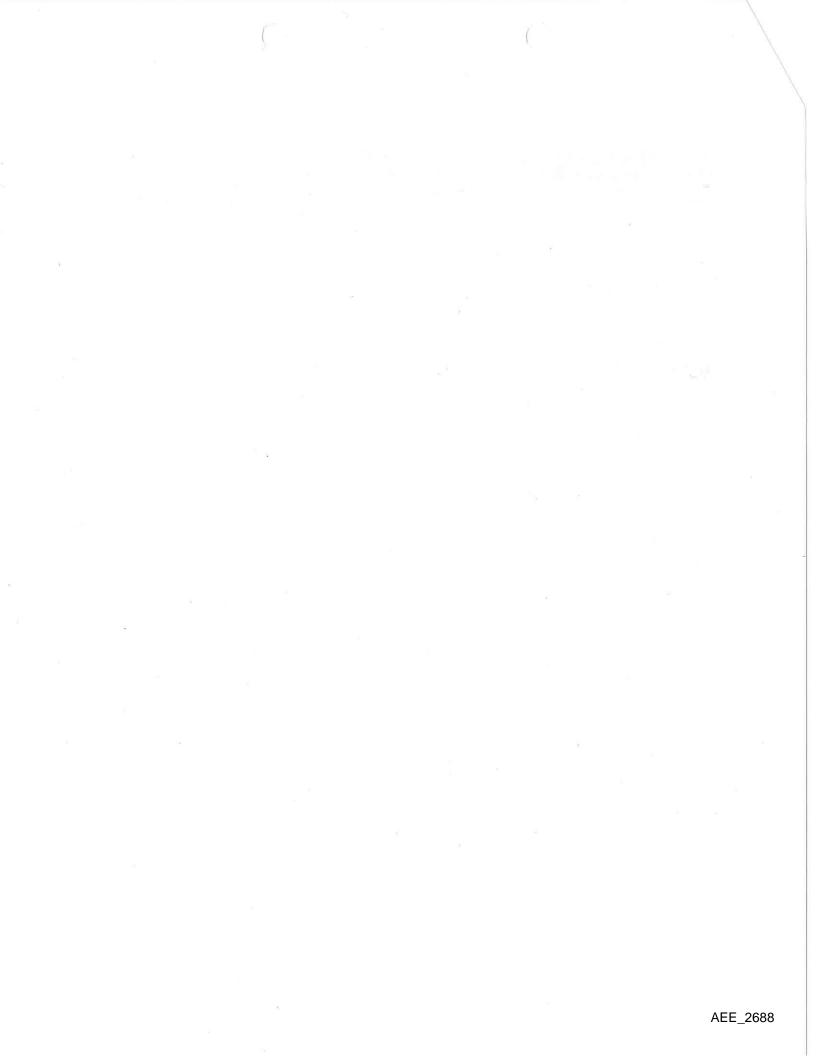
#### PREPA Procurement Representative:

Delis T. Zambrana Colón Supply Chain Division



#### PHASE 1 COMMITTEE EVALUATION - Annex A of Evaluation and Selection Report

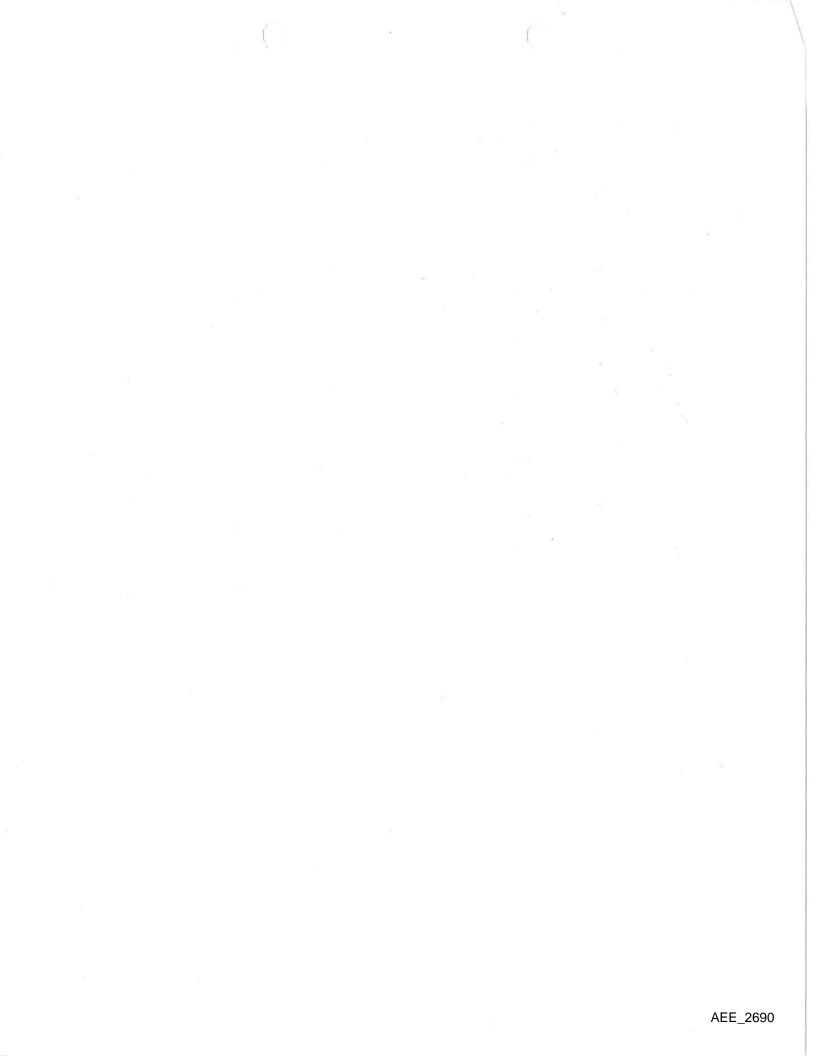
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illem / Criteria	Lakes de Power and Methane	PUMA Energy	Naturgy Energy Corp.	AES Corp	New Fortress Energia	SeaOne	
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Submitted evidence that the proposer is duly and properly organized and qualified to do business in Puerto Rico or will be prior to contract award.	1	2	1	2	4	1	
Respondents that demonstrate they have the staff available to begin immediately will be scored higher than those who need more time, or whose responses are vague.	1	4	3	1	4	1	Ţ.
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Total	20	70.5	53.3	41.4	71.4	29	



Grading Criteria	PUMA Energy Caribe	New Fortress Energia
Experience and Capacity (10%)		
Evidence of experience in previous projects.	4	4
Evidence and success in developing LNG developments of similar scope as the duties described in the RFP.	4	4
Description of Proposed Project Team (names and titles of key members, including design entity selected by proposer, with a brief description of the qualifications and exparience of: project manager, engineering and design nmanager, lead engineers, inspector maanger, safety officers, ga/gc managers, envinronmental specialists, other key personnel, including subcontracts.	4	5
Identify and describe potential Subcontractors w/demonstrated proof of technical capabilities necessary to perform their proposed scope of work and services, expected role and experience	4	5
Submitted evidence that the proposer is duly and properly organized and qualified to do business in Puerto Rico or will be prior to contract award.	2	4
Respondents that demonstrate they have the staff available to begin immediately will be scored higher than those who need more time, or whose responses are vague.	4	5
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otal Score:	12.1 57.6%	15.6 74.3%

RFP 81412 Phase 2 Committee Evaluation - Annex B of the Evaluation and Selection Report

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CN 078-04495 Rev. 11/17



### GOVERNMENT OF PUERTO RICO

Puerto Rico Electric Power Authority

RFP 81412 Evaluation and Selection Report - Attachment C

October 12, 2018

#### **Re: Northern Fuel RFP Proponent Price Evaluation Model**

#### Introduction

The intent of the Request for Proposal (RFP) is to seek significant cost savings in the fuel of San Juan Units 5&6 ("SJ 5&6"). The facility currently burns diesel fuel which is significantly cost disadvantaged in relation to other potential fuels. Diesel also causes increased wear on the combustion turbine and has significantly greater environmental emissions concerns. Thus, incremental savings are also expected in reduced maintenance expenses and the environmental impacts are inestimable.

PREPA is currently in Title III bankruptcy proceedings. Under Title III, PREPA is obligated to work to reduce its expenses to improve on its fiscal situation. Furthermore, the island of Puerto Rico is in deep fiscal crisis which greatly affects the Puerto Rican public. PREPA was established to provide reliable and affordable power to the people of Puerto Rico. Fuels savings for PREPA translate to electricity cost savings for the Island. Thus, it is incumbent upon PREPA to move quickly to reduce its expenditures wherever possible in order to assist the Commonwealth and its citizens in this time of fiscal distress.

SJ 5&6 are ideally situated inside the primary load center of the island of Puerto Rico and adjacent to the water in the port of San Juan. The proximity to major load centers of a reliable 440 MW generation facility provides stability to the grid. Thus, the cost efficiency and reliability of these power generation units are of significant importance to providing affordable, economic & reliable power to the people of Puerto Rico.

The RFP for an Alternative Fuel in the North and the potential Conversion of SJ 5&6 requested a 5-year contract with the potential for three (3) 5-year extensions. Should the alternative fuel require conversion of SJ 5&6 to dual-fuel capability, then the respondent should include the conversion cost as part of the price proposal.

As part of the evaluation process, Filsinger Energy and PREPA advisers developed a model (the "Model") to evaluate the relative economic merits of the proposals. The Model was developed in Microsoft Excel using a monthly cost avoidance approach in which certain assumptions have been held steady "ceterus paribus" to provide a fair comparison between proposals. Each proposal is looked at in isolation in which SJ 5&6 burn their current fuel, diesel,



#### GOVERNMENT OF PUERTO RICO

Puerto Rico Electric Power Authority

#### RFP 81412 Evaluation and Selection Report - Attachment C

until the proposed alternative fuel can come online. Benefits of the proposal begin once the new fuel is being provided, and is calculated as the difference between the cost of diesel fuel (the avoided cost) and the proposed fully loaded cost of the proposed alternative fuel.

#### Model Description

The Model uses a Net Present Value (NPV) approach in order to fairly compare proposals that start at different points in time. NPV is a fundamental concept in Finance that recognizes the "time-value" of money in which a dollar in the future is worth less than a dollar today. This can be thought of in terms of buying power. Inflation reduces the amount of goods or services that could be acquired in the future for a dollar versus what can be purchased today. Alternatively, a dollar invested today can be invested to earn interest which in total is worth more than waiting to receive that dollar in the future.

Thus, NPV analysis is a time-value of money evaluation approach that "discounts" all monthly pricing back to a comparable present-day dollar and allows for side-by-side comparisons of proposals. In the case where two proposals have the same price but start at different times, the NPV approach will provide some incremental benefit to the proposal that delivers benefits sooner because the savings associated with lowering fuel costs are realized more quickly. The NPV evaluation method in essence captures the idea that a dollar saved today is worth more than a dollar saved next year (or later). Proposals delivered later in time can still be competitive if the expected savings overcomes the time-value effects of discounting the later benefits. NPV analysis allows the model to not only consider the nominal price of a proposal but also the time frame in which the solution can be delivered.

#### **Model Structure and Functionality**

The Model is structured to provide the user with the ability to vary key inputs and evaluate the relative impacts to project results. The Model has one Microsoft Excel "worksheet" called "Assessment" that provides the operational and fuel cost calculations, and financial results. Results are summarized in the "Ranking" worksheet. Key model inputs are clearly labeled as separate worksheets or as blue-colored text in the Assessment worksheet.

Results are presented in both the Assessment and Ranking worksheets as the following comparative values:

- Net Present Value
- Weighted average fuel price of the alternative fuel, fully loaded to include the capacity payment and take-or-pay commitments on a dollars per MMBtu basis
- Total fuel cost on a dollars per MMBtu basis over the evaluation period,

Row for

CN 078-04495 Rev. 11/17



#### GOVERNMENT OF PUERTO RICO

Puerto Rico Electric Power Authority

RFP 81412 Evaluation and Selection Report - Attachment C

considering the capacity payment, the variable fuel payment, and the monthly carrying cost of diesel fuel until the alternative fuel can be delivered.

The following is a brief overview of the Model's worksheets:

- Assessment The core of the Model. This worksheet contains all the calculations used to derive the results of the assessment. Operating assumptions, fuel price assumptions, and other modeling assumptions are capture first. The Model considered a 6-year (72 month) timeframe beginning in January 2019 due to the RFP request for 5-year contracts.
- Timeframe A specific period of analysis was required to normalize the analysis of the proposals. An assumption was made that some period of permitting, construction, etc. would have to occur before a proponent could begin fuel deliveries under a contract. A construction period of one year assumed prior to delivery in under a 5-year contract as contemplated under the terms of the RFP. Thus, a timeframe of 72 months was chosen to provide a reasonable time period over which to evaluate the proposals.
- Ranking This worksheet summarizes the results from the Assessment worksheet. The
  results table shows for each proposal the NPV result of the proposal's avoided cost benefits,
  the weighted average fully loaded cost of the alternative fuel in dollars per MMBtu, total
  fuel cost per MMBtu over the period, assumed start date for deliveries of the alternative
  fuel, the contract term length, and start date of each proposal.
- **CPI** This worksheet contains a Consumer Price Index (CPI) schedule drawn from the Philadelphia Federal Reserve Bank from third quarter 2018. This data is used in the calculation of fuel price in several of the proponents' proposals.

https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters/2018/survq318

- Diesel\_Fiscal\_Plan This worksheet contains the monthly \$/MMBtu forward forecast of the price of No.2 Fuel Oil ("Diesel") for the time period of January 2018 through June 2023 from the 2018 Fiscal Plan. For the purposes of this analysis, Diesel was escalated by inflation for the remaining period past June 2023.
- ULSD\_NYH & ULSD\_GLF These worksheets contain the NYMEX Oil & Refined Products Futures data from New York Harbor and Gulf Coast Clovelly LA, respectively, as of September 26, 2018. September 26, 2018 was used as it is the date the RFP closed on Power Advocate. This data was pulled from SNLFinancial. The last period of the forward curve was escalated by inflation to provide data for the full length of the analysis

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**Puerto Rico Electric Power Authority** 

RFP 81412 Evaluation and Selection Report - Attachment C

of the model. This data is used in the calculation of fuel price in several of the proponents' proposals.

- NG\_HH This worksheet contains the NYMEX Natural Gas Forward & Futures from Gulf Coast
   - LA as of September 26, 2018. September 26, 2018 was used as it is the date the RFP closed
   on Power Advocate. This data was pulled from SNLFinancial. The last period of the forward
   curve was escalated by inflation to provide data for the full length of the analysis of the
   model. This data is used in the calculation of fuel price in several of the proponents'
   proposals.
- NG\_HH This worksheet contains the NYMEX Natural Gas Forward & Futures from Gulf Coast

   LA as of September 26, 2018. September 26, 2018 was used as it is the date the RFP closed
   on Power Advocate. This data was pulled from SNLFinancial. The last period of the forward
   curve was escalated by inflation to provide data for the full length of the analysis of the
   model. This data is used in the calculation of fuel price in several of the proponents'
   proposals.
- Propane\_MB This worksheet contains the NYMEX NGL Futures from Mont Belvieu, TX as of September 26, 2018. September 26, 2018 was used as it is the date the RFP closed on Power Advocate. This data was pulled from SNLFinancial. The last period of the forward curve was escalated by inflation to provide data for the full length of the analysis of the model. This data is used in the calculation of fuel price in several of the proponents' proposals. This worksheet also contains a heat content assumption for propane as 0.09133 MMBtu per gallon.

Inputs to the model are generally coded in blue text. Calculated values are represented in black text.

Parameter	é.				Value	Comments
Plant Capacity				440 MW	Held Constant in all cases, Noted in RFP	
<b>Capacity Facto</b>	or	11		96 -	85%	Held Constant in all cases, Noted in RFP
Heat Rate (Btu	u/MWh)	HHV			7.5	Held Constant in all cases
Weighted Av (WACC)	/erage (	Cost	of	Capital	8.5%	Discount rate for NPV calculations; source: Integrated Resource Plan (IRP) Assumption as of October 4, 2018

#### Key Assumptions and Calculations

CN 078-04495 Rev. 11/17



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Calculations	Formula / Comments
Fuel Consumption Calculation Formula (per period) (MMBtu)	Plant Capacity x Hours x Capacity Factor x Heat Rate x 1000
Fuel Cost Calculation (per Period) (\$ USD)	MMBtus consumed x Fuel Price
Capacity Cost Calculation (per Period) (\$ USD)	Taken directly from proponent proposals
Fuel Price (per Period)(\$/MMBtu)	Taken directly from proponent proposals
Take or Pay Provision	Taken directly from proponent proposals
Total Proposal Cost Calculation (per Period)	Capacity Cost + Fuel Cost + Take or Pay Provision

#### **Economic Evaluation Results**

PREPA staff evaluated each proposal in terms of NPV, weighted average fully loaded cost per MMBtu, and total fuel cost per MMBtu over the period. The following table provides a summary of these results.

	NPV	\$/MMBtu of delivered alternate fuel (during 6- yr eval term)	Total Fuel Cost (Alternative + Diesel)
1 New Fortress	1,186.4	\$10.44	\$12.08
2 SeaOne Caribbean	1,171.2	\$10.90	\$12.16
3 Naturgy Option 2 - FSRU + FSRB	1,127.4	\$11.17	\$12.45
4 Puma Energy Caribe - 10 yr LNG - Jones Act Walver	972.5	\$12.41	\$13.52
5 Puma Energy Caribe - 5 yr LNG - Jones Act Waiver	950.5	\$12.61	\$13.68
6 Puma Energy Caribe - LPG Bridge to LNG (5-year - No Jones Act Walver)	936.7	\$13.31	\$13.78
7 Puma Energy Caribe - 10 yr LNG - No Jones Act Waiver	918.7	\$12.91	\$13.90
8 Puma Energy Caribe - 5 yr LNG - No Jones Act Walver	896.8	\$13.12	\$14.05
9 Naturgy Option 1 - FSRB	891.2	\$10.84	\$14.07
10 Puma Energy Caribe - LPG	674.8	\$15.50	\$15.60
11 AES	429.1	\$10.16	\$17.28

#### GOVERNMENT OF PUERTO RICO

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#### RFP 81412 Evaluation and Selection Report - Attachment C

In Phase 1 of the RFP Evaluation Process (see RFP 81412 Evaluation and Selection Report), the above proposal list was narrowed to the short list (the "Shortlist") of proponents who moved into Phase Two of the process. These proponents were New Fortress and Puma Energy.

	NPV	\$/MMBtu of delivered alternate fuel (during 6- yr eval term)	Total Fuel Cost (Alternative + Diesel)
1 New Fortress	1,186.4	\$10.44	\$12.08
2 Puma Energy Caribe - 5 yr LNG - Jones Act Waiver	950.5	\$12.61	\$13.68
3 Puma Energy Caribe - LPG Bridge to LNG (5-year - No Jones Act Waiver)	936.7	\$13.31	\$13.78
4 Puma Energy Caribe - 5 yr LNG - No Jones Act Waiver	896.8	\$13.12	\$14.05

#### **Summary Definitions**

Parameter	Definition
NPV	As Described on Page 2;
\$/MMBtu of Delivered Fuel	This is a "fully loaded" view considering fuel cost, any capacity factor payments, and any take-or-pay provisions included in a proponent's offer
Total Fuel Cost	The total cost of fuel used over the evaluated 6-year period whether it was the existing fuel (diesel) or the proponent's bid fuel; this is also "fully loaded"

#### Summary Economic Results Discussion

Overall, the analysis favors the New Fortress proposal, as it has the highest NPV. This is due to a competitive price proposal as well as the shortest time to market.

Puma Energy offered a variety of 5-year scenarios in their proposal and all were evaluated.

It should be noted that though the proposal submitted by AES offers the most competitive \$/MMBtu of alternative fuel, the proposed timeline of delivery is mid-2023 which significantly reduces the competitiveness of their offer.

The NPV method of analysis combines favorable pricing and the time-value of money concept to properly evaluate these proposals across both dimensions.

CN 078-04479 Rev. 11/17



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Autoridad de Energía Eléctrica de Puerto Rico

ENVIADO A TRAVÉS DE LA MENSAJERÍA DE LA PLATAFORMA DE POWERADVOCATE©

30 de noviembre de 2018

New Fortress Energy 111 West 19th Street, 8th Floor New York, NY 10011

#### Solicitud de Propuestas: RFP 81412 Fuel Supply in the North and Conversion of San Juan Units 5 and 6

Estimados señores y señoras:

La Autoridad de Energía Eléctrica le notifica, según establecido en la sección 7.3 del *Exhibit* 4 de la Guía para Procesos de Adquisiciones de Bienes y Servicios a través de Solicitud de Propuestas, que la propuesta presentada por su compañía fue seleccionada por cumplir sustancialmente con las especificaciones, términos y condiciones y expectativas de adjudicación del RFP 81412. Favor de referirse al Anejo A para la síntesis de la determinación del Comité.

A tenor con la Sección 3.19 de la Ley Núm. 38 del 2017, según enmendada, le informamos que la parte adversamente afectada por esta decisión podrá, dentro del término de veinte (20) días a partir del depósito en el correo federal notificando esta determinación, presentar una moción de reconsideración ante la agencia. En la alternativa, podrá presentar una solicitud de revisión ante la Junta Revisora de la Administración de Servicios Generales o la entidad apelativa que corresponda en ley o reglamento, dentro del término de veinte (20) días calendario, a partir del depósito en el correo federal notificando esta determinación. La agencia o la Junta Revisora deberá considerarla dentro de los treinta (30) días de haberse presentado. La Junta podrá extender dicho término una sola vez, por un término adicional de quince (15) días calendario. Si se tomare alguna determinación en su consideración, el término para instar el recurso de revisión judicial empezará a contarse desde la fecha en que se depositó en el correo federal copia de la notificación de la decisión de la agencia, la entidad apelativa o la Junta Revisora resolviendo la moción. Si la agencia, la entidad apelativa o la Junta Revisora dejare de tomar alguna acción con relación a la moción de reconsideración o solicitud de revisión, dentro del término correspondiente, según dispuesto en esta Ley, se entenderá que ésta ha sido rechazada de plano, y a partir de esa fecha comenzará a correr el término para la revisión judicial.

La moción de reconsideración o la solicitud de revisión deberá entregarse en la Secretaría de Procedimientos Adjudicativos, Edificio NEOS, 6to. Piso, Pda. 16 1/2, Santurce, Puerto Rico o enviarse al PO Box 363928, San Juan, Puerto Rico 00936-3928. Las razones de la moción de reconsideración o solicitud de revisión deberán estar claramente establecidas en su moción de reconsideración o solicitud de revisión y deberá contener una certificación de envío a los demás licitadores comparecientes a la solicitud de propuesta además de tres copias, de la moción de reconsideración o solicitud de revisión.

"Somos un patrono con igualdad de oportunidades en el empleo y no discriminamos por razón de raza, color, sexo, edad, origen social o nacional, condición social afiliación política, ideas políticas o religiosas; por ser víctima o ser percibida(o) como víctima de violencia doméstica, agresión sexual o acecho, sin importar estado civil, orientación sexual, identidad de género o estatus migratorio; por impedimento físico, mental o ambos por condición de veterano(a) o por información genética."

Apartado 364267 San Juan, Puerto Rico 00936-4267

RFP 81412 Fuel Supply in the North and Conversion of San Juan Units 5 and 6 Notificación New Fortress Energy Página 2

Además de establecer claramente las razones de la moción de reconsideración o solicitud de revisión, se tiene que incluir, el número de la solicitud de propuesta, la fecha de apertura, copia de la determinación con su anejo y cualquier otra evidencia documental que interese se considere en la resolución de su moción de reconsideración o solicitud de revisión. Además, deberá incluir una copia de la moción de reconsideración o solicitud de revisión, que certifique que se envió a los demás licitadores.

También procedemos a informarle que, a tenor con la Sección 4.2 de la Ley Núm. 38 del 2017, según enmendada, en los casos de impugnación de subasta, la parte adversamente afectada por una orden o resolución final de la agencia, de la Junta Revisora de Subastas de la Administración de Servicios Generales, o de la entidad apelativa de subastas, según sea el caso, podrá presentar una solicitud de revisión ante el Tribunal de Apelaciones dentro de un término de veinte (20) días, contados a partir del archivo en autos de la copia de la notificación de la orden o resolución final de la agencia, de subastas de la Administración de la orden o resolución final de la agencia, la referida Junta Revisora de Subastas de la Administración de Servicios Generales o la entidad apelativa, o dentro del término aplicable de veinte (20) días calendario de haber transcurrido el plazo dispuesto por la Sección 3.19 de esta Ley. La mera presentación de una solicitud de revisión al amparo de esta Sección no tendrá el efecto de paralizar la adjudicación de la subasta impugnada.

Todo documento tiene que radicarse en la Secretaría de Procedimientos Adjudicativos de la Autoridad en original y tres (3) copias.

La Autoridad de Energía Eléctrica se entenderá notificada de toda solicitud de reconsideración o solicitud de revisión **únicamente** por la radicación de la misma ante la Secretaría de Procedimientos Adjudicativos, o mediante correo federal a la siguiente dirección: PO Box 363928, San Juan, Puerto Rico 00936-3928. Las radicaciones efectuadas fuera del lugar o apartado mencionado se entenderán por no sometidas.

Esta notificación se envía vía PowerAdvocate según establecido en la sección 7.3 de la *Guía para Procesos de Adquisiciones de Bienes y Servicios a través de Solicitud de Propuestas.* 

Atentamente,

Deliz J Zambrane Color

Delis T. Zambrana Colón Jefa de Subdivisión de Compras División de Suministros

Anejo

# PURPORT

GOBIERNO DE PUERTO RICO

Autoridad de Energía Eléctrica de Puerto Rico

ENVIADO A TRAVÉS DE LA MENSAJERÍA DE LA PLATAFORMA DE POWERADVOCATE©

30 de noviembre de 2018

Puma Energy Caribe PO Box 11961 San Juan, Puerto Rico 00922

#### Solicitud de Propuesta: RFP 81412 Fuel Supply in the North and Conversion of San Juan Units 5 and 6

Estimados señores y señoras:

La Autoridad de Energía Eléctrica le notifica, según establecido en la sección 7.3 del *Exhibit* 4 de la Guía para Procesos de Adquisiciones de Bienes y Servicios a través de Solicitud de Propuestas (Guía de RFP), que su propuesta no fue seleccionada para el RFP 81412. Favor de referirse al Anejo A – *Final Committee Evaluation Scoring Criteria* para la síntesis de la evaluación del Comité. Según dispuesto por las leyes, políticas, procedimientos vigentes y la Guía de RFP, le notificamos la selección de New Fortress Energy como proponente que cumple sustancialmente con las especificaciones, términos y condiciones y expectativas de adjudicación del RFP 81412.

A tenor con la Sección 3.19 de la Ley Núm. 38 del 2017, según enmendada, le informamos que la parte adversamente afectada por esta decisión podrá, dentro del término de veinte (20) días a partir del depósito en el correo federal notificando esta determinación, presentar una moción de reconsideración ante la agencia. En la alternativa, podrá presentar una solicitud de revisión ante la Junta Revisora de la Administración de Servicios Generales o la entidad apelativa que corresponda en ley o reglamento, dentro del término de veinte (20) días calendario, a partir del depósito en el correo federal notificando esta determinación. La agencia o la Junta Revisora deberá considerarla dentro de los treinta (30) días de haberse presentado. La Junta podrá extender dicho término una sola vez, por un término adicional de quince (15) días calendario. Si se tomare alguna determinación en su consideración, el término para instar el recurso de revisión judicial empezará a contarse desde la fecha en que se depositó en el correo federal copia de la notificación de la decisión de la agencia, la entidad apelativa o la Junta Revisora resolviendo la moción. Si la agencia, la entidad apelativa o la Junta Revisora dejare de tomar alguna acción con relación a la moción de reconsideración o solicitud de revisión, dentro del término correspondiente, según dispuesto en esta Ley, se entenderá que ésta ha sido rechazada de plano, y a partir de esa fecha comenzará a correr el término para la revisión judicial.

La moción de reconsideración o la solicitud de revisión deberá entregarse en la Secretaría de Procedimientos Adjudicativos, Edificio NEOS, 6to. Piso, Pda. 16 1/2, Santurce, Puerto Rico o enviarse al PO Box 363928, San Juan, Puerto Rico 00936-3928. Las razones de la moción de reconsideración o solicitud de revisión deberán estar claramente establecidas en su moción de reconsideración o solicitud de revisión y deberá contener una certificación de envío a los demás licitadores comparecientes a la solicitud de propuesta además de tres copias, de la moción de reconsideración o solicitud de revisión.

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Además de establecer claramente las razones de la moción de reconsideración o solicitud de revisión, se tiene que incluir, el número de la solicitud de propuesta, la fecha de apertura, copia de la determinación con su anejo y cualquier otra evidencia documental que interese se considere en la resolución de su moción de reconsideración o solicitud de revisión. Además, deberá incluir una copia de la moción de reconsideración o solicitud de revisión, que certifique que se envió a los demás licitadores.

También procedemos a informarle que, a tenor con la Sección 4.2 de la Ley Núm. 38 del 2017, según enmendada, en los casos de impugnación de subasta, la parte adversamente afectada por una orden o resolución final de la agencia, de la Junta Revisora de Subastas de la Administración de Servicios Generales, o de la entidad apelativa de subastas, según sea el caso, podrá presentar una solicitud de revisión ante el Tribunal de Apelaciones dentro de un término de veinte (20) días, contados a partir del archivo en autos de la copia de la notificación de la orden o resolución final de la agencia, de subastas de la Administración de la orden o resolución final de la agencia, la referida Junta Revisora de Subastas de la Administración de Servicios Generales o la entidad apelativa, o dentro del término aplicable de veinte (20) días calendario de haber transcurrido el plazo dispuesto por la Sección 3.19 de esta Ley. La mera presentación de una solicitud de revisión al amparo de esta Sección no tendrá el efecto de paralizar la adjudicación de la subasta impugnada.

Todo documento tiene que radicarse en la Secretaría de Procedimientos Adjudicativos de la Autoridad en original y tres (3) copias.

La Autoridad de Energía Eléctrica se entenderá notificada de toda solicitud de reconsideración o solicitud de revisión **únicamente** por la radicación de la misma ante la Secretaría de Procedimientos Adjudicativos, o mediante correo federal a la siguiente dirección: PO Box 363928, San Juan, Puerto Rico 00936-3928. Las radicaciones efectuadas fuera del lugar o apartado mencionado se entenderán por no sometidas.

Esta notificación se envía vía PowerAdvocate según establecido en la sección 7.3 de la *Guía para Procesos de Adquisiciones de Bienes y Servicios a través de Solicitud de Propuestas.* 

Atentamente,

Deliz J Zambrane Color

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Anejo



## ESTADO LIBRE ASOCIADO DE PUERTO RICO AUTORIDAD DE ENERGÍA ELÉCTRICA

# GUÍA PARA PROCESOS DE ADQUISICIONES DE BIENES Y SERVICIOS A TRAVÉS DE SOLICITUD DE PROPUESTAS (Request For Proposals) 2016

## **TABLA DE CONTENIDO**

SEC	CIÓN 1- BASE LEGAL, PROPÓSITO DE LA GUÍA Y ALCANCE1
1.	1 Base Legal1
1.	2 Propósito de la Guía
1.	3 Alcance de la Guía
SEC	CIÓN 2- DEFINICIONES
	Adenda4
	Adjudicación del Contrato o Acuerdo de Compras4
	AEE: Acrónimo de Autoridad de Energía Eléctrica4
	Afiliada/ filial o subsidiaria4
	Agencia Federal
	Agente Contratante 4
	Análisis de Costo del Ciclo de Vida (LCC):4
	Análisis de la competencia4
	AUP
	Autoridad
	Banco o BGF
	Buy-back5
	Clasificación Competitiva
	Comité o Equipo Evaluador5
	Concepto Financiero Alterno (o CFA)5
	Concepto Técnico Alterno (o CTA)5
	Conferencia con Antelación a la Propuesta6
	Consolidación6
	Contrato o Acuerdo de Compras 6
	Contratista
	Criterios de Evaluación
	Daños consecuentes
	Día laborable7

Jef	e de la Division de Suministros	7
EL	۹	7
En	tidad Gubernamental	7
Eso	crito o por escrito	7
Est	udio de Deseabilidad y Conveniencia	7
Fia	nza de	8
Fu	nción(es)	
١n	entario a consignación	
Ins	talación(es)	8
Le	<i>y</i>	9
Ра	rte Restringida	9
Pe	rsona	9
Pro	oponente	9
Pro	oponente Seleccionado	9
Pro	opuesta	9
Pro	byecto	9
Pro	oyecto Prioritario	
Re	presentante Autorizado	
Se	rvicio	
So	licitud de Aclaración	
So	licitud de Cualificaciones	
So	licitud de Expresión de Interés	
So	licitud de Información	
So	licitud de Propuestas	
SECCIÓ	N 3- COMITÉ O EQUIPO EVALUADOR	
3.1	Composición y Responsabilidades del Comité o Equipo Evaluador	11
3.2	Reuniones del Comité o Equipo Evaluador	
3.3	Acciones del Comité o Equipo Evaluador	
3.4	Subcomités del Comité o Equipo Evaluador	14
3.5	Asesores de la Autoridad y del Comité o Equipo Evaluador	14
3.6	Responsabilidades de Supervisión	14
SECCIÓ	N-4 PROPUESTAS	

4.1	Identificación de Proyectos, Modelos de Negocio o Soluciones	15
4.2	Estudio de Deseabilidad y Conveniencia	15
4.3	Proceso de Estudios de Mercado	15
4.4	Cualificación de Proponentes	16
4.5	Aviso Solicitud de Propuestas	18
4.6	Contenido de la Solicitud de Propuestas	18
4.7	Solicitud de Aclaración	20
4.8	Respuesta a una Solicitud de Propuestas	22
4.9	Cargo por Revisión de Propuesta; Fianza de Propuesta	25
4.10	Modificación de Propuesta	26
4.11	Cancelación de una Solicitud de Propuestas	26
4.12	Propuestas No Solicitadas	27
4.13	Conceptos Técnicos y Financieros Alternos	31
4.14	Contrato o Acuerdo de Compras sin Solicitud de Propuestas	32
4.15	Comunicaciones con Oficiales de la Autoridad	32
4.16	No Cabildeo, No Colusión, No Actos Prohibidos	32
4.17	Partes Restringidas	34
	Partes Restringidas N <b>5- PROCESO DE EVALUACIÓN Y SELECCIÓN</b>	
	-	. 35
SECCIÓ	N 5- PROCESO DE EVALUACIÓN Y SELECCIÓN	<b>. 35</b> 35
<b>SECCIÓ</b> 5.1 5.2	N 5- PROCESO DE EVALUACIÓN Y SELECCIÓN Proceso de Evaluación	<b>. 35</b> 35 41
<b>SECCIÓ</b> 5.1 5.2	N 5- PROCESO DE EVALUACIÓN Y SELECCIÓN Proceso de Evaluación Enmienda al Proceso de Licitación	. 35 35 41 . 41
SECCIÓN 5.1 5.2 SECCIÓN	N 5- PROCESO DE EVALUACIÓN Y SELECCIÓN Proceso de Evaluación Enmienda al Proceso de Licitación N 6- SELECCIÓN DE PROPONENTES	. 35 35 41 . 41 41
SECCIÓN 5.1 5.2 SECCIÓN 6.1	N 5- PROCESO DE EVALUACIÓN Y SELECCIÓN Proceso de Evaluación Enmienda al Proceso de Licitación N 6- SELECCIÓN DE PROPONENTES Eventos Descalificadores	. 35 35 41 . 41 41 41
SECCIÓN 5.1 5.2 SECCIÓN 6.1 6.2	N 5- PROCESO DE EVALUACIÓN Y SELECCIÓN Proceso de Evaluación Enmienda al Proceso de Licitación N 6- SELECCIÓN DE PROPONENTES Eventos Descalificadores Otras Bases para Descalificación	. 35 35 41 41 41 41 42
SECCIÓN 5.1 5.2 SECCIÓN 6.1 6.2 6.3	N 5- PROCESO DE EVALUACIÓN Y SELECCIÓN Proceso de Evaluación Enmienda al Proceso de Licitación N 6- SELECCIÓN DE PROPONENTES Eventos Descalificadores Otras Bases para Descalificación Información Respecto a la Situación Financiera	. 35 35 41 . 41 41 41 42 42
SECCIÓN 5.1 5.2 SECCIÓN 6.1 6.2 6.3 6.4	N 5- PROCESO DE EVALUACIÓN Y SELECCIÓN Proceso de Evaluación Enmienda al Proceso de Licitación N 6- SELECCIÓN DE PROPONENTES Eventos Descalificadores Otras Bases para Descalificación Información Respecto a la Situación Financiera Mejoramiento de Industria Local	. 35 35 41 . 41 41 41 42 42 43
SECCIÓN 5.1 5.2 SECCIÓN 6.1 6.2 6.3 6.4 6.5 6.6	N 5- PROCESO DE EVALUACIÓN Y SELECCIÓN	. 35 35 41 . 41 41 41 42 42 43 43
SECCIÓN 5.1 5.2 SECCIÓN 6.1 6.2 6.3 6.4 6.5 6.6	N 5- PROCESO DE EVALUACIÓN Y SELECCIÓN Proceso de Evaluación Enmienda al Proceso de Licitación N 6- SELECCIÓN DE PROPONENTES Eventos Descalificadores Otras Bases para Descalificación Información Respecto a la Situación Financiera Mejoramiento de Industria Local Iniciativa contra la Corrupción Guías sobre Conflictos de Interés	. 35 35 41 41 41 41 42 42 43 43 43
SECCIÓN 5.1 5.2 SECCIÓN 6.1 6.2 6.3 6.4 6.5 6.6 SECCIÓN	N 5- PROCESO DE EVALUACIÓN Y SELECCIÓN Proceso de Evaluación Enmienda al Proceso de Licitación N 6- SELECCIÓN DE PROPONENTES Eventos Descalificadores Otras Bases para Descalificación Información Respecto a la Situación Financiera Mejoramiento de Industria Local Iniciativa contra la Corrupción Guías sobre Conflictos de Interés N 7- ADJUDICACIÓN DEL CONTRATO	. 35 41 . 41 41 41 42 42 43 43 43 43
SECCIÓN 5.1 5.2 SECCIÓN 6.1 6.2 6.3 6.4 6.5 6.6 SECCIÓN 7.1	N 5- PROCESO DE EVALUACIÓN Y SELECCIÓN Proceso de Evaluación Enmienda al Proceso de Licitación N 6- SELECCIÓN DE PROPONENTES Eventos Descalificadores Otras Bases para Descalificación Información Respecto a la Situación Financiera Mejoramiento de Industria Local Iniciativa contra la Corrupción Guías sobre Conflictos de Interés N 7- ADJUDICACIÓN DEL CONTRATO Comité o Equipo Evaluador	. 35 35 41 41 41 41 42 42 43 43 43 43

7.5	Documentos del Contrato o Acuerdo de Compras45
7.6	Estipendio para la Transferencia de Propiedad Intelectual45
SECCIÓ	N 8- RECONSIDERACIÓN Y REVISIÓN
8.1	No Reconsideración por Parte de la Autoridad45
8.2	Revisión Judicial
SECCIÓ	N 9- MISCELÁNEAS
9.1	Alcance de la Ley46
9.2	Cálculo de Períodos
9.3	Confidencialidad
9.4	Dispensas
9.5	Distribución, Notificación o Publicación
9.6	Intención
9.7	Negociaciones y Discusiones
9.8	Separabilidad

## SECCIÓN 1- BASE LEGAL, PROPÓSITO DE LA GUÍA Y ALCANCE

#### 1.1 Base Legal

1. El estatuto orgánico de la Autoridad en su Sección 15 (22 LPRA 205) establece lo siguiente:

"Todas las compras y contratos de suministros o servicios, excepto servicios personales, que se hagan por la Autoridad, incluye contratos para la construcción de obras de la misma, se harán mediante anuncio de subasta hecho con suficiente antelación a la fecha de apertura de la subasta de pliegos de proposiciones, para que la Autoridad asegure el adecuado conocimiento y oportunidad de concurrencia de licitadores.

- 2. No será necesario el requisito de subasta:
  - a. Cuando la cantidad estimada para la adquisición u obra no exceda de docientos mil dólares (\$200,000).
  - b. Cuando debido a una emergencia se requiera la inmediata entrega de materiales, efectos y equipo, o ejecución de servicios.
  - c. Cuando se necesiten piezas de repuesto, accesorios, equipo o servicios suplementarios para efectos o servicios previamente suministrados o contratados.
  - d. Cuando se requieran servicios o trabajos profesionales o de expertos y la Autoridad estime que, en interés de una buena administración, tales servicios o trabajos deban contratarse sin mediar tales anuncios.
  - e. Cuando los precios no estén sujetos a competencia porque no haya más que una sola fuente de suministro o porque estén regulados por la ley.
- 3. La Sección 6 (22 LPRA 196) de ese estatuto orgánico establece, además, que:

"La Autoridad se crea con el fin de conservar, desarrollar y utilizar, así como para ayudar en la conservación, desarrollo y aprovechamiento de las fuentes fluviales y de energía de Puerto Rico, para hacer asequible a los habitantes del Estado Libre Asociado, en la forma económica más amplia, los beneficios de aquellos, e impulsar por este medio el bienestar general y aumentar el comercio y la prosperidad y a la Autoridad se le confieren, y

ésta tendrá y podrá ejercer, los derechos y poderes que sean necesarios o

convenientes para llevar a efecto los propósitos mencionados, incluye (más sin limitar la órbita de dichos proyectos) los siguientes:

- a. Tener sucesión perpetua como corporación.
- b. Adoptar, alterar y usar un sello corporativo del cual se tomará conocimiento judicial.
- c. Formular, adoptar, enmendar, y derogar estatutos y reglamentos para regir las normas de sus negocios en general y ejercitar y desempeñar los poderes y deberes que, por ley, se le conceden e imponen; así como, con miras a garantizar la seguridad de las personas o la propiedad, reglamentar el uso y disfrute de sus propiedades y de aquellas otras bajo su administración; el uso y consumo de la energía eléctrica; la intervención con y manipulación de equipos, empresas, instalaciones, aparatos, instrumentos,

alambres, contadores, transformadores v objetos de cualesquiera naturaleza análoga propiedad de la Autoridad de Energía Eléctrica que se utilicen en relación con la producción, transmisión, distribución y uso y consumo de energía eléctrica producida por dicha Autoridad. Los reglamentos, así adoptados, tendrán fuerza de lev, una vez se cumpla con las disposiciones de las Secs. 1041 a 1059 del Título 3. Toda persona, natural o jurídica, que viole o induzca a que se viole cualquier disposición de un reglamento promulgado conforme aquí se provee, incurrirá en delito menos grave, y convicta que fuere, se le impondrá multa no menor de veinticinco (25) dólares ni mayor de cien (100) dólares o cárcel por un término no menor de un (1) mes ni mayor de tres (3) meses o ambas penas, a discreción del tribunal; ..." "Vender o de otro modo disponer de cualquiera propiedad real, personal o mixta o de cualquier interés sobre las mismas, que a juicio de la Junta no sea ya necesaria para el negocio de la Autoridad o para efectuar los propósitos de las secs. de esta Ley".

4. Se promulga, además, de conformidad con los poderes que le confieren al Jefe de la División de Suministros las siguientes Resoluciones de la Junta de Gobierno: Núms. 27 de 1941, 46 de 1942, 334 de 1948, 1599 de 1978, 1896, 1903 y 1912 de 1984, 2055, 2075 y 2082 de 1986, 2145 de 1987, 2268 de 1989, 2340 de 1991, la Ley Núm. 170 del 12 de agosto de 1988, según enmendada, y las Órdenes Ejecutivas Núms. 1991-24 del 18 de junio de 1991 y 1992-52 del 28 de agosto de 1992. 5. La Ley 12 del 10 de diciembre de 1975, según enmendada, establece disposiciones relacionadas con la venta de propiedad inmueble. *El Reglamento para la Disposición de Propiedad Inmueble Excedente* contiene información relacionada aplicable a la Autoridad de Energía Eléctrica.

## 1.2 **Propósito de esta Guía**

El propósito de esta guía es establecer un marco regulatorio para la licitación, evaluación, selección, negociación y adjudicación a través del proceso definido local e internacionalmente como Solicitud de Propuestas y mejor conocido por sus siglas en inglés RFP. Este proceso asegura para la Autoridad de Energía Eléctrica uno justo, uniforme, transparente, vanguardista, flexible y que fomente y apoye un ambiente de innovación, e inversión por parte del sector privado a través de un proceso competitivo y justo. Para llevar a cabo los propósitos de la Ley, estas guías proveen para, entre otros: (i) identificar las Funciones, Requisitos, Experiencias, Tecnologías y Servicios entre otros, donde sea necesario el desarrollo de modelos de adquisiciones estratégicas; (ii) solicitar, obtener y evaluar propuestas; (iii) seleccionar las entidades o individuos que firmarán contratos o acuerdos de compras estratégicos con la Autoridad; y (iv) negociar y adjudicar Contratos y Acuerdos de Compras estratégicos del tipo Sourcing o cualquier otro que requiera el uso de la herramienta de Solicitudes de Propuesta o RFP, en especial para adquisiciones y compras tácticas y estratégicas.

La Solicitud de Propuesta (SP) conocida por sus siglas en inglés como (RFP) se define en esta guía como un método o herramienta de compras para solicitar información y precios a proponentes. Esta solo se utiliza cuando se tiene una idea general con algunas especificaciones, se solicitan soluciones, servicios o modelos operacionales de negocio los cuales incluyan más de un 50% de elementos subjetivos que solo pueden calcularse o valorarse a través de la otorgación de tarjetas de puntuación o *scorecard* por parte de los miembros que componen el comité evaluador o es un proyecto mayor y complejo, el cual cuenta con la posibilidad de ofrecer múltiples soluciones, técnicas, tecnológicas y de negocio.

### 1.3 Alcance de esta Guía

Las disposiciones de esta guía son aplicables a todo empleado de la Autoridad y a toda persona particular o entidad jurídica que intervenga directa o indirectamente en procesos de Solicitud de Propuestas o RFP en la Autoridad.

# **SECCIÓN 2- DEFINICIONES**

Los siguientes términos utilizados en esta guía tienen los significados establecidos a continuación, excepto cuando el contexto claramente indique un significado diferente.

<u>Adenda</u>: significa un suplemento escrito a una Solicitud de Propuestas promulgado por la Autoridad después de la publicación de dicha Solicitud de Propuestas, que incluye cambios o adiciones a (i) los términos y condiciones de la Solicitud de Propuestas; (ii) el diseño conceptual o los planos y especificaciones de un bien o servicio; (iii) los términos o condiciones del Contrato o Acuerdo de Compras correspondiente; ó (iv) cualquier otro documento relacionado a la Solicitud de Propuestas.

Adjudicación del Contrato o Acuerdo Agreement de Compras: significa la aprobación del Jefe de División de Suministros de un Contrato o Acuerdo conocido en inglés como Agreement; de Compras previamente evaluado y recomendado por un Comité o Equipo Evaluador designado al proceso y en conformidad con las disposiciones establecidas en las leyes locales y federales que regulan estos procesos, políticas corporativas, resoluciones emitidas por la Junta de Gobierno y órdenes ejecutivas emitidas por el Gobernador de Puerto Rico (cuando así apliquen y sean adoptadas mediante resolución conjunta de la Junta de Gobierno).

**<u>AEE</u>**: Acrónimo de Autoridad de Energía Eléctrica

<u>Afiliada/ filial o subsidiaria</u>: significa, en el caso de una entidad jurídica, cualquier otra entidad jurídica que controla o es controlada por dicha entidad y cualquier otra entidad que, directa o indirectamente, es controlada por la misma Persona que controla o tiene el poder de controlar dicha entidad.

**Agencia Federal:** significa cualquiera de los departamentos de la Rama Ejecutiva del Gobierno de Estados Unidos de América, o cualquier departamento, corporación, agencia o instrumentalidad creada o que pueda crearse, designarse o establecerse por los Estados Unidos de América.

**<u>Agente Contratante</u>**: se refiere al Jefe de División de Suministros o a su delegado.

**Análisis de Costo del Ciclo de Vida (LCC):** significa la investigación y valoración de los impactos ambientales de un producto o servicio causados durante el ciclo de vida de su existencia. En el cálculo de costo de ciclo de vida se incluye el 15% los costos de construcción, costos de operación y mantenimiento, impuestos, financiamiento, sustitución y renovación de los equipos o materiales.

<u>Análisis de la Competencia</u>: Evaluación integral y análisis de las propuestas provistas por los proveedores para un conjunto definido de criterios, requisitos y especificaciones de producto o servicio. Entre los aspectos a considerarse en forma integral se encuentran: especificaciones por artículo, servicios, requisitos

financieros, requisitos de tecnología, servicio al cliente, entregas, manejo, logística, administración, certificaciones, soluciones de negocio, etc... La evaluación final se analiza como un "todo" y la misma se clasifica por tipo, categoría, servicio o cualquier otra segmentación definida para el o los procesos particulares.

AUC: siglas en inglés para Average Unit Cost o Costo Unitario Promedio

Autoridad: significa la Autoridad de Energía Eléctrica de Puerto Rico

**Banco o BGF**: significa el Banco Gubernamental de Fomento para Puerto Rico.

**<u>Buy-back</u>**: Acuerdo negociado con un proveedor para que este compre los artículos existentes en inventario específico para facilitar una reducción o eliminación del inventario de una o múltiples categorías.

**<u>Clasificación Competitiva</u>:** significa aquellas Propuestas recibidas por la Autoridad en respuesta a una Solicitud de Propuestas que la Autoridad determine, a su <u>discreción</u>, que tienen una probabilidad razonable de ser recomendadas para la Adjudicación del Contrato o Acuerdo de Compras.

<u>Canasta de Bienes o Servicios, conocida en inglés como Market Basket</u> <u>(MB)</u>: Lista que incluye conjunto de artículos que puedan ser comprados o adquiridos a través de un único o un reducido grupo de proveedores capaces de suplir la mayor cantidad o grupos dentro de esta lista. También es conocido como Sourcing Group.

**Comité o Equipo Evaluador:** significa el comité designado por el Jefe de la División de Suministros para evaluar y seleccionar las Personas, Organizaciones y Proponentes cualificados y a su vez establecer y negociar los términos y condiciones que considere apropiados para el Contrato o Acuerdo de Compras correspondiente. Este comité será presidido por el Jefe de Sub-división de Compras, Gerente del Departamento de Compras, Logística y Administración o alguno de los Supervisores de Compras Principal a quien se le delegue el proceso. La constitución de este varía con respecto al tipo, naturaleza o complejidad del bien o servicio adquirido. La Autoridad se reserva el derecho de asignar y contratar consultores externos para reforzar, asesorar y dirigir este comité.

**Concepto Financiero Alterno (CFA):** significa una petición de la Autoridad para permitir que los Proponentes incorporen creatividad e innovaciones financieras en sus Propuestas.

**<u>Concepto Técnico Alterno (CTA)</u>**: significa una petición de la Autoridad para permitir que los Proponentes incorporen creatividad e innovaciones técnicas en

sus Propuestas.

**Conferencia con Antelación a la Propuesta:** significa una reunión, conferencia telefónica o conferencia vía web, previa a la fecha límite de entrega de una Solicitud de Cualificaciones y/o Solicitud de Propuestas, donde se invitan a todas las Personas que se hayan registrado con la Autoridad como Proponentes potenciales a participar, hacer preguntas y pedir aclaraciones relacionadas a la Solicitud de Cualificaciones y/o Solicitud de Propuestas, disponiéndose, que la Autoridad podrá llevar a cabo reuniones individuales cuando las preguntas o aclaraciones solicitadas por una Persona u ente jurídico, que se relacionen a información propietaria o confidencial a ser presentada como CFA o CTA o un proceso similar llevado a cabo por la Autoridad.

**<u>Consolidación</u>**: La reducción o eliminación de códigos o segregación de artículos en existencias e inventario asociado. Este enfoque será utilizado en un esfuerzo para reducir artículos duplicados o en conjunción con *el programa de estandarización de productos y preparación de kits.* 

**<u>Contrato o Acuerdo de Compras</u>:** significa un contrato o acuerdo el cual es otorgado entre el Proponente Seleccionado y la Autoridad para establecer una relación comercial de "socio de negocio", el cual puede incluir, pero no se limitará a, la delegación de una función, la administración o prestación de uno o más servicios, o el diseño, construcción, financiamiento, mantenimiento u operación de una o más instalaciones u operaciones, que sean o estén estrechamente relacionados, con las operaciones o Provectos Prioritarios, según establecidos en el Plan Estratégico Corporativo o cualquier otro plan operacional adoptado por la Autoridad de energía eléctrica. Un Contrato o Acuerdo de Compras por alianza o socio de negocios *partnership* puede ser, sin que se entienda como una limitación, cualquier modalidad de los siguientes tipos de contratos: "integración de cadenas de suministros", "contratos de suplidos del tipo Sourcing", "administración y operación de cadenas de suministros", "diseño / construcción (design / build)", "diseño / construcción / operación (design / build / operate)", "diseño / construcción / financiamiento / operación (design / *build / finance / operate*)", "diseño / construcción / transferencia / operación (design / build / transfer / operate)", "diseño / construcción / operación / transferencia (design / build / operate / transfer)", contrato de llave en mano (turnkey), contrato de arrendamiento a largo plazo, contrato de derecho de superficie, contrato de concesión administrativa, contrato de empresa común *(joint venture)*, contrato de administración y operación a largo plazo, acuerdo de concesión, contrato de pre-desarrollo y cualquier otro tipo de contrato que separe o combine las fases de diseño, construcción, financiamiento, operación o mantenimiento de los Proyectos Prioritarios y las operaciones generales de la empresa.

Contratista: Proponente seleccionado a partir del proceso de solicitud de

propuesta o convocatoria.

<u>**Criterios de Evaluación:**</u> criterios adoptados por el Comité o Equipo Evaluador, a <u>su discreción</u>, que se utilizarán para evaluar, clasificar, seleccionar y recomendar Propuestas para el rechazo o adjudicación de las mismas. Los Criterios de Evaluación incluirán los criterios enumerados para cada Solicitud de Propuesta o RFP específico, sin que ello se interprete como una limitación o se presuma que su orden define su importancia, en la medida en que sean aplicables a un Proponente potencial o a una Propuesta, y aquellos criterios adicionales incluidos en una Solicitud de Propuestas o en esta guía.

**Daños consecuentes:** Lesión o daño que no se produce directa e inmediatamente como resultado de un acto de una de las partes en el contrato o acuerdo, sino sólo de algunos de los resultados de dicho acto, y que es compensable por una cantidad económica/monetaria después de una sentencia dictada a partir de un juicio emitido por un foro o judicatura con competencia en el campo. Surge en perjuicio de la interposición de circunstancias especiales e impredecibles. Es el daño a una persona o propiedad como resultado directo de cualquier incumplimiento de garantía o de una declaración falsa de hechos, relativa a la calidad o naturaleza de los bienes vendidos y hecha por el vendedor para inducir la venta e invocada por el comprador.

**Día laborable**: significa un día que no sea sábado, domingo o un día en que las instituciones bancarias en Puerto Rico estén autorizadas o permitidas bajo la ley aplicable a cerrar al público.

**Jefe de la División de Suministros:** significa el Jefe de la Division de Suministros de la Autoridad o, en ausencia del nombramiento de éste, la persona que actúe como Agente Contratante o Jefe de División de Suministros de la Autoridad; esto para los propósitos de formalizar y firmar contratos.

**<u>ELA</u>**: significa el Estado Libre Asociado de Puerto Rico.

**Entidad Gubernamental:** significa cualquier departamento, agencia, junta, comisión, cuerpo, negociado, oficina, Entidad Municipal, corporación pública o instrumentalidad de la Rama Ejecutiva del ELA, así como de su Rama Judicial y de su Rama Legislativa, actualmente existente o que en el futuro se creare.

**Escrito o por escrito**: significa cualquier expresión que consista de palabras o cifras que se pueda leer, reproducir y que se pueda comunicar posteriormente, y puede incluir información transmitida y almacenada por medios electrónicos.

**Estudio de Deseabilidad y Conveniencia**: significa un estudio de la deseabilidad y conveniencia de un Proyecto, realizado o comisionado por la Autoridad, con osin la asistencia del Banco.

**Fianza de Propuesta**: significa una fianza, garantía u otro tipo de garantía financiera presentada en moneda legal de los Estados Unidos de América, cheque certificado o giro postal pagadero a la Autoridad, o mediante carta de crédito, fianza o garantía emitida por un banco o institución financiera aceptable para la Autoridad (que en el caso de una compañía de fianzas o seguros, tiene que estar autorizada a emitir fianzas en el ELA), que se requiera que el Proponente entregue junto a su Propuesta, para asegurar el cumplimiento del Proponente con los requisitos de la Ley, esta guía y los términos de la Solicitud de Compras por parte del Proponente de ser seleccionado para la Adjudicación del Contrato o Acuerdo de Compras. El monto, día de entrega y las condiciones para la devolución, si alguna, de la Fianza de Propuesta (cuando aplique) a cada Proyecto se determinará por la Autoridad y se especificará en la Solicitud de Propuestas correspondiente.

**Función(es):** significa cualquier responsabilidad u operación actual o futura de un oficial de la Autoridad, expresamente delegado a él o ella, ya sea mediante designación, asignación o instrucción, que esté estrechamente relacionada a las operaciones de la empresa y a los Proyectos Prioritarios, según establecidos en el Plan Estratégico de la AEE.

**Inventario a Consignación:** Inventario propiedad del proveedor o proveedores, el cual es adquirido y mantenido a costo exclusivo del proveedor para uso de la Autoridad. El inventario no será pagado por adelantado por parte de la Autoridad y el mismo no entrará en los libros financieros hasta que sea recibido y aceptado en las instalaciones de la Autoridad por un funcionario o personal autorizado.

**Instalación(es):** significa cualquier propiedad, obra capital o instalación de uso público, va sea mueble o inmueble, existente en la actualidad o a ser desarrollada en el futuro, incluyendo, sin que se entienda como una limitación, los sistemas de acueductos y alcantarillados, incluyendo todas las plantas, represas y sistemas para almacenar, suplir, tratar y distribuir agua, sistemas de tratamiento, recolección y eliminación de aguas pluviales y de albañal, mejoras que sean financiadas bajo las disposiciones de la Ley Federal de Agua Limpia y de la Ley Federal de Agua Potable o cualquier otra legislación o reglamento federal similar o relacionado, sistemas de recogido, transportación, manejo y eliminación de desperdicios sólidos no peligrosos y peligrosos, sistemas de recuperación de recursos, sistemas de producción, transmisión o distribución de energía eléctrica, autopistas, carreteras, paseos peatonales, estacionamientos, aeropuertos, centros de convenciones, puentes, puertos marítimos o aéreos, túneles, sistemas de transportación, incluyendo los de transportación colectiva, sistemas de comunicación, incluyendo teléfonos, sistemas de informática y tecnología, instalaciones industriales, vivienda pública, instituciones correccionales y toda clase de instalaciones de infraestructura turística, de salud y de agroindustria u otros bienes similares.

**Ley:** significa la Ley de la Autoridad de Energía Eléctrica, Ley Núm. 83, aprobada el 2 de mayo de 1941, según sea enmendada de tiempo en tiempo.

**<u>Parte Restringida</u>:** significa aquellas partes descritas en la Sección 4.18 de esta guía a las cuales se les ha prohibido participar en un proceso de Solicitud de Propuestas para un Proyecto en particular.

**Persona:** significa cualquier persona natural o jurídica organizada bajo las leyes del ELA, de Estados Unidos de América, de cualquiera de sus estados o territorios, o de cualquier país extranjero, cualquier agencia federal o cualquier combinación de las anteriores. El término incluirá cualquier departamento, agencia, Entidad Municipal, instrumentalidad gubernamental, cualquier individuo, firma, sociedad, compañía por acciones, asociación, corporación pública o privada, cooperativa o entidad sin fines de lucro que esté debidamente constituida y autorizada bajo las leyes del ELA, o de Estados Unidos de América, o cualquiera de sus estados o territorios.

**Proponente**: significa cualquier persona (que no sea una Entidad Gubernamental), o sus entidades afiliadas o relacionadas, que haya presentado una propuesta para entrar en el proceso de RFP, con la salvedad de que para propósitos de esta guía, el término "Proponente" también incluirá a Personas (que no sean una Entidad Gubernamental) que: (i) cumplan con los términos de la Solicitud de Cualificaciones o de la Solicitud de Propuestas; (ii) estén cualificadas por la Autoridad y negocien un Contrato o Acuerdo de Compras. Con la Autoridad en los casos enunciados en el Reglamento de Selección y Adjudicación; ó (iii) sometan una Propuesta de conformidad con la Sección 4.12 de esta guía.

**Proponente Seleccionado:** significa la Persona o consorcio seleccionado para la Adjudicación de un Contrato o Acuerdo de Precios con la Autoridad de acuerdo a los criterios especificados en la Solicitud de Propuestas.

**Propuesta:** significa una documento escrito con relación a un proceso específico y único, hecha por un Proponente: (i) como respuesta a una Solicitud de Propuestas; (ii) conforme al Reglamento de Selección y Adjudicación; ó (iii) una propuesta escrita no solicitada, sometida por una Persona a la Autoridad sujeta a la Sección 4.12 de esta guía.

**Proyecto**: significa cualquier proceso de Solicitud de Propuesta o RFP para ofrecer bienes y servicios para la operación de la Autoridad o para el desarrollo de algún Proyecto Prioritario o un proyecto relacionado a una Función, Instalación o Servicio que, basado en una determinación por la Autoridad

a través de la División de Suministros, determine que es adecuado para un proceso de RFP, después de haberse considerado el Estudio de Deseabilidad y Conveniencia correspondiente o que fuera producto de la recomendación y análisis de informes o estudios realizados por compañías consultoras contratadas por la Autoridad de Energía Eléctrica.

**Proyecto Prioritario**: significa una iniciativa elaborada por la Autoridad, revestida de preeminencia, que tiene como fin la realización y ejecución de una obra de alto interés para la empresa, así como para el desarrollo táctico y estratégico de la economía de Puerto Rico.

**<u>Representante Autorizado</u>:** significa el Jefe de División de Suministros o el o los individuos designados bajo las Secciones 5.1(c) y 5.1(e) de esta guía y delegados por el Agente Contratante para negociar con los Proponentes a nombre de la Autoridad.

**Servicio**: significa cualquier servicio prestado o a ser prestado por la Autoridad destinado a velar por los intereses o satisfacer las necesidades de los clientes, ya sea bajo las disposiciones de su ley orgánica u otras leyes especiales, que sean o estén estrechamente relacionados con las operaciones o los Proyectos Prioritarios, según establecidos en la Ley.

**Solicitud de Aclaración**: significa una solicitud presentada por un Proponente a la Autoridad pidiendo la aclaración, explicación o interpretación de cualquier materia contenida en una Solicitud de Propuestas, según descrito en la Sección 4.7 de esta guía (conocida en inglés como *Request for Clarification*).

**Solicitud de Cualificaciones:** significa el documento que la Autoridad prepara, publica y distribuye en forma electrónica o física, mediante el cual le solicita a Proponentes potenciales que sometan sus cualificaciones para participar en un proceso de licitación mediante Solicitud de Propuestas (conocida en inglés como *Request for Qualifications* o *Survey*).

**Solicitud de Expresión de Interés:** significa un proceso de estudio de mercado que podría ser utilizado por la Autoridad para medir el interés sobre un proyecto o solución, según las disposiciones de la Sección 4.3 de esta guía (conocida en inglés como *Request for Expression of Interest*).

**Solicitud de Información**: significa un proceso de estudio de mercado que podría ser utilizado por la Autoridad para medir el interés sobre un proyecto, modelo de negocio o una solución, según las disposiciones de la Sección 4.3 de esta guía (conocida en inglés como *Request for Information*).

**Solicitud de Propuestas**: significa el documento que la Autoridad prepara, publica y distribuye, conforme a la Sección 4 de esta guía, para solicitar

Propuestas vinculadas a un posible contrato o acuerdo de compras o a una parte de la misma, según se enmiende o suplemente de tiempo en tiempo (conocida en inglés como *Request for Proposals*).

# **SECCIÓN 3- COMITÉ O EQUIPO EVALUADOR**

3.1 Composición y Responsabilidades del Comité o Equipo Evaluador. El Director Ejecutivo (cuando así se requiera por Resolución de la Junta de Gobierno) o Jefe de la División de Suministros para los procesos regulares que no requieren la aprobación de la Junta de Gobierno, nombrará un Comité o Equipo Evaluador constituido por un mínimo de tres (3) miembros para cada RFP para asistir con la selección de Proponentes y con la negociación de los términos del Contrato o Acuerdo de Compras correspondiente. Los miembros de cada Comité o Equipo Evaluador se designarán conforme a la complejidad y nivel técnico del proceso. La Autoridad se reserva el derecho de contratar consultores y asesores que asistan y complementen los miembros de este comité. Aunque el mínimo de miembros será de 3, la Autoridad se reserva el derecho de añadir miembros a su composición de manera que se satisfagan las necesidades y se asegure la equidad y transparencia en la evaluación de procesos sin incrementar los costos o complejidad de estos. La composición de este comité nunca podrá ser menor de 3 miembros.

El Comité o Equipo Evaluador estará integrado como mínimo por:

- (a) el Jefe de División de Suministros y/o su delegado o delegada;
- (b) el funcionario designado por el Directorado o la División con inherencia directa en el proyecto o su delegado o delegada; (En el caso de contratos del tipo *Sourcing*, el Jefe de División de Suministros se reserva el derecho de asignar un Supervisor de Compras Principal en adición al delegado que estará presidiendo el Comité);
- (c) uno o más especialistas en cualquiera de las áreas técnicas de mayor competencia y relevancia para el proyecto. Estos tienen que tener vasta experiencia en el campo o *expertise* que representan, así como el apoderamiento o la delegación de autoridad para la toma de decisiones finales, firmes y responsables.

El Comité o Equipo Evaluador realizará las funciones en forma autónoma, independiente, sin intervención externa de índole alguna, democrática y en estricta confidencialidad. Aun así, el Jefe de la División de Suministros tiene la autoridad, responsabilidad y discreción para remover a cualquier miembro de un Comité o Equipo Evaluador y realizar nombramientos nuevos a un Comité o Equipo Evaluador, en la medida en que dicha remoción y/o nombramiento se realice salvaguardando los mejores intereses de la Autoridad, confidencialidad,

transparencia, calidad y cumplimiento con los itinerarios establecidos para el proceso.

El Comité o Equipo Evaluador tendrá las siguientes funciones y responsabilidades:

- (a) aprobar los documentos que requiera el proceso de Solicitud de Cualificaciones, Solicitud de Propuestas, evaluación y selección;
- (b) evaluar los Contratantes potenciales y pre-cualificar los que sean aptos para participar como Proponentes;
- (c) evaluar las Propuestas sometidas y seleccionar la mejor o las mejores, en cada caso, de conformidad con los requisitos que dispone esta guía;
- (d) llevar a cabo o supervisar la negociación de los términos y condiciones del Contrato o Acuerdo de Compras;
- (e) contratar, a nombre de la Autoridad, asesores, peritos o consultores con los conocimientos y pericia necesarios para asistir al Comité o Equipo Evaluador y a la Autoridad en el descargo adecuado de sus funciones;
- (f) mantener un registro electrónico de actas y reuniones en la plataforma electrónica de publicaciones;
- (g) preparar un informe final de cierre sobre todo el proceso conducente a la otorgación y establecimiento del o los contratos o acuerdos de compras;
- (h) velar por el cumplimiento adecuado con las leyes, reglamentos, políticas y reglamentos establecidos para la negociación y adjudicación de los Contratos o Acuerdos de Compras;
- (i) en aquellos casos que se entienda conveniente, el Comité o Equipo Evaluador podrá establecer uno o varios sub comités técnicos de evaluación para proveer asesoría y ayuda técnica o especializada al Comité o Equipo Evaluador; y
- (j) realizar cualquier tarea adicional relacionada al proceso de selección, negociación y adjudicación que dispone esta guía, según le requiera la Autoridad.
- **3.2 Reuniones del Comité o Equipo Evaluador -** El Comité o Equipo Evaluador se reunirá con la frecuencia y en la cantidad que sea necesario y según se establezca por el Jefe de la División de Suministros. Esto para el descargue de sus funciones y responsabilidades según establecidas en esta guía y los *By Laws* de la Autoridad. Salvo se disponga lo contrario por la Autoridad, el Jefe de División

de Suministros o su delegado autorizado en el Comité o Equipo Evaluador dirigirá el comité evaluador. El líder del Comité Evaluador podrá designar a un Secretario, el cual <u>no tiene</u> que ser miembro del Comité o Equipo Evaluador, y puede designar a cualquier otro miembro del Comité o Equipo Evaluador para que en su ausencia dirigirá el comité. El líder del Comité o Equipo Evaluador, o en su ausencia, el miembro designado por el Líder, convocará a los miembros y dirigirá todas las reuniones del Comité o Equipo Evaluador, establecerá la frecuencia y duración de las reuniones y la agenda de los asuntos a tratarse en cada reunión. El líder se asegurará de que la agenda para cada reunión y, en la medida que sea posible, todos los documentos clave a considerarse en la reunión sean circulados entre todos los otros miembros del comité previo a la reunión. Se requerirá que haya quórum de al menos dos terceras partes de los miembros del Comité Evaluador o Sub-comités de Negociación, en todas las reuniones en que se vavan a tomar decisiones finales con respecto a la selección de Proponentes y la Adjudicación de Contratos o Acuerdos de Compras, así como la aprobación de cualquier otra acción oficial del Comité o Equipo Evaluador. Los miembros podrán participar en cualquier reunión mediante conferencia telefónica, conferencia web o vídeo conferencia. No será requisito realizar reuniones presenciales. En aquellos casos donde uno o varios miembros se abstengan en las votaciones o la firma de documentos o informes finales, estos tienen que establecer y estipular por escrito en el documento o informe las razones para su abstención.

3.3 Acciones del Comité o Equipo Evaluador - Habrá quórum en una reunión del Comité o Equipo Evaluador únicamente si dos terceras partes de sus miembros están presentes. Una vez un integrante esté presente en una reunión, para cualquier propósito que no sea únicamente objetar que se realice la reunión o que se tomen decisiones en la reunión, durante el resto de la reunión el miembro se considerará presente para propósitos de quórum y de clausura de esa reunión. Las recomendaciones y aprobaciones del Comité o Equipo Evaluador requerirán el voto afirmativo de un mínimo de dos terceras partes de los miembros presentes en una reunión debidamente constituida en la cual hava quórum. El Comité o Equipo Evaluador podrá actuar sin realizar una reunión siempre y cuando dicha actuación hava sido aprobada por escrito por todos los miembros del Comité o Equipo Evaluador. El Comité o Equipo Evaluador proveerá al Jefe de División de Suministros recomendaciones no vinculantes con respecto a la selección de cualquier Proponente, la evaluación de cualquier Propuesta, y el establecimiento de una solución.

El Comité o Equipo Evaluador mantendrá un récord por escrito de sus decisiones y recomendaciones, al igual que de otras actuaciones del Comité o Equipo Evaluador. Todas las minutas, agendas, comunicaciones o documentos generados durante los eventos de publicaciones y su posterior adjudicación tienen que formar parte del expediente electrónico del caso en el portal electrónico de publicaciones y posteriormente en la orden o contrato electrónico en el sistema de ERP de la Autoridad.

El Secretario del Comité o Equipo Evaluador mantendrá un récord de cada reunión, custodiará el calendario del Comité o Equipo Evaluador y realizará cualquier otra tarea relacionada a su puesto, según lo requiera el presidente de dicho comité.

Todos los miembros del Comité o Equipo Evaluador tienen que firmar un Acta de Confidencialidad y No Divulgación, previo a tener acceso a cualquiera de los documentos relacionados al proceso cuando así sea requerido.

- **3.4 Subcomités del Comité o Equipo Evaluador.** El Comité o Equipo Evaluador, a su discreción, puede nombrar uno o más subcomités del Comité o Equipo Evaluador para proveer asistencia técnica o especializada y asesorar al Comité o Equipo Evaluador en el proceso de evaluar Proponentes potenciales y Propuestas, y negociar los términos de los Contratos o Acuerdos de Compras. Cada subcomité tendrá las responsabilidades y realizará los trabajos según sea instruido por el Comité o Equipo Evaluador. Todos los miembros de subcomités tienen que firmar un Acta de Confidencialidad y No Divulgación, previo a tener acceso a cualquiera de los documentos relacionados al proceso cuando así sea requerido.
- 3.5 Asesores de la Autoridad y del Comité o Equipo Evaluador. El Jefe de División de Suministros podrá nombrar empleados de la Autoridad o contratar consultores, asesores o agentes para asistir a la Autoridad y al Comité o Equipo Evaluador en la evaluación de las Propuestas, al igual que en el proceso de selección y negociación de los RFP, o proveer cualquier otra asistencia que se estime necesaria o apropiada en relación con la Adjudicación del Contrato o Acuerdo de Compras, incluyendo participar como miembro sin voto de los subcomités del Comité o Equipo Evaluador. Los individuos o entidades que provean dicha asistencia deberán satisfacer las guías de ética y conflictos de intereses adoptados de tiempo en tiempo por la Autoridad y podrán participar en el proceso de evaluación y negociación llevado a cabo por el Comité o Equipo Evaluador, según el Comité o Equipo Evaluador lo estime necesario. Todos los asesores tienen que firmar un Acta de Confidencialidad y No Divulgación, previo a tener acceso a cualquiera de los documentos relacionados al proceso cuando así sea requerido.
- **3.6 Responsabilidades de Supervisión.** El Comité o Equipo Evaluador garantizará al Jefe de División de Suministros y a la Autoridad que los procesos de licitación seguidos para cualquier RFP han cumplido con los procesos de licitación que se describen en el informe final emitido por el Comité o Equipo Evaluador. Las responsabilidades de supervisión del Comité o Equipo Evaluador estarán limitadas a los siguientes asuntos que se describirán en el informe: la totalidad del

proceso que lleve al establecimiento de un contrato o acuerdo de compras (detalles del proceso de pre-cualificación de Proponentes adecuados, del proceso de Solicitud de Propuestas, y de la selección de la Propuesta y el Proponente seleccionado); las razones por las cuales un Proponente en particular fue seleccionado; un resumen de los aspectos más importantes del Contrato o Acuerdo de Compras; una copia del Estudio de Deseabilidad y Conveniencia (cuando aplique); y una descripción de los objetivos empresariales y las metas económicas de los Contratos o Acuerdos de Compras.

# SECCIÓN-4 PROPUESTAS

- **4.1** Identificación de Proyectos, Modelos de Negocio o Soluciones La Autoridad seleccionará, evaluará y establecerá la prioridad de los Proyectos, Modelos de Negocio o Soluciones a ser establecidos bajo el modelo de contratos del tipo estratégico *Sourcing*, Acuerdos de Compras o cualquier otro tipo de servicio o integración de cadenas de suministros.
- **4.2 Estudio de Deseabilidad y Conveniencia -** Para establecer que un Proyecto, Solución o Modelo de Negocio en particular satisfaga la política pública y cumpla con las metas económicas establecidas, el Jefe de División de Suministros podrá realizar o comisionar un Estudio de Deseabilidad y Conveniencia para cada Proyecto seleccionado por la Autoridad para ser procesado como una Solicitud de Propuesta- RFP. El Jefe de División de Suministros determinará el alcance y necesidad de cada estudio de este tipo de acuerdo a los hechos y circunstancias particulares de cada Proyecto, Modelo de Negocio o Solución bajo consideración para un proceso de RFP.

Luego de haberse completado un análisis ponderado del caso o el Estudio de Deseabilidad y Conveniencia y donde el Jefe de División de Suministros haya determinado que es conveniente y pertinente promover el uso de un RFP para un Proyecto, éste asignará un Comité o Equipo Evaluador, según dispuesto en la Sección 3.1 de esta guía. El Comité o Equipo Evaluador tendrá los poderes conferidos por esta guía.

- **4.3 Proceso de Estudios de Mercado -** En relación con la identificación de Proyectos, Modelos de Negocios y Soluciones y previo al comienzo del proceso de Selección de Propuestas, la Autoridad podrá solicitar sugerencias y comentarios de participantes en el mercado para determinar la mejor manera de seleccionar Proyectos viables y comercializables mediante:
  - (i) la realización de una Solicitud de Información (RFI);
  - (ii) la emisión de una Solicitud de Expresión de Interés (RFEI); o

(iii) la utilización de cualquier otro método apropiado para recopilar información de los participantes en el mercado; en forma electrónica.

La Autoridad podrá publicar guías generales con respecto a cómo se llevará a cabo una Solicitud de Información o una Solicitud de Expresión de Interés y cómo la Autoridad utilizará cualquier información obtenida durante dicho proceso. Cualquier información obtenida por la Autoridad mediante una Solicitud de Información o Solicitud de Expresión de Interés estará sujeta a las disposiciones de **confidencialidad** contenidas en la Sección 9.3 de esta guía, en la medida que sea aplicable.

**4.4 Cualificación de Proponentes -** La Autoridad podrá emitir una Solicitud de Cualificaciones para un RFP únicamente luego de haber determinado que: (i) el Proyecto, Modelo de Negocio o Solución cumple con los requisitos establecidos por la Autoridad y es recomendable el uso de un proceso de RFP con respecto a un Proyecto, Modelo de Negocio o Solución.

Previo a la publicación de una Solicitud de Propuestas o según lo requiera la Autoridad, el Comité o Equipo Evaluador podrá llevar a cabo un proceso de Solicitud de Cualificaciones para identificar los Proponentes potenciales que satisfagan unos parámetros mínimos de: (i) condición financiera; y/o (ii) capacidad y experiencia técnica o profesional. Cualquier parámetro mínimo se especificará en la Solicitud de Cualificaciones y guardará relación y proporción a la materia del Contrato de o Acuerdo de Compras propuesto. El Comité o Equipo Evaluador puede, además de dichos parámetros mínimos, incluir otros requisitos de cualificación en la Solicitud de Cualificaciones y solicitar información sobre un Proponente potencial, incluyendo incumplimientos anteriores, quiebras o litigios pertinentes.

La Solicitud de Cualificaciones será publicada por medio de un anuncio electrónico en la página WEB de la Autoridad (www.aeepr.com) y a través de comunicación directa a los suplidores segmentados en la o las categorías a ser trabajadas. Esto, según los estándares para la Solicitud de Propuestas expuestos en las secciones 4.5 y 4.6 de esta guía, en la medida que sean aplicables. La Autoridad se reserva el derecho de utilizar su experiencia de negocio y de mercado para el envío de invitaciones a potenciales participantes, así como la divulgación a través de medios de comunicación masiva o a segmentos industriales específicos a través del internet.

Los consorcios y otros Proponentes que tengan la intención de someter Propuestas en conjunto tendrán que cumplir con los requisitos establecidos por la Autoridad para el Registro y Certificación de Compañía, de esta guía y cualquier otro requisito especificado por la Autoridad en la Solicitud de Cualificaciones. Un Proponente podrá solicitar a la Autoridad la aclaración, explicación o interpretación de cualquier asunto dentro de la Solicitud de Cualificaciones hasta un máximo de quince (15) días calendario (o cualquier período mayor o menor, según se especifique en la Solicitud de Cualificaciones) antes de la fecha de vencimiento para la información especificada en la Solicitud de Cualificaciones. Cualquier solicitud de los Proponentes deberá ser por escrito. Si la Autoridad proveyera cualquier aclaración como resultado de una Solicitud de Cualificaciones, dicha aclaración será por medio de mensajería electrónica disponible a través del portal electrónico y enviado a todos los Proponentes potenciales con por lo menos tres (3) días calendario de anterioridad a la fecha de vencimiento de la información requerida por la Solicitud de Cualificaciones. Estos tiempos podrán ser menores a tres (3) días calendario cuando los mismos así sean notificados al inicio del proceso. Esto podrá ocurrir en aquellos proyectos que por lo crítico, impactante o complejo del mismo, necesita manejarse en itinerarios de tiempo agresivos, para así salvaguardar los mejores intereses de la Autoridad.

La meta de la etapa de Solicitud de Cualificaciones es ayudar al Comité o Equipo Evaluador a crear una lista corta *short list* de los Proponentes mejor cualificados. Por lo tanto, el Comité o Equipo Evaluador, al evaluar las cualificaciones de un Proponente potencial, puede descalificar a un Proponente potencial, con lo cual excluiría a dicho Proponente potencial del proceso de Solicitud de Propuestas, sólo si el Proponente potencial (i) puede ser tratado como inelegible para someter una Propuesta por una o más de las razones especificadas en la Sección 6 de esta guía; (ii) no cumple con los parámetros mínimos de <u>condición o riesgo</u> <u>financiero</u>, o capacidad y experiencia técnica o profesional establecidos por la Autoridad en la Solicitud de Cualificaciones.

El Comité o Equipo Evaluador se reserva el derecho de cualificar a un número limitado de Proponentes potenciales con el propósito de formular una lista corta para un Proyecto en particular si dicho derecho a realizar una lista corta se incluye en la Solicitud de Cualificaciones o en la Solicitud de Propuestas.

Si el Comité o Equipo Evaluador decide no emitir una Solicitud de Cualificaciones antes de publicar una Solicitud de Propuestas para cualquier Proyecto, el Comité o Equipo Evaluador realizará la evaluación de las cualificaciones de los Proponentes como parte del proceso de Solicitud de Propuestas, de conformidad con los requisitos de cualificaciones contenidos en la Solicitud de Propuestas y las secciones 5 y 6 de esta guía. Si se ha realizado un proceso de Solicitud de Cualificaciones para un Proyecto en particular que cumple con los requisitos de las secciones 4.5 y 4.6 de esta guía, el proceso de Solicitud de Propuestas se podrá modificar, según corresponda.

Un Proponente que ha sido cualificado de acuerdo a una Solicitud de

Cualificaciones no tendrá derecho a indemnización (incluyendo, pero sin limitarse a, reembolso de gastos) por parte de la Autoridad si la Autoridad decide, a su discreción, terminar el proceso de licitación de un RFP en cualquier momento o etapa.

**4.5 Aviso Solicitud de Propuestas -** La Autoridad solo podrá emitir una Solicitud de Propuestas para un RFP luego de haber evaluado y determinado que es recomendable el desarrollo de un RFP con respecto a un Proyecto. Excepto en los casos descritos en la Sección 4.12 de esta guía o cuando una Solicitud de Cualificaciones anterior, relacionada al Proyecto, se haya efectuado por medio de avisos electrónicos a las compañías ya registradas, activas y clasificadas bajo los grupos o categorías de compras y servicios que se estarán solicitando. La Autoridad se reserva el derecho de realizar anuncios públicos a través de periódicos o revistas locales, así como en publicaciones, revistas y portales cibernéticos dedicados a la venta y promoción de artículos, servicios o soluciones iguales o similares a las solicitadas en el RFP. La Autoridad también puede utilizar aquellos otros métodos y procesos, incluyendo otros medios de comunicación electrónica, que estime aconsejables para divulgar la Solicitud de Propuestas.

El Comité o Equipo Evaluador también puede solicitar Propuestas directamente de Proponentes potenciales a través de un aviso de Solicitud de Propuestas si entiende que tales entidades pueden estar cualificadas de una manera única para participar en un RFP en específico siempre que la Autoridad haya primero o en forma simultánea publicado tal aviso o notificación de Solicitud de Propuestas, según lo descrito en esta Sección 4.5.

Esta Sección 4.5 no aplicará a ningún Proyecto, Modelo de Negocio o Solución para el cual se haya comenzado una Solicitud de Cualificaciones. En el caso de que se haya comenzado una Solicitud de Cualificaciones, la Autoridad podrá, a su discreción, distribuir una Solicitud de Propuestas y adenda relacionada a aquellos Proponentes cualificados mediante el proceso de Solicitud de Cualificaciones.

- **4.6 Contenido de la Solicitud de Propuestas -** La Solicitud de Propuestas incluirá los siguientes elementos, sin que se interprete como una limitación o se asuma que el orden define su importancia, a menos que la Autoridad o el Comité o Equipo Evaluador, a su discreción, aprueben lo contrario:
  - (a) una descripción del Proyecto, Modelo de Negocio, Solución o adquisición estratégica que se desarrollará.
  - (b) una descripción y el itinerario *timeline* propuesto para el proceso de selección; lo cual pudiera incluir una evaluación inicial de los aspectos técnicos de la Propuesta;
  - (c) instrucciones respecto al formato, plataforma electrónica utilizada por la

Autoridad para la Solicitud de Propuesta o cualquier otra especificación técnica en que se deben someter las Propuestas, en la medida en que éstas difieran de las instrucciones provistas en la Sección 4.8 de esta guía, y la información y materiales mínimos que se deben someter para que la Propuesta se considere completa. Mientras sea posible, la publicación de Solicitudes de Precio o RFP se realizarán a través del portal especializado de la Autoridad para procesos de adquisiciones o mejor conocidos en inglés como *PowerAdvocate Sourcing Portal*;

- (d) si aplica, un bosquejo del proceso independiente de evaluación y cumplimiento ambiental, el cual puede incluir requisitos de que (i) cualquier mejora tenga que cumplir con los términos y condiciones de la evaluación ambiental, y (ii) el reembolso por cualquier trabajo preliminar, realizado por y a costo del Proponente, sea contingente a que se complete el proceso de evaluación ambiental y cualquier disposición específica incluida en el Contrato o Acuerdo de Compras que se otorgue;
- (e) una petición de la Autoridad para permitir que los Proponentes puedan someter, antes de la Propuesta, un Concepto Técnico Alterno (CTA) y/o Concepto Financiero Alterno (CFA) para que los Proponentes puedan incorporar innovaciones técnicas y financieras, y creatividad, en sus Propuestas. <u>El CTA y/o CFA será confidencial yno podrá ser compartido</u> <u>con otros Proponentes.</u> Este método permitirá al Comité o Equipo Evaluador analizar y considerar los CTAs y/o CFAs de los Proponentes que hayan sido sometidos con tiempo al tomar la decisión de selección, para evitar demoras y potenciales conflictos en el plan que puedan estar relacionados con la posposición del análisis de los CTAs y/o CFAs al período posterior a la adjudicación, y en última instancia, para obtener el mejor y más alto valor para la Autoridad y sus clientes;
- (f) una declaración sobre el tipo de proceso de selección a ser utilizado por la Autoridad en relación con el RFP propuesto;
- (g) los Criterios de Evaluación mínimos aplicables, incluyendo los criterios de selección y/o ponderación para adjudicar un Contrato o Acuerdo de Compras, que serán utilizados al evaluar a los Proponentes, si no se ha emitido anteriormente una Solicitud de Cualificaciones relacionada, incluyendo cualquier capacidad o Propuestas;
- (h) cualquier Fianza de Propuesta aplicable establecida por la Autoridad;
- (i) si aplica, una declaración respecto a cualquier contingencia de financiamiento u otras condiciones, contingencias, aprobaciones, autorizaciones o certificaciones que se requieran para adjudicar o firmar un Contrato o Acuerdo de Compras;

- (j) fecha y hora de vencimiento para someter Propuestas y el lugar al que las mismas deberán ser sometidas;
- (k) el punto de contacto (POC) designado en la Autoridad o su delegado o delegada;
- (l) cualquier otro término y condición aplicable que le puedan ser útiles a, o que deban ser exigidos de, los Proponentes, según lo determine la Autoridad o el Comité o Equipo Evaluador;
- (m) una cláusula mencionando que ninguno de los Proponentes ni miembros de su equipo, discutirán o se comunicarán, directa o indirectamente, con cualquier otro Proponente, o cualquier director, oficial, empleado, consultor, asesor, agente o representante de cualquier otro Proponente, incluyendo cualquier miembro del equipo de cualquier otro Proponente, en cuanto a la preparación, contenido o representación de sus Propuestas. Las Propuestas serán sometidas sin ninguna conexión (por ejemplo, que surja de un interés en o de un Proponente o miembro del equipo de un Proponente), conocimiento, comparación de información, o arreglo, con cualquier otro Proponente o cualquier director, oficial, empleado, consultor, asesor, agente o representante de cualquier otro Proponente, incluyendo cualquier miembro del equipo de cualquier otro Proponente. Para asegurar esto, todos los proponentes potenciales tienen que firmar y aceptar un Acuerdo de Confidencialidad, previo a tener acceso a cualesquiera de los documentos que han sido seleccionados para ser protegidos a través del acuerdo de confidencialidad. La violación de los acuerdos e instrucciones incluidas en este inciso, serán causa suficiente para la expulsión definitiva del proceso. La AEE también se reserva el derecho separar y eliminar a la compañía en forma definitiva del Registro de Suplidores; esto en adición a las sanciones legales y financieras a las cuales se puede exponer como resultado de una o varias de las violaciones aquí contenidas;
- (o) una cláusula indicando expresamente que la Solicitud de Propuestas podrá ser enmendada mediante la publicación de adenda; y
- (p) un requisito de que cada Proponente o miembro de un consorcio certifique que se ha cumplido con los requisitos de la Sección 4.17 de esta guía en la forma proscrita por la Autoridad.
- **4.7 Solicitud de Aclaración** Los Proponentes pueden solicitar cualquier aclaración, explicación o interpretación de una Solicitud de Propuestas sólo según se dispone en esta sección.

Después de emitirse una Solicitud de Propuestas, un Proponente podrá solicitar una o más Solicitudes de Aclaración hasta un máximo de quince (15) días

calendario (o la cantidad, ya sea menor o mayor, de días, según se especifique en la Solicitud de Propuestas); antes de la fecha límite para someter Propuestas especificadas en la Solicitud de Propuestas. Cualquier Solicitud de Aclaración por parte de un Proponente solo podrá hacerla por escrito y utilizando el medio de mensajería electrónica que se estipule en las instrucciones del RFP. La Autoridad ha determinado utilizar un portal electrónico especializado para la publicación de procesos de adquisiciones *PowerAdvocate*© *Sourcing Portal*, por lo que ninguno de los Proponentes estará autorizado a utilizar ningún otro método alterno al aquí designado.

Los representantes de la Autoridad y/o del Comité o Equipo Evaluador también podrán participar en una o más Conferencias con Antelación a la Propuesta. En tales reuniones o conferencias, los Proponentes también pueden solicitar a la Autoridad una aclaración, explicación o interpretación de cualquier material contenido en la Solicitud de Propuestas. La Solicitud de Aclaración de los Proponentes en una Conferencia con Antelación a la Propuesta no tendrá que ser por escrito. Las conferencias se realizarán a través de medios electrónicos de video conferencias, conferencias vía web o teléfonos. La Autoridad se reserva el derecho de grabar estas conferencias para asegurar la transparencia, certeza y calidad de los procesos. En el caso que la Autoridad opte por esta opción, la misma será anunciada previo al inicio de la conferencia.

Cualquier respuesta de la Autoridad a peticiones escritas u orales de parte de Proponentes potenciales, podrá compilarse en una o más adendas que se divulgarán o circularán a todos los Proponentes potenciales que se hayan registrado con la Autoridad al menos tres (3) días calendario, antes de la fecha de vencimiento de la Propuesta establecida en la Solicitud de Propuestas. Si una o más adendas se circulan a menos de tres (3) días de la fecha de vencimiento establecida en la Solicitud de Propuestas, entonces la fecha de vencimiento de la Propuesta se entenderá cambiada a la fecha que sea tres (3) días después de la fecha en que dicha adenda se haya circulado. Sin embargo, si la Autoridad, a su discreción, identifica que una Solicitud de Aclaración o la correspondiente Respuesta a los Proponentes es de naturaleza menor o administrativa, la Autoridad podrá emitir una Respuesta a los Proponentes a menos de tres (3) días de la fecha de vencimiento de la Propuesta. No obstante lo anterior, una Solicitud de Aclaración con respecto a un CTA o CFA se tratará como confidencial y se emitirá una aclaración sólo al Proponente que la solicite.

Se advierte que la Autoridad ha establecido que las contestaciones mediante adendas serán distribuidas a través de las herramientas de mensajería electrónica disponible en el portal electrónico especializado. Esto permitirá mayor agilidad, flexibilidad y permitirá que todos los participantes tengan la misma contestación al mismo tiempo, garantizando el envío y recibo de las mismas. A través de este medio se mantendrá un historial de fechas, tiempos, preguntas y personas que formulan las mismas, garantizando así el fiel

#### cumplimiento con los parámetros de tiempo aquí establecidos.

Sólo las respuestas escritas provistas por la Autoridad, a través de la plataforma de publicaciones electrónicas de la Autoridad, serán oficiales. Cualquier otro tipo de comunicación con cualquier funcionario, empleado o agente de la Autoridad, el Comité o Equipo Evaluador o la Unidad de Negocio o Directorado, División, Departamento, Oficina o persona, incluyendo cualquier respuesta oral durante cualquier Conferencia con Antelación a la Propuesta, no se considerará una respuesta oficial de la Autoridad o de dicho comité.

En aquellos casos en los cuales una Solicitud de Propuestas incluya un borrador del Contrato o Acuerdo de Compras, la Solicitud de Propuestas especificará la forma en que (i) los Proponentes podrán someter comentarios o sugerencias al borrador de Contrato o Acuerdo de Compras, y la forma en que (ii) el borrador revisado del Contrato o Acuerdo de Compras, si alguno, se distribuirá a los Proponentes.

#### 4.8 Respuesta a una Solicitud de Propuestas

- (a) Fase Uno (1) Preparación de Respuesta a una Solicitud de Propuestas. Las Propuestas tienen que proveer una descripción precisa y concisa de la capacidad del Proponente para completar o realizar el Contrato, Acuerdo de Compras, Servicio, Modelo de Negocio y Solución. Se le dará énfasis a la claridad del contenido de la Propuesta y que la misma esté completa. Los Proponentes serán responsables por todos los gastos directos e indirectos incurridos relacionados con el proceso de preparación de una Propuesta. Aunque la Autoridad podrá, a su discreción, aceptar Propuestas que no cumplan con todos los requisitos, a menos que la Solicitud de Propuestas estipule otra cosa, las Propuestas sometidas para ser consideradas tienen que cumplir con los siguientes requisitos:
  - (i) las Propuestas estarán firmadas en tinta por un representante autorizado del Proponente cuando se solicita la entrega de los documentos en formato de papel, y el Proponente o dicho representante autorizado firmará con sus iniciales, en tinta, para confirmar cualquier alteración o corrección a la Propuesta. La Autoridad solo aceptará propuestas electrónicas las cuales solo pueden ser cargadas a través del portal electrónico de adquisiciones de la Autoridad y el cual es operado por la compañía *PowerAdvocate*©. De esta forma se mantendrá un registro fiel y exacto con la fecha, hora, minutos, usuario y documento electrónico que ha sido cargado. La disponibilidad para ver y analizar estas Propuestas estará protegida a través de controles electrónicos que no permitirán el acceso a ningún

oficial de la Autoridad o miembro del Comité o Equipo Evaluador hasta luego de pasada la fecha, hora y minutos estipulados para el cierre de recibo de Propuestas. Tampoco tendrá acceso ningún empleado externo al Comité Evaluador ya que la seguridad de acceso es por usuario. Con este método se mantendrá un historial de acceso y actividades relacionadas al uso y manejo de la información contenida en el portal;

(ii) se someterá toda la información solicitada bajo la Solicitud de Propuestas y los formularios electrónicos incluidos en la plataforma electrónica para licitaciones. A los Proponentes que no sometan toda la información requerida por la Solicitud de Propuestas y formularios electrónicos, se les podrá brindar una oportunidad *Post Bid* de presentar rápidamente la información que falte o se les podrá dar una puntuación menor en la evaluación de su Propuesta. Aquellas Propuestas que <u>carezcan de</u> <u>información esencial</u> que sea requerida por la Solicitud de Propuestas y formularios electrónicos podrán rechazarse de plano;

(iii) cada Propuesta tiene que incluir una tabla de contenido, que haga referencia a los requisitos por categoría y estará organizada, según requerido en la Solicitud de Propuestas correspondiente. La información que el Proponente desee presentar que no corresponda a ninguno de los requisitos de la Solicitud de Propuestas debe insertarse en un lugar apropiado o anejarse al final de la Propuesta e identificarse como material adicional. Las Propuestas que no estén organizadas de esta manera podrán ser devueltas para su revisión, a discreción de la Autoridad;

 (iv) cada Propuesta tiene que proveer una descripción completa del trabajo y suficiente información sobre el Proyecto, Modelo de Negocio o Solución para determinar si la misma satisface los Criterios de Evaluación y objetivos establecidos para el evento de RFP;

 (v) las Propuestas cargadas electrónicamente en la plataforma electrónica podrán ser cargadas en archivos separados. Estos tienen que estar claramente titulados y no se aceptarán títulos en siglas o nombres no relacionados al contenido del documento; y

 (vi) el plan financiero del Proyecto, Modelo de Negocio o Solución incluirá suficientes detalles para permitir un análisis minucioso que revele si el modelo de financiamiento propuesto es viable. El

### plan financiero divulgará el nivel de financiamiento.

La Autoridad también promueve que todos los Proponentes, al preparar sus Propuestas, sigan las guías establecidas a continuación. Aunque no es requerido cumplir con estas guías, las mismas ayudarán a la Autoridad a acelerar el proceso de revisión:

- (i) Todas las páginas de la Propuesta tienen que estar enumeradas. La evaluación de las Propuestas se facilitará si las contestaciones de los Proponentes citan el número de Sección y Sub-sección correspondiente, y repiten el texto del requisito y no el texto de la Propuesta. Si una respuesta toma más de una página, el número de la pestaña y la letra correspondiente se deben repetir en la parte superior de la próxima página. Si un Proponente somete información confidencial o propietaria a la Autoridad, la información confidencial o propietaria será provista en archivos electrónicos separados para así facilitar la revisión de la información confidencial o propietaria por parte de la Autoridad o del Comité o Equipo Evaluador, según se dispone en la Sección 9.3 de esta guía; y
- (ii) las Propuestas incluirán un resumen ejecutivo y harán referencia al número de Sección y Sub-sección correspondientes, al abordar los puntos en la Solicitud de Propuestas en lugar de repetirlos.
- (b) Fase Dos (2) Presentación de Propuestas. Se exhorta a los Proponentes que propongan soluciones innovadoras a las necesidades de la Autoridad y sus clientes. Las Propuestas se cargarán en el portal electrónico de adquisiciones PowerAdvocate(c) Sourcing Portal en o antes de la fecha y hora límite para recibir Propuestas establecida en la Solicitud de Propuestas, de acuerdo con las instrucciones incluidas en la misma y, a menos que se estipule algo distinto en la Solicitud de Propuestas, cumpliendo con los siguientes requisitos:
  - (i) Se requiere que los Proponentes sometan una (1) copia electrónica en formato de documento portátil (*pdf*), a menos que la Autoridad indique algo distinto en la Solicitud de Propuestas. Para propósitos de esta guía, una Propuesta se considerará sometida a la Autoridad en la fecha y hora de la carga de archivos electrónicos en la plataforma electrónica de licitaciones establecido para estos propósitos.
  - (ii) los Proponentes entregarán sus Propuestas a través de cargas electrónicas en la plataforma electrónica destinada para estos propósitos. Una vez la carga se complete en forma exitosa, el

sistema proveerá evidencia electrónica de la fecha, hora y minuto que la carga se completó en forma exitosa. Este medio brinda la flexibilidad a los proponentes de realizar la carga en cualquier momento antes del período de cierre establecido para el recibo de Propuestas;

- (iii) cualquier Propuesta sometida por correo o entregada personalmente por el Proponente o su representante autorizado será rechazada y devuelta al Proponente sin abrir;
- (iv) las Propuestas cargadas electrónicamente en o antes de la fecha de vencimiento establecida en la Solicitud de Propuestas no estarán accesibles *Sealed Bid* para evaluación hasta el momento posterior la fecha y hora establecida en la Solicitud de Propuestas, según se indique en la adenda correspondiente. Este control es uno automático y autónomo el cual no puede ser modificado o alterado en forma alguna;
- $(\mathbf{v})$ las Propuestas <u>no serán leídas en público</u>. La Autoridad no generará copias de las Propuestas. Sólo los integrantes de la Autoridad y los integrantes del Comité o Equipo Evaluador u otras personas designadas por el Jefe de División de Suministros tendrán acceso electrónico a las Propuestas y a los resultados de la evaluación durante el período de selección y evaluación. Todas las Propuestas sometidas a la Autoridad se convertirán en propiedad de la Autoridad, salvo los documentos o información sometida por los Proponentes que constituya secretos de negocios, información propietaria o privilegiada o confidencial del Proponente. Un Proponente que tenga una preocupación especial por alguna información propietaria o confidencial que desea hacer disponible a la Autoridad, deberá leer con detenimiento la Sección 9.3 de esta guía antes de someter su Propuesta;
- (vi) el que un Proponente potencial dejare de entregar, dentro del período establecido en la Solicitud de Propuestas, una Propuesta que cumpla con los requisitos allí establecidos, impedirá que dicha Propuesta sea considerada por la Autoridad y por el Comité o Equipo Evaluador; y
- (vii) a los Proponentes que sometan una Propuesta se les podrá requerir que hagan una o más presentaciones orales de su Propuesta al Comité o Equipo Evaluador.
- 4.9 Cargo por Revisión de Propuesta; Fianza de Propuesta

- (a) Para cubrir los costos de procesar, revisar y evaluar Propuestas incurridos por la Autoridad, esta podrá requerir un pago, que no es reembolsable ni negociable, por la revisión de la Propuesta. El monto del cargo por revisión de Propuesta será determinado por la Autoridad, caso a caso, y se incluirá en la Solicitud de Propuesta. El incumplir con el pago de cualquier cargo suspenderá la consideración de una Propuesta. Todos los cargos se pagarán de la manera que establezca la Autoridad en la Solicitud de Cualificaciones o en la Solicitud de Propuestas. Los Proponentes que sometan múltiples propuestas para RFPs que no están relacionados, tendrán que someter un pago de cargo por revisión de Propuesta para cada Propuesta sometida en el caso de así requerirse.
- (b) La Solicitud de Propuestas podrá requerir que el Proponente someta una Fianza de Propuesta. Una Fianza de Propuesta *Bid Bond* podría consistir de un primer plazo de menor cantidad, el cual se sometería junto con la Solicitud de Propuestas como condición para competir en el proceso de cualificación, y un segundo plazo de mayor cantidad, el cual se sometería al notificarle al Proponente que es el Proponente Seleccionado. La cantidad, fecha de entrega y condiciones de devolución, si alguna, de cualquier Fianza de Propuesta requerida se determinará por la Autoridad y se especificará en la Solicitud de Propuestas correspondiente.
- **4.10 Modificación de Propuesta -** El Comité o Equipo Evaluador sólo aceptará una modificación a una Propuesta previamente sometida si la modificación se recibe antes de la fecha de vencimiento que especifique la Solicitud de Propuestas para esa Propuesta. Todas las modificaciones se harán por escrito y se ejecutarán y someterán en la misma forma y manera de la Propuesta original, de conformidad con los términos de la Solicitud de Propuestas.
- **4.11 Cancelación de una Solicitud de Propuestas -** La Autoridad, a su discreción, o por recomendación del Comité o Equipo Evaluador, podrá cancelar un proceso de Solicitud de Propuestas en cualquier momento. Si el Comité o Equipo Evaluador recomienda que se cancele una Solicitud de Propuestas, el Comité indicará la razón o las razones para su recomendación. El Jefe de División de Suministros podrá realizar una de las siguientes alternativas:
  - (a) realizar una nueva Solicitud de Propuestas;
  - (b) negociar directamente con un Proponente, luego de haber cancelado la Solicitud de Propuestas, sólo si dicho Proponente obtuvo la clasificación más alta previo a la cancelación de la Solicitud de Propuestas, las razones para cancelar la Solicitud de Propuestas ya no aplican o no existen, la negociación es para el mismo RFP para el cual originalmente se licitó y dicha negociación esté en los mejores intereses de la Autoridad; o

#### (c) tomar cualquier otra acción que la Autoridad considere apropiada.

La Autoridad podrá, a su discreción y caso a caso, pagar un estipendio u honorario por terminación a todos los Proponentes en la eventualidad de cancelación. Sin embargo, la Autoridad no tendrá que indemnizar (incluyendo, pero sin limitarse a, reembolso de gastos) a cualquier Proponente si decide, a su entera discreción, cancelar un proceso de Selección de Propuestas.

**4.12 Propuestas No Solicitadas -** Generalmente, la Autoridad le dará prioridad a la evaluación de Propuestas solicitadas a través del proceso de Solicitud de Propuestas. La Autoridad, sin embargo, podrá recibir y evaluar Propuestas no solicitadas de un Proponente relacionadas a Proyectos que no se hayan seleccionado para una Solicitud de Propuestas, pero que cumplan con los requisitos de la Ley y de esta guía, dentro de quince (15) días después de haber recibido la Propuesta no solicitada.

Los pasos principales del proceso de Propuestas no solicitadas, el cual la Autoridad ha determinado cumple con los requerimientos del proceso de Solicitud de Propuestas a utilizarse, según la Ley, se describe a continuación:

- (i) Antes de radicar una Propuesta no solicitada, un Proponente potencial podrá presentarle su interés en una Solución, Contrato del tipo *Sourcing* o Modelo de Negocio a la Autoridad mediante el envío de una carta al Jefe de la División de Suministros;
- (ii) Si la Autoridad no tiene objeción o no está en el proceso de preparar un proceso de licitación para la misma, el Proponente potencial radicará una Propuesta no solicitada a la atención del Jefe de División de Suministros. La Propuesta no solicitada estará acompañada de un cargo por solicitud no negociable en la cantidad que determine el Jefe de la División de Suministros, de hasta \$50,000. El Jefe de la División de Suministros revisará, evaluará y hará recomendaciones iniciales a la Autoridad con respecto a cualquier Propuesta no solicitada recibida por la Autoridad. El Jefe de la División de Suministros, sin embargo, podrá rechazar cualquier Propuesta no solicitada por cualquier razón y devolverle al Proponente el(los) cargo(s) por concepto de solicitud;
- (iii) La Autoridad comentará y revisará la Propuesta no solicitada dentro de quince (15) días calendario, y determinará si la Propuesta cumple todos los requisitos legales y de política pública para continuar con su evaluación. La Autoridad podrá, sin embargo, rechazar cualquier Propuesta no solicitada por cualquier razón y devolverle al Proponente el(los) cargo(s) por concepto de solicitud;

- (iv) tras recibir una Propuesta no solicitada y llegar a la determinación posterior de que la Propuesta no solicitada, según sometida o enmendada, reúne los requisitos de esta guía, la Autoridad llevará a cabo un Estudio de Deseabilidad y Conveniencia, según dispone la Sección 4.2 de esta guía;
- (v) si dicho estudio es favorable, el Jefe de División de Suministros podrá comunicar los resultados del estudio al Director Ejecutivo y la Junta de Gobierno para que sea incluido en el inventario de Proyectos, con excepción de soluciones, modelos de negocios o contratos del tipo *Sourcing* y relacionados a las cadenas de suministros los cuales son de su absoluta responsabilidad y pertinencia;
- (vi) una vez incluido en el inventario de Proyectos, Modelos de Negocios o Soluciones de la Autoridad, el Jefe de la División de Suministros podrá establecer o asignar un Comité Evaluador, publicar el Estudio de Deseabilidad y Conveniencia, y determinar el alcance final del Proyecto, Modelo de Negocio, Contrato *Sourcing* o Solución;
- (vii) el Comité o Equipo Evaluador entonces podrá colocar un aviso en el portal electrónico de la Autoridad (www.aeepr.com), publicaciones especializadas de circulación general u otros portales electrónicos. relacionados, según sea apropiado para notificarle a Proponentes potenciales que pudieran estar interesados. La Autoridad también podrá determinar utilizar solo aquellas compañías bonafides, registradas para la(s) categorías solicitadas y que estén activas en el Registro de Suplidores de la Autoridad. La Autoridad, además, podrá utilizar su conocimiento y experiencia de negocio de más de 70 años, para determinar las compañías aptas y capaces de cumplir con los requisitos establecidos para el proceso de RFP. La notificación dispondrá que la Autoridad ha recibido y aceptado una Propuesta no solicitada, que tiene la intención de evaluar la Propuesta, que podrá negociar un Contrato o Acuerdo de Compras interino o abarcador basado en la Propuesta y que aceptará para consideración simultánea cualquier Propuesta que compita con la Propuesta no solicitada y cumpla con las normas aplicables que la Autoridad reciba de conformidad con esta guía en o antes de la fecha de límite de treinta (30) días calendario que se incluya en la notificación para recibir Propuestas que compitan con la Propuesta no solicitada y que cumplan con esta guía. La fecha límite para el recibo de cualquier Propuesta que compita con la Propuesta no solicitada será a las 11:59pm (UTC -4), hora de San Juan, Puerto Rico, en el último día del periodo de competencia después de la publicación inicial por la

Autoridad de la notificación. La notificación proveerá un resumen del Proyecto propuesto y sus elementos principales. El Comité o Equipo Evaluador tendrá disponible la Propuesta completa, excepto por aquellas porciones que claramente y adversamente afectarían la posición financiera, competitiva o de negociación de la Autoridad, del Comité o Equipo Evaluador y/o del Proponente, según determine la Autoridad, a su discreción, o según se identifique por el Proponente. En la eventualidad que un Proponente no esté seguro de que su Propuesta sea suficientemente similar a la Propuesta que fue objeto de la notificación para que la misma se considere como una Propuesta competitiva, dicho Proponente podrá radicar ante la Autoridad una solicitud por escrito para una determinación preliminar de si su Propuesta sería considerada una Propuesta que compite en parte o en su totalidad. La Autoridad responderá no más tarde de diez (10) días calendario después del periodo de competencia con una contestación preliminar en cuanto a si la Propuesta se considerará como que compite o que no ha recibido suficiente información para tomar dicha determinación;

- (viii) el Comité o Equipo Evaluador también podrá determinar que una Propuesta no solicitada deberá modificarse o enmendarse para cumplir con los objetivos de la Autoridad. La Autoridad publicará una notificación aceptando dicha Propuesta para evaluación, según enmendada o modificada e invitando a otros a radicar una Propuesta competitiva. Si la Propuesta es modificada o enmendada, también se le dará la oportunidad al Proponente original a incluir información adicional durante el periodo de competencia;
- (ix) el fracaso de un Proponente potencial en presentar una Propuesta competitiva que cumpla con todos los requisitos dentro del periodo de competencia publicado evitará que dicha Propuesta sea considerada a menos y hasta que la Autoridad termine de considerar, o de negociar, la Propuesta no solicitada original y cualquier Propuesta competitiva recibida dentro del periodo de competencia. La Autoridad se reserva el derecho de extender el periodo de competencia. El recibo de una o más Propuestas competitivas durante dicho periodo no será causa para la publicación de una nueva notificación o del comienzo de cualquier nuevo periodo de competencia; y
- (x) tras la expiración de dicho periodo de competencia, la Autoridad y el Comité o Equipo Evaluador someterán la Propuesta no solicitada original, junto con cualquier otra Propuesta competitiva y que cumpla con los requisitos de esta guía que se haya recibido apropiadamente, al proceso de evaluación y selección que se detalla

en la Sección 5 que aparece a continuación.

Para acelerar el proceso de revisión y evaluación de Propuestas no solicitadas, la Autoridad recomienda que los Proponentes incluyan los siguientes documentos con sus Propuestas no solicitadas, según sea aplicable:

- (a) un mapa topográfico que indique la ubicación del Proyecto propuesto o localizaciones o actividades impactadas a través de su solución o modelo de negocio y(si aplica);
- (b) una descripción del Proyecto y un diseño conceptual que indique la interacción del Proyecto con la infraestructura existente y las operaciones actuales;
- (c) una declaración respecto al itinerario de desarrollo y el ciclo de vida de la instalación, activo, equipo, componente, subcomponentes u otros;
- (d) información con respecto a los pasos requeridos para desarrollar el Proyecto, Modelo de Negocio o Solución, incluyendo, pero sin limitarse a, permisos y necesidades de adquisición de terrenos, permisos de construcción, permisos de operación, permisos ambientales, permisos estatales y federales relacionado a las operaciones, etc...;
- (e) el esquema operacional propuesto y el estudio de viabilidad del Proyecto, Modelo de Negocio o Solución; y
- (f) una descripción detallada de cualquier asistencia gubernamental o por parte de la Autoridad que se requiera.

La Autoridad reconoce que podría recibir Propuestas con ciertas características en común, pero con diferencias significativas. En estos casos, la Autoridad se reserva el derecho, a su sola discreción, a tratar dichas Propuestas o cualquier porción de dichas Propuesta recibidas después de la Propuesta no solicitada original, como una Propuesta competitiva o como una Propuesta no solicitada no competitiva. Dada las consecuencias a un Proponente si fracasa en radicar dentro del periodo de competencia una Propuesta que la Autoridad después pudiera determinar es una Propuesta competitiva, la Autoridad insiste en que los Proponentes potenciales deberán estar atentos al portal de Internet de la Autoridad para cualquier notificación de una Propuesta no solicitada recibida y estar preparados para radicar dentro del periodo de competencia si entienden que una Propuesta que están considerando o preparando tiene cierta similitudes a, o características en común con, una Propuesta no solicitada que sea objeto de una notificación.

No obstante cualquier otra cosa dispuesta en esta guía, la Autoridad no está obligada a revisar, evaluar, procesar y hacer recomendaciones con respecto a Propuestas no solicitadas, y la Autoridad, a su entera discreción, podrá terminar en cualquier momento cualquier proceso relacionado con una Propuesta no solicitada. La evaluación de una Propuesta no solicitada por la Autoridad no otorgará derecho alguno a un Proponente, incluyendo, pero sin limitarse a, el derecho de reembolso por gastos incurridos por el Proponente en la preparación de la Propuesta no solicitada.

**4.13 Conceptos Técnicos y Financieros Alternos -** Según dispone la Sección 6.4(e) de esta guía, el contenido de una Solicitud de Propuestas incluirá una solicitud por la Autoridad que le permitirá a los Proponentes someter Conceptos Técnicos Alternos y/o Conceptos Financieros Alternos antes de una Propuesta para que los Proponentes incorporen innovación y creatividad técnica y financiera en las Propuestas. Los CTAs también incluyen conceptos que no requieren una modificación de las disposiciones técnicas, pero que, si se implantan, requerirían evaluación ambiental, de seguridad o cumplimiento con algún otro requisito estatal o federal adicional para un Proyecto, Modelo de Negocio o Solución.

Los CTAs y/o CFAs serán **confidenciales** y no se compartirán con otros Proponentes. Esta guía, a su vez, permitirá que el Comité o Equipo Evaluador revise y considere temprano en el proceso los CTAs y/o CFAs de un Proponente al momento de tomar la decisión de selección, para evitar potenciales demoras y conflictos en el diseño asociadas con la posposición de la revisión de CTAs y/o CFAs al periodo posterior a la adjudicación, y en última instancia, obtener el mejor valor para los clientes.

Los CTAs y CFAs elegibles a ser considerados se limitarán a aquellos cuyas desviaciones de la Solicitud de Propuestas, o aquellos CTAs que requieran evaluación ambiental adicional, que resulten en una calidad y desempeño del producto final igual o mejor que la calidad y el desempeño del producto sin considerar la desviación o concepto, según determine la Autoridad, a su entera discreción. Un concepto no se considerará un CTA, si a juicio de la Autoridad, sólo produce una reducción de cantidad, desempeño o confiabilidad. Un concepto no es elegible para consideración como un CTA si está basado o requiere:

- (i) la inclusión de un Proyecto adicional de la Autoridad (tales como la expansión del alcance del Proyecto, Modelo de Negocio o Solución);
- (ii) un cambio en las disposiciones estéticas o de paisaje, operacionales y administrativas del negocio; o

(iii) un incremento en la cantidad de tiempo para comenzar el Proyecto, Modelo de Negocio o Solución.

Los CTAs que, de implantarse, requerirían evaluación ambiental adicional para el Proyecto, Modelo de Negocio o Solución, podrían permitirse, según los términos y condiciones impuestos por la Autoridad. Si el Proponente no puede obtener las aprobaciones necesarias para implantar el CTA, el Proponente estará obligado a desarrollar el Proyecto, Modelo de Negocio o Solución de conformidad con las aprobaciones existentes sin costos adicionales o extensiones de tiempo.

- **4.14 Contrato o Acuerdo de Compras sin Solicitud de Propuestas -** Las disposiciones de la Sección 4 de esta guía respecto al uso de la Autoridad del proceso de Solicitud de Propuestas no aplicarán a las situaciones descritas en la Sección 15 (22 LPRA 205) de la Ley. El Comité o Equipo Evaluador recibirá y evaluará las Propuestas que no hayan sido objeto de una Solicitud de Propuestas y negociará un Contrato o Acuerdo de Compras para operar y/o desarrollar Funciones, Instalaciones o Servicios que cualifiquen con Proponentes según permitido bajo dicha Sección 15 (22 LPRA 205) y conforme a las circunstancias particulares de cada caso. El Comité o Equipo Evaluador, en dichos casos, podrá utilizar, a su discreción, cualquier ley, reglamento, guía, normativa o combinación de estos para evaluar y seleccionar Proponentes y negociar un Contrato o Acuerdo de Compras, con el objetivo de maximizar los beneficios económicos y operacionales de la Autoridad con el objetivo principal de reducir los costos de producción eléctrica e incrementar los niveles de operación y servicio.
- **4.15 Comunicaciones con Oficiales de la Autoridad -** Una vez se comience un evento de Solicitud de Propuestas RFP, ni los Proponentes ni sus representantes podrán contactar o comunicarse en forma alguna con ningún oficial o representante de la Autoridad con relación al Proyecto, Modelo de Negocios, Solución o la Solicitud de Propuestas, excepto con los representantes oficiales de la Autoridad que hayan sido designados por el Jefe de División de Suministros como los Representantes Autorizados y sólo bajo las circunstancias permitidas en la Solicitud de Propuestas. El no cumplimiento con esta restricción será causa suficiente para la descualificación automática de la compañía en el proceso. La Autoridad, además, podrá aplicar sanciones administrativas y económicas a las compañías que incumplan con este requisito. Las sanciones pueden incluir una prohibición permanente de la empresa, individuos y compañía para participar en procesos o relaciones de comercio futuras. Esta prohibición no aplicará a las Conferencias Pre-Propuesta, según se describen en la Sección 4.7 de esta guía.
- **4.16 No Cabildeo, No Colusión, No Actos Prohibidos -** Ninguno de los Proponentes e integrantes del equipo de un Proponente, ni sus respectivos directores, oficiales, empleados, consultores, agentes, asesores y representantes podrán con relación a un Proyecto, una Solicitud de Cualificaciones, una Solicitud de

Propuestas, o un proceso competitivo de selección, participar de forma alguna en cualquier tipo de cabildeo político o de otra índole, ni podrán, a menos que se contemple expresamente en una Solicitud de Cualificaciones o Solicitud de Propuestas, tratar de comunicarse de forma alguna en relación a estos asuntos, directa o indirectamente, con cualquier representante del Comité o Equipo Evaluador o de la Autoridad, incluyendo cualquier Parte Restringida, o cualquier director, oficial, empleado, agente, asesor, miembro de personal, consultor o representante de cualquiera de las antes mencionadas personas, según aplique, para ningún propósito, incluyendo para propósitos de:

- (a) comentar o tratar de influenciar la opinión sobre los méritos de su Propuesta, o con relación a la Propuesta de otros Proponentes;
- (b) influenciar, o tratar de influenciar, el resultado de la fase de Solicitud de Cualificaciones o Solicitud de Propuestas, o del proceso competitivo de selección, incluyendo la revisión, evaluación, y la clasificación de las Propuestas, la selección del Proponente Seleccionado, o cualquier negociación con el Proponente Seleccionado;
- (c) promover sus intereses o los del Proponente en el Proyecto, incluyendo sobre las preferencias de otros Proponentes;
- (d) criticar o comentar sobre aspectos de la Solicitud de Cualificaciones, Solicitud de Propuestas, el proceso competitivo de selección, o el Proyecto, incluyendo de una manera que pueda darle una ventaja competitiva o cualquier otra ventaja al Proponente sobre otros Proponentes; y

### (d) criticar la Propuesta de otro Proponente.

Ni los Proponentes ni los integrantes del equipo del Proponente discutirán o se comunicarán, directa o indirectamente, con cualquier otro Proponente o cualquier director, oficial, empleado, consultor, asesor, agente o representante de cualquier otro Proponente, incluyendo cualquier integrante del equipo del otro Proponente con relación a la preparación, contenido o representación de sus Propuestas. Las Propuestas se someterán sin conexión alguna (por ejemplo, a través de la tenencia de acciones en o de un Proponente o integrante del equipo de un Proponente), conocimiento, comparación de información, o arreglo, con cualquier otro Proponente o cualquier director, oficial, empleado, consultor, asesor, agente o representante de cualquier otro Proponente, incluyendo cualquier integrante del equipo de dicho otro Proponente. <u>El incumplimiento</u> <u>con una o más de las restricciones aquí establecidas será causa suficiente</u> <u>para la separación indefinida y permanente de la compañía a participar o</u> <u>formalizar relaciones comerciales futuras. La Autoridad podrá, además,</u> <u>aplicar sanciones económicas y referir el o los casos a la División de Anti-</u> <u>Trust del Departamento de Justicia Federal para la formulación de cargos criminales, según apliquen. Estas sanciones aplicarán además a cualquier empleado, oficial o miembro de la Autoridad que contribuya en uno o más de los esquemas aquí presentados.</u>

**4.17 Partes Restringidas** - Las Partes Restringidas, sus respectivos directores, oficiales, socios, empleados, y Afiliadas no serán elegibles para participar como Proponentes o como integrante de un equipo de un Proponente, o asesorar cualquier Proponente o integrante del equipo de un Proponente, directa o indirectamente, o participar en cualquier forma como empleado, asesor, consultor o de otra forma relacionada a cualquier Proponente. Cada Proponente se asegurará que ni el Proponente ni los integrantes de su equipo utilice, consulte, incluya, o solicite asesoramiento de cualquier Parte Restringida. Cualquier director, oficial, socio, empleado, o Afiliada de una de las compañías aquí descrita podrán exponerse a la aplicación de leyes estatales y federales las cuales incluyen delitos criminales y sanciones económicas.

Cualquiera de las siguientes Personas contratadas por la Autoridad o el Comité o Equipo Evaluador o involucrada en la preparación del Estudio de Deseabilidad y Conveniencia, la Solicitud de Cualificaciones y/o la Solicitud de Propuestas, será una Parte Restringida:

- (i) Asesores Técnicos (tales como firmas de ingeniería y consultoría);
- (ii) Asesores Financieros (tales como bancos de inversión, firmas de contabilidad);
- (iii) Asesores Legales;
- (iv) Asesores Ambientales; y
- (v) Asesores Sociales o Laborales.

Cualquier Persona trabajando como consultor de una Parte Restringida y que desee participar en una Solicitud de Cualificaciones y/o una Solicitud de Propuestas deberá describir la naturaleza y alcance de su trabajo para la Parte Restringida, así como para el equipo del posible Proponente que someterá una Propuesta.

Esta lista de Partes Restringidas no es exhaustiva. Podrán identificarse Personas adicionales Partes Restringidas, incluyendo mediante inclusión en la lista durante el proceso competitivo de selección.

Para evitar dudas, una Parte Restringida con relación a un Proyecto se considerará como tal sólo con respecto al Proyecto en particular y, por tanto, no

estará de otra forma restringida de las actividades descritas en el primer párrafo de esta Sección 4.17. Además, ninguna Persona se convertirá en Parte Restringida como resultado de haber sido nombrada como miembro del grupo de consultores y sólo se convertirá en Parte Restringida una vez sea formalmente involucrada por la Autoridad o un Comité o Equipo Evaluador con respecto a una Instalación, Proyecto, Modelo de Negocios o Solución en específico.

# SECCIÓN 5- PROCESO DE EVALUACIÓN Y SELECCIÓN

- **5.1 Proceso de Evaluación** Salvo que una Solicitud de Propuestas particular indicara otro proceso, el Comité o Equipo Evaluador someterá las Propuestas recibidas a través de un proceso de Solicitud de Propuestas o a través de la forma que haya determinado la Autoridad, por el siguiente proceso de evaluación, selección y negociación de tres (3) fases, según apliquen:
  - (a) <u>Fase Uno: Revisión de Control de Calidad</u>.
    - (i) Dentro de los cinco (5) días laborables después de la fecha límite para someter Propuestas bajo una Solicitud de Propuestas, el Comité o Equipo Evaluador determinará qué Propuestas aprobaron la revisión de control de calidad al satisfacer los requisitos básicos delineados en la Solicitud de Propuestas y en esta guía. El no cumplir con los Criterios de Evaluación y otras condiciones especificadas en una Solicitud de Propuestas o en esta guía constituirá suficiente causa para no aprobar la revisión de control de calidad. El Comité o Equipo Evaluador, a su discreción, podrá extender la duración de la revisión de control de calidad de la Fase Uno debido al volumen de Propuestas, la complejidad de las Propuestas, la necesidad de información adicional, la cooperación oportuna de los Proponentes, u otras circunstancias no previstas.
    - (ii) Cada Proponente será notificado por escrito por el Comité o Equipo Evaluador de que su Propuesta ha aprobado o no la revisión de control de calidad y si avanzará a la Fase Dos. El Comité o Equipo Evaluador podrá devolver Propuestas que: (i) estén incompletas;
      (ii) no cumplan con los requisitos de la Solicitud de Propuestas; o (iii) no cumplan con los requisitos de la Ley o la Sección 4 de esta guía.
    - (iii) El Comité o Equipo Evaluador, a su discreción, podrá hacer caso omiso de cualquier informalidad o asunto técnico en los documentos de cualquier Propuesta, siempre y cuando dichos asuntos se puedan corregir o aclarar sin perjuicio a la Autoridad.
  - (b) <u>Fase Dos: Revisión y Recomendación del Comité o Equipo Evaluador</u>.

- El Comité o Equipo Evaluador revisará y evaluará todas las (i) Propuestas que pasen la revisión de control de calidad. El Comité o Equipo Evaluador establecerá un itinerario preliminar para la revisión de Propuestas y la negociación del Contrato o Acuerdo de Compras, si se requiere. En cualquier momento de la Fase Dos, el Comité o Equipo Evaluador podrá solicitarle información adicional a un Proponente sobre su Propuesta para asistir al Comité o Equipo Evaluador con la revisión y evaluación de la misma. Basándose en la revisión de las Propuestas, el Comité o Equipo Evaluador seleccionará una Propuesta o podrá no seleccionar ninguna. Si la Solicitud de Propuestas exige negociaciones competitivas, el Comité o Equipo Evaluador podrá seleccionar una o más Propuestas o ninguna. Si la Autoridad no selecciona ninguna de las Propuestas (el Comité o Equipo Evaluador notificará al Jefe de División de Suministros de su decisión), cada Proponente que ha avanzado a la Fase Dos será notificado por escrito por el Comité o Equipo Evaluador, y su Fianza de Propuesta será devuelta;
- (ii) Si una Solicitud de Propuestas exige un proceso competitivo de negociación, el Comité o Equipo Evaluador revisará y considerará las Propuestas en base a los Criterios de Evaluación para determinar la clasificación de cada Propuesta. Basándose en dicha clasificación, el Comité o Equipo Evaluador determinará las Propuestas que están dentro de la Clasificación Competitiva. Tras discutirlo con el Jefe de División de Suministros, el Comité o Equipo Evaluador podrá elegir: (i) llevar a cabo discusiones y negociaciones con aquellos Proponentes cuvas Propuestas estén dentro de la Clasificación Competitiva, según se contempla más adelante en la Sección 5.1(c); ó (ii) negociar con el Proponente que obtuvo la clasificación más alta y, si las negociaciones no son fructíferas, continuar las negociaciones estrictamente en el orden de clasificación de cada Propuesta, según se contempla más adelante en la Sección 5.1(d). El Comité o Equipo Evaluador podrá elegir llevar a cabo negociaciones y discusiones con un Proponente cuya Propuesta se encuentra dentro de la Clasificación Competitiva, aun cuando no se trate de la mejor Propuesta;
- (iii) Los Proponentes cuyas Propuestas no caigan dentro de la Clasificación Competitiva serán notificados por escrito por el Comité o Equipo Evaluador, pero aún serán considerados parte del proceso de licitación hasta que se firme el Contrato o Acuerdo de Compras. La Fianza de Propuesta de cualquier Proponente no

seleccionado será devuelta (si aplica) una vez el Contrato o Acuerdo de Compras se haya firmado por todas las partes;

- (iv) La Autoridad se reserva el derecho de rechazar cualquier y todas las Propuestas sometidas si considera que tal acción está en los mejores intereses de la Autoridad;
- (v) Si se recibe sólo una Propuesta, dicha Propuesta se podrá considerar si el Comité o Equipo Evaluador y la Autoridad determinan que hacerlo está en los mejores intereses de la Autoridad.

Durante el proceso de evaluación, selección y negociación, todas las Propuestas, evaluaciones, discusiones y negociaciones se mantendrán confidenciales hasta que se firme el Contrato o Acuerdo de Compras, sujeto a las disposiciones del reglamento para el Programa de Administración de Documentos de la AEE y esta guía.

(c) <u>Fase Tres-A: Negociaciones Simultáneas con Proponentes Múltiples</u>

Si el Comité o Equipo Evaluador decide llevar a cabo discusiones y negociaciones con todos los Proponentes cuyas Propuestas caen dentro de la Clasificación Competitiva, tales Proponentes recibirán una notificación por escrito con los nombres y títulos de los Representantes Autorizados y explicando que las negociaciones se llevarán a cabo de acuerdo a las siguientes reglas:

- (i) Ninguna declaración hecha o acción tomada por la Autoridad, el Comité o Equipo Evaluador, cualquier empleado u oficial de la Autoridad, o cualquier asesor o consultor, u otro agente o representante de la Autoridad durante las discusiones y negociaciones vinculará en forma alguna a la Autoridad relacionada con alguna Solicitud de Propuestas en particular. Sólo el Contrato o Acuerdo de Compras, cuando sea efectivo conforme a sus términos será vinculante sobre la Autoridad;
- (ii) Se podrá invitar a cada Proponente que caiga dentro de la Clasificación Competitiva a una o más reuniones privadas con los Representantes Autorizados para discutir y contestar preguntas respecto a cualquier aspecto de su Propuesta. Los asesores designados del Comité o Equipo Evaluador y el Jefe de División de Suministros podrán participar en tales reuniones a petición de los Representantes Autorizados. El contenido y alcance de cada reunión privada con cada Proponente se determinará por los Representantes Autorizados, según el

contenido y las circunstancias relacionadas a la Propuesta del Proponente. El propósito de cada reunión será aclarar dudas sobre los requisitos de la Solicitud de Propuestas y confirmar que los términos del Contrato o Acuerdo de Compras son comprendidos; mejorar aspectos técnicos o de otra índole de la Propuesta en un esfuerzo por garantizar el cumplimiento de las especificaciones y requisitos de desempeño; discutir la base de los términos económicos propuestos, en un esfuerzo por mejorar los términos económicos para la Autoridad; y discutir cualquier otro detalle pertinente de la Propuesta, de manera que resulte en una mejor Propuesta y un mejor Contrato o Acuerdo de Compras para la Autoridad;

- (iii) Si se sostiene una reunión privada con algún Proponente que caiga dentro de la Clasificación Competitiva, se le dará la oportunidad a todos los Proponentes que estén dentro de la Clasificación Competitiva de discutir y repasar sus Propuestas con los Representantes Autorizados. Las discusiones, sin embargo, se basarán en los hechos y las circunstancias relativas a cada Propuesta, según descrito en la Sección 5.1(c)(ii). La información discutida en tales reuniones podrá variar de un Proponente a otro;
- (iv) Los Representantes Autorizados, con la asistencia del Comité o Equipo Evaluador, la Autoridad, sus asesores u otras personas que el Jefe de División de Suministros pueda designar, pueden, a su discreción:
  - (1) Establecer las guías, pautas e itinerarios para llevar a cabo las discusiones y para controlar las reuniones;
  - (2) Asesorar al Proponente sobre las deficiencias de su Propuesta, de manera que tenga la oportunidad de cumplir con los requisitos de la Autoridad;
  - (3) Intentar resolver cualquier incertidumbre respecto a la Propuesta, y en general aclarar los términos y condiciones de la Propuesta;
  - (4) Atender cualquier sospecha de error que pueda existir;
  - (5) Proveerle al Proponente la oportunidad de someter cualquier modificación a los términos económicos, aspectos técnicos o cualquier otro aspecto de su Propuesta que pueda resultar de las discusiones, o la oportunidad de proveer documentación o análisis

adicional que asista al Comité o Equipo Evaluador en su evaluación de la viabilidad del Proyecto, Modelo de Negocio o Solución y las cualificaciones del Proponente; y

- (6) Mantener un acta de las reuniones con la fecha, hora, lugar, y personas que asistieron;
- (v) Tras cada entrevista o reunión con un Proponente, los Representantes Autorizados y/o el Comité o Equipo Evaluador podrán requerirle al Proponente que someta una confirmación por escrito de cualquier aclaración de su Propuesta discutida en la reunión;
- (vi) A discreción del Comité o Equipo Evaluador o de su Representante Autorizado, las discusiones y negociaciones podrán llevarse a cabo totalmente o en parte mediante comunicaciones escritas o por teléfono, sin reuniones o entrevistas en persona;
- (vii) Después de tales discusiones y negociaciones paralelas, el Comité o Equipo Evaluador podrá, a su discreción, solicitarle a los Proponentes que caigan dentro de la Clasificación Competitiva, que sometan su "mejor y última oferta" (o *BAFO* por sus siglas en inglés) en respuesta a las discusiones y negociaciones celebradas. <u>Únicamente los Proponentes que sometieron</u> <u>Propuestas que caigan dentro de los parámetros establecidos en la Solicitud de Propuestas serán considerados en el proceso de BAFO;</u>
- (viii) Si el Comité o Equipo Evaluador determina no llevar a cabo un proceso de BAFO, el Comité o Equipo Evaluador deberá comenzar negociaciones con el Proponente sometiendo la Propuesta con la más alta clasificación, lo cual podrá culminar en la Adjudicación de un Contrato o Acuerdo de Compras.
- (d) <u>Fase Tres-B: Negociaciones con los Proponentes Clasificados</u> Si el Comité o Equipo Evaluador ha elegido llevar a cabo discusiones y negociaciones únicamente con el Proponente con la clasificación más alta dentro de la Clasificación Competitiva, a dicho Proponente se le enviará una notificación escrita que contenga los nombres y posiciones de los Representantes Autorizados. Los Representantes Autorizados y el Proponente acordarán un horario parallevar a cabo las negociaciones. En cualquier momento, el Comité o Equipo Evaluador puede terminar las negociaciones con el Proponente y comenzar negociaciones con el próximo Proponente con la clasificación más alta. *El Contrato o Acuerdo*

de Compras será vinculante sobre la Autoridad sólo cuando sean efectivos sus términos.

- Fase Tres-C: Proceso Regular de Licitación (No-negociado) Si la (e) Autoridad opta por llevar a cabo un proceso regular de licitación, la Autoridad deberá elegir al Proponente que haya sometido la Propuesta con la clasificación más alta, basado en los criterios indicados en la Solicitud de Propuestas. En el proceso de licitación regular, los Proponentes someterán una Propuesta técnica y una Propuesta financiera, debiendo estar la última Propuesta incluida en la plataforma electrónica provista para estos propósitos, antes de ser sometida por el Proponente. Cualquier Propuesta financiera que no hava sido cargada en la plataforma electrónica provista para estos procesos, habrá de descalificar automáticamente al Proponente. La Autoridad no accederá a las propuestas financieras cargadas en la plataforma electrónica, antes de la Fase Tres-C o antes de que las Propuestas de los Proponentes pasen la parte técnica de Evaluación de Criterios de la Fase Dos. La Autoridad no llevará a cabo discusión o negociación alguna con ningún Proponente. Los Representantes Autorizados de la Autoridad llevarán a cabo los siguientes pasos:
  - (i) Ninguna declaración hecha o acción tomada por la Autoridad, el Comité o Equipo Evaluador, cualquier empleado o funcionario de la Autoridad, o cualquier asesor o consultor, u otro agente o representante de la Autoridad o del Comité o Equipo Evaluador durante el proceso de evaluación vinculará en forma alguna a la Autoridad o al Comité o Equipo Evaluador. El Contrato o Acuerdo de Compras sólo vinculará a la Autoridad cuando el mismo sea efectivo conforme a sus términos.
  - Los Representantes Autorizados y delegados por el Jefe de la División de Suministros accederán a los archivos de propuestas cargados en el portal electrónico ante los miembros del Comité o Equipo Evaluador, los asesores designados del Comité o Equipo Evaluador y los oficiales de la Autoridad claramente anunciarán la Propuesta financiera de cada Proponente que pasó a la Fase Dos;
  - (iii) Sujeto al derecho de la Autoridad de rechazar todas o cualquiera de las Propuestas, ésta seleccionará la Propuesta que obtenga la clasificación más alta, la cual podría culminar en la Adjudicación de un Contrato o Acuerdo de Compras. Si la Propuesta con la clasificación más alta no culmina en la Adjudicación de un Contrato o Acuerdo de Compras, la Autoridad podrá seleccionar la Propuesta que le sigue en la clasificación; y

- (iv) Los Representantes Autorizados llevarán un registro de la fecha, hora, lugar y los presentes al momento de abrir los sobres sellados.
- **5.2 Enmienda al Proceso de Licitación -** Nada en esta Guía limitará el poder de la Autoridad para enmendar el proceso de licitación aquí dispuesto mediante una enmienda a esta Guía o para modificarlo en relación con una Solicitud de Propuestas particular, según se disponga en dicha Solicitud de Propuestas o para integrar nuevos medios de comunicación, tecnología o requisitos y en la medida en que no entre en conflicto con la ley, la ética o la moral.

# **SECCIÓN 6- SELECCIÓN DE PROPONENTES**

- 6.1 Eventos Descalificadores - El Comité o Equipo Evaluador tratará como inelegible y no seleccionará a un Proponente de acuerdo con esta guía si el Comité o Equipo Evaluador tiene conocimiento real de que el Proponente o una Persona afiliada ha sido convicto o convicta de algún delito establecido en la Ley 458 del 29 de diciembre de 2000, (por ejemplo, si el Proponente o su representante autorizado ha sido formalmente convicto por actos de corrupción, incluyendo cualquiera de los crímenes que aparecen en esta ley, según enmendada, ya sea en Puerto Rico, o en cualquier jurisdicción de los Estados Unidos o en cualquier país y bajo la Ley de Prácticas Corruptas del Extranjero). Toda persona que participe en los procesos de Solicitud de Cualificaciones o Solicitud de Propuestas, por virtud de su participación en éstos, autoriza a la Autoridad a solicitar de la autoridad gubernamental pertinente información adicional respecto al Proponente potencial o Proponente, y en particular, detalles sobre convicciones por los delitos enumerados en esta Ley si el Comité o Equipo Evaluador lo considera necesario para su proceso de selección o evaluación.
- **6.2 Otras Bases para Descalificación -** El Comité o Equipo Evaluador podrá tratar como inelegible, o decidir no seleccionar a un Proponente o no aprobar la Adjudicación de un Contrato o Acuerdo de Compras a dicho Proponente por una o más de las siguientes razones, es decir, que dicho Proponente:
  - (a) esté en bancarrota, insolvencia o los índices de riesgos financieros sean considerados muy altos para el tipo de provecto, modelo de negocio o solución propuesta durante la existencia del contrato o acuerdo de compras, o haya hecho una cesión de bienes a beneficio de sus acreedores, o se haya iniciado un reglamento por éste o en su contra para adjudicarle en quiebra o insolvente, o solicitando una liquidación de sus activos o disolución, protección de sus acreedores, composición de sus deudas o cualquier alivio similar bajo cualquier ley relacionada a quiebra, insolvencia o reorganización o protección de sus acreedores;

- (b) haya sido convicto de un delito relacionado a la manera en que lleva a cabo su negocio o profesión, aparte de los enunciados en la Ley 458 del 29 de diciembre de 2000;
- (b) no haya cumplido sus obligaciones respecto al pago de impuestos bajo las leyes del ELA o la jurisdicción relevante en que mantiene sus operaciones principales;
- (d) sea culpable de haber hecho una falsa representación con relación a cualquier información provista a la Autoridad o al Comité o Equipo Evaluador o provista de otra manera para cumplir con esta Guía o con una Solicitud de Propuesta; o
- (e) haya incumplido con los requisitos éticos establecidos en la Ley 84 del 18 de junio de 2002.
- **6.3 Información Respecto a la Situación Financiera -** Al evaluar si un Proponente potencial o Proponente reúne cualquiera de los parámetros mínimos de condición financiera requeridos por el Comité o Equipo Evaluador para propósitos de la Sección 4.4 de esta guía y al seleccionar a los Proponentes bajo una Solicitud de Cualificaciones o una Solicitud de Propuestas, la Autoridad puede tomar en cuenta cualquiera de la siguiente información:
  - (a) declaraciones pertinentes del banco(s) principal del proponente;
  - (b) estados financieros de los tres (2) años fiscales anteriores;
  - (c) cualquier otra información aceptable para la Autoridad que permita al Proponente demostrar su condición financiera; y
  - (d) cualquier otra referencia de corroboración adicional que la Autoridad pueda conseguir de fuentes externas (por ejemplo, *Dun y Bradstreet-D&B*).

El Comité o Equipo Evaluador especificará en la Solicitud de Cualificaciones, la Solicitud de Propuestas y la información financiera que el Proponente tiene que proveer para cumplir con los parámetros mínimos aplicables de condición financiera.

6.4 **Mejoramiento de Industria Local -** La política de la Autoridad es fomentar la participación de suplidores, contratistas e inversionistas locales como participantes en Contratos, Modelos de Negocio o Soluciones potenciales para promover la actividad económica local y desarrollar pericia local. Al evaluar los Proponentes para proyectos, modelos de negocio o soluciones potenciales, el

Comité o Equipo Evaluador tomará en consideración, consistente con la ley aplicable, la presencia de dicho Proponente en y su compromiso con Puerto Rico, en términos de recursos dedicados, inversión en la comunidad, creación de empleos directos e indirectos, movimiento económico local y la participación de entidades locales. Aun así se aclara que en ningún sentido la Autoridad limitará la capacidad de desarrollo y competitividad anteponiendo cualquier otro criterio. La mayor contribución de la Autoridad de Energía Eléctrica de Puerto Rico a la economía local es reducir los costos de energía, elevar los niveles de servicio a los clientes en general, reducir el impacto de sus operaciones al ambiente y el desarrollo de estrategias innovadoras que propicien el servicio y calidad que ofrecemos a los clientes en general. Pero en especial a clientes industriales y comerciales; responsables directos del desarrollo y crecimiento económico fomentando la creación de empleos, la inversión de capital extranjero y el avance en la competitividad global.

- **6.5** Iniciativa contra la Corrupción La Autoridad apoya a la *World Economic Forum's Partnering Against Corruption Initiative (PACI)* y fomenta que los Proponentes potenciales mencionen en sus Propuestas si participan en el *PACI.*
- **6.6 Guías sobre Conflictos de Interés -** Periódicamente, la Autoridad podrá adoptar guías para la resolución de conflictos o asuntos sobre ventajas competitivas que puedan surgir dentro de la licitación de un Proyecto. La Autoridad publicará las guías que adopte, si alguna, en su portal de Internet.

# SECCIÓN 7- ADJUDICACIÓN DEL CONTRATO

7.1 Comité o Equipo Evaluador - Una vez el Comité o Equipo Evaluador haya recomendado una Propuesta, y el Comité o Equipo Evaluador y el Proponente havan finalizado la negociación de un Contrato o Acuerdo de Compras que cumpla con los requisitos, el Comité o Equipo Evaluador preparará y presentará un informe al Jefe de la División de Suministros. El informe deberá incluir las razones para llevar a cabo el Contrato, Modelo de Negocio o Solución, las razones para la selección del Proponente(s) escogido(s), una descripción del proceso efectuado, incluyendo comparaciones del o los Proponentes y el Contrato o Acuerdo de Compras recomendado frente a otras propuestas presentadas y toda aquella otra información pertinente al proceso y a la evaluación llevada a cabo. El informe se le presentará al Jefe de División de Suministros de la Autoridad para su aprobación no más tarde de treinta (30) días calendario después de terminada la negociación del Contrato o Acuerdo de Compras. La mera aprobación del informe y el Contrato o Acuerdo de Compras por la Autoridad no concede el derecho a reclamar indemnización, reembolso, ni pago alguno por concepto de expectativas surgidas en cualquiera de las etapas, ni por los gastos incurridos durante el proceso de cualificación o presentación de propuesta.

- 7.2 Adjudicación del Contrato o Acuerdo de Compras - Una vez el informe y el borrador del Contrato o Acuerdo de Compras sean aprobados, se presentará al Jefe de la División de Suministros para la aprobación final de este. A menos que se especifique lo contrario en la Solicitud de Propuestas en particular, si un Contrato o Acuerdo de Compras no es otorgado dentro de los noventa (90) días calendario posteriores a la fecha de vencimiento para la radicación de la Propuesta correspondiente a dicho Contrato o Acuerdo de Compras, cualquier Proponente podrá retirar su Propuesta sin penalidad. La Autoridad podrá cancelar la Adjudicación del Contrato o Acuerdo de Compras en cualquier momento antes de que el Contrato o Acuerdo de Compras sea firmado por la Autoridad y por el Proponente, sin que esto le cree una obligación o responsabilidad legal alguna a la Autoridad, al Comité o Equipo Evaluador, a cualquier Representante Autorizado, o a cualquier agente o asesor. En caso de que la Autoridad cancele la Adjudicación del Contrato o Acuerdo de Compras antes de su otorgamiento por la Autoridad y por el Proponente, podrá devolver la Fianza de Propuesta a todos los Proponentes.
- 7.3 Aviso de la Adjudicación del Contrato o Acuerdo de Compras - Una vez el Jefe de la División de Suministros apruebe el Contrato o Acuerdo de Compras y el otorgamiento por parte de la Autoridad, ésta hará pública la Adjudicación del Contrato o Acuerdo de Compras y la identidad del Proponente ganador. La Autoridad enviará una notificación escrita al resto de los Proponentes. El Jefe de la División de Suministros o su delegado notificará por escrito la decisión de la Autoridad de Adjudicar un Contrato o Acuerdo de Compras a todos los Proponentes participantes de la Fase 2 en adelante. La Autoridad enviará, a través del medio de mensajería electrónica de la plataforma electrónica de publicaciones, el aviso de adjudicación al o los Proponente(s) Seleccionado(s) no más tarde de cinco (5) días calendario después de que el Jefe de la División de Suministros hava notificado su aprobación al Comité o Equipo Evaluador. Ningún otro acto de la Autoridad se considerará como una aceptación de una Propuesta. La carta de notificación de la adjudicación de la subasta deberá indicar, además, que un proponente no seleccionado puede presentar una Moción de Reconsideración al amparo de la Ley Núm. 170 del 12 de agosto de <u>1988, según enmendada, y las disposiciones de esta guía</u>. Indicará, además, que en caso de presentarse la Moción de Reconsideración, el proponente deberá enviar copia de la misma a todos los proponentes que participaron de la Solicitud de Propuesta o RFP, certificando en la propia Moción dicho envío.
- 7.4 Firma del Contrato o Acuerdo de Compras Una vez se adjudique el Contrato o Acuerdo de Compras, el Proponente tiene que firmar el Contrato o Acuerdo de Compras, someter la Fianza de Propuesta que se haya especificado en la Solicitud de Propuestas para garantizar el cumplimiento por el Proponente con sus obligaciones bajo el Contrato o Acuerdo de Compras y cualquier evidencia de seguro solicitada, y realizará todos los otros actos requeridos para la firma del Contrato o Acuerdo de Compras dentro del período de tiempo establecido por

la Autoridad (cuando aplique). El Contrato o Acuerdo de Compras no se podrá hacer cumplir ni tendrá efecto legal alguno hasta que haya sido completado y aprobado, y firmado por todas las partes. Si el Proponente Seleccionado no firma el Contrato o Acuerdo de Compras o no cumple con algún requisito para dicha firma dentro del límite de tiempo especificado por la Autoridad, la Autoridad podrá, a su discreción, extender la fecha de vencimiento para la firma del Contrato o Acuerdo de Compras o adjudicar el Contrato o Acuerdo de Compras al Proponente de la próxima Propuesta con la calificación más alta si la Autoridad y el Comité o Equipo Evaluador determinan que tal adjudicación será en los mejores intereses de la Autoridad y sus clientes. La aprobación de tal contrato con el Proponente de la próxima Propuesta con la calificación más alta cumplirá con los leyes y requisitos establecidos. Una vez dicho contrato sea final, una copia del informe del Comité o Equipo Evaluador deberá enviarse al Jefe de División de Suministros. De igual manera, este informe será publicado en el portal de Internet de la Autoridad y radicado en la Oficina del Contralor de Puerto Rico, según dispuesto por ley.

- **7.5 Documentos del Contrato o Acuerdo de Compras -** La Autoridad determinará el tipo de Contrato o Acuerdo de Compras que mejor convenga para un Proyecto, Modelo de Negocio o Solución en particular y los términos y condiciones que incluirá cada Contrato o Acuerdo de Compras otorgado. Todos los acuerdos ancilares relacionados o necesarios para el desempeño de un Contrato o Acuerdo de Compras o la implementación de una Solución o Modelo de Negocio tienen que ser aprobados por la Autoridad y serán parte del récord público de la empresa.
- **7.6** Estipendio para la Transferencia de Propiedad Intelectual La Autoridad podrá, a su entera discreción, proveer un estipendio o compensación parcial a los Proponentes no seleccionados que sometan una Propuesta que cumpla con las normas aplicables. La Autoridad indicará en la Solicitud de Propuestas si el estipendio se pagará para un Proyecto en específico. Además, si un Contrato o Acuerdo de Compras se adjudica a base de un CTA y/o un CFA que haya sido sometido por un Proponente no seleccionado, la Autoridad podrá, caso a caso, y a su entera discreción, pagar el estipendio a los Proponentes no seleccionados a cambio de la transferencia de la propiedad intelectual.

# SECCIÓN 8- RECONSIDERACIÓN Y REVISIÓN

8.1 No Reconsideración por Parte de la Autoridad - La Autoridad no aceptará ninguna solicitud de reconsideración de cualquier decisión que tome la Autoridad, el Comité o Equipo Evaluador, el Jefe de la División de Suministros o cualquier Representante Autorizado relacionada al proceso de licitación establecido en la Ley o en esta guía, incluyendo, pero sin limitarse a, las decisiones relacionadas a las cualificaciones de Proponentes potenciales bajo una Solicitud de Cualificaciones o la Adjudicación de un Contrato o Acuerdo de

Compras.

**8.2 Revisión Judicial** – Las evaluaciones y determinaciones que tome el Comité o Equipo Evaluador, la Autoridad y/o el Jefe de División de Suministros solamente podrán ser resueltas a través de un recurso de revisión judicial.

# SECCIÓN 9- MISCELÁNEAS

- **9.1** Alcance de la Ley Periódicamente, la Autoridad podrá revisar un proyecto, modelo de negocio o solución, y determinar, por medio del Jefe de la División de Suministros, que una clase de proyecto, modelo de negocio o solución; o que un proyecto, modelo de negocio o solución en específico no cualifica para un RFP según se define en esta guía, y que no está cobijado por las disposiciones de la Ley. Además, la Autoridad podrá revisar el proceso de licitación. Luego de dicha revisión, la Autoridad podrá elegir continuar con el proceso de licitación con aquellas modificaciones, si alguna, que adopte o podrá comenzar un nuevo proceso de licitación.
- **9.2 Cálculo de Períodos -** Donde esta guía o la Ley requieran que se tome una acción: (i) dentro de un período determinado de tiempo después de que una acción es tomada, el día en que se tome la acción no se tomará en cuenta en el cálculo de ese período; (ii) dentro de un período determinado, ese período tiene que incluir por lo menos dos (2) días laborables; y (iii) dentro de un período determinado, cuando el último día de ese período no sea un día laborable, el período se extenderá para incluir el próximo día laborable, siempre que no se establezca lo contrario.
- **9.3 Confidencialidad -** Todas las Propuestas sometidas a la Autoridad o al Comité o Equipo Evaluador se convertirán en propiedad de la Autoridad o del Comité o Equipo Evaluador, excepto aquellos documentos o información sometida por los Proponentes que constituyan secretos de negocio, o información propietaria, privilegiada o confidencial del Proponente. Se aconseja a los Proponentes que se familiaricen con las disposiciones de confidencialidad y publicación contenidas en el <u>Reglamento para la Administración de Documentos de la AEE</u>, para asegurarse de que los documentos identificados por los Proponentes como "confidencial" o "propietario" no estén sujetos a divulgación bajo la Ley.

Si un Proponente tiene inquietudes particulares sobre información confidencial o propietaria que quisiera poner a la disposición de la Autoridad o el Comité o Equipo Evaluador, previo a someter su Propuesta, dicho Proponente podrá: (i) hacer una petición por escrito a la Autoridad para solicitar una reunión para especificar y justificar los documentos confidenciales o propietarios; (ii) hacer una presentación oral al personal y al asesor legal del Comité o Equipo Evaluador; y (iii) recibir notificación por escrito del Comité o Equipo Evaluador aceptando o rechazando las peticiones de confidencialidad. Dejar de tomar

dichas precauciones previo a someter una Propuesta podrá dejar información confidencial o propietaria sujeta a divulgación por mandato del Reglamento para la Administración de Documentos de la AEE. La Autoridad recomienda que los Proponentes sometan la información confidencial o propietaria en archivos electrónicos separados y claramente identificados y los cuales son cargados a la aplicación electrónica *PowerAdvocate Sourcing Portal*; para facilitar la revisión de la información confidencial o propietaria por parte de la Autoridad o del Comité o Equipo Evaluador.

La Autoridad o el Comité o Equipo Evaluador se esforzarán por mantener la confidencialidad de cualquier información que un Proponente señale como propietaria o secreto de negocio, o que por otras razones, conforme al derecho, debe protegerse de publicación, excepto según requerido por ley u orden judicial. El Jefe de la División de Suministros o el Comité o Equipo Evaluador determinarán si los materiales requeridos están exentos de los requisitos de divulgación. En caso de que la Autoridad o el Comité o Equipo Evaluador elija divulgar los materiales requeridos, le notificará al Proponente sobre su intención de divulgar. En ningún caso, el Comité o Equipo Evaluador o la Autoridad serán responsables frente a un Proponente por una divulgación exigida por ley o una orden judicial de toda o una porción de una Propuesta sometida a la Autoridad o al Comité o Equipo Evaluador bajo estas guías.

Una vez el Jefe de la División de Suministros haya aprobado y se haya firmado el Contrato o Acuerdo de Compras, la Autoridad hará público el informe del Comité o Equipo Evaluador que contendrá la información relacionada al proceso de licitación, selección y negociación, y la información contenida en la Propuesta, según lo requiere el Reglamento para la Administración de Documentos de la AEE, excepto por los secretos de negocio y la información confidencial, propietaria o privilegiada del Proponente claramente identificada como tal por el Proponente, o información que se tiene que proteger de publicación por otras razones según la ley, a menos que una orden judicial disponga algo distinto.

Cada miembro del Comité o Equipo Evaluador, el Jefe de División de Suministros y la Autoridad que participe en un proceso de RFP asociado con revisar o seleccionar las Propuestas sometidas podrá tener acceso a información privilegiada y confidencial. El mal uso de esta información confidencial sería una violación de la responsabilidad fiduciaria que tiene cada miembro del equipo hacia el Comité o Equipo Evaluador y la Autoridad. En un esfuerzo por mantener los más altos niveles de confianza y seguridad en el proceso de licitación, los participantes de los sectores público y privado tienen que ser conscientes de su responsabilidad hacia el público y estar alertas ante cualquier mal uso de información confidencial.

**9.4 Dispensas -** Mediante el voto afirmativo de tres (3) miembros presentes en una reunión debidamente constituida en la que haya quórum, la Autoridad está

autorizada a otorgar dispensas a integrantes anteriores de un Comité o Equipo Evaluador respecto a las prohibiciones de interés económico y afiliación; siempre y cuando dicha dispensa haya sido previamente aprobada por la Oficina de Ética Gubernamental.

- **9.5 Distribución, Notificación o Publicación -** A menos que la Ley o esta guía dispongan otra cosa, en aquellas instancias donde la Ley o esta guía requieran la distribución, notificación o publicación de un documento o decisión de la Autoridad, podrá satisfacerse tal requisito con la publicación de dicho documento o decisión en el portal de Internet de la Autoridad.
- **9.6 Intención** La intención de esta guía es proveer parámetros flexibles y, por consiguiente, se interpretará liberalmente a fin de efectuar esa intención y sus propósitos. Las desviaciones no materiales de los requisitos de esta guía no deberán, a la entera discreción de la Autoridad, ser causa para descalificación de cualquier proceso de Solicitud de Propuestas.
- **9.7 Negociaciones y Discusiones -** Cualquier negociación, conversación o discusión requerida por cualquier disposición de esta guía podrá llevarse a cabo en persona, por conferencia telefónica o conferencia de vídeo.
- **9.8 Separabilidad** Si cualquier palabra, oración, sección, párrafo o Artículo de esta guía es declarada inconstitucional o nulo por cualquier tribunal de justicia, tal determinación no afectará, perjudicará o anulará ninguna de las disposiciones y partes restantes de esta guía, y su efecto se limitará a la palabra, oración, sección, párrafo o artículo específico declarado inconstitucional o nulo. La invalidez o nulidad de cualquier palabra, oración, sección, párrafo o Artículo en una instancia no se interpretará como que afecta o perjudica en modo alguno su aplicabilidad o validez en cualquier otra instancia.











## Contents of this File 01

- (4)\_ATTACHMENT\_SAN\_JUAN\_POWER\_PLANT\_PICTURES
- (5)\_ATTACHMENT\_SAN\_JUAN\_POWER\_PLANT\_PICTURES
- (6)\_ATTACHMENT\_PLUMBING\_HRSG\_AREA\_UNDERGROUNG\_PIPING\_DRAWING
- (7)\_ATTACHMENT\_YARD\_PIPING\_DRAWING
- (8)\_ATTACHMENT\_FINISHED\_GRADING\_PLAN\_DRAWING
- 1.1\_RFP\_81412\_FUEL\_SUPPLY\_SJSP\_5\_AND\_6\_CONVERSION
- 1.2\_Draft\_Fuel\_Sale\_and\_Purchase\_Contract
- 1.3\_Annex\_A\_Terms\_and\_Conditions\_Units\_Conversions\_and\_Pipeline\_Install
- 2.1\_GUIAS\_PARA\_PROCESOS\_DE\_ADQUISICIONES\_DE\_BIENES\_Y\_SERVICIOS\_A\_TRAVS\_DE\_SOLICITUD\_DE\_PROPUESTAS
- 2.2\_PREPAS\_SUPPLIERS\_REGISTRY\_INFORMATION
- 2.3\_PREPA\_PowerAdvocate-Supplier-Quick-Start-Guide
- att\_Attachment\_1\_-\_RFP\_81412\_Fuel\_Supply\_SJSP\_Units\_56\_Questions\_Set\_1
- (1)\_ATTACHMENT\_SAN\_JUAN\_POWER\_PLANT\_PICTURES
- (2)\_ATTACHMENT\_SAN\_JUAN\_POWER\_PLANT\_PICTURES
- (3)\_ATTACHMENT\_SAN\_JUAN\_POWER\_PLANT\_PICTURES
- 1.\_ADDENDUM\_NO.\_009
- 2.\_ADDENDUM\_NO.\_009\_-\_ATTACHMENT\_1
- 3.\_ADDENDUM\_NO.\_009\_-\_ATTACHMENT\_2
- 4.\_ADDENDUM\_NO.\_009\_-\_ATTACHMENT\_3
- ADDENDUM\_NO.\_006\_site\_visit\_09.11.2018
- att\_ADDENDA\_NO.\_001\_-\_KICK-OFF\_MEETING\_AND\_SITE\_VISIT\_DATES
- att\_ADDENDUM\_NO.\_002
- att\_ADDENDUM\_NO.\_5
- att\_ADDENDUM\_NO.\_007\_Site\_Visits\_Sept.\_11\_and\_Sept.\_13
- att\_ADDENDUM\_NO.\_008\_Answers\_to\_Proponents\_Questions\_Set\_1
- att\_ADDENDUM\_NO\_3
- att\_ADDENDUM\_NO\_4\_SITE\_VISIT



# GOVERNMENT OF PUERTO RICO

Puerto Rico Electric Power Authority

# Fuel Supply in the North, Units Conversions and Pipeline Installation RFP 81412

# **ADDENDUM 9**

September 15, 2018

This addendum notifies the following:

# I. ANSWERS TO QUESTIONS

The second set of answers to the proponents' submitted questions are included in Attachment 1.

# **II. MODIFICATIONS TO RFP DOCUMENT**

a. Section 2.0 Scope of Services, Part II. Gas Supply Infrastructure is modified as follows:

"The project will include EPC project (engineer/design, procure/supply, and construction) and operation/maintenance for the fuel gas supply infrastructure required to supply and burn natural gas-(or the proposed alternate fuel)-for two 501F combustion turbines (Units 5 and 6), keeping the existing distillate #2 oil infrastructure as a secondary backup fuel. Proponent shall consult with the long-term service agreement (LTSA) contractor, Mitsubishi Hitachi Power Systems, if the proposed fuel may be used on these units. The Contractor shall be responsible in supplying all materials, equipment, and personnel to fulfill the project within the scope of supply, starting from the LNG (or the proposed alternate fuel) unloading terminal and ending at the combustion turbine nozzle inlet. The engineering shall consider transient loads management solution due to potential load fluctuations of the units."

b. Section 2.0 Scope of Services, Part IV. Conversion of San Juan Units 5 and 6, is modified as follows:

"The Contractor shall be responsible for the scope of work and associated capital cost required for LNG gas (or the proposed



# **GOVERNMENT OF PUERTO RICO**

Puerto Rico Electric Power Authority

alternate fuel) conversion of PREPA's San Juan Units 5 and 6, as well as modifications to associated turbine controls. The Contractor shall include the cost of the scope for PREPA's Unit 5 and 6 conversion as part of its proposal in the form of a capacity payment over the initial Base five (5) year term of the Agreement. The Contractor shall oversee and manage the conversion work with appropriate subcontracts to the LTSA contractor Mitsubishi Hitachi Power Systems, who will be responsible for defining the scope for the turbine's gas conversion and turbine controls modifications including engineering/design, equipment supply, and technical advisors for construction and startup. The Contractor shall be responsible for coordinating outage planning with PREPA to implement the necessary modifications. The Contractor will optimize the conversion of Units 5 and 6 to achieve commercially reasonable improvements in output and heat rate in conjunction with the conversion "

c. The fourth paragraph of Section 2.0 Scope of Services is amended as follows:

"PREPA is requesting all-inclusive, turnkey proposals to furnish, install, connect, deliver and operate a safe, stable, and reliable fuel supply system to the San Juan Units 5 and 6 combustion turbine combined cycle power generating plant; to supply the fuel gas for five years to the power generating plant; and to perform all work, including but not limited to: engineering/design, environmental permit support, equipment/materials supply, construction and commissioning, as required for the conversion of San Juan Units 5 and 6 to firing fuel gas. The fuel gas supply shall be liquefied natural gas (LNG) with an annual available quantity of at least 25 TBTU/year (alternative fuels can be proposed provided the LTSA contractor Mitsubishi Hitachi Power Systems can confirm the units can safely and reliably upon being converted to the proposed alternate fuel and that can be cleared by PREPA on a risk assessment)."

d. The Approach and Methodology part of Section 3 Evaluation and Selection is amended as follows:

"Respondents shall outline a clear and straightforward approach and demonstrated commitment to accomplishing the schedule goal of providing fuel gas for San Juan 5 and 6 preferably by the first quarter of 2019. Respondents shall identify key goals and



# **GOVERNMENT OF PUERTO RICO**

Puerto Rico Electric Power Authority

objectives, and methods for achieving high standards for the delivery of services, in expectation of meeting or exceeding these goals."

## **III. MODIFICATIONS TO FUEL SALE AND PURCHSE AGREEMENT**

a. Section 12. Fuel Contract Price, Part 12.1 is amended as follows:

"The Fuel Contract Price applicable to the quantities of NG to be sold, purchased and delivered in any month shall be \$\_\_\_ per MMBtu ("Fuel Contract Price"). Platts and Henry Hub, or any other verifiable fuel indexes, will be used. The capacity payment for capital cost of conversion to LNG of the San Juan Units 5 and 6 will only apply to the Base period and will not apply to any extensions. US Consumer Price Index (USCPI), its successor, or any other verifiable index, will be used for capacity payment."

## IV. CONVERSIONS PERSON OF CONTACT

The person of contact at Mitsubishi Hitachi Power Systems is:

Oscar Jimenez Phone: 507 638 38696 Email: <u>oscar.jimenez@mpshq.com</u>

## **V. CLARIFICATIONS DOCUMENT**

See Attachment 3.

All other terms, conditions and specification of this RFP remain unchanged.



# **RFP 81412**

# REQUEST FOR PROPOSALS FOR Fuel Supply in the North and Conversion of San Juan Units 5 and 6

Issued by the Puerto Rico Electric Power Authority

Date Initial RFP Issued: July 30, 2018 Proposals Due Date: September 11, 2018 at 11:59 p.m. AST

# **TABLE OF CONTENTS**

1.0	Purpose and Intent
1.1	Puerto Rico Electric Power Authority
1.2	Contract Term
1.3	Proposal Submission
1.4	Prohibited Communications, Expenses, and Rejections
1.5	Local Participation
1.6	RFP Timeline
1.7	Definitions/Acronyms
2.0	Scope of Services
2.1	Deliverables
3.0	Evaluation and Selection
3.1	Finalist Interview
3.2	Selection17
4.0	Proponent Requirements 17
4.1	Requirement of Legal Entities
4.2	Required Qualifications of Proponents
4.3	Proposal Format
4.3.1	Cover Letter and Table of Contents
4.3.2	Experience and Capacity
4.3.3	Approach and Methodology 19
4.3.4	Price Proposal
4.3.5	Commitment to Complying with all Applicable Federal and Puerto Rico Local Regulations (2-4 pages)
4.3.6	Local Parties (1-4 pages)
5.0	Confidentiality of Responses and Proprietary Information
6.0	Conflicts of Interest
7.0	Proposal Additional Information
7.1	Rejection of Proposals; Cancellation of RFP; Waiver Informalities and Withdrawal Proposal
7.2	Ownership of Proposal

# Request for Proposals for **Fuel Supply in the North and Conversion of San Juan Units 5 and 6**

7.3	Cost of Preparing Proposals	
7.4	Errors and Omissions in Proposal	
8.0	Payment Terms and Method of Payments	
8.1	Payment Terms	
8.2	Method of Payment	
9.0	Process Rules and PREPAs General Instruction RFP Guide	23
10.0	Puerto Rico General Provisions	
11.0	Performance Bond and Payment Bond	

#### **1.0 Purpose and Intent**

This Request for Proposals (RFP) is issued by the Puerto Rico Electric Power Authority (PREPA). The purpose of this RFP is to solicit proposals from interested qualified firms which can provide LNG fuel supply in the North and LNG fuel conversion of San Juan Units 5 and 6.

The intent of this RFP is to award one contract for LNG fuel supply, or any other proposed fuel, in the north and for fuel conversion of San Juan Units 5 and 6. Award of contract will be to those qualified firms whose proposal, conforming to this RFP, is most advantageous to PREPA, the price and other factors will also be considered therein. Qualified firms shall possess all required Federal and Government licensing. Section 2.0 of this RFP has a detailed description of the scope of services.

#### **1.1 Puerto Rico Electric Power Authority**

The Puerto Rico Electric Power Authority (PREPA), is a public corporation and governmental entity of the Commonwealth of Puerto Rico, created pursuant Law 83 of May 2, 1941, as amended, with the duty of providing electric power in a reliable manner, contributing to the general welfare and the sustainable future of Puerto Rico, PREPA is tasked with maximizing benefits while minimizing the social, environmental and economic impacts.

PREPA is a government-owned company, property of the Commonwealth of Puerto Rico, and is empowered to make contracts, sell / buy assets and real estate, borrow money and issue bonds. PREPA is also responsible for the establishment of an appropriate rate structure for its services.

PREPA's Objectives:

- Reduce energy cost
- Promote smart energy consumption
- Protect the environment

Strategies to Achieve these Objectives:

- Reduce operating expenses
- Increase efficiency
- Minimize Energy Theft
- Diversify Energy Sources
- Establish Smart Grid for energy control and consumption monitoring
- Maximize use of advanced technology
- Increase access to clean sources of energy

#### 1.2 Contract Term

This contract will be for a base period of Five (5) years with three (3) separate options of five (5) year extensions at PREPA's sole discretion. The capacity payment for capital cost of conversion

to LNG of the San Juan Units 5 and 6 will only apply to the Base period and will not apply to any extensions.

#### **1.3** Proposal Submission

The Bidder shall submit its Proposal through the Submittals tab of the RFP 81412 event on the PowerAdvocate© Platform.

Questions or comments shall be submitted by 11:59 p.m. AST, August 21, 2018 via PowerAdvocate<sup>©</sup> through the Messaging Tab of the event 81412.

PREPA's designated Procurement Representatives for this RFP are:

Delis T. Zambrana Natalia Martínez Lugo

Verbal questions will NOT be accepted. Requests for clarifications will be answered by posting answers via PowerAdvocate© through the Download Documents Tab or Messaging Tap; accordingly, questions should NOT contain proprietary information, as answers may be published in the public domain. Please note that PREPA does not guarantee answers for all questions or comments received.

It is the sole responsibility of the potential proponent to monitor this site for additional information, updates and addenda concerning the RFP.

All RFP submissions, inclusive of the pricing, discounts and other requested details are to be submitted via PowerAdvocate© on or before 11:59 pm AST, September 11, 2018.

All Proponents are expected to submit a redacted copy of their proposal in the *PREPA's Supplier Registry Office* as required in Section 5.0 Confidentiality of Responses and Proprietary Information to the following address:

Postal Address:		Physical Address:
Puerto Rico Electric Power Authority		Supplier Registry Office
Supplier Registry Office	or	Ponce de Leon Avenue
PO Box 3670151		Third Floor Office 301
San Juan, Puerto Rico 00936		Building NEOS #1110, Santurce, PR

The PowerAdvocate guide is included as part of this event. For technical assistance with the sourcing platform application please contact PowerAdvocate technical support: (857) 453-5800 or via email at: support@poweradvocate.com

#### **1.4 Prohibited Communications, Expenses, and Rejections**

Communications with other representatives of PREPA or relevant entities of the Federal Government regarding any matter related to the contents of this RFP are prohibited during the submission and selection processes. Failure to comply with these communications restrictions will result in rejection of the firm's proposal.

Neither PREPA, the Government of Puerto Rico nor any of its instrumentalities, will be responsible for any expenses in the preparation and/or presentation of the proposals, oral interviews or disclosure of any information or material received in connection with this RFP.

PREPA reserves the right to reject any and all proposals received in response to this RFP, when determined to be PREPA's best interest, and to waive minor noncompliance in a proposal. PREPA further reserves the right to make such investigations as it deems necessary as to the qualifications or perceived conflicts of interest of any and all firms submitting proposals in response to this RFP. The mere appearance of a conflict of interest shall constitute sufficient cause for the outright rejection of a proposal(s). In the event that any or all proposals are rejected, PREPA reserve the right to re-solicit proposals.

#### **1.5** Local Participation

PREPA encourages Proponents to engage local subcontractors, professionals and relevant service providers headquartered in Puerto Rico ("Local Parties") as Team Members and Key Individuals to the greatest extent possible.

Proponents are strongly encouraged as part of this RFP to provide descriptions of their current and/or anticipated business arrangements with Local Parties and, in particular, Local Parties who are Team Members and Key Individuals for the Project, as applicable.

Key Review Process Events	Targeted Timeline
Request for Proposal Issued	July 30, 2018
RFP Kick-off Meeting	August 6, 2018
Visit to the Job Site	August 7, 2018
Supplier Questions Deadline	August 21, 2018
Questions Answered	August 30, 2018
RFP Proposal Submission Deadline	September 11, 2018
RFP Short List Announcement*	September 28, 2018

#### **1.6 RFP Timeline**

Fuel Supply in the North and Conversion of San Juan Units 5 and 6

Key Review Process Events	Targeted Timeline
RFP Short List Requests for Clarifications, Presentations, Updated Proposals and Negotiation Process Begins*	October 8-9, 2018
<b>Evaluate Proposals and Conduct Supplier Final Negotiations*</b>	October 10-29, 2018
Selection Notification*	November 5, 2018

\*At PREPA's discretion

Please note that the RFP timeline includes target dates that may change. It is the responsibility of Proponents to periodically review the PowerAdvocate website for updates to the RFP timeline and other important information. Any changes or modifications to the RFP terms, conditions or specification will be made through addenda posted on PowerAdvocate.

#### 1.7 Definitions/Acronyms

"Battery Limits" for this RFP means a flange in PREPA's San Juan Power Plant facilities' limits.

"Contractor" or "Selected Proponent" means a bidder or proponent awarded a contract resulting from this RFP.

"DOJ" means the United States Department of Justice.

"Chief Executive Officer" refers to the CEO of the Puerto Rico Electric Power Authority.

**"Evaluation Committee"** refers to a committee designated by PREPA's Chief Executive Officer, which will evaluate all complete proposals pursuant to the criteria listed in Section 3.0 of this RFP.

**"Federal Agency"** means any of the departments of the Executive Branch of the Government of the United States of America, or any department, corporation, agency or instrumentality created or which may be created, designated or established by the United States of America.

**"Final Acceptance**" means – the written approval by PREPA that the entire work has been completed and the final cleaning up of the site has been performed and all Punch List items have been rectified.

**"Government Entity"**, refers to any department, agency, board, commission, body, bureau, office, public corporation or instrumentality of the Executive Branch of the Government Entity, whether existing or to be created in the future.

**"Key Individuals"** means an individual who will play an important role in the engagement or contract on behalf of a Team Member resulting from this RFP.

"LNG" means Liquefied Natural Gas

**"Local Parties"** means local subcontractors or professionals (which may include architects and consulting engineers) and relevant service providers who are based in or have a significant ongoing business presence in Puerto Rico.

"PREPA" means the Puerto Rico Electric Power Authority.

**"Proponent"** means a(n) (i) natural person, (ii) legal person, (iii) joint venture, or (iv) partnership, or (v) consortium of individuals, and/or partnerships, and/or companies or other entities that submit a response to this RFP that is not currently debarred.

**"Public Interest"** means any government action directed to protecting and benefiting citizens at large, whereby essential goods and services are provided for the welfare of the population.

"RFP" means this Request for Proposals and addenda issued by PREPA.

**"Team Member"** means a member of a Proponent. Team Members should be identified in Proponent' submissions and not be changed without the consent of PREPA.

"Units 5 and 6" means the combined cycle generating units located at the San Juan Power Plant. Units 5 and 6 have a rated capacity of approximately 400 MW in total.

#### 2.0 Scope of Services

The Puerto Rico Electric Power Authority (PREPA) electric generating fleet is old and in various states of disrepair. Because the majority of the power generation in Puerto Rico is on the South side of the Island and a majority of the load in on the North Side of the Island in the San Juan area, reliable and economic generation is needed in the north. This became especially critical following the 2017 hurricanes when much of the transmission capability from south to north was destroyed.

PREPA is interested in reducing the cost of generation and improving the compliance with environmental requirements for units required to reliably operate at base load in the San Juan area. One alternative being considered by PREPA is to seek suppliers for an alternate fuel supply to the newer, existing and more efficient combined cycle units at the San Juan generating station (San Juan Units 5 and 6). While the Units 5 and 6 are currently only capable of burning #2 Fuel Oil, PREPA will consider converting these units to an alternative fuel if the cost savings associated with the lower cost fuel supply justifies the power plant conversion modification expenditures.

Depending on the exact heat rate of modified units and assuming an 85% capacity factor, it is estimated that the total annual fuel requirements for the converted San Juan Units 5 and 6 would be approximately 25,000,000 MMBTU/year, or 25 TBTU/year.

PREPA is requesting all-inclusive, turnkey proposals to furnish, install, connect, deliver and operate a safe, stable, and reliable fuel supply system to the San Juan Units 5 and 6 combustion turbine combined cycle power generating plant; to supply the fuel gas for five years to the power generating plant; and to perform all work, including but not limited to: engineering/design, environmental permit support, equipment/materials supply, construction and commissioning, as required for the conversion of San Juan Units 5 and 6 to firing fuel gas. The fuel gas supply shall be liquefied natural gas (LNG) with an annual available quantity of at least 25 TBTU/year (alternative fuels can be proposed provided the original combustion turbine equipment manufacturer Mitsubishi can confirm the units can safely and reliably upon being converted to the proposed alternate fuel and that can be cleared by PREPA on a risk assessment).

I. Introduction

The LNG fuel gas supply facility shall be designed to bring natural gas quickly and safely to the combustor inlets of the San Juan 5 and 6 combustion turbines. It is expected that the proposed fuel gas supply and conversion project will be accomplished expeditiously by installing new, readily available, modular-construction harbor terminal fuel gas supply infrastructure which will support full load operation of the San Juan 5 and 6 Plant preferably by the first quarter of 2019.

Contractor shall supply the following:

- Land property necessary for fuel unloading, storage and handling facility
- All necessary permits and licenses to operate including but not limited to U.S. Coast Guard authorization, as required. As part of its proposal, Bidder must be able to demonstrate a clear path for achieving approval all necessary permits required for the construction and operation of the project, including appropriate harbor access and approvals. PREPA will provide assistance to the Contractor in obtaining environmental permits related to the conversion of San Juan Units 5and 6. Bidder shall provide evidence of compliance with requirements of the Jones Act including U.S. Customs and Border protection waivers, as applicable
- Supply, construction, and commissioning of all equipment and interconnections necessary for a complete unloading, storage and fuel handling terminal facility as necessary to receive, unload, and store Liquified Natural Gas (LNG) and to vaporize and deliver natural gas from the terminal facility to the turbine combustor inlets of the existing San Juan Units 5 and 6 Power Generating Plant. If an alternative fuel is proposed, Contractor shall be responsible for the installation of all necessary facilities to deliver the fuel to Units 5 and 6.
- Supply and delivery of LNG on regular intervals as necessary to support San Juan Units 5 and 6 consumption of approximately 25 TBTU/yr, including logistics necessary to achieve reliability of LNG supply for a term of at least five (5) years with three separate

five-year options to extend exercisable at PREPA's sole discretion.

• Operation and maintenance for duration of contract of all LNG, or an alternative fuel, terminal and interconnection facilities required to provide reliable and safe delivery of natural gas at the quantities described above to the battery limits of the San Juan Units 5 and 6 power generating plant.

## II. Gas Supply Infrastructure

The project will include EPC project (engineer/design, procure/supply, and construction) and operation/maintenance for the fuel gas supply infrastructure required to supply and burn natural gas at manufacturer's specifications of two 501F Mitsubishi combustion turbines (Units 5 and 6), keeping the existing distillate #2 oil infrastructure as a secondary backup fuel. The Contractor shall be responsible in supplying all materials, equipment, and personnel to fulfill the project within the scope of supply, starting from the LNG unloading terminal and ending at the combustion turbine nozzle inlet. The engineering shall consider transient loads management solution due to potential load fluctuations of the units.

## III. Gas Supply Operation

The shipping, supply, and operation associated with LNG delivered to the terminal and for natural gas supply from the terminal to San Juan 5 and 6 shall be part of Contractor's responsibility.

## IV. Conversion of San Juan Units 5 and 6

The Contractor shall be responsible for the scope of work and associated capital cost required for LNG gas conversion of PREPA's San Juan Units 5 and 6, as well as modifications to associated turbine controls. The Contractor shall include the cost of the scope for PREPA's Unit 5 and 6 conversion as part of its proposal in the form of a capacity payment over the initial Base five (5) year term of the Agreement. The Contractor shall oversee and manage the conversion work with appropriate subcontracts to the combustion turbine original equipment supplier company, Mitsubishi, who will be responsible for defining the scope for the turbine's gas conversion and turbine controls modifications including engineering/design, equipment supply and technical advisors for construction and startup. The Contractor shall be responsible for coordinating outage planning with PREPA to implement the necessary modifications. The Contractor will optimize the conversion of Units 5 and 6 to achieve commercially reasonable improvements in output and heat rate in conjunction with the conversion.

Mitsubishi shall be a sole source subcontractor to the Contractor, and Mitsubishi shall be responsible for engineering, supply, technical advising/installation oversight and commissioning associated with the conversion of San Juan 5 and 6, including but not limited to:

- Combustion system conversion from standard diffusion liquid fuel to Dual Fuel DF 42 (LNG or alternative fuel and Diesel)
- Parts and components for dual fuel conversion
- Fuel Gas Regulation Equipment

#### Fuel Supply in the North and Conversion of San Juan Units 5 and 6

- Fuel Gas Manifold Piping and Supports
- All electrical and controls wiring on the combustion turbine skids
- Combustion parts including modifications of fuel oil nozzles
- Sweep air connection piping between combustor shell and fuel gas valve skid
- Steam injection piping or repair between manifold and fuel nozzles
- CTG control system modifications

Additionally, Contractor will be responsible for separately subcontracting to a qualified Engineer to perform all Balance of Plant design engineering beyond the scope of Mitsubishi but as necessary to accomplish the conversion of San Juan Units 5 and 6, including but not limited to:

- Any required Heat Recovery Steam Generator (HRSG) and Steam Turbine modifications
- Interconnecting piping/ off-skid electrical and controls wiring from regasification system to combustion turbine enclosure
- Civil work
- Miscellaneous BOP including controls system

#### V. Ownership of Equipment

All equipment and materials installed by contractor from the regasification point to the units shall become PREPA's property from the Final Acceptance date.

#### VI. Studies and permits

The Contractor shall be responsible for studies, permits and endorsements from the United States Coast Guard, Puerto Rico Ports Authority, Public Service Commission, Department of Natural Resources, NOAA and PR Environmental Quality Board, Federal Energy Regulatory Commission, US National Fish and Wildlife, and other applicable agencies for LNG shipping terminal and storage works outside San Juan Power Plant perimeter and for assisting PREPA with such studies and permits as necessary to convert San Juan Units 5 and 6.

The Contractor shall be responsible for all interfaces with the Puerto Rico Ports Authority (PRPA) and its proposal shall include a letter of support from the PRPA. In case the proponent does not obtain a letter of support from the PRPA, a detailed description of the means he foresees utilizing to accomplish the letter requirement and evidence that the intention of the project has been communicated to the PRPA shall be included with the proposal.

VII. Scope of Work, not limited to:

- a. Gas Piping: For information purpose of this project, PREPA will supply to the Contractor the SOCOIN Final Drawings for Construction of San Juan Natural Gas Conversion Project. The use of the SOCOIN natural gas piping and route designed for the SJ Combined Cycle shall be considered, but the final design will be determined by the Contractor in accordance with applicable standards.
- b. Dedicated Auxiliary Equipment's: Control Valves, Gas Evaporator, Heater or Heat Tracer and Compressor to comply with combustion turbine's manufacturer

recommendations, Relief Valves, Stop Valves, Safety Vent Valves, Safety Shut Down Valve at fuel gas turbine manifold, Overspeed Trip Valve, Fuel Gas Meter, Metering Station for Financial Custody, Coalescent Filters, etc.

- c. The Contractor is responsible of any improvements required to the dock per NFPA, Ports Authority and USCG compliance and for the recertification due to the change of use. Contractor shall not interfere with current operations for unloading and storing Bunker C fuel oil or diesels fuel at any the existing PREPA San Juan Steam Plant generating facilities.
- d. Electronics and Communications: for all operation, control and supervisory signals from auxiliary equipment, gas conveyance, metering station and LNG storage and vaporizer system shall be integrated to the San Juan Units 5and6 DCS by means of dedicated fiber optic conduits and cables.
- e. Coating: All steel surfaces shall be painted with a three coating system for corrosive environment and UV protected.
- f. Fuel Gas Meters: The Two separate flow meters shall be installed including a main meter and a backup meter. The metering equipment will be installed in a location to be mutually agreed to by the Contractor and PREPA. The metering equipment shall be designed and installed in accordance with the current recommendations of the American Gas Association.
- g. NDT to all welds; 100% x-Rays, hydrostatic test
- h. Cathodic Protection
- i. Fire protection system modification as required by codes and local and federal regulatory agencies.
- j. Gas leak Sensors w/heat and temperature sensors
- k. Mechanical, Electrical, Structural and Civil Works
- l. Construction Drawings
- m. As Built Drawings
- n. Construction shall consider hurricane winds of 145 MPH and comply with Seismic User Group 3.

#### Fuel Supply in the North and Conversion of San Juan Units 5 and 6

VIII. Combustion turbine manufacturer's Recommendations of Natural Gas Parameter at Combustion Turbine's Gas Control Skid

a. Pressure (min): 350 psi min - 350 psia max - 650 pisa
b. Temperature (min): 60 °F min fuel supply temp - 30F as per B&V (MHPS requires 50 degrees superheat)
c. Flow: 27.43 MMBtu/min per unit
Flow varies with ambient and load.
d. Gas Classification: \_\_\_\_\_

IX. Volume

Each calendar year, PREPA will provide an annual quantity nomination to be supplied to the San Juan Units 5 and 6. Contractor will commit to providing this total quantity in accordance with the schedule to be provided by PREPA. This quantity may vary from year-to-year depending of outage schedules but the annual nominal quantity is expected to be approximately 25,000,000 MMBTU/yr.

- X. Minimum terminal LNG storage to be maintained at all times: 7 days of storage for San Juan Units 5 and 6 at full load.
- XI. Guaranteed delivery Contractor is responsible for providing 100% of the San Juan Units 5 and 6 natural gas supply in accordance with the annual quantity nomination. If natural gas is not available as specified by PREPA, Contractor may be required to supply diesel fuel to operate the units or alternatively to reimburse PREPA for the difference between their cost of diesel fuel consumed minus the contract price of natural gas and any other costs associated to this change. If the natural gas available does not conform to the quality specifications described in the combustion turbine manufacturer's specifications, the natural gas supply shall be deemed unavailable and the abovementioned Contractor's responsibility will apply.
- XII. Security –Bidder shall propose a security acceptable to PREPA to guarantee its performance under the contract and provide terms which would allow step-in rights in the event of non-performance

#### 2.1 Deliverables

Proponents shall outline the types of deliverables and timelines they produce, in performing the services being procured through this RFP.

The Proposals will provide the following as part of its proposal:

- Scope of work for the total project
- Schedule

- Operating plan
- Location (s)
- Permitting plans (if applicable)
- Plans for financing, schedule, requirements and demonstration of commitments to financing. Note: Proponent proposal will not be accepted if conditioned on approval of financing. Proponent must be able to demonstrate existing unconditional commitments of financing for the project
- Supply contract terms (if applicable)

The Bidder will provide the following as part of its proposal:

- Scope of work for the total project including permitting
- Schedule for scope of work to support delivery of natural gas
- Schedule for scope of work to accomplish conversion of San Juan Units 5and 6
- Long term operating plan for gas unloading and supply facility
- Location of facility
- Permitting plans
- Source of LNG supply and delivery logistics, including reliability contingency, as needed to support full load continuous reliable operation of San Juan Units 5 and 6
- Storage and redundancy in equipment systems as necessary to assure reliable fuel supply to the power generating units
- Ownership structure
- Order of magnitude estimated capital cost required for total investment
- Plans for financing, schedule, requirements and demonstration of commitments to financing. Note: Bidders proposal will not be accepted if conditioned on approval of financing. Bidder must be able to demonstrate existing unconditional commitments of financing for the project.
- Pricing and applicable indices
- Plans for control/ownership of proposed location for fuel unloading facility
- Evidence that Contractor currently owns/controls any ships, vessels or major equipment necessary to execute the project as scheduled including initial fuel delivery
- Recommendation of current or recent customer for similar services as proposed
- Letter of Support from Puerto Rico Port Authority or as established on Part VI. Studies and Permits
- Demonstration of Jones Act compliance
- Permitting path and permit request/approval matrix
- Scope split document for all work (including San Juan 5 and 6 conversion) demonstrating scope by all major subcontractors to Bidder including Mitsubishi, Bidder's Engineer, and Bidders Construction Contractor(s)
- Subcontractor Commitment letter from Mitsubishi to perform scope for conversion of San Juan 5 and 6
- Proposed Engineer for BOP scope
- Proposed Construction Contractor(s) and respective scope

#### **3.0** Evaluation and Selection

PREPA will examine all proposals in a proper and timely manner to determine if they meet the proposal submission requirements. Proposals that are materially deficient in meeting the submission requirements or have omitted material documents, in the sole opinion of PREPA, may be rejected. All proposals meeting the proposal submission requirements will be evaluated.

Each proposal meeting all submission requirements will be independently evaluated by the Evaluation Committee, which will assign a score for each evaluation criterion listed below in this section up to the maximum points.

The criteria shall be graded using a score of 1 to 5:

- 1 = Inadequate, does not meet RFP expectations.
- 2 = Adequate, criteria is met, below the standards set by the RFP.
- 3 = Good, meets the minimum standards set by the RFP.
- 4 = Very good, meets the standards set by the RFP.
- 5 = Excellent, presents the best proposal that meets the standards set by the RFP.

Complete proposals will be preliminarily scored based upon the criteria listed below.

#### **Experience and Capacity (10 percent)**

Respondents must demonstrate experience and success in developing LNG fuel developments of similar scope as the duties described herein. Proponents shall provide the names and titles of the key members of the Project team (including the Design Entity selected by the Proposer) with a brief description of the qualifications and experience of:

- 1. Project Manager
- 2. Engineering and Design Manager
- 3. Lead Engineers
- 4. Inspector Manager.
- 5. Safety Officers, QA/QC Managers, Environmental specialists.
- 6. Other key personnel required, including subcontractors.

Proponents shall include a clear assignment of responsibility for various project tasks to specific individuals. Proposals shall include resumes identifying the qualifications and experience of all personnel listed above.

#### Note: PREPA reserves the right to reject or accept proposed Project personnel.

Submit a complete list showing all key firms in the Proposer's team. If a partnership and/or joint venture is proposed, clearly explain which parties in the partnership or joint venture will interface with PREPA on design and technical issues, which parties will interface with PREPA

on financial or contractual matters, and which member or partner will be responsible to resolve disputes between the Proposer and PREPA.

Identify and describe potential subcontractors with demonstrated proof of the technical capabilities necessary to perform their proposed scope of work and or services.

Submit evidence that the Proposer is duly and properly organized and is qualified to conduct business in Puerto Rico or will be prior to contract award.

Note: To execute a possible resulting contract, the company must be registered in PREPA's Supplier Registry.

Respondents that demonstrate they have the staff available to begin immediately will be scored higher than those who need more time, or whose responses are vague.

#### Approach and Methodology (30 percent)

Explain your approach to completing the Project within the given construction dates and site constraints. Include a summary-level CPM schedule detailing all aspects of the Project. Include a detailed assessment and response to the site condition restraints.

Respondents shall outline a clear and straightforward approach and demonstrated commitment to accomplishing the schedule goal of providing fuel gas for San Juan 5 and 6 no later than March, 2019. Respondents shall identify key goals and objectives, and methods for achieving high standards for the delivery of services, in expectation of meeting or exceeding these goals.

Describe in detail the methods you foresee utilizing to accomplish the duties at the site. Provide sketches or illustrations to explain your approaches if necessary. This approach will include:

- 1. Demonstrating a clear and thorough interpretation and acknowledged assimilation of the project work scope as described herein and that are part of this RFP.
- 2. Satisfactorily demonstrating how the duties will be staged to minimize impacts to PREPA operations.
- 3. Presenting a clear and logical approach for the efficient performance of all work tasks across the Proposer's entire Project Team.
- 4. Describing how the Proposer's submitted milestone schedule demonstrates a clear understanding and integration of all the interrelated duties.
- 5. Describing how the Proposer intends to address and mitigate adverse environmental materials.

- 6. Providing a specific and project-proven approach and plan for effective Quality Assurance/Quality Control across the Proposer's Project Team
- 7. The Proposer's outline plan and commitment to safety.

Respondents shall explain how they will be organized to effectively deploy support for PREPA and clearly identify engagement manager and different work stream leaders.

#### Price Proposal (60 percent)

Proposals will be scored based on price proposal format provided. Respondents shall clearly identify proposed capacity payment to cover costs for conversion of San Juan 5 and 6, proposed delivered fuel payment price, and proposed fuel price indices for inflation and changing market conditions. Terms and conditions of priced proposal will also be a consideration.

Provide evidence of the Proposer's financial ability and resources to adequately perform and manage the Contract, manage risk or ability to obtain such resources as are required during the performance of the Project. If Proposer is a joint venture or a newly-formed entity, identify appropriate guarantor(s) and provide evidence of the financial resources of such guarantor(s).

Submit audited financial statements for the Proposer for the most recent three (3) fiscal years, certified by certified public accountant in accordance with generally accepted accounting principles. If the Proposer is a partnership or joint venture, then audited financial statements for each corporation, partnership, Limited Liability Company, sole proprietorship, member or partner holding an interest in the Proposer must be submitted for the same three (3) year period. If applicable, provide all such information with respect to any guarantor(s).

Provide a letter from a bonding company satisfactory to PREPA that commits the bonding company to provide the required bonding on behalf of the Proposer if the Proposer is awarded the contract for the Project.

Provide a letter from an insurance company, satisfactory to PREPA that commits the insurance company to provide the required insurance on behalf of the Proposer if the Proposer is awarded the contract for the Project. Insurance requirements can be found in Attachments to this RFP. PREPA may request further clarification to assist the Evaluation Committee in gaining additional understanding of proposal. A response to a clarification request must be to clarify or explain portions of the already submitted proposal and may not contain new information not included in the original proposal.

#### **3.1** Finalist Interview

PREPA reserves the right, at its sole discretion, to invite qualified Proponents to a finalist interview with the Evaluation Committee. If PREPA elects to conduct finalist interviews, each qualified Proponents will be required to give a strictly timed 20-minute presentation. This presentation shall highlight expertise and prior energy mission optimization and program management services provided for similar organizations. The presentation shall also clearly

explain the Proponent's approach and team composition. The Evaluation Committee may alter the scoring of a qualified proponent's proposal based upon the presentation. Proponents are responsible for all costs or expenses incurred to attend such interview.

### 3.2 Selection

Following completion of the evaluation process the Evaluation Committee will meet to choose the Selected Proponent.

### 4 **Proponents Requirements**

### 4.1 Requirement of Legal Entities

Proponents that are corporations, partnerships, or any other legal entity, U.S. or Puerto Rico based, shall be properly registered or capable to be registered or capable and willing to registered to do business in Puerto Rico and the U.S. at the time of the submission of their proposals, and comply with all applicable Puerto Rico or U.S. laws and/or requirements. A selected proponent must be part of PREPA's supplier registry in order to execute a contract.

## 4.2 Required Qualifications of Proponents

Proponents to this RFP shall provide information in their proposals that demonstrates the following qualifications:

- Proponent has adequate financial resources to perform the contract, or the ability to obtain them; financial statements for the past 2 years will be required or equivalent financial records must be included in the proposal.
- Proponent is able to comply with an accelerated delivery or performance schedule.
- Proponent has experience with similar projects and a satisfactory performance record.
- Proponent has a satisfactory record of integrity and business ethics.
- Proponent has the necessary organization, experience, accounting and operational controls, and technical skills.
- Neither Proponent nor any person or entity associated who is partnering with Proponents has been the subject of any adverse findings that would prevent PREPA or Authority from selecting Proponent. Such adverse findings include, but are not limited to, the following:
  - Negative findings from a Federal Inspector General or from the U.S. Government Accountability Office, or from an Inspector General in another state.
  - Pending or unresolved legal action from the U.S. Attorney General or from the U.S an attorney general in Puerto Rico or another state.
  - Pending litigation with the Government of Puerto Rico, or any other state.
  - Arson conviction or pending case
  - Harassment conviction or pending case.

#### Fuel Supply in the North and Conversion of San Juan Units 5 and 6

- Puerto Rico and Federal or private mortgage arrears, default, or foreclosure proceedings
- In rem foreclosure.
- Sale tax lien or substantial tax arrears.
- Fair Housing violations or current litigation.
- Defaults under any Federal and Puerto Rico-sponsored program.
- A record of substantial building code violations or litigation against properties owned and/or managed by Proponents or by any entity or individual that comprises Proponents.
- Past or pending voluntary or involuntary bankruptcy proceeding.
- Conviction for fraud, bribery, or grand larceny.

#### 4.3 **Proposal Format**

The Proponent's proposal shall be formatted as follows:

### **4.3.1** Cover Letter and Table of Contents

Provide a cover letter that includes a certification that the information submitted and the Proposal is true and accurate, and that the person signing the cover letter is authorized to submit the Proposal on behalf of the Proponents. Clearly identify the designated contact person for the engagement.

Provide a table of contents that clearly identifies the location of all material within the Proposal by section and page number.

### 4.3.2 Experience and Capacity

Provide a summary of the types of services the Proponent offers that relates to this RFP. Identify engagement and or staff experience with entities comparable to PREPA for which the Proponents provides or has provided, similar services within the last (10) years. Proponents must indicate the dollar value of the similar services to the ones contemplated in their RFP. Detail at least one to three (1-3) similar engagements and/or experience with private and public-sector clients that would demonstrate that the Proponent can provide the requested services. Each example should include:

- a) Name of client organization.
- b) Description of engagement or experience and objectives of the project including beginning and ending dates.
- c) Examples of recommendations offered to the client and the results of the implementation of those recommendations.

- d) Information regarding the project that would demonstrate successfully experiences by the client, as a result of the recommendations. This may include performance metrics and improvements.
- e) If the example involves a private sector client, describe how the experience could be applied to the public sector.
- f) Description of key infrastructure programs or projects advanced as part of the engagement, if any.
- g) Letters of recommendation from previous or current client(s)

PREPA may seek information from references regarding subjects that include, but are not limited to, the quality of services provided, anticipated ability to perform the services required in this RFP and the responsiveness of the Proponent to the client during the engagement. Please provide at least three (3) references for the prime Proponent and two (2) for any partners or sub-contractors. Each reference should include the name, title, company, address, phone number and email address of the reference. Inability to contact a reference will not be looked upon favorably. References will count towards experience and capacity points.

Provide a summary of the Proponent's technical expertise that describes the Proponent's unique capabilities. This narrative should highlight the Proponent's ability to provide Fuel Gas shipping and delivery and Program Management services. Provide biographical summaries for Key Individuals and their proposed roles. Resumes can be attached as an appendix-

In addition, identify any sub-consultants and Local Parties incorporated into the team and clearly explain their expertise, expected role and value to the engagement.

Specify the primary contact person for the Proponent (name, title, location, telephone number, and e-mail address).

## 4.3.3 Approach and Methodology

Explain how the Proponent will achieve the goals, objectives, tasks, and deliverables outlined in the Scope of Services for this RFP. Specifically address how the Proponent proposes to effectively accomplish the scope of services.

Proposals must provide examples of how the proposed approach has achieved success in specific, relevant projects for public or private sector organizations similar in size and complexity to PREPA. The examples should contain enough information for the evaluators to ascertain the success of the projects accomplished by the Proponent.

This section must include an acknowledgement that, if selected, the Proponent has the ability to respond with sufficient key and line staff and the proposed Key Individuals.

Identify existing staff that will be involved in the services describe herein, including each staff member's proposed role in the organization, their relevant qualifications, and the allocation of their time to this engagement. Clearly identify the members of the team that are expected to be residing in Puerto Rico and will serve as local contacts for the engagement purposes.

### 4.3.4 Price Proposal

Proponents are required to submit their price proposal in accordance to the Price Proposal Form (Attachment 1). PREPA is interested in obtaining four components of the Proponents' pricing:

- Component 1: Annual Capacity payment for initial 5 year Base to account for cost of conversion of San Juan 5 and 6
- Component 2: Unit Cost(\$/MMBTU) of delivered fuel gas based on total annual quantity of consumption at San Juan 5 and 6(note: there will be no take or pay provisions allowed by the contract)
- Component 3: Indices to be applied to the delivered unit cost to account for variation in rate of inflation, fuel price fluctuations, etc.
- Terms and conditions of delivery contract.

# 4.3.5 Commitment to Complying with all Applicable Federal and Puerto Rico Local Permits and Regulations

Proponents shall explain their adherence to complying with all applicable Federal and Puerto Rico permits and regulations. Indicate what characteristics of the team set them apart in terms of commitment to comply with all applicable laws and requirements. Indicate what specific trainings and expertise reside within the team that reinforces the commitment to compliance.

### 4.3.6 Local Parties

PREPA have the objective of fostering the participation of Local Parties in the provision of professional services and local expertise. Explain how the Local Party(ies) will add value to the team and their expected role. Identify the Key Personnel from the Local Party(ies) and provide an indication of the expected level of involvement on the day-to-day activities and interaction with PREPA.

### 5.0 Confidentiality of Responses and Proprietary Information

Upon completion of the RFP process, PREPA will make public its report regarding the procurement and selection process, which shall contain certain information related to this RFP process, except trade secrets, pricing and proprietary or privileged information of the Proponents. Information considered trade secrets or non-published financial data may be classified as

proprietary by the Proponents. All Proponents are required to submit a redacted copy of their proposal. PREPA reserves the right to make public the redacted copies of the proposals at the conclusion of the RFP process. If a redacted copy is not submitted by a Proponent, PREPA will assume that the original copy of the proposal can be made public. Proposals containing substantial contents marked as confidential or proprietary may be rejected by PREPA. Provision of any information marked as confidential or proprietary shall not prevent PREPA from disclosing such information if required by law. The ultimately awarded contract(s) and all prices set forth therein shall not be considered confidential or proprietary and such information may be made publicly available.

### 6.0 Conflicts of Interest

Any contract awarded under this RFP will preclude the selected Proponents from representing before PREPA any Proponent other than those Proponents who may be assigned under this contract during the period the contract is in effect.

Proponents are required to provide a list of any other current or former advisory contracts the firm has/had with any Government Entity in Puerto Rico, or which bear any direct or indirect relation to the activities of the Government of Puerto Rico. Further, please provide a description of any recent historical or ongoing legal proceedings, interviews or investigations being conducted by any U.S. law enforcement agencies involving your firm or team that are related to transactions executed in or on behalf of the Government of Puerto and/or its public corporations. In addition, please provide a brief description of any work you have performed for any creditors or guarantors of the Government of Puerto Rico or any public corporation debt about their positions in Puerto Rico debt obligations. Indicate whether this activity is ongoing, and if not, when the prior assignment concluded.

At some point in the selection process, PREPA may request information on any perceived conflict of interests. Also, PREPA may in the future request a list of direct or indirect relationships the firm or its professionals have to members of the PPPA or Board Members or executives of other Public Corporations.

In the event of real or apparent conflicts of interest, PREPA reserves the right, in it's best interest and at its sole discretion, to reject a proposal(s) outright or to impose additional conditions upon Proponents. PREPA reserves the right to cancel any contract awarded pursuant to this RFP with 30 days' notice in the event that an actual conflict of interest, or the appearance of such conflict, is not cured to PREPA's satisfaction.

### 7. Proposal Additional Information

### 7.1 Rejection of Proposals; Cancellation of RFP; Waiver Informalities and Withdrawal Proposal

Issuance of this RFP does not constitute a commitment by PREPA to award a contract. PREPA reserves the right to accept or reject, in whole or part, and without further explanation, any or all proposals submitted and/or cancel this solicitation and reissue this RFP or another version of it, if it deems that doing so is in the best interest of the impacted communities or the Government of Puerto Rico.

PREPA reserves the right to waive any informalities and/or irregularities in a proposal if it deems that doing so is in the best interest of the impacted communities or the Government of Puerto Rico.

A Proponent may withdraw a proposal at any time up to the date and time the contract is awarded. The withdrawal must be submitted in writing and directed to PREPA's Chief Executive Officer.

# 7.2 Ownership of Proposal

All materials submitted in response to this RFP shall become the property of PREPA. Selection or rejection of a proposal does not affect this provision.

# 7.3 Cost of Preparing Proposals

All costs associated with the response to this proposal are the sole responsibility of the Proponent.

## 7.4 Errors and Omissions in Proposal

PREPA reserves the right to reject a proposal that contains an error or omission. PREPA also reserves the right to request correction of any errors or omissions and/or to request any clarification or additional information from any Proponent, without opening up clarifications for all Proponents.

# 8.0 Payment Terms and Method of Payments

The Selected Proponent will be paid by services provided previously approved by PREPA. It is the Selected Proponent's responsibility to include all services required to meet the engagement's objective as established in this RFP.

# 8.1 Payment Terms

Payment will be made upon presentation of invoice evidenced by the services provided and duly authorized by PREPA. If PREPA finds the submitted invoice as acceptable, then the invoice will be approved and processed for payment within sixty (60) days after submission of the invoice, with all the required documents. PREPA reserves the right to review the correctness of invoices and perform the audits as it deems fit.

### 8.2 Method of Payment

The Selected Proponent shall submit monthly invoices for the agreed fees. Invoices must be detailed, specific and itemized accompanied by a description of the services provided as previously approved by PREPA. In addition, it shall be noted that no public servant of the contracting entity is a party or has interest on the profits or benefits product from the contract, regarding the invoice and if it does have interest in some part on the profits or benefits of the contract it must specify that a waiver has been mediated. PREPA shall request from the Selected Proponent all the necessary information, related to verifying the invoiced expenses, prior to the release of payment.

PREPA reserves the right to perform audits it deems appropriate. In the case of finding unpaid invoices, they shall approve and process its payments.

The Selected Proponent will deliver the original invoice to PREPA's authorized representative; and such invoice must be properly completed and certified by the Selected Proponent. PREPA's designated representative will process the invoice to be duly certified by PREPA or its authorized representative, in accordance with the Accounting Act law following the standards established by enforcement agencies of the Government of Puerto Rico.

### 9.0 Process Rules and PREPAs General Instruction RFP Guide

This process will be regulated and executed according to the "GUIAS PARA PROCESOS DE ADQUISICIONES DE BIENES Y SERVICIOS A TRAVES DE RFP EN LA AEE V006032016 (Request for Proposals)". Please, see the Download Documents tab.

Proponents shall certify compliance with Section 4.17 of the "GUIAS PARA PROCESOS DE ADQUISICIONES DE BIENES Y SERVICIOS A TRAVES DE RFP EN LA AEE V006032016 (Request for Proposals)

### **10.0 Puerto Rico General Provisions**

The Contractor will comply will all applicable State Law, Regulations or Executive Orders that regulate the contracting process and requirements of the Commonwealth of Puerto Rico.

Executive Order Num. OE-1991-24 of June 18, 1991 to require certification of Α. compliance with the Internal Revenue Services of the Commonwealth of Puerto Rico: Pursuant to Executive Order Number OE-1991-24 of June 18, 1991, the Contractor will certify and guarantee that it has filed all the necessary and required income tax returns to the Government of Puerto Rico for the last five (5) years. The Contractor, further will certify that it has complied and is current with the payment of any and all income taxes that are, or were due, to the Government of Puerto Rico. The Contractor shall provide, to the satisfaction of PREPA, and whenever requested by PREPA during the term of this Contract, the necessary documentation to support its compliance with this clause. The Contractor will be given a

Page | 23

specific amount of time to produce said documents. During the term of this Contract, the Contractor agrees to pay and/or to remain current with any repayment plan agreed to by the Contractor with the Government of Puerto Rico.

Executive Order Num. OE-1992-52 of August 28, 1992 to require certification of B. compliance with the Department of Labor of the Commonwealth of Puerto Rico. Pursuant 1992-52. Executive Order Number dated August 28. 1992 amending to OE-1991-24, the Contractor will certify and warrant that it has made all payments required for unemployment benefits, workmen's compensation and social security for chauffeurs, whichever is applicable, or that in lieu thereof, has subscribed a payment plan in connection with any such unpaid items and is in full compliance with the terms thereof. The Contractor accepts and acknowledges its responsibility for requiring and obtaining a similar warranty and certification from each and every Contractor and Sub Contractor whose service the Contractor has secured in connection with the services to be rendered under this Contract and shall forward evidence to PREPA as to its compliance with this requirement.

C. Government of Puerto Rico Municipal Tax Collection Center: The Contractor will certify and guarantee that it does not have any current debt with regards to property taxes that may be registered with the Government of Puerto Rico's Municipal Tax Collection Center (known in Spanish as Centro de Recaudación de Ingresos Municipales ("CRIM"). The Contractor further will certify to be current with the payment of any and all property taxes that are or were due to the Government of Puerto Rico. The Contractor shall provide, to the satisfaction of PREPA and whenever requested by PREPA during the term of this Contract, Certification issued by the Municipal Revenues Collection Center (MRCC), assuring that Contractor does not owe any tax accruing to such governmental agency. To request such Certification, Contractor will use the form issued by the MRCC (called "CRIM-Certificados, Radicación, Estado de Cuenta y Todos los Conceptos" in the website). The Contractor will deliver upon request any documentation requested by PREPA. During the Term of this Contract, the Contractor agrees to pay and/or to remain current with any repayment plan agreed to by the Contractor with the Government of Puerto Rico with regards to its property taxes.

The Contractor shall provide a Personal Property Tax Filing Certification, issued by the MRCC which indicates that Contractor has filed its Personal Property Tax Return for the last five (5) contributory terms or Negative Debt certification issued by the MRCC with respect to real and property taxes and a sworn statement executed by Contractor indicating that (i) its revenues are derived from the rendering of professional services, (ii) during the last five (5) years (or the time in which it has been providing professional services) it has had no taxable business or personal property on the 1<sup>st</sup> of January of each year, (iii) that for such reasons it has not been required to file personal property tax returns, as required under Article 6.03 of Act 83-1991, as amended and (iv) that for such reason it does not have an electronic tax file in the MRCC's electronic system.

D. The Contractor shall furnish a Certification issued by the Treasury Department of Puerto Rico which indicates that Contractor does not owe Puerto Rico Sales and Use taxes to the Commonwealth of Puerto Rico; or is paying such taxes by an installment plan and is in full compliance with its terms.

E. The Contractor shall provide a Puerto Rico Sales and Use Tax Filing Certificate, issued by the Treasury Department of Puerto Rico assuring that Contractor has filed his Puerto Rico Sales and Use Tax for the last sixty (60) contributory periods.

F. The Contractor shall provide a copy of Contractor's Certificate of Merchant's Registration issued by the Treasury Department of Puerto Rico.

G. <u>Puerto Rico Child Support Administration (ASUME)</u>: The Contractor shall present, to the satisfaction of PREPA, the necessary documentation certifying that the Contractor nor any of its owners, affiliates of subsidiaries, if applicable, have any debt, outstanding debt, or legal procedures to collect child support payments that may be registered with the Puerto Rico Child Support Administration (known in Spanish as the *Administración Para El Sustento de Menores (ASUME)*. The Contractor will be given a specific amount of time to deliver said documents. <u>3</u> L.P.R.A. § 8611 et seq.;

H. The Contractor shall provide a Good Standing Certificate issued by the Department of State of Puerto Rico.

I. The Contractor shall provide a Certification of Incorporation, or Certificate of Authorization to do business in Puerto Rico issued by the Department of State of Puerto Rico.

J. **Special Contribution for Professional and Consulting Services:** As required by Act No. 48-2013, as amended, PREPA will withhold a special contribution of one point five percent (1.5%) of the gross amounts paid under this Contract.

K. <u>Social Security and Income Tax Retentions</u>: In compliance with Executive Order 1991 OE- 24; and C.F.R. Part 404 et. Seq., the Contractor will be responsible for rendering and paying the Federal Social Security and Income Tax Contributions for any amount owed as a result of the income, from this Contract.

L. <u>Income Tax Retention Law:</u> PREPA shall deduct and withhold seven percent (7%) of any and all payments to residents of the Commonwealth of Puerto Rico as required by the Internal Revenue Code of Puerto Rico. In case of US citizens and Non US citizens, which are nonresidents of the Commonwealth of Puerto Rico the Contractor will be retained twenty percent (20%) and twenty-nine percent (29%) respectively. PREPA will remit such withholdings to the Government of Puerto Rico's Treasury Department (known in Spanish as *Departamento de Hacienda de Puerto Rico*). The Contractor will request PREPA not to make such withholdings if, to the satisfaction of PREPA, the Contractor timely provides a release from such obligation by the Government of Puerto Rico's Treasury Department. <u>3 L.P.R.A. § 8611 et seq.</u>, <u>2011 L.P.R.</u> <u>232</u>; 232-2011.

M. <u>Compliance with Act No. 1 of Governmental Ethics</u>: The Contractor will certify compliance with Act No. 1 of January 3, 2012, as amended, known as the Ethics Act of the Government of Puerto Rico, which stipulates that no employee or executive of PREPA nor any member of his/he immediate family (spouse, dependent children or other members of his/her household or any individual whose financial affairs are under the control of the employee) shall

have any direct or indirect pecuniary interest in the services to be rendered under this Contract, except as may be expressly authorized by the Governor of Puerto Rico in consultation with the Secretary of Treasury and the Secretary of Justice of the Government. <u>3 L.P.R.A. § 8611 et seq.</u>;

N. Law 168-2000: Law for the Strengthening of the Family Support and Livelihood of Elderly People: The Contractor will certify that if there is any Judicial or Administrative Order demanding payment or any economic support regarding Act No. 168-2000, as amended, the same is current and in all aspects in compliance. Act No. 168-2000 "Law for the Strengthening of the Family Support and Livelihood of Elderly People" in Spanish: "Ley para el Fortalecimiento del Apoyo Familiar y Sustento de Personas de Edad Avanzada", <u>3 L.P.R.A. §8611 et seq.</u>

O. <u>Law Num. 127, May 31, 2004: Contract Registration in the Comptroller's Office of</u> <u>Puerto Rico Act:</u> Payment for services object of this Contract will not be made until this Contract is properly registered in the Office of the Comptroller of the Government of Puerto Rico pursuant to Law Number 18 of October 30, 1975, as amended.

P. <u>**Dispensation:**</u> Any and all necessary dispensations have been obtained from any government entity and that said dispensations shall become part of the contracting record.

Q. <u>Rules of Professional Ethics</u>: The Contractor acknowledges and accepts that it is knowledgeable of the rules of ethics of his/her profession and assumes responsibility for his/her own actions.

R. Both parties acknowledge and agree that the contracted services herein may be provided to another entity of the Executive Branch which enters into an interagency Contract with PREPA or by direct disposition of the Chief of Staff. These services will be performed under the same terms and conditions in terms of hours of work and compensation set forth in this Contract. For the purpose of this clause, the term "entity of the Executive Branch" includes all agencies of the Government of Puerto Rico, as well as public instrumentalities, public corporations and the Office of the Governor.

S. The office of the Chief of Staff shall have the authority to terminate this Contract at any time.

T. The Contractor shall provide Workmen's Compensation Insurance as required by the Workmen's Compensation Act 45-1935 of the Commonwealth of Puerto Rico. The Contractor shall also be responsible for compliance with said Workmen's Compensation Act by all its subcontractors, agents, and invitees, if any.

U. Invoices must include a written and signed certification stating that no officer or employee of PREPA, and their respective subsidiaries or affiliates, will personally derive or obtain any benefit or profit of any kind from this Contract, with the acknowledgment that invoices that do not include this certification will not be paid. This certification must read as follows:

"We certify under penalty of nullity that no public servant of PREPA will derive or obtain any

benefit or profit of any kind from the contractual relationship which is the basis of this invoice. If such benefit or profit exists, the required waiver has been obtained prior to entering into the Agreement. The only consideration to be received in exchange for the delivery of goods or for the Services provided is the agreed-upon price that has been negotiated with an authorized representative of the PREPA. The total amount shown on this invoice is true and correct. The Services have been rendered, and no payment has been received".

V. PREPA shall have the right to terminate this Agreement with thirty (30) days prior written notice to Contractor. Moreover, PREPA shall have the right to terminate this agreement immediately in the event of negligence, dereliction of duties or noncompliance by Contractor.

W. Anti-Corruption Code for a New Puerto Rico. Contractor agrees to comply with the provisions of Act No. 2-2018, as the same may be amended from time to time, which establishes the Anti-Corruption Code for a New Puerto Rico. The Contractor hereby certifies that it does not represent particular interests in cases or matters that imply a conflicts of interest, or of public policy, between the executive agency and the particular interests it represents.

Contractor shall furnish a sworn statement to the effect that neither Contractor nor any president, vice president, executive director or any member of a board of officials or board of directors, or any person performing equivalent functions for Contractor has been convicted of or has pled guilty to any of the crimes listed in Article 6.8 of Act 8-2017, as amended, known as the Act for the Administration and Transformation of Human Resources in the Government of Puerto Rico or any of the crimes included in Act 2-2018.

Contractor hereby certifies that it has not been convicted in Puerto Rico or United States Federal court for under Articles 4.2, 4.3 or 5.7 of Act 1-2012, as amended, known as the Organic Act of the Office of Government Ethics of Puerto Rico, any of the crimes listed in Articles 250 through 266 of Act 146-2012, as amended, known as the Puerto Rico Penal Code, any of the crimes typified in Act 2-2018, as amended, known as the Anti-Corruption Code for a New Puerto Rico or any other felony that involves misuse of public funds or property, including but not limited to the crimes mentioned in Article 6.8 of Act 8-2017, as amended, known as the Act for the Administration and Transformation of Human Resources in the Government of Puerto Rico.

PREPA shall have the right to terminate the agreement in the event Contractor is convicted in Puerto Rico or United States Federal court for under Articles 4.2, 4.3 or 5.7 of Act 1-2012, as amended, known as the Organic Act of the Office of Government Ethics of Puerto Rico, any of the crimes listed in Articles 250 through 266 of Act 146-2012, as amended, known as the Puerto Rico Penal Code, any of the crimes typified in Act 2-2018, as amended, known as the Anti-Corruption Code for a New Puerto Rico or any other felony that involves misuse of public funds or property, including but not limited to the crimes mentioned in Article 6.8 of Act 8-2017, as amended, known as the Act for the Administration and Transformation of Human Resources in the Government of Puerto Rico.

If any of the previously required Certifications shows a debt, and Contractor has requested a review or adjustment of this debt, Contractor will certify that it has made such request at the time of the Contract execution. If the requested review or adjustment is denied and such

determination is final, Contractor will provide, immediately, to PREPA a proof of payment of this debt; otherwise, Contractor accepts that the owed amount be offset by PREPA and retained at the origin, deducted from the corresponding payments.

X. <u>Consequences of Non-Compliance</u>: The Contractor expressly agrees that the conditions outlined throughout this Section are essential requirements of this Contract. Consequently, should any one of these representations, warranties or certifications be incorrect, inaccurate or misleading, in whole or in part, there shall be sufficient cause for the PREPA to render this Contract null and void, and the Contractor shall reimburse the PREPA all moneys received under this Contract.

### **11.0** Performance and Payment Bond:

As a Contract security, the Contractor shall furnish at the time of the execution of the Contract:

- 1. A Performance Bond in the amount of 100% of the Phase 1 cost (conversions and pipeline installation), with good and sufficient surety satisfactory to PREPA guaranteeing that the Contractor will well and faithfully perform the contract work.
- 2. A Payment Bond in the amount of 100% of the Phase 1 cost (conversions and pipeline installation), with good and sufficient surety satisfactory to PREPA to guarantee the prompt payment of all labor, supervision, equipment and materials required in the performance of the work.
- 3. All bonds shall be issued in the official form of PREPA.

# **Attachments and Appendices**

1. Attachment I – Price Proposal Form

Page | 29

### Attachment I Price Proposal Form Rates

Proponents Name:

### **Price Proposal Component #1:**

Fixed Annual Capacity Payment \$\_\_\_\_/yr Price Proposal Component #2:

Unit Fuel Cost

Annual Consumption Rate (MMBTU/yr)

Unit Cost (\$/MMBTU)

<u>Price Proposal Component #3:</u> Proponents should provide Applicable Indice(s) for changes in Unit Cost

### Price Proposal Component #4:

Proponents should provide key terms and conditions for priced proposal

Page | 30

AS SELLER

AND

(2) PUERTO RICO ELECTRIC POWER AUTHORITY

AS BUYER

FUEL SALE AND PURCHASE AGREEMENT

# TABLE OF CONTENTS

1.	DEFINITIONS AND INTERPRETATION	1
2.	SALE AND PURCHASE	8
3.	DURATION AND CONDITIONS	8
4.	QUALITY	
5.	SUPPLY PERIOD	12
6.	NATURAL GAS QUANTITIES	12
7.	SCHEDULING	14
8.	[RESERVED]	16
9.	SELLER'S SHORTFALL	16
10.	MEASUREMENT AND TESTING	17
11.	TRANSFER OF TITLE AND RISK; INDEMNITY	21
12.	CONTRACT PRICE	21
13.	INVOICING AND PAYMENT	21
14.	DUTIES, TAXES AND CHARGES	23
15.	FORCE MAJEURE	24
16.	REPRESENTATIONS, WARRANTIES, LIABILITIES AND INDEMNITIES	27
17.	ASSIGNMENT	29
18.	SUBCONTRACTORS	30
19.	TERMINATION	
	NOVATION	
21.	LAWS TO BE OBSERVED	32
22.	CHANGE IN LAW	32
23.	APPLICABLE LAW	32
24.	SEPARABILITY	33
25.	SETTLEMENT OF DISPUTES	33
26.	NON-WAIVER	35
	CONFIDENTIALITY	
	PATENTS AND COPYRIGHTS	
29.	NOTICES	
	CONTINGENT FEES	
		-
32.	BUSINESS PRACTICES AND FOREIGN CORRUPT PRACTICES ACT	

33.	TRANSFER OF FUNDS	39
34.	CONFLIC OF INTEREST	39
35.	UNFAIR LABOR PRACTICE	41
36.	DISCRIMINATION	<b>1</b>
37.	SAFETY PROVISIONS	41
38.	ENVIRONMENTAL LIABILITIES	43
39.	COMPLIANCE WITH THE COMMONWEALTH OF PUERTO RICO CONTRACTII REQUIREMENTS	
40.	INSURANCE	52
41.	[RESERVED]	.54
42.	GENERAL	.54

# <u>ANNEXES</u>

Annex A – Terms and Conditions for Units Conversions and Pipeline Installation Works

THIS AGREEMENT is made this [•] of \_\_\_\_\_, 2018 (the "Effective Date").

### **BETWEEN**:

- (1) \_\_\_\_\_\_ a \_\_\_\_\_ company (hereinafter called the "**Seller**"), and
- (2) **PUERTO RICO ELECTRIC POWER AUTHORITY** (PREPA), a public corporation and governmental instrumentality of the Commonwealth of Puerto Rico, created by an Act of 2 May 1941, No. 83, as amended, with its principal place of business at P.O. Box 363928, San Juan, Puerto Rico 00936-3928 (hereinafter called the "**Buyer**").

The Seller and the Buyer shall each be a "Party" and, together, the "Parties".

### WITNESSETH

WHEREAS, PREPA, by virtue of its enabling act (Act 83), has the authority to engage those professional, technical and consulting services necessary and convenient to the activities, programs, and operations of PREPA;

WHEREAS, Pursuant Section 205 (2) (f) of Act No. 83 a competitive bidding shall not be necessary when in the judgment of the Governing Board, a competitive request for proposal (RFP) process for the acquisition of goods, equipment, materials or services must be carried out to encourage greater competition, reduce the risk of collusion and promote the best possible terms and conditions in benefit of greater savings and reduction of costs and operational expenses of PREPA.

### WHEREAS:

- (A) Seller will build a micro fuel handling facility ("**MFH Facility**") to provide fuel service;
- (B) Buyer desires to convert San Juan Units # 5 and # 6 ("**San Juan Power Plant**") to use Natural Gas (or the proposed fuel) as its primary fuel;
- (C) Seller has agreed to supply Natural Gas (or the proposed fuel) to the San Juan Power Plant through its MFH Facility on the terms herein set forth; and

### NOW, THEREFORE, THE SELLER AND THE BUYER HEREBY AGREE as follows:

#### 1. DEFINITIONS AND INTERPRETATION

#### 1.1 Definitions

In this Agreement, except where the context otherwise requires, each of the following expressions have the following meaning:

"Affiliate" means, in relation to a Party, any company, corporation, partnership or other legal entity (in this definition referred to as a "Company"): (a) that is directly or indirectly controlled by such Party; (b) that directly or indirectly controls such Party; or (c) that is directly or indirectly controlled by a Company that also, directly or indirectly, controls such Party. For the purpose of this definition, "Control" means the beneficial ownership, either directly or indirectly, of fifty percent (50%) or more of the voting rights in a Company, or (whether alone or acting in concert with others, and whether by the ownership of share capital, the possession of voting power, contract or otherwise) the right to appoint fifty percent (50%) or more of the board of directors or equivalent management body of such Company.

"**Agreement**" means this Agreement and its Annexes, as may be amended, modified, varied or supplemented from time to time.

"**Annual Contract Quantity**" or "**ACQ**" shall have the meaning given to it in Clause 7.4(a)(i).

"**Annual Delivery Programme**" or "**ADP**" shall have the meaning given to it in Clause 7.4(a).

"**Applicable Law**" means, in relation to any legal person, property, transaction or event, all applicable provisions of laws, treaties, conventions, statutes, rules, regulations, permits, official directives and orders of, and the terms of all judgments, orders, awards, and decrees issued by, any Competent Authority by which such legal Person is bound or having application to the property, transaction or event in question.

"**Binding Monthly Schedule**" shall have the meaning given to it in Clause 7.4(a)(iii).

"**Btu**" means a British thermal unit, being that amount of heat that is equal to 1,055.056 Joules or 0.000293071 kWh.

"**Business Day**" means a Day, other than a Saturday, Sunday or a public holiday in San Juan (Puerto Rico) or New York (United States).

"Buyer" shall have the meaning given to it in the preamble to this Agreement.

"Buyer Check Meter" shall have the meaning given to it in Clause 10.2(b).

"Change Order" - A written agreement between the parties that sets out changes (in price, time, or scope of work) to the Contract.

"Claims" shall have the meaning given to it in Clause 11.

"**Commissioning Start Date**" means the later of the first day Buyer requires Natural Gas to test or commission the San Juan Power Plant and the first Day that the MFH Facility is able to make Natural Gas available at the Delivery Point. "Competent Authority" means any local, federal, state, regional, provincial, municipal, national or supra-national governmental agency, authority, department, inspectorate, minister, official, court, tribunal or public or statutory Person (whether autonomous or not) which has jurisdiction in relation to the performance of this Agreement by either Party including, for the avoidance of doubt, any licensing authority and any port authority, in each case acting within its legal authority, but excluding, for the avoidance of doubt, any Party.

"Confidential information" shall have the meaning given to it in Clause 22.1.

"**Contract Price**" shall mean the sum of the Fuel Contract Price and the Units Conversions and Pipeline Installation Works Cost.

"Contract Quarter" means each calendar quarter (beginning each of January, April, July and October) during the Contract Year, provided that the first Contract Quarter shall begin as of the first Day of the Firm Supply Period and end on the last Day of such calendar quarter and the last Contract Quarter shall end on the last Day of the Firm Supply Period.

"Contract Term" shall have the meaning given to it in Clause 3.1(a).

"**Contract Year**" means any calendar year during the Firm Supply Period, except for the first Contract Year, which shall commence on the first Day of the Firm Supply Period, and the last Contract Year, which shall end on the last Day of the Firm Supply Period.

"**Contracting Officer**" - shall mean the Chief Executive Officer of PREPA, acting directly or through his properly authorized representatives as notified in writing to the Seller.

"**Corporate Tax**" means any and all Taxes based on income, revenues, profits, or net worth and all state and local franchise, license, occupation and similar Taxes required for the maintenance of corporate existence or to maintain good standing that are assessed against a Party.

"**Daily Contract Quantity**" or "**DCQ**" shall have the meaning given to it in Clause 6.6.

"**Day**" means a period of twenty four (24) consecutive hours beginning at 00:00 hours local time in Puerto Rico.

"Defaulting Party" shall have the meaning given to it in Clause 18.1(b).

"**Delivery Point**" means the point of interconnection between San Juan Power Plant and the MFH Facility as identified on the schematic attached as Annex

\_\_\_. For this Contract the delivery point shall be a flange in the San Juan Power Plant limits.

3

"Disclosing Party" shall have the meaning given to it in Clause 22.1.

"**Dispute**" shall have the meaning given to it in Clause 20.1(a).

"Effective Date" shall have the meaning given to it in the preamble to this Agreement.

**"Environmental Compliance Officer"** - PREPA's personnel in charge of project inspections and environmental regulations compliance.

"**Expert**" means a Person of appropriate industry expertise and experience to whom a Dispute, disagreement or another matter of interpretation is or is to be referred to pursuant to Clause 20.2.

"Firm Supply Conditions" shall have the meaning given to it in Clause 3.2.

**"Firm Supply Conditions Date**" shall have the meaning given to it in Clause 3.4.

"Firm Supply Period" shall have the meaning given to it in Clause 5.3.

"Force Majeure" shall have the meaning given to it in Clause 15.1.

"Fuel Contract Price" shall have the meaning given to it in Clause 12.1.

"Governmental Authority" means the government of the United States of America, any state thereof, the Commonwealth of Puerto Rico, or any local jurisdiction, or any political subdivision of any of the foregoing including, but not limited to courts, administrative bodies, departments, commissions, boards, bureaus, agencies, municipalities or other instrumentalities.

"Heating Value" (also known as High Heating Value (HHV)) means the gross heating value on a dry basis, which is the number of Btu's produced by the complete combustion at constant pressure of the amount of dry gas that would occupy a volume of one Standard Cubic Foot at a constant pressure of 14.73 psia and a temperature of 60° F with combustion air at the same temperature and pressure as the gas, the products of combustion being cooled to the initial temperature of the gas and air and the water formed by combustion condensed to the liquid state.

**"Units Conversions and Pipeline Installation Works**" means the design, engineering, construction, and installation works performed by the Seller or its affiliates or subcontractors to deliver fuel to San Juan Power Plant Units 5 and 6 from the Delivery Point and their conversions.

"Units Conversions and Pipeline Installation Works Cost" shall mean the cost of the design, engineering, construction, and installation of LNG pipeline from the delivery point to Units 5 and 6 and the units' conversions.

"Joule" means a unit of energy defined in the International System of Units.

"**kWh**" shall mean kilowatt per hour.

"LIBOR" means the rate per annum which the British Bankers' Association was offering to prime banks in the London interbank market for deposits in US\$ for a one (1) year period, determined at 11:00 am London Time, as quoted on the date when payment was due. Interest should be calculated on the basis of a 360 Day year, shall accrue daily and be compounded at 3-monthly rests.

**"LNG**" means Natural Gas in a liquid state at or below its boiling point and at or near atmospheric pressure.

"LNG Delivery Plan" shall have the meaning given to it in Clause 15.1(a).

"Long-Stop Date" shall have the meaning given to it in Clause 3.1(a).

"**Maximum Annual Contract Quantity**" shall have the meaning given to it in Clause 6.1.

"Maximum DCQ" shall have the meaning given to it in Clause 6.6.

"Maximum Hourly Rate" shall have the meaning given to it in Clause 6.7(a).

"Metering Equipment" shall have the meaning given to it in Clause 10.2(a).

"**MFH Facility**" shall have the meaning given to it in the Recitals.

"**MMBtu**" means 1,000,000 Btu.

"Mmscf" means one million Standard Cubic Feet.

"Monthly Invoice" shall have the meaning given to it in Clause 13.2.

"**Natural Gas**" or "**NG**" means any saturated hydrocarbon or mixture of saturated hydrocarbons consisting essentially of methane and other combustible and non-combustible gases in a gaseous state.

"**Ninety Day Schedule**" or "**NDS**" shall have the meaning given to it in Clause 7.4(a)(iii).

"**Off-Spec Natural Gas**" is any Natural Gas that does not conform to the Specifications set forth in Clause 4.1

"**Party**" and "**Parties**" shall have the meaning given to them in the preamble to this Agreement.

"**Person**" shall mean an individual, a corporation, a partnership, a limited liability company, an association, a joint stock company, a trust, any unincorporated organization, or any Governmental Authority.

"Reasonable and Prudent Operator" means a Person seeking in good faith to perform its contractual obligations and comply with Applicable Law, and in so doing, and in the general conduct of its undertaking, exercising that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced international operator engaged in the same type of undertaking under the same or similar circumstances and conditions.

"Receiving Party" shall have the meaning given to it in Clause 22.I.

"**Resident Engineer**" - shall mean the manager of the field office responsible for, but not limited to, the administrative issues, quality control, and technical aspects of the project. This person shall be a professional engineer register in Puerto Rico and an active member of the Puerto Rico College of Engineers and Land Surveyors. The Resident Engineer shall be present at all times on site in order to the Seller be able to perform any task of the project.

"Responsible Party" shall have the meaning given to it in Clause 3.5.

"**Safety Officer**" – shall be the person designated by the Seller whose only duty shall be the prevention of accidents and implement, both, the Safety and Health Program and the Site-specific Work Plan. The Safety Officer shall be present at all times on site in order to the Seller be able to perform any task of the project.

"San Juan Power Plant" shall have the meaning given to it in the Recitals.

"**Scheduled Maintenance**" shall mean the maintenance period scheduled to be performed on the San Juan Power Plant to occur for the durations specified on Annex C during the Firm Supply Period.

**"Seller**" shall have the meaning given to it in the preamble to this Agreement.

"Seller Shortfall Quantity" shall have the meaning given to it in Clause 9.1.

"Shortfall Payment" shall have the meaning given to it in Clause 9.2.

"Specifications" shall have the meaning given to it in Clause 4.1.

"**Standard Cubic Foot**" or "**scf**" means Natural Gas at a base temperature of 60° F and at a pressure of 14.73 psia with correction for deviation from Boyle's Law.

"Supply Period" shall have the meaning given to it in Clause 5.1.

"**Taxes**" shall have the meaning given to it in Clause 14.1.

"**TBtu**" means 1,000,000,000,000 Btu.

"Termination Event" shall have the meaning given to it in Clause 18.1(b).

"Terms and Conditions of Units Conversions and Pipeline Installation Works" means the requirements, clauses, and processes for the Units Conversions and Pipeline Installation Works included as Annex A.

"Third Party" means any legal Person not a Party to this Agreement.

**"Transitional Supply Period**" shall have the meaning given to it in Clause 5.2.

"US" means the United States of America.

"**US Dollars**" or "**US\$**" means the lawful currency of the United States of America.

"Weekly Programme" shall have the meaning given to it in Clause 7.4(a)(iv).

#### 1.2 Interpretation

In this Agreement, unless the context requires otherwise:

- (a) References to Clauses and Annexes are to Clauses and Annexes of this Agreement. The Annexes hereto are incorporated herein as an integral part of this Agreement.
- (b) References to a Person include that Person's successors and permitted assigns.
- (c) Headings of Clauses and Annexes are for convenience only and shall not affect the construction or interpretation of this Agreement.
- (d) Where the context requires, words denoting the singular or masculine or neuter only shall include the plural, feminine, body politic or corporate and vice versa.
- (e) References to "include" and "including" shall be construed as "including without limitation."
- (f) The words "agree," "agrees," and "agreed" refer to a written agreement, executed and delivered by the Parties.
- (g) Wherever either Party's consent or agreement is expressed to "not be unreasonably withheld," it is acknowledged that such obligation shall include, but not be limited to, the obligation of the Party not unreasonably to delay giving the relevant consent or agreement, and in the foregoing case as well as wherever either Party

undertakes "efforts" or "endeavours" to do something, or refrain from doing something, it is acknowledged that such Party shall not be in breach of its obligations to the other Party to the extent that such Party's actions are limited by such Party's need to comply with its contractual obligations to any Person, provided that such Party has used its reasonable efforts to obtain any necessary waiver(s) of such relevant obligations and that such Party has not assumed such obligations subsequent to entering into this Agreement.

- (h) Any law, statute or statutory provision shall be construed as a reference to the same as it may be amended, modified or reenacted, from time to time, and shall include any subordinate legislation made from time to time under that provision.
- (i) If at any time during the Supply Period, LIBOR becomes unavailable or inappropriate then the Parties shall meet as soon as possible thereafter and in good faith discuss and attempt to agree in writing upon a suitable alternative replacement. If the Parties are unable to so agree upon a suitable alternative replacement, then either Party may refer the matter to an Expert for determination in accordance with Clause 20.2.

### 2. SALE AND PURCHASE

Seller agrees to sell and make available to Buyer, and Buyer agrees to purchase from Seller, Natural Gas at the Delivery Point in compliance with Clause 4 "Quality" for the San Juan Power Plant. The quantity of Natural Gas to be made available by Seller at the Delivery Point shall be the amount scheduled in accordance with Clause 7. The price for such quantities shall be determined in accordance with Clause 12.

### 3. DURATION AND CONDITIONS

- 3.1 Contract Term
  - (a) This Agreement shall enter into full force and effect on the Effective Date and shall, subject to the terms hereof, continue in force and effect until and including the later of (i) the fifth (5th) anniversary of the first Day of the Supply Period, and (ii) any extension agreed to pursuant to Clause 3.1(b) (the initial Contract Term and the extension above shall hereinafter referred to as the "Contract Term").
  - (b) The Parties may extend the Contract Term on such terms and conditions as they may agree to in writing. This contract will be for a base period of Five (5) years with three (3) separate options of five (5) year extensions at Buyer's sole discretion. The Seller shall be responsible for the scope of work and associated capital cost

required for LNG gas conversion of PREPA's San Juan Units 5 and 6, as well as modifications to associated turbine controls.

- 3.2 Each of the following will be "**Firm Supply Conditions**":
  - (a) the Buyer shall have obtained the necessary permits from the relevant Competent Authorities, including the Environmental Air Quality Permit required by the Puerto Rico Environmental Quality Board due to the Natural Gas Specifications; and
  - (b) the Seller shall have performed, or caused to be performed, the technical modifications required to enable the Seller to deliver Natural Gas on a fully operational basis to the San Juan Power Plant at the Delivery Point, including the obtaining of the necessary permits for the construction works from the relevant Competent Authorities, with such technical modifications and permits necessary to satisfy its Firm Supply Conditions set out in detail in Annex \_\_\_\_ to this Agreement.
- 3.3 The Parties shall keep each other duly informed of the fulfillment of each of the Firm Supply Conditions. Each Party shall notify the other Party in writing of the date on which it anticipates that the respective Firm Supply Condition for which it is responsible will be satisfied no less than thirty (30) Days prior to such anticipated date. As soon as each Firm Supply Condition is satisfied, each Party shall confirm in writing the Firm Supply Conditions fulfilment.
- 3.4 The Firm Supply Period will commence as provided in Clause 5.3. The "**Firm Supply Conditions Date**" shall be the date on which the Firm Supply Conditions have been satisfied or expressly waived in accordance with Clause 3.8, provided that the Firm Supply Conditions Date will not occur until the latest date specified in a notice properly delivered under Clause 3.3.
- 3.5 Each Party shall endeavour in good faith to satisfy or procure the satisfaction of each Firm Supply Condition for which it is responsible (each such Party for the purposes of this Clause 3 being the "**Responsible Party**"). Buyer shall be the Responsible Party for the Firm Supply Condition described in Clause 3.2(a) and Seller shall be the Responsible Party for the Firm Supply Condition described in Clause 3.2(b).
- 3.6 Each Party shall furnish the other Party upon request by such other Party with any reasonable assistance in fulfilling each Firm Supply Condition for which that other Party is the Responsible Party.
- 3.7 Upon the satisfaction of any Firm Supply Condition, the Responsible Party shall give prompt written notice thereof to the other Party.
- 3.8 The requirement for the satisfaction of any Firm Supply Condition can only be waived by the written agreement of both Parties.

### 4. QUALITY

- 4.1 The Natural Gas delivered by the Seller to or for the account of the Buyer at the Delivery Point:
  - (a) shall not contain sand, dust, gums, crude oil, impurities or other objectionable substances which may be injurious to pipelines or may interfere with the transmission of the Natural Gas;
  - (b) shall not contain more than three-tenths grains of hydrogen sulfide per hundred standard cubic feet of Natural Gas volume, as measured by methods in accordance with accepted industry practice;
  - (c) shall not contain more than two grains of total sulfur per hundred standard cubic feet of Natural Gas volume, as measured by methods in accordance with accepted industry practice;
  - (d) shall not contain more than 0.25 grains of mercaptan sulfur per hundred standard cubic feet of Natural Gas volume, as measured by methods in accordance with accepted industry practice;
  - (e) shall not contain more than two percent (2%) by volume of carbon dioxide, as measured by methods in accordance with acceptable industry practice;
  - (f) shall not have a water vapour content in excess of seven pounds per million standard cubic feet of Natural Gas volume, such vapour content to be measured by methods in accordance with accepted industry practice;
  - (g) shall be as free of oxygen as it can be kept through the exercise of all reasonable precautions and shall not in any event contain more than zero point four (0.4%) by volume of oxygen, as measured by methods in accordance with acceptable industry practice;
  - (h) shall have a Heating Value of not less than 950 Btu per Standard Cubic Foot and not more than 1165 Btu per Standard Cubic Foot. The Heating Value shall be measured by methods in accordance with accepted industry practice, such as, but not limited to, recording calorimeter(s) or Natural Gas chromatograph(s) located at appropriate points; and
  - (i) shall be delivered to the Delivery Point at a temperature of more than 40° F and less than 100° F, and at the maximum pressure available when operating the LNG Facilities' vaporizers at a pressure of 650 pounds per square inch gauge.

The quality specifications set out in paragraphs (a) to (i) above shall be deemed to be the "**Specifications.**" The standard test methods as described in the Seller's operating procedures applicable at the MFH Facility shall be used to determine compliance with the Specifications.

- 4.2 Failure of Natural Gas to Conform to Specifications
  - (a) Seller shall notify Buyer as soon as reasonably practicable after becoming aware of any existing or anticipated failure of the NG available for delivery to the Delivery Point to conform to the Specifications, giving details of the nature and expected magnitude of the variance, the cause of the non-compliance and the probable duration, including the delivery time of such Off-Spec Natural Gas.
  - (b) If at any time, the NG offered for delivery by the Seller is or is expected to be Off-Spec Natural Gas, the Buyer may reject in whole or in part the delivery of such gas as well as any further deliveries of such Off-Spec Natural Gas.
  - (c) If at any time, the Seller is unable to deliver NG conforming to the Specifications but is able to deliver Off-Spec Natural Gas, the Seller may withhold deliveries until such time as it is able to deliver NG conforming to the Specifications; provided however, that in such event the Buyer shall be entitled to request delivery of such Off-Spec Natural Gas, unless such delivery, in the Seller's opinion acting as a Reasonable and Prudent Operator, would have a detrimental effect on the MFH Facility or related facilities upstream of the Delivery Point.
  - (d) Unless both (i) Buyer is notified of the full extent to which Off-Spec Natural Gas actually fails to meet the Specifications, and (ii) Buyer waives in writing its right to reject such Off-Spec Natural Gas, the Seller shall be liable for all damages incurred by the Buyer as a result of the acceptance of such Off-Spec Natural Gas, including all the reasonable costs and expenses incurred (over and above those normally incurred in accepting conforming Natural Gas) in receiving and treating such Off-Spec Natural Gas by such means as are appropriate; provided, that the Buyer shall exercise commercially reasonable practices to minimize the costs and expenses which may occur.
  - (e) If both (i) Buyer is notified of the full extent to which Off-Spec Natural Gas actually fails to meet the Specifications, and (ii) Buyer waives in writing its right to reject such Off-Spec Natural Gas, such Off-Spec Natural Gas shall be deemed to have been delivered in accordance with this Agreement and the Seller shall not be liable for any damages to the Buyer for the acceptance of such Off-Spec

Natural Gas; provided, however, that said NG shall be paid for at eighty-five percent (85%) of the Fuel Contract Price.

- (f) When NG is not taken by the Buyer due to it being Off-Spec Natural Gas or when Seller withholds NG pursuant to Clause 4.2(c), the Buyer shall not be obliged to pay for such NG not taken, and such NG not taken shall be deemed not to have been made available and shall be considered a "**Seller's Shortfall Quantity.**"
- (g) The Buyer shall have no right or remedy with respect to the Off-Spec Natural Gas other than those stated or referred to in this Clause 4.2.
- 4.3 Any Dispute between the Parties concerning the measurement and/or testing of NG for the purposes of determining the quality thereof at the Delivery Point, shall be settled in accordance with the provisions of Clause 20.2 of this Agreement.

## 5. SUPPLY PERIOD

- 5.1 The supply period for NG shall begin on the Commissioning Start Date and shall continue in force until and including the last Day of the Contract Term (the **"Supply Period**").
- 5.2 The phase of the Supply Period from, and including, the Commissioning Start Date to, and including, the Firm Supply Conditions Date shall be considered to be a transitional supply period (the **"Transitional Supply Period**").
- 5.3 The phase of the Supply Period from and including the first Day of the first calendar month that commences after the Firm Supply Conditions Date to and including the last Day of the Contract Term shall be the "**Firm Supply Period.**"

## 6. NG QUANTITIES

6.1 The **"Maximum Annual Contract Quantity**" for each Contract Year shall be [twenty five (25)] TBTU unless otherwise agreed in writing by the parties.

The Maximum Annual Contract Quantity shall be prorated downward rateably for each Contract Year of less than three hundred and sixty five (365) Days.

6.2 Without prejudice to the provisions of Clause 6.5 and taking into account the Seller's commercial and technical restrictions and subject to the Parties and Seller obtaining any relevant permits, the Parties may agree, each in its sole and absolute discretion, that prior to the Firm Supply Conditions Date (a) the Seller shall sell and deliver NG to the Buyer at the Delivery Point and (b) the Buyer shall purchase and take delivery of NG from the Seller at the Delivery Point during the Transitional Supply Period.

- 6.3 If such agreement is so reached, in each Party's sole discretion, pursuant to Clause 6.2 all the terms and conditions of this Agreement shall apply *mutatis mutandis* during the Transitional Supply Period and in particular:
  - (a) The Seller shall make available the quantities of NG thus agreed in accordance with Clause 7.1 and Buyer shall pay for such quantities of NG, in each case in accordance with this Agreement, provided that the quantities of NG to be delivered shall be agreed by the Parties and shall not exceed:
    - (i) the maximum amount of NG that the Seller can supply technically, legally and commercially; and
    - (ii) The maximum amount of NG that the Buyer can consume at the San Juan Power Plant.
  - (b) The price applicable to the NG quantities consumed during the Transitional Supply Period shall be the Fuel Contract Price calculated in accordance with Clause 12.1 for the relevant month of consumption.
- 6.4 The Parties shall be in contact on a regular basis to define the quantities to deliver and start the supply as soon as practicable during the Transitional Supply Period.
- 6.5 Unless the Parties reach an agreement in accordance with Clause 6.2, neither Party shall:
  - (a) be obliged to sell, make available, deliver, purchase or take delivery of NG, as appropriate, during the Transitional Supply Period; nor
  - (b) be liable to the other during the Transitional Supply Period for any failure to so sell deliver, purchase or take delivery of NG.
- 6.6 In respect of each Day of every Contract Year, the Daily Contract Quantity ("**DCQ**") shall be the daily nomination for each Day of the Binding Monthly Schedule. The "**Maximum DCQ**" that Buyer may nominate for any Day shall be [93 MMscf] per Day, provided, however, that Seller shall use reasonable efforts to comply with Buyer's request to deliver a quantity on a Day in excess of the applicable Maximum DCQ.
- 6.7 Maximum Hourly Rate
  - (a) The Seller shall not be obliged, notwithstanding any other provision of this Agreement, to deliver the DCQ at an hourly rate over [3.875 MMscf] per hour ("Maximum Hourly Rate"); provided, however, that Seller shall use reasonable efforts to comply with the Buyer's requests to exceed such Maximum Hourly Rate to the extent

necessary for Buyer's demand, subject to the operation of San Juan Power Plant.

(b) The Buyer shall not be obliged, notwithstanding any other provision of this Agreement, to receive the DCQ at an hourly rate over the Maximum Hourly Rate; provided, however, that the Buyer shall use reasonable efforts to comply with the Seller's exceptional requests to exceed such Maximum Hourly Rate to the extent necessary for the performance of this Agreement.

### 7. SCHEDULING

7.1 Transitional Supply Period

According to Clause 6.2, the Parties may agree to a binding delivery programme for the Transitional Supply Period.

During the Transitional Supply Period, Clauses 7.4(a)(iii), 7.4(a)(iv) and 7.5 shall apply *mutatis mutandis* to the binding NG quantities agreed between the Parties in accordance with Clause 6.3.

7.2 Firm Supply Period - first Contract Year

The first Contract Year shall begin on the first day of the Firm Supply Period and end on December 31, \_\_\_\_\_.

7.3 Firm Supply Period — except for first Contract Year:

Each Contract Year shall begin on January 1st, of the Contact Year at 00:00 local time and end on December 31st, of the Contract Year at 24:00 local time.

- 7.4 With respect to each Contract Year during the Firm Supply Period, the following provisions shall apply:
  - (a) The Annual Delivery Programme ("ADP"), Ninety-Day Schedule ("NDS") and Weekly Programme for such Contract Years shall be established according to the following conditions:
    - (i) Except for the first Contract Year, on or before 1<sup>st</sup> June, the Buyer shall nominate the "Annual Contract Quantity" or "ACQ" for the upcoming Contract Year, which ACQ must be between zero (0) MMscf and the Maximum Annual Contract Quantity for such Contract Year. The ACQ shall be final and binding.

In addition to the ACQ, the Buyer shall provide:

- 1. an estimate of its consumption on a quarterly basis; and
- 2. its non-binding estimate of the dates of any Scheduled Maintenance expected to occur during such Contract Year.

Regarding the first Contract Year, an estimation of the ACQ and the information required in this Clause 7.4(a)(i) are attached hereto as Annex C. Once the Firm Supply Condition Date occurs, the Buyer shall confirm no later than ten (10) Days after such event, the final and binding ACQ for the first Contract Year.

(ii) Except for the first Contract Year, on or before 1st October of each year thereafter, the Buyer shall provide to the Seller an ADP for the ACQ informed by the Buyer in accordance with Clause 7.4(a)(i), for the following Contract Year on a monthly basis, the sum of the quantities of the months of each calendar quarter ("Quarterly Binding Quantity") being binding. This ADP shall include the final dates of any Scheduled Maintenance to occur during such Contract Year.

Regarding the first Contract Year, the Buyer shall provide the Seller an estimated ADP no later than thirty (30) Days after the Effective Date. Once the Firm Supply Condition Date occurs, the Buyer shall confirm no later than ten (10) Day after such event, the final and binding ADP for the first Contract Year.

(iii) On or before the fifth (5<sup>th</sup>) Day of month M-1 the Buyer shall provide to the Seller its NG requirements for the next three (3) months (the "**NDS**"). On or before the fifteenth (15<sup>th</sup>) Day of month M-1 and in accordance with Clause 7.4(b), the Seller shall confirm the NDS. The NDS shall be binding for month M (the "Binding Monthly Schedule") and nonbinding for month M+I and M+2. Such NDS shall include the monthly quantities to be delivered in each of the next three months, as well as the daily requirements for month M. Buyer may request additional Natural Gas from Seller for month M after the deadline for submission of the NDS. Upon receipt of such a request, Seller shall inform Buyer within three (3) Days whether Seller can deliver all or a portion of such quantities and the applicable price, and Buyer shall have two (2) Days to accept or decline Seller's offer. If Buyer accepts Seller's offer, such quantities shall become firm. Further, Buyer shall use commercially

reasonable efforts to include in each NDS estimated, nonbinding daily requirements for months M+I and M+2; and

(iv) On or before 00.00 hours Puerto Rico Time of each Wednesday of each week, or, if such Day is not a Business Day, on the Business Day immediately preceding such Day, the Buyer shall provide to the Seller a daily estimate of its NG requirements for the coming week, to be provided on a daily basis with hourly detail. This weekly programme ("Weekly Programme") shall be reasonably adjusted to the original NDS for the applicable month.

For the purpose of this Clause each Weekly Programme shall contain consumption details beginning 00:00 hours Sunday until 23:59 hours the following Saturday.

- (b) The Parties shall cooperate in the scheduling to ensure that the supply of Natural Gas to the San Juan Power Plant is as regular and as even as practicable (subject to the Buyer's Scheduled Maintenances) in a manner that is consistent with the Seller's projected deliveries and use of LNG, as such projected deliveries or requirements may be adjusted or exist from time to time.
- (c) The Buyer designates the Operational Manager as specified in Clause 24 to make all the notifications required under this Clause 7.4.
- 7.5 If Buyer determines that it no longer requires the quantity of Natural Gas set forth in the Binding Monthly Schedule, Buyer shall promptly provide notice to Seller of the quantities not needed (such notified amount, the "Excess Nomination"). Seller shall use commercially reasonable efforts to sell the Excess Nomination, whether as Natural Gas or as LNG, at a reasonable price. If Seller is able to sell all or a portion of such Excess Nomination, Seller shall credit to Buyer the proceeds of such sale, less Seller's costs to make and perform such sale. If Seller is unable to sell all or a portion of such Excess Nomination, Seller shall retain such quantities and credit Buyer with an amount equal to fifteen (15) percent of the Fuel Contract Price multiplied by the quantity not sold by the Day it would have otherwise been made available.

## 8. [RESERVED]

## 9. SELLER'S SHORTFALL

9.1 If, for any reason other than the occurrence of (a) an event of Force Majeure or (b) reasons attributable to the Buyer, the Seller fails to deliver the scheduled quantity for delivery to the Buyer in the Binding Monthly Schedule for the applicable months of any Contract Quarter (the "**Seller Shortfall**  **Quantity**") the Seller shall be liable to the Buyer in accordance with this Clause 9.

- 9.2 If a Seller Shortfall Quantity occurs, Seller shall pay liquidated damages to the Buyer in the form of an amount (a "**Shortfall Payment**") equal to (a) the Seller's Shortfall Quantity multiplied by (b) fifteen percent (15%) of the of the applicable Fuel Contract Price.
- 9.3 Any Shortfall Payment shall be due and payable by the Seller to the Buyer in accordance with Clause 13.
- 9.4 Seller agrees that Buyer's damages associated with Seller's failure to deliver NG hereunder would be difficult to estimate, and that Clause 9.2 represents a reasonable estimate of such damages.

### 10. MEASUREMENT AND TESTING

10.1 Unit of Measurement

The following guidelines shall be followed with regard to the units of measurement to be used by either Party to comply, as appropriate, with the provisions of this Agreement:

- (a) The unit for the purpose of measuring volume shall be one cubic foot of Natural Gas at a base temperature of sixty degrees (60°) F and at a pressure of 14.73 psia with correction for deviation from Boyle's Law. Computation of volumes, including any deviation from Boyle's Law, shall comply with applicable rules, regulations, and orders promulgated by the appropriate regulatory authorities having jurisdiction. For payment purposes, the volume of Natural Gas delivered hereunder will be determined at the pressure reported by the Metering Equipment or based on fifteen (15) Day average flowing pressure corrected, if necessary, in the event that the Metering Equipment is inoperable or not measuring accurately, as applicable, and will be multiplied by the Btu content per cubic foot to obtain the total Btu contained within such volume of Natural Gas.
- (b) For purposes of measurement and meter calibration, the atmospheric pressure shall be assumed to be 14.73 psia, irrespective of actual elevation or location of the Delivery Point above sea level, or variations in such atmospheric pressure from time to time.
- (c) The static pressure of the Natural Gas passing through the Metering Equipment shall be determined by the use of electronic measurement equipment or by the use of another pressure recording device reasonably acceptable to both Parties. The instantaneous static pressure measurements from the electronic

measurement equipment or the arithmetic average of the temperature recorded each Day shall be used in computing Natural Gas volumes.

- (d) If Metering Equipment requiring the use of specific gravity is used, then the specific gravity of the Natural Gas delivered hereunder shall be determined by a method according to accepted industry practice. If a recording gravitometer is used, then the arithmetic average of the specific gravity of the Natural Gas flowing through the meters shall be used in computing Natural Gas volumes. If a spot test method is used, then the specific gravity of the Natural Gas delivered hereunder shall be determined as often as found necessary in practice. Any such test shall determine the specific gravity to be used in computation of volumes values effective the first Day of the following month and shall continue to be used until changed in a like manner by a subsequent test.
- (e) The temperature of the Natural Gas shall be determined by a recording thermometer installed so that it will record the temperature of the Natural Gas flowing through the meters, and such flowing temperature shall be corrected to Fahrenheit.
- (f) Heating Value and energy content will be measured by the Seller as described in "Appendix F – Heating Value Calculation of API MPMS, Chapter 14.3." The determination of Natural Gas composition shall be in accordance with the GPA Standard 226 "Analysis for Natural Gas Chromatography" and GPA Standard 2172 "Calculation of Gross Heating Value relative density and compressibility factor for Natural Gas Mixtures from compositional analysis". The composition of the NG shall be continuously measured by on-line chromatographs installed and maintained (or caused to be installed and maintained) by Seller at Seller's sole expense. The Heating Value of the NG shall be calculated using results from the on-line chromatograph. In the event of failure of the on-line NG chromatograph, chromatograph analysis of samples collected proportional to the flow through the meters shall be Used. All electronic metering shall comply with the API Manual of Petroleum Standards, Chapter 21, Flow Measurement Using Electronic Metering Systems, First Edition, dated September 1993, and any subsequent modification and amendment thereof.
- (g) The energy content of all NG delivered hereunder shall be in Btu and shall equal the Standard Cubic Feet of such NG multiplied by the Heating Value of such NG.
- 10.2 Metering Equipment

- (a) Prior to the start of the Supply Period, the Seller will install or cause to be installed, at Seller's expense, a main and a back-up meter and other equipment as necessary to measure the volume of Natural Gas delivered hereunder (the "**Metering Equipment**"). The Metering Equipment will be installed at the point identified as "Seller Metering Station" on the schematic attached as Annex A. The Metering Equipment shall be designed and installed in accordance with the current recommendations of the American Gas Association. If the Metering Equipment (or component(s) thereof) is out of se ice or registering inaccurately, the volumes of Natural Gas delivered hereunder shall be estimated as follows, in descending order of priority:
  - (i) by using the registration of the Buyer Check Meter;
  - (ii) by correcting the error if the percentage of error is ascertainable by calibration, test, or mathematical calculation; or
  - (iii) by estimating the quantity of delivery by measuring deliveries during prior periods under similar conditions when any meter was registering accurately.
- (b) Buyer has a meter equipment necessary to measure the volume of Natural Gas delivered hereunder (the "**Buyer Check Meter**"). The Buyer Check Meter is installed at the point identified as "Buyer Metering Station" on the schematic attached as Annex A. The Buyer Check Meter is designed and installed in accordance with the current recommendations of the American Gas Association. In the event that Buyer notifies Seller of a material discrepancy between the quantity of Natural Gas delivered at the Delivery Point by Seller according to the Buyer Check Meter, and the quantity of Natural Gas measured by the Metering Equipment, the Parties will resolve and correct such discrepancy (including with respect to adjustments for prior Natural Gas deliveries).
- (c) For the avoidance of doubt, it is the intent of the Parties that Natural Gas will only be considered delivered when it reaches the Delivery Point, and that any Natural Gas measured at the Metering Equipment that is not actually delivered to the Delivery Point will not be considered delivered and will not be charged to Buyer. In this regard, Buyer will not be charged for line fill or any losses or fuel used on the pipeline between the Metering Equipment and the Delivery Point. Also, if Seller informs Seller about its intention to consume, due to any operational event, any quantity of Natural Gas stored in the pipeline that was not delivered to Buyer at the Delivery Point and, consequently, that was already measured by the

Metering Equipment at the Seller Metering Station, Seller shall notify in writing Buyer of such circumstance. The Parties will resolve any material discrepancies resulting from Seller's consumption of Natural Gas under this clause in accordance with Clause 10.2(b).

#### 10.3 Verification

The following guidelines shall be followed with regard to the verification of the Metering Equipment to be used in accordance with this Agreement:

- (a) At least once each month, and from time to time upon at least two weeks prior written notice by either Party to the other, the Seller shall verify or cause to be verified the accuracy of the Metering Equipment. When as a result of such test the Metering Equipment is found to be out of calibration by no more than one percent (1%) when compared to the manufacturer's specifications for such equipment, no Adjustment shall be made in the amount paid by the Buyer to the Seller.
- (b) If the testing of the Metering Equipment demonstrates that a meter is out of calibration by more than one percent (1%) when compared to the manufacturer's specifications for such equipment, the applicable Metering Equipment reading for the actual period during which out of calibration measurements were made shall be adjusted based on the methods stated in Clause 10.2 above.
- (c) If the actual period that such equipment has been out of calibration cannot be determined to the mutual satisfaction of the Seller and the Buyer, the adjustment shall be for a period equal to one-half of the time elapsed since the most recent test. The previous payments made by the Buyer to the Seller for this period shall be subtracted from the amount of payments that are calculated to have been owed under this Agreement. The difference in US Dollars (which may be a positive or negative amount) shall be added to the next Monthly Invoice pursuant to Clause 13.
- (d) The cost of the monthly testing and calibration of the Metering Equipment described in this Clause 10.3 shall be the responsibility of the Seller. The cost of any testing and calibration of the Metering Equipment beyond the monthly test permitted in this Clause 10.3 shall also be the responsibility of the Seller, unless the request to test any of the Metering Equipment is made by the Buyer and the results of such test requested by the Buyer demonstrate that the Metering Equipment is less than one percent (1%) out of calibration, in which case the cost of such testing and calibration shall be for the Buyer's account.

- (e) Each Party shall comply with any reasonable request of the other concerning the sealing of the Metering Equipment, the presence of a representative of the Buyer when the seals are broken and tests are conducted, and other matters affecting the accuracy, testing and calibration of the Metering Equipment.
- (f) If either the Seller or the Buyer believes that there has been a failure or stoppage of any of the Metering Equipment, it shall immediately notify the other Party.

# 10.4 Availability of readings

At the end of each Month, the Seller shall make available to the Buyer all readings of the metering equipment as referenced in Clause 10.2(a)

#### 10.5 Preservation of Records

The Seller shall preserve or cause to be preserved for a period of at least three (3) years following the expiration of this Agreement all test data, charts, and other similar records regarding the measurement of Natural Gas delivered in accordance with this Agreement.

# 11. TRANSFER OF TITLE AND RISK; INDEMNITY

The NG to be sold by the Seller and purchased by the Buyer in accordance with this Agreement shall be delivered to the Buyer at the Delivery Point. Title and risk in NG, including the risk of loss or (without prejudice to Clause 4 above) contamination, shall pass from the Seller to the Buyer at the Delivery Point (irrespective of the location of the Metering Equipment). Seller agrees to indemnify Buyer and save it harmless from all losses, liabilities or claims including reasonable attorney' fees and costs of court ("**Claims**"), from any and all Persons, arising from or out of claims of title, personal injury (including death) or property damage from said Natural Gas or other charges thereon which attach before title passes to the Buyer. Buyer agrees to indemnify Seller and save it harmless from all Claims, from any and all Persons, arising from or out of claims regarding payment, personal injury (including death) or property damage from said Natural Gas or other charges to the Buyer. Buyer agrees to indemnify Seller and save it harmless from all Claims, from any and all Persons, arising from or out of claims regarding payment, personal injury (including death) or property damage from said Natural Gas or other charges thereon which attach after title passes to the Buyer.

# 12. FUEL CONTRACT PRICE

12.1 The Fuel Contract Price applicable to the quantities of NG to be sold, purchased and delivered in any month shall be \$\_\_\_ per MMBtu ("Fuel **Contract Price**"). The capacity payment for capital cost of conversion to LNG of the San Juan Units 5 and 6 will only apply to the Base period and will not apply to any extensions.

# 13. INVOICING AND PAYMENT

- 13.1 Every month the Seller shall invoice Buyer for the quantities in the Binding Monthly Schedule for the previous calendar month <u>plus</u> any additional quantities Seller agreed to deliver pursuant to Clause 7.4(a)(iii), and whatsoever other amounts that are owed for those items regulated in accordance with this Agreement and current regulations governing the provision of the services at any given time. PREPA certifies that the funds for the payments of Services rendered under this Agreement come from budgetary allocations. All payments performed under this Agreement will be charged to PREPA's budget account number 1-2321-23215-000-000.
- 13.2 The Seller shall prepare and shall give to the Buyer by not later than the tenth (10th) Day after the end of each calendar month an invoice (the "**Monthly Invoice**") which shall show in respect of the preceding calendar month the following information:
  - (a) The Fuel Contract Price <u>multiplied by</u> the quantities in the Binding Monthly Schedule for such month;
  - (b) Any additional quantities Seller agreed to deliver pursuant to Clause 7.4(a)(iii) <u>multiplied by</u> the price applicable to such quantities;
  - (c) Any applicable Taxes due for payment by the Buyer;
  - (d) The proceeds from the sale of (or credit due, as the case may be, from) any Excess Nomination; and
  - (e) The net amount payable by the Buyer to the Seller, which shall be (a) <u>plus</u> (b) <u>plus</u> (c) <u>minus</u> (d).
- 13.3 The Buyer shall pay the net amount to the Seller as due in accordance with such Monthly Invoice.
- 13.4 If Seller incurs a liability to the Buyer for failing to deliver NG pursuant to Clause 9, then the Buyer shall send to the Seller (following the end of the applicable month) an invoice and reasonable supporting documentation showing the amount payable by the Seller in accordance with Clause 9.
- 13.5 If any sums are due from one Party to the other Party, except for reasons addressed in Clauses 13.2 and 13.4, then the Party to whom such sums are owed shall furnish to the other an invoice describing in reasonable detail the basis for the invoice and providing relevant supporting documentation.
- 13.6 In respect of any invoice issued pursuant to this Clause 13, the Buyer or the Seller as the case might be shall pay the amount due within thirty (30) Days after receipt of such invoice.

13.7 Payment of amounts due to one Party from the other Party shall be made by wire transfer in immediately available funds into the bank account nominated from time to time by the Party to which the funds are owed. Each payment of any amount owing hereunder shall be for the full amount due, without reduction, withholding or offset for any reason (including any exchange charges, bank transfer charges or other fees or Taxes). Until further notice, the bank account for each Party is as follows:

# Seller: Bank Name: [ENTITY]

# Bank Amount #

# Buyer: Bank Name: [ENTITY]

#### Bank Account #

Notwithstanding the foregoing, Seller shall request from Buyer wire instructions prior to transferring any funds to Buyer and shall provide Buyer bank confirmation upon completion of each such transfer.

- 13.8 If any Party fails to pay the other Party the full amount of any invoice due by the due date, such Party shall also pay interest thereon to the other Party for the period commencing from and including the due date until and including the Day when payment is made. Interest shall be calculated at the rate of four hundred (400) basis points above the LIBOR percentage rate per annum but no greater than the maximum amount allowable by law.
- 13.9 If a Party disagrees in good faith with any invoice, such Party shall pay the full amount invoiced or so stated by the due date thereof and shall immediately notify the other Party of the reasons for its disagreement. An invoice may be contested by the Party that received it, or modified by the Party that sent it, by written notice delivered to the other Party within a period of one hundred and eighty (180) Days after such receipt or sending, as the case may be. If no such notice is served within such period of one hundred and eighty (180) Days, such invoice shall be deemed correct and accepted by both Parties. Promptly after resolution of any Dispute as to an invoice, the amount of any overpayment or underpayment shall be paid by the Seller or the Buyer, as the case may be, to the other Party, together with interest thereon at the rate provided in Clause 13.9 from the date payment was due to the date of payment.

# 14. DUTIES, TAXES AND CHARGES

14.1 Each of the Seller and the Buyer shall be responsible for the payment of all taxes, fees, levies, royalties, duties, penalties, licenses, and other charges imposed by any Governmental Authority (**"Taxes**") which it incurs and for which it is legally responsible for as a result of complying with this Agreement and which correspond to such Party under all applicable tax regulations and

laws in force at the Effective Date and throughout the Contract Term in each of the jurisdictions relevant to this Agreement connected to the Parties. If a Party it's required to remit or pay Taxes that are the other Party's responsibility hereunder, the Party responsible for such Taxes shall promptly reimburse the other Party for such Taxes. Any Party entitled to an exemption from any such Taxes or charges shall furnish the other Party any necessary documentation thereof.

- 14.2 For the avoidance of doubt and notwithstanding the above:
  - (a) Seller represents and warrants that it is the importer of record for all Natural Gas delivered hereunder, and shall be responsible for entry and entry summary filings as well as the payment of associated duties, Taxes and fees, if any, and all applicable record keeping requirements.
  - (b) Buyer shall pay or cause to be paid all Taxes imposed by any Governmental Authority after the Delivery Point on the sale, use, or purchase of Natural Gas delivered to the Buyer under this Agreement (and on any LNG from which such Natural Gas is derived) and its transportation within the territory of Puerto Rico after the Delivery Point; provided that at all times the Seller shall be responsible for the payment of all and any Corporate Tax payable in Puerto Rico in connection with this Agreement; and
  - (c) Seller shall pay or cause to be paid all Taxes imposed by any Government Authority on or with respect to Natural Gas delivered to the Buyer under this Agreement (and on any LNG from which such Natural Gas is derived) prior to the Delivery Point and all Taxes at the Delivery Point.

# 15. FORCE MAJEURE

15.1 Neither the Seller nor the Buyer shall be liable for any failure to perform or for omission or delay in the performance of any of its obligations under this Agreement, other than the obligation to make payments of money when due, if and to the extent that the affected Party's performance is prevented, delayed or interfered with by an act, event or circumstance, or combinations of events or circumstances, whether of the kind described herein or otherwise, that is not reasonably within its control, such Party having acted as a Reasonable and Prudent Operator and which effects could not be prevented or overcome by the exercise of due diligence ("**Force Majeure**").

For the avoidance of doubt, provided that the requirements set out in the preceding paragraph are met, events of Force Majeure shall include but not be limited to the following:

- (a) Loss of, serious accidental damage to, inaccessibility or incapacity of, or inoperability of the relevant loading terminal or upstream facilities affecting an LNG cargo and source indicated in the LNG Delivery Plan. The "LNG Delivery Plan" shall mean the indicative LNG cargo scheduling program submitted by the Seller to the Buyer, solely for the purposes of this Clause, not later than 30 Days prior to the commencement of each Contract Year and which shall include for each LNG cargo the expected source. The Seller shall inform Buyer of any modifications to the sources indicated in the LNG Delivery Plan, provided that Seller shall not, at any time nominate any source that is affected by Force Majeure or that is affected by any event that could reasonably lead to a claim of Force Majeure relief under this Agreement.
- (b) Loss of, serious accidental damage to, inaccessibility or incapacity of, or inoperability of an LNG Ship requiring her removal from service;
- (c) Loss of, serious accidental damage to, inaccessibility or incapacity of, or inoperability of the MFH Facility;
- (d) Loss of, serious accidental damage to, inaccessibility or incapacity of, or inoperability of the San Juan Power Plant; provided that if an event of Force Majeure affects just one unit at the San Juan Power Plant, but not both, the affected Party shall only be released from its obligations under this Agreement with regard to the unit affected by the event of Force Majeure; and
- (e) Acts of God, lightning, storm, typhoon, hurricane, tornado, earthquakes, fires, floods, tsunami, earthquake, landslide, soil erosion, subsidence, washout, epidemic, shipwreck, navigational and maritime perils, acts of any Competent Authority or compliance with such acts; explosions, acts of the public enemy, wars (whether declared or undeclared), terrorism or threat thereof, civil war, piracy, civil and military disturbances, strikes, blockades, insurrections, riots, epidemics and quarantine restrictions; strike, lockout or other industrial disturbances involving an enterprise other than a Party, its transporter or its agents or sub-contractors in connection with the Agreement; radioactive contamination or ionising radiation; or breakdown or unavailability of port facilities or port services (including the channel, tugs or pilots).
- 15.2 Notwithstanding the foregoing provisions of Clause 15.1, the following shall not be events of Force Majeure:
  - (a) events arising out of market decline, market failure, industry economic conditions, or general economic conditions;

- (b) any delay in achieving the Firm Supply Conditions, unless such delay is caused by an event of Force Majeure;
- (c) the failure to obtain or the withdrawal of any authorization, approval, permit or permission of any Competent Authority, of which the Party claiming Force Majeure was aware, or should have been aware, acting as a Reasonable and Prudent Operator, to the extent such Party could have applied for, obtained, maintained, or attended any such authorization, approval, permit, or permission;

provided, however, that the failure to obtain any authorization, approval, permit or permission of any Competent Authority that is required in order to satisfy the Firm Supply Conditions shall under no circumstances be considered Force Majeure.

- 15.3 In the event of any failure or delay of a Party's performance due to the occurrence of a Force Majeure event, the affected Party shall use reasonable efforts (acting as a Reasonable and Prudent Operator) to resume as soon as possible full performance of its obligations under this Agreement, provided that the settlement of strikes or boycotts, lockouts or other industrial disputes, or obstructive action by organizations or local inhabitants, shall be entirely within the discretion of the Party concerned.
- 15.4 A Party intending to seek relief under this Clause 15 shall as soon as reasonably practicable after it becomes aware of the occurrence of a Force Majeure event:
  - (a) notify the other Party of the occurrence of an event that it considers may subsequently lead it to claim Force Majeure relief under this Agreement, describing such event, in as much detail as is then reasonably available, and the obligations, the performance of which has been or could be delayed, hindered or prevented thereby, and the estimated period during which such performance may be suspended or reduced, including (to the extent known or ascertainable) the estimated extent of such suspension or reduction in performance; the obligations which could or have been actually delayed or prevented in performance and the estimated period during which such performance may be suspended or reduced, including (to the extent know or ascertainable) the estimated extent of such suspension or reduction in performance;
  - (b) give a bona-fide good faith estimate of when it shall be able to resume full performance of its obligations; and
  - (c) give the particulars of the programme to be implemented, if any, to resume full performance hereunder subject to any Third Party confidentiality obligations.

Such notices shall thereafter be supplemented and updated at reasonable intervals during the period of such Force Majeure, specifying the actions being taken to remedy the circumstances causing such Force Majeure and the date on which such Force Majeure is expected to terminate.

- 15.5 If any Party claims relief under this Clause 15, it shall allow reasonable access to the other Party, upon such other Party's written request, to examine the scene of such event or circumstance which gave rise to the Force Majeure claim, provided that the Party not claiming relief under this Clause 15 shall bear the cost, expense and risk of examining such site.
- 15.6 Where an act, event or circumstance prevents, impedes or delays a Party's performance hereunder, even if such act, event or circumstance primarily affects a Third Party or Third Parties, it shall constitute Force Majeure hereunder as to the Seller or the Buyer, as appropriate, if and to the extent that it is of a kind or character that, if it had happened to a Party, would have come within the definition of Force Majeure under this Clause 15.
- 15.7 Force Majeure takes effect at the moment a Force Majeure event occurs, not upon giving notice. A Party whose performance is excused by Force Majeure shall not be required, during the period in which the circumstances of the Force Majeure event are continuing, to incur uneconomic cost, make additional investments in new facilities, or bring into production existing or potential reserves not already flowing in support of this Agreement.
- 15.8 If Seller is rendered wholly or partially unable to deliver NG under this Agreement as a result of a Force Majeure event claimed only by the Buyer, Seller shall have the right to enter into binding contracts with Third Parties to sell and deliver LNG that is not reasonably expected to be needed by the Seller to meet its obligations to the Buyer hereunder based on the expected extent and duration of such Force Majeure as notified by the Buyer.
- 15.9 If the Force Majeure event lasts for a period such that the affected Party shall be prevented from or delayed in performing its obligations hereunder for a period of one hundred eighty (180) consecutive Days or more from the date on which the Force Majeure event first occurred, the Party not claiming Force Majeure shall have the right to terminate this Agreement without liability to either Party by giving written notice to the either Party.

# 16. REPRESENTATIONS, WARRANTIES, LIABILITIES AND INDEMNITIES

- 16.1 Each Party hereby represents and warrants to the other Party that, as of the Effective Date, to the actual knowledge of its officers and directors:
  - (a) With regard to the Seller it is a corporation or limited liability company duly formed, validly existing and in good standing under the laws of the state and/or country of its incorporation or organization, and is duly qualified to do business in, and is in good

standing in, all other jurisdictions where the nature of its business or nature of property owned by it makes such qualification necessary.

- (b) With regard to the Buyer it is a Puerto Rico public corporation and governmental instrumentality of the Commonwealth of Puerto Rico, duly organized, validly existing and in good standing under the laws of the Commonwealth of Puerto Rico and is duly qualified to do business in, and is in good standing in, all other jurisdictions where the nature of its business or nature of property owned by it makes such qualification necessary.
- (c) Each Party has all requisite power and authority to conduct its business, to own or lease and operate its properties, and to execute, deliver, and perform its obligations under this Agreement.
- (d) The execution, delivery and performance by such Party of this Agreement has been duly authorized by all necessary corporate action on the part of such Party and do not (i) require any consent or approval of any Competent Authority, such Party's governing body or any other Person, other than those that have been obtained, or the failure to obtain, of which would not have, or could not reasonably be expected to have, a material adverse effect on each Party's ability to perform its obligations hereunder, (ii) violate any provision of such Party's articles of incorporation or by-laws, or other organizational documents, or any Applicable Law in effect, or (iii) result in a breach of or constitute a default under such Party's organizational documents or other material indentures, contracts or agreements to which it is a part or by which it or its properties may be bound.
- (e) This Agreement is a legal, valid, and binding obligation of the Seller and the Buyer enforceable against the Seller and the Buyer, as appropriate, in accordance with its terms.
- 16.2 The Seller warrants that it has good title to or good right to, all NG delivered hereunder and that all NG delivered to the Buyer at the Delivery Point shall be free and clear of all liens, security interests, charges, assessments encumbrances and adverse claims whatsoever. The Seller representation or warranty, written or oral, express or implied that the NG will be fit for a particular purpose, or will be of merchantable quality, and all such representations and warranties are expressly excluded to the fullest extent permitted by law, but nothing in this Clause 16.2 affects the requirement that all NG delivered to the Buyer under this Agreement will meet the Specifications of Clause 4.

- 16.3 The Seller represents and warrants that it will take or cause to be taken all necessary actions to start NG deliveries from the first Day of the Firm Supply Period including the design and construction of any facility or its elements situated upstream of the Delivery Point and that to that end it will obtain or cause to be obtained all required approvals, consents or authorization from the relevant Competent Authority.
- 16.4 The Buyer represents and warrants that it will take or cause to be taken all necessary actions to commence taking delivery of NG from the first Day of the Firm Supply Period including the design and construction of any facility or its elements situated downstream of the Delivery Point and that to that end it will obtain or cause to be obtained all required approvals, consents or authorizations from the relevant Competent Authority.
- 16.5 Except as provided elsewhere in this Agreement, a Party shall not be liable to the other Party under this Agreement, or in tort or otherwise howsoever as a result of any act or omission in the course of or in connection with the carrying out of this Agreement, for or in respect of:
  - (a) any consequential, special or punitive loss or damage suffered or incurred by the other Party or its Affiliates;
  - (b) any loss of income, profits, production or revenue suffered or incurred by the other Party or its Affiliates;
  - (c) any business interruption suffered or incurred, by the other Party or its Affiliates; or
  - (d) any claim, demand or action made or brought against that other Party by a Third Party.
- 16.6 The Seller's liability for failure to deliver will be limited to the payment of the amounts detailed in Clause 9 (Seller's Shortfall), which shall be the Buyer's sole and exclusive remedies in such event.
- 16.7 The Seller agrees to make, use, provide, and take all proper, reasonably necessary and sufficient precautions, safeguards, and protection against the occurrence or happenings of injuries, death and/or damages to any person or property during the progress of the work.
- 16.8 The Seller agrees to save and hold harmless and to indemnify BUYER for all expenses and costs of any nature (including attorneys' fees) incurred by BUYER arising out of any claim made by any person for personal injuries, including death or for property damage, caused by the Seller or any of its subcontractors, by act or omission, in the performance or nonperformance of its obligations under the Contract.

- 16.9 The operation of BUYER's equipment by BUYER at its plant site is within the exclusive control of BUYER and BUYER shall indemnify and save harmless the Seller from loss, expense or liability imposed upon the Seller for any injury to a person, including death resulting therefrom or damage to any property resulting from the operation of such equipment by BUYER.
- 16.10 If the Seller is allowed to operate BUYER's equipment at the plant site, the Seller shall indemnify and save harmless BUYER from loss, expense or liability imposed upon BUYER for any injury to a person, including death or damage to any property resulting from the operation of such equipment by the Seller.

# 17. ASSIGNMENT

- 17.1 Except as provided in Clauses 17.2 and 17.3, neither Party may assign any of its rights or delegate any of its obligations under this Agreement to a Third Party without the prior written consent of the other Party. Any purported assignment of a Party's rights or obligations hereunder in contravention of this Clause 17 shall be null and void and shall have no force or effect.
- 17.2 Notwithstanding the foregoing, either Party shall be entitled to assign, or as appropriate, delegate, all, but not part, of its rights and obligations under this Agreement to an Affiliate by providing notice to the other Party, provided that subsequent to any assignment or delegation made pursuant to this Clause 17.2, the original Party and each subsequent assignee or delegate, having itself assigned or delegated to an Affiliate, shall be fully liable under this Agreement in the event of non-fulfilment of its obligations under this Agreement by an assignee or delegate.
- 17.3 Notwithstanding the foregoing provisions of this Clause 17, and without the prior written consent of the Buyer but subject to the Seller's written notification to the Buyer, the Seller may assign (a) its rights to payment under this Agreement to a trust, trustee, bank, paying agent, financial entity or other Person or company for the purposes of any bona fide financing or in order to facilitate the making of any such payment, and (b) any of the Seller's rights under this Agreement to any lender or lender's agent as security for its obligations to any such lender under any such financing.

# 18. SUBCONTRACTORS

The Seller shall not assign nor subcontract its rights and obligations under this Contract, except in the event BUYER gives written authorization for such actions. Provided that no subcontract shall be considered for BUYER's approval, except when the following requirements are met: (1) the Seller delivers BUYER a copy of the subcontract, not less than thirty (30) days prior to the effective date of the proposed subcontract; (2) the subcontract includes, as a condition for its legal validity and enforceability, a provision whereby BUYER has the right to substitute, subrogate or assume Sellers' rights under the subcontract, in the event that BUYER declares the Seller in breach or default of any of the Contract terms and conditions; and (3) the subcontract includes, as a condition for its validity and enforceability, a provision establishing for the subcontractor the obligation to comply unconditionally and entirely with all Sellers' obligations under the Contract (*mirror image rule*), except for such obligations, terms and conditions which exclusively related with works or services not included under the subcontract.

# **19. TERMINATION**

- 19.1 This Agreement may be terminated if any of the following circumstances occur:
  - (a) the mutual agreement of the Parties;
  - (b) in the event that a Termination Event on the part of either Party (the "**Defaulting Party**") has occurred, the other Party may at any time after which such Termination Event has occurred or during which such Termination Event is otherwise continuing, terminate this Agreement by giving written notice of termination to the Defaulting Party in accordance with this Clause 18, with such termination to take effect as from and including the date of such notice. In relation to either Party each of the following shall constitute a termination event (a "**Termination Event**"):
    - (i) if any amount payable by that Party under this Agreement has not been paid in full by the due date for the payment of the relevant invoice and the other Party has (after such due date) given notice to the Party requiring payment of such amount and the amount has not been paid in full within ten (10) Business Days after the date of such notice;
    - (ii) if that Party is unable to pay, suspends payment of, or agrees to a moratorium (or threatens any of the foregoing with respect to all or a substantial part of its debts, makes a general assignment or any composition or compromise with or for the benefit of its creditors except to the extent otherwise permitted by this Agreement, takes any proceedings with view to a readjustment, rescheduling or deferral of all or a substantial part of its indebtedness (other than in the case of a refinancing); or
    - (iii) if any order is made, or a petition is presented and not withdrawn within a period of twenty-one (21) Days, for the winding-up, liquidation, dissolution, custodianship or administration (or any equivalent proceedings) of that Party.

- 19.2 On and at any time after the occurrence of a Termination Event, any Party not subject to such Termination Event may, while such Termination Event subsists, by giving five (5) Days written notice of its intentions to the Defaulting Party, suspend performance of its obligations under this Agreement. Where the Defaulting Party is the Buyer, any such suspension by the Seller shall not constitute a failure by the Seller to make such quantities of NG available for sale and delivery pursuant to the terms of this Agreement during such period of suspension, and the Buyer shall have no rights in respect of such suspended deliveries during such period of suspension. Where the Defaulting Party is the Seller, any such suspension by the Buyer shall not constitute a failure by the Buyer to take delivery of such quantities of NG pursuant to the terms of this Agreement during such period of suspension, and the Seller shall have no rights in respect of such suspended deliveries during such period of suspension. If such Termination Event is remedied thereafter (including, with respect to any late payments, payment in full of any such outstanding invoice together with interest thereon), prior to the exercise of rights under Clause 18.3, the notice of suspension served under this Clause 18.2 shall be deemed to be revoked automatically.
- 19.3 The termination of this Agreement under this Clause 18 for any reason shall be without prejudice to the rights and remedies of the terminating Party accrued prior to such termination under this Agreement, including in respect of any antecedent breach (whether or not a repudiatory breach) giving rise to such termination. For the avoidance of doubt, neither Party will be liable to pay any termination payment upon termination of this Agreement other than in respect of liabilities accrued prior to the date of termination.
- 19.4 Buyer shall have the right to terminate this Agreement with thirty (30) days prior written notice to the Seller. Buyer shall have the right to terminate this Agreement immediately in the event of negligence, dereliction of duties or noncompliance by the Seller.

#### 20. NOVATION

BUYER and the Seller expressly agree that no amendment or change order which could be made to this Contract, during its term, shall be understood as a contractual novation, unless both parties agree to the contrary, specifically and in writing. The previous provision shall be equally applicable in such other cases where BUYER gives the Seller a time extension for the compliance of any of its obligations under the Contract or where BUYER dispenses the claim or demand of any of its credits or rights under the Contract.

# 21. LAWS TO BE OBSERVED

The Seller shall observe and comply with any and all Federal, State and Municipal Laws, by-laws, ordinances, and regulations in any manner affecting the work, the equipment or the materials used in the proposed rehabilitation and/or installation or construction, and those employed on the work or the conduct of the work, and with all such orders and decrees as exist at present or may be enacted prior to the completion of the work by bodies or courts having any jurisdiction or authority over the work. The Seller shall save and hold harmless and to indemnify BUYER and its representative's officers, agents, and servants against any claim or liability arising from or based on the violation of any such law, by-law, ordinance, regulation, order or decree, whether by himself or his employees.

# 22. CHANGE IN LAW

During the term of this Contract, any change in law, including, but not limited to changes in applicable tax law, which causes an increase in Seller's costs when supplying the products or services to be acquired by BUYER, shall be of Seller's responsibility and BUYER shall not be obliged to make additional payments nor to pay additional sums to the price or canon originally agreed for those products or services.

# 23. APPLICABLE LAW

This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Puerto Rico and, to the extent applicable, the laws of the United States of America, excluding any choice-of-law provisions that would require application of the laws of a different jurisdiction. The United Nations Convention on Contracts for the International Sale of Goods (the Vienna Sales Convention 1980) and the Convention on the Limitation Period in the International Sale of Goods shall not apply to this Agreement or to the performance thereof or to any aspect of any Dispute arising therefrom.

# 24. SEPARABILITY

If a court of competent jurisdiction declares any of the Contract provisions as null or invalid, such holding will not affect the validity and effectiveness of the remaining provisions of the Contract and the parties agree to comply with their respective obligations under such provisions not included by the judicial declaration.

# 25. SETTLEMENT OF DISPUTES

25.1 Exclusive Jurisdiction

(a) Any claim, dispute, disagreement or controversy (each, a "Dispute") that arises between the Parties under this Agreement or that is otherwise related to the subject matter of this Agreement, except for those Disputes to be resolved through Expert determination pursuant to Clause 20.2 below, shall be resolved exclusively in the Federal District Court for the District of Puerto Rico. (b) In the event of such Dispute, each Party shall continue performing its obligations hereunder except to the extent such obligations have been properly suspended pursuant to the terms hereof. For the avoidance of doubt, the Buyer shall continue paying amounts due under Clause 13.

### 25.2 Expert Determination

Any Dispute that arises between the Parties with respect to (i) the determination of quality under Clause 4, or (ii) Clause 10 may be referred by either Party to an Expert for such Expert's determination of such Dispute, disagreement or other matter of interpretation in accordance with the following guidelines:

- (a) The Parties hereby agree that such determination shall be conducted expeditiously by an Expert selected unanimously by the Parties.
- (b) The Expert shall not be deemed to be acting in an arbitral capacity.
- (c) The Party requesting that any matter arising under Clauses 4 or 10 of this Agreement is referred to an Expert shall give the other Party notice of such request. If the Parties are unable to agree on the identity of an Expert within ten (10) Days after receipt of the notice of request for an Expert determination, then, upon the request of any of the Parties, the International Centre for Expertise of the International Chamber of Commerce shall appoint such Expert and shall administer such Expert determination through the ICC's Rules for Expertise.
- (d) The Expert shall be and remain at all times wholly impartial as between the Parties, and, once appointed, the Expert shall have no ex parte communications with either of the Parties concerning the Expert determination or the underlying Dispute.
- (e) The Expert procedure shall take place in San Juan, Puerto Rico in English.
- (f) Both Parties agree to cooperate fully in the expeditious conduct of such Expert determination and to provide the Expert with access to all facilities, books, records, documents, information and personnel necessary to make a fully informed decision in an expeditious manner.
- (g) Before issuing a final decision, the Expert shall issue a draft report and allow the Parties to comment on it.
- (h) The Expert shall endeavour to resolve the Dispute within thirty (30) Days (but no later than sixty (60) Days) after his appointment,

taking into account the circumstances requiring an expeditious resolution of the Dispute.

- (i) The Expert's decision shall be final and binding on the Parties.
- 25.3 Qualification of Experts
  - (a) No Person, without the prior written agreement of the Parties, shall be appointed as an Expert pursuant to Clause 20.2, if such Person:
    - (i) is (or has been at any time within ten years preceding notice of the Dispute) an employee of a Party or of an Affiliate of a Party;
    - (ii) is (or has been at any time within five years preceding notice of the Dispute) a consultant or contractor of a Party or of an Affiliate of a Party;
    - (iii) holds any significant financial interest in a Party; or
    - (iv) does not have at least ten years' experience advising or working in the North American NG industry with respect to the subject matters subject to the Expert's determination under Clause 20.2.
  - (b) The Parties shall, within two months after lithe Effective Date, agree on a list of possible Experts for purposes of Clause 20.2; provided, however, that in the event that the Parties are unable' o agree on a list of acceptable Experts, then in the event of a Dispute subject to Expert determination pursuant to Clause 20.2, the Expert shall be appointed by the international Centre for Expertise of the International Chamber of Commerce in accordance with Clause 20.2.

# 26. NON-WAIVER

Delay or failure to exercise any right, power or remedy accruing to any Party as the result of any breach or default hereunder shall not impair any such right, power or remedy, nor shall it be construed to be a waiver of any such breach or Default.

# 27. CONFIDENTIALITY

27.1 The existence and terms of this Agreement and any information directly or indirectly disclosed or furnished, whether orally, in writing or in electronic, digital or any other form, by either Party (or its representatives, employees, directors, officers, agents or Affiliates) (the "**Disclosing Party**") to the other Party (or its representatives, employees, directors, officers, agents or

Affiliates) (the "**Receiving Party**") in connection with this Agreement (or in connection with the terms and conditions or the negotiation of any other agreement or document related to this Agreement or to is subject matter either between the Parties or otherwise) which is not:

- (a) already known to the Receiving Party; or
- (b) already in the public domain (other than as a the terms of this Clause 22.1),

such information being "**Confidential Information**," shall, unless otherwise agreed in writing by the Parties, be kept confidential and shall not be sold, traded, published or otherwise disclosed to any Third Party in any manner whatsoever (except as provided in Clause 22.2) by the Receiving Party.

- 27.2 The Receiving Party may disclose Confidential Information to the following Persons without the consent of the Disclosing Party:
  - (a) To the Receiving Party's and its Affiliates' directors, agents and employees;
  - (b) to the Receiving Party's lenders and prospective lenders for the sole purpose of obtaining finance based on this Agreement;
  - (c) to the Receiving Party's advisors and consultants, including legal counsel, accountants and other agents of the Receiving Party for purposes connected with this Agreement;
  - (d) to Third Parties on an aggregated basis to the extent such information is delivered to such Third Party for the sole purpose of calculating a published index;
  - (e) to Experts and any court in connection with the resolution of a Dispute; and
  - (f) to co-shareholders and partners in upstream and downstream projects, any operator of the Seller's facilities and any other relevant Third Parties, in all cases limited (i) only to operational information; and (ii) to the extent strictly necessary to implement this Agreement.
- 27.3 The Receiving Party disclosing Confidential Information pursuant to Clause 22.2 to a Person identified in Clause 22.2(b) to 22.2(f) shall ensure that such Person undertakes to hold such Confidential Information subject to confidentiality obligations equivalent to those set out in Clause 22.1 (excluding legal counsel). Each Party understands that the Receiving Party, and Persons, listed in Clause 22.2(a), (b) or (c) may now or in the future work on similar projects, and the Parties agree that, without prejudice to the other

provisions in this Clause 22, such Persons shall not be precluded from working on such other projects because they have reviewed any Confidential Information.

- 27.4 In the event that disclosure is required by any Competent Authority or Applicable Law, the Receiving Party subject to such requirement may disclose the Confidential Information to the extent so required, but shall promptly notify the Disclosing Party of such disclosure prior to so doing, and shall cooperate (consistent with the Receiving Party's legal obligations) with the Disclosing Party's efforts to obtain protective orders or similar restraints with respect to such disclosure at the expense of the Disclosing Party. Notwithstanding the foregoing, Seller acknowledges that the foregoing shall not apply to any requirements applicable to the Buyer to disclose any Confidential information that Buyer is required to disclose as a public entity under Applicable Law.
- 27.5 No press release or public statement concerning the existence, execution of, or other matters directly related to, this Agreement, or the transactions contemplated hereby, shall be issued by the representatives, directors, officers, agents or employees of either Party or its Affiliates unless otherwise agreed by the Parties in writing. In the case of any such press release or public statement, the Parties shall first consult and agree to the specific contents and the manner or timing of presentation or publication thereof. The foregoing shall got apply to any announcement by a Party required in order to comply with any Applicable Law, provided that in this case the relevant Party making such announcement notifies the other Party of the details of such announcement, the relevant Applicable Law to be complied with and, where applicable, the addressee of such announcement.
- 27.6 The Parties shall be entitled to all remedies available at law or in equity to enforce or seek relief in connection with the breach of the confidentiality obligation set out in this Clause 22.

# 28. PATENTS AND COPYRIGHTS

The Seller, at its own expense, shall defend any suit or action brought against Buyer based on a claim that any equipment or part thereof, copyright or uncopyrighted composition, secret process, patented or unpatented invention, article, or appliance manufactured or used in the performance of this Contract, including their use by Buyer, constitutes an infringement of any patents or copyrights of the United States, if notified promptly in writing by Buyer, and given the authority, information, and assistance for the defense of the same, and the Seller shall pay all damages and costs awarded therein against Buyer. If, in such suit, the equipment or any part thereof, or the composition, secret process, invention, article or appliance is held to constitute infringement and its use is enjoined, the Seller, at its option and expense, shall either procure for BUYER the right to continue using the same. Also, can replace it with non-fringing equipment, composition, secret process, invention, article or appliance, modify it so it becomes non-infringing or remove it and refund the purchase price.

### 29. NOTICES

All notices, to be given under this Agreement by one Party to the other shall be in writing, sent to the address and marked to the attention of the Person specified in Clause 24 and, unless otherwise agreed, in English or Spanish.

#### **30. CONTINGENT FEES**

The Seller guarantees that he has not employed any person to solicit or secure this Contract upon any agreement for a commission percentage, brokerage or contingent fee. Breach of this guarantee shall give Buyer the right to annul the Contract or, at its discretion to deduct from the Contract price or consideration the amount of such commission, percentage, brokerage or contingent fees. This warranty shall not apply to commissions payable by Contractors upon Contract or sales secured or made through bona fide established commercial or selling agencies maintained by the Seller for the purpose of securing business.

#### 31. ADDRESSES

#### SELLER:

Attention: Telephone: Email:

With Copy to:

Telephone: Email:

#### BUYER:1

Puerto Rico Electric Power Authority Apartado 363928 San Juan, Puerto Rico 00936-3928

Attention:

Telephone: Facsimile: E-mail:

With Copies to:

Telephone:

<sup>&</sup>lt;sup>1</sup> PREPA to confirm.

Facsimile: E-mail: and Attention: Telephone: Facsimile: E-mail:

Either Party may change its address details by giving not less than five (5) Days written notice to the other Party.

# 32. BUSINESS PRACTICES AND FOREIGN CORRUPT PRACTICES ACT

- 32.1 Each Party agrees that in connection with its activities conducted pursuant to this Agreement, neither it nor any of its directors, officers, employees, agents, contractors, or Affiliates shall (a) take any action, or omit to take any action that would violate any Applicable Law applicable to that Party, (b) make, promise to make, or authorize, the making of any payment, gift or transfer of anything of value, directly or indirectly, to any official or employee of any government or instrumentality of any government or to any political party or official thereof or any candidate of any political party for the purpose of influencing the action or inaction of such official, employee, political party or candidate, or (c) otherwise take any action, or omit to take any action that would cause the other Party to be in violation of any Applicable Law related to the business practices of such other Party, including the United States Foreign Corrupt Practices Act, the laws of the European Union and the Spanish anti-bribery and corruption laws.
- 32.2 Each Party agrees and undertakes, on behalf of itself, its directors, officers, employees, agents, contractors or Affiliates, not to pay any fees, commissions or rebates to any employee, officer or agent of the other Party, or its Affiliates or shareholders nor provide or cause to be provided to any of them any gifts or entertainment of significant cost or value in connection with their activities conducted pursuant to this Agreement or in order to influence or induce any actions or inactions in connection with the commercial activities of the Parties under this Agreement.
- 32.3 Without prejudice to Clause 31.5, neither Party shall use any broker, agent, or other intermediary in connection with soliciting, obtaining, negotiating, structuring or performing this Agreement or in connection with the subject matter to which it applies.
- 32.4 Each Party shall indemnify and hold the other Party harmless from and against any and all losses, damages, liabilities, costs, expenses and claims

which arise out of, are incident to, or result from any breach by such Party of this Clause 25.

# 33. TRANSFER OF FUNDS

If Seller decides to assign or transfer an amount, due or payable, to which he is entitled for services rendered or goods provided during the term of this Contract, Seller shall notify Buyer of such transfer of funds, in accordance to the provisions of Act 21-2012. Said notice shall clearly indicate the rights granted, including a copy of the contract under which the assignment or transfer of funds is made, the exact amount of funds to be assigned or transferred, and specific identification information regarding the assignee (full name of the person or company), address and any other contact information.

Seller acknowledges and agrees that Buyer may deduct any amount, due or payable under this Contract, that Seller owes; Buyer may retain any said amount if Seller fails to fulfill its obligations and responsibilities under this Contract, or a claim arises for warranty or defects regarding the services rendered or goods provided under this Contract. Seller also acknowledges and agrees that Buyer's payment obligation under any assignment of funds will cease upon payment of the outstanding amounts under this Contract. Buyer shall not be required to make payments or transfer any funds for an amount that exceeds the payment to which Seller is entitled to under this Contract

# 34. CONFLICT OF INTEREST

The Seller certifies that none of its representatives under this Contract receive payment or compensation of any nature, for services rendered regularly through an appointment to a governmental agency, body, public corporation or municipality of Puerto Rico. The Seller also certifies that he may have consulting services contracts with other governmental agencies or bodies, but such condition does not constitute a conflict of interest for the Seller.

The Seller acknowledges that in executing the services pursuant to Contract it has a duty of complete loyalty towards Buyer which includes not having adverse interests to those of Buyer related to the services. Those adverse interests include representation of clients which have or may have opposed interests to those of Buyer in relation to the services. Also, the Seller shall have the continuous obligation to disclose to Buyer all information and circumstances of its relations with clients and third persons and any interest which could reasonably influence Buyer when executing this Agreement or during its term.

The Parties certifies no officer, employee or agent of Buyer, or of the Government of the Commonwealth of Puerto Rico or Municipal Governments, shall be admitted to any share or part of this Contract or to any benefit that may arise there from, but this provision shall not be construed to extend to this Contract if made with a corporation for its general benefit.

In addition to the restrictions and limitations established under the provisions of Act 1-2012, as amended, retired or former officers or employees of Buyer, whose work was in any way related to the award or management of contracts, shall in no way benefit from any contract with Buyer for a period of two (2) years after leaving employment with or ceasing services to Buyer.

- The Seller represents conflicting interests when on behalf of a client he must contend for that which it is his duty to oppose to comply with its obligations with another previous, present or potential client. Also, the Seller represents conflicting interests when his conduct is described as such in the canons of ethic applicable to the Seller and his personnel or in the laws or regulations of the Commonwealth of Puerto Rico.
- 2) In the event that any of the partners, directors or employees of the Seller should incur in the conduct described herein, said conduct shall constitute a violation to the prohibitions provided herein. The Seller shall avoid even the appearance of the existence of conflicting interests.
- 3) The Seller acknowledges that Buyer's Contracting Officer shall have the power to intervene the acts of the Seller and/or its agents, employees, and subcontractors regarding the enforcement of the prohibitions contained herein. In the event that Buyer should discover the existence of adverse interests with the Seller, the Contracting Officer shall inform the Seller, in writing, of Buyer's intention to terminate this Contract within a thirty (30) day period. During said period, the Seller may request a meeting with the Contracting Officer to present his arguments regarding the alleged conflict of interests, which meeting shall be granted by Buyer in every case of alleged conflict of interests. In the event that the Seller does not request such a meeting during the specified thirty (30) day period or the controversy is not satisfactorily settled during the meeting, this Contract shall be cancelled.
- 4) The Seller certifies that, at the time of award of this Contract, it does not have any other contractual relation that can enter in a conflict of interest with this Contract. The Seller also certifies that no public employee has any personal or economical interest in this Contract.

# 35. UNFAIR LABOR PRACTICE

In the event that the Seller or any of his subcontractors or agents do not comply with an order issued by the Puerto Rico Labor Relations Board and/or the National Labor Relations Board upon their finding that the Seller or any of his subcontractors or agents have committed an unfair labor practice, no further payments shall be made by Buyer to the Seller after the date of the said order. In addition, the Contract may be terminated by Buyer, in which case Buyer may take possession of the materials, tools, and appliances on the job site and finish the work by whatever method it may deem expedient. Any declaration by the Puerto Rico Labor Relations Board and/or by the National Labor Relation Board that the contractors or agents have not complied with an order issued by the Board relating to any unfair labor practice, shall be binding, final, and conclusive unless such order is reversed or set aside by a Court of competent jurisdiction.

# 36. DISCRIMINATION

The Seller certifies that he is an employer with equal opportunity employment, and does not discriminate by race reason, color, religion, political ideas, sex, nationality, age or mental or physical condition.

# 37. SAFETY PROVISIONS

- A. The Seller shall comply with all applicable laws, ordinances, rules, regulations and OSHA standards for the safety of personnel, equipment, property and to protect them from damage, injury or loss. He shall erect and maintain, as required by existing conditions and progress of the work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities. Compliance with all safety provisions by subcontractors shall be the responsibility of the Seller.
- B. The Seller shall submit a Site-specific Work Plan including: the scope of work, description of the activities to be done, special safety and health considerations to be addressed before commencement of the project, safety procedures to be applied and used during the project including but not limited to excavations, work zone protection, scaffolding, crane operations and emergency procedures for fire and chemical spill among others.
- C. Before commencement of work, the Seller shall take part in a coordination meeting with Buyer's Safety Officer and Project Manager. During this meeting the areas to be worked on will be toured, the site-specific work plan will be reviewed and the protocols for Safety inspections and work permit system shall be discussed.
- D. The Seller shall designate an employee as their safety officer for the project. The duties of the safety officer could be in addition to his/her normal duties. The safety officer shall be in charge of the prevention of accidents and the implementation of the Site-specific Plan in coordination with Buyer's Safety Officer, Project Manager and Resident Engineer. The Seller safety officer shall have a basic training of 30 hours in Occupational Safety and Health Standards for Construction Industry from an approved OSHA Training Center. Evidence of the training shall be submitted if requested by Buyer.
- E. Welding operations shall comply with the requirements of OSHA, ANSI and NFPA.
- F. All chemical products to be used shall be classified as Approved or Conditionally Approved by Buyer's Hazard Communication Section

- G. The Seller shall be responsible for maintaining good housekeeping and sanitary conditions in the work, rest, lunch and toilet areas. If the project involves the handling of non-asbestos insulation or other dust generating materials, like gypsum board, steps shall be taken to prevent the release of dust to adjacent areas.
- H. Seller shall have an incident investigation procedure and shall notify to Buyer in writing any incident or accident on Buyer's facility.
- I. Seller shall have available and up to date all licenses, trainings, medical surveillance and related certificates for specialized personnel required by OSHA, EQB and DOT according to the scope of work to be performed.
- J. Each Contractor/Subcontractor shall adhere to a 100% drug /alcohol free work zone. At minimum, pre-project and post-accident testing is required. A positive postaccident test or positive pre-project test will result in worker dismissal from the project. Testing will be performed following closely the NIDA standards.
- K. Services including activities inside buildings occupied by working personnel, that could create a hazard to their safety or health, will be offered after Buyer's working hours. The exception will be if the Seller could take all the necessary precautions to protect Buyer's employees and the public from any possible hazard caused by the work. The Seller will take all steps necessary to assure the area will be free of nuisance odors or vapors before Buyer's personnel is to reoccupy. All these will be done in coordination with the local supervisor of Buyer.
- L. The Seller shall assure that all wastes generated by Seller as a part of the Work are removed and properly disposed of, in accordance with all applicable laws and regulations, at the end of every work shift and after the completion of the project.
- M. Seller will obtain and maintain, during the duration of the project, the proper permits from all federal, state and local regulatory authorities with respect to discharge, disposal, use, storage, handling and transportation of hazardous chemicals and substances. For projects including the handling of asbestos, lead, or spilled hazardous substances, the notification to EPA or the EQB will be done by the Seller, but in coordination with the Safety Officer and the Environmental Advisor.
- N. Seller will defend, indemnify and hold harmless, Buyer, its employees, agents or assignees for any and all direct liabilities and expenses arising out of Seller noncompliance with these clauses, if applicable to Seller and Seller's Work, irrespective of any other terms of this agreement.
- O. Buyer may unilaterally terminate this contract upon Seller's failure to reasonably comply with the applicable safety provisions on this Contract upon thirty (30) days of a written notice to Seller.

# 38. ENVIRONMENTAL LIABILITIES

The Seller agrees to indemnify BUYER from all expenses and costs of any nature arising out of any claim due to an environmental violation, caused by his agents, employees, subcontractors or any personal assigned during the performance or non-performance of its obligations under this Contract.

The Seller shall have available, and near to the working area, the necessary equipment to control and recover any spills that may occur during the performance of the work required by the Contract. This equipment should include all the necessary materials for waste disposal.

All equipment to be used in the work area should be free of oil, transmission fluid or hydraulic fluid leakages. If the equipment develops a leakage during the work process, it should be repaired or replaced immediately. While the leaking equipment is removed or repaired, it is the contractor's responsibility to use and replace the absorbent materials and drip pans.

The Seller shall inform and coordinate with the Environmental Compliance Officer of BUYER's Environmental Protection and Quality Assurance Division (EPQAD) of any work to be done to avoid any environmental violation. In case of any incident, the Seller shall, immediately, notify BUYER's on site Supervisor, who will notify the EPQAD.

Before starting the work, the Seller shall submit the work plan to Buyer's EPQAD for evaluation.

All chemical analysis shall be performed by a Buyer's approved laboratory that is included in Buyer's Material Management Division Supplier Registry as a company that is qualified and evaluated to perform this type of work.

Buyer's personnel will audit the sampling and the disposal of waste material.

The disposal of non-hazardous and hazardous waste material shall be done in a Puerto Rico Environmental Quality Board (PREQB) approved landfill.

The Seller shall comply with 49 CFR 72 Sub. Part H (DOT requirements).

All remedial actions and environmental work will be performed by a company previously approved by Buyer.

All work shall follow the Control Erosion and Sedimentation Plan (CES Plan). The temporary measures needed to control erosion and water pollution shall include, but not be limited to, berms, dikes, dams, sediment basins, fiber mats, netting, gravel, mulches, grasses, slope drains, and other erosion control devices or methods. These temporary measures shall be installed at the locations where there is a need to control erosion and water pollution during the construction of the project, and as directed by the engineer, and as shown on the drawings. The CES Plan presented in the drawings serves as a minimum for the requirements of erosion control during construction. The Seller has the

ultimate responsibility for providing adequate erosion control and water quality throughout the duration of the project. Therefore, if the provided plan is not working sufficiently to protect the project areas, then the Seller shall provide additional measures as required to obtain the required protection.

Chemical products cannot reach any internal or external sewer at the construction site in order to prevent contamination and comply with all federal and local regulations related with the Clean Water Act.

The Seller must obtain and submit to Buyer's EPQAD any other type of permit required for their operation but no limited, such as: fuel or wastewater storage tanks, storage of remain material of excavations or any landfill required for the project, use and storage of chemicals. Furthermore, will take immediate response or mitigate any environmental concern and deficiencies found by Buyer personnel or regulatory agencies. The Seller will be responsible to notify immediately to Buyer for any findings or environmental violations due to inspections by regulatory agencies.

The Seller must provide and maintain environmental protection measures during the commencement, construction and completion of the project, as defined under this contract. Environmental protection measures must be provided by the Seller to correct conditions that may emerge or develop during the construction, as well as, the recondition of all environmental measures or controls employed at the project which does not fulfill their purpose.

The construction process should be performed in such a manner that any adverse environmental impacts, where applicable, are reduced to a minimum and acceptable level in the fulfillment to Buyer's Environmental Compliance Officers.

It is intended that the natural resources within the project boundaries and outside the limits of the permanent work performed, be preserved in their existing condition or be restored to an equivalent or improved condition, upon completion of the work. The Seller shall confine his construction activities to areas defined by the work schedule, plans and specifications.

The Seller along with the engineer will establish, at least on a monthly basis, an orientation program for the residents and business people to clarify details and working schedule of the project, also to attend their needs or complaints.

All equipment to be used in the work area should be in perfect condition and have a good maintenance program. A monthly record of maintenance should be filed by the contractors and submitted to Buyer's EPQAD. If required, the Seller must perform and submit a monitoring study of gas emission or noise reduction on determined areas to comply with regulations. Also, will be responsible to maintain their operation center and project area clean and organized.

The use of liners to cover up carrying trucks is compulsory.

The Seller shall dispose of all waste generated in the project. The waste shall be

picked up and placed in containers which area must be emptied on a regular schedule. The construction areas shall be clean and must appear natural upon completion. The use of Buyer's waste disposal equipment by the Seller is not permitted.

All areas must be clean and organized to prevent accidents or violations to regulations.

Safety barriers must be installed at the edges of the project to avoid access from non-authorized individuals at the project site.

The Seller shall coordinate with Buyer for the disposal of all waste generated in connection with the operation and maintenance of the Purchased Equipment according to the all applicable state and federal environmental laws.

Before starting additional work, the Seller shall submit the work plan to Buyer's Environmental Protection Division for evaluation.

Buyer's personnel will audit the sampling and the disposal of waste material.

A company previously approved by Buyer will perform all remedial actions and environmental work (if it is necessary)

All work shall be performed according to the Storm Water Pollution Prevention Plan (SWPPP), which is part of the Special Conditions of the NPDES Permit.

All work performed at the Dock A, B and C should be performed according with best management practices to avoid any impact to NPDES Outfalls 002 and 003 and Intake 001 of the San Juan Power Plant.

All work will be performed in compliance with Consent Decree stipulations Civil Action No. 93-2527 CCC.

# **39. COMPLIANCE WITH THE COMMONWEALTH OF PUERTO RICO CONTRACTING REQUIREMENTS**

The Seller will comply with all applicable State Law, Regulations or Executive Orders that regulate the contracting process and requirements of the Commonwealth of Puerto Rico.

A. Executive Order Num. OE-1991-24 of June 18, 1991 to require certification of compliance with the Internal Revenue Services of the Commonwealth of Puerto Rico: Pursuant to Executive Order Number OE-1991-24 of June 18, 1991, the Seller will certify and guarantee that it has filed all the necessary and required income tax returns to the Government of Puerto Rico for the last five (5) years. The Seller further will certify that it has complied and is current with the payment of any and all income taxes that are, or were due, to the Government of Puerto Rico. The Seller shall provide, to the

satisfaction of Buyer, and whenever requested by Buyer during the term of this Contract, the necessary documentation to support its compliance with this clause. The Seller will be given a specific amount of time to produce said documents. During the term of this Contract, the Seller agrees to pay and/or to remain current with any repayment plan agreed to by the Seller with the Government of Puerto Rico.

- B. Executive Order Num. OE-1992-52 of August 28, 1992 to require certification of compliance with the Department of Labor of the Commonwealth of Puerto Rico. Pursuant to Executive Order Number 1992-52, dated August 28, 1992 amending OE-1991-24, the Seller will certify and warrant that it has made all payments required for unemployment benefits, workmen's compensation and social security for chauffeurs, whichever is applicable, or that in lieu thereof, has subscribed a payment plan in connection with any such unpaid items and is in full compliance with the terms thereof. The Seller accepts and acknowledges its responsibility for requiring and obtaining a similar warranty and certification from each and every Contractor and Sub Contractor whose service the Con Seller tractor has secured in connection with the services to be rendered under this Contract and shall forward evidence to BUYER as to its compliance with this requirement.
- C. Government of Puerto Rico Municipal Tax Collection Center: The Seller will certify and guarantee that it does not have any current debt with regards to property taxes that may be registered with the Government of Puerto Rico's Municipal Tax Collection Center (known in Spanish as Centro de Recaudación de Ingresos Municipales ("CRIM"). The Seller further will certify to be current with the payment of any and all property taxes that are or were due to the Government of Puerto Rico. The Seller shall provide, to the satisfaction of Buyer and whenever requested by Buyer during the term of this Contract, Certification issued by the Municipal Revenues Collection Center (MRCC), assuring that Seller does not owe any tax accruing to such governmental agency. To request such Certification, Seller will use the form issued by the MRCC (called "CRIM-Certificados, Radicación, Estado de Cuenta y Todos los Conceptos" in the website). The Seller will deliver upon request any documentation requested by Buyer. During the Term of this Contract, the Seller agrees to pay and/or to remain current with any repayment plan agreed to by the Seller with the Government of Puerto Rico with regards to its property taxes.

The Seller shall provide a Personal Property Tax Filing Certification, issued by the MRCC which indicates that Seller has filed its Personal Property Tax Return for the last five (5) contributory terms or Negative Debt certification issued by the MRCC with respect to real and property taxes and a sworn statement executed by Seller indicating that (i) its revenues are derived from the rendering of professional services, (ii) during the last five (5) years (or the time in which it has been providing professional services) it has had no taxable business or personal property on the 1st of January of each year, (iii) that for such reasons it has not been required to file personal property tax returns, as required under Article 6.03 of Act 83-1991, as amended and (iv) that for such reason it does not have an electronic tax file in the MRCC's electronic system.

- D. The Seller shall furnish a Certification issued by the Treasury Department of Puerto Rico which indicates that Seller does not owe Puerto Rico Sales and Use taxes to the Commonwealth of Puerto Rico; or is paying such taxes by an installment plan and is in full compliance with its terms.
- E. The Seller shall provide a Puerto Rico Sales and Use Tax Filing Certificate, issued by the Treasury Department of Puerto Rico assuring that Seller has filed his Puerto Rico Sales and Use Tax for the last sixty (60) contributory periods.
- F. The Seller shall provide a copy of Contractor's Certificate of Merchant's Registration issued by the Treasury Department of Puerto Rico.
- G. Puerto Rico Child Support Administration (ASUME): The Seller shall present, to the satisfaction of Buyer, the necessary documentation certifying that the Seller nor any of its owners, affiliates of subsidiaries, if applicable, have any debt, outstanding debt, or legal procedures to collect child support payments that may be registered with the Puerto Rico Child Support Administration (known in Spanish as the Administración Para El Sustento de Menores (ASUME). The Seller will be given a specific amount of time to deliver said documents. 3 L.P.R.A. § 8611 et seq.;
- H. The Seller shall provide a Good Standing Certificate issued by the Department of State of Puerto Rico.
- I. The Seller shall provide a Certification of Incorporation, or Certificate of Authorization to do business in Puerto Rico issued by the Department of State of Puerto Rico.
- J. Special Contribution for Professional and Consulting Services: As required by Act No. 48-2013, as amended, Buyer will withhold a special contribution of one point five percent (1.5%) of the gross amounts paid under this Contract.
- K. Social Security and Income Tax Retentions: In compliance with Executive Order 1991 OE- 24; and C.F.R. Part 404 et. Seq., the Seller will be responsible for rendering and paying the Federal Social Security and Income Tax Contributions for any amount owed as a result of the income, from this Contract.

- L. Income Tax Retention Law: Buyer shall deduct and withhold seven percent (7%) of any and all payments to residents of the Commonwealth of Puerto Rico as required by the Internal Revenue Code of Puerto Rico. In case of US citizens and Non US citizens, which are nonresidents of the Commonwealth of Puerto Rico the Seller will be retained twenty percent (20%) and twenty-nine percent (29%) respectively. Buyer will remit such withholdings to the Government of Puerto Rico's Treasury Department (known in Spanish as Departamento de Hacienda de Puerto Rico). The Seller will request Buyer not to make such withholdings if, to the satisfaction of Buyer, the Seller timely provides a release from such obligation by the Government of Puerto Rico's Treasury Department. 3 L.P.R.A. § 8611 et seq., 2011 L.P.R. 232; 232-2011.
- M. Compliance with Act No. 1 of Governmental Ethics: The Seller will certify compliance with Act No. 1 of January 3, 2012, as amended, known as the Ethics Act of the Government of Puerto Rico, which stipulates that no employee or executive of Buyer nor any member of his/he immediate family (spouse, dependent children or other members of his/her household or any individual whose financial affairs are under the control of the employee) shall have any direct or indirect pecuniary interest in the services to be rendered under this Contract, except as may be expressly authorized by the Governor of Puerto Rico in consultation with the Secretary of Treasury and the Secretary of Justice of the Government. 3 L.P.R.A. § 8611 et seq.;
- N. Law 168-2000: Law for the Strengthening of the Family Support and Livelihood of Elderly People: The Seller will certify that if there is any Judicial or Administrative Order demanding payment or any economic support regarding Act No. 168-2000, as amended, the same is current and in all aspects in compliance. Act No. 168-2000 "Law for the Strengthening of the Family Support and Livelihood of Elderly People" in Spanish: "Ley para el Fortalecimiento del Apoyo Familiar y Sustento de Personas de Edad Avanzada", 3 L.P.R.A. §8611 et seq.
- O. Law Num. 127, May 31, 2004: Contract Registration in the Comptroller's Office of Puerto Rico Act: Payment for services object of this Contract will not be made until this Contract is properly registered in the Office of the Comptroller of the Government of Puerto Rico pursuant to Law Number 18 of October 30, 1975, as amended.
- P. Dispensation: Any and all necessary dispensations have been obtained from any government entity and that said dispensations shall become part of the contracting record.
- Q. Articles extracted, produced, assembled, packaged or distributed in Puerto Rico by enterprises with operations in Puerto Rico, or distributed by agents

established in Puerto Rico shall be used when the service is rendered, provided that they are available.

- R. Rules of Professional Ethics: The Seller acknowledges and accepts that it is knowledgeable of the rules of ethics of his/her profession and assumes responsibility for his/her own actions.
- S. Prohibition with respect to execution by public officers: (3 L.P.R.A. 8615(c))

No public officer or employee authorized to contract on behalf of the executive agency for which he/she works may execute a contract between the agency for which he/she works and an entity or business in which he/she or any member of his/her family unit hasor has had direct or indirect economic interest during the last four (4) years prior to his/her holding office.

T. Prohibition with respect to contracting with officers or employees: (3 L.P.R.A. 8615(d))

No executive agency may execute a contract in which any of its officers or employees or any member of their family units has or has had direct or indirect economic interest during the last four (4) years prior to their holding office, unless the Governor gives authorization thereto with the previous recommendation of the Secretary of the Treasury and the Secretary of Justice.

U. Prohibition with respect to contracts with officers and employees of other Government entities: (3 L.P.R.A. 8615(e))

No public officer or employee may be a party to or have any interest in any profits or benefits produced by a contract with any other executive agency or government dependency unless the Governor gives express authorization thereto with previous recommendation from the Secretary of the Treasury and the Secretary of Justice.

V. Prohibition with respect to evaluation and approval by public officers: (3 L.P.R.A. 8615(f))

No public officer or employee who has the power to approve or authorize contracts shall evaluate, consider, approve or authorize any contract between an executive agency and an entity or business in which he/she or any member of his/her family unit has or has had direct or indirect economic interest during the last four (4) years prior to his/her holding office.

W. Prohibition with respect to execution by public officers contracts with former public officers: (3 L.P.R.A. 8615(h))

No executive agency shall execute contracts with or for the benefit of persons who have been public officers or employees of said executive agency until after two (2) years have elapsed from the time said person has ceased working as such.

- X. Both parties acknowledge and agree that the contracted services herein may be provided to another entity of the Executive Branch which enters into an interagency Contract with Buyer or by direct disposition of the Chief of Staff. These services will be performed under the same terms and conditions in terms of hours of work and compensation set forth in this Contract. For the purpose of this clause, the term "entity of the Executive Branch" includes all agencies of the Government of Puerto Rico, as well as all instrumentalities and public corporations.
- Y. The office of the Chief of Staff shall have the authority to terminate this Contract at any time.
- Z. The Seller shall provide Workmen's Compensation Insurance as required by the Workmen's Compensation Act 45-1935 of the Commonwealth of Puerto Rico. The Seller shall also be responsible for compliance with said Workmen's Compensation Act by all its subcontractors, agents, and invitees, if any.
- AA. Invoices must include a written and signed certification stating that no officer or employee of Buyer, and their respective subsidiaries or affiliates, will personally derive or obtain any benefit or profit of any kind from this Contract, with the acknowledgment that invoices that do not include this certification will not be paid. This certification must read as follows:

"We certify under penalty of nullity that no public servant of Buyer will derive or obtain any benefit or profit of any kind from the contractual relationship which is the basis of this invoice. If such benefit or profit exists, the required waiver has been obtained prior to entering into the Agreement. The only consideration to be received in exchange for the delivery of goods or for the Services provided is the agreed-upon price that has been negotiated with an authorized representative of the Buyer. The total amount shown on this invoice is true and correct. The Services have been rendered, and no payment has been received".

BB. Anti-Corruption Code for a New Puerto Rico. Seller agrees to comply with the provisions of Act No. 2-2018, as the same may be amended from time to time, which establishes the Anti-Corruption Code for a New Puerto Rico. The Seller hereby certifies that it does not represent particular interests in cases or matters that imply a conflict of interest, or of public policy, between the executive agency and the particular interests it represents. Seller shall furnish a sworn statement to the effect that neither Seller nor any president, vice president, executive director or any member of a board of officials or board of directors, or any person performing equivalent functions for Seller has been convicted of or has pled guilty to any of the crimes listed in Article 6.8 of Act 8-2017, as amended, known as the Act for the Administration and Transformation of Human Resources in the Government of Puerto Rico or any of the crimes included in Act 2-2018.

Seller hereby certifies that it has not been convicted in Puerto Rico or United States Federal court for under Articles 4.2, 4.3 or 5.7 of Act 1-2012, as amended, known as the Organic Act of the Office of Government Ethics of Puerto Rico, any of the crimes listed in Articles 250 through 266 of Act 146-2012, as amended, known as the Puerto Rico Penal Code, any of the crimes typified in Act 2-2018, as amended, known as the Anti-Corruption Code for a New Puerto Rico or any other felony that involves misuse of public funds or property, including but not limited to the crimes mentioned in Article 6.8 of Act 8-2017, as amended, known as the Act for the Administration and Transformation of Human Resources in the Government of Puerto Rico.

Buyer shall have the right to terminate the agreement in the event Seller is convicted in Puerto Rico or United States Federal court for under Articles 4.2, 4.3 or 5.7 of Act 1-2012, as amended, known as the Organic Act of the Office of Government Ethics of Puerto Rico, any of the crimes listed in Articles 250 through 266 of Act 146-2012, as amended, known as the Puerto Rico Penal Code, any of the crimes typified in Act 2-2018, as amended, known as the Anti-Corruption Code for a New Puerto Rico or any other felony that involves misuse of public funds or property, including but not limited to the crimes mentioned in Article 6.8 of Act 8-2017, as amended, known as the Act for the Administration and Transformation of Human Resources in the Government of Puerto Rico.

If any of the previously required Certifications shows a debt, and Seller has requested a review or adjustment of this debt, Seller will certify that it has made such request at the time of the Contract execution. If the requested review or adjustment is denied and such determination is final, Seller will provide, immediately, to Buyer a proof of payment of this debt; otherwise, Seller accepts that the owed amount be offset by Buyer and retained at the origin, deducted from the corresponding payments.

CC. Consequences of Non-Compliance: The Seller expressly agrees that the conditions outlined throughout this Section are essential requirements of this Contract. Consequently, should any one of these representations, warranties or certifications be incorrect, inaccurate or misleading, in whole or in part, there shall be sufficient cause for the Buyer to render this

Contract null and void, and the Seller shall reimburse the Buyer all moneys received under this Contract.

# 40. INSURANCE

# **INSURANCE AND BONDS:**

The Seller shall secure and maintain in full force and effect during the life of this Contract as provided herein, policies of insurance covering all operations engaged in by the Contract as follows:

# 1. <u>Commonwealth of Puerto Rico Workmen's Compensation Insurance</u>:

The Seller shall provide Workmen's Compensation Insurance as required by the Workmen's Compensation Act 45-1935 of the Commonwealth of Puerto Rico. Seller shall also be responsible for compliance with said Workmen's Compensation Act by all its subcontractors, agents, and invitees, if any.

The Seller shall furnish a certificate from the Puerto Rico's State Insurance Fund showing that all personnel employed in the work are covered by the Workmen's Compensation Insurance, in accordance with this Contract.

# 2. Employer's Liability Insurance:

The Seller shall provide Employer's Liability Insurance with minimum bodily injury limits of \$1,000,000 for each employee and \$1,000,000 for each accident covering against the liability imposed by Law upon the Seller as result of bodily injury, by accident or disease, including death arising out of and in the course of employment, and outside of and distinct from any claim under the Workmen's Compensation Act of the Commonwealth of Puerto Rico.

# 3. <u>Commercial General Liability Insurance</u>:

The Seller shall provide a Commercial General Liability Insurance with limits of \$2,000,000 per occurrence and \$2,000,000 aggregate.

The Commercial General Liability Insurance or its equivalent must include coverage for bodily injuries and property damages caused during the operation of a watercraft.

# 4. <u>Excess Liability Insurance:</u>

The Seller shall provide an Excess Liability Insurance in excess of the Commercial General Liability Insurance limits. This Excess Liability Insurance will have limits of \$10,000,000 per occurrence and \$10,000,000 aggregate.

# 5. <u>Commercial Automobile Liability Insurance</u>:

The Seller shall provide a Commercial Automobile Liability Insurance with limits of \$1,000,000 combined single limit covering all owned, non-owned, and hired automobiles.

# 6. <u>Pollution Liability Insurance</u>:

The Seller shall provide a Pollution Liability Insurance with limits of \$1,000,000 per claim and \$1,000,000 per aggregate.

# Requirements Under the Policies:

The Commercial General Liability or its equivalent and the Commercial Automobile Liability Insurance required under this Contract shall be endorsed to include:

# a. As Additional Insured:

Puerto Rico Electric Power Authority (Buyer)

Risk Management Office

PO Box 364267

San Juan, PR 00936-4267

- b. A 30-day cancellation or nonrenewable notice to be sent to the above address.
- c. An endorsement including this Contract under contractual liability coverage and identifying it by number, date and parties to the contract.
- d. Waiver of Subrogation in favor of Puerto Rico Electric Power Authority (Buyer).
- e. Breach of Warranties or Conditions:

"The Breach of any of the Warranties or Conditions in this policy by the Insured shall not prejudice Buyer's rights under this policy."

# <u>Bonds</u>:

As a Contract security, the Seller shall furnish at the time of the execution of the Contract:

- 1. A Performance Bond in the amount of 25% of the estimated annual Agreement price, with good and sufficient surety satisfactory to Buyer guaranteeing that the Seller will well and faithfully perform the contract work.
- 2. A Payment Bond in the amount of 25% of the estimated annual Agreement price, with good and sufficient surety satisfactory to Buyer to guarantee the prompt payment of all labor, supervision, equipment and materials required in the performance of the work.
- 3. All bonds shall be issued in the official form of Buyer.

# Furnishing of Policies:

All required policies of insurance shall be in a form acceptable to Buyer and shall be issued only by insurance companies authorized to do business in Puerto Rico.

The Seller shall furnish a certificate of insurance in original signed by an authorized representative of the insurer in Puerto Rico, describing the coverage afforded."

# 41. [RESERVED]

# 42. GENERAL

- 42.1 If any inconsistency appears between the provisions contained in the body this Agreement and any Annex to this Agreement, then the provisions of the body of this Agreement shall prevail.
- 42.2 If any one or more of the provisions, obligations, or terms herein or part thereof shall be determined by a court of competent jurisdiction to be wholly or partially invalid, void, illegal or unenforceable in any respect by operation of Applicable Law or otherwise, the validity, legality, or enforceability of the remaining provisions, obligations, or terms or part thereof in any other jurisdiction shall not in any way whatsoever be affected or impaired thereby and all provisions of this Agreement shall, if alternative interpretations are applicable, be construed so as to preserve the validity and enforceability hereof to the extent that the essential purposes of this Agreement can be determined and effectuated.
- 42.3 The Parties do not intend any term of this Agreement to be enforceable by any Third Party. The Parties may rescind or vary this Agreement, in whole or in part, without the consent of any Third Party.
- 42.4 Nothing in this Agreement shall be deemed to create a partnership, joint venture or association, establish a principal and agent relationship or any

other relationship of a similar nature, including employment, between the Parties or create any joint and several liabilities. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, to act on behalf of, to act as or be an agent or representative of, or to otherwise bind, the other Party.

- 42.5 The Parties acknowledge that this Agreement may have been negotiated and prepared by the Parties with the advice of legal counsel to the extent deemed necessary by each Party. The Parties have agreed to the wording of this Agreement and none of the provisions of this Agreement shall be construed against one Party on the ground that such Party is the author of this Agreement or any part of this Agreement.
- 42.6 This Agreement contains the entire agreement between the Parties with respect to the subject matter hereof and supersedes all prior proposals, negotiations and communications relative hereto, oral or written, and there are no other understandings or representations between the Parties hereto. This Agreement may not be amended except by an instrument in writing signed by a duly authorized representative of each Party.

[Signature Page Follows]

IN WITNESS WHEREOF the Parties hereto have caused this Agreement to be executed by their respective duly authorized representative as of the day and year first above written.

#### For and on behalf of

For and on behalf of

SELLER:

### BUYER:

# PUERTO RICO ELECTRIC POWER AUTHORITY

Name: Title: Name: Title:

# PUERTO RICO ELECTRIC POWER AUTHORITY GENERATION DIRECTORATE

# ANNEX A TERMS AND CONDITIONS FOR UNITS CONVERSIONS AND PIPELINE INSTALLATION

IN CONSIDERATION of the mutual covenants hereinafter stated, as first party, the Puerto Rico Electric Power Authority, hereinafter referred to as "PREPA", as second party, (Name of Company), the parties agree themselves, their personal representatives, successors, and assignees, as follows:

# ARTICLE 1. Scope of Work

The Seller shall furnish all labor, materials, design, supervision, equipment, tools, services, engineering, fabrication, procurement, construction, operator training, tests, taxes, startup, and other necessary services for the conversion of San Juan Units 5 and 6 in strict accordance with the provisions of this Contract, including the RFP documents, Proposal, and reference drawings, all of which are hereby made a part hereof provided that, on or before 60 days after the Commissioning Start Date (as per Fuel Sale and Purchase Agreement), as part of its obligations herein stated, the Seller shall deliver to PREPA a true and exact copy of all diagrams, plans, sketches, maps, and other documents used in the performance of contracted works and for which a third party copyright or patent right would not be an impediment for such delivery. The Seller shall be responsible for the scope of work and associated capital cost required for LNG gas conversion of PREPA's San Juan Units 5 and 6, as well as modifications to associated turbine controls. The Seller shall include the cost of the scope for PREPA's Units 5 and 6 conversions in the form of a capacity payment over the initial Base five (5) year term of the Agreement.

The terms and conditions included on this Annex A will apply only to the units' conversions and pipeline installation works. If there is any discrepancy between this document and the Fuel Sale and Purchase Agreement (the Agreement), the latter will prevail. Articles on the Agreement shall also apply to the unit's conversions and pipeline installation works.

# ARTICLE 2. Definitions

Whenever the words defined in this article or pronouns used instead are mentioned in this document (Annex A), they shall have the meanings here given. If not defined on this document, then the definition on the Fuel Sale and Purchase Agreement will apply.

- 2.1 **"Act of God"** an Act of God is construed herein to mean an earthquake, hurricane or other cataclysmic phenomenon of nature not ordinarily occurring. Rains, windstorms, floods or other natural phenomenon of normal intensity for the particular locality as determined by the preceding five (5) year monthly average from records of the nearest National Oceanic and Atmospheric Administration recording station shall not be construed as an Act of God.
- 2.2 **"Buyer"** shall have the meaning given in the Fuel Sale and Purchase Agreement.
- 2.3 **"Calendar Day"** shall mean each and every 24 hour day shown on the calendar, beginning and ending at midnight.
- 2.4 **"CES Inspector Plan"** Monitoring engineer hired to perform monthly inspections and assure compliance with the Approved Erosion and Sedimentation Control Plan for the Project with regulatory agencies.

- 2.5 **"Contracting Officer"** shall mean the Chief Executive Officer of PREPA, acting directly or through his properly authorized representatives as notified in writing to the Seller.
- 2.6 **"Completion Date"** date in which units conversions and pipeline installation works has been completed.
- 2.7 **"Contract"** shall mean the Fuel Sale and Purchase Agreement.
- 2.8 **"Construction Manager"** shall mean the professional assigned by the Seller to provide the construction management services on the project. This professional shall be a professional engineer registered in Puerto Rico and an active member of the Puerto Rico College of Engineers and Land Surveyors.
- 2.9 **"Change Order"** A written agreement between the parties that sets out changes (in price, time, or scope of work) to the Contract.
- 2.10 "Critical Path Method (CPM)" A scheduling technique used to plan and control a project which combines all relevant information into a single plan defining the sequence and duration of operations and depict the interrelationship of the work elements to complete the project. The critical path is defined as the longest sequence of activities in a network which establishes the minimum length of the time for accomplishment the last event of the project.
- 2.11 "**Delay**" Event that extends (affect) the completion date of the project, by affecting tasks on the critical path. The project schedule shall clearly display that the Seller has used, in full, all the float time available for the work involve with this request.
- 2.12 **"Engineer"** shall mean PREPA's Director of Generation, acting directly or through his properly authorized representatives.
- 2.13 **"Final Acceptance"** shall mean the written approval by PREPA that the entire Phase I (units conversions and pipeline installation) works have been completed and the final cleaning up of the site has been performed and all Punch List items have been rectified.
- 2.14 "Letter of Award" (LOA) Letter signed by the Chief Executive Officer to notify the offeror that the proposal is being awarded to him and to require documents prior to contract signing, such as but not limited to; Corporate Resolution, evidence of payment and certificate of the Puerto Rico State Insurance Fund, municipal license taxes, Construction excise taxes, certificate of insurances and endorsements, documents of the Owner Controlled Insurance Program, payment and performance bonds.
- 2.15 **"Letter of Release"** Letter signed by the Seller's contracting officer and notarized stating that the Seller has no debt with, but no limited to, subcontractors, consultants, material and services supplier, Federal and State Agencies, Municipality, manufacturer or Insurance Agency.
- 2.16 **"Notice to Proceed"** a written order sent to the Seller by the Contracting Officer, or his designated representative, notifying the Seller of the date upon which the Seller is given authority to begin the work.
- 2.17 "**Owner**" designates the Puerto Rico Electric Power Authority (PREPA).
- 2.18 **"Phase I" (Units Conversions and Pipeline Installation)** shall mean the supply, installation, commissioning, and tests for pipeline and LNG gas conversion of PREPA's San Juan Units 5 and 6, as well as modifications to associated turbine controls.
- 2.19 **"Phase II" (Fuel Supply)** shall mean the shipping, supply, and operation associated with LNG delivered to the terminal and for natural gas supply from the terminal to San Juan 5 and 6 shall be part of Seller's responsibility. Begins with Commissioning Start Date.

- 2.20 **"Punch List"** shall mean the list of non-conforming or incomplete work items that are identified by PREPA as been required for the Final Acceptance of the work.
- 2.21 "**Resident Engineer**" shall mean the manager of the field office responsible for, but not limited to, the administrative issues, quality control, and technical aspects of the project. This person shall be a professional engineer register in Puerto Rico and an active member of the Puerto Rico College of Engineers and Land Surveyors. The Resident Engineer shall be present at all times on site in order to the Seller be able to perform any task of the project.
- 2.22 **"Safety Officer"** shall be the person designated by the Seller whose only duty shall be the prevention of accidents and implement, both, the Safety and Health Program and the Site-specific Work Plan. The Safety Officer shall be present at all times on site in order to the Seller be able to perform any task of the project.
- 2.23 "Seller" shall have the meaning given in the Fuel Sale and Purchase Agreement.
- 2.24 "Special Conditions" are all special requirements, regulations and/or directions covering conditions peculiar to a particular project.
- 2.25 "Substantial Completion of Phase I" shall mean the date, certified by PREPA, when the conversions and modifications to the units have been completed, all tests to the units and pipeline have been performed and reports have been delivered to PREPA, and after each unit have burned LNG for seven (7) consecutive days. However, the Seller shall finish the items included in the punch list and all other pending task or requirement of the contract documents, as required in the Substantial Completion certificate.
- 2.26 "**Subcontractor**" shall mean any subcontractor, supplier, or vendor of the Seller engaged for the purposes of progressing the work under a subcontract with the Seller and in which the Seller has no equity interest or profit sharing affiliation. Any such entity in which the Seller owns equity or has a profit sharing affiliation shall be considered to be the Seller. Seller shall comply with requirements set forth on Article 18. <u>Subcontractors</u> of the Contract.
- 2.27 **"Working Day"** shall mean each day Monday thru Friday and hours from 7:00 AM to 11:30 AM and from 12:30 PM to 4:00 PM.

# ARTICLE 3. Commencement and Completion of Work

3.1 <u>General</u>

The Seller shall receive a written order, stating the date on which the Seller shall commence to execute the contracted work. Thus, Notice to Proceed date marks the beginning of commencement of work. Mobilization shall be completed within ten (10) days after the Notice to Proceed. Both Parties agree that time is the essence of the Contract.

The demand of the obligations of either party under this Contract will be subject to the filing of the Contract at the Office of the Comptroller of the Commonwealth of Puerto Rico, in compliance with Act of October 30, 1975, No. 18, as amended.

The Seller shall, not later than ten (10) working days, after receipt of the Letter of Award (LOA) signed by the Engineer, furnish all documents required therein. Schedule of Proposed Progress

# 3.2 <u>Schedule of Proposed Progress</u>

The Seller, within ten (10) days after receipt of the Notice to Proceed shall file with the Engineer a schedule of proposed progress of the work and the proposed detailed method of carrying on the work including a full statement of equipment and equipment layout for the job. This progress chart and statement of operations shall show the dates of commencement and completion of each item of the work. This schedule shall also include the milestones for the submittals and material ordering, the critical path of the project, and the man-hours per item if said progress chart and/or statement of operations are not satisfactory to the Engineer, they shall be revised by the Seller to provide for the use of adequate and sufficient equipment and force and a method of operations, which will assure the completion of the work within allotted time. This information shall become a part of this Contract after the Engineer has approved it in writing. The schedule shall be actualized monthly by the Seller and submitted to PREPA for approval.

# ARTICLE 4. Suspension of Work

The Contracting Officer or the Engineer may, at any time, suspend the whole or any portion of the work under this Contract, for the period of time that the Contracting Officer or the Engineer determines appropriate to PREPA, but this right to suspend the work shall not be construed as denying the Seller actual reasonable, and necessary expenses due to delays, caused by such suspension, it being understood that expenses will not be allowed for such suspension when ordered by the Contracting Officer or the Engineer on account of a Force Majeure event, as defined in Article 14. Force Majeure, herein. The cause of such suspension shall be put in writing by the Contracting Officer, the Engineer or the designate representative within two (2) working days after the suspension or as soon as practicable.

# ARTICLE 5. Other Work at the Site

PREPA reserves the right to perform other work by force account and/or enter into other contracts in connection with this project. The Seller shall afford PREPA and other contractor reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and coordinate his work with theirs. If any part of the Seller's work depends for proper execution or results upon the work of PREPA or of any other contractor, the Seller shall inspect and promptly report to PREPA any defects in such work or any conflicts between such work and that of the Seller, PREPA to decide, if necessary, the course to be followed by each party.

Wherever work being done by PREPA's own forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by PREPA to secure the completion of the various portions of the work in general harmony. Whenever, in the opinion of PREPA, the orderly progress of the entire project requires the use by PREPA's own forces or by other contractors, of construction equipment installed and operated by the Seller for his own use, PREPA will arrange with the Seller for such use, at times, and in locations which will not interfere with the work being done under this Contract.

# ARTICLE 6. Submittals

The Engineer shall be allowed at least ten (10) working days to evaluate and to review of submittals and mark them as disapproved, approved as corrected or approved it becomes necessary. The Seller is responsible to submit digital submittals. All not approved submittals shall be corrected as required and resubmitted for PREPA's evaluation.

Before commencement of any work or task required in this Contract, the Seller shall submit for PREPA's approval, required in Article 37. <u>Safety Provisions</u> of the Contract, the Occupational Safety and Health Program.

# ARTICLE 7. Specifications and Drawings

PREPA reserves the right to review and approve all drawings, specifications, methods, and data which the Seller generates, from its responsibilities, obligations or liabilities under this Contract. The Seller shall obtain such reviews or approval in writing from PREPA. The Seller shall keep at the working area a copy of the Contract, its supplementary documents, specifications and drawings, and shall, at all times, give the Engineer access thereto. Anything called for in the specifications and not shown on the drawings or shown on the drawings and not mentioned in the specifications shall be of like effect as if called for or shown on both. In case of discrepancy in the specifications and drawings, the matter shall be immediately submitted to the Engineer, without whose decision said discrepancy shall not be adjusted by the Seller, and the Seller shall not proceed with the work so affected until it has received written order from the Engineer.

# ARTICLE 8. Strict Accordance with Technical Requirements

All construction work called for in the Specifications and/or shown on the drawings to be performed by the Seller shall be performed in strict accordance with the technical requirements of the contract documents.

# ARTICLE 9. Changes and/or Extra Work

PREPA may, at any time, make changes or order extra work within the Scope of Work contracted, subject to previous written approval of PREPA's Contracting Officer. Changes made by PREPA may include, but not limited to, changes:

- 1. In the specifications including drawings and design.
- 2. In the method or manner of performance of the work.
- 3. In PREPA's furnished facilities, equipment, materials, services, or site; and/or,
- 4. Acceleration in the performance of the work.

Within ten (10) working days after receipt of PREPA's written order of a change in the work (or such shorter or longer period of time as may be reasonably required as agree by PREPA and the Seller), Seller shall promptly notify PREPA of the cost, schedule and other impact(s) Seller anticipate as a result of the change. If PREPA agrees with the Seller's statement as to the impact of the change, the parties shall proceed promptly to enter into a written change order in connection with such change to equitably adjust Seller's cost (increase or decrease), schedule (lengthen or shorten), or other obligations under Contract in connection with such change. If PREPA disagrees with the Seller's statement as to the final impact of the change, PREPA shall promptly advise Seller in writing of the basis for the disagreement and PREPA and Seller shall negotiate in good faith to resolve any issues in order to, when applicable, enter into a written change order to equitably adjust Seller's cost (increase or decrease), schedule (lengthen or shorten), or other obligations under the Contract in connection with such change. Acceptance of the change order and an adjustment in the Contract price and/or Contract time shall not be unreasonable withheld. Once a written consent has been executed by PREPA's Contracting Officer, Seller shall proceed with the change. Except as herein provided, and with the time frames stated, no order, statement, or conduct of PREPA shall be treated as a change under this section or entitle the Seller to an equitable adjustment hereunder.

If agreement on the prices for the extra work cannot be reached between PREPA and the Seller, PREPA may order in writing the Seller to perform the required work on a force account basis and the Seller shall then execute the order. PREPA may also elect to have such work performed by its own forces or by separate contract.

In order to facilitate review of quotations for extras or credits, all proposals submitted by Seller in connection with a change in the work by PREPA, except those so minor that their propriety can be seen by inspections, shall be accomplished by a complete itemization of the costs including labor, materials, equipment, and subcontracts. When subcontractors perform major cost items, they shall also be itemized.

# ARTICLE 10. Inspection

# 10.1 Periodic Inspection

All material and workmanship (if not otherwise designated by the specifications) shall be subject to inspection, examination, and test by PREPA's inspectors, at all reasonable times, during manufacture and/or construction. PREPA shall have the right to reject defective material, equipment or workmanship or require its correction. Rejected workmanship shall be satisfactorily corrected and rejected material and equipment furnished by the Seller shall be satisfactorily replaced with proper material and equipment, without charge to PREPA. The Seller shall promptly remove rejected material from the premises. The Seller shall furnish promptly all reasonable facilities, labor, materials, and equipment necessary for the safe and convenient inspection and tests that may be performed in such manners as not to unnecessarily delay the work.

# 10.2 Final Inspection of Phase I

Whenever all the materials have been furnished and all work has been performed, including final cleaning up as contemplated in Article 22. Cleaning Up, all in accordance with the drawings and specifications, the Seller shall notify in writing the Engineer that said work is completed and ready for final inspection. Final inspection shall occur within a ten (10) working days period after the Engineer has received notice from the Seller of the satisfactory completion of the installation of the equipment. After receipt of notice PREPA will notify Seller of the exact date and time of the final inspection and Seller shall accommodate PREPA's specific time. If all installation work provided for and contemplated by the Contract is found completed in accordance with the specifications, this inspection shall constitute the final inspection and the Completion Date shall be established as the date of receipt of the notice of the Seller that the work was completed and ready for final inspection. If, however, upon inspection by the Engineer it is found that any work, in whole or in part, is unsatisfactory, the Engineer shall give the Seller the necessary instructions as to replacement of material and performance of work necessary to final completion and acceptance and the Seller shall immediately comply with and execute such instructions. Upon satisfactory replacement and performance of such work, the Seller shall notify the Engineer, and another inspection shall be made which will constitute the final inspection if the said material is found to have been acceptably replaced and the work completed satisfactorily. In such event, the date of receipt of this last notice of the Seller will be established as the Completion Date of the work or any separable part thereof under the Contract. The Completion Date, thus established, shall be used in calculating the actual time of performance of the work.

The determination of whether a project is substantially completed is at the discretion of PREPA. A project will normally be considered substantially completed as established in the Article 2.25, Substantial Completion of Phase I, when all the contract work, except for a few very minor details, has been completed, the required final cleaning up has been performed and the project can be fully, legally and safely opened to traffic or used for the intended purpose.

Fuel Supply and Conversion Units 5 and 6 Terms and Conditions for Units Conversions and Pipeline Installation Works Page 7 of 12

# ARTICLE 11. Superintendence by the Seller

Before commencement of the work, the Seller shall designate a competent Construction Manager, satisfactory to the Engineer, with the expertise and resources necessary to provide construction management services. The Seller shall also have a competent Resident Engineer, satisfactory to the Engineer, on the work site, at all times, during progress of the work, with authority to act for him. The Resident Engineer shall only be assigned to this project. The Construction Manager and Resident Engineer shall represent the Seller on his absence and all directions given to him by the Engineer shall be as binding as if given to the Seller. The Seller shall, at all times, enforce strict discipline and good order among his employees and shall not employ on the work any unsuitable or unskilled person in the work assigned to him. In addition, the Seller shall be fully responsible for the negligent or wrongful acts or omissions of subcontractors or of persons both directly or indirectly employed by the Seller and shall be liable to PREPA and/or any affected third parties for such acts or omissions.

# ARTICLE 12. Sanitary Facilities

The Seller shall furnish and maintain satisfactory, sanitary facilities for the use of the workmen engaged in the construction, as required by law or regulations.

# ARTICLE 13. Access to Work

The Seller shall permit all persons appointed or authorized by PREPA to visit and inspect the work, or any part thereof at all times, and places during the progress of it.

# ARTICLE 14. Force Majeure

The parties hereto shall be excused from performing hereunder and shall not be liable in damages or otherwise, if and only to the extent that they shall be unable to perform, or are prevented from performing by a Force Majeure event. For purposes of Phase I, Force Majeure means any cause without the fault or negligence, and beyond the reasonable control of, the party claiming the occurrence of a Force Majeure event. Force Majeure may include, but not be limited to, the following: Acts of God, industrial disturbances, acts of the public enemy, war, blockages, boycotts, riots, insurrections, epidemics, earthquakes, storms, floods, civil disturbances, lockouts, fires, explosions, interruptions of services due to the acts or failure to act of any governmental authority, provided that these events, or any other claimed as a Force Majeure event, and/or its effects, are beyond the reasonable control and without the fault or negligence of the party claiming the Force Majeure, and that such party, within ten (10) days after the occurrence of the alleged Force Majeure, gives the other party written notice describing the particulars of the occurrence and its estimated duration. The burden of proof as to whether a Force Majeure has occurred shall be on the party claiming the Force Majeure.

# ARTICLE 15. Independent Contractor

The Seller shall be considered as an independent contractor, for all material purposes under this Contract, and all persons engaged or contracted by the Seller for the performance of its obligations herein, shall be considered as its employees or agents or those of its subcontractors, and not as employees or agents of PREPA. In consequence, the Seller is not entitled to any fringe benefits, such as, but not limited to vacations, sick leave, and other. Fuel Supply and Conversion Units 5 and 6 Terms and Conditions for Units Conversions and Pipeline Installation Works Page 8 of 12

# ARTICLE 16. Insurance, Bonds, and Indemnities

The Seller shall secure and maintain in full force and effect during the life of this Contract as provided herein, policies of insurance covering all operations engaged in by the Contract as follows:

# 1. Commonwealth of Puerto Rico Workmen's Compensation Insurance:

The Seller shall provide Workmen's Compensation Insurance as required by the Workmen's Compensation Act 45-1935 of the Commonwealth of Puerto Rico. Seller shall also be responsible for compliance with said Workmen's Compensation Act by all its subcontractors, agents, and invitees, if any.

The Seller shall furnish a certificate from the Puerto Rico's State Insurance Fund showing that all personnel employed in the work are covered by the Workmen's Compensation Insurance, in accordance with this Contract.

# 2. Employer's Liability Insurance:

The Seller shall provide Employer's Liability Insurance with minimum bodily injury limits of \$1,000,000 for each employee and \$1,000,000 for each accident covering against the liability imposed by Law upon the Seller as result of bodily injury, by accident or disease, including death arising out of and in the course of employment, and outside of and distinct from any claim under the Workmen's Compensation Act of the Commonwealth of Puerto Rico.

# 3. Commercial General Liability Insurance:

The Seller shall provide a Commercial General Liability Insurance or its equivalent with limits of \$2,000,000 per occurrence and \$2,000,000 aggregate.

# 4. Excess Liability Insurance:

The Seller shall provide an Excess Liability Insurance in excess of the Commercial General Liability Insurance limits. This Excess Liability Insurance will have limits of \$10,000,000 per occurrence and \$10,000,000 aggregate.

# 5. <u>Commercial Automobile Liability Insurance</u>:

The Seller shall provide a Commercial Automobile Liability Insurance with limits of \$1,000,000 combined single limit covering all owned, non-owned, and hired automobiles.

# 6. <u>Pollution Liability Insurance</u>:

The Seller shall provide a Pollution Liability Insurance with limits of \$1,000,000 per claim and \$1,000,000 per aggregate.

# 7. Professional Liability Insurance:

The Seller shall provide a Professional Liability Insurance with limits of \$1,000,000 per claim and \$1,000,000 per aggregate.

Fuel Supply and Conversion Units 5 and 6 Terms and Conditions for Units Conversions and Pipeline Installation Works Page 9 of 12

# Requirements Under the Policies:

The Commercial General Liability or its equivalent and the Commercial Automobile Liability Insurance required under this Contract shall be endorsed to include:

a. <u>As Additional Insured</u>:

Puerto Rico Electric Power Authority (PREPA) Risk Management Office PO Box 364267 San Juan, PR 00936-4267

- b. A 30-day cancellation or nonrenewable notice to be sent to the above address.
- c. An endorsement including this Contract under contractual liability coverage and identifying it by number, date and parties to the contract.
- d. Waiver of Subrogation in favor of Puerto Rico Electric Power Authority (PREPA).
- e. Breach of Warranties or Conditions: "The Breach of any of the Warranties or Conditions in this policy by the Insured shall not prejudice PREPA's rights under this policy."

### Bonds:

As a Contract security, the Seller shall furnish at the time of the execution of the Contract:

- 1. A Performance Bond in the amount of 100% of the Phase 1 cost (conversions and pipeline installation), with good and sufficient surety satisfactory to PREPA guaranteeing that the Seller will well and faithfully perform the contract work.
- 2. A Payment Bond in the amount of 100% of the Phase 1 cost (conversions and pipeline installation), with good and sufficient surety satisfactory to PREPA to guarantee the prompt payment of all labor, supervision, equipment and materials required in the performance of the work.
- 3. All bonds shall be issued in the official form of PREPA.

# Furnishing of Policies:

All required policies of insurance shall be in a form acceptable to PREPA and shall be issued only by insurance companies authorized to do business in Puerto Rico.

The Seller shall furnish a certificate of insurance in original signed by an authorized representative of the insurer in Puerto Rico, describing the coverage afforded.

# ARTICLE 17. Other Contracts

PREPA may award other contracts for additional work, and the Seller shall fully cooperate with such other contractors, in accordance with Article 5. <u>Other Work at the Site</u>, of this Contract, and carefully fit his own work to that provided under other

contracts as may be directed by the Contracting Officer. The Seller shall not commit or permit any acts, which interfere with the performance of work by any other contractor.

# ARTICLE 18. Correction of Work After Final-Acceptance

Neither the final certificate for payment nor any provision in the Contract documents shall relieve the Seller of responsibility for faulty materials or workmanship and, unless otherwise specified, he shall remedy any defects due thereto and pay for any damage to other work resulting therefore, which shall appear within a period of two (2) years after final acceptance. PREPA shall give notice of observed defects with reasonable promptness. All questions arising under this Article shall be decided by the Engineer, subject to appeal by the Seller, as provided in Article 25. Settlement of <u>Disputes</u>, of the Contract.

# ARTICLE 19. Warranty

The Seller warrants that all materials, parts, equipment used, and work performed for the units conversions and pipeline installation comply in all respect with its terms and conditions; that they are free from any and all latent and patent defects in design, materials, and workmanship; that they are suitable and adequate for the purposes for which they were designed and for such other purposes, if any, as are specified in the Contract, and that the services provided under this Contract will conform with the highest standards of care and practice appropriate to their nature. The warranty period will begin the date on which PREPA finally accepts the service and/or installation of the contracted product and will continue for a period of two (2) years. The Seller will, upon written notice by PREPA, fully remedy, free of expense to PREPA, such defects as may develop on said services, materials, parts or equipment, provided that they have been properly stored, installed, maintained, and operated within the specified parameters. The Performance Bond shall cover and serve as guarantee for this warranty.

For those materials, parts, equipment, which proves defective or deficient during the warranty period, the Seller shall, at his own expense, repair or replace, transport-in, from Seller's facilities to PREPA's site, and transport-out, from PREPA's site to Seller's facilities, such materials, parts, and/or equipment. The Performance Bond shall cover and serve as guarantee for the Seller's failure, in whole or in part, to properly perform his obligations under this Contract.

For parts and equipment to be procured by Seller from other suppliers, and which will be furnished by Seller to PREPA under this Contract, a written warranty shall be obtained by the Seller from each supplier and legally tended to PREPA prior to the commencement of work.

# ARTICLE 20. Correlation of Documents

The contract documents are complementary and what is required by one shall be as biding as if required by all. The Seller shall keep in the work site a copy of the Contract documents relating to the work and any supplementary documents, specifications and drawings relating thereto and shall give PREPA access thereto during all normal working hours.

In case of discrepancy or in the event of conflict among the different Contract documents such as: Fuel Sale and Purchase Agreement, Units Conversions and Pipeline Installation Terms and Conditions (Annex A), Technical Specifications, Drawings, and the Offeror's Proposal, these shall take precedence in the order given.

Fuel Supply and Conversion Units 5 and 6 Terms and Conditions for Units Conversions and Pipeline Installation Works Page 11 of 12

The terms and conditions contained in the Contract shall prevail over any conflictive terms and conditions contained in the Seller's Bidding Proposal.

# ARTICLE 21. Notice

Any required notice to be given hereunder, related to the Units Conversions and Pipeline Installation Works, shall be in writing and will be sufficiently served when delivered in person or properly mailed to the following addresses:

To PREPA:	Puerto Rico Electric Power Authority PO Box 364267 San Juan, Puerto Rico 00936-4267
Attention:	Eng. Daniel Hernández Morales Acting Generation Director
To Seller:	(Name of Company) (Mail Address)
Attention:	(Name of Person of Contact) (Title)

# ARTICLE 22. Cleaning Up

The Seller shall, from time to time, as directed by the Engineer, remove from PREPA's property and from all public and private property all temporary structures no longer required, rubbish, and waste materials resulting from his operations.

Upon completion of the work, the Seller shall remove from the vicinity of the work all remaining rubbish, unused materials, and other like material, belonging to him or used under his direction during the installation of the equipment, and in the event of his failure to do so the same may be removed by PREPA at the Contract's expense, and his surety or sureties shall be liable therefore.

# ARTICLE 23. Use of Completed Portions

PREPA shall have the right to take possession of and use any completed or partially completed portions of the work, notwithstanding the fact that the time for completion of the entire work may not have expired, but such taking possession and use shall not be deemed an acceptance of the work so taken or used or any part thereof. PREPA may require the Seller to expedite the completion of any part of the work for provisional use by PREPA and the Seller shall comply with such request. If such order of completion or prior use increases the cost of the work or delays the work, the Seller shall be entitled to such extra compensation or extension of time as agreed by the Parties.

# ARTICLE 24. Quality Assurance

The Seller shall submit for evaluation and approval by PREPA a quality control program and establish a quality assurance program, also evaluated and approved by PREPA, to satisfy all applicable regulation and requirements specified in the procurement documents and satisfactory to PREPA. The program shall contain all those measures necessary to assure that all basic technical requisites ask for in the drawings, codes, tests, and inspections for design, fabrication, cleaning, installation, packing, handling, shipping, long term storage, when necessary, and test equipment are fulfilled. PREPA reserves the right to conduct audits and inspections to the facilities, activities, and/or documents when estimated and without previous notification necessary in order to assure that the quality control program is adequate and is being properly implemented. Fuel Supply and Conversion Units 5 and 6 Terms and Conditions for Units Conversions and Pipeline Installation Works Page 12 of 12

The Seller shall allow PREPA access to its facilities and documents, so that PREPA, through audits and inspections can verify the quality of the labor, equipment, products, services, and any other related items provided by the Seller. In every case in which the materials or services to be furnished to PREPA are subcontracted partially or totally by the Seller, the Seller shall request the subcontractor to accept and comply with all the requirements of this Quality Assurance Article.

# **ATTACHMENT 1**

# RFP 81412 FUEL SUPPLY, UNIT CONVERSION AND PIPELINE INSTALLATION

# ADDENDUM 009

SEPTEMBER 15, 2018

ltem	Questions	Answers
1	(We) would like to clarify that the combustion turbines named San Juan Units 5 and 6, nomenclature W501FC, are Westinghouse engines sold by (us), through an EPC Contractor, to the Puerto Rico Electric Power Authority, in 1996. As you may know, (we) is the owner of the Westinghouse technology so (we) respectfully hereby requests that PREPA modify the RFQ to reflect (us) as the Original Equipment Manufacturer.	Please refer to Addendum 9, Section I. Modifications to RFP Documents.
2	As the Original Equipment Manufacturer (we) respectfully requests that PREPA modify the RFQ so that, (we) can be considered as another potential provider for the conversion of San Juan Units 5 and 6 to dual fuel with applicable performance upgrades.	As established in the RFP Document, conversions to Units 5 & 6 have to be performed by Mitsubishi Hitachi Power Systems (MHPS). Currently, PREPA has a multi-annual long-term-service-agreement (LTSA) with MHPS for two maintenance cycles, with guarantees of emissions and performance. In order to prevent voiding those guarantees, MHPS shall perform the modifications. Proponents shall include in their proposals the conversions performed by MHPS.
3	(We) respectfully recommend that the subject of "alternative fuels" should be discussed with (us), not only as the Original Equipment Manufacturer of the San Juan Units 5 & 6, but with proven combustion technology to also use propane fuel (tri-fuel configuration) in this frame unit in Puerto Rico.	As established in the RFP Document, conversions to Units 5 & 6 have to be performed by Mitsubishi Hitachi Power Systems (MHPS). Currently, PREPA has a multi-annual long-term-service-agreement (LTSA) with MHPS for two maintenance cycles, with guarantees of emissions and performance. In order to prevent voiding those guarantees, MHPS shall perform the modifications. Proponents shall include in their proposals the conversions performed by MHPS.
4	(We) respectfully requests PREPA to allow (us), as the Original Equipment Manufacturer of the San Juan 5 & 6 units, to be the company responsible for defining the scope for the turbine's gas conversion.	As established in the RFP Document, conversions to Units 5 & 6 have to performed by Mitsubishi Hitachi Power Systems (MHPS). Currently, PREPA has a multi-annual long-term-servics-agreement (LTSA) with MHPS for two maintenance cycles, with guarantees of emissions and performance. In order to prevent voiding those guarantees, MHPS shall perform the modifications. Proponents shall include in their proposals the conversions performed by MHPS.
5	(We) respectfully requests PREPA to clarify if the conversion to dual fuel will be implemented during a scheduled outage or shall the contractor implementing the conversion propose, and include as part of his offer, type of outage required with corresponding price and duration? If it is during a schedule outage, what kind of outage is it (Combustor, Hot gas Path or Major) and what is the scheduled duration?	PREPA will determine, in coordination with the awarded proponent and MHPS, the outages that will be required to perform the specific works.
6	The original DF42 Combustion Components supplied with the Westinghouse W501FC San Juan Units 5 & 6 was designed for dual fuel operation, fuel gas and fuel oil. (We) respectfully requests PREPA to clarify if the original design combustor components still being utilized or have they been replace with third party components? If they have been replaced with third party components, who's design are they? If they have been replaced by a third party, can you clarify what maintenance interval the units are operating (8K EBH, 12.5K EBH, 25K EBH, etc)? Can PREPA also please provide style numbers of this hardware with pictures and operational history (i.e. hours of operation, remaining repairs/life, etc.).	PREPA clarifies that the original combustion nozzles that came installed in the 501FC Units 5 & 6 of the San Juan Power Station were DF42, single fuel for No. 2 light distillate oil operation. The single fuel nozzles currently in use, as well as the ones under parts rotation as part of the Long Term Services Agreement between MHPS and PREPA, were supplied by MHPS. As per the conditions stated in the RFP, the fuel conversion and modifications to the combustion turbines shall be performed by MHPS. Please contact MHPS for more information related to the specific scope of the conversion.
7	(We) respectfully request PREPA to please provide pictures of the Fuel Oil Skid, Fuel Oil interconnect piping including manifold(s), interconnect tubing, and piping/tubing connections at the nozzle.	Refer to Attachment 2.
8	(We) respectfully requests PREPA to please provide style number and operational history (i.e. hours of operation, remaining repairs/life, etc.) of compressor and turbine hardware. This is for potential applicable performance upgrades	As per the conditions stated in the RFP, the fuel conversion and modifications to the combustion turbines shall be performed by MHPS. Please contact MHPS for more information related to the specific scope of the conversion.
9	please specify if existing DCS has enough I/O cards, memory and processing capacity for the fuel conversion.	Yes.
10	To clarify what manpower and resource configuration (labor, tooling, crane, etc.) should the bidder consider in the offer for the outage related to the installation of the performance upgrades? Will PREPA provide any labor and what type? Will PREPA provide the crane? Please provide any other clarifications applicable to the Division of Responsibilities.	As per the conditions stated in the RFP, the fuel conversion and modifications to the combustion turbines shall be performed by MHPS. Please contact MHPS for more information related to the specific scope of the conversion. Proponent is responsible to include all parts, labor and equipment necessary to complete the project as part of its proposal.

11	Will the performance improvements in reference be implemented during a scheduled outage or shall the contractor implementing the conversion propose, and include as part of his offer, type of outage required with corresponding price and duration? If it is during a schedule outage, what kind of outage is it (Combustor, Hot gas Path or Major) and what is the scheduled duration? Shall the scope and corresponding pricing be quoted separate from the fuel conversion?	PREPA will determine, in coordination with the awarded proponent and MHPS, the outages that will be required to perform the specific works.	
	The gas fuel parameters in this Section are not as per (our) specifications. (We) as the Original Equipment Manufacturer respectfully requess for PREPA to allow potential bidders to use (our) recommended parameters.	As established in the RFP Document, conversions to Units 5 & 6 have to be performed by Mitsubishi Hitachi Power Systems (MHPS). Currently, PREPA has a multi-annual long-term-service-agreement (LTSA). All parameters have to be as recommended by MHPS. The following companies participated in the kick off meeting and in the site visits on 08/10/18 and 08/23/18: El Dorado Tech Services, Puma Energy, APR Energy, Crowley, Gas Natural Fenosa/Naturgy, NF Energy, Black & Veatch, Arctas, Engineered Parts & Services, Tropigas de P.R., General Electric, Decentricity PR, ERM, RG Engineering, ARCTAS, Siemens, San Juan Gas, Go Green USA, Caribbean Tec.	
	(We) respectfully requests PREPA to share the list of participants in the kick off meeting conducted on August 9, 2018, the first walk down conducted on August 10, 2018 and the second walk down conducted on August 23rd, 2018.		
	Since the intent of the RFP is to award one contract for LNG fuel supply, or any other fuel; how will you compare the proposals of LNG supply with the proposals of other fuels? Will it be just on a price basis? Does PREPA has preference for any fuel in particular?	To the extent that potential suppliers have alternative ways to supply acceptable fuel in a cost effective manner, PREPA will consider all proposals. PREPA is seeking proposals for fuel supply and acknowledges that pricing will be determined by the supplier considering many factors including but not limited to infrastructure development, capital cost of the fuel supply facilities, fuel source, transportation cost and logistics, cost of capital, operating costs. The proposals shall include whatever pricing is necessary for the proposing company to meet their specific needs.	
15	The fact that the contract will be for a base period of 5 years, with the possibility of (3) separate options of 5 years extensions, it will drastically increase the fixed annual capacity payment and the unit fuel cost, due to a short depreciation period. Has PREPA considered to extend the base period in order to achieve better economies of scale, reduce costs and optimize investments?	Base period will be five years.	
16	The requirement included in the RFP, in terms of experience, are too broad. Considering that for this project the total energy demand for San Juan Unit 5 and 6 will be around 25 TBTU/year, and will require a local storage capacity of approximately 25.000 m3 of LNG, would not be necessary to require more specific experience in order to assure that only companies with demonstrated know-how in similar size projects and financial capability could participate in the process?	Experience is one of the evaluation parameters established in the RFP documents. Proponents that can demonstrate the most experience in the proposed solution will receive a higher score in that field. Those who do not have or fail to demonstrate experience in the proposed solution will receive a lower score in the experience field.	
17	Does this project considers the exclusion zone for an LNG import facility (according to international safety standards)?, In view of the above, and considering that around port facilities of the San Juan 5-6 area there is a dock where are fuel operations, pipelines and other infrastructure that can be a restriction for the development of a new fuel import terminal, and that the Contractor shall not interfere with current operations for unloading and storing Bunker C fuel oil or diesel fuel at any the existing PREPA San Juan steam Plant generating facilities. Due to that, is PREPA considering using an exclusive dock for the LNG supply? What other port and/or land facilities are available for that purpose?	If a proposal considers the use of one of the existing docks, proponent shall be responsible to make the research to find an adequate facilty for its operations and make any agreement with the owner/operator. Any proposed project shall not interfere with PREPA's fuel unloading operations if any adjacent dock (A, B, or C) is considered.	
18	In case that the proposed technical solution implies a Floating Storage Regasification Unit (FSRU), it is our understanding that according to US environmental regulation, the regasification process of the FSRU must consider a close cycle instead an open cycle, which limits the available options in the market for those type of vessels, incurring in major operational costs and delays for the commercial operation date. It is correct? Due to the aforementioned, Does PREPA any preference for a different technical solution instead a FSRU?	Compliance with state and federal regulations are the responsibility of the proponents. PREPA will evaluate all feasible solutions proposed.	
19	Under we understanding, in case that the proposed solution consider a vessel (FFSRU/FSU) as a permanent off-shore facility for the LNG storage and regasification, we would like to confirm if for that technical solution (as a permanent facility) it is necessary to obtain an approval issued by Federal Energy Regulatory Commission? Taking into account that the approval process could take several months, it may lead to important delays that could impede the COD as expected by PREPA. In that case, is PREPA considering a non-permanent off-shore facility as the most feasible technical solution?	Proponents shall consider all state and federal regulations required by its proposal, including FERC. PREPA will take into consideration for evaluation purposes the time for completion submitted in the proposal and reserves the right to award to the second best proposal if the selected one does not comply with all required permits in the proposed schedule.	
20	According to RFP, and considering that "all equipment and materials installed by Contractor from the regasification point to the units shall become PREPA's property from the final acceptance date", does it means that PREPA is looking for a permanent on-shore regasification facility? Or it is possible to submit an off-shore and non-permanent (for a base period of 5 years) regasification facility? In that scenario, who will be the ownership of the regasification (off-shore) facility, and how it will be reflected on the capacity payment tariff?	PREPA is seeking a proposal for a 5-year term, with the options of three more 5- year terms, at PREPA's sole discretion. PREPA's property will be from the regassification point onshore. If an offshore solution is proposed, a valve shall be provided in PREPA's right-of-way for future disconnection.	

21	Does PREPA have an estimation of the timeline to obtain all permits and authorizations required by this project in order to accomplishing the schedule goal of providing gas for San Juan 5 and 6 no later than March of 2019? Does PREPA considers it an achievable schedule? According to RFP timeline, the submission deadline is on September 11, 2018, however, due	It is anticipated that switching San Juan 5 and 6 combined cycle units to an alternative fuel will result in significant savings. Based on this assumption, it is PREPA's interest to convert the units as quickly as possible. The timeframe identified in the request for proposals is a suggested date and not a requirement. Fuel suppliers are free to identify the specific date that their fuel supply will be available. To the extent that a proposal is based on a later supply date and results in more fuel cost savings to PREPA, that alternative will be selected. Similarly, if a fuel supplier wants to include a temporary fuel supply option until something more permanent can be implemented, the overall cost savings will be evaluated. It is the proponent's responsibility to consider the permits timeline in their proposals. The deadline for proposals' submission is September 25, 2018.
22	to the complexity of this project, the technical and feasibilities studies to be conducted, the information required to be included in the proposal, scope of work and permitting assessment and permitting plan, letter of support from Puerto Rico Port Authority, plan for financing, pricing, among others, we consider that this period of time is too short even for a RFP. Is PREPA considering to extend this term according to the requested information?	
23	negotiation of fuel supply contracts, procedures to obtain all necessaries federal and local permits, FSRU/SFU contract negotiation process and operation start up, environmental assessments, solution design, engineering, procurement and construction process, among others; this term seems to be very optimistic considering usual timelines for this kind of	It is anticipated that switching San Juan 5 and 6 combined cycle units to an alternative fuel will result in significant savings. Based on this assumption, it is PREPA's desire to convert the units as quickly as possible. The timeframe identified in the request for proposals is a suggested date and not a requirement. Fuel suppliers are free to identify the specific date that their fuel supply will be available. To the extent that a proposal is based on a later supply date and results in more fuel cost savings to PREPA, that alternative will be selected. Similarly, if a fuel supplier wants to include a temporary fuel supply option until something more permanent can be implemented, the overall cost savings will be evaluated.
	How does this process and the investment in the San Juan power plant, align with the goals of privatization of PREPA's assets? What risk would reside with the Contractor in the event the San Juan site/power plant is sold to a 3 rd party as part of privatization?	This RFP is being pursued independent of the privatization efforts, though fundamentally the objectives of this procurement support PREPA's vision for an electric system that is Customer Centric, Reliable, and Sustainable, while promoting financial viability and economic growth. This RFP is likely to economically advantage the San Juan site/power plant versus its current position related to other power supply options on the island. Any potential or future transaction involving the San Juan site or facility would be
24		governed by the laws of Puerto Rico, and potentially subject to Title III proceedings under PROMESA. As with any transaction, it is the responsibility of the counterparties to evaluate and understand the risks associated with the terms and conditions of the agreement. PREPA recommends potential counterparties seek the advice of counsel to identify and evaluate the risk specific to their own situation.
25	What transmission upgrades/ modifications that will be needed to enable conversion of San Juan Units 5&6 to natural gas?	Modifications will be performed in the units. All modifications, based on the proposed solution, shall be coordinated with MHPS.
26	What is driving the March 2019 timeline? Based on the proposed approach provided by PREPA, the contractual definition needed between the Contractor, Mitsubishi, and other sub- contractors will take a number of months and likely beyond the March 2019 deadline, and only with this definition could a reasonable estimate of costs be expected, thereby ensuring minimal risk to PREPA/PREPA's ratepayers.	It is anticipated that switching San Juan 5 and 6 combined cycle units to an alternative fuel will result in significant savings. Based on this assumption, it is PREPA's desire to convert the units as quickly as possible. The timeframe identified in the request for proposals is a suggested date and not a requirement. Fuel suppliers are free to identify the specific date that their fuel supply will be available. To the extent that a proposal is based on a later supply date and results in more fuel cost savings to PREPA, that alternative will be selected. Similarly, if a fuel supplier wants to include a temporary fuel supply option until something more permanent can be implemented, the overall cost savings will be evaluated.
27	What are the penalties if the full load operation of San Juan 5&6 is not achieved by March 2019?	There are no penalties, but PREPA will take into consideration for evaluation purposes the time for completion submitted in the proposal and reserves the right to award to the second best proposal if the selected one does not comply with all required permits in the proposed schedule. It is PREPA's interest to convert the units as quickly as possible. The timeframe identified in the request for proposals is a suggested date and not a requirement. Fuel suppliers are free to identify the specific date that their fuel supply will be available. To the extent that a proposal is based on a later supply date and results in more fuel cost savings to PREPA, that alternative will be selected. Similarly, if a fuel supplier wants to include a temporary fuel supply option until something more permanent can be implemented, the overall cost savings will be evaluated.
28	What is the expected timing of the Contractor to receive US Coast Guard authorization to operate?	It is proponents' responsibility to find out which are the required permits and timing for its proposed solution.

29	How does PREPA plan to assist the Contractor in obtaining environmental permits related to conversion of San Juan Units 5&6? What is the expected timing to receive these permits?	PREPA will be reponsible for the environmental permits of Units 5 and 6, which are expected to be issued in three to four months after being submitted.	
23	RFP states that Contractor is responsible for any improvements required to the dock per	Proponents shall be responsible for any improvement required in the installation to	
30	NFPA, Ports Authority and USCG compliance. Can PREPA provide additional information of what improvements will likely be required and the cost/ timeline to implement these improvements?	be used for its proposed solution and shall comply with any code or regulation required.	
	Given the financial state of PREPA and uncertainty of Title 3 or privatization efforts, what approvals does PREPA require to execute a binding agreement for Fuel Supply and conversion	Standard corporate approvals in compliance with PREPA Procurement Policies	
31	of San Juan Units 5&6?	evaluation and approval by the Office of Contract and Oversight would require established by the Governor's executive order, as well as a contractual and compliance review and approval by the Financial Oversight and Management Board as established under PROMESA.	
	How does PREPA intend to finance these agreements? Will they be paid from revenue	PREPA intends to finance the facility conversion and fuel purchases from rate base	
32	received from PREPA's rate base?	revenues as part of its normal course of business. PREPA is evaluating whether any costs associated with the physical conversion of the facility are eligible for reimbursement under a federal grant program, though at this time PREPA has not identified nor secured any specific federal grant for this project.	
33	How do they changing dynamics of Puerto Rico's population and energy matrix impact PREPA's expected revenue stream and ability to pay for fuel supply infrastructure and conversion of San Juan Units 5&6?	PREPA believes this project will likely economically advantage the San Juan site/facility versus its status quo position in the generation supply portfolio. Due to this improved supply position versus other generation resources, the impact of changing dynamics of population or the energy matrix will likely be dampened as it specifically relates to this project. It is important to note the geographic proximity of the San Juan site/facility to the largest load and demand center on the island, and the resulting benefits to the power grid.	
34	What credit support will be provided by PREPA to the winning bidder?	This RFP contemplates a bilateral credit support structure to be negotiated between the parties. Any credit support structure incorporated into the agreement will require approval by the Financial Oversight and Management Board as part of the statutory review process.	
35	What are the terms envisioned for PREPA to execute the optional periods?	At least 6 months before the end of an agreement term, the Parties shall agree the terms of the 5-year extension.	
36	Will the Evaluation Committee include any members of the FOMB, PREC, Government of Puerto Rico, US Coast Guard, or other US Government agencies?	The Evaluation Committee will be conformed of PREPA employees and advisors, as established in the RFP Guide ( <i>Guías para Procesos de Adquisiciones de Bienes y</i> <i>Servicios a Través de Solicitud de Propuestas</i> ) available in the Download Documents' Tab.	
37	The RFP asks for specific names and titles of key members of the Project team. Given the uncertainty of being awarded, bidders will likely assign specific employees to the project after they have been selected. Can bidders provide job descriptions of the skill sets that will be required to fulfil the role of Project Manager, Engineering and Design Manager, etc.?	Proposals shall include the names of those key members of the project team that the proponent intends to use, their positions, responsibilities, and experience. It is important, for evaluation purposes, that the proponents demonstrate they have the organizational structure (own or subcontracted) and experience to perform the project.	
38	Can PREPA provide Mitsubishi's proposal for the turbine gas conversion?	Proponents shall contact Mitsubishi Hitachi Power Systems (MHPS) for the units' modifications.	
39	Can PREPA provide contact details of a focal point at Mitsubishi to ask clarifying questions about the turbine conversion?	Refer to Addendum 9 document.	
40	Has PREPA hired an independent engineer to validate the technical, engineering, and design aspects contained in the Mitsubishi proposal? If so, can PREPA share this proposal?	PREPA and its consultants will evaluate the tecnnical aspects of the proposal based on the solution proposed, and if more resources or specialists are required, PREPA will acquire them as needed.	
41	What evaluation has PREPA undertaken to determine Mitsubishi as the optimal provider of the retrofit of San Juan 5&6? What if other more cost effective providers are available?	Currently, PREPA has a multi-annual long-term-service-agreement (LTSA) with MHPS for two maintenance cycles, with guarantees of emissions and performance. In order to prevent voiding those guarantees, MHPS shall perform the modifications.	
42	Based upon the rough description provided in the RFP, it would seem that FERC approval is needed for this project. What engagement has PREPA had with FERC regarding this project?	All permitting and approvals for the fuel supply facilities will be the responsibility of the fuel supplier. PREPA will be responsible for any permitting modifications necessary for the unit conversion and the operation of the units on the alternative fuel.	
43	It took AOGP ~60 months to receive its permits and it has yet to receive its Notice to Proceed from FERC. How does PREPA advise a Contractor to receive required permits in a more accelerated timeline?	All permitting and approvals for the fuel supply facilities will be the responsibility of the fuel supplier. PREPA will be responsible for any permitting modifications necessary for the unit conversion and the operation of the units on the alternative fuel.	
44	The RFP requires a letter of support from the Puerto Rico Ports Authority. What are the requirements from the PRPA needed to receive a letter of support? Can PREPA provide a contact person at the PRPA?	If a proposal includes the use of a dock as the primary installation for the supply of fuel, proponent shall submit at least evidence that has expressed its intention or has met with the PRPA or the owner of the dock to build the project on their premises.	

45	Obtaining the required federal and government licensing is the responsibility of the bidder. Will PREPA assist in the process, and grant extension of COD deadline in case of permitting hurdles?	PREPA is available to provide all the information on hand necessary to complete the awardee's permitting process. Proponents shall include, in their proposal, a permitting schedule for the expected process with the regulatory agencies based on the solution requirements. Since time is of the essence, PREPA will consider this schedule in the proposal evaluations and reserves the right to award to the second best proposal if the selected one does not comply with all required permits in the proposed schedule.	
46	Does PREPA have a preferred price index for a natural gas supply?	Platts and Henry Hub or any other verifiable fuel index.	
47	Can PREPA provide the methodology and the basis of for calculation the savings of the proposed solution versus the alternative diesel operation?	PREPA will evaluate forecast cost savings on a Net Present Value (NPV) basis over the initial 5-yr term of the contract. The NPV evaluation will be inclusive of supplier capacity payments. PREPA will utilize fuel pricing forecasts in alignment with its Integrated Resource Plan that is currently underway.	
48	During recent weeks, it was publicly announced that the "Oficina Central de Recuperación y Reconstrucción" has selected Navigant to work with PREPA and elaborate a plan to define Puerto Rico's new electric system. How will PREPA ensure that the solution on this tender fit the overall strategy and minimize the costs of the supply of natural gas to the units on the power system?	This RFP includes what PREPA is seeking, to lower the cost of generation on San Juan Units 5 and 6, the newest of the fleet, through an alternate fuel. This savings should translate in lower costs to our customers, which is the purpose of any current or future plan.	
	Does PREPA have a specific LNG import solution selected for the supply of San Juan?		
49		The purpose of this RFP is to solicit all available options to reduce the fuel cost at the San Juan Units 5 and 6 combined cycle units. To the extent that potential suppliers have alternative ways to supply acceptable fuel in a cost effective manner, PREPA will consider all proposals.	
	Does PREPA sees ISO LNG containers as a viable option for this project?		
50		The purpose of this RFP is to solicit all available options to reduce the fuel cost at the San Juan Units 5 and 6 combined cycle units. To the extent that potential suppliers have alternative ways to supply acceptable fuel in a cost effective manner, PREPA will consider all proposals.	
51	Has such large scale solution been studied and if so, could PREPA share the results of such study within this RFP81 412?	Solutions proposed and studies on which they are based are the proponent's responsibility. PREPA will evaluate proposals based on the data provided, including studies and projections.	
52	RFP 81412, Section 2.0 -Scope of Service Art VII C) mentions that the contractor is responsible for any improvements to the dock. Where is that dock located and does PREPA have access to any other docks in the area?	If the proposal considers the use of any dock, adjacent or non adjacent to San Juan Steam Plant, the contractor shall be responsible for any improvement or modification. PREPA has access to adjacent docks A, B, and C, but just for fuel transfer/unloading. The Puerto Rico Ports Authority is the owner of these docks.	
53	RFP 81412, Scope of Service Art VII: Could you share some information about the current operations for unloading and storing Bunker C fuel oil or diesels fuel at any the existing PREPA San Juan Steam Plant generating facilities (nb of operation per week)?	From Sept 2017 to August 2018 PREPA received 33 vessels (32 for Bunker C and 1 for Diesel)	
54	RFP / 2.0. Scope of Service Art. XI: The availability required is 100% of annual quantity nomination. It will require a high level of redundancy. Will it be possible to revise down this figure, taking into account that Diesel could continue to be a backup fuel in case of emergency?	PREPA is seeking the most possible savings with an alternate fuel, so maximizing the time burning this fuel in Units 5 and 6 is necessary. Proposals shall be based on the RFP documents requirements, addenda, and answered questions.	
55	Jones Act limits the delivery methods for U.S LNG deliveries, does the origin of the fuel influence the awarding of this tender?	The origin of the fuel doesn't influence the evaluation of this RFP.	
56	Obtaining the required federal and government licensing is the responsibility of the bidder. Will PREPA assist in the process, and grant extension of COD deadline in case of permitting hurdles?	PREPA is available to provide all the information on hand necessary to complete the awardee's permitting process. Proponents shall include in its proposal a permitting schedule for the expected process with the regulatory agencies based on the solution requirements. Since time is of the essence, PREPA will consider this schedule in proposal evaluations and reserves the right to award to the second best proposal if the selected one does not comply with all required permits in the proposed schedule.	
	How does PREPA propose to guarantee payments for the infrastructure and LNG supply?	Currently, no guarantee is being considered. Any guarantee structure would	
57		require negotiation between the parties and would be bilateral, as required by PROMESA, and the approval by the Financial Oversight and Management Board.	
58	Does PREPA have a preferred price index for LNG?	Platts and Henry Hub or any other verifiable fuel index.	
59	If the purpose of the RFP is to supply LNG fuel to the San Juan plant (i.e. a gas supply tender) why is PREPA including the capital investment for the fuel supply infrastructure and Units 5 & 6 fuel conversion project?	The contract resulting from this RFP will include two main components. First, fuel supply for a period of 5 years. Second, the works necessary to convert the units to burn the alternate fuel and the piping to transfer it downstream of the fuel delivery point.	
60	Would it not be more correct and economical and in the best interests of PREPA and its clients that the process of selecting a fuel supplier and the process to build the necessary infrastructure are different and separated from each other?	Since the timing of all tasks on this project is an important aspect, having them under the same coontract will produce a more efficient schedule. Also, this will allow PREPA to maximize the use of these units while the project works are underway.	

61	Why is Mitsubishi a sole source subcontractor to the contractor for the Conversion of San Juan Units 5 & 6 to natural gas? Particularly considering that:	Currently, PREPA has a multi-annual long-term-service-agreement (LTSA) with MHPS for two maintenance cycles, with guarantees of emissions and performance. In order to prevent voiding those guarantees, MHPS shall perform the
62	a. Mitsubishi is not the Original Equipment Manufacturer (OEM) of these Units. Units were manufacture by Westinghouse in late 1990s, with technology originated in the late 1980s. Does PREPA consider this an accurate statement?	modifications.
63	b. Unit's Combustion System technology is matured with ~30 years in the market and other OEMs have the technical capability/experience to convert these units to natural gas. Does PREPA consider this an accurate statement?	
64	c. PREPA's recent procuring practices allows other qualified OEMs/ISP to bid for parts/services. Does PREPA consider this an accurate statement?	
65	d. There are other OEMs with the ability to perform that conversion. Does PREPA consider this an accurate statement?	
66	this an accurate statement? Is Mitsubishi available to offer a quote for the completion of those works to all bidders of this Proponents shall contact Mitsubishi Hitachi Power Systems (MHPS	
67	Is the pier and the adjacent land are available to all bidders?	Adjacent pier is owned by Puerto Rico Ports Authority. Proponents shall contact PRPA for details.
68	Is the pier and the adjacent land already committed to one of the bidders of this RFP?	Adjacent pier is owned by Puerto Rico Ports Authority. Proponents shall contact PREPA for details.
69	Considering that there more efficient, safe and economical ways to transport Natural Gas to the San Juan plant, why is PREPA selecting the most expensive and inefficient alternative? Particularly considering that:	The purpose of this RFP is to solicit all available options to reduce the fuel cost at the San Juan Units 5 and 6 combined cycle units. To the extent that potential suppliers have alternative ways to supply acceptable fuel in a cost effective manner, PREPA will consider all proposals.
70	a. The transport and storage of LNG in a barge anchored in a dock is the most expensive and unsafe way to supply natural gas. Does PREPA consider this an accurate statement?	
71	b. LNG fuel supply in the North should be one of the variables for future scenario considerations as part of the role of natural gas, following the possible variables for the role of natural gas:	
72	i. Southwest LNG terminal + fuel transfer infrastructure	-
73	ii. Aguirre Offshore Gas Port + fuel transfer infrastructure iii. Mid-scale LNG Floating Storage Unit in the North + unloading & regasification	
74	infrastructure	
75	What do you mean by permitting plans (if applicable)? Because there is no LNG/NG infrastructure in San Juan, the participants need the studies and permits listed on P. 10. Will these be provided?	All permitting and approvals for the fuel supply facilities will be the responsibility of the fuel supplier. PREPA will be responsible for any permitting modifications necessary for the units conversion and the operation of the units on the alternative fuel.
76	Can you clarify or provide examples of the following statement (Experience and Capacity (4.3.2, P. 18):	PREPA expects that proponent's team has the experience in similar projects and a good reputation in the fuel supply market. Also, proponent shall demontrate that it has the necessary resources to perform the work and deliver a project as required in the RFP documents. Team can be conformed by proponent's own staff or subcontractors.
77	Why is the amount of the performance/payment bond of 100% of Phase 1 cost (conversion and pipeline installation)?	The percentage is a PREPA requirement based on the recommendation of its Risk Management Office.
78	The RFP is for fuel supply and conversion of Units 5 & 6, hence, the most critical part is the fuel. Why is there no performance/payment bond requirement for the most critical component of the RFP (i.e. LNG supply, logistic, storage and regasification)?	Refer to Article 40. INSURANCE in the document titled Draft Fuel Sale and Purchase Contract.
79	Please clarify if pipeline Right of Way will be secured by PREPA.	Yes
80	What payment guarantees can PREPA offer?	Currently, no guarantee is being considered. Any guarantee structure would require negotiation between the parties and would be bilateral, as required by PROMESA, and by the approval of the Financial Oversight and Management Board.
81	The number of ships that have delivered each of diesel fuel or Bunker C fuel, over the last year.	From Sept 2017 to August 2018 PREPA received 33 vessels (32 for Bunker C and 1 for Diesel)



# SUPPLIER REGISTRY OFFICE

MATERIALS MANAGEMENT DIVISION

The Puerto Rico Electric Power Authority (PREPA) maintains a Supplier's Registry of individuals or companies accredited to supply goods or services. The suppliers interested in doing business with PREPA may be required to be part of the Registry as a condition for participating in any procurement process.

To obtain additional information of the requirements based on your business structure, please contact the Supplier Registry Office at (787) 521-4808/4806 or via email at: registroproveedores@prepa.com

# PUERTO RICO ELECTRIC POWER AUTHORITY RFP 81412 FUEL SUPPLY SJSP 5 AND 6 CONVERSIONS

# ATTACHMENT 2

# I. Unit 5 Existing Fuel Skid





### PUERTO RICO ELECTRIC POWER AUTHORITY RFP 81412 FUEL SUPPLY SJSP 5 AND 6 CONVERSIONS

# II. Unit 6 Existing Fuel Skid





# PUERTO RICO ELECTRIC POWER AUTHORITY RFP 81412 FUEL SUPPLY SJSP 5 AND 6 CONVERSIONS

# **ATTACHMENT 3**

# Fuel Supply RFP Clarifications:

#### General

The purpose of this RFP is to solicit all available options to reduce the fuel cost at the San Juan Units 5 and 6 combined cycle units. To the extent that potential suppliers have alternative ways to supply acceptable fuel in a cost effective manner, PREPA will consider all proposals.

#### Timing

It is anticipated that switching San Juan 5 and 6 combined cycle units to an alternative fuel will result in significant savings. Based on this assumption, it is PREPA's desire to convert the units as quickly as possible. The timeframe identified in the request for proposals is a suggested date and not a requirement. Fuel suppliers are free to identify the specific date that their fuel supply will be available. To the extent that a proposal is based on a later supply date and results in more fuel cost savings to PREPA, that alternative will be selected. Similarly if a fuel supplier wants to include a temporary fuel supply option until something more permanent can be selected, the overall cost savings will be evaluated.

#### Scope

This RFP is for a supply of fuel to an existing PREPA generating facility. Title of the fuel will transfer to RPEPA at the delivery point. All activities associated with any infrastructure development, fuel supply, fuel storage, transportation and any other infrastructure or arrangements necessary to supply fuel of the quality and quantity specified in the RFP is entirely up to the proposer. Except to the extent that PREPA can provide public support of the awarded project and whatever specific items PREPA is required to do to assist in the interface of the two projects, PREPA will not be involved in the development, design, permitting, construction or operation and maintenance of the fuel supply facilities. Ownership of all facilities upstream of the delivery point will remain the property of the fuel supplier unless otherwise mutually agreed to by both parties.

The conversion of the units to burn the alternative fuel will be coordinated with PREPA and their existing contractors. Upon completion of the conversion, PREPA will retain ownership of all equipment downstream of the fuel delivery point and be responsible for all operation and maintenance of that equipment.

#### Permitting

All permitting and approvals for the fuel supply facilities will be the responsibility of the fuel supplier. PREPA will be responsible for any permitting modifications necessary for the unit conversion and the operation of the units on the alternative fuel.

#### **Fuel Pricing**

PREPA is seeking proposals for fuel supply and acknowledges that pricing will be determined by the supplier considering many factors including but not limited infrastructure development, capital cost of the fuel supply facilities, fuel source, transportation cost and logistics, cost of capital, operating costs. The proposals shall include whatever pricing is necessary for the proposing company to meet their specific needs. Proposers shall include detailed descriptions of their pricing proposal including any fixed and variable costs they require to complete the project. The cost of the conversion of the existing PREPA facilities shall be included in the pricing proposals with the expectation that the recovery of all of these costs will be identified and only included in the initial 5 year term of the agreement in the form of a capacity payment. The fuel cost payment is not intended to be on a take or pay basis requiring minimum annual fuel delivery. However, reasonable alternatives to these payment structures will be considered to meet the project objectives.

#### Contract replacement fuel vs. RFP

There is a discrepancy between language in the draft contract and the language in the actual Request for Proposals. The intent of this RFP is for the fuel supplier to provide a reliable fuel supply at the costs proposed. To the extent that the contractor is unable to supply the contracted fuel they will be obligated to provide diesel fuel at the same price identified in the fuel supply agreement for the primary fuel supply. In the event that then current price of diesel is less than the contracted fuel price, PREPA will reimburse the supplier for the market price of the diesel fuel supplied.

#### Terminology

While there may be specific terminology included in the RFP that may imply a specific solution such as "modular-construction terminal fuel gas supply infrastructure" or "micro fuel handling" those descriptions are not intended to describe or define any particular type of fuel delivery facility. The use of any terminology in the RFP are only included as an acknowledgement that the final solution will likely not be a large bulk ship delivery option.

#### Mitsubishi

PREPA currently is currently contracted with Mitsubishi to provide long term service to the combustion turbines at San Juan 5 and 6. The terms of that agreement require the use of Mitsubishi provided parts. Because of this agreement and to avoid conflicts with that agreement it is necessary that Mitsubishi be the subcontractor to supply the services and parts to convert the combustion turbines to dual fuel.

#### Jones Act

While PREPA acknowledges that a Puerto Rico exemption to the Jones Act would simplify alternative fuel deliveries to Puerto Rico, it is the bidder's responsibility to understand and comply with all existing regulations.

#### **Fuel Type**

Natural gas is the predominant fuel for the existing installed combustion turbine technology and PREPA has determined that the use of natural gas is acceptable. PREPA also acknowledges that there is limited experience burning other fuels in the specific combustion turbine model at San Juan. While the RFP is

written to allow other fuels to be proposed, any fuel besides natural gas will require detailed analysis and acceptance from the original equipment manufacturer, PREPA and PREPA's risk insurance carrier to ensure the proposed fuel can be used and achieve long-term, reliable and safe operation.



Puerto Rico Electric Power Authority

# ADDENDA NO. 001

# RFP 81412 Fuel Supply in the North, Units Conversions and Pipeline Installation

This addenda notifies the following:

The Kick-Off meeting and the site visit dates stated in Section 1.6 of the RFP 81412 Timeline has been changed to the following:

The kick off meeting will be at 9:00am on Thursday, August 9<sup>th</sup>, 2018, in Conference Room of the 7th floor, NEOS Building (1110 Ponce de León Avenue, Santurce).

The meeting point for the site visit will be the main gate of the San Juan Power Plant. Vendors participating in this site visit will be allowed access to the site on Friday, August 10<sup>th</sup>, 2018 at 9:00am with the designated PREPA personnel. To be allowed access to the site, vendors shall have: safety footwear, safety glasses, hard hats, valid photo identification (preferably a TWIC card).



Puerto Rico Electric Power Authority

09/10/2018

# Fuel Supply in the North, Units Conversions and Pipeline Installation RFP 81412

# ADDENDUM 6

This addendum notifies the following:

# I. SITE VISIT

a. PREPA has scheduled a third site visit on September 11, 2018 at 8:00am. The meeting point will be the main gate of the San Juan Power Plant. Vendors participating in this site visit will be allowed access to the Plant with the designated PREPA personnel. This is a non-compulsory visit. To be allowed access to the site, vendors shall have: safety footwear, safety glasses, hearing protection, hard hats, valid photo identification (preferably a TWIC card).

# Important Note:

- For those proponents that do not comply with the safety requirements, access will not be authorized to the site.
- The site visit scheduled on Addendum 4 for September 14, 2018 still stands. Please, confirm as required.



Puerto Rico Electric Power Authority

09/10/2018

# Fuel Supply in the North, Units Conversions and Pipeline Installation RFP 81412

# ADDENDUM 7

This addendum confirms and notifies the following:

# I. Confirmation of site visit dates:

- a. Tuesday, September 11, 2018 at 8:00am.
- b. Thursday, September 13, 2018 at 1:30pm

The meeting point will be the main gate of the San Juan Power Plant. Vendors participating in this site visit will be allowed access to the Plant with the designated PREPA personnel. This is a non-compulsory visit. To be allowed access to the site, vendors shall have: safety footwear, safety glasses, hearing protection, hard hats, valid photo identification (preferably a TWIC card).

# Important Note:

• For those proponents that do not comply with the safety requirements, access will not be authorized to the site.



Puerto Rico Electric Power Authority

09/10/2018

# Fuel Supply in the North, Units Conversions and Pipeline Installation RFP 81412

# **ADDENDUM 8**

This addendum confirms and notifies the following:

# I. Answers to questions sent by proponents:

On Attachment 1 is the first set of questions answered by PREPA. In the next days, PREPA will send the answers to the remaining questions.



Puerto Rico Electric Power Authority

# Fuel Supply in the North, Units Conversions and Pipeline Installation RFP 81412

# ADDENDUM 2

This addendum notifies the following:

# I. MODIFICATIONS TO THE REQUEST FOR PROPOSALS DOCUMENT

a. Article 1.6 RFP Timeline is modified as follows:

Key Review Process Events	Targeted Timeline
Request for Proposal Issued	July 30, 2018
RFP Kick-off Meeting	August 9, 2018
Visit to the Job Site	August 10, 2018
Supplier Questions Deadline	August 28, 2018
Questions Answered	September 7, 2018
RFP Proposal Submission Deadline	September 25, 2018
RFP Short List Announcement*	October 16, 2018
RFP Short List Requests for Clarifications, Presentations, Updated Proposals and Negotiation Process Begins*	October 24-25, 2018
Evaluate Proposals and Conduct Supplier Final Negotiations*	October 26 to November 16, 2018
Selection Notification*	November 23, 2018
*At DDEDA's discretion	

\*At PREPA's discretion

# II. SITE PICTURES

a. As part of this addendum site pictures are included as Attachments 1 to 5.



Puerto Rico Electric Power Authority

# Fuel Supply in the North, Units Conversions and Pipeline Installation RFP 81412

# ADDENDUM 2

This addendum notifies the following:

# I. MODIFICATIONS TO THE REQUEST FOR PROPOSALS DOCUMENT

a. Article 1.6 RFP Timeline is modified as follows:

Key Review Process Events	Targeted Timeline
Request for Proposal Issued	July 30, 2018
RFP Kick-off Meeting	August 9, 2018
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Evaluate Proposals and Conduct Supplier Final Negotiations*	October 26 to November 16, 2018
Selection Notification*	November 23, 2018
*At DDEDA's discretion	

\*At PREPA's discretion

# II. SITE PICTURES

a. As part of this addendum site pictures are included as Attachments 1 to 5.



Puerto Rico Electric Power Authority

September 7, 2018

# Fuel Supply in the North, Units Conversions and Pipeline Installation RFP 81412

# ADDENDUM 5

This addendum notifies the following:

# I. MODIFICATION TO TARGET TIMELINE

a. The date for questions answered by PREPA has been postponed to September 10, 2018.



Puerto Rico Electric Power Authority

# Fuel Supply in the North, Units Conversions and Pipeline Installation RFP 81412

# ADDENDUM 3

This addendum notifies the following:

# I. SITE VISIT

a. PREPA has scheduled a second site visit on August 23, 2018 at 8:30am. The meeting point will be the main gate of the San Juan Power Plant. Vendors participating in this site visit will be allowed access to the Plant with the designated PREPA personnel. This is a non-compulsory visit. To be allowed access to the site, vendors shall have: safety footwear, safety glasses, hearing protection, hard hats, valid photo identification (preferably a TWIC card).

# Important Note:

- For those proponents that do not comply with the safety requirements, access will not be authorized to the site.
- Confirmation required for the site visit via PowerAdvocate Messaging Tab on or before August 22, 2018 at 2:00pm.

# II. PIPELINE DRAWING

a. Attached, as Attachment 6, 7 and 8 are the Pipeline Drawings for connection of unit 5 and 6. These are only reference drawings. Proponents shall submit their suggested pipeline layout.



Puerto Rico Electric Power Authority

# Fuel Supply in the North, Units Conversions and Pipeline Installation RFP 81412

# ADDENDUM 4

This addendum notifies the following:

# I. SITE VISIT

a. PREPA has scheduled a third site visit on September 13, 2018 at 1:30pm. The meeting point will be the main gate of the San Juan Power Plant. Vendors participating in this site visit will be allowed access to the Plant with the designated PREPA personnel. This is a non-compulsory visit. To be allowed access to the site, vendors shall have: safety footwear, safety glasses, hearing protection, hard hats, valid photo identification (preferably a TWIC card).

# Important Note:

- For those proponents that do not comply with the safety requirements, access will not be authorized to the site.
- Confirmation required for the site visit via PowerAdvocate Messaging Tab on or before September 11, 2018 at 1:00pm.

#### ATTACHMENT 1

#### RFP 81412 FUEL SUPPLY, UNIT CONVERSION AND PIPELINE INSTALLATION

	RFP Section		
Item	Reference	Questions	ANSWERS
1		Under what scheme will PREPA remunerate the total of the investment required to guarantee the minimum storage, and the maximum regasification send out to attend units 5 and 6? Taking into account that there will be no take or pay provision allowed by the contract.	PREPA is seeking proposals for fuel supply and acknowledges that pricing will be determined by the supplier considering many factors including but not limited infrastructure development, capital cost of the fuel supply facilities, fuel source, transportation cost and logistics, cost of capital, operating costs. The proposals shall include whatever pricing is necessary for the proposing company to meet their specific needs. Proposers shall include detailed descriptions of their pricing proposal sincluding any fixed and variable costs they require to complete the project. The cost of the conversion of the existing PREPA facilities shall be included in the pricing proposals with the expectation that the recovery of all of these costs will be identified and only included in the initial 5 year term of the agreement in the form of a fixed capacity payment. The fuel cost payment is not intended to be on a take or pay basis requiring minimum annual fuel delivery. However, reasonable alternatives to these payment structures will be considered to meet the project objectives
2		Can you provide additional information on what "modular-construction terminal fuel gas supply infrastructure" means? Does this refer to a small-scale FSRU or ISO container barge?	While there may be specific terminology included in the RFP that may imply a specific solution such as "modular-construction terminal fuel gas supply infrastructure" or "micro fuel handling" those descriptions are not intended to describe or define any particular type of fuel delivery facility or limit any proposed response.
3		How does PREPA believe Jones Act compliance should be addressed?	Every proponent shall provide evidence of compliance with requirements of the Jones Act, as applicable.
4		The RFP states "PREPA will consider converting these units to an alternative fuel if the cost savings associated with the lower cost fuel supply justifies the power plant conversion modification expenditures." How exactly will this savings be calculated?	PREPA will evaluate forecast cost savings on a Net Present Value (NPV) basis over the initial 5-yr term of the contract. The NPV evaluation will be inclusive of supplier capacity payments. PREPA will utilize fuel pricing forecasts in alignment with its Integrated Resource Plan that is currently underway.
5		What benchmark will PREPA use to determine cost effectiveness for this project versus other potential gas-to-power projects?	In addition to the current plan an updated integrated resource plan (IRP) is currently being developed to provide PREPA with a plan for future generation. The IRP will focus on what existing generation resources will continue to operate and what new capacity will be installed. Actual construction of new baseload generation will take at least 5 years to complete, during which time, all of PREPA's existing lower cost and most reliable generation will be required to remain online to continue to serve the load. There is no scenario that would indicate that San Juan 5 and 6 (especially with lower fuel costs) would not be needed for at least the next 5 years and likely longer.
6		How will that benchmark be constructed and validated for use in this process?	Please see response to Question 46.
7		How many community outreach initiatives and industry standard town hall meetings have been held to engage key local stakeholders? What feedback has been received? In the "PREPA Fuel Delivery Option Assessment Ex 1.04" the demand assessment for ISO	PREPA has not performed any community outreach initiatives or town hall meetings to engage key local stakeholders with regards to the conversion of Units 5 & 6. All activities associated with any infrastructure development, fuel supply, fuel storage, transportation and any other infrastructure or arrangements necessary to supply fuel of the quality and quantity specified in the RFP is entirely up to the proposer. Except to the extent that PREPA can provide public support of the awarded project and whatever specific items PREPA is required to do to assist in the interface of the two projects, PREPA will not be involved in the development, design, permitting, construction or operation and maintenance of the fuel supply facilities. Ownership of all facilities upstream of the delivery point will remain the property of the fuel supplier unless otherwise mutually agreed to by both parties.
8		containers was made based on 10.3TBtu (34 containers per day) for San Juan. The average daily demand put forward in the tender represent about 80 Containers per day. This increase will put strains on the local road infrastructure, the environment and port facilities. Does PREPA still see ISO containers as a viable option for this tender?	The purpose of this RFP is to solicit all available options to reduce the fuel cost at the San Juan Units 5 and 6 combined cycle units. To the extent that potential suppliers have alternative ways to supply acceptable fuel in a cost effective manner, PREPA will consider all proposals.
9		The Tender documents mentions a "Micro Fuel Handling" solution. Does PREPA have a specific LNG import solution selected for the supply of San Juan units? We understand that a supply chain through ISO LNG containers has been studied in the past. In our experience, such solution would bring very significant operational/logistical challenges for the large volume contemplated. Besides, a larger scale LNG import solution (via FSRU or onshore regas terminal) would help PREPA seize the benefits or large economies of scale the required import volume may bring as compared to an ISO chain solution. Has such larger import infrastructure solution been studied? and if so, could PREPA share the result of such study?	PREPA has not performed any recent studies related to large fuel infrastructure improvements for San Juan. While there may be specific terminology included in the RPP that may imply a specific solution such as "modular-construction terminal fuel gas supply infrastructure" or "micro fuel handling" those descriptions are not intended to describe or define any particular type of fuel delivery facility or limit any response

10		Capacity payments: we understand the capacity payments will be limited to covering CAPEX recovery on power plant conversions. Please confirm it may also include payment to cover for potential new LNG import infrastructure?	PREPA is seeking proposals for fuel supply and acknowledges that pricing will be determined by the supplier considering many factors including but not limited infrastructure development, capital cost of the fuel supply facilities, fuel source, transportation cost and logistics, cost of capital, operating costs. The proposals shall include whatever pricing is necessary for the proposing company to meet their specific needs. Proposers shall include detailed descriptions of their pricing proposal including any fixed and variable costs they require to complete the project. The cost of the conversion of the existing PREPA facilities shall be included in the pricing proposals with the expectation that the recovery of all of these costs will be identified and only included in the initial 5 year term of the agreement in the form of a fixed capacity payment. The fuel cost payment is not intended to be on a take or pay basis requiring minimum annual fuel delivery. However, reasonable alternatives to these payment structures will be considered to meet the project objectives.
11	Section 2.0 VII.	Where is that dock located and does PREPA have access to any other docks in the area?	PREPA has access to berths A, B, & C for fuel oil deliveries. Other dock infrastructure exists in the vicinity of the San Juan Power Plant, and its will be up to the Proponent to determine the most suitable delivery method using existing or new infrastructure, as required. Further, it will be up to the proponent to make arrangements to secure access to such infrastructure.
12		Jones Act limits the delivery methods for U.S LNG deliveries, does the origin of the fuel influence the awarding of this tender?	The origin of the fuel doesn't influence the awarding of this tender.
13		Influence the awarding of this tender? Is PREPA working towards obtaining a more general Jones Act Waiver for LNG imports that may include the supply on this tender? If so, what is the status and timing of such initiative?	A Jones Act waiver shall not be assumed for the purpose of this RFP.
14		The tender mentions that take or pay provisions not allowed while contemplated demand of 25 TBtu. What is the reason for this request? How will the plant be used after conversion (base load, peak?) and what is the expected load factor of the plant?	PREPA's current financial situation does not support take-or-pay obligations. Please note that San Juan Units 5 & 6 are some of the most efficient units owned by PREPA. However, No. 2 fuel oil costs adversely impact current dispatch, favoring less efficient but more economic units. It is anticipated that a lower cost fuel solution will increase the utiliziation of the units, where the units will be dispatched as base- load units. The fuel quantity is based on a capacity factor for the units in the 80-90% range.
15		How does PREPA propose to guarantee payments for the infrastructure and LNG supply?	The budget for the fuel supply and improvements under this RFP will replace the budget of actual diesel fuel expenses, but no take or pay nor guarantee of payments for Bidder required LNG infrastructure are envisioned
16		Is there any specific reason why PREPA limits the RFP approach to "Micro Fuel Handling"?	While there may be specific terminology included in the RFP that may imply a specific solution such as "modular-construction terminal fuel gas supply infrastructure" or "micro fuel handling" those descriptions are not intended to describe or define any particular type of fuel delivery facility or limit any proposed response.
17		Does PREPA sees ISO LNG containers as a viable option for this project?	The purpose of this RFP is to solicit all available options to reduce the fuel cost at the San Juan Units 5 and 6 combined cycle units. To the extent that potential suppliers have alternative ways to supply acceptable fuel in a cost effective manner, PREPA will consider all proposals.
18		We understand the capacity payments will be limited to covering CAPEX recovery on power plant conversions. Please confirm it may also include payment to cover for potential new LNG import infrastructure?	PREPA is seeking proposals for fuel supply and acknowledges that pricing will be determined by the supplier considering many factors including but not limited infrastructure development, capital cost of the fuel supply facilities, fuel source, transportation cost and logistics, cost of capital, operating costs. The proposals shall include whatever pricing is necessary for the proposing company to meet their specific needs. Proposers shall include detailed descriptions of their pricing proposal including any fixed and variable costs they require to complete the project. The cost of the conversion of the existing PREPA facilities shall be included in the pricing proposals with the expectation that the recovery of all of these costs will be identified and only included in the initial 5 year term of the agreement in the form of a fixed capacity payment. The fuel cost payment is not intended to be on a take or pay basis requiring minimum annual fuel delivery. However, reasonable alternatives to these payment structures will be considered to meet the project objectives.
19		RFP/2.0. Scope of Service Art V.: Can PREPA clarify the battery limit considered for transfer of ownership and the transfer pricing method contemplated? Does it include subsea pipeline in case of a regasification barge or vessel? Does PREPA requires the transfer of a vessel lease or time charter party?	Ownership of all facilities upstream of the delivery point will remain the property of the fuel supplier unless otherwise mutually agreed to by both parties. The conversion of the units to burn the alternative fuel will be coordinated with PREPA and their existing contractors. Upon completion of the conversion, PREPA will retain ownership of all equipment downstream of the fuel delivery point and be responsible for all operation and maintenance of that equipment.
20	RFP / 4.3.6.Local parties:	Do you have particular requirements regarding local content for construction material?	In relation of the use of materials, Act 14- 2004, established that articles extracted, produced, assembled, packaged Bir distributed in Puerto Rico by enterprises with operations in Puerto Rico, or distributed by agents established in Puerto Rico shall be used when the service is rendered, provided that they are available. In relation with the workforce, Act 42-2018, established as a public policy of the Government of Puerto Rico that, regarding the purchase and contracting of Construction Services, at least twenty percent (20%) of said purchases and contracts will be reserved for services rendered by a Business or Local Provider of Construction Services.
21		Does PREPA requires LNG supply from a US origin or are you open to non-US LNG supply solution which would not require Jones Act compliance and allow potential access to a wider pool of LNG supply sources?	PREPA is open to a LNG supply solution from U. S. and non U.S. origin.

22		Can you clarify or provide examples of the following sentence: "Qualified firms shall possess all required Federal and Government licensing." Specifically, what are the federal and state licenses referred to in this section? What's the market reference for a "time to market" by the first quarter of 2019? The request	PREPA anticipates that permitting requirements will be specific to the development plans of the Proponents, and has therefore not performed a permitting analysis for potential delivery alternatives (PREPA has evaluated the permits required to burn natural gas in Units 5 & 6). All activities associated with any infrastructure development, fuel supply, fuel storage, transportation and any other infrastructure or arrangements necessary to supply fuel of the quality and quantity specified in the RFP is entirely up to the proposer. Except to the extent that PREPA can provide public support of the awarded project and whatever specific items PREPA is required to do to assist in the interface of the two projects, PREPA will not be involved in the development, design, permitting and approvals for the fuel supply facilities will be the responsibility of the fuel supplier. PREPA will be responsibile for any permitting modifications necessary for the unit conversion and the operation of the units on the alternative fuel.
23		is for a complex proposal (studies & permits, firm turnkey EPC, financing, execution) and the expected dates in RFP 81412 are not aligned with comparable tenders.	It is anticipated that switching San Juan 5 and 6 combined cycle units to an alternative fuel will result in significant savings. Based on this assumption, it is PREPA's desire to convert the units as quickly as possible. The timeframe identified in the request for proposals is a suggested date and not a requirement. Fuel suppliers are free to identify the specific date that their fuel supply will be available. To the extent that a proposal is based on a later supply date and results in more fuel cost savings to PREPA, that alternative will be selected. Similarly if a fuel supplier wants to include a temporary fuel supply option until something more permanent can be selected, the overall cost savings will be evaluated.
24		Why must the proposed solution must include a modular infrastructure on the dock that is in the northern part of the San Juan plant?	While there may be specific terminology included in the RFP that may imply a specific solution such as "modular-construction terminal fuel gas supply infrastructure" or "micro fuel handling" those descriptions are not intended to describe or define any particular type of fuel delivery facility or limit any proposed response.
25	Section 4.3.4 Price Proposal:	Please confirm that Component 1 shall include both LNG terminal capacity fee (for example: FSRU charter and FSRU O&M fee) and pipeline capacity fee that are both independent of infrastructure utilization?	PREPA is seeking proposals for fuel supply and acknowledges that pricing will be determined by the supplier considering many factors including but not limited infrastructure development, capital cost of the fuel supply facilities, fuel source, transportation cost and logistics, cost of capital, operating costs. The proposals shall include whatever pricing is necessary for the proposing company to meet their specific needs. Proposers shall include detailed descriptions of their pricing proposal including any fixed and variable costs they require to complete the project. The cost of the conversion of the existing PREPA facilities shall be included in the pricing proposals with the expectation that the recovery of all of these costs will be identified and only included in the initial 5 year term of the agreement in the form of a fixed capacity payment. The fuel cost payment is not intended to be on a take or pay basis requiring minimum annual fuel delivery. However, reasonable alternatives to these payment structures will be considered to meet the project objectives.
26		Please provide expected or required LNG/NG availability rate excluding Force Majeure events.	The intent of this RFP is for the fuel supplier to provide a reliable fuel supply at the costs proposed. To the extent that the contractor is unable to supply the contracted fuel they will be obligated to provide diesel fuel at the same price identified in the fuel supply agreement for the primary fuel supply. In the event that then current price of diesel is less than the contracted fuel price, PREPA will reimburse the supplier for the market price of the diesel fuel supplied.
27		Please clarify if bidder can provide temporary fuel supply solution by Q1, 2019 and to deliver permanent LNG/NG supply after expected completion, later while in operation?	It is PREPA's desire to convert the units as quickly as possible. The timeframe identified in the request for proposals is a suggested date and not a requirement. Fuel suppliers are free to identify the specific date that their fuel supply will be available. To the extent that a proposal is based on a later supply date and results in more fuel cost savings to PREPA, that alternative will be selected. Similarly if a fuel supplier wants to include a temporary fuel supply option until something more permanent can be selected, the overall cost savings will be evaluated.
28	Section 2.1 Deliverables - Ownership Structure:	Please elaborate on which assets ownership structure is requested (assuming that all infrastructure shall become PREPA's property)?	Title of the fuel will transfer to RPEPA at the delivery point. Ownership of all facilities upstream of the delivery point will remain the property of the fuel supplier unless otherwise mutually agreed to by both parties . PREPA will retain ownership of all equipment downstream of the fuel delivery point and be responsible for all operation and maintenance of that equipment.
29		Can you provide "Micro" limits or describes any: size, boundaries, concept, siting, and capacity of the MFH Facility?	Conceptually, this information was provided during the course of the site visit. Please see response to item 122.
30	Clause 3.1 Contract Term	Are provisions for capital costs of required modifications ownership set after expiry of base period Five (5) years?	The conversion of the units to burn the alternative fuel will be coordinated with PREPA and their existing contractors. Upon completion of the conversion, PREPA will retain ownership of all equipment downstream of the fuel delivery point and be responsible for all operation and maintenance of that equipment.
31		What scope of modifications and installations necessary to supply NG and use it as a fuel for turbines is covered by permits mentioned: turbine conversion, gas pipeline, MFH Facility?	All permitting and approvals for the fuel supply facilities will be the responsibility of the fuel supplier. PREPA will be responsible for any permitting modifications necessary for the unit conversion and the operation of the units on the alternative fuel.
32		What are battery limits of necessary modifications to supply and use NG to be included into capacity payment during Base period? Does MFH Facility qualify for capacity payment if any extensions are applied?	Please see response to item 122. The proposals shall include whatever pricing is necessary for the proposing company to meet their specific needs. Proposers shall include detailed descriptions of their pricing proposal including any fixed and variable costs they require to complete the project. The cost of the conversion of the existing PREPA facilities shall be included in the pricing proposals with the expectation that the recovery of all of these costs will be identified and only included in the initial 5 year term of the agreement in the form of a capacity payment. The fuel cost payment is not intended to be on a take or pay basis requiring minimum annual fuel delivery. However, reasonable alternatives to these payment structures will be considered to meet the project objectives.

33	Could you provide a definition as to what is considered, first, an "adverse finding", and, then, what is the definition of a "legal action" and a "litigation" under this section?	Adverse findings is defined in Section 4.2 of the RFP, the definition of legal action is a judicial proceeding brought by one party against another; one party prosecutes another for a wrong done or for protection or for prevention of a wrong and the definition of litigation is an action brought in court to enforce a particular right. The act or process of bringing a lawsuit in and of itself; a judicial contest; any dispute. Each proponent will have the guaranteed right to "due process" in this administrative procurement process, always looking to protect the public interest and seeking the best use of public funds.
34	Are the proposals submitted with this RFP subject to review or approval by the Fiscal Control Board, the Puerto Rico Energy Commission or the US District Court?	The proposals submitted with this RFP are subject to review and approval by the Fiscal Oversight Management Board.
35	In RFP section 10, item S states "The office of the Chief of Staff shall have the authority to terminate this Contract at any time." Please describe the conditions in which such termination can be made and amounts payable to the Seller for costs or commitments incurred before such termination.	This clause is a requirement of the Memorandum No. 2017-001, Circular Letter 141- 17 of the Office of the Chief of Staff of the Governor of Puerto Rico and the Office of Management and Budget in all governmental contracts. The memorandum doesn't establish any condition, right or limitations in case of termination. Notwithstanding, in case of termination by the Office of the Chief of Staff the contractor has the same rights that in the case of termination for convenience by PREPA, that is the compensation for services rendered under the agreement until the termination date.
36	What entity or entities own each of the properties adjacent to the San Juan power plant complex boundary? Are any of the adjacent properties leased to a third party? What is the nature of the business activity on each of the adjacent properties?	Bidders should perform its own due diligence for required properties for its project
37	The ship dimensions of the largest ship that has delivered diesel fuel and the largest ship that has delivered Bunker C fuel.	Deliveries via barge or vessel to the San Juan and Palo Seco Steam Plants through the San Juan Dock A/B, at present, are limited to an arrival draft of 26 feet. Maximum fuel oil cargo volume is estimated at 350,000 bbls.
38	Typical time such ships are at berth for each delivery.	Laytime is contracted to be 42 hours, assuming that no more than 30 hours is required to deliver fuel cargo.
39	The plant combined cycle output and heat rate with the SJ 5&6 CT units operating at base load (100% output) using natural gas, propane/LPG, and diesel fuel.	PREPA has assumed a heatrate of 7,500 Btu/kWhr and an output of 200 MW each. This analysis is based on natural gas. PREPA did not perform a similar evaluation for LPG. The heatrate for fuel oil varies base on the economic dispatch of the units, which are often operated in a part-load manner.
40	The combined cycle correction curves for part load operation using natural gas, propane/LPG and diesel fuel.	, Not required for fuel supply bid.

San Juan Power Plant Units 5 & 6 Production			
Capacity	440	MW	
Operating Days	365	days	
Operating Hours	24	hours	
Annual Production	3,854,400	MWh	
Capacity Factor	90%		
Net Annual Production	3,468,960	MWh	
Heat Rate	7,500	Btu/kWh	
	7.5	MmBtu/MWh	
Annual Fuel Consumption	26,017,200	Mmbtu	

## Annual Fuel Cost Comparison

	<u>Diesel</u>	Gaseous Fuel	<u>Sav</u>	ings
\$/mmbtu	16.00	10.00	6.00	38%
\$ million	416.3	260.2	156.1	38%
\$/KWh	0.12	0.08	0.05	38%

San Juan Plant Units 5 & 6 Gaseous Conversion			
Conversion Cost (\$ millions)	30.0		
5 Years Fuel Consumption (mmbtu)	130,086,000		
Cost / Mmbtu 0.23			



# **RFP 81412**

# REQUEST FOR PROPOSALS FOR Fuel Supply in the North and Conversion of San Juan Units 5 and 6

Issued by the Puerto Rico Electric Power Authority

Date Initial RFP Issued: July 30, 2018 Proposals Due Date: September 11, 2018 at 11:59 p.m. AST

# **TABLE OF CONTENTS**

1.0	Purpose and Intent
1.1	Puerto Rico Electric Power Authority
1.2	Contract Term
1.3	Proposal Submission
1.4	Prohibited Communications, Expenses, and Rejections
1.5	Local Participation
1.6	RFP Timeline
1.7	Definitions/Acronyms
2.0	Scope of Services
2.1	Deliverables
3.0	Evaluation and Selection
3.1	Finalist Interview
3.2	Selection17
4.0	Proponent Requirements 17
4.1	Requirement of Legal Entities
4.2	Required Qualifications of Proponents
4.3	Proposal Format
4.3.1	Cover Letter and Table of Contents
4.3.2	Experience and Capacity
4.3.3	Approach and Methodology 19
4.3.4	Price Proposal
4.3.5	Commitment to Complying with all Applicable Federal and Puerto Rico Local Regulations (2-4 pages)
4.3.6	Local Parties (1-4 pages)
5.0	Confidentiality of Responses and Proprietary Information
6.0	Conflicts of Interest
7.0	Proposal Additional Information
7.1	Rejection of Proposals; Cancellation of RFP; Waiver Informalities and Withdrawal Proposal
7.2	Ownership of Proposal

# Request for Proposals for **Fuel Supply in the North and Conversion of San Juan Units 5 and 6**

7.3	Cost of Preparing Proposals	
7.4	Errors and Omissions in Proposal	
8.0	Payment Terms and Method of Payments	
8.1	Payment Terms	
8.2	Method of Payment	
9.0	Process Rules and PREPAs General Instruction RFP Guide	23
10.0	Puerto Rico General Provisions	
11.0	Performance Bond and Payment Bond	

## **1.0 Purpose and Intent**

This Request for Proposals (RFP) is issued by the Puerto Rico Electric Power Authority (PREPA). The purpose of this RFP is to solicit proposals from interested qualified firms which can provide LNG fuel supply in the North and LNG fuel conversion of San Juan Units 5 and 6.

The intent of this RFP is to award one contract for LNG fuel supply, or any other proposed fuel, in the north and for fuel conversion of San Juan Units 5 and 6. Award of contract will be to those qualified firms whose proposal, conforming to this RFP, is most advantageous to PREPA, the price and other factors will also be considered therein. Qualified firms shall possess all required Federal and Government licensing. Section 2.0 of this RFP has a detailed description of the scope of services.

# **1.1 Puerto Rico Electric Power Authority**

The Puerto Rico Electric Power Authority (PREPA), is a public corporation and governmental entity of the Commonwealth of Puerto Rico, created pursuant Law 83 of May 2, 1941, as amended, with the duty of providing electric power in a reliable manner, contributing to the general welfare and the sustainable future of Puerto Rico, PREPA is tasked with maximizing benefits while minimizing the social, environmental and economic impacts.

PREPA is a government-owned company, property of the Commonwealth of Puerto Rico, and is empowered to make contracts, sell / buy assets and real estate, borrow money and issue bonds. PREPA is also responsible for the establishment of an appropriate rate structure for its services.

PREPA's Objectives:

- Reduce energy cost
- Promote smart energy consumption
- Protect the environment

Strategies to Achieve these Objectives:

- Reduce operating expenses
- Increase efficiency
- Minimize Energy Theft
- Diversify Energy Sources
- Establish Smart Grid for energy control and consumption monitoring
- Maximize use of advanced technology
- Increase access to clean sources of energy

# 1.2 Contract Term

This contract will be for a base period of Five (5) years with three (3) separate options of five (5) year extensions at PREPA's sole discretion. The capacity payment for capital cost of conversion

to LNG of the San Juan Units 5 and 6 will only apply to the Base period and will not apply to any extensions.

## **1.3** Proposal Submission

The Bidder shall submit its Proposal through the Submittals tab of the RFP 81412 event on the PowerAdvocate© Platform.

Questions or comments shall be submitted by 11:59 p.m. AST, August 21, 2018 via PowerAdvocate<sup>©</sup> through the Messaging Tab of the event 81412.

PREPA's designated Procurement Representatives for this RFP are:

Delis T. Zambrana Natalia Martínez Lugo

Verbal questions will NOT be accepted. Requests for clarifications will be answered by posting answers via PowerAdvocate© through the Download Documents Tab or Messaging Tap; accordingly, questions should NOT contain proprietary information, as answers may be published in the public domain. Please note that PREPA does not guarantee answers for all questions or comments received.

It is the sole responsibility of the potential proponent to monitor this site for additional information, updates and addenda concerning the RFP.

All RFP submissions, inclusive of the pricing, discounts and other requested details are to be submitted via PowerAdvocate© on or before 11:59 pm AST, September 11, 2018.

All Proponents are expected to submit a redacted copy of their proposal in the *PREPA's Supplier Registry Office* as required in Section 5.0 Confidentiality of Responses and Proprietary Information to the following address:

Postal Address:		Physical Address:
Puerto Rico Electric Power Authority		Supplier Registry Office
Supplier Registry Office	or	Ponce de Leon Avenue
PO Box 3670151		Third Floor Office 301
San Juan, Puerto Rico 00936		Building NEOS #1110, Santurce, PR

The PowerAdvocate guide is included as part of this event. For technical assistance with the sourcing platform application please contact PowerAdvocate technical support: (857) 453-5800 or via email at: support@poweradvocate.com

## **1.4 Prohibited Communications, Expenses, and Rejections**

Communications with other representatives of PREPA or relevant entities of the Federal Government regarding any matter related to the contents of this RFP are prohibited during the submission and selection processes. Failure to comply with these communications restrictions will result in rejection of the firm's proposal.

Neither PREPA, the Government of Puerto Rico nor any of its instrumentalities, will be responsible for any expenses in the preparation and/or presentation of the proposals, oral interviews or disclosure of any information or material received in connection with this RFP.

PREPA reserves the right to reject any and all proposals received in response to this RFP, when determined to be PREPA's best interest, and to waive minor noncompliance in a proposal. PREPA further reserves the right to make such investigations as it deems necessary as to the qualifications or perceived conflicts of interest of any and all firms submitting proposals in response to this RFP. The mere appearance of a conflict of interest shall constitute sufficient cause for the outright rejection of a proposal(s). In the event that any or all proposals are rejected, PREPA reserve the right to re-solicit proposals.

## **1.5** Local Participation

PREPA encourages Proponents to engage local subcontractors, professionals and relevant service providers headquartered in Puerto Rico ("Local Parties") as Team Members and Key Individuals to the greatest extent possible.

Proponents are strongly encouraged as part of this RFP to provide descriptions of their current and/or anticipated business arrangements with Local Parties and, in particular, Local Parties who are Team Members and Key Individuals for the Project, as applicable.

Key Review Process Events	Targeted Timeline
Request for Proposal Issued	July 30, 2018
RFP Kick-off Meeting	August 6, 2018
Visit to the Job Site	August 7, 2018
Supplier Questions Deadline	August 21, 2018
Questions Answered	August 30, 2018
RFP Proposal Submission Deadline	September 11, 2018
RFP Short List Announcement*	September 28, 2018

# **1.6 RFP Timeline**

Fuel Supply in the North and Conversion of San Juan Units 5 and 6

Key Review Process Events	Targeted Timeline
RFP Short List Requests for Clarifications, Presentations, Updated Proposals and Negotiation Process Begins*	October 8-9, 2018
<b>Evaluate Proposals and Conduct Supplier Final Negotiations*</b>	October 10-29, 2018
Selection Notification*	November 5, 2018

\*At PREPA's discretion

Please note that the RFP timeline includes target dates that may change. It is the responsibility of Proponents to periodically review the PowerAdvocate website for updates to the RFP timeline and other important information. Any changes or modifications to the RFP terms, conditions or specification will be made through addenda posted on PowerAdvocate.

## 1.7 Definitions/Acronyms

"Battery Limits" for this RFP means a flange in PREPA's San Juan Power Plant facilities' limits.

"Contractor" or "Selected Proponent" means a bidder or proponent awarded a contract resulting from this RFP.

"DOJ" means the United States Department of Justice.

"Chief Executive Officer" refers to the CEO of the Puerto Rico Electric Power Authority.

**"Evaluation Committee"** refers to a committee designated by PREPA's Chief Executive Officer, which will evaluate all complete proposals pursuant to the criteria listed in Section 3.0 of this RFP.

**"Federal Agency"** means any of the departments of the Executive Branch of the Government of the United States of America, or any department, corporation, agency or instrumentality created or which may be created, designated or established by the United States of America.

**"Final Acceptance**" means – the written approval by PREPA that the entire work has been completed and the final cleaning up of the site has been performed and all Punch List items have been rectified.

**"Government Entity"**, refers to any department, agency, board, commission, body, bureau, office, public corporation or instrumentality of the Executive Branch of the Government Entity, whether existing or to be created in the future.

**"Key Individuals"** means an individual who will play an important role in the engagement or contract on behalf of a Team Member resulting from this RFP.

"LNG" means Liquefied Natural Gas

**"Local Parties"** means local subcontractors or professionals (which may include architects and consulting engineers) and relevant service providers who are based in or have a significant ongoing business presence in Puerto Rico.

"PREPA" means the Puerto Rico Electric Power Authority.

**"Proponent"** means a(n) (i) natural person, (ii) legal person, (iii) joint venture, or (iv) partnership, or (v) consortium of individuals, and/or partnerships, and/or companies or other entities that submit a response to this RFP that is not currently debarred.

**"Public Interest"** means any government action directed to protecting and benefiting citizens at large, whereby essential goods and services are provided for the welfare of the population.

"RFP" means this Request for Proposals and addenda issued by PREPA.

**"Team Member"** means a member of a Proponent. Team Members should be identified in Proponent' submissions and not be changed without the consent of PREPA.

"Units 5 and 6" means the combined cycle generating units located at the San Juan Power Plant. Units 5 and 6 have a rated capacity of approximately 400 MW in total.

## 2.0 Scope of Services

The Puerto Rico Electric Power Authority (PREPA) electric generating fleet is old and in various states of disrepair. Because the majority of the power generation in Puerto Rico is on the South side of the Island and a majority of the load in on the North Side of the Island in the San Juan area, reliable and economic generation is needed in the north. This became especially critical following the 2017 hurricanes when much of the transmission capability from south to north was destroyed.

PREPA is interested in reducing the cost of generation and improving the compliance with environmental requirements for units required to reliably operate at base load in the San Juan area. One alternative being considered by PREPA is to seek suppliers for an alternate fuel supply to the newer, existing and more efficient combined cycle units at the San Juan generating station (San Juan Units 5 and 6). While the Units 5 and 6 are currently only capable of burning #2 Fuel Oil, PREPA will consider converting these units to an alternative fuel if the cost savings associated with the lower cost fuel supply justifies the power plant conversion modification expenditures.

Depending on the exact heat rate of modified units and assuming an 85% capacity factor, it is estimated that the total annual fuel requirements for the converted San Juan Units 5 and 6 would be approximately 25,000,000 MMBTU/year, or 25 TBTU/year.

PREPA is requesting all-inclusive, turnkey proposals to furnish, install, connect, deliver and operate a safe, stable, and reliable fuel supply system to the San Juan Units 5 and 6 combustion turbine combined cycle power generating plant; to supply the fuel gas for five years to the power generating plant; and to perform all work, including but not limited to: engineering/design, environmental permit support, equipment/materials supply, construction and commissioning, as required for the conversion of San Juan Units 5 and 6 to firing fuel gas. The fuel gas supply shall be liquefied natural gas (LNG) with an annual available quantity of at least 25 TBTU/year (alternative fuels can be proposed provided the original combustion turbine equipment manufacturer Mitsubishi can confirm the units can safely and reliably upon being converted to the proposed alternate fuel and that can be cleared by PREPA on a risk assessment).

I. Introduction

The LNG fuel gas supply facility shall be designed to bring natural gas quickly and safely to the combustor inlets of the San Juan 5 and 6 combustion turbines. It is expected that the proposed fuel gas supply and conversion project will be accomplished expeditiously by installing new, readily available, modular-construction harbor terminal fuel gas supply infrastructure which will support full load operation of the San Juan 5 and 6 Plant preferably by the first quarter of 2019.

Contractor shall supply the following:

- Land property necessary for fuel unloading, storage and handling facility
- All necessary permits and licenses to operate including but not limited to U.S. Coast Guard authorization, as required. As part of its proposal, Bidder must be able to demonstrate a clear path for achieving approval all necessary permits required for the construction and operation of the project, including appropriate harbor access and approvals. PREPA will provide assistance to the Contractor in obtaining environmental permits related to the conversion of San Juan Units 5and 6. Bidder shall provide evidence of compliance with requirements of the Jones Act including U.S. Customs and Border protection waivers, as applicable
- Supply, construction, and commissioning of all equipment and interconnections necessary for a complete unloading, storage and fuel handling terminal facility as necessary to receive, unload, and store Liquified Natural Gas (LNG) and to vaporize and deliver natural gas from the terminal facility to the turbine combustor inlets of the existing San Juan Units 5 and 6 Power Generating Plant. If an alternative fuel is proposed, Contractor shall be responsible for the installation of all necessary facilities to deliver the fuel to Units 5 and 6.
- Supply and delivery of LNG on regular intervals as necessary to support San Juan Units 5 and 6 consumption of approximately 25 TBTU/yr, including logistics necessary to achieve reliability of LNG supply for a term of at least five (5) years with three separate

five-year options to extend exercisable at PREPA's sole discretion.

• Operation and maintenance for duration of contract of all LNG, or an alternative fuel, terminal and interconnection facilities required to provide reliable and safe delivery of natural gas at the quantities described above to the battery limits of the San Juan Units 5 and 6 power generating plant.

# II. Gas Supply Infrastructure

The project will include EPC project (engineer/design, procure/supply, and construction) and operation/maintenance for the fuel gas supply infrastructure required to supply and burn natural gas at manufacturer's specifications of two 501F Mitsubishi combustion turbines (Units 5 and 6), keeping the existing distillate #2 oil infrastructure as a secondary backup fuel. The Contractor shall be responsible in supplying all materials, equipment, and personnel to fulfill the project within the scope of supply, starting from the LNG unloading terminal and ending at the combustion turbine nozzle inlet. The engineering shall consider transient loads management solution due to potential load fluctuations of the units.

# III. Gas Supply Operation

The shipping, supply, and operation associated with LNG delivered to the terminal and for natural gas supply from the terminal to San Juan 5 and 6 shall be part of Contractor's responsibility.

# IV. Conversion of San Juan Units 5 and 6

The Contractor shall be responsible for the scope of work and associated capital cost required for LNG gas conversion of PREPA's San Juan Units 5 and 6, as well as modifications to associated turbine controls. The Contractor shall include the cost of the scope for PREPA's Unit 5 and 6 conversion as part of its proposal in the form of a capacity payment over the initial Base five (5) year term of the Agreement. The Contractor shall oversee and manage the conversion work with appropriate subcontracts to the combustion turbine original equipment supplier company, Mitsubishi, who will be responsible for defining the scope for the turbine's gas conversion and turbine controls modifications including engineering/design, equipment supply and technical advisors for construction and startup. The Contractor shall be responsible for coordinating outage planning with PREPA to implement the necessary modifications. The Contractor will optimize the conversion of Units 5 and 6 to achieve commercially reasonable improvements in output and heat rate in conjunction with the conversion.

Mitsubishi shall be a sole source subcontractor to the Contractor, and Mitsubishi shall be responsible for engineering, supply, technical advising/installation oversight and commissioning associated with the conversion of San Juan 5 and 6, including but not limited to:

- Combustion system conversion from standard diffusion liquid fuel to Dual Fuel DF 42 (LNG or alternative fuel and Diesel)
- Parts and components for dual fuel conversion
- Fuel Gas Regulation Equipment

#### Fuel Supply in the North and Conversion of San Juan Units 5 and 6

- Fuel Gas Manifold Piping and Supports
- All electrical and controls wiring on the combustion turbine skids
- Combustion parts including modifications of fuel oil nozzles
- Sweep air connection piping between combustor shell and fuel gas valve skid
- Steam injection piping or repair between manifold and fuel nozzles
- CTG control system modifications

Additionally, Contractor will be responsible for separately subcontracting to a qualified Engineer to perform all Balance of Plant design engineering beyond the scope of Mitsubishi but as necessary to accomplish the conversion of San Juan Units 5 and 6, including but not limited to:

- Any required Heat Recovery Steam Generator (HRSG) and Steam Turbine modifications
- Interconnecting piping/ off-skid electrical and controls wiring from regasification system to combustion turbine enclosure
- Civil work
- Miscellaneous BOP including controls system

# V. Ownership of Equipment

All equipment and materials installed by contractor from the regasification point to the units shall become PREPA's property from the Final Acceptance date.

## VI. Studies and permits

The Contractor shall be responsible for studies, permits and endorsements from the United States Coast Guard, Puerto Rico Ports Authority, Public Service Commission, Department of Natural Resources, NOAA and PR Environmental Quality Board, Federal Energy Regulatory Commission, US National Fish and Wildlife, and other applicable agencies for LNG shipping terminal and storage works outside San Juan Power Plant perimeter and for assisting PREPA with such studies and permits as necessary to convert San Juan Units 5 and 6.

The Contractor shall be responsible for all interfaces with the Puerto Rico Ports Authority (PRPA) and its proposal shall include a letter of support from the PRPA. In case the proponent does not obtain a letter of support from the PRPA, a detailed description of the means he foresees utilizing to accomplish the letter requirement and evidence that the intention of the project has been communicated to the PRPA shall be included with the proposal.

VII. Scope of Work, not limited to:

- a. Gas Piping: For information purpose of this project, PREPA will supply to the Contractor the SOCOIN Final Drawings for Construction of San Juan Natural Gas Conversion Project. The use of the SOCOIN natural gas piping and route designed for the SJ Combined Cycle shall be considered, but the final design will be determined by the Contractor in accordance with applicable standards.
- b. Dedicated Auxiliary Equipment's: Control Valves, Gas Evaporator, Heater or Heat Tracer and Compressor to comply with combustion turbine's manufacturer

recommendations, Relief Valves, Stop Valves, Safety Vent Valves, Safety Shut Down Valve at fuel gas turbine manifold, Overspeed Trip Valve, Fuel Gas Meter, Metering Station for Financial Custody, Coalescent Filters, etc.

- c. The Contractor is responsible of any improvements required to the dock per NFPA, Ports Authority and USCG compliance and for the recertification due to the change of use. Contractor shall not interfere with current operations for unloading and storing Bunker C fuel oil or diesels fuel at any the existing PREPA San Juan Steam Plant generating facilities.
- d. Electronics and Communications: for all operation, control and supervisory signals from auxiliary equipment, gas conveyance, metering station and LNG storage and vaporizer system shall be integrated to the San Juan Units 5and6 DCS by means of dedicated fiber optic conduits and cables.
- e. Coating: All steel surfaces shall be painted with a three coating system for corrosive environment and UV protected.
- f. Fuel Gas Meters: The Two separate flow meters shall be installed including a main meter and a backup meter. The metering equipment will be installed in a location to be mutually agreed to by the Contractor and PREPA. The metering equipment shall be designed and installed in accordance with the current recommendations of the American Gas Association.
- g. NDT to all welds; 100% x-Rays, hydrostatic test
- h. Cathodic Protection
- i. Fire protection system modification as required by codes and local and federal regulatory agencies.
- j. Gas leak Sensors w/heat and temperature sensors
- k. Mechanical, Electrical, Structural and Civil Works
- l. Construction Drawings
- m. As Built Drawings
- n. Construction shall consider hurricane winds of 145 MPH and comply with Seismic User Group 3.

Page | 11

#### Fuel Supply in the North and Conversion of San Juan Units 5 and 6

VIII. Combustion turbine manufacturer's Recommendations of Natural Gas Parameter at Combustion Turbine's Gas Control Skid

a. Pressure (min): 350 psi min - 350 psia max - 650 pisa
b. Temperature (min): 60 °F min fuel supply temp - 30F as per B&V (MHPS requires 50 degrees superheat)
c. Flow: 27.43 MMBtu/min per unit Flow varies with ambient and load.
d. Gas Classification: \_\_\_\_\_

IX. Volume

Each calendar year, PREPA will provide an annual quantity nomination to be supplied to the San Juan Units 5 and 6. Contractor will commit to providing this total quantity in accordance with the schedule to be provided by PREPA. This quantity may vary from year-to-year depending of outage schedules but the annual nominal quantity is expected to be approximately 25,000,000 MMBTU/yr.

- X. Minimum terminal LNG storage to be maintained at all times: 7 days of storage for San Juan Units 5 and 6 at full load.
- XI. Guaranteed delivery Contractor is responsible for providing 100% of the San Juan Units 5 and 6 natural gas supply in accordance with the annual quantity nomination. If natural gas is not available as specified by PREPA, Contractor may be required to supply diesel fuel to operate the units or alternatively to reimburse PREPA for the difference between their cost of diesel fuel consumed minus the contract price of natural gas and any other costs associated to this change. If the natural gas available does not conform to the quality specifications described in the combustion turbine manufacturer's specifications, the natural gas supply shall be deemed unavailable and the abovementioned Contractor's responsibility will apply.
- XII. Security –Bidder shall propose a security acceptable to PREPA to guarantee its performance under the contract and provide terms which would allow step-in rights in the event of non-performance

# 2.1 Deliverables

Proponents shall outline the types of deliverables and timelines they produce, in performing the services being procured through this RFP.

The Proposals will provide the following as part of its proposal:

- Scope of work for the total project
- Schedule

- Operating plan
- Location (s)
- Permitting plans (if applicable)
- Plans for financing, schedule, requirements and demonstration of commitments to financing. Note: Proponent proposal will not be accepted if conditioned on approval of financing. Proponent must be able to demonstrate existing unconditional commitments of financing for the project
- Supply contract terms (if applicable)

The Bidder will provide the following as part of its proposal:

- Scope of work for the total project including permitting
- Schedule for scope of work to support delivery of natural gas
- Schedule for scope of work to accomplish conversion of San Juan Units 5and 6
- Long term operating plan for gas unloading and supply facility
- Location of facility
- Permitting plans
- Source of LNG supply and delivery logistics, including reliability contingency, as needed to support full load continuous reliable operation of San Juan Units 5 and 6
- Storage and redundancy in equipment systems as necessary to assure reliable fuel supply to the power generating units
- Ownership structure
- Order of magnitude estimated capital cost required for total investment
- Plans for financing, schedule, requirements and demonstration of commitments to financing. Note: Bidders proposal will not be accepted if conditioned on approval of financing. Bidder must be able to demonstrate existing unconditional commitments of financing for the project.
- Pricing and applicable indices
- Plans for control/ownership of proposed location for fuel unloading facility
- Evidence that Contractor currently owns/controls any ships, vessels or major equipment necessary to execute the project as scheduled including initial fuel delivery
- Recommendation of current or recent customer for similar services as proposed
- Letter of Support from Puerto Rico Port Authority or as established on Part VI. Studies and Permits
- Demonstration of Jones Act compliance
- Permitting path and permit request/approval matrix
- Scope split document for all work (including San Juan 5 and 6 conversion) demonstrating scope by all major subcontractors to Bidder including Mitsubishi, Bidder's Engineer, and Bidders Construction Contractor(s)
- Subcontractor Commitment letter from Mitsubishi to perform scope for conversion of San Juan 5 and 6
- Proposed Engineer for BOP scope
- Proposed Construction Contractor(s) and respective scope

#### **3.0** Evaluation and Selection

PREPA will examine all proposals in a proper and timely manner to determine if they meet the proposal submission requirements. Proposals that are materially deficient in meeting the submission requirements or have omitted material documents, in the sole opinion of PREPA, may be rejected. All proposals meeting the proposal submission requirements will be evaluated.

Each proposal meeting all submission requirements will be independently evaluated by the Evaluation Committee, which will assign a score for each evaluation criterion listed below in this section up to the maximum points.

The criteria shall be graded using a score of 1 to 5:

- 1 = Inadequate, does not meet RFP expectations.
- 2 = Adequate, criteria is met, below the standards set by the RFP.
- 3 = Good, meets the minimum standards set by the RFP.
- 4 = Very good, meets the standards set by the RFP.
- 5 = Excellent, presents the best proposal that meets the standards set by the RFP.

Complete proposals will be preliminarily scored based upon the criteria listed below.

#### **Experience and Capacity (10 percent)**

Respondents must demonstrate experience and success in developing LNG fuel developments of similar scope as the duties described herein. Proponents shall provide the names and titles of the key members of the Project team (including the Design Entity selected by the Proposer) with a brief description of the qualifications and experience of:

- 1. Project Manager
- 2. Engineering and Design Manager
- 3. Lead Engineers
- 4. Inspector Manager.
- 5. Safety Officers, QA/QC Managers, Environmental specialists.
- 6. Other key personnel required, including subcontractors.

Proponents shall include a clear assignment of responsibility for various project tasks to specific individuals. Proposals shall include resumes identifying the qualifications and experience of all personnel listed above.

#### Note: PREPA reserves the right to reject or accept proposed Project personnel.

Submit a complete list showing all key firms in the Proposer's team. If a partnership and/or joint venture is proposed, clearly explain which parties in the partnership or joint venture will interface with PREPA on design and technical issues, which parties will interface with PREPA

on financial or contractual matters, and which member or partner will be responsible to resolve disputes between the Proposer and PREPA.

Identify and describe potential subcontractors with demonstrated proof of the technical capabilities necessary to perform their proposed scope of work and or services.

Submit evidence that the Proposer is duly and properly organized and is qualified to conduct business in Puerto Rico or will be prior to contract award.

Note: To execute a possible resulting contract, the company must be registered in PREPA's Supplier Registry.

Respondents that demonstrate they have the staff available to begin immediately will be scored higher than those who need more time, or whose responses are vague.

# Approach and Methodology (30 percent)

Explain your approach to completing the Project within the given construction dates and site constraints. Include a summary-level CPM schedule detailing all aspects of the Project. Include a detailed assessment and response to the site condition restraints.

Respondents shall outline a clear and straightforward approach and demonstrated commitment to accomplishing the schedule goal of providing fuel gas for San Juan 5 and 6 no later than March, 2019. Respondents shall identify key goals and objectives, and methods for achieving high standards for the delivery of services, in expectation of meeting or exceeding these goals.

Describe in detail the methods you foresee utilizing to accomplish the duties at the site. Provide sketches or illustrations to explain your approaches if necessary. This approach will include:

- 1. Demonstrating a clear and thorough interpretation and acknowledged assimilation of the project work scope as described herein and that are part of this RFP.
- 2. Satisfactorily demonstrating how the duties will be staged to minimize impacts to PREPA operations.
- 3. Presenting a clear and logical approach for the efficient performance of all work tasks across the Proposer's entire Project Team.
- 4. Describing how the Proposer's submitted milestone schedule demonstrates a clear understanding and integration of all the interrelated duties.
- 5. Describing how the Proposer intends to address and mitigate adverse environmental materials.

- 6. Providing a specific and project-proven approach and plan for effective Quality Assurance/Quality Control across the Proposer's Project Team
- 7. The Proposer's outline plan and commitment to safety.

Respondents shall explain how they will be organized to effectively deploy support for PREPA and clearly identify engagement manager and different work stream leaders.

# Price Proposal (60 percent)

Proposals will be scored based on price proposal format provided. Respondents shall clearly identify proposed capacity payment to cover costs for conversion of San Juan 5 and 6, proposed delivered fuel payment price, and proposed fuel price indices for inflation and changing market conditions. Terms and conditions of priced proposal will also be a consideration.

Provide evidence of the Proposer's financial ability and resources to adequately perform and manage the Contract, manage risk or ability to obtain such resources as are required during the performance of the Project. If Proposer is a joint venture or a newly-formed entity, identify appropriate guarantor(s) and provide evidence of the financial resources of such guarantor(s).

Submit audited financial statements for the Proposer for the most recent three (3) fiscal years, certified by certified public accountant in accordance with generally accepted accounting principles. If the Proposer is a partnership or joint venture, then audited financial statements for each corporation, partnership, Limited Liability Company, sole proprietorship, member or partner holding an interest in the Proposer must be submitted for the same three (3) year period. If applicable, provide all such information with respect to any guarantor(s).

Provide a letter from a bonding company satisfactory to PREPA that commits the bonding company to provide the required bonding on behalf of the Proposer if the Proposer is awarded the contract for the Project.

Provide a letter from an insurance company, satisfactory to PREPA that commits the insurance company to provide the required insurance on behalf of the Proposer if the Proposer is awarded the contract for the Project. Insurance requirements can be found in Attachments to this RFP. PREPA may request further clarification to assist the Evaluation Committee in gaining additional understanding of proposal. A response to a clarification request must be to clarify or explain portions of the already submitted proposal and may not contain new information not included in the original proposal.

# **3.1** Finalist Interview

PREPA reserves the right, at its sole discretion, to invite qualified Proponents to a finalist interview with the Evaluation Committee. If PREPA elects to conduct finalist interviews, each qualified Proponents will be required to give a strictly timed 20-minute presentation. This presentation shall highlight expertise and prior energy mission optimization and program management services provided for similar organizations. The presentation shall also clearly

explain the Proponent's approach and team composition. The Evaluation Committee may alter the scoring of a qualified proponent's proposal based upon the presentation. Proponents are responsible for all costs or expenses incurred to attend such interview.

# 3.2 Selection

Following completion of the evaluation process the Evaluation Committee will meet to choose the Selected Proponent.

# 4 **Proponents Requirements**

# 4.1 Requirement of Legal Entities

Proponents that are corporations, partnerships, or any other legal entity, U.S. or Puerto Rico based, shall be properly registered or capable to be registered or capable and willing to registered to do business in Puerto Rico and the U.S. at the time of the submission of their proposals, and comply with all applicable Puerto Rico or U.S. laws and/or requirements. A selected proponent must be part of PREPA's supplier registry in order to execute a contract.

# 4.2 Required Qualifications of Proponents

Proponents to this RFP shall provide information in their proposals that demonstrates the following qualifications:

- Proponent has adequate financial resources to perform the contract, or the ability to obtain them; financial statements for the past 2 years will be required or equivalent financial records must be included in the proposal.
- Proponent is able to comply with an accelerated delivery or performance schedule.
- Proponent has experience with similar projects and a satisfactory performance record.
- Proponent has a satisfactory record of integrity and business ethics.
- Proponent has the necessary organization, experience, accounting and operational controls, and technical skills.
- Neither Proponent nor any person or entity associated who is partnering with Proponents has been the subject of any adverse findings that would prevent PREPA or Authority from selecting Proponent. Such adverse findings include, but are not limited to, the following:
  - Negative findings from a Federal Inspector General or from the U.S. Government Accountability Office, or from an Inspector General in another state.
  - Pending or unresolved legal action from the U.S. Attorney General or from the U.S an attorney general in Puerto Rico or another state.
  - Pending litigation with the Government of Puerto Rico, or any other state.
  - Arson conviction or pending case
  - Harassment conviction or pending case.

#### Fuel Supply in the North and Conversion of San Juan Units 5 and 6

- Puerto Rico and Federal or private mortgage arrears, default, or foreclosure proceedings
- In rem foreclosure.
- Sale tax lien or substantial tax arrears.
- Fair Housing violations or current litigation.
- Defaults under any Federal and Puerto Rico-sponsored program.
- A record of substantial building code violations or litigation against properties owned and/or managed by Proponents or by any entity or individual that comprises Proponents.
- Past or pending voluntary or involuntary bankruptcy proceeding.
- Conviction for fraud, bribery, or grand larceny.

#### 4.3 **Proposal Format**

The Proponent's proposal shall be formatted as follows:

# **4.3.1** Cover Letter and Table of Contents

Provide a cover letter that includes a certification that the information submitted and the Proposal is true and accurate, and that the person signing the cover letter is authorized to submit the Proposal on behalf of the Proponents. Clearly identify the designated contact person for the engagement.

Provide a table of contents that clearly identifies the location of all material within the Proposal by section and page number.

# 4.3.2 Experience and Capacity

Provide a summary of the types of services the Proponent offers that relates to this RFP. Identify engagement and or staff experience with entities comparable to PREPA for which the Proponents provides or has provided, similar services within the last (10) years. Proponents must indicate the dollar value of the similar services to the ones contemplated in their RFP. Detail at least one to three (1-3) similar engagements and/or experience with private and public-sector clients that would demonstrate that the Proponent can provide the requested services. Each example should include:

- a) Name of client organization.
- b) Description of engagement or experience and objectives of the project including beginning and ending dates.
- c) Examples of recommendations offered to the client and the results of the implementation of those recommendations.

- d) Information regarding the project that would demonstrate successfully experiences by the client, as a result of the recommendations. This may include performance metrics and improvements.
- e) If the example involves a private sector client, describe how the experience could be applied to the public sector.
- f) Description of key infrastructure programs or projects advanced as part of the engagement, if any.
- g) Letters of recommendation from previous or current client(s)

PREPA may seek information from references regarding subjects that include, but are not limited to, the quality of services provided, anticipated ability to perform the services required in this RFP and the responsiveness of the Proponent to the client during the engagement. Please provide at least three (3) references for the prime Proponent and two (2) for any partners or sub-contractors. Each reference should include the name, title, company, address, phone number and email address of the reference. Inability to contact a reference will not be looked upon favorably. References will count towards experience and capacity points.

Provide a summary of the Proponent's technical expertise that describes the Proponent's unique capabilities. This narrative should highlight the Proponent's ability to provide Fuel Gas shipping and delivery and Program Management services. Provide biographical summaries for Key Individuals and their proposed roles. Resumes can be attached as an appendix-

In addition, identify any sub-consultants and Local Parties incorporated into the team and clearly explain their expertise, expected role and value to the engagement.

Specify the primary contact person for the Proponent (name, title, location, telephone number, and e-mail address).

# 4.3.3 Approach and Methodology

Explain how the Proponent will achieve the goals, objectives, tasks, and deliverables outlined in the Scope of Services for this RFP. Specifically address how the Proponent proposes to effectively accomplish the scope of services.

Proposals must provide examples of how the proposed approach has achieved success in specific, relevant projects for public or private sector organizations similar in size and complexity to PREPA. The examples should contain enough information for the evaluators to ascertain the success of the projects accomplished by the Proponent.

This section must include an acknowledgement that, if selected, the Proponent has the ability to respond with sufficient key and line staff and the proposed Key Individuals.

Identify existing staff that will be involved in the services describe herein, including each staff member's proposed role in the organization, their relevant qualifications, and the allocation of their time to this engagement. Clearly identify the members of the team that are expected to be residing in Puerto Rico and will serve as local contacts for the engagement purposes.

# 4.3.4 Price Proposal

Proponents are required to submit their price proposal in accordance to the Price Proposal Form (Attachment 1). PREPA is interested in obtaining four components of the Proponents' pricing:

- Component 1: Annual Capacity payment for initial 5 year Base to account for cost of conversion of San Juan 5 and 6
- Component 2: Unit Cost(\$/MMBTU) of delivered fuel gas based on total annual quantity of consumption at San Juan 5 and 6(note: there will be no take or pay provisions allowed by the contract)
- Component 3: Indices to be applied to the delivered unit cost to account for variation in rate of inflation, fuel price fluctuations, etc.
- Terms and conditions of delivery contract.

# 4.3.5 Commitment to Complying with all Applicable Federal and Puerto Rico Local Permits and Regulations

Proponents shall explain their adherence to complying with all applicable Federal and Puerto Rico permits and regulations. Indicate what characteristics of the team set them apart in terms of commitment to comply with all applicable laws and requirements. Indicate what specific trainings and expertise reside within the team that reinforces the commitment to compliance.

# 4.3.6 Local Parties

PREPA have the objective of fostering the participation of Local Parties in the provision of professional services and local expertise. Explain how the Local Party(ies) will add value to the team and their expected role. Identify the Key Personnel from the Local Party(ies) and provide an indication of the expected level of involvement on the day-to-day activities and interaction with PREPA.

# 5.0 Confidentiality of Responses and Proprietary Information

Upon completion of the RFP process, PREPA will make public its report regarding the procurement and selection process, which shall contain certain information related to this RFP process, except trade secrets, pricing and proprietary or privileged information of the Proponents. Information considered trade secrets or non-published financial data may be classified as

proprietary by the Proponents. All Proponents are required to submit a redacted copy of their proposal. PREPA reserves the right to make public the redacted copies of the proposals at the conclusion of the RFP process. If a redacted copy is not submitted by a Proponent, PREPA will assume that the original copy of the proposal can be made public. Proposals containing substantial contents marked as confidential or proprietary may be rejected by PREPA. Provision of any information marked as confidential or proprietary shall not prevent PREPA from disclosing such information if required by law. The ultimately awarded contract(s) and all prices set forth therein shall not be considered confidential or proprietary and such information may be made publicly available.

# 6.0 Conflicts of Interest

Any contract awarded under this RFP will preclude the selected Proponents from representing before PREPA any Proponent other than those Proponents who may be assigned under this contract during the period the contract is in effect.

Proponents are required to provide a list of any other current or former advisory contracts the firm has/had with any Government Entity in Puerto Rico, or which bear any direct or indirect relation to the activities of the Government of Puerto Rico. Further, please provide a description of any recent historical or ongoing legal proceedings, interviews or investigations being conducted by any U.S. law enforcement agencies involving your firm or team that are related to transactions executed in or on behalf of the Government of Puerto and/or its public corporations. In addition, please provide a brief description of any work you have performed for any creditors or guarantors of the Government of Puerto Rico or any public corporation debt about their positions in Puerto Rico debt obligations. Indicate whether this activity is ongoing, and if not, when the prior assignment concluded.

At some point in the selection process, PREPA may request information on any perceived conflict of interests. Also, PREPA may in the future request a list of direct or indirect relationships the firm or its professionals have to members of the PPPA or Board Members or executives of other Public Corporations.

In the event of real or apparent conflicts of interest, PREPA reserves the right, in it's best interest and at its sole discretion, to reject a proposal(s) outright or to impose additional conditions upon Proponents. PREPA reserves the right to cancel any contract awarded pursuant to this RFP with 30 days' notice in the event that an actual conflict of interest, or the appearance of such conflict, is not cured to PREPA's satisfaction.

# 7. Proposal Additional Information

# 7.1 Rejection of Proposals; Cancellation of RFP; Waiver Informalities and Withdrawal Proposal

Issuance of this RFP does not constitute a commitment by PREPA to award a contract. PREPA reserves the right to accept or reject, in whole or part, and without further explanation, any or all proposals submitted and/or cancel this solicitation and reissue this RFP or another version of it, if it deems that doing so is in the best interest of the impacted communities or the Government of Puerto Rico.

PREPA reserves the right to waive any informalities and/or irregularities in a proposal if it deems that doing so is in the best interest of the impacted communities or the Government of Puerto Rico.

A Proponent may withdraw a proposal at any time up to the date and time the contract is awarded. The withdrawal must be submitted in writing and directed to PREPA's Chief Executive Officer.

# 7.2 Ownership of Proposal

All materials submitted in response to this RFP shall become the property of PREPA. Selection or rejection of a proposal does not affect this provision.

# 7.3 Cost of Preparing Proposals

All costs associated with the response to this proposal are the sole responsibility of the Proponent.

# 7.4 Errors and Omissions in Proposal

PREPA reserves the right to reject a proposal that contains an error or omission. PREPA also reserves the right to request correction of any errors or omissions and/or to request any clarification or additional information from any Proponent, without opening up clarifications for all Proponents.

# 8.0 Payment Terms and Method of Payments

The Selected Proponent will be paid by services provided previously approved by PREPA. It is the Selected Proponent's responsibility to include all services required to meet the engagement's objective as established in this RFP.

# 8.1 Payment Terms

Payment will be made upon presentation of invoice evidenced by the services provided and duly authorized by PREPA. If PREPA finds the submitted invoice as acceptable, then the invoice will be approved and processed for payment within sixty (60) days after submission of the invoice, with all the required documents. PREPA reserves the right to review the correctness of invoices and perform the audits as it deems fit.

# 8.2 Method of Payment

The Selected Proponent shall submit monthly invoices for the agreed fees. Invoices must be detailed, specific and itemized accompanied by a description of the services provided as previously approved by PREPA. In addition, it shall be noted that no public servant of the contracting entity is a party or has interest on the profits or benefits product from the contract, regarding the invoice and if it does have interest in some part on the profits or benefits of the contract it must specify that a waiver has been mediated. PREPA shall request from the Selected Proponent all the necessary information, related to verifying the invoiced expenses, prior to the release of payment.

PREPA reserves the right to perform audits it deems appropriate. In the case of finding unpaid invoices, they shall approve and process its payments.

The Selected Proponent will deliver the original invoice to PREPA's authorized representative; and such invoice must be properly completed and certified by the Selected Proponent. PREPA's designated representative will process the invoice to be duly certified by PREPA or its authorized representative, in accordance with the Accounting Act law following the standards established by enforcement agencies of the Government of Puerto Rico.

# 9.0 Process Rules and PREPAs General Instruction RFP Guide

This process will be regulated and executed according to the "GUIAS PARA PROCESOS DE ADQUISICIONES DE BIENES Y SERVICIOS A TRAVES DE RFP EN LA AEE V006032016 (Request for Proposals)". Please, see the Download Documents tab.

Proponents shall certify compliance with Section 4.17 of the "GUIAS PARA PROCESOS DE ADQUISICIONES DE BIENES Y SERVICIOS A TRAVES DE RFP EN LA AEE V006032016 (Request for Proposals)

# **10.0 Puerto Rico General Provisions**

The Contractor will comply will all applicable State Law, Regulations or Executive Orders that regulate the contracting process and requirements of the Commonwealth of Puerto Rico.

Executive Order Num. OE-1991-24 of June 18, 1991 to require certification of Α. compliance with the Internal Revenue Services of the Commonwealth of Puerto Rico: Pursuant to Executive Order Number OE-1991-24 of June 18, 1991, the Contractor will certify and guarantee that it has filed all the necessary and required income tax returns to the Government of Puerto Rico for the last five (5) years. The Contractor, further will certify that it has complied and is current with the payment of any and all income taxes that are, or were due, to the Government of Puerto Rico. The Contractor shall provide, to the satisfaction of PREPA, and whenever requested by PREPA during the term of this Contract, the necessary documentation to support its compliance with this clause. The Contractor will be given a specific amount of time to produce said documents. During the term of this Contract, the Contractor agrees to pay and/or to remain current with any repayment plan agreed to by the Contractor with the Government of Puerto Rico.

Executive Order Num. OE-1992-52 of August 28, 1992 to require certification of B. compliance with the Department of Labor of the Commonwealth of Puerto Rico. Pursuant 1992-52. Executive Order Number dated August 28. 1992 amending to OE-1991-24, the Contractor will certify and warrant that it has made all payments required for unemployment benefits, workmen's compensation and social security for chauffeurs, whichever is applicable, or that in lieu thereof, has subscribed a payment plan in connection with any such unpaid items and is in full compliance with the terms thereof. The Contractor accepts and acknowledges its responsibility for requiring and obtaining a similar warranty and certification from each and every Contractor and Sub Contractor whose service the Contractor has secured in connection with the services to be rendered under this Contract and shall forward evidence to PREPA as to its compliance with this requirement.

C. Government of Puerto Rico Municipal Tax Collection Center: The Contractor will certify and guarantee that it does not have any current debt with regards to property taxes that may be registered with the Government of Puerto Rico's Municipal Tax Collection Center (known in Spanish as Centro de Recaudación de Ingresos Municipales ("CRIM"). The Contractor further will certify to be current with the payment of any and all property taxes that are or were due to the Government of Puerto Rico. The Contractor shall provide, to the satisfaction of PREPA and whenever requested by PREPA during the term of this Contract, Certification issued by the Municipal Revenues Collection Center (MRCC), assuring that Contractor does not owe any tax accruing to such governmental agency. To request such Certification, Contractor will use the form issued by the MRCC (called "CRIM-Certificados, Radicación, Estado de Cuenta y Todos los Conceptos" in the website). The Contractor will deliver upon request any documentation requested by PREPA. During the Term of this Contract, the Contractor agrees to pay and/or to remain current with any repayment plan agreed to by the Contractor with the Government of Puerto Rico with regards to its property taxes.

The Contractor shall provide a Personal Property Tax Filing Certification, issued by the MRCC which indicates that Contractor has filed its Personal Property Tax Return for the last five (5) contributory terms or Negative Debt certification issued by the MRCC with respect to real and property taxes and a sworn statement executed by Contractor indicating that (i) its revenues are derived from the rendering of professional services, (ii) during the last five (5) years (or the time in which it has been providing professional services) it has had no taxable business or personal property on the 1<sup>st</sup> of January of each year, (iii) that for such reasons it has not been required to file personal property tax returns, as required under Article 6.03 of Act 83-1991, as amended and (iv) that for such reason it does not have an electronic tax file in the MRCC's electronic system.

D. The Contractor shall furnish a Certification issued by the Treasury Department of Puerto Rico which indicates that Contractor does not owe Puerto Rico Sales and Use taxes to the Commonwealth of Puerto Rico; or is paying such taxes by an installment plan and is in full compliance with its terms.

E. The Contractor shall provide a Puerto Rico Sales and Use Tax Filing Certificate, issued by the Treasury Department of Puerto Rico assuring that Contractor has filed his Puerto Rico Sales and Use Tax for the last sixty (60) contributory periods.

F. The Contractor shall provide a copy of Contractor's Certificate of Merchant's Registration issued by the Treasury Department of Puerto Rico.

G. <u>Puerto Rico Child Support Administration (ASUME)</u>: The Contractor shall present, to the satisfaction of PREPA, the necessary documentation certifying that the Contractor nor any of its owners, affiliates of subsidiaries, if applicable, have any debt, outstanding debt, or legal procedures to collect child support payments that may be registered with the Puerto Rico Child Support Administration (known in Spanish as the *Administración Para El Sustento de Menores (ASUME)*. The Contractor will be given a specific amount of time to deliver said documents. <u>3</u> L.P.R.A. § 8611 et seq.;

H. The Contractor shall provide a Good Standing Certificate issued by the Department of State of Puerto Rico.

I. The Contractor shall provide a Certification of Incorporation, or Certificate of Authorization to do business in Puerto Rico issued by the Department of State of Puerto Rico.

J. <u>Special Contribution for Professional and Consulting Services:</u> As required by Act No. 48-2013, as amended, PREPA will withhold a special contribution of one point five percent (1.5%) of the gross amounts paid under this Contract.

K. <u>Social Security and Income Tax Retentions</u>: In compliance with Executive Order 1991 OE- 24; and C.F.R. Part 404 et. Seq., the Contractor will be responsible for rendering and paying the Federal Social Security and Income Tax Contributions for any amount owed as a result of the income, from this Contract.

L. <u>Income Tax Retention Law:</u> PREPA shall deduct and withhold seven percent (7%) of any and all payments to residents of the Commonwealth of Puerto Rico as required by the Internal Revenue Code of Puerto Rico. In case of US citizens and Non US citizens, which are nonresidents of the Commonwealth of Puerto Rico the Contractor will be retained twenty percent (20%) and twenty-nine percent (29%) respectively. PREPA will remit such withholdings to the Government of Puerto Rico's Treasury Department (known in Spanish as *Departamento de Hacienda de Puerto Rico*). The Contractor will request PREPA not to make such withholdings if, to the satisfaction of PREPA, the Contractor timely provides a release from such obligation by the Government of Puerto Rico's Treasury Department. <u>3 L.P.R.A. § 8611 et seq.</u>, <u>2011 L.P.R.</u> <u>232</u>; 232-2011.

M. <u>Compliance with Act No. 1 of Governmental Ethics</u>: The Contractor will certify compliance with Act No. 1 of January 3, 2012, as amended, known as the Ethics Act of the Government of Puerto Rico, which stipulates that no employee or executive of PREPA nor any member of his/he immediate family (spouse, dependent children or other members of his/her household or any individual whose financial affairs are under the control of the employee) shall

have any direct or indirect pecuniary interest in the services to be rendered under this Contract, except as may be expressly authorized by the Governor of Puerto Rico in consultation with the Secretary of Treasury and the Secretary of Justice of the Government. <u>3 L.P.R.A. § 8611 et seq.</u>;

N. Law 168-2000: Law for the Strengthening of the Family Support and Livelihood of Elderly People: The Contractor will certify that if there is any Judicial or Administrative Order demanding payment or any economic support regarding Act No. 168-2000, as amended, the same is current and in all aspects in compliance. Act No. 168-2000 "Law for the Strengthening of the Family Support and Livelihood of Elderly People" in Spanish: "Ley para el Fortalecimiento del Apoyo Familiar y Sustento de Personas de Edad Avanzada", <u>3 L.P.R.A. §8611 et seq.</u>

O. <u>Law Num. 127, May 31, 2004: Contract Registration in the Comptroller's Office of</u> <u>Puerto Rico Act:</u> Payment for services object of this Contract will not be made until this Contract is properly registered in the Office of the Comptroller of the Government of Puerto Rico pursuant to Law Number 18 of October 30, 1975, as amended.

P. <u>**Dispensation:**</u> Any and all necessary dispensations have been obtained from any government entity and that said dispensations shall become part of the contracting record.

Q. <u>Rules of Professional Ethics</u>: The Contractor acknowledges and accepts that it is knowledgeable of the rules of ethics of his/her profession and assumes responsibility for his/her own actions.

R. Both parties acknowledge and agree that the contracted services herein may be provided to another entity of the Executive Branch which enters into an interagency Contract with PREPA or by direct disposition of the Chief of Staff. These services will be performed under the same terms and conditions in terms of hours of work and compensation set forth in this Contract. For the purpose of this clause, the term "entity of the Executive Branch" includes all agencies of the Government of Puerto Rico, as well as public instrumentalities, public corporations and the Office of the Governor.

S. The office of the Chief of Staff shall have the authority to terminate this Contract at any time.

T. The Contractor shall provide Workmen's Compensation Insurance as required by the Workmen's Compensation Act 45-1935 of the Commonwealth of Puerto Rico. The Contractor shall also be responsible for compliance with said Workmen's Compensation Act by all its subcontractors, agents, and invitees, if any.

U. Invoices must include a written and signed certification stating that no officer or employee of PREPA, and their respective subsidiaries or affiliates, will personally derive or obtain any benefit or profit of any kind from this Contract, with the acknowledgment that invoices that do not include this certification will not be paid. This certification must read as follows:

"We certify under penalty of nullity that no public servant of PREPA will derive or obtain any

benefit or profit of any kind from the contractual relationship which is the basis of this invoice. If such benefit or profit exists, the required waiver has been obtained prior to entering into the Agreement. The only consideration to be received in exchange for the delivery of goods or for the Services provided is the agreed-upon price that has been negotiated with an authorized representative of the PREPA. The total amount shown on this invoice is true and correct. The Services have been rendered, and no payment has been received".

V. PREPA shall have the right to terminate this Agreement with thirty (30) days prior written notice to Contractor. Moreover, PREPA shall have the right to terminate this agreement immediately in the event of negligence, dereliction of duties or noncompliance by Contractor.

W. Anti-Corruption Code for a New Puerto Rico. Contractor agrees to comply with the provisions of Act No. 2-2018, as the same may be amended from time to time, which establishes the Anti-Corruption Code for a New Puerto Rico. The Contractor hereby certifies that it does not represent particular interests in cases or matters that imply a conflicts of interest, or of public policy, between the executive agency and the particular interests it represents.

Contractor shall furnish a sworn statement to the effect that neither Contractor nor any president, vice president, executive director or any member of a board of officials or board of directors, or any person performing equivalent functions for Contractor has been convicted of or has pled guilty to any of the crimes listed in Article 6.8 of Act 8-2017, as amended, known as the Act for the Administration and Transformation of Human Resources in the Government of Puerto Rico or any of the crimes included in Act 2-2018.

Contractor hereby certifies that it has not been convicted in Puerto Rico or United States Federal court for under Articles 4.2, 4.3 or 5.7 of Act 1-2012, as amended, known as the Organic Act of the Office of Government Ethics of Puerto Rico, any of the crimes listed in Articles 250 through 266 of Act 146-2012, as amended, known as the Puerto Rico Penal Code, any of the crimes typified in Act 2-2018, as amended, known as the Anti-Corruption Code for a New Puerto Rico or any other felony that involves misuse of public funds or property, including but not limited to the crimes mentioned in Article 6.8 of Act 8-2017, as amended, known as the Act for the Administration and Transformation of Human Resources in the Government of Puerto Rico.

PREPA shall have the right to terminate the agreement in the event Contractor is convicted in Puerto Rico or United States Federal court for under Articles 4.2, 4.3 or 5.7 of Act 1-2012, as amended, known as the Organic Act of the Office of Government Ethics of Puerto Rico, any of the crimes listed in Articles 250 through 266 of Act 146-2012, as amended, known as the Puerto Rico Penal Code, any of the crimes typified in Act 2-2018, as amended, known as the Anti-Corruption Code for a New Puerto Rico or any other felony that involves misuse of public funds or property, including but not limited to the crimes mentioned in Article 6.8 of Act 8-2017, as amended, known as the Act for the Administration and Transformation of Human Resources in the Government of Puerto Rico.

If any of the previously required Certifications shows a debt, and Contractor has requested a review or adjustment of this debt, Contractor will certify that it has made such request at the time of the Contract execution. If the requested review or adjustment is denied and such

determination is final, Contractor will provide, immediately, to PREPA a proof of payment of this debt; otherwise, Contractor accepts that the owed amount be offset by PREPA and retained at the origin, deducted from the corresponding payments.

X. <u>Consequences of Non-Compliance</u>: The Contractor expressly agrees that the conditions outlined throughout this Section are essential requirements of this Contract. Consequently, should any one of these representations, warranties or certifications be incorrect, inaccurate or misleading, in whole or in part, there shall be sufficient cause for the PREPA to render this Contract null and void, and the Contractor shall reimburse the PREPA all moneys received under this Contract.

# **11.0** Performance and Payment Bond:

As a Contract security, the Contractor shall furnish at the time of the execution of the Contract:

- 1. A Performance Bond in the amount of 100% of the Phase 1 cost (conversions and pipeline installation), with good and sufficient surety satisfactory to PREPA guaranteeing that the Contractor will well and faithfully perform the contract work.
- 2. A Payment Bond in the amount of 100% of the Phase 1 cost (conversions and pipeline installation), with good and sufficient surety satisfactory to PREPA to guarantee the prompt payment of all labor, supervision, equipment and materials required in the performance of the work.
- 3. All bonds shall be issued in the official form of PREPA.

# **Attachments and Appendices**

1. Attachment I – Price Proposal Form

Page | 29

# Attachment I Price Proposal Form Rates

Proponents Name:

## **Price Proposal Component #1:**

Fixed Annual Capacity Payment \$\_\_\_\_/yr Price Proposal Component #2:

Unit Fuel Cost

Annual Consumption Rate (MMBTU/yr)

Unit Cost (\$/MMBTU)

<u>Price Proposal Component #3:</u> Proponents should provide Applicable Indice(s) for changes in Unit Cost

#### Price Proposal Component #4:

Proponents should provide key terms and conditions for priced proposal

Page | 30



Delis T. Zambrana Natalia Martínez Lugo PREPA's designated Procurement Representatives

Dear Madam, Sir,

The AES Corporation ("AES") is pleased to provide this response to the Request for Proposals ("RFP") issued by Puerto Rico Electric Power Authority ("PREPA") dated July 2018. AES has a long-term commitment with Puerto Rico's power sector since 2002 as one the most important private provider of low cost energy to the island.

As PREPA will see through this document, AES has a successful track record of delivering LNG to power projects (both greenfield and brownfield from conversion of existing units) and is keen to use our experience to convert San Juan Units #5&6 to operate on natural gas with proven technology, leveraging our global expertise in power generation with a reliable supply source of LNG from one of the most important LNG players in the world.

AES and TOTAL have entered into partnership agreements with the aim to develop sales of natural gas and LNG in in the Caribbean and Central America region. This partnership offers a fully secured supply solution to customers, thanks to TOTAL's existing and diversified portfolio of LNG supplies and AES experience in generation assets and strong presence in the local markets, such as Puerto Rico.

Our indicative proposal is being made solely on behalf of AES and considers several inputs from our preliminary discussions with TOTAL regarding a potential collaboration to supply LNG to Puerto Rico. As so, the attached proposal is provided for discussion purposes only and is not a legally binding agreement or an offer by AES to negotiate a legally binding agreement or an offer that is capable of acceptance. Any agreement between the parties with regards to the matters in this RFP is subject to the execution of a legally binding agreement. Our response to this RFP shall not be considered as to the final terms and conditions which will govern the transaction contemplated hereby, as many aspects of the proposal needs to be further analyzed prior to making a binding offer.

Based on the preliminary analysis performed, AES concluded that a **conventional FSRU import scheme solution on an offshore port** is the most suited solution for the conversion of natural gas of the power generators in the San Juan area. The main reasons to justify our conclusion are:

• FSRUs are proven LNG import solutions which have been successfully implemented to open new gas markets in the world, included in the USA. The technology is mature with numerous market players allowing cost competition.



- With regards to LNG supply solution, PREPA can access a diversified portfolio of non-US LNG sources on the global market, therefore increasing supply security while also not relying on any Jones Act waiver.
- AES trusts that a conventional LNG FSRU scheme should ultimately provide PREPA with a competitive, flexible and secure supply solution. In addition, it provides the option for PREPA to convert/renew other units in San Juan and Palo Seco from liquid fuels with a cleaner and more competitive fuel supply.
- By using a FSRU, and thanks to the economies of scale generated by additional LNG demand, the average price of gas imported into Puerto Rico would further reduce, increasing costs savings for the island.
- Proven technology and a subsea marine pipeline will allow the FSRU to be moored outside the San Juan port, with minimal intervention to port facilities, traffic or current operations.

Due to the very limited time frame provided in the RFP, we have not been able to follow the set out tender procedures fully and further analysis would be needed in order to be able to present PREPA a binding offer from AES, including formal confirmation from TOTAL that the terms and conditions presented here will be valid.

We highly encourage PREPA to consider this RFP as the first stage of a process for identifying and selecting the most convenient solution from a technical and economic standpoint and carefully evaluate the potential counterparties based on their experience, financial strength and proven capabilities.

We remain keen to continue to support the PREPA efforts to diversify its fuel base and therefore extend an invitation to PREPA to visit our LNG facilities in either Dominican Republic or Panama, where we have great success stories to share.

I hereby certify that I am fully authorized to submit the attached non-binding proposal on behalf of AES, and that I will continue to be the designated contact person for any matters in relation to this RFP.

edy Obado

Freddy Obando AES LNG Marketing and Origination Vice President



## The AES Corporation



# Proposal for the RFP No. 81412 Puerto Rico Electric Power Authority



## Proposal Structure

1. Overview of Bidder and Local Presence	5
2. Experience	7
a) AES's Natural Gas and LNG Experience	7
b) Total's LNG Experience	10
3. LNG Supply and Conversion Scheme Proposed	11
a) LNG Supply Solution	11
b) b) FSRU Implementation Plan Proposed	11
c) c) FSRU Operations & Maintenance.	11
d) d) FSRU References	11
e) Conversion Scheme Proposed	12
4. Financial Strength and Price Proposal	12
a) AES Financial Experience Examples	12
b) Term, Volumes and Pricing	16
c) Savings Determination Exercise	18
Appendix 1 - Scope of work Conversion	19
Fuel Oil System	19
Fuel Gas System	20
Control Oil System	21
Sweep Air System	22
Purge Air System	22
Other Items	22
Field Services	24
Conversion Schedule	26
Appendix 2- LNG Proposed Solution	

Appendix 3 – TOTAL's LNG Experience



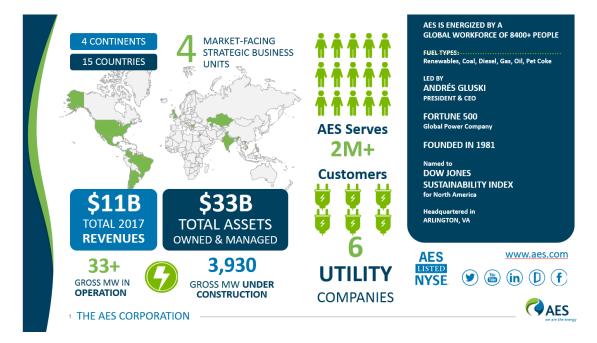
1. Overview of Bidder and Local Presence

The AES Corporation (NYSE: AES) is a Fortune 500 global power company. AES provides affordable, sustainable energy to 15 countries through our diverse portfolio of distribution businesses as well as thermal and renewable generation facilities. Our workforce of 9,000 people is committed to operational excellence and meeting the world's changing power needs. AES 2017 revenues were \$11 billion and currently owns and manages \$33 billion in total assets.

#### **Our Mission**

Improving lives by providing safe, reliable and sustainable energy solutions in every market we serve.

We are dedicated to improving the lives of our customers by leveraging our energy solutions that encompass a broad range of technologies and fuel types, including coal, diesel, gas, oil, pet coke and renewables. Our people share a passion to help meet the world's current and increasing energy needs, while providing communities and countries the opportunity for economic growth due to the availability of reliable, affordable electric power.



AES was one of the first Independent Power Producers in the US and we have financed over \$24 billion in the past five years and have broad access to global capital markets to offer efficient project financing structures.



Annual report and historical reports, which describes AES activities and capabilities in detail as well as financial strength. The report can be viewed here: <u>https://www.aes.com/investors/financial-reports-summary/default.aspx</u>

#### Local Presence

AES Corp. began developing AES Puerto Rico, LP (AES-PR) in 1993. In November 2002, it inaugurated its plant in Guayama, from where it generates and distributes electric power through a 25-year contract with the Electric Power Authority. AES-PR uses clean coal technology known as fluidized bed boilers (CFB). This allows the plant to process Coal in a manner consistent with the protection of the environment while generating electricity in an economical and reliable way. The combination of advanced technologies makes the Guayama plant one of the cleanest thermoelectric plants in the world and laid the foundation for the lowest emissions in the entire United States.

AES has long term commitments in Puerto Rico since 2002 as the largest private provider of lowest cost energy to the island along with being also a renewable energy provider with its Ilumina solar plant. Lately, our company has made public its interest on providing a solution with greater resilience and island-wide power quality at lower cost based on solar + storage solutions. Currently AES Puerto Rico LTD manages over 115 employees. AES has the capability to provide technical local personnel with high safety operations standard to support the conversion of the San Juan 5 and 6 power plant.



## 2. Experience

### a) AES's Natural Gas and LNG Experience

AES currently owns, operates more than 11,000MW gas fired power plants globally and has both acquired and overseen the construction and conversion of CCGT countries such as US, Mexico, Argentina, Chile, Panama, Dominican Republic and Netherlands and many more.

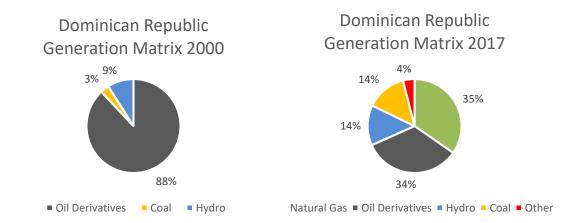
Both in the Dominican Republic and Panama, AES has been selected as a winner of international competitive tenders to be the lowest cost solution to bring LNG into such nations. Furthermore, AES hasn't not only been awarded, but has also delivered two full scale LNG terminals to such countries, within the original timeline while many other LNG projects in the region has been announced and later cancelled.

AES has a proven expertise in the Dominican Republic in relation of successfully converting units into natural gas operation from its original diesel operation to natural gas. DPP units V and VI are two 118 MW gas turbines, currently operating in a combined cycle mode in the DR using natural gas as fuel. Additional background on the conversion available upon request.

## **Dominican Republic - AES Andres LNG Receiving Terminal -**

AES Andres in the Dominican Republic is a world class LNG terminal and regasification facility that has been operating since 2003 and receives between 14 and 17 full size LNG cargoes deliveries per year from Trinidad, United States, West Africa and Qatar.

AES began operations in the Dominican Republic in 1997 with the firm conviction of adding value to be national energy market and contributing to the development of the communities it serves. Today AES





Dominicana is positioned as the principal private investor group with modern energy facilities, with the latest generation technology, and the most price-competitive array of fuels used in the generation of electricity in the Dominican market.

AES Dominicana is the only company with local operations that has two deep draft port infrastructures. The Liquid Natural Gas terminal, located in the AES Andrés energy park, is the exclusive entry for natural gas into this country, while the Itabo International Port is the only port that receives coal and other types of bulk materials in Panamax size. The two investments have completely reshaped the dominican generation mix.

The 160,000cbm AES Andres receiving terminal has been a success story in the Dominican Republic where the terminal not only supplies the directly adjacent AES Andres 318MW CCGT but is also connected with AES DPP 350MW CCGT. That same pipeline also supplies a 110MW power plant owned by a third party. In 2010 an LNG truck loading facility was added to the terminal and was by 2017 supplying 65 industrial clients and 15,000 vehicles with natural gas.

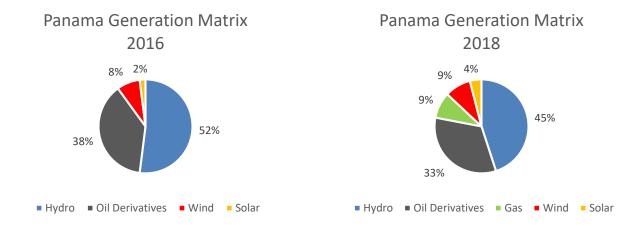
AES Dominicana's investments exceed US\$800M, and have a direct impact on the lives the 300 workers. This group constitutes one of the principal supports for the National Interconnected Electrical System (NIES) supplying around 40% of the country's energy demand.

AES Dominicana supports the growth of the company on pillars such as Corporate Social Responsibility; care for the Environment and for its People, which it considers its main asset. In the same manner the company works in abidance with the global principles of being a socially responsible company through the AES Dominicana foundation which addresses those areas which suffer from the most precarious conditions, such as education and child health.



#### **AES Costa Norte LNG Receiving Terminal – Panama**

AES Colon facility in Panama was inaugurated on august 17<sup>th</sup> with the milestone of being the first LNG facility and first gas power plant in Central America. AES Colón will provide a cleaner alternative to petroleum-based fuels in Central America and the Caribbean. The inauguration of AES Colón is a significant step toward diversifying the energy mix in Central America and the Caribbean, introducing cleaner alternatives in Panama and beyond.



Panama and specifically Colon are already benefiting from one key impact, jobs. AES hires Panamanian personnel at all levels, creating jobs not just at the entry level, but developing Panamanian talents for employment as senior managers. AES Colón was completed in 27 months, and during construction, the project created more than 2,500 jobs. Once in operation, the facility will create about 200 jobs.

#### **AES Panama Quick facts**

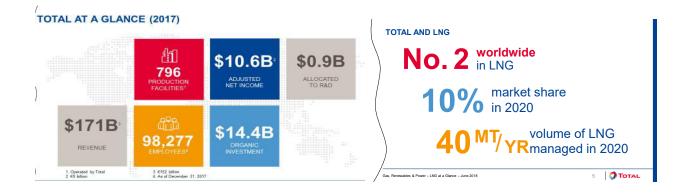


- Location: Telfers Island, Colón, Panama
- Installed capacity: 381MW net
- Technology: Combined cycle (3 + 1)
- Terminal: Input / output terminal
- Tank: 180,000 m3
- PPAs: 350 MW for 10 years
- Total investment: US \$ 1,150 million
- Investors: AES(50.1%) Inv.Bahia (49.9%)
- COD: Aug 2018
- Tank Completion: Mid 2019



### b) Total's LNG Experience

TOTAL is second largest LNG player in the world with a combined portfolio of approximately 10% of the global supply. TOTAL has successfully supplied gas to power projects across the globe with a proven record of safety and reliability. A more descriptive document with TOTAL's capabilities will be found attached to this document as Appendix 3.



AES is working with TOTAL to develop a competitive solution for Puerto Rico. TOTAL capabilities and their existing portfolio provides the confidence, the flexibility and the support needed from a trusted supplier to develop a large FSRU project.

TOTAL's expertise in developing fully permitted FSRU solutions in the United States is providing us with a unique opportunity to deploy a quick solution for supply San Juan Units and later, to increase the supply to other PREPA units in the area.



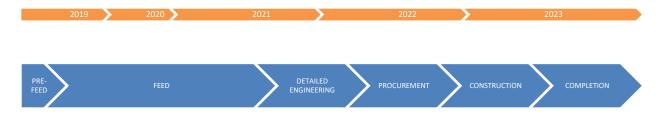
## 3. LNG Supply and Conversion Scheme Proposed

#### a) LNG Supply Solution

AES is proposing a full scale FSRU solution on an off-shore port and connected with a sub-sea pipeline to the San Juan Units. Please refer to Appendix 2 for the full description of the solution.

#### b) b) FSRU Implementation Plan Proposed

In order to implement an FSRU solution, the following phases must be completed. A typical project will take up to 4 years to complete, considering required permitting, engineering, procurement and construction of the facilities.



Please refer to Appendix 2 for a more detailed implementation scheme.

c) c) FSRU Operations & Maintenance. Please refer to Appendix 2.

d) d) FSRU References Please refer to Appendix 2.



### e) Conversion Scheme Proposed

#### Dual fuel conversion of San Juan units 5&6

AES has received budgetary offer from Mitsubishi Hitachi power Systems Americas (MHPS-AMER) for the conversion of San Juan units 5&6 to dual fuel. The two W501FC gas turbines at San Juan generation station currently operate solely on No.2 fuel oil and utilize steam injection for emissions control. The proposal from MHPS-AMER proposes several modifications to convert the turbines to operate primarily on natural gas while retaining the capability to run on No.2 fuel oil for emergency backup.

Duel fuel operation demands precise control of the fuel and compressor air flow in order to be able to respond to rapid changes in in fuel selection. MHPS-AMER has therefor suggested to AES that the fuel oil system will be modified to remove the flow divider that regulates the amount of liquid fuel to each nozzle during low flow operation. By removing these components from the liquid fuel system higher unit availability and reliability can be expected.

With our highly skilled engineering team with experience from 11,000MW of natural gas generation currently being owned and operated by AES and MHPS-AMERs detailed knowledge of San Juan Units 5&6 the technical risk of the conversion would be practically eliminated.

Please see full scope of work and Schedule in Appendix 1.

## 4. Financial Strength and Price Proposal

AES has a proven track record for financing projects in the region, and especially in Puerto Rico. AES plans to finance this project through direct equity contributions from itself and partners and debt from local and international financial institutions.

#### a) AES Financial Experience Examples

Please see the link below that list AES' annual report from 2000 to 2017, which includes financial information on the company demonstrating revenue and current credit rating. It also highlights the depth of expertise and experience in executing world scale energy projects around the world. https://www.aes.com/investors/financial-reports-summary/default.aspx



The AES Corporation owns and manages total assets over \$33 Billion, with another 3,930 MW under construction, in which different financing schemes have been used, according to the requirements of each project.

- In 2017 AES secured \$2.0 Billion in Non-Recourse Financing for 1.4 GW Southland Repowering Project in Southern California:
- 1,284 MW of combined cycle gas capacity and 100 MW of battery-based energy storage under 20year contracts with Southern California Edison (SCE).

In particular for the region of Mexico, Central America and the Caribbean, in the period 2014-2018, the following successful financing experiences should be highlighted:

**1. Expansion Project of the Combined Cycle to Natural Gas DPP (Dominican Power Partners) Los Mina from 210 to 320 MW - Dominican Republic (2014),** for an amount of 260 MM \$, to finance 100% of the project which was the main challenge for this finance transaction with a union of 15 local banks and international The project was successfully completed in 2017. The Power Plant operated in the country since 2003.

Contact available upon request.

**2.** Construction Project for a LNG Ship Reception, Regasification and Storage Terminal as well as a 381 MW Generation Plant in the Province of Colón, Panama (2016), for a financed amount of 535 MM \$ of a total of 995 MM \$. The Sponsors of the loan were AES CORP (51%) and Inversiones Bahia (49%).The financing was extended for a period of 18 years with the participation of Multilateral Banking (CABEI, IFC) and Local Banking (Banco General, Global Bank, BAC, Banitsmo and Bancolombia). The main challenge of this project was to obtain a financing period longer than the duration of the PPA associated with the plant (which was 10 years, compared to the 18-month period granted in the loan). In addition, the limited construction period for the project that considered millionaire penalties for delays in the commercial operation, limited the period of time for the financial closing of the project and the beginning of the order to proceed to the contractor due to the tied construction schedule (26 months).

The project expects to reach commercial operation in the month of August,2018 for the Generation Plant and the Regasification Terminal has already entered into operation with a first stage for vessel reception and re-gasification and continues the construction of storage facilities until July 2019. The project was recognized by the Infrastructure Journal and Project Finance Magazine (IJGlobal) with the award for the 'Best Energy Transaction in Latin America in 2016'.

Contact available upon request.



#### https://ifcextapps.ifc.org/IFCExt/Pressroom/IFCPressRoom.nsf/0/06C6411636BC96CF85258003004CA29 6

**3.** Bosforo Solar Farm Construction Project (2017) with a capacity of 100 MW distributed in 10 small PV solar farms in 3 stages in El Salvador, for a financed amount of 110 MM \$ of the total of 160 MM \$ for a period of 18 years.

The sponsors were: AES Corporation which will indirectly own 50% of the Borrower and CMI Solaris Investments S.L., a limited society organized and existing under the laws of Spain, which is privately held and will own 50% of the Borrower.

The biggest challenge for this project was obtaining a medium-term credit in a country with a low credit rating (B-) and possible default risks, which was compensated with solidity and a reputation for operating the largest energy distribution company in the country, which generated confidence in the financial sector for the lifting of the operation.

The project is currently under construction, with a total duration of 24 months. The participating banks in the financing structure were CABEI, FIN-Fund, FMO, OPIC.

Contact available upon request.

https://www.fmo.nl/project-detail/51220

#### https://renewablesnow.com/news/aes-cmi-to-develop-100-mw-solar-project-in-el-salvador-585295/

**4. Mesas la Paz Project, Wind Generation Farm with a 306 MW Capacity,** spread over 213ha, in Llera municipality with a financed amount of 304 Million, compared to a total project cost of 535 MM \$. The loan was managed as a structured bond with Private Institutional Investors and is currently in execution.

The big achievement of this project was receiving an S&P Global Ratings Green Evaluation of E1/91.

E1 is the strongest Green Evaluation score and the 2044 bond also achieved "an excellent aggregated score" of 80 for transparency, 95 for governance and 92 for mitigation according to Standard & Poor's S&P.

The Eólica Mesa La Paz wind farm will be built in Tamaulipas state, using 85 pieces of Vestas turbines. It has a 25-year power purchase agreement (PPA) with Fuentes de Energía Peñoles SA, supply under which starts on April 1, 2020. The PPA is for 80% of the power, while the rest will be sold on the spot market.

Contact available upon request.



https://renewablesnow.com/news/bond-for-306-mw-wind-farm-in-mexico-gets-sps-top-green-score-609708/

As can be seen, the experience of AES as a corporation has organized each of its regions, particularly that of Mexico, Central America and the Caribbean to meet and provide the financing services required by its different businesses, in the particular case of AES Puerto Rico, the financial team of the project will receive the support and structure of the region to achieve its objectives.

These cases show that the trajectory and solidness of AES as a sponsor of financial transactions, as well as its capacity to create key strategic partnerships with local actors, have been key factors for the creation of successful financing mechanisms for its different financial vehicles.



### b) Term, Volumes and Pricing

The following indicative pricing proposal is based on preliminary analysis of the offshore FSRU solution and contains cost estimates for the subsea pipeline, required mooring systems, engineering and permitting among other assumptions. This proposal is intended to provide a high-level cost estimated of our current view of the LNG supply solution and conversion costs of San Juan Units 5 and 6.

Further analysis is required to provide a binding capacity payment offer. As for the unitary fuel price, AES is using TOTAL's non-binding estimate reflecting current market conditions, which may also change during the process of developing the final proposal.

If shortlisted, AES is committed to dedicate resources on the development tasks of this project with a specialized team to work with PREPA towards a definition of a binding offer among the prequalified proponents after a reasonable time to prepare such.

#### Term

Term: 10 years from mid-2023 – in line with permitting timeline.

AES considers that at a minimum, 10 years of contract length should be provided to amortize all the required conversion and infrastructure cost. Extension options to be discussed

#### Volume

Annual volume: ACQ up to 25 TBtu /year and a minimum ACQ to be discussed.

#### **Component 1 – Annual Capacity Payment**

Annual capacity payment of \$53million US + \$8m x CPI n/CPI2018

AES considers that due to PREPA request for a flexible supply, all the infrastructure cost (and not only the unit's conversion cost) should be included in the Annual Capacity Payment in order to minimize the risks on the infrastructure and provide a levelized field to compare the supply cots.

The order of magnitude for the estimated capital cost for the total investment is approximately \$120 million US, including the plant conversion based on the MHPS quote, sub-sea marine infrastructure, sub-sea pipeline, horizontal drilling at the pier and engineering, permits, etc. In addition, annual OPEX to cover for the FSRU has been incorporated in the annual capacity payment (O&M and boil off included).



#### Component 2 – Unit Cost Pricing Formula (\$/MMBtu)

The Contract Price, or "P" in any given month m during the Contract Term, in US\$/MMBtu, of all quantities sold and delivered, shall be determined in accordance with the following formula:

#### P = 118.56% HH + 3.30 + 1.03 x CPI n/CPI2018

Please note that this proposal is based on estimated market prices for a 10-year period starting in 2023 and considers non Jones Act LNG supply. In the case Puerto Rico obtains a waiver for Jones Act compliance, AES would be willing to reopen the Contract Price P.

Contract Price P reflects an indication for the price of gas delivered at the inlet of the power plant and includes regasification services and transportation from the FSRU to land.

Contract Price P doesn't include any applicable taxes in Puerto Rico, if any.

## Component 3 – Indices to be applied to the delivered unit cost to account for variation in rate of inflation, fuel price fluctuations etc.

Where "HH" means the final settlement price (in USD per MMBtu) for the New York Mercantile Exchange's Henry Hub natural gas futures contract for the month in which natural gas is delivered to Buyer at the Delivery Point. For the avoidance of doubt natural gas delivered in July would be priced on the New York Mercantile Exchange's Henry Hub natural gas futures contract for the month of July, which generally is settled on the day that is three business days prior to first calendar day of the month of July.

"CPI" means, as of any day, the United States Consumer Price Index (Consumer Price Index – All Urban Consumers, U.S. city average for all items, not seasonally adjusted (base period: 1982-1984 = 100)), as published from time to time by the Bureau of Labor Statistics of the U.S. Department of Labor. Where:

CPI(j-1) = CPI corresponding to June of the previous year (j-1); and

CPI(2018) = CPI corresponding to September 2018.



## c) Savings Determination Exercise

Based on our proposal, San Juan Units 5 & 6 will end up with a **variable production cost of approx. 60\$/MWh and an all-in cost of approx. 80\$/MWh**, including the amortization of the conversion and required infrastructure cost. As a result, AES expects **PREPA to reach yearly savings in the 130+ MMUS\$** range.

For illustration purposes, please find below a simplified calculation of the value of the AES proposal. Note that we used internal assumptions and benchmarks for constructing such estimation.

		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Acummulative CPI Adj	%	3%	3.90%	4.80%	5.70%	6.60%	7.50%	8.40%	9.30%	10.20%	11.10%
Diesel Price											
FOB Price	US\$/MMBTU	14.68	14.47	14.48	14.72	14.97	15.23	15.49	15.75	16.02	16.30
CIF Premium	US\$/MMBTU	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Diesel Price at San Juan Plant	US\$/MMBTU	15.38	15.17	15.18	15.42	15.67	15.93	16.19	16.45	16.72	17.00
Natural Gas Price											
Nymex HH Price	US\$/MMBTU	2.64	2.72	2.80	2.89	2.97	3.06	3.15	3.25	3.28	3.34
Natural Gas Price at San Juan Plant	US\$/MMBTU	7.49	7.59	7.70	7.81	7.92	8.03	8.16	8.28	8.32	8.40
San Juan Expected Production*	GWh	3,200.00	3,200.00	3,200.00	3,200.00	3,200.00	3,200.00	3,200.00	3,200.00	3,200.00	3,200.00
Heat Rate Using Diesel	MMBTU/MWh	7,740.0	7,740.0	7,740.0	7,740.0	7,740.0	7,740.0	7,740.0	7,740.0	7,740.0	7,740.0
Heat Rate Using Nat Gas*	MMBTU/MWh	7,623.9	7,623.9	7,623.9	7,623.9	7,623.9	7,623.9	7,623.9	7,623.9	7,623.9	7,623.9
Variable Production Cost - Diesel	US\$/MWh	119.04	117.45	117.47	119.36	121.32	123.30	125.32	127.36	129.44	131.60
Variable Production Cost - Nat Gas	US\$/MWh	57.13	57.87	58.71	59.55	60.39	61.23	62.19	63.10	63.44	64.03
Fuel Consumption Diesel	TBTU	24.77	24.77	24.77	24.77	24.77	24.77	24.77	24.77	24.77	24.77
Fuel Consumption Nat Gas	TBTU	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40	24.40
Total Fuel Cost Diesel	MM US\$	380.93	375.83	375.89	381.95	388.23	394.57	401.03	407.55	414.21	421.12
Total Fuel Cost Nat Gas	MM US\$	182.82	185.19	187.88	190.55	193.26	195.95	198.99	201.92	203.02	204.89
Fuel to Fuel Savings	MMUS\$	198.11	190.64	188.01	191.41	194.97	198.62	202.04	205.63	211.19	216.23
Gas Infrastructure Cost	MMUS\$	(61.24)	(61.31)	(61.38)	(61.46)	(61.53)	(61.60)	(61.67)	(61.74)	(61.82)	(61.89)
Net Savings	MMUS\$	136.87	129.32	126.63	129.95	133.44	137.02	140.37	143.89	149.38	154.34
All in Monomic Cost- Nat Gas**	US\$/MWh	76.27	77.03	77.89	78.75	79.62	80.48	81.46	82.39	82.76	83.37
*Estimated Values											
** Excludes O&M, and non fuel varia	able costs										



## Appendix 1 - Scope of work Conversion

AES is using the SoW package created by MHPS-AMERA for this RFP process.

Fuel Oil System
Demo of existing system or individual Components
*MHPS-AMERA - TGE and all internal components X
*Other - Components external to TGE
Design of interconnect piping from fuel oil HP pump skid to metering skid
Supply of interconnect piping from fuel oil HP pump skid to metering skid
Installation of interconnect piping from fuel oil HP pump skid to metering skid
Fuel Oil Metering Skid (Design/supply/install)
Foundation / anchoring / site / civil needs for skid
Provide common skid connection points for power and ground
Design power and grounding to skid
Supply & install power and grounding to skid
Design and supply of Instrument air
Cable, conduit / cable tray from skid to control cabinet
Loop checks
Design of vents and drain connections
Supply and installation of vents and drain
Layout of control oil system piping from control oil skid to Fuel Oil Metering Skid
Design, Supply, Installation of hydraulic lines from control oil skid to Fuel Oil Metering Skid
Design of interconnect piping from fuel oil metering skid to distribution manifold (Primary + Secondary)
Supply of interconnect piping from fuel oil metering skid to distribution manifold (Primary + Secondary)
Installation of interconnect piping from fuel oil metering skid to distribution manifold (Primary + Secondary)
Design of GT Manifolds / Pigtails to fuel nozzles + supports
Supply of GT Manifolds / Pigtails to fuel nozzles + supports
Installation of GT Manifolds / Pigtails to fuel nozzles + supports
Duplex Oil Nozzles (at GT combustors)



Fuel Oil PCV	(Supply)
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Demo Existing

Cap Instrument Air lines

Modify existing piping and supports for new PCV

Layout of control oil system piping

Supply & installation of hydraulic lines and supports

Design cable, conduit / cable tray from skid to control cabinet

Supply & install cable, conduit / cable tray from skid to control cabinet

Loop checks

Fuel	Gas	System
I uci	aub	by beening

Fuel gas filter separator (Design/supply)
Install filter separator
Design filter separator foundation
Supply and install filter separator foundation
Design grounding to filter separator
Supply & install grounding to filter separator
Design cable, conduit /cable tray from filter separator to control cabinet
Supply & install cable, conduit /cable tray from filter separator to control cabinet
Loop checks
Fuel gas metering Skid (Design/supply/install)
Mezzanine level platform design (above oil skid - Turbine left)
Supply and installation of mezzanine level platform (above oil skid - Turbine left)
Design piping from fuel conditioning skid to fuel gas metering skid
Supply piping from fuel conditioning skid to fuel gas metering skid
Install piping from fuel conditioning skid to fuel gas metering skid
Coriolis Meter, FG (Design/supply) X
Design valves and piping for Coriolis meter isolation/bypass
Supply & install valves and Piping for Coriolis meter isolation/bypass
Design connecting piping and supports for Coriolis meter
Supply & install connecting piping and supports for Coriolis meter
FG Manifold / Pigtails (Design / Supply)
Design of FG Manifold / Pigtails to fuel nozzles + supports
Supply of FG Manifold / Pigtails to fuel nozzles + supports
Installation of FG Manifold / Pigtails to fuel nozzles + supports
Design piping from metering skid to ring (distribution) manifolds



Supply piping from metering skid to ring (distribution) manifolds

Installation of piping from metering skid to ring (distribution) manifolds

Cable, conduit / cable tray from skid to control cabinet

Loop checks

Design, Supply, Installation of Instrument air supply

Design, Supply, Installation of Vents to ATM

Design, Supply, Installation of Drains / oil water / turbine drains

Provide common skid connection points for power and ground

Design power and grounding to skid

Supply & install power and grounding to skid

Layout of control oil system piping

		-
Control	Oil	Suctom
CONTROL	UII	System

Hydraulic Control Oil Pump Skid (Design/Supply)

Design foundation and anchoring

Supply and install foundation and anchoring

Provide common skid connection points for power and grounding (Desing)

Design power and grounding to skid

Supply & install power and grounding to skid

Design cable, conduit / cable tray to and from skid to control cabinet

Supply & install cable, conduit / cable tray to and from skid to control cabinet

Loop checks

Design drains and vents

Supply and install drains and vents

Layout of control oil system piping

Supply & install control oil system piping

Design, Supply, Installation of Control Oil connections from Control Oil (HPU) Pump Skid to Hydraulic systems of the following:

Fuel Gas Metering Skid

Fuel Oil Metering Skid

Fuel Oil PCV

Steam Injection FCV

IGV Actuator

Accumulator

Accumulators installations



#### Sweep Air System

Sweep Air System Design (Partially located on Gas skid - Partially shipped loose)

Modifications to GT Manway / compressor combustor wrapper (design/supply/install) Piping from GT take off to Fuel Gas skid (design/supply/install)

Piping from Fuel Gas system to Primary and Secondary fuel oil manifolds (design/supply/install)

Valve Mounting and Supports (design/supply/install)

Instrument Air (design/supply/install)

Cable, conduit / cable tray from Gas skid to control cabinet (design/supply/install)

Loop checks

#### Purge Air System

Purge Air System (Design/supply/install)

Valve supply

Valve Mounting and Supports (design/supply/install)

Design, supply, installation of interconnection piping & sup- ports to Fuel Gas Metering and Fuel Oil Metering

Cable, conduit / cable tray from skid to control cabinet

Loop checks

Drain connections / Turbine Drains (design/supply/install)

Vents to ATM (design/supply/install)

Instrument air (design/supply/install)

#### Other Items

Steam Injection Throttle Valve (Design/supply/install)				
Hydraulic Connections				
Piping Modifications (design/supply/install as needed)				
Cable, conduit / cable tray from skid to control cabinet				
Loop checks				
Insulation				
IGV Actuator (Design/supply/install)				
Demo Existing				
Cap Instrument Air lines				
Install mounting bracket / IGV / Turnbuckle & mechanical				
Layout of control oil system piping				
Supply & installation of hydraulic lines and supports				



Cable, conduit / cable tray from skid to control cabinet

Loop checks

GT Control system expansion (design/supply/install)

HRSG/STG/BOP Control System Evaluation - logic, graphics, upgrades (design/supply/install)

Fuel gas heating (to meet minimum absolute or dew point requirements, not GT heat rate improvement heating)

Fuel gas compression (not required)

Fuel gas conditioning (design)

Fuel gas conditioning (supply and install)

Identification of electrical supplies for new equipment

GT Enclosure Mod's (design/supply/install)

GT Enclosure Modifications for Skid Access (design/supply/install)

GT Enclosure Ventilation (Evaluate/modify and upgrade as needed)

GT Enclosure Hazardous Gas Detection (Evaluate/modify and upgrade as needed)

GT Enclosure Fire Protection (Evaluate/modify and upgrade as needed)

Hazardous Classification Review around new components (outside Enclosure) and any required modifications

Hazardous Classification Review around new components (inside Enclosure) and any required modifications

Instrument air vessel in enclosure

Upgraded ignitors / transformers (design/supply/install)

Design cable, conduit / cable tray from skids to control cabinet

Supply & install cable, conduit / cable tray from skids to control cabinet

CTG performance testing – natural gas and fuel oil (development of test procedure, supply/install test instrumentation, test execution, test calculations/report)

CTG emissions testing – natural gas and fuel oil (development of test procedure, supply/install test instrumentation, test execution, test calculations/ report)

Ignitor leak air manifold

Piping Modifications Outside GT Enclosure (design, supply, install as needed) Piping Modifications Inside GT Enclosure (design, supply, install as needed)

Hydro / X-ray / other

Insulation

CTG fuel gas operation and maintenance training



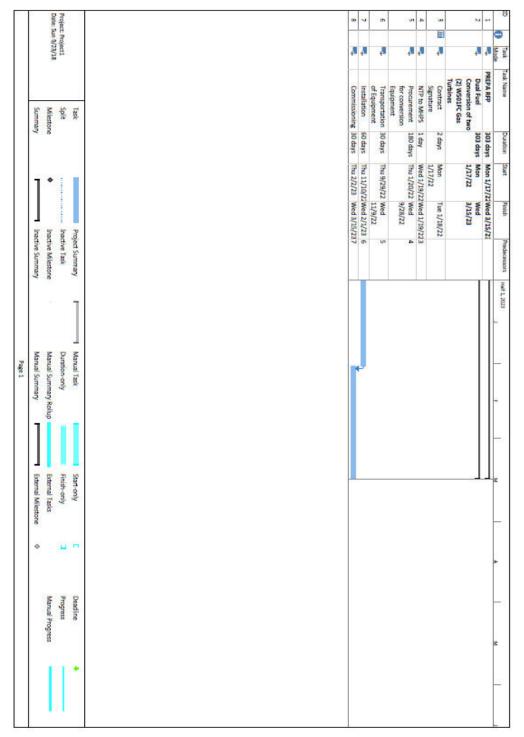
Field Services
Provide Field Engineers and Specialists Required by Scope of work
Provide Qualified Labor and Perform Work Safely and Cleanly
Provide MHPS-AMER Tool Conex for Workforce
Provide Transportation for MHPS-AMER Tool Conex
GT Tuning Support
Control Engineer for Valve Calibrations
Vibration Analysis
Confined Space Monitoring Equipment
Confined Space Rescue Services and Rescue Equipment
Provide Safety Equipment (separate from PPE)
First Aid Facilities
Fire Protection Equipment
Disposal of Hazardous Waste
Trash Containers and Disposal Service
Asbestos Control, Removal and Disposal
Lead/Hazmat Control, Removal, and Disposal of Waste
Security for Personnel (for High Risk areas)
Machine Shop Services and Machinist(s)
quipment / Hardware Disposal
Expendable Materials (Rags, Cleaning Fluids, etc.)
Borescope Equipment
OEM Special Tools & Slings Purchased w/ Turbine Generator
Rotor Shipping Skid (if Required)
Scaffolding Contractor and Material
Insulation Contractor (Removal and Installation)
Dustblast Equipment and Supplies
Bolt Heating
Rotor Stands
NDE Equipment, Material and Technicians
Mobile Crane Service (with Operator)
Crane Operator(s) *for overhead and/or bridge cranes only
Consumable Gases (ex. Oxygen, Acetylene, Argon, etc.)
Forklift
Compressed Air (175 cfm @ 100 PSIG)
Temporary Lighting and Associated Fuel



Welding Services				
Office Space or Office Trailer, Change Trailer				
High Speed Internet				
Sanitary Facilities *portable restrooms, wash stations/sinks				
Potable Water / Ice / Water Cooler				
Service Water				
Cribbing / Pallets for Disassembled Parts				
Lubricants as Necessary				
I&C Technicians for Disconnects and Connections				
Electricians for Disconnects and Connections				
Electrical Power (120-220-480 VAC Single Phase / 480 VAC 3-Phase				
Drain, Store and Refill Lube Oil Reservoir				
Oil Circulation with Temporary Strainers				
Transport to and from Laydown Area				
Coupling Alignment				
Internal Alignment				
Bearing Alignment Pad and Valve Lapping Contact Blue-in n/a n/a				
Parts (as indicated in this proposal) Transportation				



### Conversion Schedule







# **INFORMATION FOR PREPA RFP**

## AGENDA

- LNG Supply and conversion scheme proposed
- Implementation plan proposed
- Operation & Maintenance
- References

Preliminary comment: all the below technical recommendations will be precsied at pre-feed stage (after PREPA shortlist).



2

# LNG SUPPLY AND CONVERSION SCHEME PROPOSED





## **FSRU: OFFSHORE VS IN PORT SOLUTION**

	Existing Conventional FSRU	small scale chain: New build Floating storage+ regas
Site location	Offshore position without particular limitation	Inside port
Units	<ul><li>1 second hand FSRU</li><li>Subsea gas pipeline to connect power plant</li></ul>	<ul> <li>1 mid scale Floating storage barge</li> <li>1 regas station onshore or offshore</li> <li>Short gas pipeline to connect power plant</li> </ul>
Scalability	<ul> <li>FSRU can process enough LNG to supply San Juan and Palo Seco and more.</li> <li>No infrastructure extra-cost required</li> <li>No shipping investment required</li> <li>=&gt; Reduced average unit gas price</li> </ul>	<ul> <li>Design capacity fitted for initial purpose</li> <li>It will be managed by the increase of shuttle rotations – but potential limitation due to port traffic and storage size</li> </ul>
Technology	<ul> <li>Architecture proven many times</li> <li>All equipment are proven for years</li> <li>Multiple references around the world</li> </ul>	<ul> <li>If technologies are proven, the barge concept itself inside a port, there are very few examples in operation.</li> </ul>
Safety & operating risk	<ul> <li>Mooring designed for rough meteocean conditions</li> <li>FSRU is an LNGC which is autonomous in case of emergency</li> <li>Offshore operation with no impact on port trafic</li> </ul>	<ul> <li>Barge needs to be self propelled for emergency (or ATB)</li> <li>Impact on trafic of other vessel in port when LNG carrier transits and discharges cargo</li> <li>Safety distance around storage unit limits permanently navigation area and traffic in the port (esp. Puma terminal and Total Jetty).</li> </ul>
Associated LNG Shipping	<ul> <li>World wide liquid shipping market for LNG/C</li> <li>Access to non-US sources (no Jones Act constraints)</li> </ul>	<ul> <li>Shipping risk: <ul> <li>Only small scale vessels - limited fleet in the world</li> <li>Availability risk in case of unexpected damage to the floating barge and/or the small scale.</li> </ul> </li> <li>Supply risk: <ul> <li>Small scale vessel can only load in regional area</li> <li>No direct access to global market (reload hub necessary)</li> </ul> </li> </ul>
Permitting	FERC process	Local permitting process only (to be confirmed)
COD after permitting	• 18-24 months	<ul> <li>20-24months (if newbuild barge) – less if second-hand units mobilized</li> </ul>



## **OFFSHORE PORT**

## Preliminary site screening

- Conventional onshore discarded due to lack of space onshore and inside the bay.
- When considering volumes and potential expansions is the only to be considered.
- San Juan bay is not suitable for conventional scale solution (location for 1FSRU+1LNG/C) hence Offshore
- The connected gas pipeline should avoid as far as possible to cross leaving area and its length should be minimized. In order to limit visual impact the west side of the mouth of the bay has been pre-selected.

## Compliance

- Focus has been put on US 33 CFR 148.720 criteria especially minimizing impact on existing traffic, environmental effects.
- Technical solution is designed to accommodate the specific local Metocean data of the site (harsh weather conditions).

## Location of the port (subject to permitting approval)

- The offshore port is expected to be located around the following point :
  - Lat: 18°28'55.19"N
  - Long: 66° 8'47.93"W
- The draft is about 30 meters
- Mooring system for floating and Storage and Regasification unit
  - No fixed piles, no offshore export platform or Jetty will be erected.
  - The FSRU will be moored with a multi-point mooring systems that moor vessels to the seabed using multiple mooring lines (spread mooring). To facilitate operations Conventional Buoy Mooring (CBM) is also preferred to lines directly attached to the hull. The FSRU can be moored up to Hs 6 to 8 m.
  - The arrangement of the lines will take into consideration the Shuttle vessel, that will perform ship to ship transfer. In parallel, the FSRU will be fitted especially with Quick Release Hooks and tension monitoring for STS operations and fender hanging off support.







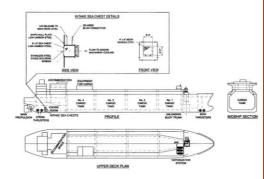
## **FSRU / DESCRIPTION**

### Ship indicative description (Neptune, subject to availability)

- The FSRU is a conventional LNG/C carrier with Regas capabilities.
- The indicative dimensions are:
  - LOA : 280 m | Breadth: 43 m | Design draft: 11m
- The FSRU capacity is 145,000m3 @ 100% filling rate.
- The technology is GTT Mark III Membrane, that can accommodate elevated cargo holding pressures up to 700mbar.
- In case of emergency departure (ex: Hurricane), the ship is capable to sail at more than 15knots.
- In order to comply with the 7 days of strategic storage, a permanent heel will be maintained. The LNG SPA with the LNG supplier will guarantee that a minimum level of LNG remains in tank. The LNG cargo in transit also act as additional floating storage.
- The ship is equipped with an Integral Submerged Turret Loading ("STL") structure to permit engagement with a submerged APL buoy.
- Emissions control equipment designed to meet federal and state standards.

### Boil Off Gas Management

- The vessel is fitted with Minimum Send Out compressor to handle the BOG generated during LNG unloading at 10,000 m3/h and 30 mmscf/d sendout, using the MSO in parallel to the pressure build-up.
- No venting is allowed. GCU use is to be avoided.
- As an option it can be fitted with reliquefaction system to limit the boil off gas and restrain warming up of the cargo./





Reference case: NEPTUNE SRV – the vessel and associated technical solution has aleady been approved by FERC for Neptune Deep water Port in in 2007.





## **FSRU / LNG DISCHARGE OPERATION**

## Receiving LNG cargos

- Several cargoes will be discharged per year (depending on ACQ)
- Each operation will take about 24hours.
- These operations will be done simultaneously with Gas emission to shore.
- For this project 4 tugs (6000HP, incl. 2 Fire Fighting tugs) might be mobilized to ensure safe operation during LNG cargo operation. The choice between dedicated or shared tugs will be made later on. At this stage, shared tugs are considered available.

## Ship to ship transfer

- The solution is a transfer via Cryogenic flexible hoses with vapor return line as it is performed in most of FSRU projects in the world.
- The vessel will be fitted with :
  - ERC SIL2 certified, to prevent any loss of product while transferring LNG
  - ESD systems
  - Ship to Ship communications line
  - Fiber optic and pyle connection from FSRU to LNGC
- Custody transfer measurement system
  - LNG sampling points will be provided as part of the STS custody transfer for LNGC to FSRU loading. Measurement will allow density, heating value and methane number of LNG transferred to be calculated.
- Standard applied will be refer to EN 1474-3 and ISO 18683 and conforms to OCIMF, ISO, SIGTTO







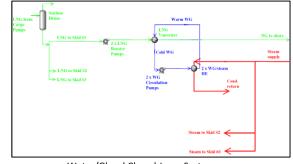
## **FSRU/ DESCRIPTION**

## Regas Process

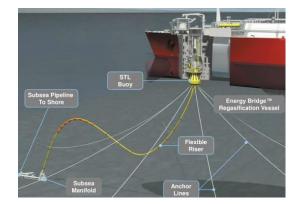
- A water-glycol closed loop as intermediate media is used to heat the LNG in Shell-and-tuber heat exchanger. This closed loop vaporization system avoids large quantities of seawater being pumped on board, hence minimizing the environmental impact to important local marine resources. In order to ensure flexibility and availability, the vessel is fitted with several regas skids.
- Regas send out is designed for continuous use basis
  - Minimum: 30 mmscf/d
  - Maximum: 750 mmscf/d
- Normal operating modes will be:
  - Regas send out at zero, minimum, nominal & peak rates
  - Regas send out at zero, minimum, nominal & peak rates during large LNGC loading

### Gas export solution

- Base case is that the vessel is connected to the export HP gas pipe via an APL Buoy system).
- The connection between the ship and the sub sea pipeline could be a flexible riser or alternatively a jacket. This will be determined during PRE-FEED study



Water/Glycol Closed-Loop System









## SUBSEA PIPELINE

- The Project pipelines consist of a 24-inch flowline approximately 9 km long from the riser manifold. Diameter of the pipeline takes into consideration the future increase of demand (can be improved after prefeed)
- The pipelines would have a nominal outer diameter of 24 inches.
- Pipeline trenching and burial requirements will comply with 30 CFR 250 Subpart J. It would protect the flowline from potential damage and avoid potential fouling, loss, or damage of fishermen's trawls.
- Onshore receiving station (external or inside powerplant)
  - Fiscal metering measuring system
  - Preheating of natural gas
  - Pressure reduction from 700 to 350psi to comply with PREPA demand

More detail specifications on the whole subsea infrastructure will be issued at PRE FEED stage.



résentation - Lieu et Pays - Date Jour Mois Année





Design Criteria	Value
Water depth range	100 to 10feet
Max Allowable Operating pressure	1,250psig
Normal operating pressure	700
Throughput range	30 to 90mmscf/d
Fabrication Method	Submerged are welded
Steel unit weight	490lbs per cubic foot
Concrete weight coating density	190lbs per cubic foot
Design life	30years



# **IMPLEMENTATION PLAN PROPOSED**





## **PERMITTING: PROCESS**

# **Puerto Rico** December 201 Protected Areas Marine (27%) and Terrestrial (16

## Puerto Rico background

- Penuelas LNG terminal is in operation for several years. The plant is feeding gas fired power plant. Thus LNG as a dangerous oil product is not new to the island.
- Aguirre Offshore Gas Port (PREPA & Excelerate project) completed the whole process. It has taken lot of time especially due to environmental impact.

### San Juan Offshore port case

- No sensitive marine life area has been identified which could hinder permitting like for Aguirre.
- The site location and the route to PREPA powerplant do not cross any protected area.
- The FSRU solution has a very limited impact on the traffic of the bay, a limited impact the bay itself and outside.

### FERC process

As the project modifies the maritime domain an US Federal permitting process is necessary, governed by NEPA.

FERC FORMAL

**FILLING PROCESS** 

- This permitting process will be conducted by AES with the support from PREPA and port authorities
- The preliminary schedule to reach full approval ranges from 2 to 3 years.

FERC PRE-FILLING

PROCESS

The project will hire a specialized consulting firm to assist all along the process: public hearings, reports that will feed Environmental Assessment and Environmental Impact Assessment,...







LOCAL & AGENCY

CONSULTATIONS

## **PERMITTING: INVENTORY**

• The preliminary list of permits to obtain for the PREPA project.

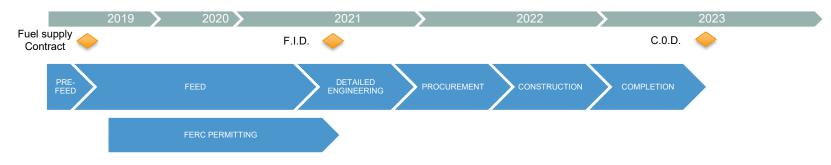
	Permit	Regulatory body
	Order Granting Authorization	Federal Energy Regulatory Commission
Federal level	Section 10 Permit and 404 Permit	U.S. Army Corps of Engineers ("COE")
	Letter of Recommendation	U.S. Coast Guard
	Biological Opinion ("BO")	U.S. Fish and Wildlife Service ("USFWS")
	Biological Opinion	National Marine Fisheries ("NMFS")
	Approval	DOT – OFFICE OF PIPELINE HAZARDOUS MATERIAL SAFETY ADMINISTRATION ("PHMSA")
Local level	Consistency Certificate	Puerto Rico Planning Board ("PRPB")
	Determination of Environmental Compliance with Article 4.b.3	Puerto Rico Office of Permit Endorsement Management ("OGPe")
	Management Consistency and Water Quality Certificate	Puerto Rico Department of Natural and Environmental Resources ("DNER")
	Water Quality Certification upon public notice of the COE Section 404 permit	Puerto Rico Environmental Quality Board ("EQB")
	Title V Operating Permit	Puerto Rico Environmental Quality Board ("EQB")
	Issuance of its concurrence that the project is not likely to adversely affect the environment	State Historic Preservation Office ("SHPO")





## **INFRASTRUCTURE SCHEDULE**

Following a standardized project management plan, the following phase will be implemented.



- Schedule comments
  - On the critical path, the permitting is the key topic.
  - Construction will include pipeline erection, offshore port installation but also some FSRU modifications if required by studies.
  - All studies will be completed (including some of detailed engineering ) prior issuance of final FERC approval.
  - FID will launch detailed engineering phase and procurement process.
- Estimated COD
  - From FID, 20 to 24 months will be necessary to finish commissioning and reach Commercial Operation Date.
  - The overall schedule from contract awards from 4 to 5 years.





# **OPERATION & MAINTENANCE**





#### **OPERATIONS AND MAINTENANCE**

#### Very high levels of availability

- N+1 redundancy for critical process and function
- Each regas unit is independent and can be disconnected for maintenance and overhaul (if required).
- The ships will be delivered with onboard spare parts for two (2) years operation and tools in addition to the rule requirement or makers' recommendation.

#### Operations

- The operation of the receiving station will be defined with PREPA depending operational requirements
- O&M of FSRU is provided by the ship manager. Crew onboard not only take care of the ship and current activities onboard but also supervise the operation of the pipeline.
- In total 30 to 35 people:
  - Approximately 2/3 of ratings (oilers, fitters,...) and the rest of officers.
  - Master, chief engineers, all cargo engineers and all deck officers shall be fluent in English. Other crew members shall also have a good working knowledge of English.
  - · US officers can be provided if requested by PREPA

Detailed operations and maintenance plan is normally developed once the full technical and commercial specification for the FSRU terminal is known and agreed by all parties. This plan will thus be developed at a later stage

- No anticipated drydocking required during the term.





#### **GAS PIPELINE MAINTENANCE**

- As part of the cycle of planned maintenance and as a result of detailed inspection (pipeline and riser) and consideration of the long-term management of subsea assets.
- Subsea inspection of underwater facilities will be IMR-type (inspection, Maintenance and repair).
- A contractor will be hired to provide a range of ROV based maintenance services: Module replacement, Anode and Cathode protection replacement, remedial burial, removal of foreign objects, dredging operations, mattress laying.

HSE

Safety has always been paramount to TOTAL. As a leading player in the LNG industry, TOTAL have been leader in setting industry safety standards and forming industry associations to share best practice.

In the past five decades TOTAL has developed vast HSSE experience and expertise in all parts of the Oil and Gas chain.

Total HSE policy has a single aim: To ensure that every executive, manager and employee is a stakeholder committed to his or her own health & safety and to that of others.





## **REFERENCES**

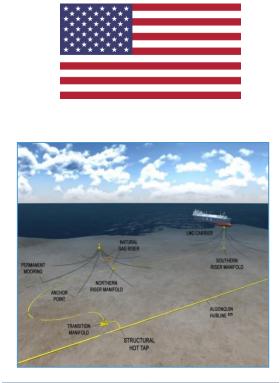






#### **FSRU - NEPTUNE DEEPWATER PORT**

- 22 miles off the coast of Boston, the Neptune LNG deep water port consisting of a twin buoy system where vessels moor and discharge vaporized LNG using onboard vaporization system
- The natural gas is then transported via subsea pipeline into the existing local grid in Massachusetts and New England, USA.
- The buoy system allows a fast-track project to be developed without many of the delays normally associated with the onshore terminals. The terminal is located in an environmentally sensitive area, and therefore the facility and its associated LNG vessels were specially designed to minimize their environmental impact and to meet the strict regulatory requirements in place.
- Regasification capacity is 2.9 mtpa with an average of 400mmscfd and a peak of 750 mmscf/d







#### **NEPTUNE DEEP WATER PORT UNLOADING BUOY**



- The submerged buoys are approx. 2.3 miles apart.
- When not connected to an SRV, the unloading buoy is suspended approximately 100 ft below the ocean surface. Each buoy is held by its mooring lines until arrival of the next SRV.





## **NEPTUNE DEEP WATER PORT UNLOADING BUOY**

- Submerged Turret Loading or STL turret mooring and transfer system designed by Advanced Production Loading of Norway.
- SRV able to connect with the buoy in up to 12 ft wave height.
- The system is designed to weathervane and send-out natural gas in up to 33 ft seas.
- The technology has proven reliability through many years of nearly uninterrupted operation in the North Sea in extremely harsh weather conditions.







## **IVORY COAST LNG**

#### • Total operator with 34%

The CI-GNL (Ivory Coast LNG) consortium led by Total has been awarded the rights to **build and operate** a liquefied natural gas (LNG) re-gasification terminal in Ivory Coast with a capacity of **3 Mtpa**.

#### Shareholders:

- Total, which will operate the project with a 34% interest
- National companies PetroCI (11%) and CI Energies (5%)
- SOCAR (26%),
- Shell (13%)
- Golar (6%)
- Endeavor Energy (5%)

Total will use the terminal to supply LNG volumes from its global portfolio in proportion to its participating interest in the project.

The re-gasification terminal project is expected to become operational by 2020.









## FSRU - JAIGARH PROJECT - INDIA (CAPE ANN)

- H-Energy is developing a near shore FSRU terminal in Jaigarh Port. The project will be implemented in two phases.
- Phase 1 consists of a Jetty based FSRU of ~ 4mmtpa capacity.
- The terminal was inaugurated in May 2018 and operational start-up is expected by the end of 2018.
- Total is chartering the Cape Ann SRV to H-Energy
  - FSRU: 145,000 m<sup>3</sup> capacity
  - Ship-to-ship transfer using hoses
  - Option for shoreside LNG sendout for onshore trucking & for small scale STS reloading



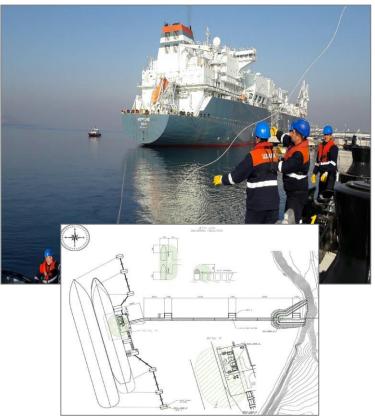




#### **FSRU - ETKI TURKEY (NEPTUNE)**

- Developers Kolin and Kalyon selected Total to provide the FSRU for this fast-track Floating Storage and Regasification Unit (FSRU) based solution. Total committed the Neptune, one of the two FSRU of its fleet, to the project.
- The overall infrastructure developed by Kolin and Kalyon includes a jetty and an onshore gas pipeline to connect the terminal to the national gas transport grid, operated by BOTAS.
- From final investment decision to completion, record breaking terminal project development took only 6.5 months and a total of 8 months from first contact with TOTAL to commercial operations
- The *Neptune* vessel arrived at ETKI LNG terminal berth on December 11<sup>th</sup> fully loaded with LNG and proceeded immediately with commissioning operations.
- FSRU: 145,000 m<sup>3</sup> capacity
- Ship-to-ship transfer using hoses,
- Commenced operations in Q4 2016
- Bridge solution : Neptune will depart in 2019 and be replaced by a new built FSRU







## FSU – COSTA NORTE, PANAMA

- Costa Norte integrated LNG to power project developed by AES and Inversiones Bahia at the entrance of the Panama Canal (with 380 MW CCGT). TOTAL will supply the LNG for the CCGT.
- The terminal started operations in June 2018- One of TOTAL's vessel is used as a Floating Storage Unit unit the 180,000 m3 onshore tank is completed in 2019
  - 153,500 m3 ship capacity
  - Shore connexion with rigid arms
  - LNG discharged with stripping pumps for low send out (135m3/h)
  - Project team supported initial concept evaluation and operational readiness







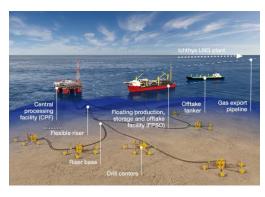




## **ICHTHYS LNG - AUSTRALIA**

- Total is a major partner in this liquefaction project operated by INPEX
- The gas and condensate are extracted from the Ichthys field in the Browse Basin, located 200 kilometers off the northern coast of Western Australia. They are initially processed on a semi-submersible platform known as a central processing facility (CPF), where the gas and liquids are separated. The CPF is the largest in the world, weighing in at some 120,000 metric tons.
- A colossal gas pipeline transports the gas to the liquefaction plant. Stretching across 882 kilometers of sea and eight kilometers of land, the pipeline is the longest in the Southern Hemisphere.











# TOTAL AND LNG



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#### **TOTAL AT A GLANCE (2017)**



3

TAL

#### **OUR CHALLENGES FOR THE NEXT 20 YEARS**

Meet the energy demand of a larger population.

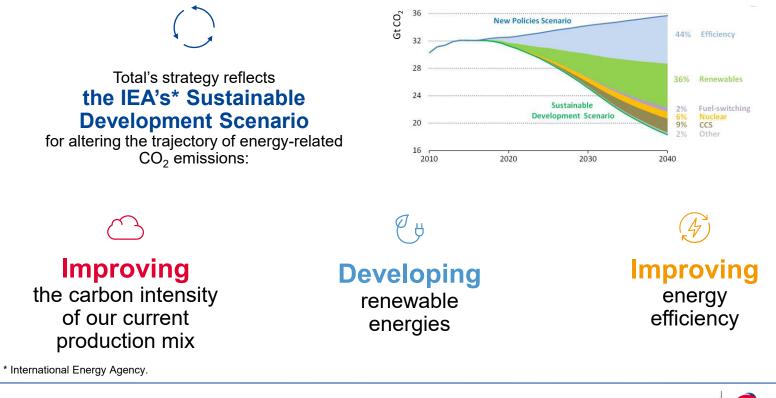
Protect the planet and **limit** <sup>(2)</sup> global warming. <sub>(3)</sub>

Adapt to new practices and stay ahead of market trends.

4



#### **OUR AMBITION: BECOME THE RESPONSIBLE ENERGY MAJOR**



AEE 2978

#### THE ADVANTAGES OF NATURAL GAS



**AVAILABLE, RELIABLE** ENERGY TO MEET GROWING DEMAND



THE FOSSIL FUEL WITH THE LOWEST GHG\* EMISSIONS, A KEY ENERGY RESOURCE FOR FAST CLIMATE ACTION



GAS OFFERS **CONSIDERABLE FLEXIBILITY** FOR BOTH TRANSPORTATION AND USE, ESPECIALLY WHEN LIQUEFIED (LNG)

\* Greenhouse gas



#### **CENTRAL TO THE ENERGY TRANSITION**

# Reduce GHG emissions and improve air quality



50 to 60% less CO<sub>2</sub> than coal for power generation. Almost no air pollutants (NOx and SOx) or fine particulate matter.

# Support the growth of renewable energies

Natural gas is an essential partner to allow renewables — inherently variable — to grow.



Replacing coal in power generation would reduce emissions by 5 Gt/CO<sub>2</sub>eq/year (10% of overall emissions related to human activities).



Greenhouse das

Natural gas and LNG are supported by international organizations and local and national energy policies.



An abundant, available resource with low emissions, natural gas is renewable energies greatest ally.



Gas-fired power plants are quicker to start up again and can ramp up to full capacity twice as fast as coal-fired power plants. This flexibility offsets the variability of renewables.



Gas. Renewables & Power – LNG at a Glance – June 2018

7

#### LNG, PIVOTAL TO ENERGY SECURITY



Quick way to address declining domestic production and/or meet sharp rises in energy demand in a country or region.



Alternative to gas pipelines and their drawbacks, such as cost, maintenance and geopolitical risks.



More environmentally friendly source of energy and **ideally suited to partner renewable energies for their growth**.



**Increasingly competitive solutions** thanks to joint initiatives by gas players to reduce technical and logistics costs, *including less expensive liquefaction and regasification units, modular liquefaction trains, flexibility, optimization and trade-offs.* 



# TOTAL AND LNG



# No. 2 worldwide in LNG 10% market share in 2020

# 40 MT volume of LNG YRmanaged in 2020



Gas, Renewables & Power - LNG at a Glance - June 2018

10

#### AN INTEGRATED PLAYER WITH A GLOBAL PORTFOLIO



#### **Exploration & Production**

Gas, Renewables & Power



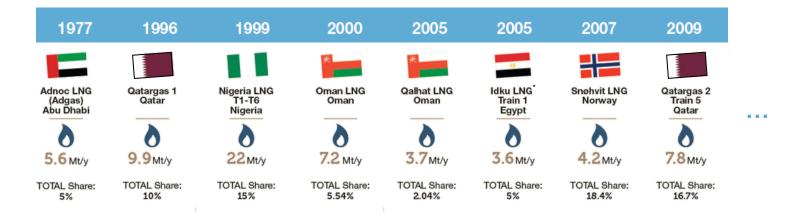
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#### LIQUEFACTION ADAPT LNG CONFIGURATIONS TO LOWER COSTS





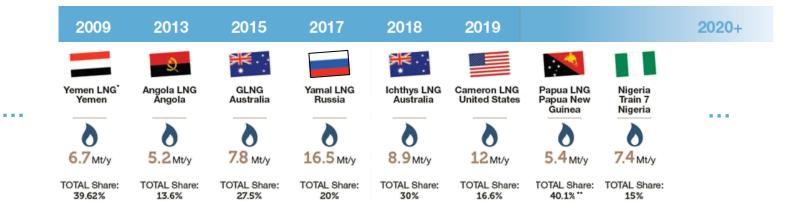
#### LIQUEFACTION OUR ASSETS



\* subject to pre-emption rights from other shareholders



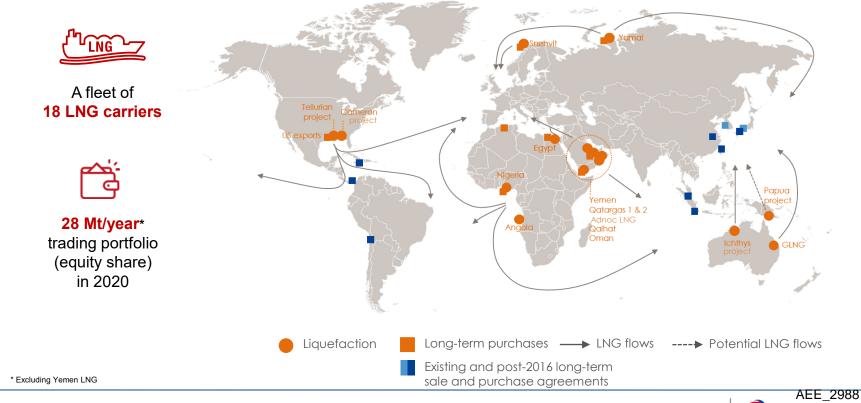
#### LIQUEFACTION OUR ASSETS



\*Because of security conditions around Balhaf, Yemen LNG declared force majeure in 2015. The plant is in preservation mode. \*\* Net working interests post-FID: 31.1%.



#### **TRADING & SHIPPING** CAPTURE MARKET OPPORTUNITIES WITH INCREASING FLEXIBILITY



Gas, Renewables & Power - LNG at a Glance - June 2018

OTAL

#### TRADING & SHIPPING OUR FLEET



Arctic Lady 145,000 cu. m



Meridian Spirit 165,000 cu. m



SK Audace 180,000 cu. m

SK Resolute 180,000 cu. m



NG

Gaslog Hong Kong 174,000 cu. m



HHI 3020 174,000 cu. m



174,000 cu. m HSH 8006

174,000 cu. m







BW Boston\* 138,000 cu. m



Gaselys\* 154,500 cu. m



Provalys\* 154,500 cu. m

ſ'n	LNG	כי

BW Everett 138,000 cu. m



BW Tulip 173,400 cu. m



BW Brussels 162,400 cu. m



I NG

Point Fortin 154,200 cu. m

Neptune 145,000 cu. m



Cape Ann 145,000 cu. m



LNG Jurojin 153,000 cu. m

\* Owned or jointly owned.





Gas, Renewables & Power – LNG at a Glance – June 2018

1

#### REGASIFICATION DEVELOP MARKETS TO MAKE GAS AVAILABLE TO AS MANY PEOPLE AS POSSIBLE



**FAL** 

Gas, Renewables & Power - LNG at a Glance - June 2018

#### **POWER GENERATION** OPEN NEW MARKETS FOR LNG

#### OFFER COMPETITIVE LNG IMPORT SOLUTIONS





**INVEST IN POWER PLANTS** 

#### MARKETING **DEVELOP NEW USES FOR GAS, ESPECIALLY IN TRANSPORTATION**



#### SHIPPING





Signature of first agreements to supply liquefied natural gas as a fuel in Europe and Asia, with shipper CMA CGM and Brittany Ferries.

Signature of agreements with Pavilion Energy to develop LNG bunker in Singapore.



Promote the growth of LNG as a marine fuel with a comprehensive line of solutions compliant with the new regulation on marine fuel sulfur content that will come into force in 2020.

2017

Acquisition of PitPoint B.V. and acceleration of Total's growth in natural gas for vehicles (NGV) in Europe.



Acquisition of an interest in Clean Energy and launch of a large-scale leasing program in the United States.

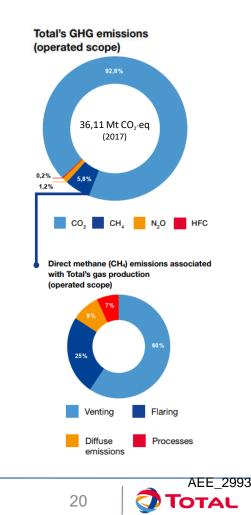


Fast-track the deployment of a dense enough network to meet the needs of our customers.



#### **APPENDIX** REDUCE METHANE EMISSIONS

- Total has been tracking its methane emissions since 2006. They accounted for around 6% of the Group's greenhouse gas emissions in 2017.
- Member of the Global Gas Flaring Reduction Partnership's "Zero Routine Flaring" by 2030 initiative.
- As part of the Climate and Clean Air Coalition, participation in the Oil & Gas Methane Partnership to promote the measurement, control and reporting of methane emissions.
- Through the OGCI, help finance studies on systems to measure methane emissions.





September 25, 2018

Puerto Rico Electric Power Authority Supplier Registry Office Attn: Natalia Martinez Lugo Procurement Representatives for RFP PO Box 3670151 San Juan, Puerto Rico 00936

Subject:Request for Proposals for Fuel Supply in the North and<br/>Conversion of San Juan Units 5 and 6, RFP 81412

Dear Ms. Martínez:

Arctas Capital Group, LP ("Arctas") in response to the Puerto Rico Electric Power Authority ("PREPA") July 30, 2018 Request for Proposals for Fuel Supply in the North and Conversion of San Juan Units 5 and 6, RFP 81412 ("RFP") submits this informative letter in lieu of a proposal.

Arctas has extensive expertise in developing, acquiring, structuring, financing, optimizing and managing a broad range of complex energy infrastructure assets and energy businesses. Since its inception in 2002, Arctas' business focus has been primarily in the Americas and Caribbean energy markets. Arctas is a successful developer of energy projects, including wind farms in Texas and Central America, natural gas pipeline in Colombia, and also acquired one of the largest non-institutional positions in Mirant equity following their bankruptcy filing (and subsequently teamed with a boutique restructuring firm to advise \$1.2B bondholders on US portfolio of Mirant power assets in bankruptcy).

The individuals at and working with Arctas on its Puerto Rico effort have deep knowledge and experience in Puerto Rico. Arctas executives, then employees of a unit of Enron that was the 50% lead partner in the EcoEléctrica LNG terminal and 540 MW power plant ("EcoEléctrica"), had key executive responsibilities in EcoEléctrica development, financing, and construction and commercial operation. Arctas founder and managing director David Haug was the lead executive for this effort from 1993 until power production begun. I myself, Rick Sierra, an Arctas Vice President, had executive management responsibilities from 1995-2003 in the development of the EPC agreement, construction management, and oversight of commercial operations.

Arctas, together with consultants, over the last two years, has been actively assessing and monitoring developments in Puerto Rico relevant to the generation, transmission, pricing and financing of electric power in Puerto Rico. During that time we have participated in governmental, regulatory, and PREPA initiatives and have expressed interest in participating in Puerto Rico energy projects, including projects that increase natural gas fired generation. Arctas was an Intervenor in the Puerto Rico Energy Commission proceeding on the Aguirre Site Economic Analysis, Case No. CEPR-AP-2017-0001, having submitted filings, testimony, and briefs. More recently we participated in initial PREPA 2018 IRP Stakeholder Meeting to provide feedback on PREPA's initial plans to develop a 2018 Integrated Resource Plan.

After the RFP was issued on July 30, 2018, Arctas requested and was granted access to the RFP materials on August 2, 2018. We subsequently attended the RFP Kick-off Meeting on August 9,

2018 and the Visit to the Job Site on August 10, 2018. We have also submitted questions to PREPA on August 28, 2018, some of which PREPA provided responses on September 10, 2018.

After review of the RFP materials and bidder questions and PREPA responses, including PREPA responses to a portion of the questions Arctas submitted to PREPA for response, we are not in position to submit a credible proposal generally consistent with the RFP requirements for the following reasons:

#### 1. The RFP timeline did not allow sufficient time to develop proposal details so as to demonstrate to PREPA that any particular fuel delivery concept is viable.

The following supplier question and PREPA response regarding insufficient time to submit a proposal and asking if extending the deadline is being considered was provided to the bidders on September 15, 2018:

Supplier question: According to RFP timeline, the submission deadline is on September 11, 2018, however, due to the complexity of this project, the technical and feasibilities studies to be conducted, the information required to be included in the proposal, scope of work and permitting assessment and permitting plan, letter of support from Puerto Rico Port Authority, plan for financing, pricing, among others, we consider that this period of time is too short even for a RFP. Is PREPA considering to extend this term according to the requested information?

PREPA response: The deadline for proposals' submission is September 25, 2018.

Although no alternate fuels are explicitly excluded, the RFP principally seeks LNG fuel supply proposals for San Juan 5 and 6 as stated in the first paragraph of RFP Section 1.0 Purpose and Intent. There is currently no existing infrastructure that could be used to deliver LNG/natural gas or to San Juan 5 and 6, so any proponent's proposal would have to be based on the construction of new infrastructure. The less than 7 weeks between the kick-off meeting and the deadline to submit a proposal is simply nowhere near enough time to develop and complete necessary work product to establish the infrastructure cost and execution plan, permitting feasibility, and fuel supply contracting structures that would demonstrate to PREPA that any given concept for new LNG/natural gas infrastructure is viable. Sufficient time in the RFP schedule is necessary to allow those bidders interested in proposing LNG fuel supply to compete with those offering alternatives such as LPG, where there already exists some of the LPG infrastructure necessary to meet the RPF requirements.

#### 2. The need to supply the natural gas volumes stated in the RFP are unsupported and problematic given that PREPA does not make any commitments to purchase a minimum amount of natural gas during the 5 year fuel supply agreement.

The following supplier question and PREPA response regarding investment recovery was provided to the bidders on September 10, 2018:

Supplier question: Under what scheme will PREPA remunerate the total of the investment required to guarantee the minimum storage, and the maximum regasification send out to attend units 5 and 6? Taking into account that there will be no take or pay provision allowed by the contract.

**PREPA** response: PREPA is seeking proposals for fuel supply and acknowledges that pricing will be determined by the supplier considering many factors including but not limited infrastructure development, capital cost of the fuel supply facilities, fuel source, transportation cost and logistics, cost of capital, operating costs. The proposals shall include whatever pricing is necessary for the proposing company to meet their specific needs. Proposers shall include detailed descriptions of their pricing proposal including any fixed and variable costs they require to complete the project. The cost of the conversion of the existing PREPA facilities shall be included in the pricing proposals with the expectation that the recovery of all of these costs will be identified and only included in the initial 5 year term of the agreement in the form of a fixed capacity payment. The fuel cost payment is not intended to be on a take or pay basis requiring minimum annual fuel delivery. However, reasonable alternatives to these payment structures will be considered to meet the project objectives.

Without adding to the RFP a minimum natural gas take or other condition that provides for capital cost recovery of new fuel supply infrastructure, the proposer has no assurance that it will recover its investment cost. As such, PREPA should at least demonstrate that the RFP fuel storage and supply requirements, which are based on San Juan units 5 and 6 operating at 85% capacity factor (which are far greater that historical capacity factors), are based on its overall generation plans and projections for the future, including its planned privatization of generation assets, generation mix targets, and grid transformation (which may include mini grids with certain amounts of generation required to be within each mini grid). This would allow bidders to better evaluate the risk that PREPA would purchase dramatically lower fuel quantities, or even no quantities, instead of the amounts assumed in the RFP. Without an understanding of the likely amounts of natural gas consumption at San Juan 5 and 6 units, LNG supply concepts that require significant infrastructure, which may be optimal for PREPA, may not be identified, evaluated, and proposed.

# 3. Certain commercial terms in the RFP and the draft Fuel Sale and Purchase Agreement ("FSPA") are undefined or inconsistent with typical fuel supply agreements, resulting in unevaluated risks that should otherwise be assessed so as to be able to offer credible fuel supply pricing.

In addition to the above concerns regarding minimum natural gas take, the following aspects of the RFP and FSPA do not allow for the development of firm fuel supply pricing (Note – Items a and d below are issues in which we submitted related questions to PREPA but did not receive a response):

a. The FSPA does not appear to have any fixed date or any penalties tied to achieving the start of the Firm Supply Period. Firm dates and penalties are typical for infrastructure construction and supply delivery agreements to ensure that proposal completion and supply dates are not artificially low in order to increase selection prospects.

b. FSPA section 40 under Bonds, Seller is to provide both a Performance Bond and Payment Bond, but there is no mention of what should Seller assume regarding PREPA financial condition and/or credit support for PREPA's obligations. The following supplier question and PREPA response regarding PREPA credit was provided to the bidders on September 15, 2018:

Supplier question: What credit support will be provided by PREPA to the winning bidder?

**PREPA response:** This RFP contemplates a bilateral credit support structure to be negotiated between the parties. Any credit support structure incorporated into the agreement will require approval by the Financial Oversight and Management Board as part of the statutory review process.

Since it is uncertain as to whether or not any PREPA credit support will ultimately be provided the credit risk cannot be properly evaluated.

c. The following supplier question and PREPA response regarding termination of contracts was provided to the bidders on September 10, 2018:

Supplier question: RFP section 10, item S states "The office of the Chief of Staff shall have the authority to terminate this Contract at any time." Please describe the conditions in which such termination can be made and amounts payable to the Seller for costs or commitments incurred before such termination.

PREPA Response: Addendum 8, Attachment 1, Item 35: This clause is a requirement of the Memorandum No. 2017-001, Circular Letter 141-17 of the Office of the Chief of Staff of the Governor of Puerto Rico and the Office of Management and Budget in all governmental contracts. The memorandum doesn't establish any condition, right or limitations in case of termination. Notwithstanding, in case of termination by the Office of the Chief of Staff the contractor has the same rights that in the case of termination for convenience by PREPA, that is the compensation for services rendered under the agreement until the termination date.

Termination of the FSPA for convenience at any time puts any investment made prior to delivery of services (i.e. fuel deliveries) at risk. We don't foresee that LNG infrastructure would be built with this termination possibility.

d. The RFP does not make clear how the planned generation privatization may impact the fuel supply agreement. The following supplier question and PREPA response regarding planned generation privatization was provided to the bidders on September 15, 2018:

Supplier question: How does this process and the investment in the San Juan power plant, align with the goals of privatization of PREPA's assets? What risk would reside with the Contractor in the event the San Juan site/power plant is sold to a 3rd party as part of privatization?

PREPA response: This RFP is being pursued independent of the privatization efforts, though fundamentally the objectives of this procurement support PREPA's vision for an electric system that is Customer Centric, Reliable, and Sustainable, while promoting financial viability and economic growth. This RFP is likely to economically advantage the San Juan site/power plant versus its current position related to other power supply options on the island. Any potential or future transaction involving the San Juan site or facility would be governed by the laws of Puerto Rico, and potentially subject to Title III proceedings under PROMESA. As with any transaction, it is the responsibility of the counterparties to evaluate and understand the risks associated with the terms and conditions of the agreement. PREPA recommends potential counterparties seek the advice of counsel to identify and evaluate the risk specific to their own situation.

It is very possible that the timelines for the privatization of PREPA generation assets and this RFP process will overlap, creating uncertainty for each process. Additionally, a possible outcome could result in a new owner and plan for San Juan 5 and 6 that would negatively affect the fuel supply agreement.

Although bidders are free to submit proposals with terms that are vastly different than what is stated in the RFP, we believe the RFP should have certain elements that must be met so that bidders have greater certainty as to what is most beneficial to PREPA and what must absolutely be included in a proposal. This would allow bidders to focus their proposal efforts on concepts that most closely meet PREPA's needs.

Furthermore, this kind of RFP process with the above unresolved key issues is likely to generate responses only from a very limited number of bidders that are not concerned about the about the key issues, believing that they can submit a proposal around a concept that they already have prepared, then be selected to participate in the subsequent evaluation rounds, and later radically change their proposal after PREPA addresses the key issues. In addition, the unresolved key issues are also certain to discourage some bidders who take RFPs seriously from participating because meeting the conditions of the RFP is not feasible.

Either way, it is unlikely that PREPA will receive a favorable proposal for LNG fuel supply that will be approved, financed, and completed so as to achieve PREPA's goal of reducing fuel oil fired generation and lowering its cost of generation. In addition, both of the above concerns make it unlikely that a loosely drawn RFP process will result in the best lowest cost, quickest, and most efficient solution for Puerto Rico and for PREPA customers. Perhaps could consider revising or revising the process; in such an event we would be interested in further participating in the process.

Sincerely,

Rick Sierra Arctas Capital Group LP



### Swine Waste Bio-Gas Support Document

Support document:

There is no other Anaerobic Co-Digestion system like this in use anywhere on the planet. The resulting volume is far beyond the production volumes of any other Anaerobic Co-Digester system. As the result, we are able to produce volumes of to support this PREPA RFP.

This letter is produced to support the production methods and Feedstock Content for D-3 RIN Qualification of Bio-Gas from Swine Manure. Swine Manure is a D3 RIN qualified substrate.

This is an expansion of the engineering study compiled by Dr. Teng Teeh Lim PhD, P.E. of the University of Missouri Agriculture Studies Department.

This Anaerobic Co-Digestion Process is a Patent Pending Process and an industry disruptor as well as having the ability to "Give Rise" to a new industry for the United States of America.

The process involves the collection of Hog Manure from various Swine Farms thus replacing hundreds of jobs, which were lost to Foreign Competition. There are 2160 Hog Farms in North Carolina.

Through Renewable Energy Swine Manure Bio-Gas; we have the potential to create thousands of new jobs. Renewable Energy Careers are the largest new industry Job Generator.

In the body of the Report; it mentions that we are utilizing Anaerobic Co-Digestion. This is co-digestion of Hog Manure and an Additive. The additive is

Page 1 of 2 Support Document

Support Document cont:

produced directly from Hog Manure. We are basically feeding Fresh Hog manure to a minute organism. This organism "Feeds Upon" the Hog Manure and grows. This Organism grows from miniscule in size to  $\sim 1/2$ " over a 13 day period. This organism Converts and Concentrates 3 times it's weight in Hog Manure. For every three gallons of Hog Manure there is a yield of one Gallon of Mature Organism.

Once the Organism reaches maturity after 13 days of Feeding Upon Hog Manure; it is harvested and placed into the Anaerobic Co-Digestion process.

The result is 12.5 Cubic feet of Bio-Gas for every gallon of Volatile Solids Destroyed and converted into Renewable Energy Bio-Gas.

There is no other system like this in use anywhere on the planet. The resulting volume is far beyond the production volumes of any other Anaerobic Co-Digester system.

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Page 2 of 2 Support Document



Lakeside Renewables, Inc. Bio-Gas Supply Proposal

Parties of the Proposal.

Party #1: Listed as: Puerto Rico Electric Power Authority; Here in after referred to as "PREPA".

Party #2: Listed as: Lakeside Renewables, Inc. Here in after referred to as "Lakeside".

The proposal:

To Provide "PREPA" up to 8,220 Decca Therms per day; of Bio-Gas derived from Swine Manure and; for the duration of 5 years in accordance with RFP81412.

Scope of proposal:

a). "PREPA" shall purchase all quantities of Renewable Energy Swine Manure Bio-Gas; loaded as freight on board; as Liquefied Renewable Bio-Gas; at the Port of Wilmington, North Carolina or any port chosen by "Lakeside", The freight carrier number to be determined at a later date.
b). "Lakeside" shall deliver Bio-Gas or Renewable Gas, with minimum content standards as defined in article #6; attached here-with.
c), "Lakeside" may elect to deliver said Bio-Gas via directed gas line injection from North Carolina to any port having gas transportation pipeline service, at the sole discretion of "Lakeside". The minimum directed Bio-Gas caloric value shall be adhered to in accordance with attachment #4.

d), "PREPA" shall convey payment via bank wire to an account as directed by "Lakeside", prior to freight departure from the Port of Wilmington., North Carolina or other port as directed by "Lakeside".
e). "Lakeside" shall bare the cost of transport and insurance of all quantities of Bio-Gas from departure to the port of San Juan, Puerto Rico, through to the completion of the off loading process.

Page 1 of 5 Proposal

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f). "PREPA" shall provide, facilitate and bare the cost of any and all costs of decentering, off loading, gas drying or conditioning of gas as delivered to the port and stored upon shipment arrival to the Port of San Juan.

g) "PREPA" shall be responsible for timely off loading and storage of said Bio-Gas upon shipment arrival. The off loading time shall be in accordance with normal off loading operations as determined by the carrier of this Bio-Gas. Any cost associated with additional time delays beyond this normal off loading duration shall paid by "PREPA" directly to the shipment carrier.

h). "PREPA" shall not direct this Bio-Gas or Gas to any electrical production facility other than Power Production stations # 5 and #6 located at or near the Port of San Juan, Puerto Rico.

l). "Lakeside" shall convey to "PREPA" all USEPA certifications of said Bio-Gas being a "Renewable Energy Compliant" alternative fuel as defined under the USEPA Renewable Fuel Standards.

j). "Lakeside" shall make every effort at their sole discretion to deliver the initial quantities of Bio-Gas to the Port of San Juan no later than the start of the third quarter of 2019.

k). "Lakeside" shall be granted an undetermined time frame to deliver up to 8,220 Dekka Therms of Bio-Gas or Gas to "PREPA"; but no later than the beginning of the first quarter of the third year of the is 5 year agreement.l). "PREPA" shall grant 3 (three) contract extensions, of 5 year durations for this Bio-Gas supply.

Compensation:

a). The price as delivered F.O.B. San Juan, Puerto Rico shall be \$30 per Dekka Therm of Swine Manure Bio-Gas; or rather Directed Gas Line Injected "Bio-Gas" as described in the parameters above.
b). "PREPA" shall issue and retain all associated Renewable Energy Certificates it generates from Electrical Generation at Power Plants #5 and #6, San Juan, Puerto Rico.

c). "PREPA" may sell such Renewable Energy Certificates on the open market at it's sole discretion. Any profits realized shall be the property of "PREPA".

d). "PREPA" shall wire transfer the sum of \$6,000,000 USD to an account as directed by "Lakeside" no later than 30 days after acceptance of this offer.e). This sum is advance payment of a determined volume of Bio-Gas. All such Bio-Gas shipments shall be paid in advance of departure from the Port of Wilmington, NC or other port as directed by "Lakeside".

Page 2 of 5 Proposal

9/24/18

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f). The initial payments for deliveries of quantities of Bio-Gas shall be deducted from this first bank wire until the amount has reached a zero (0) balance. Upon being drawn down to zero balance, addition advance payments shall be wired to the Bank Account as directed by "Lakeside". The additional payments shall be in the amount for all quantities loaded onto shipping vessels at the port. No quantities of Bio-Gas as loaded upon shipping vessel shall depart the port without prior payment having been received by "Lakeside".

For example: should a shipping vessel carry 20,550 Dekka Therms FOB, the amount due is: \$616,500.00 USD. The billed amount will be deducted from the initial \$6MM. Thus leaving a balance of \$5,383,500 in escrow. Should the deduction create a balance owed, then "PREPA" shall wire this amount immediately to the "Lakeside" account to prevent shipment departure delays.

Article # 1. This agreement **Shall Not** include any rights what so ever to any "Patents" nor "Patents Pending" nor "Trade Secrets of any kind" related to the Production of Bio-Gas by "Lakeside" nor affiliates of "Lakeside".

Article # 2. All Non Compete Non Disclosure and Non Circumvent agreements signed by either party shall survive this Agreement.

Article # 3. Should "Lakeside" decide to sell it's self to any other entity at any time during the life of this contract; then the terms and conditions of this contract shall convey; intact with this agreement; through to the buyers if provided they maintain all parameters of this agreement.

Article # 4. Dekka Therm shall mean a unit of measurement that describes Bio-Gas or Gas which is 1 million cubic feet.

Article # 5. Bio-Gas shall have a caloric value of not less than 980 British Thermal Units per Cubic Foot.

Article # 6 as follows:

Hydrogen Sulfide: (H2S) Less than or equal to 0.25 grain/100SCF.
Mercaptan: Shall not exceed 0.5 grain/100 SCF
Total Sulfur: Shall not exceed 10 grain/100 SCF
Water: Less than 7 pounds/ MMSCF at dry conditions (14.73 psia at 60 degrees F)

Page 3 of 5 Proposal

9/24/18

2.A.72 -----

**CHDP:** Not greater than 20 F.

Carbon Dioxide (C02): Not more than 2° by volumetric basis.

**Oxygen:** Not more than 0.2° by volumetric basis.

**Carbon Monoxide (CO):** Not more than 0.1% by volume.

Total Inerts: Not more than 4.8% by volumetric basis.

Hydrogen: No more than 600 ppm.

Solid Particle Size: Gas filtration is required and shall be sufficient to remove 99.99% of solid particles 3 microns or larger.

**Dust, Gums & Solid Matter:** The gas shall be free of dust, gums, gum-forming constituents, or other liquid or solid matter which might become separated from the gas in the course of transportation through pipelines.

**Biologicals:** Gas, including any associated liquids, shall not contain any micro-biological organisms exceeding  $4 \times 10^4 \text{ scf}$  (qPCR per APB, SRB, IOB group), active bacteria or bacterial agents > 0.2 microns.

**Organic Silicon (Siloxanes):** Total Organic Silicon (siloxanes) shall not be greater than 0.40 mg of SJ/Nm<sup>3</sup>.

**Odorization Masking/Fading Agents (VOC):** Gas shall be free of agents, compounds or the like which will interfere with the process of the human olfactory process in the recognition of odorized natural gas through bonding with the odorant or causing interference with the human olfactory senses.

**VOC:** Alternative Gas shall be free from any halogenated compounds that when, through the process of combustion, form dioxins.

9/24/18

Page 4 of 5 Proposal

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Date: 9/24/18

Lakeside Renewables Inc. Mick El-Massri, President As Authorized Signatory

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Page 5 of 5 Proposal



September 25<sup>th</sup>, 2018

Puerto Rico Electric Power Authority RFP 81412

Re: Request for Proposals for Fuel Supply in the North and Conversion of San Juan Units 5 and 6 issued by Puerto Rico Power Authority (PREPA) on July 30, 2018 (RFP 81412)

Dear Sirs,

We refer to RFP 81412 process. In accordance with your invitation, we are pleased to submit on behalf of Naturgy Group our proposal in accordance with the terms of such RFP.

In submitting our proposal, we confirm that the information submitted in such document is true and accurate and that the person signing this cover letter is authorized to submit it on behalf of Naturgy.

Additionally, as required, we identify this designated contact person for the purpose of this RFP process and include a table of contents of our proposal.

### **Gregorio Morales Schmid**

Global Head of LNG Origination and Business Development Av. San Luis 77 28033 Madrid Spain Email: gmorales@naturgy.com Phone +34 91 589 2993

Yours sincerely,

Gregorio Morales Schmid



### Contents

1.	EXECUTIVE SUMMARY	3
2.	EXPERIENCE AND CAPACITY	5
2.1.	Introduction to Naturgy	5
2.: 2.: 2.: 2.: 2.: 2.: 2.: 2.:	Naturgy's experience in LNG services         2.1.       Experience in LNG procurement and supply         2.2.       Experience in LNG liquefaction terminals         2.3.       Experience in LNG delivery         2.4.       Experience in LNG shipping & logistics         2.5.       Experience in LNG Ship-to-Ship (STS) transfers         2.6.       Experience in Regasification terminals         2.7.       Experience in Floating Storage and Regasification Units (FSRU)         2.8.       Experience in gas transmission and distribution	5 6 7 10 11 11 11
2.4	Samples of similar engagements         4.1.       Similar engagement 1 – EcoElectrica Regasification Expansion (Puerto Rico)         4.2.       Similar engagement 2 – Sagunto LNG Regasification and Storage Terminal (Spain)         4.3.       Similar engagement 3 – Bahia Blanca and Escobar FSRU Terminals (Argentina)	12 12 14 15
2.5.	Naturgy's staff and their technical expertise	
2.6.	Key staff for this project	16
2.7.	Local subcontractors and parties	
<ul> <li>2.7.</li> <li>2.8</li> <li>2.8</li> <li>2.8</li> <li>2.8</li> <li>2.8</li> <li>2.8</li> <li>2.8</li> <li>2.8</li> </ul>	Financial Capacity & Resources.         3.1.       Financial Statistics.         3.2.       Ratings	<b>17</b> 17 18 18 18
<b>2.8.</b> 2.8 2.8 2.8 2.8 2.8 2.8	Financial Capacity & Resources.         3.1.       Financial Statistics.         3.2.       Ratings	<b>17</b> 17 18 18 18 18
<b>2.8.</b> 2.8 2.8 2.8 2.8 2.8 2.8	Financial Capacity & Resources.         3.1.       Financial Statistics.         3.2.       Ratings         3.3.       Risk.         3.4.       Financial planning for this project         3.5.       Insurance letter	17 17 18 18 18 18
<b>2.8.</b> 2.8 2.8 2.8 2.8 2.8 2.8 3.	Financial Capacity & Resources.         3.1.       Financial Statistics.         3.2.       Ratings         3.3.       Risk.         3.4.       Financial planning for this project.         3.5.       Insurance letter.         3.6.       Statistics statistics         3.7.       Insurance letter.         3.8.       Financial planning for this project.         3.7.       Insurance letter.         TECHNICAL PROPOSAL         Naturgy's proposed solution to this project.         Technical description of the solution         .1.       San Juan harbor & infrastructures         .2.       Supply and logistics         .3.       Floating Storage and Regasification Barge (FSRB)         .4.       Mooring system         .5.       Natural gas unloading system.         .6.       Send-out Gas Pipeline and aerial pipe rack         .7.       Metering station         .8.       Rest of components:	17 18 18 18 19 19 20 20 22 23 26 28 30 31 33

The second states and second



3.4. 3.4. 3.4. 3.4. 3.4. 3.4.	Term Delivery Point Title and Risk Nomination	36 36 36 36 36
3.5.	Mitsubishi conversion of San Juan Units 5 and 6	37
3.6.	Assumptions, Clarifications and Exclusions	37
4. P	ICE PROPOSAL	38
<b>4.1.</b> 4.1.1 4.1.2 4.1.3	Option #2. FSRU + FSRB Conversion Units Cost	38 38 38
4.2.	Price Proposal Component 2 – Unit cost	
4.3. 4.4.	Price Proposal Component 3 – Applicable indices Payment Terms	
5. Al	PROACH AND METHODOLOGY	39
	Aethodologies to be used for the project execution Engineering Environmental assessment and mitigation measures Quality Assurance and Control Procurement Construction, transportation, and assembly Commissioning and start-up Operation & Maintenance Activities	39 40 41 41 42 42
5.3.1 5.3.2 5.3.3 5.3.4 5.3.5	ermitting Permitting Process Project Development and Permitting Phases Permitting timeline Letter of Support from Puerto Rico Port Authority: Demonstration of Jones Act compliance	43 45 48 50 50
	roject Schedule	
5.5.	egislation and applicable regulations	51
ANNEX	- Insurance Letter	
ANNEX	– FERC-NEPA permitting path	

ANNEX III – Local NEPA permitting path

ANNEX IV – Letter Puerto Rico Port Authority

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25/09/2018

PROPOSAL FOR A FUEL SUPPLY

Puerto Rico Electric Power Authority (RFP 81412)

Fuel Supply in the North and Conversion of San Juan Units 5 and 6

San Juan, Puerto Rico



### Contents

1. E	EXECUTIVE SUMMARY	. 3
2. E	EXPERIENCE AND CAPACITY	. 5
2.1.	Introduction to Naturgy	5
2.2.	Naturgy's experience in LNG services	5
2.2		
2.2		
2.2		
2.2		
2.2 2.2		
2.2		
2.2		
2.3.	Naturgy's presence in Puerto Rico	
2.4.	Samples of similar engagements	
2.4.		
2.4		
2.4		
2.5.	Naturgy's staff and their technical expertise	16
2.6.	Key staff for this project	16
2.7.	Local subcontractors and parties	17
2.8.	Financial Capacity & Resources	
2.8		
2.8		
2.8		
2.8 2.8		
2.0		10
3. 1	TECHNICAL PROPOSAL	19
3.1.	Naturgy's proposed solution to this project	19
3.2.	Technical description of the solution	20
3.2	.1. San Juan harbor & infrastructures	20
3.2		
3.2		
3.2	6 7	
3.2 3.2		
3.2		
3.2		
3.2		

1



3.3.	Naturgy alternative for a regasification plant onshore
3.4.	Natural gas supply
3.4.	
3.4.	
3.4. 3.4.	
3.4.	
3.4.	
3.5.	Mitsubishi conversion of San Juan Units 5 and 6
3.6.	Assumptions, Clarifications and Exclusions
4. P	RICE PROPOSAL
4.1.	Price Proposal Component 1 – Fixed annual capacity payment
4.1.	
4.1.	
4.1.	
4.2.	Price Proposal Component 2 – Unit cost
4.3.	Price Proposal Component 3 – Applicable indices
4.4.	Payment Terms
5. A	PPROACH AND METHODOLOGY
5. A 5.1.	PPROACH AND METHODOLOGY
5.1.	Introduction to Naturgy's approach       39         Methodologies to be used for the project execution       39         1.       Engineering         39
<b>5.1.</b> <b>5.2.</b> 5.2. 5.2.	Introduction to Naturgy's approach       39         Methodologies to be used for the project execution       39         1. Engineering       39         2. Environmental assessment and mitigation measures       40
<b>5.1.</b> <b>5.2.</b> 5.2. 5.2. 5.2.	Introduction to Naturgy's approach       39         Methodologies to be used for the project execution       39         1. Engineering       39         2. Environmental assessment and mitigation measures       40         3. Quality Assurance and Control       41
<b>5.1.</b> <b>5.2.</b> 5.2. 5.2. 5.2. 5.2.	Introduction to Naturgy's approach       39         Methodologies to be used for the project execution       39         1. Engineering       39         2. Environmental assessment and mitigation measures       40         3. Quality Assurance and Control       41         4. Procurement       41
<b>5.1.</b> <b>5.2.</b> 5.2. 5.2. 5.2. 5.2. 5.2.	Introduction to Naturgy's approach39Methodologies to be used for the project execution391.Engineering392.Environmental assessment and mitigation measures403.Quality Assurance and Control414.Procurement415.Construction, transportation, and assembly42
<b>5.1.</b> <b>5.2.</b> 5.2. 5.2. 5.2. 5.2.	Introduction to Naturgy's approach39Methodologies to be used for the project execution391.Engineering392.Environmental assessment and mitigation measures403.Quality Assurance and Control414.Procurement415.Construction, transportation, and assembly426.Commissioning and start-up42
<b>5.1.</b> <b>5.2.</b> 5.2. 5.2. 5.2. 5.2. 5.2. 5.2. 5.2.	Introduction to Naturgy's approach39Methodologies to be used for the project execution391.Engineering392.Environmental assessment and mitigation measures403.Quality Assurance and Control414.Procurement415.Construction, transportation, and assembly426.Commissioning and start-up427.Operation & Maintenance Activities43
<b>5.1.</b> <b>5.2.</b> 5.2. 5.2. 5.2. 5.2. 5.2. 5.2. 5.2.	Introduction to Naturgy's approach39Methodologies to be used for the project execution391.Engineering392.Environmental assessment and mitigation measures403.Quality Assurance and Control414.Procurement415.Construction, transportation, and assembly426.Commissioning and start-up427.Operation & Maintenance Activities43Permitting
<b>5.1.</b> <b>5.2.</b> 5.2. 5.2. 5.2. 5.2. 5.2. 5.2. <b>5.3.</b> 5.3.	Introduction to Naturgy's approach39Methodologies to be used for the project execution391.Engineering392.Environmental assessment and mitigation measures403.Quality Assurance and Control414.Procurement415.Construction, transportation, and assembly426.Commissioning and start-up427.Operation & Maintenance Activities431.Permitting Process43
<b>5.1.</b> <b>5.2.</b> 5.2. 5.2. 5.2. 5.2. 5.2. 5.2. 5.2.	Introduction to Naturgy's approach39Methodologies to be used for the project execution391.Engineering392.Environmental assessment and mitigation measures403.Quality Assurance and Control414.Procurement415.Construction, transportation, and assembly426.Commissioning and start-up427.Operation & Maintenance Activities431.Permitting432.Project Development and Permitting Phases45
<b>5.1.</b> <b>5.2.</b> 5.2. 5.2. 5.2. 5.2. 5.2. 5.2. <b>5.3.</b> 5.3. 5.3.	Introduction to Naturgy's approach39Methodologies to be used for the project execution391. Engineering392. Environmental assessment and mitigation measures403. Quality Assurance and Control414. Procurement415. Construction, transportation, and assembly426. Commissioning and start-up427. Operation & Maintenance Activities439. Permitting Process432. Project Development and Permitting Phases438. Permitting timeline48
<b>5.1.</b> <b>5.2.</b> 5.2. 5.2. 5.2. 5.2. 5.2. 5.2. <b>5.3.</b> 5.3. 5.3. 5.3.	Introduction to Naturgy's approach39Methodologies to be used for the project execution391.Engineering.392.Environmental assessment and mitigation measures403.Quality Assurance and Control414.Procurement.415.Construction, transportation, and assembly426.Commissioning and start-up.427.Operation & Maintenance Activities439.Permitting431.Permitting Process.432.Project Development and Permitting Phases453.Permitting timeline484.Letter of Support from Puerto Rico Port Authority:50
<b>5.1.</b> <b>5.2.</b> 5.2. 5.2. 5.2. 5.2. 5.2. 5.2. 5.2.	Introduction to Naturgy's approach39Methodologies to be used for the project execution391.Engineering392.Environmental assessment and mitigation measures403.Quality Assurance and Control414.Procurement415.Construction, transportation, and assembly426.Commissioning and start-up427.Operation & Maintenance Activities431.Permitting Process432.Project Development and Permitting Phases453.Permitting timeline484.Letter of Support from Puerto Rico Port Authority:50
<b>5.1.</b> <b>5.2.</b> 5.2. 5.2. 5.2. 5.2. 5.2. <b>5.3.</b> 5.3. 5.3. 5.3. 5.3. 5.3.	Introduction to Naturgy's approach39Methodologies to be used for the project execution391. Engineering392. Environmental assessment and mitigation measures403. Quality Assurance and Control414. Procurement415. Construction, transportation, and assembly426. Commissioning and start-up427. Operation & Maintenance Activities431. Permitting Process432. Project Development and Permitting Phases453. Permitting timeline484. Letter of Support from Puerto Rico Port Authority:505. Demonstration of Jones Act compliance50
<ul> <li>5.1.</li> <li>5.2.</li> <li>5.2.</li> <li>5.2.</li> <li>5.2.</li> <li>5.2.</li> <li>5.2.</li> <li>5.2.</li> <li>5.2.</li> <li>5.3.</li> <li>5.3.</li> <li>5.3.</li> <li>5.3.</li> <li>5.3.</li> <li>5.4.</li> <li>5.5.</li> </ul>	Introduction to Naturgy's approach39Methodologies to be used for the project execution391. Engineering392. Environmental assessment and mitigation measures403. Quality Assurance and Control414. Procurement415. Construction, transportation, and assembly426. Commissioning and start-up427. Operation & Maintenance Activities431. Permitting432. Project Development and Permitting Phases453. Permitting timeline484. Letter of Support from Puerto Rico Port Authority:505. Demonstration of Jones Act compliance50Project Schedule
<ul> <li>5.1.</li> <li>5.2.</li> <li>5.2.</li> <li>5.2.</li> <li>5.2.</li> <li>5.2.</li> <li>5.2.</li> <li>5.2.</li> <li>5.2.</li> <li>5.3.</li> <li>5.3.</li> <li>5.3.</li> <li>5.3.</li> <li>5.4.</li> <li>5.5.</li> <li>ANNE:</li> </ul>	Introduction to Naturgy's approach39Methodologies to be used for the project execution391.Engineering392.Environmental assessment and mitigation measures403.Quality Assurance and Control414.Procurement415.Construction, transportation, and assembly426.Commissioning and start-up427.Operation & Maintenance Activities431.Permitting432.Project Development and Permitting Phases432.Project Development and Permitting Phases453.Permitting timeline484.Letter of Support from Puerto Rico Port Authority:505.Demonstration of Jones Act compliance50Project Schedule50Legislation and applicable regulations51

ANNEX IV – Letter Puerto Rico Port Authority



### 1. Executive Summary

In reply to the *Request for Proposal for the Fuel Supply in the North and Conversion of San Juan Units 5 and 6 issued by Puerto Rico Electric Power Authority (PREPA) on July 30, 2018 (RFP) 81412, Naturgy is pleased to submit this non-binding proposal confirming our interest in the contract to provide natural gas supply and the fuel conversion works required of San Juan Units 5 and 6.* 

Naturgy proposes a technical solution based on the use of a Floating Storage and Regasification Barge with a short gas pipeline connection to the combined cycle units 5 & 6 of the San Juan power plant ("Units").

The basic configuration of the aforementioned technical solution consists of the following elements:

- The 75,000 m3 Floating Storage and Regasification Barge (FSRB).
- The mooring and berthing system for the FSRB and LNG carrier.
- The unloading platform and pipe rack connection for the gas pipeline from the FSRB to the San Juan power plant.
- The gas metering station.
- The conversion of San Juan Units 5 and 6

In order to speed up the delivery of natural gas to the San Juan power plant, Naturgy offers a readily available 170,000 m<sup>3</sup> Floating Storage and Regasification Unit (FSRU) from its fleet while the FSRB is being built. This system will provide a cost effective gas solution to Puerto Rico while reducing the total investment cost and optimizing the time to market.

Included with the proposal is Naturgy's letter to the Puerto Rico Ports Authority (PRPA) communicating this solution as part of the process of obtaining its support. The final implementation will be conditioned upon the approval of the PRPA.

The FSRB (and temporally the FSRU) will be moored in the vicinity of the power plant at Puerto Nuevo to shorten as much as possible the gas pipeline route. This site should gather the necessary conditions to enable the mooring of the FSRB, the safe arrival and berthing of standard size LNG carriers (up to 176,000 m<sup>3</sup>) and allow for the associated LNG shipping logistics.

In summary, the solution presented by Naturgy offers several advantages:

- Since only a small piece of land is required, there will be fewer land property agreements.
- Reduced overall area impact.
- Natural gas is competitive in price compared with diesel and other fossil fuels for the intended power project.
- It provides a cost effective regasification alternative.
- The project enables an unbeatable early deployment of natural gas solution in Puerto Rico.

In addition to the installation and operation of this solution, Naturgy offers the LNG supply and logistics to enable the gas supply to the San Juan power plant.

As further detailed, Naturgy has a great deal of expertise and capabilities in the LNG industry, operating in entire integrated value chain (supply, logistics, regasification and delivery). Furthermore, Naturgy is a reliable LNG supply partner, with a current portfolio of more than 30 bcma, and has been serving several clients around the world.

In complying with the RFP requirements, Naturgy is in conversation with the Units' conversion subcontractor Mitsubishi with the intention to include in Naturgy's offer the Unit conversion works required by PREPA. Since Naturgy received Mitsubishi proposal recently, unfortunately it has not yet defined the details of such services and their associated costs with Mitsubishi and therefore cannot include them in this offer. However, Naturgy is committed to continuing its discussion with Mitsubishi to offer to PREPA a definitive proposal.



Finally Naturgy would like to state, that this proposal is not a binding offer. The terms set forth herein are intended to provide a basis for a proposal of a natural gas supply and may allow the parties to enter into a negotiation, and possible conclusion of a definitive agreement, in which terms shall at all times be subject to review, discussion, revision and agreement to the mutual satisfaction of PREPA and Naturgy. As previously described, Naturgy confirms that there are some issues still pending. As such, Naturgy reserves the right to update or modify this proposal with the intention to provide a complete proposal to PREPA.



### 2. Experience and Capacity

### 2.1. Introduction to Naturgy

Naturgy is one of the leading multinational companies in the energy sector and a pioneer in integrating the gas and electricity sector we head in Latin America and Spain. It is present in 30 countries, operating in both regulated and deregulated gas and electricity markets, with almost 23 million customers and an installed capacity of 15.4 GW.

It is the largest integrated gas and electricity company in Spain and Latin America, the leader in the natural gas sales market in the Iberian Peninsula, and it is the biggest distributor of natural gas in Latin America. With a fleet of 11 LNG tankers and 2 FSRU, it is a company of reference for LNG/NG in the Atlantic and Mediterranean basins, where it operates around 30 bcma.

### 2.2. Naturgy's experience in LNG services

Naturgy has extensive experience in design, construction and operation of all types of LNG infrastructures in the LNG value chain, as well as supplying LNG for various types of clients. Naturgy's services include:

- LNG procurement and supply
- LNG liquefaction terminals
- LNG delivery
- LNG shipping and logistics
- LNG Ship-to-Ship (STS) transfers
- LNG regasification terminals
- FSRU
- Gas transmission and distribution

The result of this robust position combined with its long-term LNG portfolio gives Naturgy an extraordinary position to secure the LNG deliveries to Puerto Rico.

### 2.2.1. Experience in LNG procurement and supply

Naturgy has a flexible, diversified and competitive gas supply portfolio of 30 bcma. Naturgy's gas procurement is broken down into 36% natural gas and 64% LNG, which provides a great flexibility in terms of the end use of the gas.

Naturgy has procurement contracts with Algeria, Qatar, Egypt, Oman, Nigeria, Norway, Trinidad & Tobago, United States (Cheniere: Sabine Pass and Corpus Christi) and Russia (Yamal LNG).

This diverse portfolio of sources gives Naturgy the possibility of having LNG with different price indexations, flexibility and qualities, as well as offering its clients an enhanced security of supply and avoiding the problems of a single "unique" source of LNG.

The following is an illustration of Naturgy's main LNG supply origins.





Exhibit 1: Naturgy's main LNG origins

The experience that Naturgy has gained over its 170 years in the global market allows it to fully understand the unique needs of individual end users and adapt to them accordingly. Naturgy places personalized service to its customers at the forefront of its efforts, providing a secure and diversified supply to effectively fulfil its commitments.

### 2.2.2. Experience in LNG liquefaction terminals

Naturgy participated in the construction and operation of a liquefaction export terminal in Egypt. The processing capacity of the plant is 7.56 bcma, equivalent to 6.8 bcma of marketable natural gas with approximately 90% energy efficiency (input-output).



Below are some pictures of this liquefaction terminal.

Exhibit 2: Liquefaction plant in Damietta, Egypt

Naturgy also holds a stake in the Qalhat Liquefaction Plant in the Sultanate of Oman. Both the time period for the construction of the Qalhat plant and the start-up and first LNG production period marked a world record in the development of this type of facility.

The Qalhat Plant complements and significantly strengthens the business structure of Naturgy. Below is a picture of the plant:





Exhibit 3: Qalhat Liquefaction plant in the Sultanate of Oman

### 2.2.3. Experience in LNG delivery

Naturgy has been active in the LNG market for over 40 years, with 6.5 Mtpa currently marketed throughout the globe with large scale clients such as Gail India (India), KOGAS (Republic of Korea) and Minera Escondida (Chile). We also deliver to multiple mid-scale and small scale clients, both industrial and commercial, 74 of them being in Spain.

In fact, since 2012, Naturgy supplies LNG on a spot basis to EcoElectrica and natural gas to PREPA for its Costa Sur power plant in Puerto Rico.

### 2.2.4. Experience in LNG shipping & logistics

Naturgy has extensive experience in LNG shipping: starting in the early 70s, the company was one of the first to transport and deliver LNG by ship for commercial purposes. The initial routes were from ports in Libya and Algeria to the re-gasification port facilities in Spain.

With a current fleet of 11 LNG tankers and 2 FSRUs, Naturgy is one of the largest LNG operators in the world and leaders in the Atlantic basin and the Mediterranean. Naturgy's fleet consists of a variety of ships covering the majority of technologies in the market. The vessels range in size from 138,000 m<sup>3</sup> to 176,000 m<sup>3</sup>, with most of the available cargo containment systems. The following table summarizes Naturgy's fleet and its capacity:





Castillo de Villalba Capacity (100%) in m<sup>3</sup>: 136,089



Catalunya Spirit Capacity (100%) in m<sup>3</sup>: 136,048



Torben Spirit Capacity (100%) in m<sup>3</sup>: 173,560



Iberica Knutsen Capacity (100%) in m<sup>3</sup>: 136,048



Ribera del Duero Knutsen Capacity (100%) in m<sup>3</sup>: 170,809



La Mancha Knutsen Capacity (100%) in m<sup>3</sup>: 173,656



Golar Kelvin Capacity (100%) in m<sup>3</sup>: 159,462



Rioja Knutsen Capacity (100%) in m<sup>3</sup>: 173,656



Castillo de Mérida Capacity (100%) in m<sup>3</sup>: 178,818



Castillo de Caldelas Capacity (100%) in m<sup>3</sup>: 178,804



Hoegh Giant (FSRU) Capacity (100%) in m<sup>3</sup>: 170,108



Golar Ice Capacity (100%) in m<sup>3</sup>: 160,000

Exhibit 4: Naturgy's fleet (excluding the FSRU to be delivered by the end of 2018)

Naturgy's fleet, along with the geographical diversification of our gas business, offers a combined capacity of 1.8 million cubic meters and places the Naturgy Group in an excellent position to serve our customers. The map below illustrates some of these routes:





Exhibit 5: Example of current LNG supply routes to Naturgy's clients

Naturgy's Maritime Division counts with a vast experience in the following activities:

### **Technical, Operations, New Projects**

- Managing Time Charter Party contracts, managing all inspections, Dry Docks.
- Experience in all type of propulsion technologies and containment systems
- Monitoring bunker supplies, fuel optimization, consignment services, Heel management for ballast travel with 24/7 response capacity. Monitoring emissions of the fleet.
- Management of building new ships (experiences in the construction of 19 LNG carriers in five international tenders).
- Development of FSRU projects with more than 25 countries analyzed for the implementation of this solution.
- Floating LNG (FLNG) know how through the analysis of three international FEEDs.
- Optimization studies to obtain the optimal size and number of vessels needed, definition of operational thresholds for meteorological operation (waves, wind, currents, etc.) as well as requirements for tugs, practical, maneuvering strategies, optimization of mooring...
- Naturgy is present in most international organizations such as: OCIMF, SIGTTO, GIIGNL, SMGF, etc.

Naturgy is closely involved in the activity of its methane tankers, being responsible for insuring safe harbor to its owners. With this philosophy these are the activities developed by the Maritime Transport Division:

- Analyze the compatibility and mooring for all terminals visited by Naturgy's ships to obtain the optimal configuration for a safe berth for new and existing terminals
- Auditing terminal based on OCIMF recommendations
- Performing startups and cooling down of different terminals
- Develop and approve the measurement and quality in LNG contracts
- Checking the parameters affecting the energy delivered according to the quality/measurement contractual procedures and the gas specifications for each LNG delivery



- Approve the quantities of LNG delivered by solving any quality/measurement issues with the parties involved
- Inform commercial areas of any requests for gas compatibility

### **Chartering**

- Logistics studies to carry out the necessary fleet planning as well as optimization measures to improve the entire transport chain.
- Negotiate and contract the spot and short-term vessels required to ensure fleet capacity in Naturgy.
- Constant monitoring of the market and its variables

### **Quality and Measurement**

• Participate in European research projects on LNG measurement and collaborate in numerous international working groups for the drafting of industry standards

### 2.2.5. Experience in LNG Ship-to-Ship (STS) transfers

Naturgy was the first company in the world to perform a commercial Ship-to-Ship (STS) transfer operation. Naturgy currently conducts STS transfers at FSRU conventional terminals and in open waters.

Naturgy is one of the main suppliers of LNG to Argentina since 2009 with deliveries to both existing FSRUs, Bahia Blanca and Escobar, by STS transfers.

Naturgy has also handled STS transfer operations in Petrobras FSRUs in Brazil and in Mediterranean waters.

In early 2017 the participation of Naturgy in the STS transfer in Jamaica was crucial. In particular, Naturgy was the responsible of the development of all the operational manuals for allowing the STS transfer. Naturgy has also successfully discharged regularly in Jamaica in open waters, being the sole supplier of the terminal.

The Naturgy's experience of developing these projects, our diversified portfolio and our flexible logistics of vessels were essential for achieving success.

Below there is a picture of one of these STS open water transfers:





Exhibit 6: Open water STS transfer in Jamaica in June 2017

Thanks to this extensive background, Naturgy is prepared to develop a very detailed and efficient LNG trans-shipment plan that meets the requirements of the project.

### 2.2.6. Experience in Regasification terminals

Naturgy has been involved in the design, construction and operation of several regasification terminals and is involved in the operation of three of them, one being the EcoElectrica LNG terminal in Puerto Rico. The following is a summary of the characteristics of these plants:

Project	Characteristics	Tasks developed by Naturgy		
Guayanilla Bay, Puerto Rico	Max hourly capacity: 328,987 Nm <sup>3</sup> /h Vaporization: 4 x 93,000,000 Scf/day LNG storage capacity: 160,000 m <sup>3</sup> (1 tank)	Investment, Engineering, Construction, Operation		
Sagunto, Spain	Max hourly capacity: 1,000,000 Nm <sup>3</sup> /h LNG storage capacity: 600,000 m <sup>3</sup> (4 tanks)	Investment, Engineering, Construction, Operation		
Mugardos, Spain	Max hourly capacity: 412,800 Nm <sup>3</sup> /h LNG storage capacity: 300,000 m <sup>3</sup> (2 tanks)	Investment, Engineering, Construction, Operation		

Table 1: Summary of Naturgy's Regasification terminals

### 2.2.7. Experience in Floating Storage and Regasification Units (FSRU)

Naturgy has a combined experience of 13 years working with FSRUs, from concept to operation. Naturgy's experience in FSRU terminals involves not only supplying natural gas but doing so in situations where time to market was a key requirement. In the Bahia Blanca FSRU project (Argentina), which is further described in Section 2.4.2 Naturgy successfully developed a FSRU solution from concept to commissioning in nine months, without compromising its LNG industry safety track record.

### 2.2.8. Experience in gas transmission and distribution

Naturgy has also extensive experience in gas transmission and distribution projects in many countries. Naturgy is a leading company in natural gas transport and distribution, where gas pipelines play a fundamental role in its activity performance. In countries where Naturgy participates in the

11



distribution of natural gas, Naturgy has also participated in the design and construction of most of the gas and gas pipeline infrastructure. The following table summarizes Naturgy's gas sales and network

	Argentina	Brazil	Chile	Colombia	Spain	Italy	Mexico	Total
Gas activity sales (GWh)	68,699	103,408	44,083	26,832	177,391	3,821	49,597	473,831
Distribution Network (km)	24,656	7,147	6,850	21,469	51,016	7,167	19,914	138,220

Table 2: Naturgy's gas sales and distribution network (Source: Naturgy website)

Naturgy also supplies by truck LNG to more than 70 LNG satellite regasification plants for industrial customers in Spain.

### **2.3.** Naturgy's presence in Puerto Rico

In 2003, Naturgy acquired a 47.5% interest in EcoElectrica, located at Peñuelas. Its infrastructure consists of:

- LNG import terminal and regasification plant.
- 540 MW Combined Cycle Power Plant.

EcoElectrica supplies approximately 15% of Puerto Rico's demand for electric power.

### Supply of natural gas to PREPA

Naturgy also supplies natural gas to PREPA. Since 2012, Naturgy supplies natural gas to the Costa Sur power plant.

The additional vaporization capacity belonging to Naturgy and installed at the EcoElectrica terminal has been expanded to supply 100% of the needs of Costa Sur.

Naturgy is actively coordinating with PREPA to maximize the use of these facilities.

#### Natural gas distribution project

Since 2014, Naturgy has been developing a natural gas distribution project in the island which includes the construction of a Truck Loading Facility for LNG alongside the EcoElectrica terminal.

This project is an opportunity to promote the development of more eco-friendly energy supplies for Puerto Rico, apart from the opportunities it offers to improve competitiveness and security for the Puerto Rican industry.

### 2.4. Samples of similar engagements

In addition to the experience described previously, Naturgy has work on similar engagements to PREPA's current project. These projects are:

- 1. EcoElectrica Regasification Expansion (EPC, LNG supply, regasification, natural gas conversion)
- 2. Sagunto LNG Import Terminal (EPC, operation, LNG supply, regasification)
- 3. Bahia Blanca & Escobar (Engineering, LNG supply, FSRU)

Contact details are provided for each as references for the projects.

#### 2.4.1. Similar engagement 1 – EcoElectrica Regasification Expansion (Puerto Rico)

<u>Client name</u>: EcoElectrica L.P. <u>Contact person</u>: Carlos A. Reyes, General Manager of Operations <u>Contact details</u>: +1 787 487 6002



# Description of engagement or experience and objectives of the project including beginning and ending dates:

In 2010 PREPA was interested in analyzing the possibility of increasing the natural gas power in Puerto Rico and consequently:

- Reduce energy cost
- Promote smart energy consumption
- Protect the environment

The Costa Sur Power Plant was selected for the conversion since it was located near EcoElectrica's LNG facility which simplified the delivery of regasified natural gas to the plant.

## Examples of recommendations offered to the client and the results of the implementation of those recommendations:

Considering that the Costa Sur Power Plant is close to EcoElectrica's LNG facility and Naturgy owns the 47.5% of interest in EcoElectrica, both parties worked together to increase the LNG plant regasification capacity and install the gas metering equipment at Costa Sur. In this regard it was necessary to convert Costa Sur Power Plant, which burned FO#6 at that time.

As a result, Costa Sur has reduced its operating costs, increasing the efficiency and economic savings.

# Information regarding the project that would demonstrate successfully experiences by the client, as a result of the recommendations. This may include performance metrics and improvements:

Currently 820 MW out of a total of 1,090 MW uses natural gas. It is one of the bases of the generation on the island and provides flexibility by allowing the control of energy production. Costa Sur reassures power service to the Puerto Rico and provides more affordable energy.

**Description of key infrastructure programs or projects advanced as part of the engagement, if any:** EcoElectrica duplicated its LNG vaporization capacity up to 4 vaporizers of 93 MMscfd each (3 in operation and 1 in stand-by).





### Exhibit 7: Aerial view of PREPA's Costa Sur power plant in Guayanilla, Puerto Rico

### 2.4.2. Similar engagement 2 – Sagunto LNG Regasification and Storage Terminal (Spain)

<u>Client name</u>: SAGGAS <u>Contact person</u>: Santiago Alvarez Fernández, General Manager <u>Contact details</u>: <u>salvarez@saggas.com</u>, +34 961014220

# Description of engagement or experience and objectives of the project including beginning and ending dates:

As part of its 2002-2011 Gas & Electricity Energy Plan, the Spanish Government found it necessary to build a new LNG regasification terminal and power generation plant in Sagunto, Spain in order to guarantee a supply of gas and electricity. This project was then modified to a LNG regasification facility.

Examples of recommendations offered to the client and the results of the implementation of those recommendations:

Naturgy provided 100% of the project management services and supervision for engineering, construction, commissioning and start-up of the facilities.

Information regarding the project that would demonstrate successfully experiences by the client, as a result of the recommendations. This may include performance metrics and improvements:

Currently the regasification plant and power generation are in operation providing gas and electricity in daily basis.

Description of key infrastructure programs or projects advanced as part of the engagement, if any:

The Sagunto Regasification Plant was designed and built with the following characteristics:

- Minimum: 40,000 Nm<sup>3</sup>/h (0.35 bcma)
- Nominal:750,000 Nm<sup>3</sup>/h (6.57 bcma)
- Installed: 950,000 Nm<sup>3</sup>/h (8.32 bcma)
- LNG storage capacity 2 tanks 150,000 m<sup>3</sup>.

As a result of the expansion, two more 150,000  $\rm m^3$  LNG tanks were installed and vaporization capacity till 1,150,000  $\rm Nm^3/h.$ 





Exhibit 8: Aerial view of the Sagunto LNG Regasification and Storage Terminal in Spain

### 2.4.3. Similar engagement 3 - Bahia Blanca and Escobar FSRU Terminals (Argentina)

<u>Client name</u>: ENARSA/YPF <u>Contact person</u>: Francisco Alonso Gallego <u>Contact details</u>: <u>falonsog@naturgy.com</u> +34 915896119

## Description of engagement or experience and objectives of the project including beginning and ending dates:

Naturgy participated alongside ENARSA/YPF in analyzing the viability of setting up a fast track solution to import LNG to meet ENARSA/YPF's timeline, which meant a developing a solution from concept to commissioning in nine months.

# Examples of recommendations offered to the client and the results of the implementation of those recommendations:

After developing very detailed and sophisticated studies, and taking into account that Argentina had no LNG regasification terminals, the team concluded that the most reliable, efficient, and quickest solution was the use the of FSRU technology.

As a result, two FSRUs were installed, allowing the supply of LNG and covering the natural gas demand of the country. The team managed the installation and operation of the FRSUs and put in place a complex logistic program with partial deliveries.

Bahia Blanca was the first commercial FSRU. The project is now on its tenth year of successful operation.

Information regarding the project that would demonstrate successfully experiences by the client, as a result of the recommendations. This may include performance metrics and improvements:

The facilities allowed an average delivery of 6 bcma, avoiding the import of oil products and generating important savings.



#### Description of key infrastructure programs or projects advanced as part of the engagement, if any:

The solution consisted in the modification of an existing LPG jetty suitable to berth a FSRU during the winter season and capable of double banking a FSRU with a supply LNGC (which would periodically refill the FSRU's tanks).



Exhibit 9: Aerial view of the Bahia Blanca FSRU in Argentina

### 2.5. Naturgy's staff and their technical expertise

Naturgy has inside its main personnel the capabilities required for the development of every aspect of the LNG value chain, from design to construction and operation to maintenance of the facilities. The team has extensive experience in the management and execution of large-scale energy projects.

Naturgy has also provided consultancy services for successfully conducting from preliminary/feasibility studies to turnkey projects for the development of regasification plants, liquefaction plants, compressor stations, gas pipelines, supply branches and distribution networks.

### 2.6. Key staff for this project

The following key positions will form part of the Project Management Team:

- 1. Project Manager
- 2. Construction Manager
- 3. Engineering and Design Manager
- 4. Cost Control and Contract Manager
- 5. Environmental and Permitting Manager
- 6. Maritime and Logistics Manager

The person playing the key role for the project will be the Project Manager, who will be fully dedicated to the project's on-site construction activities and future operation and maintenance of the facilities.

Staff from Naturgy's engineering, procurement, and economic control departments will work closely with the Project Manager in the development of the main tasks of engineering, procurement, construction and commissioning.

All procurement, billing and other administrative tasks will be carried out by the Project Management team. They will work in close collaboration with the Group's intermediate and management teams.



The maintenance will be executed mainly by a team of external contractors who will report to the Project Manager after the commissioning phase. This team will do regular maintenance in the installation and supervise all reparation work when needed.

The following is the list of people who will cover the key positions for this project and who are available to start immediately on this project.

NAME & LOCATION	PROPOSED POSITION	EDUCATION	EXPERIENCE	EXPERTISE
Juan Romero Blanco	Project Manager	Electrical Engineer	25 Years	Project Management, Feed and Detailed Engineering in LNG Terminals
Jose Miguel Rullan Caparros*	Construction Manager	Electrical Engineer	25 Years	Construction Management in LNG Plants, Gas Infrastructures and CC Plants
Mauricio Rojas Quintian	Engineering and Design Manager	Mechanical Engineer	13 Years	Engineering and design of mechanical works in LNG projects
David Power	Cost control and Contract Manager	Civil Engineer	8 Years	Cost control, scheduling, project claims, contract terms
Ceferino Aponte Rivera*	Environmental Manager & Permitting	M.E in Chemical Engineering, P.E.	40 Years	Environmental, health and safety (EHS), process and environmental engineering
Gema Lopez Garrido	Maritime & Logistics Manager	Naval Architect	12 Years	Shipping project development, maritime infrastructures

(\*) Puerto Rican citizen currently residing in Puerto Rico

#### Table 3: List of key staff and expertise

### 2.7. Local subcontractors and parties

As previously indicated in Section **Error! Reference source not found.**, Naturgy has extensive experience working in Puerto Rico thanks to the projects it has developed there, some of which are currently in operation.

In all cases, Naturgy has executed these projects under direct supervision, which has enabled it to establish strong bonds with local subcontractors and parties. Examples of some of Naturgy's current Puerto Rican subcontractors and agencies are:

- Aireko (civil, electrical, and mechanical contractor)
- Mar-Land Industrial Contractors Inc. (civil, electrical, and mechanical contractor)
- Frank Electric Services Inc. (electrical, and I&C contractor)
- TEC Caribbean Inc. (civil works contractor)
- Environmental Resources Management (EHS and permitting contractor)

These companies have the sufficient experience to assist Naturgy in the development of our proposal.

### 2.8. Financial Capacity & Resources

In this section we will summarize our financial capacity and resources, which show Naturgy's ability to handle large scale supply and infrastructure projects. Also explained is our plan for financing this project.

Audited financial statements for the last 3 fiscal years (2015-2017), as requested in section 4.2 of the RFP as evidence that Naturgy can perform and manage this project, can be downloaded publicly from the Shareholders and Investors section of our website:

https://www.naturgy.com/en/shareholders\_and\_investors/financial\_information.

#### **2.8.1.** Financial Statistics



The Naturgy Energy Group reported, as per its financial statements, net sales of over 20 billion euros per year over the last five years (2013-2017). Additionally, Naturgy reported an EBITDA of 3.915 billion euros in 2017 with total attributable net profit of 1.697 billion euros. The following table is a summary of the main aggregates:

INCOME STATEMENT KEY FIGURES (millions of euros)	2013	2014	2015	2016	2017
Net sales (Revenue)	24,322	24,742	26,015	21,908	23,306
Gross operating profit (EBITDA)	4,849	4,853	5,264	4,664	3,915
Net operating profit	3,022	3,190	3,261	2,764	2,112
Financial profit/loss	-803	-801	-894	-815	-699
Profit before tax	2,157	1,915	2,363	1,851	1,427
Consolidated profit for the financial year	1,658	1,658	1,824	1,711	1,697

Table 4: Income statement key figures

### 2.8.2. Ratings

The Naturgy Energy Group S.A. obtained its first rating in February 1999. Naturgy's current investment rating in force are:

Agency	Long term	Short term	Forecast
S&P	BBB+	A-2	Stable
Moody's	Baa2	P-2	Stable
Fitch	BBB	F2	Stable

Table 5: Credit ratings from largest ratings agencies

### 2.8.3. Risk

Naturgy's comprehensive risk management model aims to guarantee the predictability of the company's performance in every aspect relevant to its stakeholders. This requires establishing the risk tolerance by means of setting limits for the most relevant risk categories. With this, the company can anticipate the consequences of the materialization of certain risks, thus being perceived in the markets as a solid and stable company, with the benefits this entails.

Naturgy has a framework which incorporates the company's government vision, risks and compliance, allowing for an integrated vision of the group's processes, existing controls of these processes and the associated risk.

### 2.8.4. Financial planning for this project

Both the FSRB and FSRU will be a Time Charter Party contract.

The onshore facilities (high pressure loading arms, metering station, natural gas pipeline, and generation units 5 & 6 conversion) will not require any financing.

Therefore, the entire solution is covered by our financial capabilities.

### 2.8.5. Insurance letter

The letter from the insurance company that will provide the required insurance on behalf of Naturgy if it is awarded the contract for this project is included in Annex I.



### 3. Technical proposal

According to the RFP, PREPA is developing a project that would reduce the cost of generation and improve the compliance with environmental requirements of the Units. This project would involve the following main requirements:

- Deliver and supply of natural gas.
- Convert Units to this alternate fuel.
- Supply, construct, commission, operate, and maintain the fuel terminal and all the equipment, installations, and interconnections necessary to deliver the alternate fuel from the fuel terminal to the turbine combustor inlets of Units.
- Meet a minimum demand of 25 TBtu/y.
- Have the Units fully operational as soon as possible.

Taking this into account, Naturgy has developed a solution to this project that would address the key objectives of this project:

- Reduce energy cost
- Reduce operating expenses
- Increase efficiency
- Diversify energy sources
- Maximize use of advanced technology
- Increase access to cleaner sources of energy
- Protect the environment

In addition to achieving these objectives, Naturgy's approach also took into account providing the alternate fuel in the shortest time possible while minimizing the impact to the San Juan port and generating station area.

### 3.1. Naturgy's proposed solution to this project

As indicated in the Executive Summary, Naturgy's proposal to PREPA's requirements involves the use of a FSRB with a short gas pipeline connection to the Units.

The FSRB, which will be regularly supplied with LNG from an LNG carrier, will be moored to the wharf in front of the San Juan power plant. From here, the natural gas reception facilities as defined below will deliver the natural gas from the FSRB to the gas pipeline, through which it will flow to the metering station and then to the delivery points of the Units. Below is a superimposed diagram showing the layout of our approach on a satellite picture of area:



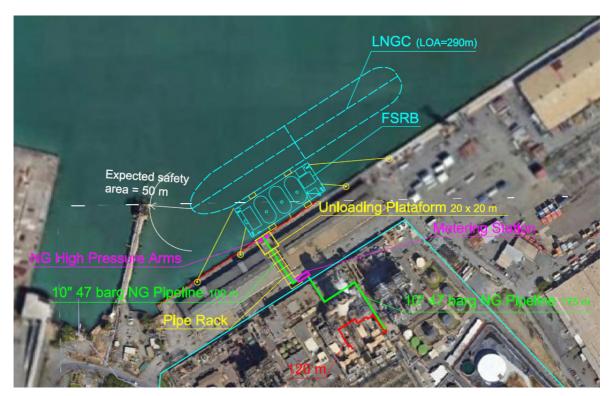


Exhibit 10: Layout of the proposed solution (with LNG carrier during LNG unloadings and natrual gas delivery)

As indicated in the Executive Summary, Naturgy's proposal includes the use of a readily available 170,000 m<sup>3</sup> FSRU from its fleet that will supply the gas to the Units while the FSRB is being built.

### 3.2. Technical description of the solution

Following the flow of natural gas from the LNG carrier to the delivery points at the Units, Naturgy's proposed solution can be divided into the following functioning areas:

- 1. San Juan harbor & infrastructures.
- 2. Supply and logistics.
- 3. FSRB.
- 4. Mooring system and Marine Facilities.

### 3.2.1. San Juan harbor & infrastructures

The Port of San Juan is a seaport facility located in the metropolitan area of San Juan, Puerto Rico. This port is the leading commercial port of Puerto Rico. San Juan Bay extends 2.6 nautical miles to the main container terminal at Puerto Nuevo. It is the only harbor on the North coast of Puerto Rico which offers protection in all types of weather conditions.





Exhibit 11: Satellite view of Puerto Rico and location of San Juan Harbor

Our proposal is based on USACE's Integrated Feasibility Report & Environmental Assessment for San Juan Harbor (June 2018). USACE's project defines current depth and width of navigation channels and the return basin. Further studies will be carried out in the next phase of the process.

### **Environmental Conditions:**

Easterly trade winds predominate throughout the entire year, primarily from the ENE direction. Wind speeds in the area are moderate.

- The mean annual wind speed is 7.7 knots,
- Maximum wind speeds occur in July, mean monthly velocity is 8.7 knots
- Minimum wind speeds generally occur in October with an estimated value of 6.1 knots.
- Infrequent tropical storms and hurricanes are sometimes severe, occur any time from August to October.

Regarding waves in San Juan Harbor, coastal areas are subject to constantly changing erosion and accretion trends. Additionally, the natural variability of wind speed and direction combined with wave addition and cancelling effects make it difficult to reliably predict whether vessel- and wind-generated waves will cause erosion or accretion at specific locations.

The tidal range throughout San Juan Harbor is uniform and microtidal. The astronomically-generated high and low tides within the Federal channel range from about 1 to 2 feet over the year.

Currents at San Juan Harbor are greatly influenced by the direction and strength of the trade winds. The trades blow primarily from the northeast, which in conjunction with the east-west alignment of the coastline results in a westerly, alongshore current. Surface currents show general westward drift (mean speed 0.6 knots) with a significant tidal component (EPA 2011).





Exhibit 12: San Juan Harbor Plan View

In summary: thanks to the benign meteorological conditions (excluding harsh weather conditions such as hurricanes), the sheltered infrastructures of the port, and the information previously described, it can be concluded that the San Juan Harbor allows the installing a floating regasification terminal and ship to ship operations.

### 3.2.2. Supply and logistics

Different logistics configurations have been considered to supply the Units and Naturgy's preferred option is to supply the FSRB by combining the logistics with other customers in Puerto Rico. The proposed solution implies that the LNG carrier currently discharging at EcoElectrica will also discharge at the San Juan FSRB terminal. This is the best logistics plan as it takes advantage of the economics of transporting the LNG via large-scale vessel while reducing the cost in transportation.

Once the vessel has discharged at the first customer, a conventional LNG carrier (LNGC) will arrive regularly to supply LNG to the FSRB via a Ship To Ship operation in Port of San Juan.



The LNGCs will enter the Puerto Nuevo Terminal through the Anegado Channel and the Army Terminal Channel. Currently the depth in these channels and turning area is 40 feet, which means the LNGC will enter with partial LNG load to avoid or minimize dredging works.

This solution is based on using standard LNG carriers, which is another advantage for the supply as it can be performed immediately with any of the vessels already contracted in the fleet, and could be replaced in case of necessity. This provides extra strength to the supply chain.

# In order to comply with Jones Act regulation, Naturgy's LNG will be sourced in non-USA countries and be shipped to the FSRB.

So as to ensure that the Units may operate at a full load in the event of port restrictions, which requires a supply of 25 TBtu/y and 7 days of storage, around 20 discharges of 50.000 m3 will be carried out.

In conclusion, this supply chain has the following advantages:

- Minimum impact in dredging by utilizing partially load vessels
- Robust logistics by utilizing conventional LNG ships already available in the fleet
- Jones Act fulfillment

Barge mooring: Due to the lower dimensions of the barge when compared with a conventional FSRU, the impact in the nearby berths is reduced or even avoided.

#### 3.2.3. Floating Storage and Regasification Barge (FSRB)

After analyzing the market possibilities in floating regasification units and due to the characteristics of the proposed berth, Naturgy proposes the use of a mid-scale 75,000 m<sup>3</sup> FSRB in order to have the maximum efficiency of electricity generation and regasification.

The construction duration of this new FSRB is 26-30 months so Naturgy advises to start the project with one of the readily available FSRUs of its current fleet (170,000 m<sup>3</sup>) as short term solution until the new FSRB is delivered.

Both the long and short-term solutions can fulfill the RFP requirements. Naturgy will ensure that the vessels will be managed by ship-owners of reputed prestige and experience in LNG. These selected ship-owners have extensive experience in carrying out Ship-To-Ship maneuvers and will provide the project with trained and experienced crews.

The FSRB and FSRU will not be performing cabotage as both vessels will be moored in the San Juan harbor, with the understanding that as the vessels are not trading between two points in United States, the vessels would also be exempted from complying with this regulation.

The FSRB and FSRU will be designed, constructed, and delivered as a FSRB with 20-year design life and capable of LNG storage, loading/offloading and export of the natural gas to a shore pipeline.

These units will comply with the following criteria:

- to receive LNG carriers in the range of 138,000 m<sup>3</sup> to 178,000 m<sup>3</sup> LNG
- to be sized within a range of [75,000-170,000] m<sup>3</sup> of storage

	FSRU (Short term solution)	FSRB (Long term solution)
LOA ( m)	295	125
B ( m)	46	46
T (m)	11.6	9.20
Storage Capacity (m <sup>3</sup> )	170,000	75,000
Pressure outlet range	40 to 80 b	40 to 80 b
Nominal pressure outlet	45bar g	45bar g



Normal regas capacity	500 MMScfd N+1	120MMScf N+1
Max regas capacity	750 MMScfd N+0.	180 MMScfd N+0.
Propulsion	DFDE	N/A

Table 6: Summary of the characteristics of the FSRU and the FSRB

#### Below are the general arrangements of both vessels:

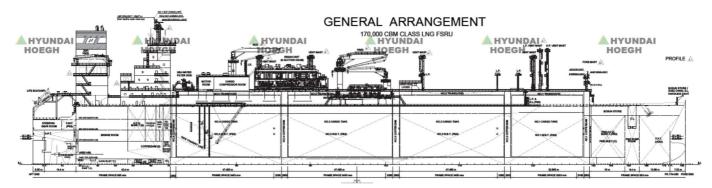


Exhibit 13: FSRU General Arrangement – Short Term Solution

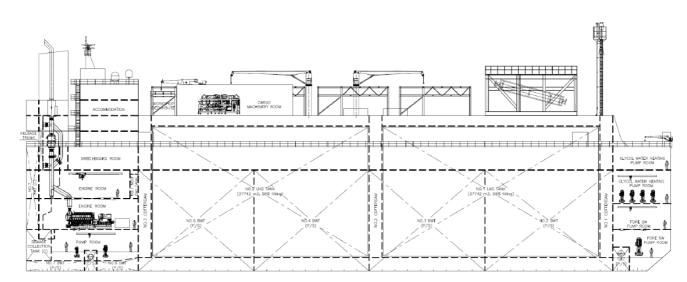


Exhibit 14: FSRB General Arrangement - Long Term Solution

The objective pursued with the FSRB is to minimize the occupancy of the nearby berths. Due to its reduced dimensions the impact to the consecutive wharfs is minimized by reducing the impact exclusively to the phase in which the discharge operation is done.

### 3.2.3.1. Common Characteristics of the floating regasification units:

From an operational point of view, Naturgy's solution guarantees maximum flexibility and redundancy with enough capacity in the regasification system to guarantee the maximum availability for regasification. For this purpose, Naturgy has optimized its design with the following features:

 Maximum regasification flexibility: to provide expansion possibilities and maximum operating flexibility, guaranteeing a working solution from a technical minimum of 120/500

24



MMscfd (depending on solution) to a technical maximum of 180/750 MMscfd (depending on the solution).

- **Variable pressure range:** Since the project must cover different scenarios, Naturgy has included the option of regulating the outlet pressure from 40 to 80 bar, to ensure that it can be sent to other locations without the need for an additional compression station.
- **Redundancy in regasification:** with three interchangeable regasification modules that guarantee n+1 redundancy during the maximum demand of the power plants of each location.
- **Quality measurement:** The regasification unit will include the capability to measure the quality while suppling continuous information to shore.

#### 3.2.3.2. Environmental design features

The maximum sea water temperature difference will comply with the Federal/State environmental regulations.

#### 3.2.3.3. Availability of Regasification

The design characteristics of the regasification system as well as those of the systems on board the FSRB/U ensure the maximum reliability of the equipment. To this end, a redundant design has been chosen for all the systems, which can be summarized as follows:

- **Redundancy in regasification:** with three interchangeable regasification modules, each one with the maximum demand of the combined cycle, redundancy over 1.2 bcma.
- Redundancy in electricity production (FSRU option): there are three dual motors that will consume gas or fuel depending on demand, each with a capacity of 4,150 kW. A single motor covers the demand for FSRU to supply the nominal flow of 90,000 Nm<sup>3</sup>/h.
- **Redundancy in measurement:** a double measurement system will be available at the discharge.
- **Redundancy in the LNG pumps:** there is a supply LNG pump in each of the tanks with redundant capacity with the three regasification modules in operation.

The FSRB/U will have an experienced crew trained to perform maintenance on DF engines. Maintenance of regasification equipment will be incorporated into the vessel maintenance system following the recommendations of the regasification manufacturers.

The cargo tanks will be prepared for inspection/maintenance in a tank while the vessel is in continuous operation as a regasification vessel.

In conclusion the FSRU will be designed to operate in all situations with 100% redundancy.

#### 3.2.3.4. Maintenance Strategy

Naturgy together with the owner of the ship, will have a FSRB to be able to extend the dry dock interval. They will work together with the Classification Society to obtain acceptance from local/state port authorities for a 20 year berthing period, provided the barge operates as a regasification ship. This solution is already commonly used on offshore vessels and is accepted by the Classification Society.

If the extension of the term is not feasible, the FSRU will be replaced by a market unit with similar characteristics during the maintenance period.

#### 3.2.3.5. LNG Transfer System



Ship to Ship transfers from the LNGC into the Regasification Units will be made using cryogenic hoses, saddles and ERC (Emergency Release Coupling) as shown in the following figure. The system will be designed to discharge at a flow rate of approx. 5,000m3/h.

- 1. Feeder Vessel
- 2. Receiving Vessel
- 3. Liquid Line Hose
- 4. Vapour Line Hose
- 5. Y-Piece Reducer
- 6. Saddle and Hose Break System
- 7. ERC
- 8. V23
- 9. HPU/EHPU/SILSIS
- 10. ESD1
- 11. EDS2

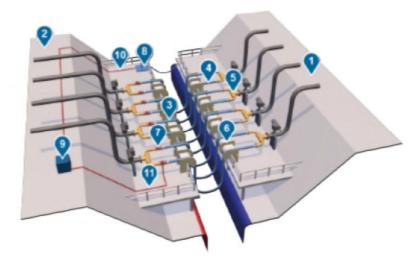


Exhibit 15: The LNG transfer system

LNG receiving manifold arrangement will be based in accordance with OCIMF manifold recommendations.

# **3.2.3.6.** Vessel shore communications

The system will comply with the relevant rules and regulations applicable to regasification vessels with the necessary "ship to shore" connections and links, including ESD. It will be supplied with all necessary cables and cable reels for voice and signal communication as required by the relevant shore terminals.

# 3.2.3.7. Hurricane operation Strategy

Studies will have to be done to find the most suitable location to protect the FSRB in case of hurricane warning. The FSRB will disconnect from its mooring and will be moved to the appointed location whereas the FSRU will be able to sail away in the event of hurricanes.

# 3.2.4. Mooring system

As was explained before, our proposal is based on USACE's Integrated Feasibility Report & Environmental Assessment for San Juan Harbor (June 2018). USACE's project defines current depth and width of navigation channels and the return basin. Further studies will be carried out in the next phase of the process in order to confirm the necessity of dredging to accommodate either the FSRU or FSRB and for the approach and entrance of the LNGCs.

To define the right mooring arrangement, the following studies will have be carried out:

- Dynamic mooring studies of the regasification vessels at the quay with and without the LNG supply vessel.
- Verification of the permitted movements of the vessels as established by the industry standards PIANC / OCIMF and according to the restrictions of ship-to-ship equipment.
- Definition of operational limits.

Other studies which will have to be carried out to grant the access to the berth are:



- Maneuvering studies (simulations of the passage, approach, docking...).
- Local traffic interference studies.
- Analysis of emergency maneuvers.
- Study of the required port services: (tugboats, provisions).
- Development of operational manuals.
- HAZID analysis.

With the information available at this moment, a preliminary analysis has been done to define a tentative mooring arrangement for both regasification vessels:

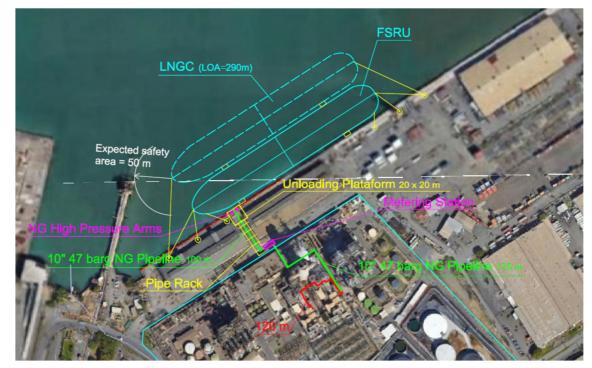


Exhibit 16: Mooring arrangement of FSRU



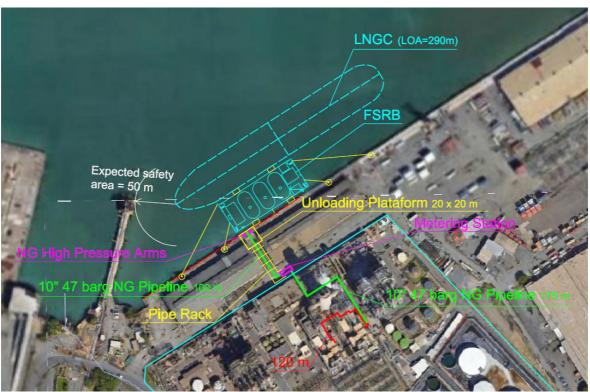


Exhibit 17: Mooring arrangement of FSRB

The mooring system will have quick release hooks and Yokohama fenders to be able to moor a vessel of up to 176,000 m<sup>3</sup> next door and will count with a rapid-fire system to operate from the regasification vessels as it is established by the industry.

# 3.2.5. Natural gas unloading system

#### 3.2.5.1. Natural gas reception facilities

NG Reception Facilities (NG-RF) consisting of 2 x 100% 10 inches high pressure unloading arms will be installed on top of the dock area nearby the unloading platform, along with utilities, ancillary services and all the required topsides for operation and maintenance activities.

#### 3.2.5.2. Compressed Natural Gas Transfer Arms (CNG arms)

Marine loading arms for compressed natural gas unloading meet the requirements of OCIMF and they are supplied with the Position Monitoring System (PMS) in order to make sure that the marine arm works within its operating limits.

Furthermore, the CNG arms are provided with High-Pressure Hydraulic QC/DC Couplers. The hydraulic High Pressure QC/DC is fitted to the loading arm at the end of the Triple Swivel Assembly (TSA) and its features include:

- Simultaneous operation clamping claws
- Coupler remains fastened to tanker manifold in case of hydraulic power failure
- QC/DC that can be opened manually using a manual hand-pump
- Two energized seals that provide for sealing between coupler and manifold flange
- Leak detection port between coupler seals
- Can be used as an emergency shutdown device





This advanced hydraulic HP CNG marine arm has been designed to withstand the full rigours and long reach capability normally required on an HP CNG berth.

The arm design takes into account the requirements for Emergency Release Systems (ERS).

Source: SVT



# 3.2.5.3. High Pressure NG flexible hoses

As an alternative to CNG arms Naturgy is considering the possibility of using high pressure flexible hoses. This will be determined during the detail engineering phase. Below is a technical specification for this type of hose.

PRODUCTION HOSES

# **Topside Jumpers**

# for gas service

Production, gas injection, gas lift, gas export, FLNG high pressure import, FSRU high pressure export

API Spec. 17K

Bore type Liner type Operating temperature Max. available length

full flow, rough bore H,S resistant HNBR or PA -30°C to +90°C (-22°F to 194°F) 60m (200ft) up to 8" 30m (100ft) up to 16"

- Cathodic protection is available upon request
- Lengths over 60m (200ft) are available in some sizes with
- splicing technology
- Coupling materials meet NACE MR 01-75 / ISO 15156 latest edition
- Material of the end fittings is either carbon steel or duplex
- Material of the internal carcass is either 316L or 254 SMO
- Handling instructions: ContiTech TKO ASO and AS4 latest edition







Technical	Data													
Inside Diameter	Туре		Vorking ressure			Safety Factor	'		MBR (static)		MBR (dynamic)		We	eight
in		bar	psi	bar	psi	(WP)	mm	in	m	ft	m	ft k	kg/m	lb/ft
255 10.0	Fire rated Fire rated c/w st. st. wrap	155	2.250	233	3.375	2.25	<u>383</u> 394	<u>15.1</u> 15.5	<u>2.6</u> 2.6	<u>8.5</u> 8.5	<u>3.5</u> 3.5	11.5 11.5	168 184	<u>113</u> 124

Exhibit 19: Technical specifications of the High Pressure NG flexible hoses (Source: Contitech)

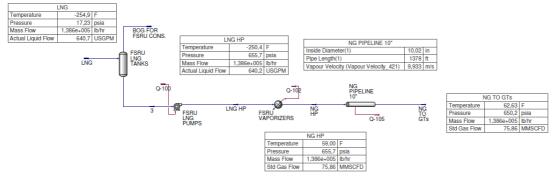
#### 3.2.6. Send-out Gas Pipeline and aerial pipe rack

The purpose of this section is to provide a preliminary pipeline route and overview of gas pipeline and location, in order to give a main equipment list and a first cost estimation.

# 3.2.6.1. Gas Pipeline Sizing

The following basic references and design basis has been taken into consideration for natural gas pipeline sizing and definition;

- ASME B31.8, Standard: Gas Transmission and Distribution. Piping Systems.
- Pipeline Design & Construction: A Practical Approach, M. Mohitpour, H. Golshan, A. Marruy, 2nd Edition 2003, ASME Press.
- ES.0025-GN-DG Naturgy Standard: Tubo de Acero DN 50 Hasta DN 750. (Internal Improved Standard)
- NT-0202-E Naturgy Standard: Criterios de Diseño y Regulación de estaciones de Regulación y/o medida con presiones de entrada superiores a 16 bar. (Internal Improved Standard)



**Exhibit 20: Process simulation** 

Other considerations and assumptions taken for the study:

- Minimum pressure loss at RMS 2 barg.
- Algorithm for pressure drop calculations: Panhandle A with an efficiency factor of 0.92 (bad conditions).
- Gas flow speeds around 4 10 m/s, never to exceed 15 m/s.

Therefore from above simulation it is decided the send-out gas pipeline to be sized 10 inches.

### 3.2.6.2. Aerial pipe rack

The send-out gas pipeline connecting the Unloading Platform to the Metering Station will be running on an aerial pipe rack.



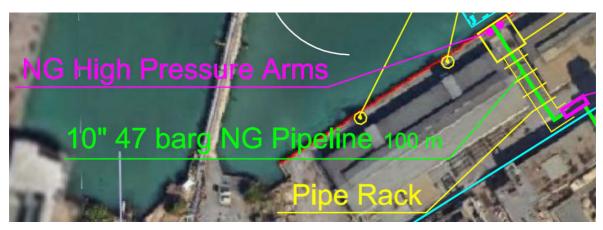


Exhibit 21: Detail of the aerial pipe rack

The pipe rack will also support the utilities lines, electrical and instrument cables.

# 3.2.7. Metering station

Naturgy will provide a metering station similar to the one that was installed for PREPA in the Souco Dual Fuel Conversion Pilot Project at Costa Sur.

The metering station for this project will consist of two measurement and filtering lines, using ultrasonic gas flow meters for the measurement process, and high efficiency filters for the filtering process. A scrubber has been planned to be installed upstream from the lines. During systems operations under normal conditions, only one of the measurement lines shall be in operation.



Exhibit 22: Detail of the metering station

Each measurement line will have a capacity of 100% of the total measurement capacity; therefore one of the two measurement lines will be left for swapping. Both will immediately enter into operation in the event of failure of any element of the other line, or simply to guarantee supply operations during maintenance activities.

The measurement system of the lines will include ball type valves for blocking and an automatic close valve in the entry header to protect the entire system.

As described above, the measurement system will comprise two lines, which in turn can be considered divided into the following functional modules:

- Filter module
- Flow metering
- Chromatograph

The measurement module system will be designed using pipes with a diameter of 10" and will be used as a reference diameter for the rest of components (valves, volume meters, etc.)

# 3.2.7.1. Filter module



The filter module will consist of:

- Coalescent filter (1x100%)
- Differential pressure transmitter associated to the filter
- Safety valve associated to the filter

Filters will be cartridge type and vertically placed; the diameter of primary connections will be of the same size as the diameter of the high pressure line (10").

Filters will be equipped with a quick opening system for inspection and/or replacement.

The design details for the purpose of mechanical resistance are:

- Design pressure: 740 psig
- Design temperature: -20 to 100°F

An entry pressure of 650 psia at 60°F has been considered for the purpose of maximum volume and pressure drop (clean and dirty).

# 3.2.7.2. Flow metering

Ultrasonic Gas Flow Meter applications have expanded considerably since their introduction over two decades ago. Applications demand technically advanced solutions and Elster-Instromet continues to meet the challenge. The 4<sup>th</sup> generation ultrasonic meters produced by Elster-Instromet today are the most sophisticated in the market. The Q.Sonic line of ultrasonic flow meters is the only one featuring extended diagnostics with the possibility of detecting fouling and ultrasonic flow pattern recognition with dynamic k-factor calculation.

In this project the system consists of two metering streams for high flow and one metering stream for low flow with a Turbine meter. Each High flow metering stream consists of a single Q-Sonic4 meter. The meter output will be connected to a flow computer.

In addition, a permanent contrast line will be installed, with a full bore ball valve, which will be connected between the two streams, allowing for verification.

The manual valves involved in putting the ultrasonic flow meters in line for verification will include limit switches that through their combination with a logic system (PLC) will prevent the flow of gas from being computed twice.

Each measurement line will include all necessary elements, i.e.:

- Ultrasonic or turbine flow meters
- Absolute Pressure transmitter (PT)
- Temperature transmitter (TT)

It will include the following common elements:

- Sampling for the chromatograph
- Flow computer with the calculation algorithms being used. (AGA 8).

In all cases, measurement will be made under the most stable conditions to achieve the best accuracy possible (pressure stability, temperature and volume)

In general, all instrumentation will be designed and installed in accordance with API RP 500 recommendations, and will be duly calibrated, prior to assembly in the field.

The ultrasonic body will be made by carbon steel and flanges ANSI 600 RF.

# 3.2.7.3. Chromatograph



The Chandler Model 2920 Gas Analyzer System is a stand-alone gas chromatograph designed to measure the heating value of up to six natural gas streams. Its modular design makes it easy to install, operate, and maintain in the field, and an optional software package is available for remote communications, diagnostics and control. Built to withstand harsh environmental conditions, the Model 2920 delivers the repeatability and accuracy of a laboratory gas chromatograph. It uses field-proven technologies and industry-standard gas chromatographic techniques.

# 3.2.8. Rest of components:

- Ball valves for line isolation
- Monoblock insulating gasket in the intake collector of the measurement module
- Local temperature indicator (to be located in the exit collector)
- Two local pressure indicators (one at the intake collector and another on exit)
- Any other mechanical element necessary for conditioning of gas and perfect operations of the station
- Automatic close valve through pressure variation
- Natural gas leak detection, firefighting and explosion systems
- Screws, pipes, valves, wheels, bolts and gaskets necessary for the adaptation of the various components to pipes supplied by others to secure them and obtain suitable air tightness during normal operations
- Non-check or similar anti-return valve

# 3.2.9. Natural gas supply line to the Units

#### 3.2.9.1. Main manifold

Once the natural gas is measured in the Metering Station it will be sent to a common manifold for distribution to both Units.



Exhibit 23: Gas line from Metering Station to turbines

The access to the power plant will be at the north area, parallel to the existing piping routing (to be studied during detailed engineering phase).



# 3.2.9.2. NG supply to the Combustion Turbine's Gas Control Skid

Once the natural gas manifold is in the vicinity of turbine-6 it will follow the routing defined by the Socoin project to inject gas to both units.

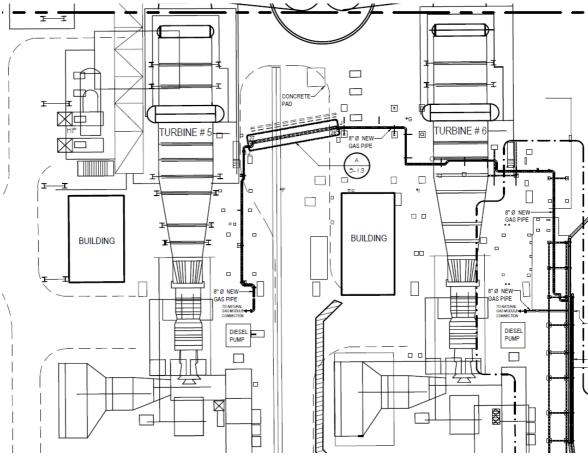


Exhibit 24: Detail of gas line to the turbines" gas control skid

# 3.3. Naturgy alternative for a regasification plant onshore

As an alternative to the technical proposal previously described, Naturgy could study the installation of an onshore regasification plant nearby San Juan power plant if PREPA has interest in this possible solution.

An onshore regasification plant would require a more exhaustive permitting process. Moreover, the onshore tank construction is longer than the current offshore technical solution Naturgy proposes.



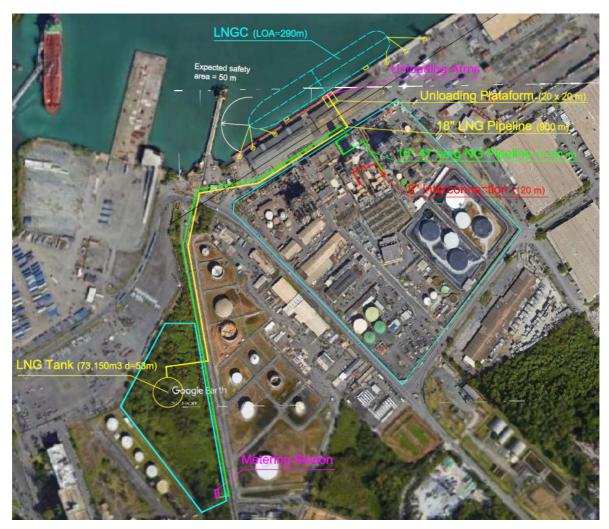


Exhibit 25: Layout of an onshore regasification solution.

# 3.4. Natural gas supply

As part of Naturgy's proposal, the supply of natural gas to the Units, through the solution previously described, is based on the following:

- Naturgy will act as Seller and PREPA as Buyer.
- The supply period under the agreement for the supply of natural gas shall begin on the date of commercial operation date and shall end ten (10) years later. PREPA may have the option to extend the term five (5) years by written notice 180 days before the end of the initial period.

For this purpose, the commercial operation date means regarding the solution (FSRU/FSRB and pipeline facilities) contained in this proposal is ready to receive and berth the LNG tankers and to transport the natural gas to the Units, and the Units are ready to receive the natural gas. In this sense the following options may apply.

**Option #1. Only FSRB** 

**Option #2. FSRU + FSRB** 



#### 3.4.1. Annual Contract Quantity (ACQ)

The ACQ shall be approximately twenty-five (25) TBtu.

The deliveries during each Contract Year shall be made on a ratable basis.

#### 3.4.2. Term

The supply period shall begin on the date of commercial operation date and shall end ten (10) years later ("Termination Date"). A Contract Year shall mean a period of time from and including 1st of January of one calendar year through and including 31st of December of the same calendar year; provided that the first Contract Year shall commence on the Commercial Operation Date and the last Contract Year shall end on the Termination Date.

For this purpose, the commercial operation date means when the facilities are ready to receive and berth the LNG Tankers and to transport the natural gas, and the Units are ready to receive the natural gas.

# **Option #1. Only FSRB**

Naturgy estimates that after the twenty-six (26) months period after necessary approvals the Commercial Operation date may take place.

#### **Option #2. FSRU + FSRB**

Naturgy estimates that after the ten (10) months period after necessary approvals the Commercial Operation date may take place.

The above terms are subject to Mitsubishi finalizing their conversion works.

#### 3.4.3. Delivery Point

The delivery point means the inlet of the gas turbines at the Buyer's power facility located at San Juan ("San Juan Power Plant").

#### 3.4.4. Title and Risk

Title and Risk shall transfer at the Delivery Point.

### 3.4.5. Nomination

The Parties will define the "Annual Delivery Program" ("ADP") and "Ninety Day Schedule" ("NDS") in compliance with the international standards.

Final ADP will be issued by Seller ninety (90) days prior to the start of the applicable Contract Year taking into account as far as practicable the Buyer's requirements. A "window" system will be agreed between parties within the Contract Year to schedule such deliveries of natural gas.

#### 3.4.6. Quality

Natural gas delivered under the NGSPA shall comply with the following specifications at the Delivery Point:

Item	Unit	Min	Max
CH4	mol %	85	99
H2S	mg/Nm <sup>3</sup>	N/A	5
Total Sulfur	mg/Nm <sup>3</sup>	N/A	30
Nitrogen	mol %	0.0	1.0
Molecular weight	mol %	16.2	19.0



HHV	Btu/scf	1000	1150	

Natural gas shall contain no water, active bacteria or bacterial agents (including sulfate-reducing bacteria or acid producing bacteria) or other contaminants or extraneous material.

# 3.5. Mitsubishi conversion of San Juan Units 5 and 6

Pursuant to the terms and conditions of the RFP, Naturgy's proposal will include the conversion works of the Units. Naturgy has entered into a Non-Disclosure Agreement with Mitsubishi, the operator proposed by PREPA, and is discussing the terms and conditions under which Mitsubishi will perform the services. In this discussion framework, Naturgy recently received Mitsubishi's proposal, which is still pending some clarifications and discussions. Naturgy can confirm its commitment to continue working with Mitsubishi with the clear intention of defining in detail their services and the economic impact to Naturgy's proposal. The conversion works will be included in Naturgy's offer once this cost has been finally agreed with Mitsubishi.

# 3.6. Assumptions, Clarifications and Exclusions

The following is not included in Naturgy's proposal:

- Dredging of San Juan port channels, turning basin area and LNGC & FSRU berthing area
- Electrical power supply and emergency power supply to be provided by PREPA San Juan Power Plant
- Nitrogen and instrument air to be provided by PREPA San Juan Power Plant



# 4. Price Proposal

Following the instructions given in PREPA's RFP, our price proposal is split into four components.

# 4.1. Price Proposal Component 1 – Fixed annual capacity payment

# 4.1.1. Option #1. Only FSRB

The Capacity Payment (CP) will reflect the fixed costs of the supply natural gas facilities:

CP (USD/Month) = 3,599,930+ 979,456 CPIn/CPI

#### 4.1.2. Option #2. FSRU + FSRB

The Capacity Payment (CP) will reflect the fixed costs of the supply natural gas facilities:

CP (USD/Month) = 4,786,180 + 513,169 CPIn/CPI0

#### 4.1.3. Conversion Units Cost

Naturgy recently received the Mitsubishi proposal, which is still pending some clarifications and discussions to define more in detail their services and the economic impact to be included in Naturgy's final proposal.

# 4.2. Price Proposal Component 2 – Unit cost

For both, Option #1 and Option #2, the Unit Cost (UC) will reflect the commodity and the variable LNG shipping costs:

UC<sub>m</sub> (USD/MMBtu) = 50% (115% HH + 5.95) + 50% (11.54% FO#2<sub>603</sub> + 1.125)

Naturgy is open to discuss the price condition herein detailed in case the LNG from USA can be delivered.

# 4.3. Price Proposal Component 3 – Applicable indices

CPIn refers to the arithmetic average of the US Department of Labor Bureau of Labor Statistics CPI for the twelve (12) months preceding the relevant Contract Year.

CPI<sub>0</sub> refers to the arithmetic average of the US Department of Labor Bureau of Labor Statistics CPI for the twelve (12) month period between January 1<sup>st</sup> and December 31<sup>st</sup> of the year of the first delivery of natural gas.

HH = The final settlement price (in United States dollars per MMBtu) for the New York Mercantile Exchange's Henry Hub natural gas futures contracts for the month 'M' in which the NG is scheduled to be delivered.

 $FO#2_{603}$  = the unweighted average for the 6-month period prior to the calendar quarter of the USLD fuel.

USLD fuel: Is the average of USLD quotations under the heading "New York/Boston" (Barge) and USLD quotations under the heading "US Gulf Coast (Waterborne)", "Mean" column, as published each month by the Platt's Oilgram Price Report, rounded to four (4) decimal places.

# 4.4. Payment Terms

Fifteen (15) days after the receipt of the Invoice.



# 5. Approach and Methodology

# 5.1. Introduction to Naturgy's approach

Naturgy's approach is defined and guided by our principles and our experience as part of a leading gas group. We are determined to:

- Build up from the existing knowledge base of the client without imposing our views, but rather sharing all information
- Work on principle of open communication
- Professionally focus on the delivery of objectives and results on time and with quality standards
- Work on early identification of problems, conflicts, and misunderstandings and ways of solving them for the benefit of the achievement of expected outputs

This approach compliments other methodologies Naturgy has developed over several years of experience and know-how, providing a coherent response to the activities and services required for this project.

# 5.2. Methodologies to be used for the project execution

The methodologies to be used in order to achieve a successful project can be grouped into the different functional phases of this project. These phases are:

- Engineering
- Environmental assessment and mitigation measures
- Quality assurance and control
- Procurement
- Construction, transportation and assembly
- Commissioning and start-up
- Operational & maintenance activities

# 5.2.1. Engineering

Our approach to providing a solution that works begins with ensuring that all the studies necessary to engineer a solid design are performed. For this project, these studies will likely include:

- Geological and geotechnical studies
- Maritime Studies (Bathymetric Study, Wave Study, Mooring Maneuver Studies, etc.).
- Environmental Assessment and Environmental Studies
- Risk Studies on the control of major-accident hazards involving dangerous substances.
- Fire protection studies
- Seismic studies

At the end of the project all the documentation generated, including the results from these studies, will be collected together in a final dossier. These include:

- Plan showing the general layout and auxiliary facilities
- Civil works including details and sections
- Piping and instrument diagrams
- Data sheets for main equipment
- Electrical and control diagrams
- List of signals (physical and communication port)
- Operating & Maintenance Manuals for the plant and auxiliary installations



- Equipment manuals
- Control and communication architecture
- Document for protection against explosions
- Low voltage electricity project
- Evacuation and Emergency Plan
- Certificates for materials
- Welding procedures and approving welders
- Inspection, test and trial reports, and certificates
- Certificates of Conformity for the Equipment
- Defect reports
- List of alarms
- List of instruments and valves
- List of set-points
- Logical diagrams for the PLC software
- Etc.

#### 5.2.2. Environmental assessment and mitigation measures

Due to the minor civil works offshore (dredging is not needed) and the location of the project in the port area, most of the potential environmental impacts of the project are not significant. In addition, both the FSRU and FSRB will be moored close by the power plant at the Puerto Nuevo area. This will minimize the gas pipeline route and the land property/easements agreements and, therefore, reducing the area of potential impact.

Regarding the location of Naturgy's solution, it should be pointed out that the industrial port of San Juan is already a modified area itself, where there are no protected areas or ecosystems to preserve. In this regard, the USACE "San Juan Harbor Integrated Feasibility Report and Environmental Assessment" (June 2018) concludes:

- *"In the study area, only the proposed USCG Anchorage F expansion contains quality habitat"* (Note: this Anchorage F expansion is far away from Naturgy proposed project location).
- "Benthic macrofauna populations in the navigation channel are assumed to be not as stable and numerically abundant as nearby wetlands and mudflats due to the frequent disturbance by maintenance dredging"
- "Extension (widening and deepening) of the San Juan port may affect but is not likely to adversely affect manatees and listed corals or result in adverse modification to Acroporid designated critical habitat (DCH). Additionally, it would not be likely to jeopardize the continued existence of sea turtles. In conclusion, no long-term impacts from the Recommended Plan are expected to listed species or Acroporid DCH"
- "The Recommended Plan poses no effect to historic properties listed or eligible for listing in the National Register of Historic Places (NRHP)."
- "Hazardous and toxic materials are not present in the sediments at levels of concern"

Compared to the San Juan port extension, the onshore construction of Naturgy's project will be limited to the mooring and berthing system for the FSRU/FSRB and LNG carrier which will be placed in low environmental value areas. Because of this, no long-term impacts to listed species or Acroporid DCH are expected. Furthermore, no historic properties (as they have not been identified) will be affected.

In fact, once the LNG conversion is completed and operational, the San Juan Power Plant will be using a more efficient and cleaner burning fuel source than the bunker and diesel fuel combination currently being used. The future conversion will improve the air quality of the harbor and also offset any additional emissions from



the future commerce therein. The burning of LNG is a clean combustion process, due to the fact that the gas burns completely forming CO2 and water as emission. The advantage of LNG is abundant: it has a lower cost, and does not have the undesirable by-product emissions. In this project, the avoided emissions due to the fuel conversion of units 5 and 6 would be: 3800 t SO2, 18200 t NOx and 4000 t PM10 per year.

Regarding the environmental mitigation measures to consider, Naturgy's project will be designed, constructed, operated, and maintained in accordance with national regulations, international conventions, corporate policies and procedures and recognized international best practices, all of which have different applications, remits, requirements and implications.

Naturgy will abide by the environmental studies and recommendations outlined in the agencies implied and will commit to coordinating adaptive management and corrective actions related to project impacts and monitoring results with resource agencies.

# 5.2.3. Quality Assurance and Control

Naturgy implemented, certified and currently maintains a Quality Management Systems (QMS) in accordance to:

- ISO 9001
- ISO 14001
- OHSAS 18001

The Naturgy's QMS include the following procedures:

- PE.03520.ES-TI: Project Planning and Control
- PE.03522.ES-TI : Project Document Management
- PE.03533.ES-TI: Identification of Environment Requirements
- PE.03534.ES-TI: Environmental Management in Construction
- PE.03536.ES-TI: Health and Safety Project Management
- PE.04388.GN-OE.SI: Purchasing Management
- PE.03528.ES-TI: Control of Design
- PE.03530.ES-TI: Erection and Assembly Supervision
- PE.03531.ES-TI: Commissioning

As per its QMS, Naturgy will develop and execute a specific Quality Plan to ensure its successful execution and completion. The Quality Plan is based on the aforementioned methodologies and it will include:

- Description of the nature of the project
- Definition of the project team member responsibilities
- Identification of the necessary activities and resources to execute the project on time and on budget
- Methodology to apply the QMS procedures
- Methodology to guarantee that all project systems will be designed, fabricated, erected, inspected, examined and tested according to the applicable design codes and standards
- Definition of the communication policies and procedures with client, suppliers, contractors, and authorities having jurisdiction

# 5.2.4. Procurement

The procurement process includes all activities required to perform purchasing, material control, internal and external expediting, inspection, payment, shipping and other related activities in connection with the purchase and delivery of equipment and materials required for project. Equipment and materials will be purchased from approved worldwide sources from our approved vendor list. Consideration shall be given to quality, delivery, reliability and service.

41



The Procurement Progress will be measured against selected requisitions for equipment and direct material. The selected requisitions are those which are of high value and/or contains the key items which control the completion of the project.

The Procurement progress is established using the following:

- 1. Equipment Items and their allocated weight points.
- 2. Engineered Bulk Items and their allocated weight.
- 3. Project Management Schedule for Issue Date of Requisitions, Blanket Orders
- 4. (Bulk), Commitments, Vendor Drawings and Deliveries.
- 5. Direct Bulk Material weightings.
- 6. Progress Milestones

#### 5.2.5. Construction, transportation, and assembly

The entire transportation of the equipment and materials to the work site, including any Customs duties, will be studied in detail.

Basic planning for each solution will be defined and will contain the engineering, procurement, construction, commissioning and startup tasks.

At the start of the project, the engineering, construction, transportation and assembly work will be planned in detail. The monitoring reports that show how the work is actually progressing will be submitted as basis for a project follow up.

The design will be done in such a way that all the equipment, whenever possible, will be tested at the manufacturing plant and are pre-assembled to the extent that this most practical and preferable.

The integration will be such that transporting is made as easy as possible and reduces to a minimum the amount of mechanical and electrical assembly work at the site, especially where *in situ* welding activity is concerned. Activities which could be developed on Puerto Rico by reliable suppliers will be taken into account.

Special consideration will be made for all the spare parts and consumables required for construction, commissioning and normal operation of the project.

Local content will be studied in detail so that the project complies with the requirements and laws of the local administration.

#### 5.2.6. Commissioning and start-up

Naturgy will include all the spare parts and consumables required for assembling, commissioning and start-up.

Any equipment will only leave the manufacturing plant after all the tests and trials have been conducted. However, tests required by the regulations prior to commissioning, such as airtightness/sealing tests on the assembly and operating tests on the safety/security systems shall be performed.

Other inspections and tests to be carried out will be:

- Radiographic testing on a determined percentage of the welds as customary.
- Compressed air network test (if applicable).
- Tests conducted *in situ* on the pressure tanks and vessels by an Authorized Control Body.
- Inspection Certificate for the electrical installations issued by an Authorized Control Body.
- Hydraulic sealing and resistance tests. Whenever possible, pneumatic tests shall always be conducted on cryogenic systems instead of hydraulic tests.
- Cleanliness and dryness of the systems.



#### 5.2.7. Operation & Maintenance Activities

The operation and maintenance activities will also be included and handled during the design phase, trying to minimize scope of works and costs. Operational and maintenance guides will be developed so as to include: operation management, management of emergencies, predictive maintenance, preventive maintenance, corrective maintenance and the stock of spare parts and consumables.

# 5.3. Permitting

The permitting will include the basic considerations, preparations and arrangements for all the project items to be approved by the Authorities until all the installations and facilities that form part of the project have been completely commissioned.

In order to expedite the permitting process and begin construction as soon as possible, Naturgy has contracted the services of Environmental Resources Management (ERM) in Puerto Rico, who is a leading global provider of environmental, health, safety, risk, social consulting services and permitting. ERM Puerto Rico, in collaboration with Naturgy, has developed the permitting plan and schedule that follows a clear path for achieving approval of all necessary permits required to construct and operate the project.

#### 5.3.1. Permitting Process

The proposed actions in the project scope require review and approval at the different stages of development of the project from several federal and commonwealth regulatory agencies. The following are the agencies of most relevance for the permitting process.

#### Federal Regulatory Agencies:

- Federal Energy Regulatory Commission (FERC)
- Pipeline and Hazardous Materials Safety Administration (PHMSA), from the U.S. Department of Transportation (DOT)
- U.S. Army Corps of Engineers (USACE)
- U.S. Coast Guard (USCG)
- U.S. Environmental Protection Agency (USEPA)
- U.S. Fish and Wildlife Service (USFWS)
- National Marine Fisheries (NMFS)

### Commonwealth Regulatory Agencies:

- Puerto Rico Ports Authority (PRPA)
- Puerto Rico Planning Board (PRPB)
- Puerto Rico Office of Permits Management (OGPe)
- Puerto Rico Department of Natural and Environmental Resources (DNER)
- Puerto Rico Environmental Quality Board (EQB)
- State Historic Preservation Office (SHPO)

DOT/PHMSA and FERC are the federal agencies primarily responsible for the regulation of onshore LNG facilities. The following is a brief description of specific authority and requirements of each of the agencies relevant to the project.

#### 5.3.1.1. Federal Regulatory Agencies

# **FERC**

Has jurisdiction under the Natural Gas Act over the siting, construction and operation of facilities used to transport natural gas in interstate commerce and of facilities used for the export or import of



natural gas. This includes LNG projects onshore and in state waters. FERC manages the development of a single environmental impact statement (EIS) for compliance with the National Environmental Policy Act of 1969 (NEPA) for LNG facilities applications and the associated federal permits.

#### **PHMSA**

Agency under the U.S. Department of Transportation (DOT) that sets safety standards for onshore LNG facilities. The siting provisions incorporate by reference standard 59A from the National Fire Protection Association (NFPA). NFPA 59A requires thermal exclusion zones and flammable vapor-gas dispersion zones around LNG terminals. The DOT/PHMSA regulations also adopt many of NFPA's design and construction guidelines including requirements for LNG facilities to withstand fire, wind, hydraulic forces, and erosion from LNG spills. Other provisions address operations, maintenance, employee qualification, and security.

# **USACE**

Regulates project activities for the protection and use of water resources of the United States including construction of dams, structures or works affecting navigable waters, the discharge of dredged or fill material into waters, and the transportation of dredged material for the purpose of disposal in the ocean. Also coordinates compliance with related federal laws including NEPA, Fish and Wildlife Coordination Act, Endangered Species Act, National Historic Preservation Act, Deepwater Port Act, and Federal Power Act among others.

### <u>USCG</u>

Has authority over and regulates the marine transfer areas at waterfront facilities to handle LNG including new construction. The USCG conducts waterway suitability assessments to address navigation safety and port security issues associated with LNG ship traffic.

#### **USEPA**

Is responsible for the National Environmental Policy Act (NEPA) review process and subsequent environmental permitting when a federal agency develops a proposal to take a major federal action, including approval of specific projects, such as construction located in a defined geographic area. The USEPA coordinates with and supports FERC in the development of a single environmental impact statement (EIS) for compliance with NEPA on LNG related projects.

### <u>USFWS</u>

Agency under the U.S. Department of the Interior (DOI) responsible to enforce federal wildlife laws, protecting endangered species, managing migratory birds, restoring nationally significant fisheries, and conserving and restoring wildlife habitat such as wetlands among others.

# **NMFS**

A division of the National Oceanic and Atmospheric Administration (NOAA) responsible for the stewardship and management of living marine resources and their habitat. The agency is responsible with recovering protected marine species under the Marine Mammal Protection Act and the Endangered Species Act.

#### 5.3.1.2. Commonwealth Regulatory Agencies

#### **PRPA**

A government-owned corporation, ascribed to the Department of Transportation and Public Works, charged with developing, operating, and overseeing all seaports and airports in Puerto Rico.

### <u>PRPB</u>

Agency in charge of centralized planning including economic planning and land use zoning.



# <u>OGPe</u>

In charge of issuing final determinations and permits, licenses, inspections, certifications and any other authorization or procedure. Created in 2009 with the objective of simplifying and consolidating permits previously administered by a number of government agencies including use permits, fire prevention certificates, environmental health certificates, pruning and transplant of trees, and incidental soil extraction permits from construction projects among others.

#### DNER

Responsible for protection, conservation, development, and management of the natural and environmental resources of Puerto Rico.

# EQB

The principal environmental protection regulator in Puerto Rico.

#### <u>SHPO</u>

Responsible for listing important historic resources or neighborhoods on the National Register of Historic Places, and for evaluating the impact of projects on historic landscapes or archeological sites.

#### 5.3.2. Project Development and Permitting Phases

The activities in the Project Scope fall into three phases for regulatory review, approval and permitting purposes. These phases are:

- Phase I Environmental Impact Assessment
- Phase II Construction, and
- Phase III Operation.

#### 5.3.2.1. Phase I – Environmental Impact Assessment

#### Federal NEPA and Commonwealth EPPA Review

Both statutes are to facilitate informed decision-making and environmental review. The proposed project triggers both Federal and Puerto Rico environmental review requirements. The NEPA process begins when a federal agency develops a proposal to take a major federal action. The federal agency prepares an Environmental Assessment (EA) to determine whether the federal action has the potential to cause significant environmental effects. Each federal agency has adopted its own NEPA procedures for the preparation of EAs.

A critical step in this process is initial compliance with environmental impact reviews requirements under NEPA and Puerto Rico's Environmental Public Policy Act (EPPA) to be able to complete the rest of the review and permitting activities.

EPPA requires that Commonwealth agencies study the environmental consequences of their actions, including permitting and requires them to take all feasible measures to avoid, minimize, and mitigate damage to the environment.

#### FERC Pre-Filing Procedure and NEPA Process

EPPA permits the use of NEPA documents in lieu of a Commonwealth EA document. Since FERC has the exclusive authority to approve or deny an application for the siting, construction, expansion, or operation of an LNG terminal per the Natural Gas Act, it is recommended to first present the application to FERC with the request that they act as the lead NEPA review agency.



The FERC NEPA process for LNG project starts with FERC's pre-filing procedure. The pre-filing procedure requires a Resource Report that at a minimum provides the following information:

- General project description
- Water use and quality
- Fish, wildlife, and vegetation
- Cultural resources
- Socioeconomics
- Geological resources
- Soils
- Land use, recreation, and aesthetics
- Air and noise quality
- Alternatives
- Reliability and safety

This pre-filing process involves agencies working together in coordination with FERC to develop a single NEPA document that will address each agency's requirements.

To save time in the preparation of the draft NEPA document, FERC allows applicants to prepare their own Draft Environmental Assessment; the "Applicant Prepared Draft EA" (APDEA). The intent to prepare a draft EA indicated in the pre-filing request letter and discussed during the initial pre-filing meeting. This option needs to be approved by the Commission.

When following this option the applicant submits the draft EA along with the Environmental Report as part of the application.

At the conclusion of the NEPA review process, the following approvals should have been obtained or be in process.

- Federal Energy Regulatory Commission (FERC) Approve the EA/EIS as final and issue the Final Order granting authorization
- Pipeline and Hazardous Materials Safety Administration (PHMSA) approve the safety aspects of the proposed design and installations.
- U.S. Coast Guard (USCG) issue the Letter of Recommendation
- U.S. Environmental Protection Agency (USEPA) Approve NEPA process as complete
- U.S. Fish and Wildlife Service (USFWS) issue a Biological Opinion
- National Marine Fisheries (NMFS) issue a Biological Opinion
- Puerto Rico Ports Authority (PRPA) issue letter endorsing the project
- Puerto Rico Planning Board (PRPB) issue a letter of approval
- Puerto Rico Office of Permits Management (OGPe) Issue a location approval
- Puerto Rico Department of Natural and Environmental Resources (DNER) issue a Coastal Zone Management Consistency and Water Quality Certificate
- Puerto Rico Environmental Quality Board (EQB) issue a letter approving the EPPA process as completed and start processing the Construction Permit Application
- State Historic Preservation Office (SHPO) issue a letter of approval

An aspect with great potential impact during the NEPA review, the permitting process and subsequent operations, relates to citizen and NGO's participation and community concerns related to safety.

#### 5.3.2.2. Phase II and III – Construction and Operation Permits

#### **PMO Construction permit**

46



The PMO (Project Management Office) requires approving project budget, technical specifications and construction drawings. This approval is needed for the Tax Department customs duties, establishment fee, etc. This permit is required for the air emissions, wastewater discharges and other permits.

#### Location approval (if needed)

The Puerto Rico Planning Board is consulted if the use of the land is in consonance with the Land Use Plan for Puerto Rico, Engineers corps, terrestrial maritime zone, etc.

#### **Air Emissions**

It is anticipated that the project will not be considered a Major Source, since there is no potential emission from the standpoint of the degasification unit other than an emergency generator and insignificant fugitive emission associated with the storage and handling of the LNG operations. The only requirement will be to comply with Rule 203 and 204 of the Puerto Rico EQB Air regulatory framework Regulations will apply. To this respect, a construction permit followed by the operations permit is assumed to be required.

It is assumed also that any specifics need related to the fuel conversion impacting the power generation units will be manage by PREPA.

#### Wastewater Discharges

A National Pollutant Discharge Elimination System (NPDES) permit from the USEPA is required if wastewaters from the operation are to be discharged into navigable waters. This will not be necessary if process wastewaters are disposed along with the existing PREPA system and managed as a PREPA permit modification.

# **Other Permits**

There are several permits required for the construction and operation phases of the project. It is anticipated that these permits will be obtained simultaneously with the air emissions and water discharge permits and will have no adverse impact on the timeline of the project. The following is sample description of some of the permits required

#### OGPe General Consolidated Permit

The General Consolidated Permit combines the following permits into a single application: Control of Erosion and Sedimentation Plan (CES Plan); Solid Waste Generation Permit (DS-3 Form); and Fugitive Dust Emission Permit (PFE).

#### Incidental Extraction Permit (DNER)

The Department of Natural and Environmental Resources (DNER) Earth Crust Material Extraction Regulation requires a Formal Soil Surface Removal Permit for soil removals greater than 5,000 m3 and a Simple Soil Surface Removal Permit for soil removals less than 5,000 m3.

#### Construction Storm Water NPDES Permit

Projects on more than one acre need to apply for an NPDES permit for storm water run-off from construction activities by filing a Notice of Intent (NOI) for the activity in the USEPA website.

Table 7 is the permitting matrix showing the required actions from federal and Table 8 is for the Commonwealth Agencies at each stage of the project. It shows the interactions of federal and local regulatory and overview agencies. Given the complex interaction of federal and local agencies, it is advantageous to coordinate with all involved agencies to align their reviews to be simultaneous to save time and effort.



	FERC	USACE	EPA	USCG	DOE	PHMSA/DOT
Phase I - EIA						
LGN Carrier Ship	Final IFR/EA	Final IFR/EA	Final IFR/EA	Final IFR/EA	Final IFR/EA	Final IFR/EA
FSRU and FSRB	pre-filing/EA	review	review	review	review	review
NG Transfer Dockside Installations	pre-filing/EA	pre-filing/EA	pre-filing/EA	pre-filing/EA	review	review
Units 5 and 6 conversion to LNG	n/a	n/a	NEPA	n/a	n/a	n/a
Phase II - Construction						
LGN Carrier Ship	approve	n/a	n/a	approve	n/a	safety review
FSRU and FSRB	approve	n/a	n/a	approve	n/a	safety review
NG Transfer Dockside Installations	approve	approve	Title V/RMP	approve	review	safety review
Units 5 and 6 conversion to LNG	n/a	n/a	Title V/MATS	n/a	n/a	n/a
Phase III - Operation						
FSRU and FSRB	approve	n/a	Title V/MATS	approve	n/a	review
LGN Carrier Ship	approve	n/a	Title V/MATS	approve	n/a	review
NG Transfer Dockside Installations	approve	approve	Title V/MATS	approve	n/a	review
Units 5 and 6 conversion to LNG	n/a	n/a	Title V/MATS	n/a	n/a	n/a

# **Table 7: Permitting Matrix for Federal Agencies**

### **Table 8: Permitting Matrix for Commonwealth Agencies**

	PRPA	PRPB	OGPe	PREQB	DNER
Phase I - EIA					
LGN Carrier Ship	Final IFR/EA	approve	review	Final IFR/EA	n/a
FSRU and FSRB	approve	approve	review	approve	n/a
NG Transfer Dockside Installations	approve	approve	review	approve	n/a
Units 5 and 6 conversion to LNG	n/a	n/a	review	approve	n/a
Phase II - Construction					
LGN Carrier Ship	approve	n/a	n/a	n/a	n/a
FSRU and FSRB	approve	n/a	n/a	n/a	n/a
NG Transfer Dockside Installations	approve	approve	gen. permit	Const Permit	n/a
Units 5 and 6 conversion to LNG	n/a	n/a	n/a	Const Permit	n/a
Phase III - Operation					
FSRU and FSRB	approve	n/a	n/a	n/a	n/a
LGN Carrier Ship	approve	n/a	n/a	n/a	n/a
NG Transfer Dockside Installations	approve	n/a	gen. permit	Opn Permit	n/a
Units 5 and 6 conversion to LNG	n/a	n/a	n/a	Opn Permit	n/a

# 5.3.3. Permitting timeline

# FERC NEPA review and permitting timeline

The following figure compares the timelines of the traditional and the pre-filing process from start of the NEPA review process to approval of a Final Environmental impact Statement (FEIS) for LNG projects. The traditional process takes about 24 months. The pre-filing process takes about 18 months.

48



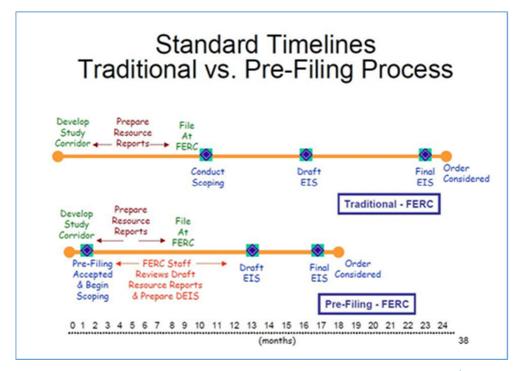


Exhibit 26: Timelines of FERC traditional and pre-filing review processes <sup>1</sup>

These timelines must represent an average that includes relatively large and complex LNG projects. Due to the minor civil works offshore (dredging works are not needed) and the location of the project in the port area (besides the environmental benefits of the replacement with Natural Gas for a cleaner production of electricity) it is presumable that the permits would require less specific studies than those required for conventional projects and therefore, timeline for the development of the permitting process would be shorter.

For these reasons, Naturgy consider that it is possible to reduce the timeline to about 8-12 months by reducing the time to prepare the Resource Report and the Draft EIS.

The standard construction permitting timeline for energy and infrastructure related projects is between 16 to 24 months. Naturgy considers that it is possible to reduce the construction and operation permitting timeline to about 8 to 12 months by working closely with all relevant agencies during the NEPA review process, anticipating their application, review and approval requirements and being ready to submit applications immediately after approval of the EIS.

The combined standard and expedited FERC NEPA review and permitting timeline is shown in Table 9.

	CONSTRUCTION AND											
	FERC-	FERC-NEPA OPERATIONAL PERMITS TOTAL										
	low	high	low	high	low	high						
STANDARD	18	24	12	24	30	48						
EXPEDITED	8	12	8	12	16	48 24						

<sup>1</sup> Slide 38 from FERC Permitting and Review Process presentation by Medha Kochhar, Office of Energy Projects, Federal Energy Regulatory Commission, October 24, 2006 accessed at:

AEE\_3058

https://www.asmfc.org/uploads/file/FederalEnergyPermittingandRegulation.pdf



#### Table 9. FERC NEPA review and permitting timeline

The total timeline for the expedited FERC-NEPA review and approval process is estimated to take between 16 to 24 months. The Gantt chart of the FERC-NEPA permitting path and permit request/approval is included in Annex II - (Permitting timeline).

#### Local NEPA review and permitting timeline

PREPA's objective is: "... to bring natural gas quickly and safely to the ... San Juan 5 and 6 Plant preferably by the first quarter of 2019". The FERC-NEPA permitting timeline is a long-term process. If there would not be need for FERC to be involved, the permitting process could be shorten significantly. In order to satisfy PREPA needs to obtain the requested permits according to applicable legislation in the most effective and fast way, Naturgy has developed a timeline for an expedited local review and approval process of about 7 months assuming that with the support of PREPA all local agencies will commit to work simultaneously and expedite their review and approval processes with no design changes. Therefore, the Local NEPA permitting timeline is the one taken into account into the project schedule. The Gantt chart of the Local NEPA permitting path and permit request/approval is included in Annex III.

#### 5.3.4. Letter of Support from Puerto Rico Port Authority:

Annex IV includes copy of the letter submitted to the Puerto Rico Port Authority presenting the proposed project, explaining its justification and requesting their support. Naturgy propose to meet with the Ports Authority to discuss in more detail the proposal and address their questions or concerns.

#### 5.3.5. Demonstration of Jones Act compliance

The Jones Act requires that waterborne transportation of merchandise between two points in the United States must take place aboard a vessel that is U.S.-built, U.S.-owned, U.S.-flagged, and U.S.- crewed. This is also known as coastwise trade and is governed by cabotage laws.

As it was explained in Section 3.2, Naturgy counts with several points of supply and since the LNG for this project will not be loaded at a US port, the LNGC is not required to comply with Jones Act, which is the philosophy currently applied to our o spot basis LNG supplies in EcoElectrica.

Also, the FSRU/B will not be performing cabotage as the vessel will be moored in the San Juan harbor, and will not trading between two points in United States, and so would also be exempted for complying with this regulation.

### 5.4. Project Schedule

The project schedule for the FSRU installation can be divided into the following main tasks:

- Permitting
- Procurement: includes equipment manufacturing
- Transportation: delivery of main equipment to Puerto Rico
- Construction: includes all civil works to be performed at the site
- Installation: includes all mechanical installations and piping works
- Commissioning and start-up: includes training

Below is a summarized schedule of these tasks:

### **PROJECT SCHEDULE (FSRU):**

Mo.	1	2	3	4	5	6	7	8	9	10

Proposal for a Fuel Supply - RFP 81412

50



Notice to Proceed	о 🗸	<b>'</b>					
Permitting	9						
Environmental Permits	5						
Construction Permit	2						
Operation and other Permits	9						
Procurement	7						
CNG Arms	7						
Metering Station	6						
Transportation to site CNG arms	1						
Construction & Installation	2						
Commissioning	1						
Availability of gas	10						

Thanks to the FSRU being readily available, there is no delay caused by the construction of the FSRB, and fast tracks the project to deliver natural gas within 10 months.

The strategy of installing the FSRU while the FSRB is being built provides an effective gas solution to Puerto Rico while reducing the total investment cost and optimizing the time to market.

However, this timing will be subject to Mitsubishi finalizing the conversion of Units 5 & 6 and starting commercial operation with natural gas.

#### 5.5. Legislation and applicable regulations

LNG and NG comply with very high safety standards all over the world and for this reason LNG and NG industries are safe. For example, the LNG shipping industry has an excellent safety record. Since the first LNG shipments on a regular commercial basis in 1964, over 45,000 shipments have been made without a single incident of LNG being lost through breach or failure of the ship's tanks. The LNG shipping industry must comply with international standards and NG facilities have to comply with local regulations.

As such, all the LNG Facilities we shall build, install, and operate for this project shall meet both international standards and be adapted to the Puerto Rico Legislation and Federal Regulations currently in force.



# **ANNEX I – Insurance Letter**



Marsh, S.A. Paseo de la Castellana, 216 28046 Madrid +34 91 456 9400 Fax +34 91 344 9799 www.marsh.es

25th September 2018

# To whom it may concern

To all intents and purposes we inform that:

At present we are the Insurance Broker of the Corporate Insurance Program of **NATURGY ENERGY GROUP, S.A.** arranged from Spain, which includes assets and companies in different countries.

In the event that Naturgy Energy Group S.A. is awarded with the project of the RFP consisting in the conversion of generation units San Juan 5 & 6, and an associated natural gas fuel supply and use of a Floating Storage and Regasification Barge (FSRB) with a short gas pipeline connection to the combined cycle units 5 & 6 of the San Juan power plant, we have instructions from Naturgy Energy Group S.A. to place the following insurance policies with reputable insurers having legal authorization to offer insurance policies in Puerto Rico:

# **Construction Phase**

# 1. Construction/ Erection All Risks insurance (CAR/EAR)

Interest/Property Insured: General works whether permanent or temporary and including the civil works, machinery and materials incorporated or to be incorporated therein and all temporary buildings and/or other contents used in connection therewith, all the property of the Insured or for which they are responsible including all construction and erection costs, administrative costs, overheads, import taxes, excavation, architectural, mechanical and electrical works and any related temporary works, camps and provisional installations or other activities directly related to the project.

*Insured Perils*: Cover for the Property Insured on an all risks basis for reasons that are not explicitly excluded, including among others:

- Conventional Risk (fire, explosion, theft).
- Risks from nature (wind, hail, snow, rain, lightning, overflow and flooding, earthquakes, volcanic eruption, frost, etc).
- Risks inherent to assembly (handling, installation, testing, short circuits, overvoltage, electric arc, human error, installation error, negligence, inexperience and malicious damage).

MARSH, S.A., Correduría de Seguros y Reaseguros, con domicilio social en Paseo de la Castellana, 216, 28046 Madrid, N.I.F. A-81332322. Inscrita en el Registro Mercantil de Madrid, Tomo 10.248, Libro: 0, Folio: 160, Sección: 8, Hoja: M-163304, Inscripción: 1. Inscrita en el Registro de la Dirección General de Seguros y Fondos de Pensiones con º J-0096 (Correduría de Seguros) y RJ-0010 (Correduría de Reaseguros). Concertados los Seguros de Responsabilidad Civil y de Caución, según Ley 26/2006, de 17 de julio.





Página 2

*General Limit / Insured amounts*: The limit shall be an amount equal to the total Project Completion Value, or the equivalent to the maximum possible loss as per the risk assessment undertaken by Naturgy Energy Group.

# 2. Liability Coverage

Legal responsibility of the insured party that may result from the activity described during the period of insurance coverage, including:

- General Liability.
- Employer's Liability.
- Sudden Pollution Liability.
- Bail bonds and legal defence.

General Limit: The limit shall be not lower than the limit purchased for similar projects in comparable regions.

# 3. Transport Coverage

This cover fully safeguards against the risk that the equipment in transit may be damaged. The limit shall be equal to the maximum value per shipment.

# 4. Other Insurances

There are various insurances that can lead to liabilities arising from their breach. This is the case for possible compulsory insurance:

- Personal Accident. It should be monitored that these are in force and meet legal requirements.
- Workers Compensation Policy according to the local legislation.
- In terms of the workers involved in building the project, checks will be carried out to ensure compliance with the commitments and obligations related to employment. These are for instance, taking out personal accident insurance or life assurance if they are agreed in collective or sector agreements or directly in employment contracts.





Página 3

- Vehicle insurance, for this insurance, it will have to be verified that the vehicles used for carrying out the works, take compulsory vehicle insurances and meet all legal requirements.
- Any other compulsory insurance according to local legislation.

# **Operation Stage/ LNG Supply**

1. Liability Coverage

Legal responsibility of the insured party that may result from the activity of LNG Supply during the period of insurance coverage, including:

- General Liability.
- Products Liability.
- Employer's Liability.
- Sudden Pollution Liability.
- Bail bonds and legal defence.

General Limit: The limit shall be not lower than the limit purchased for similar projects in comparable regions.

# 2. Other Insurances

There are various insurances that can lead to liabilities arising from their breach. This is the case for possible compulsory insurance:

- Personal Accident. It should be monitored that these are in force and meet legal requirements.
- Workers Compensation Policy according to the local legislation.
- In terms of the workers involved in building the project, checks will be carried out to ensure compliance with the commitments and obligations related to employment. These are for instance, taking out personal accident insurance or life assurance if they are agreed in collective or sector agreements or directly in employment contracts.





Página 4

- Vehicle insurance, for this insurance, it will have to be verified that the vehicles used for carrying out the works, take compulsory vehicle insurances and meet all legal requirements.
- Any other compulsory insurance according to local legislation.

Yours faithfully,

MARSH, S.A.





# ANNEX II – FERC-NEPA permitting path

							PROJECTED	PERMITTING							
	Task Name LNG CONVERSION ENVIRONMENTAL STRATEGY PROCESS	Duration	M-1	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
1 2	NOTICE TO PROCEED	536 days 5 days													
2 3	PERMITTING	5 days 531 days													
4	TIER I : FERC ENVIRONMENAL DOCUMENT (No dredging pmt from	410 days													
	USACE required.)														
5	PRE-MEETING FERC TO PRESENT PROJECT	30 days													
6	PREPARE EIS DOCUMENT	100 days				- 1									
7	SUBMITT EIS TO FERC	10 days													
8	COMMENTS BY AGENCIES (FERC, NOAA, FISHAND WILDLIFE,SHIPPO, ETC.)	120 days								1		·۲			
9	INCORPORATE COMMENTS AND SUBMITTAL OF FINAL DEA (Final	30 days													
<b>v</b>	Environmental Assessment)	oo dayo													
10	APPROVAL BY AGENCIES	120 days													
11	TIER I : ENVIRONMENAL DOCUMENT( Local Permits Management Office (PMO) only. Assumes also endorsement by Puerto Rico Ports Authority. No dredging pmt from USACE required. No Public Hearings required)	156 days													
12	PREPARE REA (Environmental Assessment Draft)	70 days													
13	SUBMITT REA	1 day													
14	COMMENTS BY AGENCIES (assumes the document runs through the	45 days													
	Energy Projects expedite process)								Ĩ⊥						
15	INCORPORATE COMMENTS AND SUBMITTAL OF FINAL DEA (Final Environmental Assessment)	10 days							<b>1</b>						
16	APPROVAL BY AGENCIES (assumes the document runs through the	30 days													
10	Energy Projects expedite process)	50 days													
17	LOCATION APPROVAL (If necessary by local Planning Board)	106 days													
18	PREPARE LA DOCUMENT	30 days													
19	SUBMITT LA TO PLANNING BOARD	1 day			<b>F</b>										
20	PUBLIC HEARING (IF REQUIRED)	30 days													
21	APPROVAL BY PB	45 days													
22	TIER II : CONSTRUCTION PERMIT	27 days													
23	PMO CONSTRUCTION PERMIT	27 days													
24	PREPARE DOCUMENT (ASSUMES DESIGN, SPECIFICATIONS AND	15 days													
05	COST ESTIMATE ARE AVAILABLE BEFORE THIS TIME FRAME)														
25	SUBMITT TO PMO	2 days													
26		10 days													
27 28	TIER III CONSTRUCTION EXECUTION RELATED PERMITS GENERAL CONSOLIDATED PERMIT (CES Plan, Solid Waste Disposal	52 days 28 days													
20	Permit, Fugitive Dust Air Pmt)	20 days													
29	PREPARE CES PLAN	15 days													
30	PREPARE SOLID WASTE DISPOSAL PLAN	10 days													
31	PREPARE FUGITIVE DUST AIR APLICATION	5 days													
32	PREPARE CONSOLIDATED PMT DOCUMENT	2 days													
33	SUBMITT TO PMO	1 day													
34	APPROVAL BY AGENCIES	10 days													
35	INCIDENTAL EXTRACTION PERMIT (DNER)	26 days													
36	PREPARE DOCUMENT	15 days													
37	SUBMITT TO PMO	1 day													
38	APPROVAL BY AGENCIES	10 days													
39	CONSTRUCTION STORM WATER PERMIT (NPDES)	37 days													
40	PREPARE DOCUMENT	15 days													
41	PREPARE SWPPP	15 days													
42	SUBMITT ELECTRONICALLY TO EPA	2 days													
43	APPROVAL BY AGENCIES	20 days													
44	AIR QUALITY PERMITTING	94 days													
45	AIR CONSTRUCTION PERMIT	52 days													
46 47	PREPARE PERMIT DOCUMENT (Minor Source Consideration. Assumes PREPA will manage its Title V Modification ) SUBMITT TO EQB	10 days 2 days													
47	APPROVAL BY AGENCIES	40 days													
40		40 days 42 days													
49 50	PREPARE OPERATIONS PERMIT	10 days													
50	SUBMITT TO EQB	2 days													
52	APPROVAL BY AGENCIES	30 days													
52 53	NPDES PERMIT	86 days													
54	PREPARE LA DOCUMENT	40 days													
55	SUBMITT PMT SUBMITTAL TO EPA/EQB	5 days													
55 56	WATER QUALITY CERTIFICATE BY EQB	30 days													
57	APROVAL NPDES EPA	30 days 30 days													

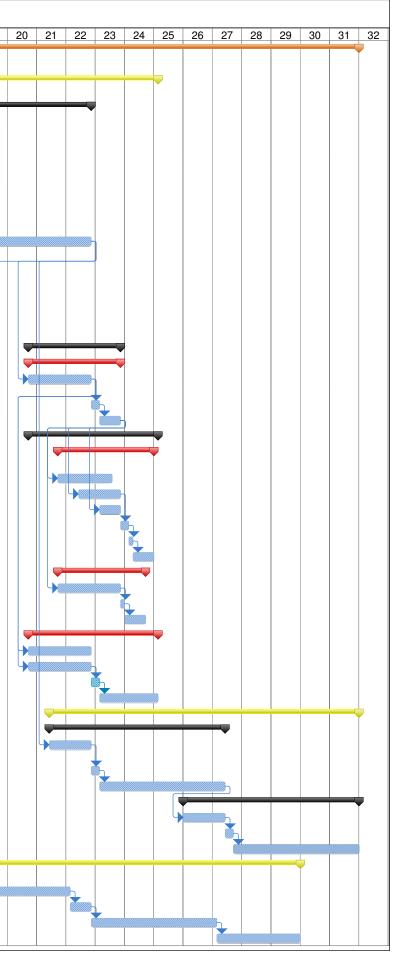


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### **ANNEX III – Local NEPA permitting path**

							TING IN												
			2 -1 1	2	3	4 !	5 6	7	8	9	10	11	12	13	14	15	16 1	7	18 19
-	LNG CONVERSION ENVIRONMENTAL STRATEGY PROCESS	216 days										İ						İ	<u> </u>
2	NOTICE TO PROCEED	1 day	®																
3	PERMITTING (Considers project expedite approval process for energy related projects. Also assumes reviews to be conducted at the local regulatory agencies.)	167 days																	
4	TIER I : ENVIRONMENAL DOCUMENT( Local Permits Management Office (PMO) only. Assumes no FERC jurisdiction based on Jones Act Waiver. Assumes also endorsement by Puerto Rico Ports Authority. No dredging pmt from USACE required. No Public Hearings required)	151 days																	
5	PREPARE REA (Environmental Assessment Draft)	70 days										_							
6	SUBMITT REA	1 day										<b>†</b>							
7	COMMENTS BY AGENCIES (Assumes the document runs through the Energy Projects expedite process)	40 days																	
8	INCORPORATE COMMENTS AND SUBMITTAL OF FINAL DEA (Final Environmental Assessment)	10 days																	
9	APPROVAL BY AGENCIES (Assumes the document runs through the Energy Projects expedite process)	30 days																	
10	LOCATION APPROVAL (If necessary by local Planning Board)	91 days																	
11	PREPARE LA DOCUMENT	30 days					⊾												
12	SUBMITT LA TO PLANNING BOARD	1 day																	
13	PUBLIC HEARING (IF REQUIRED)	30 days							1										
14	APPROVAL BY PB	30 days									r								
15	TIER II : CONSTRUCTION PERMIT	22 days													Γ				
16	PMO CONSTRUCTION PERMIT	22 days																	
17	PREPARE DOCUMENT (ASSUMES DESIGN, SPECIFICATIONS AND COST ESTIMATE ARE AVAILABLE BEFORE THIS TIME FRAME)	15 days																	
18	SUBMITT TO PMO	2 days																	
19	APPROVAL BY AGENCIES (Approval Notification)	5 days																	
20	TIER III CONSTRUCTION EXECUTION RELATED PERMITS	31 days																	
21	GENERAL CONSOLIDATED PERMIT (CES Plan, Solid Waste Disposal Permit, Fugitive Dust Air Pmt)	23 days																	
22	PREPARE CES PLAN	13 days																	
23	PREPARE SOLID WASTE DISPOSAL PLAN	10 days																	
24	PREPARE FUGITIVE DUST AIR APLICATION	5 days																	
25	PREPARE CONSOLIDATED PMT DOCUMENT	2 days																	
26	SUBMITT TO PMO	1 day																	
27	APPROVAL BY AGENCIES	5 days																	
28	INCIDENTAL EXTRACTION PERMIT (DNER)	21 days																	
29	PREPARE DOCUMENT	15 days																	
30	SUBMITT TO PMO	1 day																	
31	APPROVAL BY AGENCIES	5 days																	
32	CONSTRUCTION STORM WATER PERMIT (NPDES)	31 days																	
33	PREPARE DOCUMENT	15 days																	
33 34	PREPARE SWPPP	15 days																	
	SUBMITT ELECTRONICALLY TO EPA	2 days																	
35	APPROVAL BY AGENCIES																		
36		14 days																	
37		74 days																	
38 39	AIR CONSTRUCTION PERMIT PREPARE PERMIT DOCUMENT (Minor Source Consideration. Assumes PREPA will manage its Title V Modification )	42 days 10 days																	
40	SUBMITT TO EQB	2 days																	
41	APPROVAL BY AGENCIES	30 days																	
42	AIR OPERATION PERMIT	42 days																	
43	PREPARE OPERATIONS PERMIT	10 days																	
44	SUBMITT TO EQB	2 days																	
44 45	APPROVAL BY AGENCIES	30 days																	
45 46	COOLING WATER NPDES PERMIT (If water can be provided through PREPA this permit may not be required.)	95 days																	
47	PREPARE LA DOCUMENT	40 days																	
47	SUBMITT PMT SUBMITTAL TO EPA/EQB	5 days																	
-10	OBTAIN WATER QUALITY CERTIFICATE								1										
49		30 days																	





### **ANNEX IV – Letter Puerto Rico Port Authority**



#### **25 SEPTEMBER 2018**

### LNG FUEL SUPPLY IN THE NORTH AND CONVERSION OF SAN JUAN UNITS 5 & 6 TO NATURAL GAS PROJECT

PROPOSAL FOR: PUERTO RICO ELECTRIC POWER AUTHORITY

ANY OTHER COPY OF THIS RFP RESPONSE IS HIGHLY CONFIDENTIAL AND ALL INFORMATION IS PROTECTED BY LAW



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## LETTER FROM WES EDENS



September 25, 2018

Mr. José Ortiz, Executive Director & CEO Puerto Rico Electric Power Authority P.O. Box 364267 San Juan, Puerto Rico 00936

Re: RFP 81412: Request for Proposals for Fuel Supply in the North and Conversion of San Juan Units 5 and 6, issued by the Puerto Rico Electric Power Authority

#### Dear Director Ortiz:

New Fortress Energy is pleased to present a proposal for the turnkey conversion of San Juan Units 5 & 6 and a guaranteed supply of natural gas to the power plant. We have reviewed PREPA's RFP closely and believe that a conversion to natural gas offers significant benefits – including cost, safety and environmental – over alternative fuels such as diesel or LPG. Over the 5-year base term of the contract, our solution delivers an estimated \$1.3bn of savings versus expected diesel prices. At a savings of approximately \$24mm per month, the benefits to Puerto Rico of immediate action are evident. We have a very clear view of the infrastructure, permits and logistics for this project, and our solution can be operational by the end of March 2019.

Our offer to supply natural gas is simple. PREPA's fuel price will be based on Henry Hub and decline annually over the 5-year term. The average fuel price of our offer is ~\$10.10 per MMBtu for natural gas, which is the equivalent of \$1.40 per diesel gallon vs. today's delivered price in San Juan of over \$2.40 per gallon. PREPA would have the ability to extend the contract for three additional 5-year periods, for a total of 20 years.

Term	5 years extendable for three 5-year periods
Base Index	Henry Hub x 115%
+ Unit Cost	<b><u>\$7.10</u></b> per MMBtu average over the base 5-year term
Year 1 Unit Cost	\$8.50 per MMBtu
Year 2 Unit Cost	\$7.50 per MMBtu
Year 3, 4 and 5 Unit Cost	\$6.50 per MMBtu

Importantly, our proposal is <u>not</u> contingent on third party financing, which offers additional assurances that we can meet the schedule outlined in our proposal and ensures that savings can begin quickly.

As you know, we have invested significantly in the development of a micro fuel handling facility to import liquefied natural gas (LNG) in San Juan and deliver natural gas to customers throughout Puerto Rico. We will supply natural gas to PREPA from this facility, which is located immediately adjacent to the San Juan Power Plant on land that we control under a 20-year long-term lease with the Puerto Rico Ports Authority. We have worked closely with federal regulators to ensure compliance and on-time delivery of the facility. Our facility was designated as a Strategic Project by the Government of Puerto Rico under Act 19, which enables us to offer the accelerated execution timeline in our proposal.

The delivery of natural gas to San Juan will allow for the additional development of modern generation projects that can accelerate the transition from distillate fuels and result in billions of dollars in fuel savings, sharply lower electricity prices and a much friendlier environmental footprint. In Jamaica, we undertook a very similar effort, and the results have been transformative. Two years ago, nearly 100% of Jamaica's electricity generation was oil-based; two years from now nearly all generation will be natural gas-fired or renewable. Consumer energy prices are decreasing, and environmental conditions are vastly improving. Moody's upgraded the country last November, citing the adoption of LNG as a driver. We expect even better results in Puerto Rico.

Our team, our equipment and our world-class partners, such as Mitsubishi Hitachi Power Systems, Black & Veatch, and Moffatt & Nichol, have proven track records for similar projects and applications throughout the world. Mitsubishi Hitachi Power Systems, the LTSA provider and chosen contractor, has provided us with a schedule that will complete the conversion by March 2019. In order to hit this timeline, we have engaged the best-in-class local partners who will provide valuable experience and insight to the project execution team.

I founded US-based New Fortress Energy to fund, develop and drive the world's transition from oil-based fuels to natural gas and renewables. I travelled to Puerto Rico just days after hurricane Maria last September to see how we could assist in the recovery and rebuilding of the Island's energy infrastructure. We are hopeful that our proposal will contribute to that effort and be a meaningful step towards a more sustainable, secure energy future for Puerto Rico. Our entire team is ready to work closely with yours to discuss our proposal and begin what we hope will be a long-term partnership. We look forward to hearing from you soon.

All the best,

Wes Edens CEO & Founder New Fortress Energy Holdings LLC Co-CEO & Co-Founder Fortress Investment Group LLC

# PROPOSAL HIGHLIGHTS

### **Proposal Highlights**

KEY ITEMS	HIGHLIGHTS
Proponent	NFEnergía LLC, a Puerto Rico limited liability company and a wholly owned subsidiary of New Fortress Energy Holdings LLC and an affiliate of Fortress Investment Group LLC (NFE), a leading, highly diversified global investment manager with approximately \$41 billion of assets under management as of June 30, 2018; NFE and its affiliates have invested over \$25 billion in transportation, infrastructure, and energy assets worldwide since 2001.
LNG Experience	NFE has completed or is currently developing over \$2.5 billion of LNG related assets worldwide. NFE currently operates LNG liquefaction facilities, small- scale LNG receiving terminals, world-scale LNG receiving terminals, power plants, and distributed energy solutions in the region; NFE was the first to export LNG from the US lower 48 to a non-FTA country.
Price / Offer	Annual Capacity Payment: \$10 million for the 5-year base term of the contract Unit Cost: \$7.10 per MMBTU average Unit Cost (Unit Cost schedule detailed in Section 3.1) Index for changes in Unit Cost: Henry Hub x 115%
5-year NPV Cost Savings	\$1.3 billion (est.) over the 5-year base term of the contract
Schedule	Conversion of San Juan Units 5 & 6 to be capable of burning natural gas by March 2019.
Infrastructure	Natural gas delivered via NFE's micro-fuel handling facility located in Puerto Nuevo Section of San Juan Harbor immediately adjacent to the San Juan Power Station.
Real Estate	Long-term lease with Puerto Rico Ports Authority for land in Puerto Nuevo Section of San Juan Harbor immediately adjacent to the San Juan Power Station, and space at Wharf C to conduct natural gas operations, including berth space for our LNG carrier.
Permissions	Strategic Project Certification (COMPLETE) Micro-fuel handling facility environmental assessment (COMPLETE) US Customs & Border Protection – "Jones Act" – letter (COMPLETE) US Coast Guard Letter of Recommendation Submissions (COMPLETE)
Partners	World-class partners for engineering, design, construction, and project execution, including Mitsubishi Hitachi Power Systems, Black & Veatch, Moffatt & Nichol in addition to many outstanding local partners.
Technology	Commitment from Mitsubishi Hitachi Power Systems to subcontract with NFE for the turnkey engineering, supply, installation, commissioning, and testing of the natural gas conversion project.
Safety and Reliability	Mitsubishi Hitachi Power Systems has recommended to NFE the use of LNG over LPG as the fuel of choice for San Juan 5 & 6 because of, among other things, the safety risks inherent in using LPG in this application.
Optimization [Optional]	Because of the close proximity of NFE's micro-fuel handling facility to San Juan Power Station, Mitsubishi Hitachi Power Systems has provided NFE an <u>option</u> to integrate "inlet cooling" with the conversion project, adding additional capacity.

## RFP REQUIREMENTS & RESPONSES CHECKLIST

### **RFP Requirements and Responses**

The table below identifies where in the proposal document the requested information can be found.

RFP Description	RFP Page Number	Proposal Section Number and Title	Proposal Page Number
Evaluation and Selection Criteria Overview:			
Experience and Capacity	14	1.0 NFE Experience and Capacity	1-1
Approach and Methodology	15	2.0: Introduction, Approach and Methodology	2-1
Price Proposal	16	3.0 Price Proposal	3-1
Detailed RFP Cross Reference Chart:			
Land property necessary for fuel unloading, storage and handling facility	8	2.1.4 Ownership or Control of Location	2-7
US Coast Guard Authorization, as required	8	Table 4-1 NFE Steps Completed Toward Issuance of United States Coast Guard Letter of Recommendation	4-1
Bidder must be able to demonstrate a clear path for achieving approval of all necessary permits required for the construction and operation of the project including appropriate harbor access and approvals	8	4.1 Permitting Path and Matrix	4-1
Contractor must supply all supply, construction and commissioning of all equipment and interconnection necessary for a complete unloading, storage and fuel handling terminal facility as necessary to receive, unload and store LNG and to vaporize and deliver natural gas to the existing San Juan Units 5 and 6 Power Generating Plant.	8	2.1 Project Scope of Work Description	2-1
If alternative fuel is proposed, Contractor shall be responsible for the installation of all necessary facilities to deliver the fuel to Units 5 and 6.	8	2.1.5 Alternative Fuel	2-12
Contractor shall supply the supply and delivery of LNG on regular intervals as necessary to support San Juan Units 5 and 6 consumption of approximately 25 TBTU/yr	8	2.3.2 LNG Storage and Transfer – San Juan LNG Delivery	2-17
Contractor must supply logistics necessary to achieve reliability of LNG supply for a term of at least 5 years with three separate five-year extensions at PREPA's sole discretion.	8-9	2.3.2 LNG Storage and Transfer	2-15
Operation and maintenance for duration of contract of all LNG, or alternative fuel, terminal and interconnection facilities required to	9	2.3.1 LNG Delivery Operations and Equipment	2-14

RFP Description	RFP Page Number	Proposal Section Number and Title	Proposal Page Number
provide reliable and safe delivery of natural gas			
at the quantities described above to the battery			
limits of the San Juan Units 5 and 6 generating			
plant.			
Contractor shall be responsible in supplying all			
materials, equipment and personnel to fulfill		2.3.1 LNG Delivery	
the project within the scope of supply, starting	9	Operations and	2-14
from LNG unloading terminal and ending at the		Equipment	
combustion turbine nozzle inlet.			
The engineering shall consider transient loads		2.2.1.4 Transient Load	
management solution due to potential load	9		2-13
fluctuations of the units.		Management	
Shipping, supply, operating associated with LNG		2 2 1 LNC Delivrowy	
delivered to the terminal and for the natural gas	9	2.3.1 LNG Delivery	2-14
supply from the terminal to San Juan 5 and 6	9	Operations and Equipment	2-14
shall be part of Contractor's responsibility.		Equipment	
The Contractor shall be responsible for the			
scope of work and associated capital cost		2.2 Power Plant	
required for LNG gas conversion of PREPA's San	9	Conversion	2-12
Juan Units 5 and 6, as well as modifications to		Conversion	
associated turbine controls			
The Contractor shall include the cost of the			
scope for PREPA's Unit 5 and 6 conversion as			
part of its proposal in the form of a capacity	9	9 3.0 Price Proposal	3-1
payment over the initial Base five (5) year term			
of the Agreement			
The Contractor shall oversee and manage the			
conversion work with appropriate subcontracts			
to the combustion turbine original equipment			
supplier company, Mitsubishi, who will be		Exhibit 20 Power Plant	
responsible for defining the scope for the	9	Division of Responsibility	Exhibit 20
turbine's gas conversion and turbine controls		Division of Responsibility	
modifications including engineering/design,			
equipment supply and technical advisors for			
construction and startup.			
The Contractor shall be responsible for		2.4.7 San Juan Power	
coordinating outage planning with PREPA to	9	Plant Area Execution Plan	2-32
implement the necessary modifications.		T faile Ai ca Execution T fail	
The Contractor will optimize the conversion of		2.2.1.2 CT Inlet Air	
Units 5 and 6 to achieve commercially	9	Chilling (detail on this	2-13
reasonable improvements in output and heat	)	option)	2-15
rate in conjunction with the conversion		optionj	
Mitsubishi shall be a sole source subcontractor			
to the Contractor, and Mitsubishi shall be		Exhibit 20 Power Plant	
responsible for engineering, supply, technical		Division of Responsibility	Exhibit 20
advising/installation oversight and	9-10		
commissioning associated with the conversion		Exhibit 26 Mitsubishi	Exhibit 26
of San Juan 5 and 6, including but not limited to		Letter	
the list on page 9-10 of the RFP			
Contractor will be responsible for separately	10	1.5.3 Engineer – Black &	1-20
subcontracting to a qualified Engineer to	10	Veatch	1-20

RFP Description	RFP Page Number	Proposal Section Number and Title	Proposal Page Number
perform all Balance of Plant design engineering beyond the scope of Mitsubishi but as necessary to accomplish the conversion of San Juan Units 5 and 6, including but not limited to the list on page 10 of the RFP	Number		Number
All equipment and materials installed by contractor from the regasification point to the units shall become PREPA's property from the Final Acceptance date.	10	Exhibit 32 NFE Draft of Terms and Conditions	Exhibit 32
The Contractor shall be responsible for studies, permits and endorsements from the United States Coast Guard, Puerto Rico Ports Authority, Public Service Commission, Department of Natural Resources, NOAA and PR Environmental Quality Board, Federal Energy Regulatory Commission, US National Fish and Wildlife, and other applicable agencies for LNG shipping terminal and storage works outside San Juan Power Plant perimeter and for assisting PREPA with such studies and permits as necessary to convert San Juan Units 5 and 6.	10	4.1 Permitting Path and Matrix	4-1
The Contractor shall be responsible for all interfaces with the Puerto Rico Ports Authority (PRPA) and its proposal shall include a letter of support from the PRPA.	10	Exhibit 34 Puerto Rico Ports Authority Letter of Support	Exhibit 34
Scope of Work, not limited to:	10		
Gas Piping: The use of SOCOIN natural gas piping and route designed for the SJ Combined Cycle shall be considered, but the final design will be determined by the Contractor in accordance with applicable standards.	10	Section 2.1 Project Scope of Work and Description	2-1
Dedicated Auxiliary Equipment's: Control Valves, Gas Evaporator, Heater or Heat Tracer and Compressor to comply with combustion turbine's manufacturer recommendations, Relief Valves, Stop Valves, Safety Vent Valves, Safety Shut Down Valve at fuel gas turbine manifold, Overspeed Trip Valve, Fuel Gas Meter, Metering Station for Financial Custody, Coalescent Filters, etc	10-11	Section 2.1 Project Scope of Work and Description	2-1
The Contractor is responsible of any improvements required to the dock per NFPA, Ports Authority and USCG compliance and for the recertification due to the change of use.	11	Section 2.1 Project Scope of Work and Description	2-1
Contractor shall not interfere with current operations for unloading and storing Bunker C fuel oil or diesels fuel at any the existing PREPA San Juan Steam Plant generating facilities	11	2.4.7 San Juan Power Plant Area Execution Plan	2-32

<b>RFP Description</b>	RFP Page Number	Proposal Section Number and Title	Proposal Page Number
Electronics and Communications: for all operation, control and supervisory signals from auxiliary equipment, gas conveyance,	Number		Number
metering station and LNG storage and vaporizer system shall be integrated to the San Juan Units 5and6 DCS by means of dedicated fiber optic conduits and cables	11	Section 2.1 Project Scope of Work and Description	2-1
Coating: All steel surfaces shall be painted with a three coating system for corrosive environment and UV protected	11	Section 2.1 Project Scope of Work and Description	2-1
Fuel Gas Meters: The Two separate flow meters shall be installed including a main meter and a backup meter. The metering equipment will be installed in a location to be mutually agreed to by the Contractor and PREPA. The metering equipment shall be designed and installed in accordance with the current recommendations of the American Gas Association	11	Section 2.1 Project Scope of Work and Description	2-1
NDT to all welds; 100% x-Rays, hydrostatic test	11	Section 2.1 Project Scope of Work and Description	2-1
Cathodic Protection	11	Section 2.1 Project Scope of Work and Description	2-1
Fire protection system modification as required by codes and local and federal regulatory agencies	11	Section 2.1 Project Scope of Work and Description	2-1
Gas leak Sensors w/heat and temperature sensors	11	Section 2.1 Project Scope of Work and Description	2-1
Mechanical, Electrical, Structural and Civil Works	11	Section 2.1 Project Scope of Work and Description	2-1
Construction Drawings	11	Section 2.1 Project Scope of Work and Description	2-1
As Built Drawings	11	Section 2.1 Project Scope of Work and Description	2-1
Construction shall consider hurricane winds of 145 MPH and comply with Seismic User Group 3	11	Section 2.1 Project Scope of Work and Description	2-1
Combustion turbine manufacturer's Recommendation of Natural Gas Parameter at Combustion Turbine's Gas Control Skid (Pressure 350-650 psi, Temperature 60 F, Flow 27.43 MMBtu/min per unit)	12	Section 2.1 Project Scope of Work and Description	2-1
Volume nominations: Each year, PREPA will provide an annual quantity nomination to be supplied to the San Juan Units 5 and 6. Contractor will commit to providing this total quantity in accordance with the schedule to be provided by PREPA.	12	Exhibit 32 NFE Draft of Terms and Conditions	Exhibit 32

<b>RFP Description</b>	RFP Page Number	Proposal Section Number and Title	Proposal Page Number
Minimum terminal LNG storage to be maintained at all times: 7 days of storage for San Juan Units 5 and 6 at full load	12	2.3.2 LNG Storage and Transfer Table 2-1 NFE Shipping Assets	2-15 2-17
Guaranteed delivery. Contractor is responsible for providing 100% of the San Juan Units 5 and 6 natural gas supply in accordance with the annual quantity nomination	12	Exhibit 32 NFE Draft of Terms and Conditions	Exhibit 32
If natural gas is not available as specified by PREPA, Contractor may be required to supply diesel fuel to operate the units or alternatively to reimburse PREPA for the difference between their cost of diesel fuel consumed minus the contract price of natural gas and any other costs associated to this change	12	2.1.5 Alternative Fuel	2-12
If the natural gas available does not conform to the quality specifications described in the combustion turbine manufacturer's specifications, the natural gas supply shall be deemed unavailable and the abovementioned Contractor's responsibility will apply	12	Exhibit 32 NFE Draft of Terms and Conditions	Exhibit 32
Security –Bidder shall propose a security acceptable to PREPA to guarantee its performance under the contract and provide terms which would allow step-in rights in the event of non-performance	12	5.2 Financial Ability and related Exhibits Exhibit 32 NFE Draft of Terms and Conditions	5-1 Exhibit 32
Scope of work for the total project	12	2.1 Project Scope of Work Description	2-1
Schedule	12	Figure 4 CPM Schedule	2-2
Operating Plan	13	2.3 LNG Delivery & Natural Gas Fuel Supply Logistics and Operations	2-14
Location(s)	13	2.1.3 Proposed Project Location and Siting 2.1.4 Ownership or Control of Location	2-5 2-7
Permitting plans (if applicable)	13	4.1 Permitting Plan and Matrix	4-1
Plans for financing, schedule, requirements and demonstration of commitments to financing. Note: Proponent proposal will not be accepted if conditioned on approval of financing. Proponent must be able to demonstrate existing unconditional commitments to financing for the project.	13	5.2 Financial Ability and related Exhibits	5-1
Supply contract terms (if applicable)	13	Exhibit 32 NFE Draft of Terms and Conditions	Exhibit 32
Scope of work for the total project including permitting	13	4.1 Permitting Plan and Matrix	4-1

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RFP Description	RFP Page Number	Proposal Section Number and Title	Proposal Page Number
Schedule for scope of work to support delivery of natural gas	13	Figure 4 CPM Schedule	2-2
Schedule for scope of work to accomplish conversion of San Juan Units 5 and 6	13	Figure 4 CPM Schedule	2-2
Long term operating plan for gas unloading and supply facility	13	2.3 LNG Delivery & Natural Gas Fuel Supply Logistics and Operations	2-14
Location of facility	13	2.1.3 Proposed Project Location and Siting 2.1.4 Ownership or Control of Location	2-5 2-7
Source of LNG supply and delivery logistics, including reliability contingency, as needed to support full load continuous reliable operation of San Juan Units 5 and 6	13	2.3.2 LNG Storage and Transfer	2-15
Storage and redundancy in equipment systems as necessary to assure reliable fuel supply to the power generating units	13	2.3.1.2 Liquefied Natural Gas Ships & Major Equipment and 2.3.3 LNG Vaporization Overview	2-14 2-18
Ownership structure	13	1.5 Ownership Structure & Project Team Introduction	1-14
Order of magnitude estimated capital cost required for total investment	13	5.1 Capital Cost Estimate	5-1
Plans for financing, schedule, requirements and demonstration of commitments to financing. Note: Bidders proposal will not be accepted if conditioned on approval of financing. Bidder must be able to demonstrate existing unconditional commitments of financing for the project.	13	5.2 Financial Ability and related Exhibits	5-1
Pricing and applicable indices	13	3.0 Price Proposal	3-1
Plans for control/ownership of proposed location for fuel unloading facility	13	2.1.4 Ownership or Control of Location	2-7
Evidence that Contractor currently owns/controls any ships, vessels or major equipment necessary to execute the project as scheduled including initial fuel delivery	13	2.3.2 LNG Storage and Transfer	2-15
Recommendation of current or recent customer for similar services as proposed	13	1.4 Client References & Letters of Recommendation	1-11
Letter of Support from Puerto Rico Ports Authority or as established on Part VI. Studies and Permits	13	Exhibit 34 Puerto Rico Ports Authority Letter of Support	Exhibit 34
Demonstration of Jones Act compliance	13	Exhibit 33 Evidence of Jones Act Compliance	Exhibit 33

RFP Description	RFP Page Number	Proposal Section Number and Title	Proposal Page Number
Permitting path and permit request/approval matrix	13	4.1 Permitting Path and Matrix	4-1
Scope split document for all work (including San Juan 5 and 6 conversion) demonstrating scope by all major subcontractors to Bidder including Mitsubishi, Bidder's Engineer, and Bidders Construction Contractor(s)	13	Exhibit 20 Power Plant Division of Responsibility	Exhibit 20
Subcontractor Commitment letter from Mitsubishi to perform scope for conversion of San Juan 5 and 6	13	Exhibit 26 Mitsubishi Letter	Exhibit 26
Proposed Engineer for BOP scope	13	1.5.3 Engineer – Black & Veatch	1-20
Proposed Construction Contractor(s) and respective scope	13	1.5.4 Contractor – TSK	1-21
Experience and Capacity Criteria:			
Respondents must demonstrate experience and success in developing LNG fuel developments of similar scope as the duties described herein.	14	1.2 Qualifications and Experience	1-2
Proponents shall provide the names and titles of the key members of the Project team (including the Design Entity selected by the Proposer) with a brief description of the qualifications and experience of Project Manager, Engineering and Design Manager, Lead Engineers, Inspector Manager, Safety Officers, QA/QC Managers, Environmental Specialists, and other key personnel required, including subcontractors	14	<ol> <li>1.5 Ownership Structure &amp; Project Team</li> <li>1.5.1 NFE Project Management Team</li> </ol>	1-14 1-16
Proponents shall include a clear assignment of responsibility for various project tasks to specific individuals	14	1.5 Ownership Structure & Project Team	1-16
Proposals shall include resumes identifying the qualifications and experience of all personnel listed above.	14	Exhibits 4, 6 and 8	Exhibits 4, 6 and 8
Submit a complete list showing all key firms in the Proposer's team.	14	1.5 Ownership Structure and Project Team	1-14
Identify and describe potential subcontractors with demonstrated proof of the technical capabilities necessary to perform their proposed scope of work and or services.	15	1.5 Ownership Structure & Project Team	1-14
Submit evidence that the Proposer is duly and properly organized and is qualified to conduct business in Puerto Rico or will be prior to contract award.	15	Exhibit 39 Certificate of Formation Exhibit 40 Certificate of Good Standing	Exhibit 39 Exhibit 40
Respondents that demonstrate they have the staff available to begin immediately will be	15	1.5 Ownership Structure & Project Team	1-14

RFP Description	RFP Page Number	Proposal Section Number and Title	Proposal Page Number
scored higher than those who need more time,	Number	1.5.1 NFE Project	1-16
or whose responses are vague		Management Team	
Approach and Methodology Criteria:			
Explain your approach to completing the Project within the given construction dates and site constraints.	15	<ul><li>2.1.1 Overview of Approach &amp; Schedule; Figure 4 CPM Schedule</li><li>2.1.3 Proposed Project</li></ul>	2-2 2-5
		Location and Siting	
Include a summary-level CPM schedule detailing all aspects of the Project.	15	Figure 4 CPM Schedule	2-2
Include a detailed assessment and response to the site condition restraints.	15	2.1.3 Proposed Project Location and Siting	2-5
Respondents shall outline a clear and straightforward approach and demonstrated commitment to accomplishing the schedule goal of providing fuel gas for San Juan 5 and 6 no later than March, 2019.	15	2.1.1 Overview of Approach & Schedule; Figure 4 CPM Schedule	2-2
Respondents shall identify key goals and objectives, and methods for achieving high standards for the delivery of services, in expectation of meeting or exceeding these goals.	15	2.4 Project Execution Plan	2-20
Demonstrating a clear and thorough interpretation and acknowledged assimilation of the project work scope as described herein and that are part of this RFP.	15	2.1 Project Scope of Work and Description	2-1
Satisfactorily demonstrating how the duties will be staged to minimize impacts to PREPA operations.	15	2.4.7 San Juan Power Plant Execution Plan	2-5
Presenting a clear and logical approach for the efficient performance of all work tasks across the Proposer's entire Project Team	15	1.5.2 NFE Project Management Team	1-17
Describing how the Proposer's submitted milestone schedule demonstrates a clear understanding and integration of all the interrelated duties	15	2.1.1 Overview of Approach & Schedule; Figure 4 CPM Schedule	2-2
Describing how the Proposer intends to address and mitigate adverse environmental materials.	15	2.5.1 Environmental	2-13
Providing a specific and project-proven approach and plan for effective Quality Assurance/Quality Control across the Proposer's Project Team	16	2.5.2 Safety and Quality Assurance	2-14
The Proposer's outline plan and commitment to safety.	16	2.5.2 Safety and Quality Assurance Exhibit 28 NFE's Health, Safety, Security and Environmental Manual	2-14 Exhibit 28
Respondents shall explain how they will be organized to effectively deploy support for PREPA and clearly identify engagement manager and different work stream leaders.	16	1.5.2 NFE Project Management Team	1-17

RFP Description	RFP Page Number	Proposal Section Number and Title	Proposal Page Number
Price Proposal Criteria:	16		
Respondents shall clearly identify proposed capacity payment to cover costs for conversion of San Juan 5 and 6, proposed delivered fuel payment price, and proposed fuel price indices for inflation and changing market conditions.	16	3.0 Price Proposal	3-1
Terms and conditions of price proposal will also be a consideration.	16	3.0 Price Proposal Exhibit 32 NFE Draft of Terms and Conditions	3-1 Exhibit 32
Provide evidence of the Proposer's financial ability and resources to adequately perform and manage the Contract, manage risk or ability to obtain such resources as are required during the performance of the Project	16	5.2 Financial Ability and related Exhibits	5-1
If Proposer is a joint venture or a newly-formed entity, identify appropriate guarantor(s) and provide evidence of the financial resources of such guarantor(s).	16	5.2 Financial Ability and related Exhibits	5-1
Submit audited financial statements for the Proposer for the most recent three (3) fiscal years, certified by certified public accountant in accordance with generally accepted accounting principles	16	5.2 Financial Ability and related Exhibits	5-1
If applicable, provide all such information with respect to any guarantor(s).	16	5.2 Financial Ability and related Exhibits	5-1
Provide a letter from a bonding company satisfactory to PREPA that commits the bonding company to provide the required bonding on behalf of the Proposer if the Proposer is awarded the contract for the Project	16	Exhibit 46 Bonding and Surety Letter	Exhibit 46
Provide a letter from an insurance company, satisfactory to PREPA that commits the insurance company to provide the required insurance on behalf of the Proposer if the Proposer is awarded the contract for the Project.	16	Exhibit 47 Insurance Letter	Exhibit 47
Additional RFP Requirements:			
Proponents that are corporations, partnerships, or any other legal entity, U.S. or Puerto Rico based, shall be properly registered or capable to be registered or capable and willing to registered to do business in Puerto Rico and the U.S. at the time of the submission of their proposals, and comply with all applicable Puerto Rico or U.S. laws and/or requirements.	17	Exhibits 39 and 40 Certificate of Formation and Good Standing in Puerto Rico Exhibit 38 Merchant's Registry Certificate 4.5.2 Commitment to Compliance with Applicable Law	Exhibit 39 Exhibit 40 Exhibit 38 4-6
Proponent has adequate financial resources to perform the contract, or the ability to obtain them; financial statements for the past 2 years will be required or equivalent financial records must be included in the proposal.	17	5.2 Financial Ability and related Exhibits	5-1

<b>RFP Description</b>	RFP Page Number	Proposal Section Number and Title	Proposal Page Number
Proponent is able to comply with an accelerated delivery or performance schedule.	17	2.1.1 Overview of Approach & Schedule; Figure 4 CPM Schedule	2-2
Proponent has experience with similar projects and a satisfactory performance record.	17	1.2.1 Similar Engagements and Experience	1-2
Proponent has a satisfactory record of integrity and business ethics.	17	<ul> <li>4.5 Additional Legal Explanations and Documents</li> <li>Exhibit 41 Certification of compliance with Ethics Act of the Government of Puerto Rico</li> </ul>	Exhibit 41
Proponent has the necessary organization, experience, accounting and operational controls, and technical skills.	17	<ul><li>1.2.1 Similar</li><li>Engagements and</li><li>Experience</li><li>2.4 Project Execution Plan</li></ul>	1-2 2-20
Neither Proponent nor any person or entity associated who is partnering with Proponents has been the subject of any adverse findings that would prevent PREPA or Authority from selecting Proponent, including list on page 17 to 18 of RFP	17-18	4.5.2 Commitment to Compliance with Applicable Law	4-6
Provide a cover letter that includes a certification that the information submitted and the Proposal is true and accurate, and that the person signing the cover letter is authorized to submit the Proposal on behalf of the Proponents.	18	Transmittal Letter	Transmittal Letter
Clearly identify the designated contact person for the engagement.	18	1.5.1 NFE Leadership Team and Primary Contact	1-15
Provide a table of contents that clearly identifies the location of all material within the Proposal by section and page number.	18	Table of Contents This RFP Chart	
Provide a summary of the types of services the Proponent offers that relates to this RFP.	18	I-I About NFE	1-1
Identify engagement and or staff experience with entities comparable to PREPA for which the Proponents provides or has provided, similar services within the last (10) years.	18	1.2.1 Similar Engagements and Experience	1-2
Proponents must indicate the dollar value of the similar services to the ones contemplated in their RFP.	18	1.2.1 Similar Engagements and Experience	1-2
Detail at least one to three (1-3) similar engagements and/or experience with private and public-sector clients that would demonstrate that the Proponent can provide the requested services, including client name,	18-19	1.2.1 Similar Engagements and Experience	1-2

RFP Description	RFP Page Number	Proposal Section Number and Title	Proposal Page Number
description of engagement, beginning and	Number		Number
ending dates, examples of recommendation offered to the client relating to the project and			
the results of those recommendations, a			
demonstration of success based on those			
recommendations (such as performance			
metrics and improvements), description of how			
private sector example could be applied to			
public sector, key infrastructure programs			
advanced as a result of the project, and letters			
of recommendation.			
Please provide at least three (3) references for			
the prime Proponent and two (2) for any		1.4 Client References and	
partners or subcontractors, including the name,	19	Letters of	1-11
title, company, address, phone number and		Recommendation	
email address of the reference.			
		1.2.1 Similar	
Summary of Proponent's technical expertise		Engagements and	1-2
that describes the Proponent's unique capabilities, highlighting ability to provide fuel	19	Experience	1-2
gas shipping and delivery and program	19	_	2-1
management services.		2.1 Project Scope of Work	2-1
		Description	
Biographical summaries for Key Individuals and	19	1.5 Ownership Structure	1-12
their proposed roles.	17	& Project Team	1 12
Identify any sub-consultants and Local Parties			
incorporated into the team and clearly explain	19	1.5.5 Local Partners	1-19
their expertise, expected role and value to the			
engagement.			
Specify the primary contact person for the	10	1.5.1 NFE Leadership	
Proponent (name, title, location, telephone	19	Team and Primary	1-15
number and email address)		Contact	
Proposals must provide examples of how the		1.2.1 Similar	
proposed approach has achieved success in		Engagements and	1 0
specific, relevant projects for public or private	10	Experience	1-2
sector organizations similar in size and	19	-	2-1
complexity to PREPA with enough information to ascertain the success of the projects		2.1 Project Scope of Work	2-1
accomplished by the Proponent.		Description	
Acknowledgement that if selected the			
Proponent has the ability to respond with		1.5 Ownership Structure	
sufficient key and line staff and the proposed	19	& Project Team	1-12
Key Individuals			
Identify existing staff that will be involved in the			
services describe herein, including each staff		15 Originality States	
member's proposed role in the organization,	20	1.5 Ownership Structure	1-12
their relevant qualifications, and the allocation		& Project Team	
of their time to this engagement.			
Clearly identify the members of the team that			
are expected to be residing in Puerto Rico and	20	1.5 Ownership Structure	1-12
will serve as local contacts for the engagement	20	& Project Team	1-12
purposes.			

RFP Description	RFP Page Number	Proposal Section Number and Title	Proposal Page Number
Proponents are required to submit their price			
proposal in accordance to the Price Proposal	20	3.0 Price Proposal	3-1
Form (Attachment 1).			01
PREPA is interested in the four components of			
pricing outlined on page 20 of the RFP	20	3.0 Price Proposal	3-1
Proponents shall explain their adherence to			
complying with all applicable Federal and			
Puerto Rico permits and regulations. Indicate			
what characteristics of the team set them apart		4.5.2 Commitment to	
in terms of commitment to comply with all	20	Compliance with	4-6
applicable laws and requirements. Indicate		Applicable Law	10
what specific trainings and expertise reside			
within the team that reinforces the commitment			
to compliance.			
Explain how the Local Party(ies) will add value			
to the team and their expected role.	20	1.5.5 Local Partners	1-19
Identify the Key Personnel from the Local			
Party(ies) and provide an indication of the			
expected level of involvement on the day-to-day	20	1.5.5 Local Partners	1-19
activities and interaction with PREPA.			
All Proponents are required to submit a	21		
redacted copy of their proposal.	21	See redacted copy	
Proponents are required to provide a list of any			
other current or former advisory contracts the		4.5.4 Additional Legal	
firm has/had with any Government Entity in		Explanations and	
Puerto Rico, or which bear any direct or indirect	21	Documents	4-8
relation to the activities of the Government of			
Puerto Rico		NFE has none.	
Provide a description of any recent historical or			
ongoing legal proceedings, interviews or		4.5 Additional Legal	
investigations being conducted by any U.S. law		Explanations /	
enforcement agencies involving your firm or	21	Documents	4-7
team that are related to transactions executed	21	Documents	1,
in or on behalf of the Government of Puerto		NFE has none.	
and/or its public corporations.			
Provide a brief description of any work you		4.5.5 Additional Legal	
have performed for any creditors or guarantors		Explanations /	
of the Government of Puerto Rico or any public	21	Documents	4-8
corporation debt about their positions in Puerto		2000000	10
Rico debt obligations		NFE has none.	
Certification that Contractor has filed all the	23		
necessary and required income tax returns to	25		
the Government of Puerto Rico for the last five		Exhibit 35 Income Tax	
years and that it has complied and is current		Certification from MRCC	Exhibit 35
with the payment of all income taxes due to the			
Government of Puerto Rico.			
Contractor will certify and warrant that it has	24	Exhibit 43 Certification	
made all payments required for unemployment		that NFE has made all	
benefits, workmen's compensation and social		payments required for	Exhibit 43
security for chauffeurs, whichever is applicable,		unemployment,	Limble 10
or that in lieu thereof, has subscribed a payment		workmen's compensation,	
or that in neu thereof, has subscribed a payment	l		

RFP Description	RFP Page Number	Proposal Section Number and Title	Proposal Page Number
plan in connection with any such unpaid items and is in full compliance with the terms thereof. The Contractor accepts and acknowledges its responsibility for requiring and obtaining a similar warranty and certification from each and every Contractor and Sub Contractor whose service the Contractor has secured in connection with the services to be rendered under this Contract and shall forward evidence to PREPA as to its compliance with this requirement.		and social security for chauffeurs.	
The Contractor will certify and guarantee that it does not have any current debt with regards to property taxes that may be registered with the Government of Puerto Rico's Municipal Tax Collection Center (known in Spanish as Centro de Recaudación de Ingresos Municipales ("CRIM").	24	Exhibit 36 Property Tax Certificate from CRIM	Exhibit 36
The Contractor shall provide, to the satisfaction of PREPA and whenever requested by PREPA during the term of this Contract, Certification issued by the Municipal Revenues Collection Center (MRCC), assuring that Contractor does not owe any tax accruing to such governmental agency.	24	Exhibit 35 Income Tax Certification from MRCC	Exhibit 35
Contractor shall provide a sworn statement executed by Contractor indicating that (i) its revenues are derived from the rendering of professional services, (ii) during the last five (5) years (or the time in which it has been providing professional services) it has had no taxable business or personal property on the 1st of January of each year, (iii) that for such reasons it has not been required to file personal property tax returns, as required under Article 6.03 of Act 83-1991, as amended and (iv) that for such reason it does not have an electronic tax file in the MRCC's electronic system	24	Not applicable	
Certification issued by the Treasury Department of Puerto Rico which indicates that Contractor does not owe Puerto Rico Sales and Use taxes, or is paying such taxes by an installment plan and is in full compliance with its terms.	25	Exhibit 37 Sales and Use Tax Certification from Treasury Department	Exhibit 37
Puerto Rico Sales and Use Tax Filing Certificate, issued by the Treasury Department of Puerto Rico assuring that Contractor has filed its Puerto Rico Sales and Use Tax for the last sixty contributory periods.	25	Exhibit 37 Sales and Use Tax Certification from Treasury Department	Exhibit 37

RFP Description	RFP Page Number	Proposal Section Number and Title	Proposal Page Number
Copy of the Certificate of Merchant's Registration issued by the Treasury Department of Puerto Rico.	25	Exhibit 38 Merchant's Registry Certificate	Exhibit 38
Documentation certifying that the Contractor nor any of its owners, affiliates or subsidiaries, if applicable, have any debt, outstanding debt, or Legal procedures to collect child support payments registered with the Puerto Rico Child Support Administration.	25	Exhibit 43 Certification that NFE, nor any of its owners, affiliates or subsidiaries have any debt or legal procedures to collect child support payments registered with the Puerto Rico Child Support Administration.	Exhibit 43
Good Standing Certificate issued by the Department of State of Puerto Rico.	25	Exhibit 40 Certificate of Good Standing	Exhibit 40
Certificate of Incorporation or Certificate of Authorization to do business in Puerto Rico issued by the Department of State of Puerto Rico.	25	Exhibit 39 Certificate of Formation	Exhibit 39
Certification of compliance with the Ethics Act of the Government of Puerto Rico, which stipulates that no employee or executive of PREPA nor any member of his/her immediate family shall have any direct or indirect pecuniary interest in the services to be rendered under the Contract, except as expressly authorized by the Governor of Puerto Rico in consultation with the Secretary of Treasury and the Secretary of Justice of the Government.	25-26	Exhibit 41 Certification of compliance with Ethics Act	Exhibit 41
Certification that if there is any Judicial or Administrative Order demanding payment or any economic support regarding Act No. 168- 2000 (Law for the Strengthening of the Family Support and Livelihood of Elderly People), the same is current and in all aspects in compliance.	26	Exhibit 43 Certification of compliance with judicial orders	Exhibit 43
Contractor agrees to comply with the provisions of Act No. 2-2018, as the same may be amended from time to time, which establishes the Anti-Corruption Code for a New Puerto Rico. The Contractor hereby certifies that it does not represent particular interests in cases or matters that imply a conflicts of interest, or of public policy, between the executive agency and the particular interests it represents.	27	Exhibit 44 Non Conflict of Interest	Exhibit 44
Sworn statement that neither Contractor nor any president, vice president, executive director or any member of a board of officials or board of directors, or any person performing equivalent functions for Contractor has been convicted of or has pled guilty to any of the	27	Exhibit 43 Certificate in compliance with the sworn statement.	Exhibit 43

RFP Description	RFP Page Number	Proposal Section Number and Title	Proposal Page Number
crimes listed in the Act for the Administration			
and Transformation of Human Resources in the			
Government of Puerto Rico or any of the crimes			
included in Act 2-2018.			

## TRANSMITTAL LETTER



September 25, 2018

Puerto Rico Electric Power Authority Supplier Registry Office P.O. Box 3670151 San Juan, Puerto Rico 00936

Re: RFP 81412: Request for Proposals for Fuel Supply in the North and Conversion of San Juan Units 5 and 6, issued by the Puerto Rico Electric Power Authority

Dear Delis Zambrana and Natalia Martínez Lugo:

NFEnergía LLC (together with its affiliates, "<u>New Fortress Energy</u>" or "<u>NFE</u>") is pleased to provide this proposal for providing LNG fuel supply in the North and fuel conversion of San Juan Units 5 & 6 to natural gas.

We hereby certify that the information submitted in this proposal is true and accurate and that Christopher S. Guinta is authorized to sign and submit this proposal on behalf of NFE.

Our full response to the RFP issued by PREPA is attached to this letter. This letter and all attachments contain confidential and proprietary business information and intellectual property of NFE. This letter and each attachment shall be treated as confidential by PREPA. We have also submitted a version of our proposal with all confidential and proprietary information redacted. Thank you for the opportunity to allow us to submit our proposal for your consideration. We look forward to discussing in greater detail and we stand ready to answer any questions that you may have.

Best Regards,

Christopher S. Guinta on behalf of NFEnergía LLC

## EXECUTIVE SUMMARY



## LNG Fuel Supply and Fuel Conversion Project

### PUERTO RICO ELECTRIC POWER AUTHORITY



Puerto Rico has an opportunity to transform its energy sector, catalyzed by the proposed conversion of San Juan Units 5 & 6 to run on natural gas. Puerto Rico's existing generation fleet is largely dependent on petroleum-based fuel, leading to high and volatile costs of generation and violations of US ambient air standards. The average cost of electricity in Puerto Rico across all sectors (residential, commercial, and industrial) has been 22.10 cents per Kwh in the first half of 2018, double the U.S. average, according to the Energy Information Administration. With a continued severe weather threat posed to the transmission grid, there is a need for more affordable and reliable power generation in the North—closer to the population center of San Juan. As the Government of Puerto Rico and the Puerto Rico Electric Power Authority (PREPA) have acknowledged, achieving cleaner, more cost-effective and efficient electricity generation, through natural gas utilization, is vital for Puerto Rico's recovery and sustainable development.

#### **OPTIMIZED APPROACH**

Given those objectives and the urgency of the situation, NFEnergía LLC (together with its affiliates, "New Fortress Energy" or "NFE") is pleased to present a turnkey proposal for the conversion of San Juan Units 5 & 6 to natural gas and all necessary LNG infrastructure and fuel supply. Our proposal is configured to minimize the cost of PREPA's annual capacity payment and natural gas price, made possible through the optimization of NFE's infrastructure assets in the region, including a micro-fuel handling (MFH) facility located adjacent to the plant that is under development in the Port of San Juan—designated as a Strategic Project under Article 84 of Act 19-2017. We believe our offer will allow PREPA to save \$1.3 billion on a net present value basis over the 5-year base period of the initial



contract. Importantly, NFE's proposal is not contingent on third-party financing and will not require upfront capital investment from PREPA.

#### FULLY INTEGRATED GAS TO POWER SOLUTION

PREPA is expected to spend over \$450 million annually on diesel fuel to produce ~400MW of power at San Juan Units 5 & 6. Under NFE's proposed solution using LNG for power generation, PREPA will save approximately \$24 million each month in system costs, or over \$285 million annually, and will produce 440MW (40MW in excess of what is available today running on diesel). Put simply: the sooner the plant is converted to run on natural gas, the sooner PREPA can begin to save and produce more efficient power. With that in mind, the solution we've outlined in this proposal will guarantee the shortest possible timeline for conversion and installation of fuel supply infrastructure, thanks to significant groundwork by NFE and our world-class partners, including Mitsubishi Hitachi Power Systems, Black & Veatch, Moffat & Nichol, Tetratech, and Anthony Veder. NFE has secured land directly adjacent to the San Juan Power Plant via a long-term lease agreement with the Puerto Rico Ports Authority, which has approved the development of a micro-fuel handling facility at the site. NFE has worked closely with both federal and local regulators to ensure compliance and on-time delivery of the facility.

NFE's facility has received an approved Environmental Assessment and Jones Act letter, filed the necessary endorsements and completed all submissions required under the Coast Guard Letter of Recommendation process. The facility has completed the demolition processes for warehouses previously on the site and is now preparing for civil and structural sitework. The long lead items required to expand the facility to align with the San Juan Power Plant can advance immediately upon notice to proceed. NFE has already begun detailed engineering and design on the PREPA power plant conversion using information supplied by Mitsubishi, PREPA's preferred supplier. In preparation for this submission, NFE has selected its supporting contractors to ensure integration for all parties for engineering and design, procurement, construction, and permitting to meet the project schedule.

As part of our preparation for this submission, NFE evaluated a series of solutions and fuels for San Juan 5 & 6. First, NFE analyzed San Juan Power Station's current diesel operations, which are costly, volatile, and contributes to noncompliance risk under US EPA rules. Operating on diesel leads to a higher heat rate and O&M costs than when running on natural gas. Furthermore, the available generation capacity is significantly lower than when running on natural gas, causing PREPA to dispatch inefficient peaking units. Therefore, diesel is not the most efficient primary fuel for San Juan 5 & 6 operations, but still has value as a back-up fuel in the case where the primary fuel is not available.



Second, NFE analyzed LPG as an alternative fuel. NFE is not aware of any OEM in the world (e.g., Mitsubishi, GE, Siemens, etc.) that has a base load plant operating on LPG today. LPG as a fuel choice would create a series of technical issues related to the safety and reliability of the units as well as continue to link the fuel price to movements in the oil markets. From a performance perspective, if the units run on LPG, similar to diesel, both the heat rate and the O&M costs are significantly higher and the available capacity is significantly lower than when running on natural gas. As requested in the RFP, we asked Mitsubishi Hitachi Power Systems about the safety and reliability of LPG and they reported that a conversion to LPG would introduce safety concerns and have a lower generation capacity and higher heat rate compared to a conversion to natural gas. Therefore, LPG seemed to be at odds with the goals of the RFP, including, among other things, an affordable, actionable, and safe solution delivered in 2019. As a result of our due diligence, we agree with PREPA's decision to use natural gas as the baseload fuel for San Juan Units 5 & 6 and believe that our proposal will be the superior choice for PREPA.

#### UNPARALLELED EXPERIENCE

NFE has proven experience developing similar projects in the Caribbean, as a major partner to the Jamaica Public Service Company, JAMALCO, Heineken International, and Barbados National Oil Company, among others. NFE supplies natural gas to fuel approximately 70% of Jamaica's average daily demand, including power plants converted from diesel to natural gas. We've seen firsthand the positive impact of a reliable supply of LNG on an island economy and are confident that the introduction of natural gas to the North will similarly spur more modern gas-fired generation and renewable

integration. We look forward to a successful partnership in Puerto Rico that will generate savings, improve efficiency, bolster resiliency, and reduce environmental impact. We believe we are best positioned to deliver all of these benefits, and do so on the shortest timeline possible. We very much look forward to working with you and your team on this project.

The diversification and security of Jamaica's energy sector is much stronger as a result of the partnership with NFE.

– Kelly Tomblin, INTREN

CFEn and CFEi are working close with NFE and we are sure that the solution developed will result in more clean, affordable and reliable energy for the benefit of the people of Mexico. I am proud to recommend NFE for other energy projects across the world.

Guillermo Turrent Schnaas,
 CEO of CFEnergia and CFE
 International

# TABLE OF CONTENTS

### **Table of Contents**

Letter	from W	'es Edens					
Propo	sal High	lights					
RFP R	equirem	ent & Res	sponses Checklist				
Trans	mittal Le	etter					
Execu	tive Sum	nmary					
Table	of Conte	ents		i			
1.0	NFE E	1-1					
	1.1	About I	NFE	1-1			
	1.2	Qualific	Qualifications and Experience				
		1.2.1	Similar Engagements & Experience	1-2			
		1.2.2	Operational Excellence	1-11			
	1.3	Value P	Proposition	1-11			
	1.4	Client F	References & Letters of Recommendation	1-12			
	1.5	Owners	ship Structure & Project Team	1-14			
		1.5.1	NFE Leadership Team and Primary Contact	1-14			
		1.5.2	NFE Project Management Team	1-16			
		1.5.3	Engineer - Black & Veatch	1-20			
		1.5.4	Engineer – Moffatt & Nichol	1-21			
		1.5.5	Contractor - TSK	1-21			
		1.5.6	Local Partners	1-21			
	1.6	List of E	Exhibits	1-23			
2.0	Appro	Approach & Methodology2					
	2.1	Project	Scope of Work Description	2-1			
		2.1.1	Overview of Approach & Schedule	2-2			
		2.1.2	Project Concept and Description	2-3			
		2.1.3	Proposed Project Location and Siting	2-5			
		2.1.4	Ownership or Control of Location	2-7			
		2.1.5	Alternative Fuel	2-12			
	2.2	Power	Plant Conversion Overview	2-12			
		2.2.1	Power Plant Conversion	2-12			
	2.3	LNG De	elivery & Natural gas fuel supply Logistics and Operations	2-14			
		2.3.1	LNG Delivery Operations and Equipment	2-14			
		2.3.2	LNG Storage and Transfer	2-15			
		2.3.3	LNG Vaporization Overview	2-18			
		2.3.4	Natural Gas and Boil Off Gas	2-20			

i

	2.4	Project	Execution Plan	2-20		
		2.4.1	Resources and Project Execution Approach	2-20		
		2.4.2	Contract Type	2-22		
		2.4.3	Project Management and Administration	2-22		
		2.4.4	Project Controls, Accounting, and Financial	2-24		
		2.4.5	Engineering Execution	2-26		
		2.4.6	Fuel Supply Area Execution Plan	2-30		
		2.4.7	San Juan Power Plant Area Execution Plan	2-32		
	2.5	Assurar	nces of Project Approach & Methodology	2-40		
		2.5.1	Environmental	2-40		
		2.5.2	Safety & Quality Assurance	2-40		
		2.5.3	Proven Approach & Organizational Structure	2-41		
	2.6	List of E	Exhibits	2-41		
3.0	Price I	Proposal .				
	3.1	Price Pr	roposal	3-1		
	3.2	Terms a	and Conditions	3-1		
	3.3	List of Exhibits				
4.0	Progress & Path Forward					
	4.1	Permitt	ing Path and Matrix	4-1		
	4.2	Federal	Approvals: Jones Act & Department of Energy Letters	4-5		
	4.3	Puerto Rico Ports Authority Letter				
	4.4	Mitsubishi Letter				
	4.5	Additio	nal Legal Explanations / Documents	4-6		
		4.5.1	Registered Puerto Rico Entity	4-6		
		4.5.2	Commitment to Compliance with Applicable Law	4-6		
		4.5.3	Commitment to Compliance with Permitting Requirements	4-7		
		4.5.4	Advisory or Other Contracts with Government Entity in Puerto Rico	4-7		
		4.5.5	No Work for Creditors or Guarantors of Puerto Rico	4-7		
		4.5.6	Certificates and Certifications	4-7		
	4.6	4.6 List of Exhibits				
5.0	Financial Information & Required Qualifications					
	5.1	Capital Cost Estimate				
	5.2	Financial Ability				
	5.3	3 List of Exhibits				

### LIST OF TABLES

Table 1-1 - List of Engaged Local Partners	1-21
Table 1-2 - List of Local Partners to Engage	1-22
Table 2-1 - NFE Shipping Assets	2-17
Table 4-1 - NFE Steps Completed Toward Issuance of United States Coast Guard Letter of	
Recommendation	4-1
Table 4-2 - NFE Permits Related to Liquified Natural Gas Delivery (Marine)	4-2
Table 4-3 - NFE Permits Related to Construction on the Wharf (Outside the PREPA Site for San	
Juan Units 5 & 6)	4-2
Table 4-4 - NFE Permits Related to Construction at the PREPA Site for San Juan Units 5 & 6	4-3
Table 4-5 - Illustrative PREPA Permits (NFE Will Assist with Preparation and Submission as	
necessary)	4-4

#### **LIST OF FIGURES**

Figure 1-1: Ship-to-Shore Transfer at NFE's Montego Bay Micro-Fuel Handling Facility	1-3
Figure 1-2: New Fortress Energy World-Scale, Old Harbour LNG Terminal	1-6
Figure 1-3: Jamalco Combined Heat and Power Plant	1-9
Figure 2-1 – CPM Schedule	2-2
Figure 2-2 - San Juan Power Plant	2-3
Figure 2-3 - San Juan Units 5 & 6 Combustion Turbines	2-4
Figure 2-4 - Area Map	2-8
Figure 2-5 - Existing Area Map	2-9
Figure 2-6 - Rendering of Facility (bird eye view)	2-10
Figure 2-7 - Rendering of Facility (NE view)	2-10
Figure 2-8 - New Piping Systems Model View (looking northwest)	2-11
Figure 2-9 - New Piping System Model View at Unit 6 (looking east)	2-11

#### LIST OF EXHIBITS

- 1. New Fortress Energy Letters of Recommendation
  - a. Vincent M. Lawrence, Former Chairman of the Electricity Sector Enterprise Team in Jamaica
  - b. Guillermo Turrent, CEO of CFEnergía & CFE International in Mexico
  - c. Kelly Tomblin, Chief Executive Officer of INTREN
  - d. James Browne, General Manager of Barbados National Oil Company Limited
- 2. Black & Veatch Letters of Recommendation
  - a. Energía Costa Azul LNG Regasification Project
  - b. Port Westward Project
  - c. Enmax Shepard Energy Centre Project
  - d. Puerto Rico Aqueduct and Sewer Authority (PRASA)
- 3. Moffatt & Nichol Letters of Recommendation
  - a. City of Ketchikan, Port & Harbor
  - b. Disney Cruise Lines
- 4. New Fortress Energy Key Personnel Bios
- 5. Black & Veatch Qualifications
- 6. Black & Veatch Key Personnel Bios
- 7. Moffatt & Nichol Qualifications
- 8. Moffat & Nichol Key Personnel Bios
- 9. TSK Qualifications
- 10. Professional NDT Services Qualifications
- 11. Anthony Veder Qualifications
- 12. Aireko Companies Qualifications
- 13. CIC Construction Group Qualifications / Key Personnel Bios
- 14. Del Valle Group Qualifications
- 15. Lord Electric Co. of P.R., Inc. Qualifications
- 16. Lord Construction Qualifications / Key Personnel Bios

- 17. L.P.C. & D., Inc. Qualifications
- 18. PREPA Supply Registry Confirmation
- 19. MFH Division of Responsibility
- 20. Power Plant Division of Responsibility
- 21. MFH Process Flow Diagram
- 22. Power Plant P&IDs (P199399-CTGP-M2626 / P199399-CFGA-M2381)
- 23. Basic Engineering Design Data
- 24. Marine, Civil, and Electrical Design
- 25. Mitsubishi Schedule
- 26. Mitsubishi Letter Confirming Subcontracting for Natural Gas Conversion and Responding to Inquiries Regarding LPG Conversion
- 27. Ship to Ship Manual
- 28. Quality Assurance Plans
  - a. Black & Veatch Quality Plan
  - b. Moffatt & Nichol Quality Plan
  - c. TSK Quality Plan
- 29. Health, Safety, Security and Environmental Manual
- 30. Gas Supply Confirmation Exhibits
  - a. Centrica Letter confirming Gas Supply
  - b. Centrica Corporate Snapshot
- 31. Ship Confirmation
  - a. Letter from Anthony Veder confirming arrangements for ships
  - b. Evidence of Charter Agreement for Golar Freeze
  - c. Evidence of Charter Agreement for Golar Arctic
- 32. Markup of Terms and Conditions
- 33. Evidence of Jones Act Compliance
- 34. Puerto Rico Ports Authority Letter of Support

- 35. Income Tax Certification from MRCC
- 36. Property Tax Certification from CRIM
- 37. Sales and Use Tax Certification from the Treasury Department
- 38. Merchant's Registry Certificate
- 39. Certificate of Formation
- 40. Certificate of Good Standing
- 41. Certification of compliance with Ethics Act of the Government of Puerto Rico, on PREPA's form.
- 42. Certification to comply with Act No. 2-2018 which established the Anti-Corruption Code for a New Puerto Rico on PREPA's form.
- 43. Sworn statements
  - a. Prohibition Against Awarding Bid or Contract to Juridical Person Convicted of Felonies or Misdemeanors
  - b. Puerto Rico Child Support Administration
  - c. Compliance with the Department of Labor of the Commonwealth of Puerto Rico
  - d. Law for the Strengthening of the Family Support and Livelihood of Elderly People
- 44. Non-Conflict of Interest
- 45. Department of Energy Natural Gas Import Approval
- 46. Audited Financial Statements
  - a. NFEnergía LLC
  - b. New Fortress Energy Holdings LLC Balance Sheet
  - c. Fortress Investment Group LLC
- 47. Bonding and Surety Letter
- 48. Insurance Letter



# SECTION 1.0

## NFE Experience & Capacity



### 1.0 NFE Experience & Capacity

#### 1.1 ABOUT NFE

NFEnergía LLC, together with its affiliates (NFE), has developed, constructed and commissioned numerous critical energy infrastructure assets in the U.S. and the Caribbean. Together with our affiliate Fortress Investment Group LLC, NFE has invested over \$25 billion in the infrastructure, transportation and energy sectors since 2001.

As a global energy infrastructure leader, NFE is accelerating the transition to LNG for power, transportation, marine and industrial users worldwide. NFE has the experience and expertise to play a meaningful role in the advancement of LNG as a clean, safe and environmentally friendly fuel source for Puerto Rico.

NFE provides a variety of services that are directly related to this RFP – NFE self-finances, builds and operates much needed gas-to-power infrastructure bringing each customer a tailored energy solution, including: liquefiers, onshore and offshore regasification facilities, and power plants. NFE has a secure portfolio supply of fuel, including from our liquefaction facilities, offtake from the world's largest suppliers, and ability to procure fuel as needed from the global market.

NFE provides customized technical solutions and logistics to deliver natural gas and meet each customer's energy needs. NFE's expertise includes the supply of fuel to converted power plants, including the logistics and infrastructure necessary for large scale utility customers, such as PREPA. Additionally, NFE is a leader in the design of intermodal networks, transporting LNG by tankers and in ISO-containers over the road, on rail, and aboard commercial ocean going carriers. NFE also leads the industry in the innovative use of LNG ship-to-ship (STS) transfers, leveraging its expertise in every step of the LNG supply chain to provide bulk LNG solutions to size constrained areas previously inaccessible to large-scale bulk carriers.

#### **1.2 QUALIFICATIONS AND EXPERIENCE**

NFE has demonstrated its experience and expertise in developing LNG to power projects of similar scope to that which is described in this proposal, particularly excelling in the unique capabilities required for servicing this natural gas conversion project. NFE is one of the few firms in the world that has developed an onshore LNG terminal, a floating storage hub for LNG, an offshore terminal utilizing a FSRU, an operating LNG liquefaction facility and all the associated logistics to deliver and utilize the natural gas. In the Atlantic region, we own and operate the only terminal that transloads small-scale LNG carriers today. Our terminal is integrated with a combined-cycle natural gas plant that was converted from diesel to natural gas. This facility, including the conversion work and the logistics to deliver a reliable supply of natural gas, is of a similar scope as the duties required by the terms of this RFP. We are not aware of any firm, other than NFE, currently operating in the North that has demonstrated experience and success in developing LNG fuel developments of similar scope as the duties described in the RFP. In addition to NFE's experience, we have world-class partners, such as Mitsubishi Hitachi Power Systems, Black & Veatch and Moffat & Nichol engaged to execute this project. Black & Veatch executed Ecoelectrica's Penuélas project successfully and it has been in operation reliably since 2001.

#### **1.2.1** Similar Engagements & Experience

#### Project One: New Fortress Energy Montego Bay LNG Micro-Fuel Handling Facility

a) Name of client organization: Jamaica Public Service Company

### b) Description of engagement or experience and objectives of the project including beginning and ending dates:

In August 2015, NFE won a competitive tender process to supply the 120MW Bogue combined-cycle power plant in Jamaica with natural gas. The plant was built in 2003 but had operated on diesel fuel due to an inability to obtain natural gas over the preceding years. The Bogue plant was converted to run on natural gas as part of the project, with NFE providing a turnkey solution to build, own and operate an LNG storage and regasification facility, pipeline and all of the associated logistics to supply natural gas to the power station on a daily basis. The terminal was commissioned in October 2016 (14 months after contract signing), and has been available 99.88% year to date with a total recordable injury rate of 0.0 over the same period.

NFE currently sources LNG from the global market as well as its own facility. The LNG procured for Jamaica is then stored in a floating storage vessel, which is anchored in Portland Bight, a sheltered harbor, on Jamaica's South Coast (see Project Two for a more detailed description). NFE then performs a ship-to-ship transfer, transferring LNG via flexible, composite, cryogenic hoses from the large vessel into a small-LNGC. The small-LNGC then sails to the Port of Montego Bay, and unloads from the ship into NFE's storage tanks via a cryogenic transfer system, comprised of composite, cryogenic hoses, fitted with dry break emergency release couplings. The ship-to-shore transfer system replicates all aspects of the LNG carrier unloading at a conventional LNG terminal except composite hoses are used in place of articulated hard arms. The transfer system includes state-of-the-art ship-shore communications and emergency shutdown systems as used in large conventional terminals.

### c) Examples of recommendations offered to the client and the results of the implementation of those recommendations:

The success of the project has enabled Jamaica Public Service to expand the Bogue power plant to 145MW from the original 120MW capacity with no incremental capital required to be invested in the terminal by Jamaica Public Service to support the expanded send-out capability. The switch from diesel fuel to natural gas is currently saving the Jamaican energy consumer over \$150,000 per day or \$55 million annually based upon current fuel prices.

### d) Information regarding the project that would demonstrate successful experiences by the client, as a result of the recommendations. This may include performance metrics and improvements.

Savings of over \$150,000 per day or \$55 million annually

### e) If the example involves a private sector client, describe how the experience could be applied to the public sector.

Jamaica Public Service Company is a public-sector client.

#### f) Description of key infrastructure programs or projects advanced as part of the engagement, if any.

The terminal has since served as a catalyst for the development of the natural gas economy in Jamaica, as industrial users from breweries (Red Stripe) to food producers (Wisynco) have begun utilizing natural gas for their production needs. Since inception, our terminal has handled over 100 ship-to-ship transfers and filled tanker trucks without safety or environmental incident, the most in the Caribbean region. Furthermore, there have been no missed cargo deliveries by NFE to its customers, allowing for 100% availability of LNG.

#### Dollar value: \$250 million+

The project to convert San Juan Units 5 & 6 has a number of direct similarities to NFE's operating Montego Bay micro-fuel handling facility and logistics chain:

- NFE's terminal receives LNG via LNG ships that are similar in size to LNG ships proposed for San Juan.
- NFE's terminal is co-located with and shares a berth with cruise ships, bulk liquid fuel carriers, and container ship operations.
- NFE's terminal is integrated with a combined-cycle natural gas plant that was converted from diesel fuel only to be capable of running on natural gas (and diesel fuel as backup). PREPA has the option of adding inlet air cooling to the conversion of the San Juan Power Plant.



#### Figure 1-1: Ship-to-Shore Transfer at NFE's Montego Bay Micro-Fuel Handling Facility

g) Letters of recommendation: Please refer to Exhibit 1

#### Project Two: New Fortress Energy Floating Storage, Regasification and Transshipment Hub

**a) Name of client organization:** South Jamaica Power Company, a subsidiary of Jamaica Public Service Company

### b) Description of engagement or experience and objectives of the project including beginning and ending dates:

In October 2016, NFE won a competitive tender process to supply natural gas to a new 190MW combined-cycle natural gas plant to be built in Old Harbour Bay, Jamaica. In September 2018, NFE completed its world-scale offshore terminal designed to supply natural gas through up to four sub-sea natural gas pipelines connecting the terminal to end users. The floating storage hub will be stationed at a fixed offshore terminal location in Old Harbour, Jamaica where it will supply natural gas to power plants and alumina/bauxite refineries on the island, along with continuing to load other ships for transshipment of LNG throughout Jamaica and the Caribbean. The hub will provide natural gas for:

- The first newly built power plant in Jamaica in 20 years. This plant will supply 30-40% of Jamaica's electricity needs.
- The first natural gas-fired co-generation plant in the Caribbean. This plant will make Jamaica's Jamalco Refinery competitive as a producer of alumina in the Atlantic Basin (see Project Three).

### c) Examples of recommendations offered to the client and the results of the implementation of those recommendations:

NFE's recommendations for expanding the availability of natural gas in Jamaica demonstrates how our technical capacities can serve our customer's broader objectives. Originally, JPS envisioned a single purpose LNG facility, capable of just serving the 190MW via a 3-mile sub-sea cryogenic pipeline to fill a 5M gallon per day storage tank. Due to its singular purpose, the facility would have been costly, taken longer to build, been harder to permit and potentially would have posed higher risk for JPS. NFE proposed a solution that delivered significantly more storage (40M gallons vs. 5M gallons), was part of a larger supply network that spread the cost over multiple users, and allowed for a discount on fuel as additional volumes were consumed in Jamaica.

### d) Information regarding the project that would demonstrate successfully experiences by the client, as a result of the recommendations. This may include performance metrics and improvements.

As a result of NFE's collaboration with JPS, JPS will receive a savings of \$100,000 per day, \$35MM per year. In total, the hub will have catalyzed approximately \$1 billion in investment in the Jamaican energy sector.

NFE worked with JPS to help them secure 15-year financing for the power plant, which was entirely sourced in the domestic markets. This represented the largest local market financing in Jamaican history.

NFE was the ideal partner for JPS due its:

- Capabilities in the LNG industry which allowed JPS to pursue a solution with greater economic and environmental benefit for the island at lower cost than the customer's original concept.
- Self-financing balance providing flexibility.
- Single-source supply chain and points of contact.
- Experience in the capital markets (our principals have traded and financed over \$1 trillion of securities and loans).

### e) If the example involves a private sector client, describe how the experience could be applied to the public sector.

South Jamaica Power Company and Jamaica Public Service Company are public-sector clients.

#### f) Description of key infrastructure programs or projects advanced as part of the engagement, if any.

NFE's storage hub in Old Harbour Bay, Jamaica can hold up to 175,000m<sup>3</sup> of floating storage and serves as the receiving point for large scale LNG deliveries. The storage unit then transfers LNG to NFE's fleet of smaller vessels which supply LNG to Montego Bay and will supply other islands in the Caribbean including Puerto Rico. The hub serves as the central receiving point for NFE's LNG supply in the region.

#### Dollar value: \$500 million+

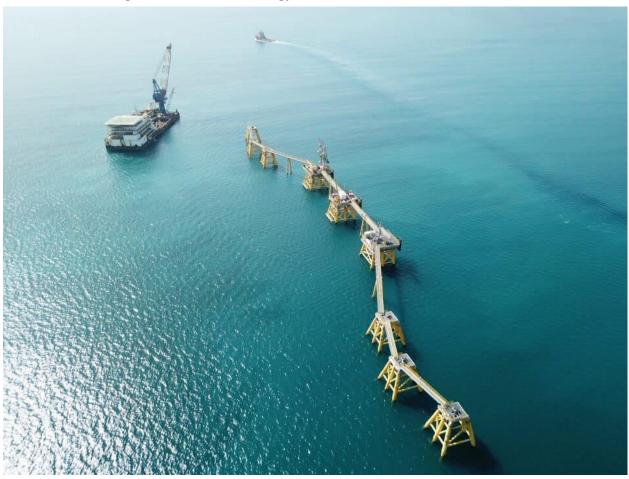


Figure 1-2: New Fortress Energy World-Scale, Old Harbour LNG Terminal

g) Letters of recommendation: Please refer to Exhibit 1

#### Project Three: New Fortress Energy Jamalco Combined Heat and Power Plant

a) Name of client organization: Jamalco Bauxite and Alumina Refinery. Clarendon, Jamaica

### b) Description of engagement or experience and objectives of the project including beginning and ending dates:

In September 2016, NFE received a mandate to develop a Combined Heat and Power Plant (CHP) at the Jamalco Bauxite and Alumina Refinery that would deliver a critical 100 MW of natural gas-fired power to the Jamaica Electricity grid and 300,000 pounds per hour of high pressure steam to the refinery. The steam would be used to replace an existing boiler that consumes approximately 500,000 barrels of heavy fuel oil per year, dramatically reducing Jamalco's energy costs, transforming its environmental footprint and improving the plant's cost position among alumina producers globally. During 2017, NFE completed a Power Purchase Agreement with the Jamaica Public Service Company, a Steam Sale Agreement with Jamalco and the necessary permit applications. As of September 2018, NFE has begun civil works, and the CHP is expected to be mechanically complete in 3Q 2019 and fully commissioned by 1Q 2020. The CHP will then operate under 20 year agreements with the ability to double in size as electricity demand grows in Jamaica.

### c) Examples of recommendations offered to the client and the results of the implementation of those recommendations:

Jamalco had spent approximately 10 years searching for an energy alternative to heavy fuel oil, looking at both natural gas and even at coal to lower the refinery's energy costs, comply with environmental regulations and allow for expansion. These efforts failed due to unavailability of attractively priced natural gas on the island, large capital commitment requirements and high capital costs and long development time of coal-fired power plants. NFE was able to deliver a solution to Jamalco based on:

- Ability to leverage existing multi-purpose natural gas infrastructure being built by NFE in Old Harbour Bay, Jamaica
- NFE's ability to finance on balance sheet, providing the flexibility, speed and creativity necessary to deliver the project in an affordable and reasonable time frame
- NFE's ability to fix the price of steam, allowing Jamalco to secure attractively priced steam while removing price volatility

Additional benefits captured by Jamalco from NFE's implementation of the CHP include: 1) installation of a condensate treatment plant that will clean Jamalco's condensate reducing the refinery's power generation costs and improving plant reliability, 2) converting two of Jamalco's boilers to be duel-fuel fired, capable of operating on natural gas as well as heavy fuel oil and 3) installation of a waste water pipeline that will run parallel with NFE's gas pipeline to the CHP savings Jamalco millions of dollars in construction costs.

### d) Information regarding the project that would demonstrate successful experiences by the client, as a result of the recommendations. This may include performance metrics and improvements.

As a result of NFE's project with Jamalco, Jamalco anticipates savings of over \$20mm per year at today's prices. In addition, the presence of gas has allowed Jamalco to:

- Undertake the conversion of its remaining boilers, calciners and lime kilns from heavy fuel oil to natural gas. These conversions will ultimately allow Jamalco to save a total of over \$50-60mm per annum in direct energy costs, enter into compliance on air emissions permits, and eliminate close to \$7-10mm in fuel maintenance and logistics costs.
- Potentially double the Jamalco plant's refining capacity in the future.

### e) If the example involves a private sector client, describe how the experience could be applied to the public sector.

Jamalco is 55% owned by a private company, Noble Group and 45% owned by the Jamaican government. NFE's experience in handling negotiations, contracting and development at Jamalco has direct similarities to working with PREPA. They include:

- Noble Group is currently undergoing a restructuring process. As a result, all documentation and work had to satisfy both existing Noble management and the credit agreements being negotiated as part of the restructuring.
- The 45% stake owned by the Jamaica Government requires NFE to comply with all rules involving government organizations. In addition, NFE's deep understanding of government relations, public relations, and the demands on public officials allowed it to navigate the process in a timely and efficient manner

#### f) Description of key infrastructure programs or projects advanced as part of the engagement, if any.

As part of the project, NFE is building:

- A new 100 MW/900# steam natural gas-fired combined heat and power plant at Jamalco's refinery (CHP)
- A pipeline from the Rocky Point port to the Jamalco refinery for delivery of natural gas to the CHP and the refinery
- Interconnection to Jamalco's water, effluent, sewerage and stormwater systems
- A 138kV substation and electricity transmission line connecting to the Jamaican power grid

#### Dollar value: \$300 million+

The project to convert San Juan Units 5 & 6 has a number of direct similarities to Jamalco:

- NFE was able to deliver an affordable price for steam and electricity because it was utilizing multipurpose infrastructure that had been built to serve other clients and transship fuel through out the Caribbean. In San Juan, NFE is building a multi-fuel handling terminal that will receive fuel from the transshipment terminal and serve industrial users and potentially PREPA. As a result, no one client bears the entire cost of the infrastructure or logistics chain, allowing NFE to deliver an affordable price and results to all clients
- Engagement with an entity that features significant public ownership. NFE is acutely aware of the demands on public entities and the need to manage public relations in addition to just schedule and budget.
- NFE is using the same team that would perform work for PREPA: Black and Veatch as Owner's Engineer and TSK as contractor. NFE is working with the original equipment manufacturer to handle the boiler conversions, as it would work with Mitsubishi to convert San Juan Units 5 & 6.

NFE has had to balance a Noble restructuring process, government owned entity and a site that had been burning oil for years. This is similar to both the existing San Juan Power Plant and the broader ownership of it as PREPA restructures with its creditors.



Figure 1-3: Jamalco Combined Heat and Power Plant

g) Letters of recommendation: Please refer to Exhibit 1

#### Project Four: New Fortress Energy Miami LNG Plant

#### a) Name of client organization: Florida East Coast Railway (FEC).

### b) Description of engagement or experience and objectives of the project including beginning and ending dates:

In 2014, NFE built the first privately owned LNG plant in Florida. The plant provides LNG to FEC, which is a Class II regional railroad that owns all of the 351-mile mainline track from Jacksonville, Florida down to Miami. FEC uses LNG to fuel its locomotives. In addition, FEC transports LNG on behalf of customers to various locations, including to the Port of Miami for export. In addition to FEC, the plant fuels customers looking to reduce their reliance on diesel, remove volatility from their operating costs, improve environmental footprint and utilize gas as a competitive advantage.

With rail and truck loading capabilities as well as direct rail access to major Florida ports, the plant is uniquely positioned to supply LNG to customers in South Florida and the Caribbean markets.

### c) Examples of recommendations offered to the client and the results of the implementation of those recommendations:

The facility is served by both rail and truck to enhance operational flexibility. It is the only LNG facility in the lower 48 states of the United States with rail loading. In February 2016, the facility became the first LNG facility in the lower 48 states to export LNG to a non-FTA country, supplying critically needed LNG to Barbados to supplement its declining natural gas reserves. Since then, the facility has handled the turnkey loading and transshipment of over 1,000 railcars, ISO containers and LNG tankers. The plant's availability is world-class and it has never missed a delivery to a customer.

The plant was built with state-of-the-art equipment and advanced technology provided by world-class vendors, capable of remote troubleshooting so potential issues can be monitored and assessed from outside the plant.

### d) Information regarding the project that would demonstrate successfully experiences by the client, as a result of the recommendations. This may include performance metrics and improvements.:

With a fully trained staff in place, the plant has zero reported lost time incidents to date. NFE's expertise includes the design of intermodal networks, transporting LNG by tankers and in International Standards Organization (ISO) containers over the road, on rail, and aboard commercial ocean carriers. Our location and loading versatility has enabled NFE to develop a small-scale logistics chain, supplying end-users with a more efficient and environmentally friendly fuel source. To date, we are delivering LNG to customers across the region with 100% reliability.

### e) If the example involves a private sector client, describe how the experience could be applied to the public sector

NFE applies the same level of service and professionalism to all of its projects. FEC was able to take advantage of our recommendations to create the rail loading at our LNG facility and improve both its rail operations, allowing its trains to run on cleaner and cheaper fuel, and its business by delivering LNG to the Port of Miami.

#### f) Description of key infrastructure programs or projects advanced as part of the engagement, if any.

Rail loading at NFE's LNG facility, facilitating FEC's investment in LNG powered trains and a business delivering LNG to the Port of Miami.

Dollar value: \$100 million+

#### 1.2.2 Operational Excellence

In addition to NFE's proven track record for project implementation, NFE has a reputation for operational excellence. NFE owns and operates LNG and natural gas facilities with reliability and safety records that show our continued diligence and focus in these areas.

At our micro fuel handling facility in Montego Bay, as described in Project One above, NFE has shown excellent results on a very similar project to the conversion and supply of San Juan Units 5 & 6:

- Facility availability year to date: 99.88%
- Ship to ship operations to date: 108
- Cargo transfers from ships to date: 114
- Truck loadings to date: 235
- Zero marine spills to date
- Zero marine safety incidents to date
- Zero personnel safety incidents year to date

At our Miami LNG facility, as described in Project Four, NFE also has excellent operational results. These results show our ability to continue to deliver on our operational excellence over a period of years:

- Facility availability year to date: 98.3%
- Rail, tanker and ISO loadings to date: over 1100
- Zero safety incidents since plant commissioning

#### **1.3 VALUE PROPOSITION**

The proposal put forth by NFE offers several compelling factors that distinguish our commercial and technical solutions as the best suited to meet PREPA's stated objectives.

- NFE's offer delivers over <u>~\$1.3 billion of savings</u> over the 5-year initial term compared to expected diesel-based operations for San Juan Units 5 & 6.
- NFE's price of natural gas is based on Henry Hub and frees PREPA from oil market volatility.
- NFE's offer assumes <u>No Take or Pay</u> for natural gas supply. <u>NFE does not require any capital from</u> <u>PREPA</u> and is able to make our offer without any financing contingencies.
- NFE would be interested in developing further projects for PREPA, and if multiple projects are awarded to NFE, NFE would provide an incentive structure in our pricing to generate further savings

for PREPA as more natural gas is consumed using our logistics chain. For example, if PREPA were to convert the power plant at Mayaguez or develop a new project in Yabucoa, with total project size similar to Units 5 & 6 (around 500MW), the volume discount for natural gas could lead to a reduced Unit Cost.

- NFE is able to meet the aggressive timeline put forth by PREPA, allowing energy savings to accumulate quickly and almost immediately. Every month of savings is worth \$24mm to PREPA, meaning that a 12 month longer solution is a lost opportunity to save over \$285mm.
- Our timeline is possible because of our micro fuel handling facility in San Juan. The MFH facility will deliver LNG to industrial customers in Puerto Rico on trucks and in ISO containers, and can be expanded to provide natural gas to San Juan Units 5 & 6. Furthermore, NFE controls land adjacent to the power plant via a long-term lease with Puerto Rico Ports Authority, has a clear permitting path to obtain necessary approvals, has the support of MHPS, and has engaged with contractors that will be integral in the execution of the conversion project.
- NFE's facility can be seamless integrated into the San Juan Units 5 & 6 operations. The result is that the cold energy from the LNG regasification can provide a **potential 25mw benefit to the turbines** should PREPA wish to **pursue inlet cooling**. NFE's partner Black & Veatch has installed integrated inlet cooling both around the world and on island in EcoElectrica.
- NFE's micro fuel handling facility in San Juan is expected to <u>create approximately 30-50 permanent</u> <u>employment positions</u> for operations, maintenance, administrative and commercial functions. For the supply of natural gas to San Juan Units 5 & 6 from the micro-fuel handling facility, we anticipate an <u>additional 15-20 jobs</u> will be created in operations alone. Additionally, the construction of MFH Facility, regasification facility, and conversion of San Juan Units 5 & 6 would create <u>125 temporary jobs</u>.
- NFE's conversion of Units 5 & 6 to natural gas would further PREPA's objectives to promote smart energy consumption and protect the environment. The conversion from diesel to Natural Gas would eliminate approximately <u>500,000 tons per annum of CO2 emissions</u>.

#### **1.4 CLIENT REFERENCES & LETTERS OF RECOMMENDATION**

Please refer to the following exhibits for Letters of Recommendation:

- Exhibit 1a Letter from Vincent M. Lawrence, Former Chairman of the Electricity Sector Enterprise Team in Jamaica
- Exhibit 1b Letter from Guillermo Turrent, CEO of CFEnergía & CFE International in Mexico
- Exhibit 1c Letter from Kelly Tomblin, former CEO of JPS and CEO during selection, negotiations and commencement of operations by NFE
- Exhibit 1d Letter from James Browne, General Manager of Barbados National Oil Company Limited

#### NFE References:

- Kelly Tomblin, Chief Executive Officer
  - Company: INTREN

- Address: 18202 West Union Road, Union, Illinois 60180
- Phone: 815-923-2300
- Email: Ktomblin@intren.com
- Vincent M. Lawrence, Former Chairman
  - Company: Electricity Sector Enterprise Team & Generation Procurement Entity in Jamaica
  - Address: 14a Hope Road, P.O. Box 402, Kingston 10, Jamaica
  - Phone: 926-2201-2
  - Email: vlawrence@jentechconsultants.com

#### James Browne, General Manager

- Company: Barbados National Oil Company Limited
- Address: Woodbourne, St. Philip, Barbados, BB18064, W.I.
- Phone: +1-246-418-5200 / +1-246-418-5205
- Email: brownej@bnocl.com

#### Dennis Morgan, Chairman of the Board

- Company: Jamalco Bauxite and Alumina Refinery
- Phone: +1-876-578-1326
- Email: dennispmorgan@gmail.com

#### Guillermo Turrent Schnass, Chief Executive Officer

- Company: CFEnergía and CFE International
- Email: Guillermo.turrent@cfe.gob.mx

#### Black & Veatch References:

#### • David Cobb, Vice President, Operations

- Company: Sempra LNG
- Address: 101 Ash Street, San Diego, CA 92101
- Phone: 619-696-4062
- Email: DCobb@SEmpraGlobal.com

#### Lynnette M. Ramirez Rivera, Executive Director, Infrastructure Division

- Company: Gobierno De Puerto Rico Autoridad de Acueductos y Alcantarillados
- Address: #604 Avenida Barbosa, Hato Rey PO Box 7066, San Juan Puerto Rico 00916-7066
- Phone: (787) 999-1717 ext. 1119
- Email: Lynnette.Ramirez@miamidade.gov

#### Moffatt & Nichol References:

- Steve Corporon, Director of Port & Harbors
  - Company: City of Ketchikan, Port & Harbors
  - Address: 2933 Tongass Avenue, Ketchikan, AK 99901
  - Phone: (907) 228-6049

- Email; stevec1@ktn-ak.us
- Russell Daya, Executive Director Global Port Operations & Developments, Itinerary & Strategic Planning
  - Company: Disney Cruise Lines
  - Address: 200 Celebration Place, Suite 400, Celebration, FL 34747
  - Phone: (407) 566-4320
  - Email: russell.s.daya@disney.com

#### **1.5 OWNERSHIP STRUCTURE & PROJECT TEAM**

NFEnergía LLC is a wholly owned subsidiary of New Fortress Energy Holdings LLC, a United States based limited liability company and an affiliate of Fortress Investment Group LLC. NFEnergía LLC is duly and properly organized in Puerto Rico and is qualified to conduct business in Puerto Rico. NFEnergía LLC has also registered with PREPA's Supplier Registry (see Exhibit 18). Please see Exhibit 46 for the audited financial statements of NFEnergía LLC and Fortress Investment Group LLC as well as the audited balance sheet of New Fortress Energy Holdings LLC.

The key members of the NFE leadership and project management team are indicated below, along with a brief description of their qualifications and experience. NFE and its project team has the staff available to begin working on the project immediately should we be awarded. Please see Exhibit 4 for more information on the NFE team.

#### 1.5.1 NFE Leadership Team and Primary Contact

#### FOUNDER AND CEO | Wesley R. Edens

Mr. Edens founded New Fortress Energy in 2014 with a commitment to help accelerate the world's transition to clean and renewable energy. Beginning with the development of its first liquefied natural gas (LNG) plant in Miami, Mr. Edens has led the effort to grow New Fortress Energy into a global energy infrastructure business. He has overseen all of the business and market development activities of the company, including the successful partnership with Jamaica to build the country's first LNG terminal and deliver natural gas for three power plant projects.

Mr. Edens is a co-founder and co-CEO of Fortress Investment Group LLC. Fortress, founded in 1998, is a global investment manager with approximately \$40.9 billion of assets under management as of March 31, 2018. Under his leadership, Fortress has developed and owned transportation and infrastructure projects across the world and built industry-leading businesses in real estate, health care, financial services, media and entertainment.

In 2014, Mr. Edens also became a co-owner of the Milwaukee Bucks and led the effort to deliver a new arena to the city of Milwaukee for the NBA franchise. Opening in 2018, the \$524 million Wisconsin Entertainment & Sports Center is the centerpiece of an ambitious development project spearheaded by Bucks ownership to transform 27-acres of mostly vacant property into a vibrant entertainment district.

Mr. Edens has been the catalyst for the development of Brightline, the first privately owned, operated and maintained passenger rail system in the United States that will connect Miami to Fort Lauderdale, West Palm Beach and eventually Orlando.

In addition to serving on a number of professional boards and commissions, Mr. Edens is a trustee and longtime supporter of the U.S. Ski and Snowboard Team Foundation and an active philanthropist. He and his family established The Edens Family Fund for Climate Change Research at Princeton University, a gift that launched the Urban Challenge within the Princeton Environmental Institute. He served as inaugural co-chair of the Brown School of Public Health Advisory Council and endowed a professorship at Macalester College in St. Paul, Minn., the Edens Professorship in Global Health, along with a research fund to focus on solving international infectious disease and environmental health hazards.

Prior to founding Fortress in 1998, Mr. Edens was a partner and managing director of BlackRock Financial Management Inc., where he headed BlackRock Asset Investors, a private equity fund. In addition, Mr. Edens was formerly a partner and managing director of Lehman Brothers.

Mr. Edens received a B.S. in Finance from Oregon State University.

#### PRIMARY CONTACT AND NFE CHIEF DEVELOPMENT OFFICER | Brannen McElmurray.

Brannen led the development of a series of successful energy related critical infrastructure projects, including a small-scale LNG liquefaction plant that is both truck and rail served; a small-scale LNG receiving terminal integrated with a combined-cycle power plant; a world-scale LNG receiving terminal integrated with a combined-cycle power plant; a combined heat and power generating station providing power to the grid and steam to a world-scale alumina refinery, and is currently developing a portfolio of mid-scale LNG liquefaction facilities in North America. Before Fortress, Brannen was the portfolio director of renewable energy and environmental commodities at NRG Energy, Inc. (NYSE: NRG). Before NRG, Brannen was a vice president in the merchant banking group of Evolution Markets, a leader in energy and environmental markets, where he worked with project developers and entrepreneurs in developing financing solutions for clean energy projects and clean tech companies in the U.S. and abroad. Brannen has also worked for Goldman Sachs Group as an investment banker focused on technology companies and as an attorney at Cravath, Swaine & Moore focused on mergers and acquisitions and acquisition finance. Brannen holds a B.S. in engineering with highest honors from the U.S. Naval Academy, a M.A. in Science, Technology and Public Policy from George Washington University, and a J.D. from Stanford Law School. Brannen served as an officer in the United States Navy. His contact information is as follows:

Brannen McElmurray New York, New York 10011 Office phone: 1-516-268-7413 Cell phone: 1-646-371-7401 Email: bmcelmurray@newfortressenergy.com

#### CHIEF OPERATING OFFICER | Michael Utsler

Michael is the Chief Operating Officer of NFE. He is a senior executive with more than 40 years of experience in the oil and gas sector. He was most recently COO of Woodside Energy, a leading Australian oil and gas company with a global presence. He has also worked for BP and Amoco in Australia and on numerous US and internationally based assignments, giving him the opportunity to develop and demonstrate a wide range of executive and managerial skills and competencies. He holds a BS in Petroleum Engineering from Oklahoma University and a business degree from the University of Indiana.

#### 1.5.2 NFE Project Management Team

Below are the names and titles of key members of the project team, including from NFE, Black & Veatch, and Moffett & Nichol, with a brief description with the qualifications and experiences of each. Each of the members below have been working on our micro-fuel handling facility project, and each is available immediately for execution of this proposal once selected. More detailed descriptions of experience and qualifications are attached as Exhibit 4.

#### **PROJECT DIRECTOR** | Jatila Ranasinghe

Jatila is Head of Power for NFE. Prior to joining NFE, Jatila worked at GE for over 20 years. Throughout his career, Jatila has held a series of leadership roles. Most recently at GE, Jatila was the Senior Executive of Global Product Line and Applications Engineering for the Gas Power Systems business of GE Power. Jatila's team lead global product strategy for the Gas Power product portfolio, including gas turbines, steam turbines, generators, heat recovery steam generators (HRSGs) and combined-cycle power plant solutions. While at GE, Jatila was also part of the Power Generation business in Schenectady, where he worked on the H combined-cycle system, which was the world's first introduction of H technology. Prior to joining GE, Jatila spent six years with the Parsons Corporation in the Oil and Gas division as Senior Heat Transfer Engineer. Jatila holds a PhD and a master's degree in mechanical engineering from Oregon State University, and a bachelor's degree in mechanical engineering from the University of Sri Lanka. He is the inventor of over 40 U.S. patents and has published a number of technical papers.

#### PROJECT MANAGER | Sam Abdalla

Sam is a Vice President for NFE and is responsible for Development of Distributed Power and Gas Solutions. Sam is an internationally trained mechanical engineer with over 15 years of direct experience in the LNG business, utility-scale energy efficiency, combined heat and power, power generation and central utility plant projects from early stage development to construction and operation. Sam has successfully completed over 25 major power and energy projects in 15 different countries, including the development of the world's largest IPP plant in Saudi Arabia combined-cycle and Cheniere Corpus Christie Liquefaction plant power island.

#### PROJECT SUPERVISOR | Winnie Irizarry

Winnie is a civil engineer with 10 years of experience in project management, project controls, estimating and procurement in a range of industries and project types. Mr. Irizarry has been a key team

member for the completion of fast-track projects in the energy, oil and gas, pharmaceutical and commercial sectors. He has worked on projects in Puerto Rico, Texas, Miami and the US Virgin Islands. Winnie holds a bachelor's degree of Science in Civil Engineering from Polytechnic University of Puerto Rico. Winnie also has training for cost estimating, project scheduling, Procore project management software, primavera P6 software and 30 hours of Occupational Safety and Health Administration (OSHA) training for the construction industry.

#### ENGINEERING AND DESIGN MANAGER | Jeff Wootton

Jeff is a Project Manager within Black & Veatch's Power business. Wootton is experienced in managing and executing all phases of power generation project engineering design and planning, including project supervision, scheduling, conceptual and detailed design, thermal performance design, emissions compliance, preparation of procurement and construction specifications, and administration of equipment contracts. Wootton previously served in various roles as a Project Mechanical Engineer on new combined and simple cycle power plant projects; his responsibilities included system design, calculations, equipment specifications, bid evaluations, vendor contract negotiations, vendor equipment drawing reviews, and performance test procedures.

#### LEAD ENGINEERS | Black & Veatch and Moffatt & Nichol

**Angela Stoss** is a Project Manager and a Professional Chemical Engineer, licensed in Puerto Rico, Kansas and Minnesota, supporting Oil & Gas projects at Black & Veatch. She holds a Master's degree in Business Administration with an emphasis in finance and a Bachelor's degree in Chemical Engineering. Stoss applies engineering skills in support of projects, with responsibilities including process simulation, preparation of PFDs, P&IDs, and detailed engineering documents and drawings. Her additional responsibilities include client, engineering, and project management.

**Takeharu (Tak) Koga i**s a Professional Engineer, licensed in Puerto Rico. Tak works within Black & Veatch's global energy business, holds a Master's Degree in Electrical Engineering, and offers over 20 years of relevant experience in the Power, Oil & Gas, and Process industries. Koga's experience includes Instrumentation & Control (I&C) design and engineering, from front-end and conceptual design, through detailed design, to commissioning & startup, working on coal-fired & oil-fired power generating facilities, combined-cycle facilities, amine-based carbon capture & sequestration (CCS) facilities, petrochemical facilities, and bioprocessing facilities. Koga has worked on both domestic and international projects. He also has led an engineering section, managed all aspect of electrical, I&C engineering, including design quality, design procedure, and resource management.

Jeremy Braithwaite is a Professional Mechanical Engineer, licensed in Puerto Rico had has 17 years power plant and industrial design experience. Mr. Braithwaite has experience in power plant design, field installation, cost estimating, startup, operational and failure analysis. This experience includes work on subcritical, supercritical, cogeneration, simple cycle and combined-cycle power plants. His experience also includes retrofit projects for both industrial, process and power generation facilities.

**Prasanna Naware** is a Professional Electrical Engineer, licensed in Puerto Rico with over 10 years of experience in electrical auxiliary power system design within the Oil & Gas and Power Industry. Prasanna is experienced in detailed engineering design projects, front end engineering design projects

and engineering proposals. Prasanna has 5 years of field design engineer experience within the petrochemical industry. Prasanna's design experience includes electrical equipment sizing, development of electrical equipment specifications, power system analyses, procurement requisition development, bid technical evaluations and contract management, development of engineered drawings, including one and three line diagrams, elementary schematics and wiring diagrams. Prasanna also has field instrumentation and DCS programming experience.

**Alap Shah** is a Vice President and Project Director for Black & Veatch and is responsible for the review, selection and application of technologies, risk identification and mitigation of a first-of-a-kind technology integration in power generation projects. Alap specializes in several thermal cycle analysis computer programs and has modeled various cycle configurations for many projects, including repowering projects. He has prepared and conducted combined-cycle performance tests and analyzed the performance of existing units based on test data.

**Deborah MacPherson** has more than 18 years of experience working in the marine civil and structural engineering field as a port facilities designer, structural engineer, senior project manager, owner's engineer and resident engineer. She is registered in Puerto Rico, Florida, New Hampshire and Louisiana. Her expertise is in inspection, assessment, planning, design, construction document preparation, and post-construction award services for waterfront civil and structural projects with a focus on design of new and renovated waterfront structures. She completes these projects for a variety of public and private clients such as the Florida Department of Transportation, U.S. Navy, Coast Guard, and Air Force; municipal and state governments; container and bulk terminals; shipyards; and terminal owners.

**Derek Sears** has been working in the electrical engineering field for eight years. He is registered in Puerto Rico, Florida, the US Virgin Islands and the District of Columbia. His experience is in the design of commercial and industrial power distribution, lighting, and electrical systems. In addition to electrical design, he has provided construction support for projects that have included low and medium voltage electrical, mechanical pump and conveyor systems, fire protection, life safety, security and communication/controls systems. With respect to waterfront facilities, Mr. Sears has been involved in the development and/or electrical system studies of bulk material and liquid product loading/unloading facilities, port container terminals, marinas and offshore substations. These designs and studies have included the use of the electrical power system design and analysis software (ETAP) to support and confirm load flow, fault current, arc flash and over-current protection coordination efforts and results.

John Glass is a structural engineer with 6 years of experience in the design of waterfront structures with expertise in the management, inspection, planning, design, construction document preparation, and post-construction award services for a variety of ports, marinas, and other waterfront facilities. In addition to structural engineering, he has over 15 years of experience providing construction oversight for projects that have included general construction, mechanical, fire protection, life safety, electrical systems, and small scale liquified natural gas (LNG) transfer facilities Mr. Glass will provide coordination between various design firms and equipment vendors supporting the project during the design and construction phases of the terminal project.

**Ryan Hare** has 12 years of professional experience in the technical, managerial and commercial aspects of ports, harbors and marine terminals internationally. He has served as Project Manager or Project

Engineer for a wide variety of maritime projects involving planning, design, preparation of contract documentation and client advisory services. This planning and design experience has included overall layout of both inland and offshore, domestic and international port facilities for general, liquids, bulk and container cargoes as well as specific port components.

**Inspector Manager, Luis Martinez**. Luis is the President of Professional NTD Services. Luis has extensive certifications and training in inspections, including for vessels, welding and piping. Luis is a member of the American Society for Engineers, the American Welding Society, the American Water Works Association and the American Society for Nondestructive Testing. For more detailed information on the company and expertise please see Exhibit 10.

### Safety Officers, QA/QC Managers, Environmental Specialists: George Ibave (supported by Tim Sabol, Health, Safety, Environmental & Quality Manager and Christina Riccelli, Vice President of HSEQ).

George is the Head of Health, Safety, Environment and Quality at NFE. George leads field HSE Operations and ensures all Health, Safety, Security, and Environmental management aspects and regulatory compliance requirements are diligently met per project contract's terms and conditions. George strongly believes in driving a culture of safety by setting the example, through education, stewardship, and active mentoring. George's professional experience spans 14 years, through 6 heavy industry sectors including US military, building materials, specialty gases, explosives and munitions, fuels and logistics, and LNG; within 10 countries across North, South America, and the Caribbean. George holds a Bachelor's of Science Degree in Chemistry with a specialty in Materials Chemistry and Mathematics from the University of Texas at El Paso. Specialized skillset includes Lean Six Sigma, Process Safety Management, and Environmental.

**Head of Operations, Simon Duncan.** Simon is Senior Vice President and Head of Marine Operations for New Fortress Energy with over 28 years of experience in the marine and energy industries. Prior to joining New Fortress Energy, Simon was President and CEO at SPT Inc., a global provider of ship-to-ship transfer services and management of high-pressure gas terminals used by floating and regasification units (FSRU). Prior to that, he held various senior management roles at SPT. Over his career he was instrumental in the development of LNG ship-to-ship transfers and its role for LNG bunkering operations. Simon holds a B.A. in International Business from Texas Wesleyan University.

**Head of Marine Development, Captain Mark Lane**. Captain Mark Lane is a Senior Vice President responsible for Marine Development. Mark's team handles all elements of construction and conversion for a variety of vessels including LNG carriers, floating storage terminals, and regasification barges. During his career, Mark developed the original concept of the Floating Storage and Regasification Unit (FSRU) and the offshore and near-shore natural gas receiving facilities for those vessels. Mark has developed, commissioned and operated nine FSRU's, including the two highest capacity regas send-out vessels in the world. Mark has successfully developed, commissioned and been responsible for over 1,000 ship-to-ship operations in his career without incident. Mark graduated Summa Cum Laude with an ME in Nautical Science from the Maine Maritime Academy and received an MD in Liquefied Natural Gas engineering from Calhoon MEBA Engineering School in Baltimore, MD.

**Head of Logistics, Alex Vohr.** Alex is the Vice President of Logistics at New Fortress Energy with more than 28 years of experience in operational and strategic level logistics. Prior to New Fortress Energy,

Alex served at Florida East Coast Railway as the Assistant Vice President for Operating Policy where he coordinated the operational integration of LNG fueled locomotives. Alex is a retired Colonel in the United States Marine Corps with 25 years of active service including combat, humanitarian assistance operations, and assignments as a planner, educator, and acquisition professional. In his last assignment, Alex served as the Director for Logistics, U.S. Southern Command, responsible for all U.S. military logistics in Central and South America. He holds multiple advanced degrees and completed his undergraduate education at the United States Naval Academy.

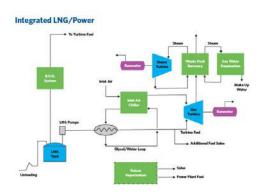
#### 1.5.3 Engineer - Black & Veatch

Black & Veatch (B&V) is a leading engineering, consulting and construction company. Since 1915, they have grown and developed offerings to provide the most comprehensive services to clients across the globe. With more than 3,000 assignments in more than 40 countries, they have a proven performance record in safety, reliability and environment enhancement.

B&V applies accurate planning, leading technologies, proven EPC practices and reliable operations solutions for oil & gas, power generation and power delivery infrastructure. Their global projects are consistently recognized throughout the energy industry for quality and best practices.

In combustion turbine plants alone, B&V has been involved with 120+ GW of power generation facilities. Their combined-cycle leadership includes the design and construction of more than 130 global projects totaling more than 84GW.

In addition to the design of power generation facilities, B&V has been on the leading edge in applying new concepts to LNG utilization. B&V has developed proprietary technologies in LNG, liquefied petroleum gas (LPG) recovery, and sulfur degassing, among others.



A recent project in Puerto Rico involved the integration of an LNG receiving terminal with an electric power plant. The process utilization, shown in the figure to the left, illustrates this unique integration project. The LNG is pumped from storage and is vaporized by exchange with a glycol/water system. The chilled glycol/water is used to chill the inlet air in the power plant combustion turbines. Additional power is generated in the power plant because of this chilling. The vaporized LNG is used for the turbine fuel and excess sold to a gas pipeline. The steam system in the combined-cycle

power plant also serves as a heat source for seawater desalination. Boil-off gas from the LNG storage is used directly as turbine fuel and eliminates the need for a BOG condenser. This integrated process provides an efficient way to utilize cold energy from the LNG that is otherwise often discarded against vaporization systems using seawater or fuel firing.

Please refer to Exhibit 5 – Black & Veatch Qualifications.

#### 1.5.4 Engineer – Moffatt & Nichol

Moffatt & Nichol is a global infrastructure advisory firm working from 36 offices and 7 countries. They provide practical solutions to clients in the marine terminal, transportation, energy, environmental, federal, and urban development markets around the world. They are a multidiscipline professional services firm with specialized expertise in structural, coastal, and civil engineering; environmental sciences; economics analysis; inspection & rehabilitation; and program management solutions.

Please refer to Exhibit 7 – Moffatt & Nichol Qualifications.

#### 1.5.5 Contractor - TSK

TSK has over 30 years of experience in the industrial and energy sectors. They are a Spanish company involved in many EPC projects in the energy, industrial, minerals handling and environment sectors. They have 97% international activity, showing experience in a variety of jurisdictions, and have sufficient financial capacity to handle large EPC projects.

TSK has been executing projects for the transportation of oil and gas for over 30 years, and has been involved in constructing all types of related installations and infrastructure. Their projects include oil and gas pipelines, gathering systems and distribution networks, oil pumping stations, gas compression stations, and oil and gas metering Stations.

TSK develops complete hydrocarbon storage terminals, in addition to its corresponding oil tanker mooring terminals and the port-refinery interconnection. They also provide knowledge and experience necessary to design the LNG tanks as well as regasification terminals. NFE has worked with TSK to develop its Jamalco project and TSK has proven to be a reliable and effective contracting partner.

Please refer to Exhibit 9 – TSK Qualifications.

#### 1.5.6 Local Partners

NFE has already engaged numerous local parties for work relevant to the supply of natural gas to San Juan Units 5 & 6, and if awarded the contract, NFE would continue to engage more local parties that would be integral to fuel conversion of San Juan Units 5 & 6 and natural gas fuel supply. More details on local party expertise and technical qualifications can be found in Exhibits 11-17.

To date, NFE has already engaged the following local parties in connection with the preparation of the micro-fuel handling facility that would be used for the supply of natural gas.

LOCAL PARTY	WORK COMPLETED OR ONGOING
Black & Veatch Puerto Rico, PSC	Engineering
KPMG Puerto Rico	Advisor on accounting and tax issues
Puerto Rico Ports Authority	Lease in the Puerto Nuevo section of San Juan Harbor

#### Table 1-1 - List of Engaged Local Partners

LOCAL PARTY	WORK COMPLETED OR ONGOING
Sanabria Bauermeister Garcia Berio	Advisor in connection with port lease, employment and tax matters
Edge Legal Strategies	Advisor in connection with environmental and permitting matters
Fortress Maritime	Logistics and facility security support.
Arqueo Consulting	Phase 1A and 1B archeological study and monitoring throughout construction process of the MFH Facility
Toledo Engineering	Abatement of lead-based paint and asbestos and demolition of existing warehouses on Wharves A and B
Javier Bidot & Associates, PSC	Survey of warehouses in contemplation of demolition and survey of port subsurface in contemplation of Phase 1B archeological study
Tetratech Puerto Rico	Environmental consulting and permitting
Luis A. Ayala Colon Sucrs, Inc.	Stevedoring services

Should NFE be awarded the contract, local parties would be integral to NFE's performance of PREPA's fuel conversion and fuel supply requirements. Below is a preliminary list of Local Parties that NFE expects would be part of the implementation team. The list would likely grow as the work progresses and more parties are engaged.

#### Table 1-2 - List of Local Partners to Engage

LOCAL PARTY	EXPECTED ROLE	KEY PERSONNEL	EXPECTED LEVEL OF INVOLVEMENT / INTERACTION WITH PREPA				
Sanabria Bauermeister Garcia Berio	Advise on port matters	Jorge Fernandez, Reboredo partner	Limited to no direct contact, availability through NFE to answer questions				
Edge Legal Strategies	Advise on environmental and permitting matters	Carlos Lopez, senior counsel	Limited to no direct contact, availability through NFE to answer questions				
KPMG	Advise on accounting and tax-related matters	Rolando Lopez, partner	Little to no direct contact, availability through NFE to answer questions				
Black & Veatch Puerto Rico, PSC	Engineering	Rafael Frias	Little to no direct contact, availability through NFE to answer questions				
Fortress Maritime	Logistics and security support, including access and security services at Wharves A and B	David Hancock, Aaron Vick	Periodic interaction related to access to Wharfs A and B.				
Professional NDT Services	Quality Assurance / Control and Inspection Services, Welding Inspections (x-rays, etc.)	Luis Martinez, President	Little to no direct contact, availability through NFE to answer questions				

LOCAL PARTY	EXPECTED ROLE	KEY PERSONNEL	EXPECTED LEVEL OF INVOLVEMENT / INTERACTION WITH PREPA				
Jaca Y Sierra Testing Laboratories	Geotechnical Engineering Services, Concrete Testing during construction	Carlos R. Sierra del LLano	Little to no direct contact, availability through NFE to answer questions				
Del Valle Marine	Marine Construction, Berth Repairs	Humberto Reynolds	Little to no direct contact, availability through NFE to answer questions				
Lord Construction and Lord Electric	General Contracting, Mechanical Piping, concrete work and Steel erection	Javier Perez Sanfeliz, Hector Almodovar Garcia, Israel Esparra Vazquez	Little to no direct contact, availability through NFE to answer questions				
Aireko Construction	Concrete, Steel, Mechanical Construction	Waldemar Toro Davila	Little to no direct contact, availability through NFE to answer questions				
CIC Construction	Concrete, Steel, Mechanical Construction	Jose Torrens	Little to no direct contact, availability through NFE to answer questions				
Tetratech	Environmental and permitting	Fernando Pages	Little to no direct contact, availability through NFE to answer questions				

#### **1.6 LIST OF EXHIBITS**

The following exhibits are included in the appendix:

- 1. New Fortress Energy Letters of Recommendation
  - a. Vincent M. Lawrence, Former Chairman of the Electricity Sector Enterprise Team in Jamaica
  - b. Guillermo Turrent, CEO of CFEnergía & CFE International in Mexico
  - c. Kelly Tomblin, Chief Executive Officer of INTREN
  - d. James Browne, General Manager of Barbados National Oil Company Limited
- 2. Black & Veatch Letters of Recommendation
  - a. Energía Costa Azul LNG Regasification Project
  - b. Port Westward Project
  - c. Enmax Shepard Energy Centre Project
  - d. Puerto Rico Aqueduct and Sewer Authority (PRASA)
- 3. Moffatt & Nichol Letters of Recommendation

- a. City of Ketchikan, Port & Harbor
- b. Disney Cruise Lines
- 4. New Fortress Energy Key Personnel Bios
- 5. Black & Veatch Qualifications
- 6. Black & Veatch Key Personnel Bios
- 7. Moffatt & Nichol Qualifications
- 8. Moffatt & Nichol Key Personnel Bios
- 9. TSK Qualifications
- 10. Professional NDT Services Qualifications
- 11. Anthony Veder Qualifications
- 12. Aireko Companies Qualifications
- 13. CIC Construction Group Qualifications / Key Personnel Bios
- 14. Del Valle Group Qualifications
- 15. Lord Electric Co. of P.R., Inc. Qualifications
- 16. Lord Construction Qualifications / Key Personnel Bios
- 17. L.P.C. & D., Inc. Qualifications
- 18. PREPA Supply Registry Confirmation



# SECTION 2.0

## Approach & Methodology



### 2.0 Approach & Methodology

#### 2.1 PROJECT SCOPE OF WORK DESCRIPTION

NFE is currently developing its micro fuel handling facility (MFH Facility) which, upon bid award, will include the equipment and controls necessary and capable of providing 25 TBTU per year of natural gas to San Juan Units 5 & 6. Expansion at the MFH facility would also give NFE the available space and capacity to support additional installed capacity at San Juan Power Station or elsewhere on the system. The construction and commissioning of all equipment and interconnection necessary for a complete unloading, storage, vaporization and delivery of natural gas to the existing San Juan Units 5 & 6 Power Generating Plant is included within this proposal.

The scope of work will include, but is not limited to:

- Gas pipe routing, which will be selected based on codes and standards and minimal interruption to PREPA operations
- Dedicated Auxiliary Equipment, including control valves, gas evaporator, heater or heat tracer and compressor to comply with combustion turbine's manufacturer recommendations, relief valves, stop valves, safety vent valves, safety shut down valve at fuel gas turbine manifold, overspeed trip valve, fuel gas meter, metering station for financial custody and coalescent filters
- Any required improvements to the dock per NFPA, Ports Authority and USCG compliance and for any recertification due to the change of use (though there is no change of use or related recertification anticipated by NFE)
- Electronics and Communications: for all operation, control and supervisory signals from auxiliary equipment, gas conveyance, metering station and LNG storage and vaporizer system will be integrated to the San Juan Units 5 & 6 DCS
- All steel surfaces will be painted with a three coating system for corrosive environment and UV protected or similar protective measures
- Fuel Gas Meters: The two separate flow meters will be installed comprising a main meter and a backup meter. The metering equipment will be installed in a location to be mutually agreed between NFE and PREPA. The metering equipment shall be designed and installed in accordance with the current recommendations of the American Gas Association.
- NDT to all welds; 100% x-Rays, hydrostatic test
- Cathodic protection applied to system
- Fire protection system modification as required by codes and local and federal regulatory agencies
- Gas leak sensors with heat and temperature sensors
- NFE will manage and take responsibility for all mechanical, electrical, civil and site works
- Construction drawings and as-built drawings
- Construction will consider hurricane winds of 145 MPH and comply with Seismic User Group 3

Combustion turbine manufacturer's recommendation of natural gas parameter at the combustion turbine's gas control skid (pressure 350-640 psi, flow 27.43 MMBtu/min per Unit, temperature a minimum of 50 degrees F above natural gas dew point, each as recommended by Mitsubishi).

#### 2.1.1 Overview of Approach & Schedule

Because of the magnitude of the potential cost savings, NFE understands the value of time and a compressed execution schedule. We have already begun detailed engineering and design on the PREPA power plant conversion with our engineering firm, Black & Veatch, using information supplied by your preferred supplier, Mitsubishi. With respect to our MFH Facility, we have received an approved Environmental Assessment and Jones Act letter; filed our infrastructure endorsements; completed the Coast Guard LOR process; and started the filing process for the various construction permits required for the MFH Facility. We have completed the demolition process for warehouses on the site of the MFH facility and are now preparing for civil and structural sitework. The long lead items for the MFH facility align with the San Juan Power Plant lead times and procurement can advance without delay after notice to proceed.

NFE and its supporting contractors understand the integration of all parties for engineering and design, procurement, construction, and permitting to meet the project schedule. The summary-level CPM schedule below outlines the key milestones of the project and shows how NFE, Mitsubishi Hitachi Power Systems, Black & Veatch and Moffatt & Nichol are currently working together and plan to continue to work together to achieve the project timeline. The schedule below dovetails with the division of responsibilities for the LNG design at the MFH facility, the San Juan Power Plant conversion process, the balance of plant work, and all additional contract work identified.

				S	an Juan	15&6 N	atural	Gas	Con	version	Project	t				
							Mor	nths								
Jul-18	Aug-18	Sep-1	18	Oct-18	Nov-18	Dec-18	Jan-19	Feb	b-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-1
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	1			LING C	ònstructio	n/Equip. I	nstallatior	1/Com	nmiss	ioning						
		Full	NTD									CTC Car	Comunette	on Comple	L	
				Convorci	ion Parts D	o cign and	 Fabricatio				Outage		Conversion	T	le	
	1			Conversi	ion Farts D	esign and	Fabricatio			I	Outage					
	B&V Pov	uor Pla	nt BO	PDesign	1											
			1	i Design												
					NTP		Power S	l Site M	lobiliz	ation						
	Power Co	ntracto	or Bid	Process	Contractor N	laterial Proc				and Start	up					
			1		Contractor											
	1													1	1	
	1													1		
	1															8/8/2

#### Figure 2-1 – CPM Schedule

#### 2.1.2 Project Concept and Description

The San Juan Power Plant is a six-unit facility consisting of four (4) liquid fuel fired boiler and steam turbine units and two (2) one-on-one liquid fuel fired combustion turbine combined-cycle units. Each combined-cycle unit consists of a Westinghouse 501FC combustion turbine and Ansaldo heat recovery steam generator (HRSG) that repower an existing steam turbine. Designed net plant output rating was 232 megawatts (MW) per combined-cycle unit. The combustion turbines fire #2 diesel and the HRSGs do not include supplemental duct firing.



Figure 2-2 - San Juan Power Plant



Figure 2-3 - San Juan Units 5 & 6 Combustion Turbines

The intent of the gas conversion project is to modify each combustion turbine at Units 5 & 6 to use natural gas as a primary fuel and #2 diesel as an emergency backup fuel. As part of this conversion, PREPA could decide to retrofit each combustion turbine with a cold-water inlet air coil that can be used to reduce the combustion turbine inlet air temperature approximately 15 degrees F, thus increasing each combined-cycle unit's net plant output capability.

NFE's MFH Facility is designed to receive LNG from a semi-permanently moored floating storage unit (FSU) at Puerto Nuevo, vaporize the LNG on Wharfs A and B and deliver vaporized LNG to Units 5 & 6. NFE has selected the FSU and ships for delivering LNG to meet the 7-day storage requirement. Given the estimated gas consumption calculated using assumptions provided by PREPA, the solution described herein contains up to 116 days of storage. In addition, NFE is developing an onshore storage solution to provide additional storage and operational flexibility in the event that the energy and natural gas requirements of the San Juan Power Plant or PREPA generally grows. As you know, the process of siting, permitting, designing, and constructing a landed LNG storage facility can take a number of years.

An ambient air vaporizer will be installed to provide the required fuel gas flow for the gas-fired heater during start-up. Piping connections will be included for the expansion of the facility's vaporization capacity and sendout.

The vaporization facility has the capacity, at PREPA's option, to employ a water/glycol loop integrated with the San Juan Power Plant as the primary heat source for LNG vaporization. The water/glycol loop would provide cooling to the inlet air of the combustion turbines, increasing their generation capacity and net plant electrical output of each combined-cycle unit. A gas-fired, water bath vaporizer would be available as an additional heat source to the water/glycol loop for use as back-up or trim heating.

A gas combustion unit or flare will be installed for operational activities of the MFH Facility to prevent gas releases during typical procedures, including commissioning or maintenance. The FSU is designed to accommodate any boil off gas generated within the FSU. The MFH Facility is capable of receiving the vapor via the Boil-off Gas (BOG) compressor to be sent as fuel or used in the gas combustion unit if desired by MFH Facility and FSU operators.

#### 2.1.3 Proposed Project Location and Siting

The MFH Facility proposed for handling LNG will be located in the Puerto Nuevo section of the Port of San Juan (Puerto de San Juan), a seaport facility located in the metropolitan area of San Juan, Puerto Rico, that is adjacent to the PREPA San Juan Power Plant. The "Port of San Juan" is the general name used to refer to the various passenger and cargo facilities located in lands around the San Juan Bay (Bahía de San Juan). The MFH Facility will be located immediately adjacent to the San Juan Power Plant on the parcel with cadaster number 062-000-003-01. NFE also has rights to conduct LNG transloading operations, including berth space for our LNG carrier, at Wharf C. Therefore, Wharf C is not a suitable location for any other project proponent because we believe that they would be unable to meet the duty requirements outlined in this RFP.

#### 2.1.3.1 Site Conditions and Site Constraints at the MFH Facility and San Juan Power Plant

Wharves A, B, and C comprise approximately 9 acres (9.27 cuerda), or approximately 36,422 square meters. Wharves A and B were each occupied by a detached warehouse building which NFE has demolished. Wharf C consists of an open area without buildings. All onshore areas are paved and the project will not require any changes to the bulkhead's current footprint or layout.

According to Zoning Map Number 5B of the Autonomous Municipality of San Juan, (effective March 13, 2003), the MFH Facility is located within the territorial limits of San Juan in a heavy industrial (I-2) district on lands currently used for load transfers and is classified as Urban Land.

Pursuant to the Joint Regulation of Permits for Construction Works and Land Use, Regulation No. 7951 ("Joint Regulation"), the heavy industrial district is established to classify heavy industrial areas, developed or to be developed by specific projects, which by nature and intensity require special siting. Under Section 19.12.1(b) of the Joint Regulation, the determination of the extension of land considered for heavy industrial uses should be based on: potential of the area for development of heavy industries; wind direction; detrimental effects on air and water, such as odor, noise, vibration, and light reflection; effects on transportation systems; and the better use of land. The objective is for such land to be dedicated to heavy industrial uses, and residential, commercial, and light industrial uses are excluded.

Section 8.04(a) of the Municipality of San Juan Zoning Regulation contains very similar language concerning the purpose and objectives of the I-2 district.

Both the Joint Regulation and the Municipality of San Juan Zoning Regulation provide a list of authorized uses within the heavy industrial district which include manufacturing, treatment, processing, refining, and storage of chemical substances. Consequently, the proposed use of the site where the MFH Facility will be located would be entirely consistent with the purpose and objectives of the heavy industrial district.

#### 2.1.3.1.1 Flood Zone

The MFH Facility is located in an area subject to coastal flooding according to flood maps prepared by FEMA. The MFH Facility is partially located within a VE Flood Zone with a Base Flood Elevation (BFE) of 3.4 meters (11.15 feet), indicating that in a flood event, waters are expected to rise to 3.4 meters above mean sea level (AMSL) (Flood Insurance Rate Map (FIRM) 72000C0365J, revised November 18, 2009). Additional portions of the MFH Facility are located in the adjacent AE Flood Zones with BFE of 1.8 meters (5.90 feet) and 2.1 meters (6.89 feet). According to a recent survey, elevations throughout the site where the MFH Facility will be generally range between 8 feet and 6 feet with top-of-curb elevations along the bulkhead between 8.17 feet and 7.81 feet (west to east).

Structures to be constructed for the MFH Facility will comply with applicable regulations for construction within VE Flood Zones with a known BFE of 3.4.

#### 2.1.3.1.2 Natural Habitat

Regulation No. 6765 of the Department of Natural and Environmental Resources of Puerto Rico (February 11, 2004), is known as the Regulation to Govern the Conservation and Management of Wildlife, Exotic Species and Hunting in the Commonwealth of Puerto Rico. The purpose of this Regulation is to establish a mechanism for the mitigation of natural habitats, among others. Section 2.03 (B) provides a list of the different habitats categories to determine the mitigation required due to a modification of a natural habitat, these are irreplaceable habitat, essential habitat, high ecological value habitat, ecological value habitat, natural habitat with great potential to become essential habitat, of high ecological value or of ecological value; and natural habitat with low potential to become essential habitat, of high ecological value or of ecological value.

According to the Map of Natural Protected Areas of Puerto Rico (Gould et al., 2011), the MFH Facility and the San Juan Power Plant are not within a designated habitat within these categories. The sites are located along a section of the industrial waterfront at the southern edge of San Juan Harbor.

The closest natural area is *Las Cucharillas Marsh Natural Reserve* located approximately 800 meters to the west of the Project Site. The *Caño Martín Peña Nature Reserve* is located approximately 2,600 meters to the east, and the San Patricio Urban Forest at 2,100 meters to the southeast. None of these habitats will be impacted by the proposed action.

The Puerto Rico Critical Wildlife Areas document (Ventosa-Febles, et al., 2005) provides comprehensive information on important wildlife and habitat resources in Puerto Rico. The purpose of this document is to protect and preserve critical wildlife habitats from degradation due to incompatible land use in a

specific site or adjacent to the site area. The document includes *Las Cucharillas Marsh* as an "area with conservation priority" and the *Buchanan Haystack Hills* and Fort Buchanan Pond (2,100 meters to the southwest), as "critical wildlife areas." The most recent information was obtained from the Critical Wildlife Areas of Puerto Rico Map (2018). None of these habitats will be impacted by the proposed work at the MFH Facility site or the San Juan Power Plant. Thus, no mitigation or protection activities will be required under this regulation.

#### 2.1.3.1.3 Drinking Water Wells

A database search did not identify any public water supply wells within one mile (1,609 meters) of the MFH Facility. This search did identify one water well between ¼ and ½ mile (400 to 800 meters) from the MFH Facility and nine additional water wells between ½ and 1 mile from the MFH Facility. These wells are included in the USGS National Water Inventory System (NWIS), a database that contains descriptive information on sites where the USGS collects or has collected data on surface water and groundwater. Several of these wells date to the mid 1940's, so it is not clear from the database whether any of these wells are still in use. Work at the MFH Facility and the San Juan Power Plant would not impact these wells.

#### 2.1.3.1.4 Regional Geology

Puerto Rico is dominated by the "Cordillera Central," a mountain axis of faulted, folded volcanoclastic and sedimentary rocks intruded by igneous rocks that are overlain by limestones on the north and south (Miller et al., 1999). The Geological Map of the San Juan Quadrangle, published by the USGS, indicates that the Project Site is located on artificial fill (Qaf - artificial fill). The map does not show geological faults in the property under evaluation.

#### 2.1.4 Ownership or Control of Location

NFE has control of the land adjacent to San Juan Power Station in the Puerto Nuevo area of the Port of San Juan, Puerto Rico (the "Port") through lease AP-17-18-(4)-089 with the Puerto Rico Ports Authority ("PRPA"). The leased premises in the Port, which are immediately adjacent to PREPA's facility where San Juan Units 5 & 6 are located providing direct access to natural gas from our facilities. NFE's lease with PRPA allows it to make improvements on the Port to develop the MFH Facility. In addition, NFE has the rights at Wharf C to operate its LNG transloading operations, including space for an LNG carrier. Therefore, Wharf C would not be a suitable location for another project proponent. NFE has gone through an Environmental Assessment in Puerto Rico and has received approval for its MFH Facility as currently configured. NFE has begun making allowable improvements to Wharfs A and B, including by hiring a subcontractor to perform lead and asbestos abatement on two warehouses on the leased area and subsequently demolishing those warehouses.

If PREPA awards the bid to NFE, we will add the necessary equipment to support the improvements on Wharfs A and B and include a fuel unloading facility to deliver fuel to the converted San Juan Units 5 & 6. We expect the work required to add the necessary equipment to go quickly. We have secured the long-lead items, so we have the ability to execute on a compressed schedule.

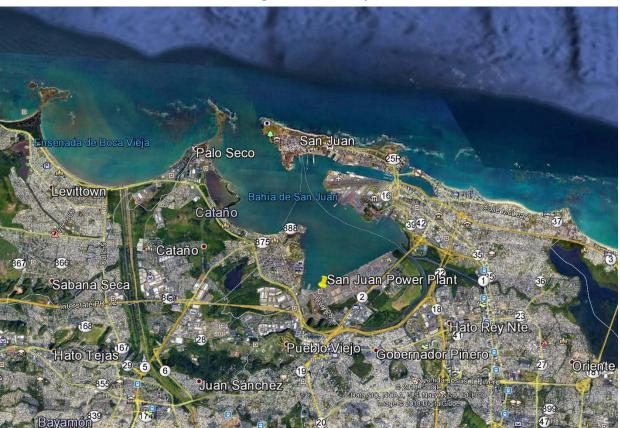


Figure 2-4 - Area Map

#### Figure 2-5 - Existing Area Map





Figure 2-6 - Rendering of Facility (bird eye view)

Figure 2-7 - Rendering of Facility (NE view)



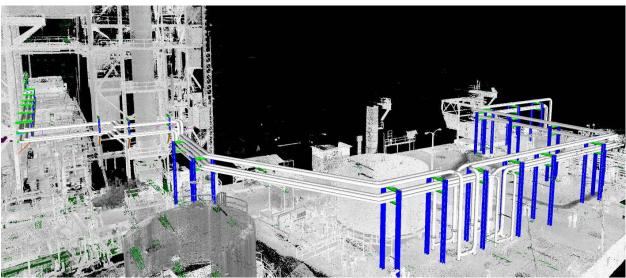
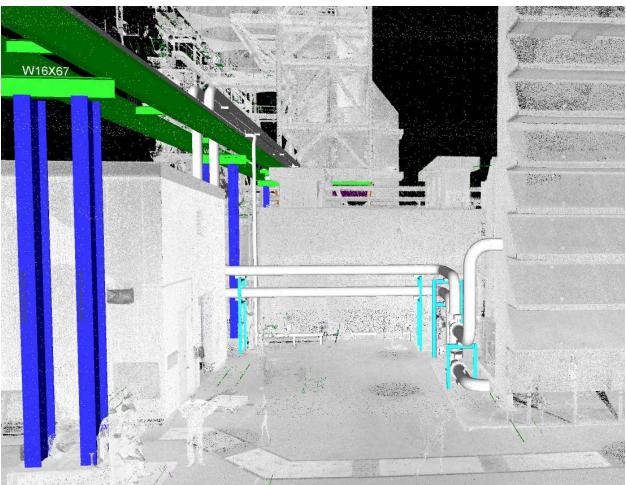


Figure 2-8 - New Piping Systems Model View (looking northwest)

Figure 2-9 - New Piping System Model View at Unit 6 (looking east)



#### 2.1.5 Alternative Fuel

We note the opportunity in the RFP to convert and supply PREPA Units 5 & 6 to an alternative fuel rather than natural gas. In order to assess the viability of conversion to use an alternative fuel, we asked Mitsubishi Hitachi Power Systems to provide to us their assessment of the feasibility of converting Units 5 & 6 to operate on LPG (liquefied petroleum gas) in addition to diesel or natural gas.

Mitsubishi Hitachi Power Systems reviewed our request to convert Units 5 & 6 to LPG in comparison to our proposal to convert Units 5 & 6 to operate on natural gas and provided us with the results of their assessment in the letter attached as Exhibit 26. Mitsubishi Hitachi Power Systems concluded that a conversion to natural gas is preferable to a conversion to LPG due to the operational and safety risks related to LPG. In addition, Mitsubishi Hitachi Power Systems could not provide us with a firm price or schedule for an LPG conversion.

We were especially focused on the increased safety risks of converting Units 5 & 6 to LPG. These risks are outlined in Section 2 and Section 3 of Exhibit 26 and, as Mitsubishi states, include significant risk of explosion and injury. These risks also increase the cost of insuring the conversion and the plant post-conversion which would increase the cost of the conversion and plant's operating expenses.

Because of Mitsubishi's concerns, we did not include a bid to convert Units 5 & 6 to run on LPG and supply PREPA with LPG as fuel. If, despite Mitsubishi's concerns, PREPA decides to convert Units 5 & 6 to run on LPG and Mitsubishi agrees it is the best path forward, NFE is willing to consider providing a competitive bid to convert the Units and supply LPG in addition to LNG.

#### 2.2 POWER PLANT CONVERSION OVERVIEW

#### 2.2.1 Power Plant Conversion

New balance-of-plant systems necessary to support the project and combustion turbine modifications include the fuel gas supply system, which transfers the natural gas from the LNG facility at Wharfs A and B to the combustion turbines supplied by Mitsubishi, and the CT Inlet Air Chilling system, which is an option PREPA could choose to implement that would increase capacity of each Unit and would optimize the conversion of Units 5 & 6. Preliminary piping and instrument diagrams (P&IDs) for these systems are provided in Exhibit 22. The new balance-of-plant systems will be designed, constructed, and tested in accordance with ASME Code for Pressure Piping, B31.1 Power Piping-2018.

In addition, Mitsubishi has agreed to be our subcontractor should we be awarded the conversion project. Please see Exhibit 26 for a further explanation of Mitsubishi's commitment and analysis of the natural gas conversion project.

#### 2.2.1.1 Fuel Gas Supply

The fuel gas supply system will deliver natural gas to each combustion turbine. The system will be constructed of seamless, carbon steel piping of all welded construction with flanged system isolation valves including an emergency, air-actuated isolation valve. The system will operate at nominal conditions of 525 psig and 48 degrees F. A gas filter or strainer will be provided immediately upstream of the gas supply interface connection with Mitsubishi, meaning upstream of each combustion turbine fuel gas metering skid. System piping downstream of each filter or strainer will be seamless stainless

steel. The system will also include a flow meter for each combustion turbine supplied by Mitsubishi to ensure proper system operation and safety.

#### 2.2.1.2 CT Inlet Air Chilling

The CT Inlet Air Chilling system is an option that PREPA may decide to implement in order to increase the capacity of Units 5 & 6. NFE believes this optimization of the conversion of Units 5 & 6 would achieve commercially reasonable improvements in output in conjunction with the conversion, as requested on page 9 of the RFP. This optimization would increase the capacity of Units 5 & 6 from 440 MW to 465 MW.

The CT Inlet Air Chilling system will include independent glycol-water cooling water closed loop piping systems for each combustion turbine. Refer to system P&ID in Exhibit 22; drawing #P199399-CTGP-M2626. Cooled glycol-water will be supplied to the power plant from the LNG vaporization process. The glycol-water is piped to a fin-tubed, inlet air cooling coil located within the filter house of each combustion turbine. Warm glycol-water is then returned to the LNG vaporization process. Each combustion turbine's closed loop system includes an air-actuated isolation valve on both the supply and return piping runs near the LNG process interface points. Instrumentation is also included for monitoring glycol-water supply and return process conditions from the San Juan Unit 5 & 6 distributed control system.

#### 2.2.1.3 Combustion Turbine Modifications

Major combustion turbine modifications include new dual fuel capable fuel nozzles, fuel gas metering system, and existing control system expansion to accommodate monitoring, control, and operation of the dual fuel systems. The scope of work will also include modifications to existing liquid fuel systems including liquid fuel metering system, fuel oil injection pump skid, purge air system, sweep air/sweep gas systems, and hydraulic control oil skid. See Project Execution, Section 2.4.7 for the fuel conversion scope of work summary and division of responsibility between NFE, Mitsubishi, Black & Veatch and other contractors.

#### 2.2.1.4 Transient Load Management

The MFH Facility is designed to accommodate safe start up, shut down and load ramp rates for San Juan Units 5 & 6. During the plant start up, natural gas will be supplied at the required pressure to the gas turbines by controls designed to maintain vaporization in line with the demand. The plant control system will be integrated with the MFH Facility. Similarly, when the power plant trips, the control system integration will ensure that the gas pressure in the piping and equipment will remain within the design limits for a safe shutdown.

During the ramp up and ramp down of gas turbines, the LNG vaporizer system is designed to maintain the system pressure in a steady state mode. The system is designed with double redundancy for high reliability and availability of the power plant.

#### 2.3 LNG DELIVERY & NATURAL GAS FUEL SUPPLY LOGISTICS AND OPERATIONS

#### 2.3.1 LNG Delivery Operations and Equipment

NFE constitutes one of the only groups in the world that has developed a landed LNG terminal, a floating storage hub for LNG, an offshore terminal utilizing a Floating Storage and Regasification Unit, an operating LNG liquefaction facility and all of the associated logistics to deliver and utilize the natural gas. In the Atlantic region, NFE operates the only small-scale LNG terminal, which is resupplied by a chartered fleet of smaller LNG ships. NFE has performed over 100 small-scale ship-to-ship transfers and 100 small-scale ship-to-shore transfers in the Caribbean in the past 2 years, handling over 13MM MMBtu or 600,000 m<sup>3</sup> of LNG during the time. All cargo transfers have been completed without incident or loss of product.



#### 2.3.1.1 Gas Supplier

NFE has a secure portfolio supply of fuel, including from our liquefaction facilities, offtake from the world's largest suppliers, and ability to procure fuel as needed from the global market. NFE's offtake agreements allow NFE to source LNG from various locations including Trinidad or other locations as required. NFE also has the ability to purchase spot LNG cargo(s) as required.

NFE has provided a letter of reference from one of our LNG suppliers, Centrica, as Exhibit 30. The letter confirms that Centrica has the capacity to supply LNG in the quantities requested by NFE in connection with the MFH Facility.

#### 2.3.1.2 Liquefied Natural Gas Ships & Major Equipment

NFE has charters for a number of ships that can deliver LNG to our micro fuel handling facility for fuel supply. This section outlines the arrangements we have for several of these ships, including three ships we have identified as most likely to deliver LNG to the MFH Facility in connection with delivery of

natural gas to San Juan Units 5 & 6. The Golar Arctic would act as a floating storage unit in the Caribbean Sea, while the Xin Le (to be renamed by NFE) would act as a semi permanently moored floating storage unit at Wharfs A and B. The Qi Yuan (to be renamed by NFE) would shuttle between the Golar Arctic and the Xin Le, together providing LNG to PREPA. NFE has included evidence of the charter agreements described below in Exhibit 31, with the understanding that these ships are representative of the size of ships that NFE would use to deliver the NFE pursuant to the fuel supply arrangement with PREPA. The specific vessels may be replaced with vessels of comparable size and class.

#### <u>Xin Le</u>

NFE has agreed terms for a charter with Anthony Veder for the Xin Le (to be renamed by NFE). Pursuant to its charter, NFE will be able to hire the Xin Le to deliver LNG in the Caribbean Sea and has the operational flexibility to use the ship to deliver LNG to Puerto Rico.

#### <u>Qi Yuan</u>

NFE has agreed terms for a charter with Anthony Veder for the Qi Yuan (to be renamed by NFE). Pursuant to its charter, NFE will be able to hire the Qi Yuan to deliver LNG in the Caribbean Sea and has the operational flexibility to use the ship to deliver LNG to Puerto Rico.

#### **Golar Arctic**

NFE has had a charter with Golar LNG Partners for the Golar Arctic since 2015 on a fixed term basis. The Golar Arctic can hold 140,648 m<sup>3</sup> of LNG at 100% capacity. Pursuant to its charter and subsequent amendments, NFE is able to hire the Golar Arctic to serve as a floating storage unit in the Caribbean Sea. The Golar Arctic can be flexibly repositioned to shorten transit time to San Juan.

#### **Golar Freeze**

NFE has a 15-year charter with Golar LNG Partners for the Golar Freeze starting in December 2018. The Golar Freeze has a capacity of 125,000 m<sup>3</sup> of LNG at 100% capacity. It is currently used as a multipurpose vessel, but pursuant to its charter, NFE will use the Golar Freeze as a fixed point natural gas supply point for Jamaica and a transshipment hub for its operations. NFE has the ability to use the Golar Freeze as a transshipment hub to deliver natural gas to Puerto Rico.

The combination of the Golar Arctic and the Golar Freeze gives NFE access to more than 260,000 m<sup>3</sup> of available product for onward supply and distribution to San Juan. Coupled with other available and NFE controlled vessels, total capacity is 347,000 m<sup>3</sup>.

#### 2.3.2 LNG Storage and Transfer

#### Supply Location:

LNG will be supplied from NFE's vessels that are strategically located within the safe anchorage of Portland Bight, Jamaica. This area was chosen for its safe and well protected anchorage and consistent metocean operating conditions. The vessels are anticipated to be located at NFE's operations in Portland Bight with the following position: 17 degrees 50.40 N, 77 degrees 06.64 W. The deep water afforded within the anchorage allows for replenishment cargoes to be delivered on large scale LNG carriers.

The above location currently undertakes one ship to ship transfer per week. With the LNG inventory on hand, two additional ship to ship operations will be conducted on a weekly basis to support demand in San Juan. These operations can be easily accommodated without supply disruption. The proximity of the supply location, just one and three quarters days of steaming one way, allows for NFE fleet optimization as it pertains to delivery schedules.

NFE has completed in excess of 100 ship to ship transfers of LNG supporting the above activities. All were completed safely, without incident and no pollution. Furthermore, there have been no missed cargo deliveries by NFE to its customers, allowing for 100% availability of LNG.

All of NFE's marine delivery coordination efforts are located within the supply area and allow for the following:

#### Strategic location for San Juan deliveries

- Close: One-way distance of 645 nautical miles, or 1.76 days steaming (one way)
- Efficient: Dovetails with existing LNG deliveries to other NFE locations which ensures an efficient and reliable supply chain

#### Marine operations and logistics already established

- NFE has experience with tonnage allocation
- Delivery scheduling is already underway for additional customers

#### Known environmental conditions

- 100 percent deliverability record for existing NFE supply chain
- Pin point weather forecasting service utilized

#### **Consolidation of all ship to ship transfer activities**

- Spare/replacement equipment readily available and on hand
- Equipment maintenance and testing
- Availability of third party suppliers and vendors

#### Supply Points

NFE has the option of using both the Golar Arctic and the Golar Freeze to allow for continuous deliveries to San Juan. The combination of both vessels gives access to more than 260,000 m<sup>3</sup> of available product for onward supply and distribution to San Juan. Coupled with other available and NFE controlled vessels, total capacity is 347,000 m<sup>3</sup>.

In addition NFE is developing an onshore storage solution to provide additional storage and operational flexibility in the event that the energy and natural gas requirements of the San Juan Power Plant or PREPA generally grows. As you know, the process of siting, permitting, designing, and constructing a landed LNG storage facility can take a number of years.

Ship Name	Golar Freeze	Golar Artic	Coral Anthelia	Coral Energy	Xin Le	Qi Yuan	Total Storage
Purpose	Storage	Storage	Shuttle	Shuttle	PR	PR	
			vessel	vessel	Storage	Delivery	
Days of Supply to San Juan Units 5 & 6	42	48	2	5	10	9	116

#### Table 2-1 - NFE Shipping Assets

#### San Juan LNG Delivery

LNG will be delivered to the Xin Le through a ship to ship (STS) transfer operation. The expected frequency of the STS operation is 2 times per week. Each cargo delivered would be approximately 15,000 m<sup>3</sup> to 28,000 m<sup>3</sup> of LNG. The delivering vessels will transit into and out of the NFE terminal on a daylight basis only. The transit inbound and outbound will be conducted under the supervision and assistance from the San Juan Pilot Association. Both transits will be undertaken in such a way that any cruise ship movements have been completed prior to the supply vessels entering or departing the port of San Juan.

Each STS operation will be undertaken in accordance with NFE's STS manual including an addendum we have developed specifically for the San Juan harbor, the SIGTTO LNG ship to ship transfer guidelines, and any United States Coast Guard requirements or other applicable law.

The equipment utilized for each STS transfer is included in the design of the MFH Facility, since NFE already plans to perform STS transfers as part of its truck loading operations. The equipment is as follows:

- Trelleborg Pneumatic Fenders
- Emergency quick disconnect system
- Cryogenic LNG transfer hoses
- Ship to ship link

NFE shall not interfere with current operations for unloading and storing Bunker C fuel oil or diesel fuel at the existing PREPA San Juan Steam Plant generating facilities as requested on page 11 of the RFP. Upon PREPAs request, NFE is able to move the ship carrying LNG away from Wharfs A and B (into Wharf C or otherwise) and will work with PREPA to develop an operational plan for notice and movement of the ship and operation as PREPA's operations requires. While the work has been ongoing for NFE's micro fuel handling facility NFE has worked closely with PREPA in order to allow unloading and storing of fuel by PREPA and testing of water by PREPA. NFE is confident our operations can continue to work in tandem with PREPA.

#### 2.3.3 LNG Vaporization Overview

The LNG pumps on the ship will transfer LNG to the shore at approximately 100 psig (7 barg) and -264 degrees F. The LNG will cross from the secured ship connection via two 8" cryogenic hoses. Two liquid hoses and one vapor hose will be provided. The cryogenic hoses will connect to a fixed piping cargo 8" stainless steel header that will lead to a manifold arrangement that continues on to four (4) truck loading bays and the two (2) LNG Vaporization Skids. A drain knock out drum will be placed underneath the LNG transfer header to allow for safe draining of the cargo hoses and header system.

Prior to reaching the two vaporization skids, the LNG will flow through a Vaporization Suction Drum to provide hold up time to allow for consistent flow to the vaporization unit. The Vaporization Suction Drum also provides enough hold up time for the San Juan Power Plant turbines 5 & 6 to perform a controlled operations transfer from natural gas to diesel in the event of a ship upset.

Vapor generated during the LNG transfer process and especially the initial cooldown will be sent to a common stainless-steel vapor header. This vapor will either be sent to a gas combustion unit or a boil-off gas compression system as described in later sections.

LNG flows to two parallel vaporization skids, each sized for 65 MMSCFD of vaporized LNG via a 6" stainless steel pipes off of the main LNG Transfer header downstream of the common Vaporization Suction Drum. All downstream equipment is provided in each skid.

LNG flows to one high head, vertical-can pump (per skid) rated to transfer LNG at a discharge pressure of approximately 655 psig. A spare pump will be installed for a 2 x 100% arrangement to accommodate an installed sparing philosophy. Typically, the vaporization skids will operate at turndown while only providing natural gas to San Juan Power Plant Turbines 5 & 6.

In a 1x100% arrangement, each skid will have a shell and tube vaporizer that will vaporize the LNG from liquid to vapor at an outlet temperature of 30 degrees F. The shell and tube vaporizer will be sized for a duty of 65 MMSCFD of vaporized gas. The heat medium could be a closed loop water/glycol system integrated with Units 5 & 6 nearby. The loop would use inlet air chilling on the turbines to heat the water/glycol loop to 55°F prior to the shell and tube vaporizer. A 100% back up gas-fired vaporizer sized for 65 MMSCFD of vaporized gas will also be installed in parallel to the shell and tube vaporizer. This heater will be able to accommodate the heating required if the turbines were not operating or providing the full required heating duty for vaporization and for start-up purposes.

The water/glycol loops will require circulation pumps per each vaporization skid. The water/glycol loop will be sized for 3,000 gpm to circulate to each turbine. The water/glycol pumps will be in a 3 x 50% arrangement. The 25 gpm makeup pump will be connected to a tote to supply additional water/glycol to the system as needed. Each vaporization skid's water/glycol loop will supply one specific turbine (either turbine 5 or 6) inlet air chilling package.

For startup purposes, a small ambient air vaporizer is placed downstream of the LNG send-out pumps. This ambient air vaporizer will vaporize a small slip-stream of LNG to be used as startup fuel for the gasfired vaporizer. The gas-fired vaporizer will operate via the ambient air vaporizer slip-stream until vaporized LNG into the pipeline can be used as a fuel source. There are a number of components for the vaporization systems, including a shell and tube vaporizer skid, backup gas-fired vaporizer, water circulation system, cryogenic pump system and ambient air vaporizer for start-up fuel purposes. Each is briefly described below

#### 2.3.3.1 Vaporization Suction Drum

A Vaporization Suction Drum is utilized for resonance volume of LNG to ensure reliable operation of the San Juan Power Plant. The Vaporization Suction Drum is sized to allow for controlled operation and conversion of the turbines from natural gas to diesel without operational or safety trips in the event of an upstream ship upset.

#### 2.3.3.2 Shell and Tube Vaporizer Skid

This is a U-Tube style shell and tube vaporizer sized for the 65 MMSCFD vaporization that comes with process piping and controls. The process and shell side are both 316/L stainless steel material to minimize corrosion due to the marine environment. The process bundle is designed and U-stamped per ASME Section VIII Div. I. Controls include equipment for monitoring NFPA59A required parameters for emergency / safety shutdowns. Each shell and tube vaporizer can provide significantly more than 50% of the required gas for San Juan Turbines 5 & 6.

#### 2.3.3.3 Backup LNG Vaporizer

The backup gas-fired vaporizer is a water bath tank with a natural gas-fired indirect water heating system and natural convection 316/L stainless steel process bundle. The burner is designed per NFPA85 and IRI. The process bundle is designed and U-stamped per ASME Section VIII Div. I. Gas train comes with safety equipment monitoring pressures, proof of closures on valves, flame on light off, and proper operation of the heating system per NFPA85. The water heater system has dual 100% burners for 100% backup of water heating system. The back-up gas-fired vaporizers will be used if there are operational issues with the water loop or to supplement heating if required. Each shell and tube vaporizer skid is equipped with a Backup LNG Vaporizer.

#### 2.3.3.4 Water Circulation System

The water circulation system comes with 3 x 50% water circulation pumps and a temperature control system to control the inlet temperature to the shell and tube vaporizer. The pumps are designed to run 1 on, 1 in backup and are monitored for flow rate and cavitation. This also allows for immediate operation in the event of a pump trip or failure. The water loop is only required for inlet air chilling purposes of the turbine to increase turbine capacity.

#### 2.3.3.5 Cryogenic Pump System

The cryogenic pump system comes with dual 100% submerged, multi-stage cryogenic pumps that are enclosed in vacuum jacketed "sumps" which allows for immediate operation without time required for cooldown in the event of a trip or failure of the operating pump. Pumps are sized to provide approximately 550 psig differential pressure. Equipment is included to monitor and shutdown the equipment per NFPA59A as well as engineering best practice.

#### 2.3.3.6 Ambient Air Startup Vaporizer

The ambient air vaporizer is used for initial startup of the Backup LNG vaporizer. Ambient air vaporizer is sized for the full burner requirement at 100% firing rate and can provide gas for 4-8 hours, or until system is self-sufficient.

#### 2.3.3.7 Estimated Life

All equipment in the vaporization skids are designed for a 25-year life, assuming proper maintenance and inspections are followed. Some equipment, such as the ambient air vaporizers are expected to have a longer life cycle. Quarterly inspections are recommended on equipment.

#### 2.3.3.8 Safety/Security Devices

Each system has its own set of safety devices. For the vaporization process, the parameters of the system are monitored per NFPA 59A, along with extra parameters that are included per engineering best practice. Also, pressure relieving devices, flame and gas detection, and automated shutdowns are incorporated per NFPA 59A. The backup LNG vaporization system has safety devices to protect against low water levels, low temperature levels, failures in the gas train components, and burner operation monitoring all per NFPA 85/IRI along with engineering best practices. The cryogenic pump system also incorporates parameter monitoring per NFPA 59A along with other monitoring equipment per engineering best practices. This allows for emergency shutdowns and warning devices to alert to potential issues, including flame detection, gas detection, and pump cavitation.

#### 2.3.4 Natural Gas and Boil Off Gas

The natural gas will combine from each vaporization skid and flow through a custody metering skid to measure the flow that is sent to the San Juan Power Plant. A backup meter will also be installed at the San Juan Power Plant as requested in the RFP. The metering skid includes a gas chromatograph to determine the composition of the fuel gas. A pressure control valve station will regulate the pressure of the fuel gas to the combustion turbines.

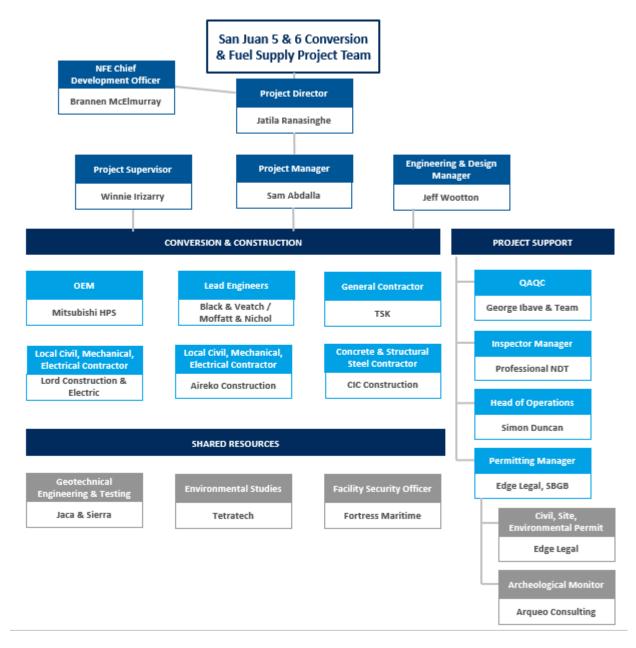
Vapor generated throughout LNG transfer and/or LNG Truck loading can be sent to a boil-off gas (BOG) compression system. The BOG compressor will be able to compress the vapor to a pipeline pressure of 650 psig. Auxiliary equipment such as a discharge cooler and oil pumps will be supplied based on vendor recommendation and compressor design. The BOG system will be sized to accommodate scenarios such as boil off gas from initial cooldown processes, ship heat leak, and ship to ship transfer. The heat leak boil-off rate of the FSU barge is specified as 0.30% of the loaded volume/day.

The BOG will be sent to the fuel users at the facility when possible.

#### 2.4 PROJECT EXECUTION PLAN

#### 2.4.1 Resources and Project Execution Approach

Overall project execution will be provided by NFE including a San Juan based NFE project management team led by our Project Director, Jatila Ranasignhe, our Project Manager, Sam Abdalla and our Project Supervisor, Winnie Irizarry, each providing direct interfacing and coordination with PREPA. NFE will be supported by a combination partners that are globally recognized for their experience and expertise in LNG-to-Power Plant projects, as well as Puerto Rico-based contractors and consultants. Our overall project organization chart is provided below.



Our lead project engineers will be Black & Veatch; based in Overland Park, KS and with a subsidiary, Black and Veatch Puerto Rico, PSC, formed in Puerto Rico; and Moffatt & Nichol, based in Tampa, FL. Mitsubishi Hitachi Power Systems (MHPS) will be responsible for design, material procurement, installation, testing, and commissioning of all direct combustion turbine gas conversion scope.

Construction general contractor responsibilities and overall site construction management will be led by TSK and executed through self-performance or through selected local subcontractors according to project needs. We have also engaged with Lord Construction and Electric and other local Puerto Rico subcontractors in order to prepare to perform the work on a short timeline.

Procurement for critical, long-lead time equipment and components, including MHPS, will be led by NFE. Procurement for balance of plant components and field commodity materials will be the responsibility of NFE and will be led by TSK.

#### 2.4.2 Contract Type

The project will be executed under firm lump sum engineering contracts with MHPS, Black & Veatch and Moffatt & Nichol as well as lump sum general contracting agreements with schedule and performance guarantees. Equipment will be procured under firm lump sum agreements with specific schedules negotiated and agreed in compliance with anticipated project timelines.

#### 2.4.3 Project Management and Administration

#### 2.4.3.1 Organization Chart and Key Personnel

The Project Organization Chart is included above. Key Personnel (including the Project Director, Project Manager, Project Supervisor, Engineering and Design Manager) and several of our key partners have been engaged in the development of this RFP response, the work underlying the proposal and this project execution plan. Upon award of this project by PREPA, the Key Personnel will assume project execution roles.

#### 2.4.3.2 Quality

- Quality plans specific to the project will be developed based on NFE, Black & Veatch and Moffatt & Nichol standards, including the Quality Assurance plans as Exhibit 28.
- Engineering, procurement and inspection quality plans will follow Black & Veatch and Moffatt & Nichol Standards and Guides which are included as Exhibit 28.
- Construction quality plans will follow TSK's standards.

#### 2.4.3.3 External Project Meetings and Client Interface

PREPA has advanced engineering and operational knowledge about the San Juan Power Plant and will be highly involved with the project execution from the start of project through the end of the warranty period. PREPA will be very involved with planning, monitoring, and root cause analysis of issues as they arise. We anticipate that PREPA may routinely send a representative of the members of their execution team to the engineer's office.

During the performance of the scope of work, NFE and PREPA will conduct meetings each month at a mutually convenient time and date for the purpose of reviewing the progress of the scope of work, the latest progress reports, the environmental plan, the safety plan, Quality Assurance Program, NFE's and subcontractors' adherence to the scope of work, and the project schedule as well as any other items either party would like to mutually discuss. NFE will prepare minutes of each such meeting, in form and content reasonably acceptable to PREPA, and will distribute to PREPA within five business days after such meeting.

A Monthly Progress Report summarizing the performance and status of all major aspects of the project will be issued to PREPA by NFE prior to the monthly status review meeting which will be reviewed during the status review meeting described above.

Weekly teleconferences with PREPA will be held that will include home office and field project team members for the purpose of reviewing any issues and action items that need to be discussed. NFE will maintain an Action Item list throughout the project.

NFE expects to engage PREPA and key partners and subcontractors in project execution planning workshops regularly throughout the project lifecycle. A Constructability Implementation Plan will be established to help ensure project collaboration and partnering objectives.

#### 2.4.3.4 Partnering and Project Execution Planning Workshops

An organized partnering program will be utilized on the project. The program will facilitate close communication between all project stakeholders (Engineering and Construction project team members, PREPA, and key equipment suppliers and subcontractors). Scheduled meetings will be conducted at key junctures throughout the project life cycle. The meetings will be organized to help facilitate intra-organizational and inter-organizational communications via scheduled workshops that encourage team interaction and ownership of plans.

A preliminary project execution planning workshop schedule will be included as part of the Constructability Implementation Plan.

#### 2.4.3.5 Project Initiation Plan

A summary of the major activities to be accomplished during project initiation are outlined below.

- The project staffing planned during the proposal stage will start on the project. Each of our key partners and subcontractors are ready to identify additional staffing as needed to support the project.
- PREPA, NFE and key partners on the project will participate in a Project Kickoff Meeting.
- Project team members will read and understand the contract documents relevant to their roles.
- NFE will develop a detailed three-month interim schedule (90-day look ahead) which will roll forward throughout the project. PREPA will input on the schedule and collaborate with NFE to accelerate the schedule as possible.
- NFE and key partners will update the Project Execution Plan based on the Project Kick-Off Meeting, feedback during monthly status meetings, or from additional feedback from PREPA.
- NFE will set up Constructability Implementation Plan for the MFH Facility and the conversion work on San Juan Units 5 & 6.
- NFE and its key partners will prepare the Project Design Manual.
- NFE will initiate additional Project Cost Report and Project Schedule development (as outlined below).
- NFE and its key partners and subcontractors will develop Procurement Matrix including Subcontractors and Procurement Status Report.
- NFE will take responsibility for developing the Engineering Deliverables List with Black & Veatch and Mitsubishi.

- NFE will work with PREPA to establish Project Reporting Requirements.
- NFE and all key partners and subcontractors will review and update Division of Responsibility.
- NFE will establish Action Item List.
- NFE will work with PREPA to establish monthly meeting dates with PREPA.

#### 2.4.4 Project Controls, Accounting, and Financial

NFE will take responsibility for Project Controls, Accounting, and Financial functions related to the MFH Facility and the conversion work for San Juan Units 5 & 6. NFE will designate individuals on its or its key partners team to review and manage all project controls both from a project management standpoint from such individual's home office, and at the project site itself. The project manager responsible for field project controls will be expected to make frequent trips to the project site.

#### 2.4.4.1 Schedule and Schedule Control

The Project Schedules will utilize the Critical Path Method (CPM) technique of scheduling. The specific software will be Primavera Project Planner (P6), converted to a format readable by PREPA's project team if needed at PREPA's request. The Project Schedule will be developed by an integrated interdisciplinary team and will be completely integrated through logical ties between all phases of the Project.

- Level 1 Project Management Plan (updated version due two weeks after Limited Notice to Proceed)
- Level 2 Schedule (due two weeks after Limited Notice to Proceed)
- Level 3 Detailed CPM Schedule (due three months after Limited Notice to Proceed)
- Three Week Look -Ahead Schedule (due weekly during Construction)

The Project Schedules will be updated each month. Schedule variance analysis will be included in the monthly progress reports. Float Analysis reports will be prepared by the project planner and a float review conducted with the project team.

The Level 3 Schedule will incorporate planned float on key schedule pathways. The purpose for this planned float is to manage schedule risk at key intervals without affecting downstream successor planned start dates. Schedule progress will be measured against the baseline planned dates from the Level 1 Project Management Plan.

#### 2.4.4.2 Project Initiation 90-Day Look-Ahead Plan

A 90-day look-ahead schedule shall be prepared and issued to the Project Management Team within one week of the project planning kickoff meeting.

The 90-day look-ahead schedule will show:

- Time frames for the early planning of long-lead delivery items.
- Early engineering and design scope to be performed.

Implementation of the various project control tools, including, for example and as agreed with PREPA, the Management Control Schedule (Level 3 CPM Schedule), Engineering Deliverables List (EDL), Procurement Status Report (PSR), an agreed Project Dashboard and/or Action Items List.

#### 2.4.4.3 Cost and Cost Control

NFE does not anticipate a change in capacity payment based on budget. In NFE's experience, implementing controls to stay on budget goes hand in hand with implementing controls to stay on time. Because time is of the essence to PREPA, we outline below our cost control mechanisms. These will serve as a foundation to ensure an on time and on budget implementation of the project.

A definitive, detailed estimate will be prepared based on the RFP and supporting documents provided by NFE. As documented in this proposal and various exhibits hereto, NFE has engaged several subcontractors for work related to the MFH Facility and has received a not-to-exceed price from Mitsubishi. These actions give the price of the conversion work a solid ceiling and lend financial stability to an already stable partner and project.

The definitive detailed estimate will be aligned with the Project Procurement Matrix that identifies how we intend to buyout and build the Project. The definitive estimate will serve as the basis for the project cost control tools and the resource-loaded Project Schedule.

Engineering will regularly update design quantities to quantify the design and anticipated forecast. Updates will be conducted as design progresses and at completion on a system and deliverables basis. The intent of this effort is to identify early trends or deviations from budget (plus or minus) that can be mitigated or accounted for in downstream planning and cost forecasting activities. The quantities to be reported include at a minimum:

- Concrete
- Structural Steel to the ton
- Electrical / Instrumentation Wire & Cable including subcontractor or vendor supplied
- Wire and Cable Terminations including subcontractor or vendor supplied
- Above Ground Pipe Hangers (large bore)
- Above Ground Pipe (large bore and small bore, including vendor supplied)
- Above Ground Conduit
- Insulation and Lagging

In addition to the quantities noted above, the following items will be tracked for progress status:

- Combustion Turbine Modifications Percent Complete by Unit
- Combustion Turbine Filter House and Ductwork by Unit (Tons)
- Start-Up Packages Construction Turnovers

- Start-Up Packages Turnover to PREPA
- Start-Up Loop Checks

The engineering and procurement cost control tool will be the Earned Value Management Report, which will be updated based on earned values from the Project Schedule and actual hours from the accounting system.

A project Dashboard Report and/or the Action Item List will be updated to facilitate internal reviews at least monthly.

#### 2.4.4.4 Project Reporting

A Monthly Progress Report summarizing the performance and status of all major aspects of the Project will be issued to PREPA.

The following is a typical summary of information that will be included in the Report:

- 1.0 Executive Summary
- 2.0 Environmental, Safety, Health, & Security
- 3.0 Key Performance Indicators
- 4.0 Engineering and Design Status
- 5.0 Equipment & Material Status
- 6.0 Construction Status
- 7.0 Commissioning Status
- 8.0 Contract Change Order Status
- 9.0 Photos

All other project reporting will be in accordance with NFE standards.

#### 2.4.5 Engineering Execution

The plant will be designed in accordance with the requirements included in the engineering and construction agreements. Required codes and standards are U.S. Standards.

The following preliminary control drawings are being or have already been developed based on currently available information. They will be finalized with further information and feedback from PREPA:

- Site Arrangements
- Plant Arrangements
- Process Flow Diagrams
- Electrical Single Line Diagrams
- Control Systems Architecture Diagrams

#### 2.4.5.1 Engineering Staff

NFE will coordinate all engineering staff, including lead engineers from Black & Veatch and Mitsubishi as well as subcontracting specialized engineering where appropriate according to the current division of responsibility (i.e., steel detailing, HVAC, fire protection, cathodic protection, etc).

Field engineers will be required to support construction and may be provided from Black & Veatch or TSK as appropriate for the project needs, or from other key partners or local partners.

#### 2.4.5.2 Engineering Design Basis and Tools

The design team has developed the preliminary control drawings which will be used as a basis for the project along with any feedback from PREPA. Base scope project design will be in 3D Plant Vision. Each key partner will use their own tools for calculations and analysis and NFE will coordinate information between and among key partners. Drawings will be processed using J05 and J07.

#### 2.4.5.2.1 Civil/Structural Engineering

NFE's key partners will prepare the following design civil/structural documents and construction drawings:

- Plot Plan
- Site Arrangement Drawing
- Underground Utility Drawings
- Site Grade and Drainage Drawings
- Site Roadways Drawing
- Foundation Drawings
- Steel Drawings
- Erosion and Sedimentation Plan
- Architectural Drawings
- Procurement Specifications
- Construction Specifications
- Calculations

Structural steel design for the buildings and the utility racks will be performed by the structural engineers.

#### 2.4.5.2.2 Mechanical/Chemical Engineering

NFE's key partners will prepare the following mechanical/chemical design documents and construction drawings:

General Arrangement Drawings

- Piping and Instrumentation Diagrams
- Piping Isometric Drawings
- Equipment List
- Valve List
- Lubrication List (Developed by Site Engineering)
- Pipeline List
- Mechanical Device List
- Hanger List
- Pipe Support Details (Typical Supports)
- HVAC Drawings
- Fire Protection Drawings
- Cathodic Protection Drawings
- Hazardous Area Classification Drawings
- System Description
- Hazardous Area Classification Drawings
- System Descriptions
- Procurement Specifications
- Construction Specifications
- Calculations

System design and equipment sizing calculations will be performed by the mechanical team.

HVAC design and details will be developed by the HVAC team, if necessary for the project. Fire Protection design and details will be developed by NFE's fire protection partners. Cathodic Protection will be developed by Black & Veatch for the balance of plant work in conjunction with Mitsubishi and PREPA.

Piping isometrics for all high energy piping including small bore ( $\geq$ 350° F) piping will be developed. In addition, design of pipe hangers for all high energy systems will be completed by engineering. Piping isometrics for cold systems will be developed for all piping 2 ½" and larger and pipe supports will be designed by engineering. Cold piping 2" and smaller will be routed by engineering and pipe supports will be determined by construction utilizing standard pipe support details. Pipe spool sheets for all pipes will be provided by the piping fabricator based on the Pipeline List and Piping Isometric Drawings. Pipe support details for all engineered pipe supports will be provided by the pipe support supplier based on the Hanger List.

Engineering will develop a water mass balance for the project. Engineering will develop a chemical cleaning procedure to be used by construction and startup to facilitate cleaning of the HRSGs.

Engineering will develop a fuel gas pneumatic blow procedure for use by construction and startup to clean the natural gas piping.

#### 2.4.5.2.3 Electrical Engineering

NFE's key partners and local partners will prepare the following electrical design documents and construction drawings:

- One-Line Diagrams
- Schematics and Wiring Diagrams
- Lighting Drawings
- Grounding Drawings
- Lightning Protection Drawings (as required)
- Cable Tray Drawings
- Circuit List
- Raceway List
- Electrical Load List
- Switchgear and Motor Control Center List
- System Descriptions
- Procurement Specifications
- Construction Specifications
- Calculations
- Fault Current Study

In addition, construction power design will be provided by the electrical engineers.

#### 2.4.5.2.4 Instrumentation and Controls Engineering

Black & Veatch will prepare the following controls design documents and construction drawings:

- Control Logic Diagrams
- Control System Architecture
- Instrument List
- Instrument Installation Details
- System Descriptions
- Procurement Specifications

- Construction Specifications
- Calculations
- Graphics Sketches

#### 2.4.5.3 Engineering QA/QC

Engineering will follow the Black & Veatch QA/QC requirements for the project. This will include control of documents and data, checking and verification requirements, any validations required, and control of design and scope changes.

#### 2.4.5.4 Project Manuals

Black & Veatch will develop a set of manuals that will be used to control the work on the project. These will include a Project Instruction Manual (PIM) and Project Design Manual (PDM). The Project Procurement Manual (PPM) will be included as a part of the PIM. The PIM will provide a documented plan for managing the project. The PDM will establish the design basis for the project. The PPM covers the procurement plan for the project and the scope of the individual procurements.

#### 2.4.5.5 Engineering Completion

We anticipate a required submittal of the following engineering summary documentation to PREPA.

Drawings updated and conformed to "as built" construction records:

- Plot Plan
- Site Arrangement
- General Arrangements
- P&IDs
- Underground Utilities
- Schematics
- One-Line Diagrams
- DCS Architecture Diagram
- Operation and Maintenance Manuals for all Equipment
- Final (updated) electronic copy of all Lists

#### 2.4.6 Fuel Supply Area Execution Plan

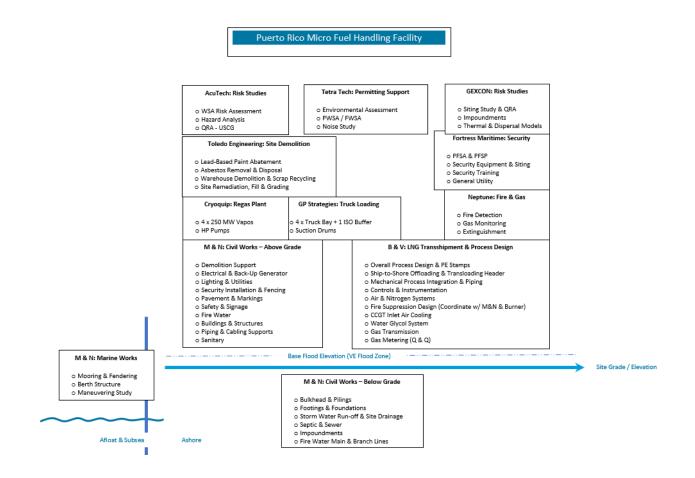
The following major facilities would be constructed by NFE in anticipation of the conversion of San Juan Units 5 & 6:

- Marine Works: Mooring, Fendering, Berth & Structure, Maneuvering
- LNG Vaporization, including San Juan Units 5 & 6 integration as well as other required equipment, such as pumps
- Natural Gas Metering

- LNG Impoundments
- Emergency vents
- Plant air systems.
- Fire protection systems.
- Distributed control system
- Electrical equipment enclosures
- Lighting updates and improvements
- Security and fencing updates and improvements
- Roads and pave ways as needed within the MFH Facility
- Storm water drainage updates as needed
- Site demolition as needed (already complete)
- Septic & Sewer System updates as needed

There are several engineering, vendor, and construction contractors involved in the project execution of the MFH Facility and can be seen in the graphic below.

A specific equipment division of responsibility table is provided in Exhibit 19. In general, Moffatt & Nichol is providing engineering and support for all marine, civil, and electrical distribution activities. Berth repairs are required as well as demolition of existing warehouses on Wharfs A & B. Black & Veatch is providing process and controls engineering and support for the MFH in coordination with NFE's chosen vendors. NFE is purchasing all major process equipment from selected vendors with a general contractor providing the remaining procurement items. Moffatt & Nichol, Black & Veatch, and equipment vendors will support construction, start-up, and commissioning activities.



#### 2.4.7 San Juan Power Plant Area Execution Plan

There are two distinct parts to the San Juan Power Plant conversion; (i) combustion turbine modifications and (ii) new balance-of-plant systems. All combustion turbine modifications will be designed, supplied, installed, and commissioned by Mitsubishi. Balance-of-plant systems will be designed by Black & Veatch with components supplied, installed, and commissioned by TSK with Black & Veatch support.

As described above, TSK will be NFE's single general contractor for the installation and commissioning work for both the MFH Facility and the conversion of the San Juan Power Plant.

NFE will oversee and manage the conversion work with appropriate subcontractors and will procure all equipment from suppliers, including the combustion turbine original equipment supplier company, Mitsubishi, for San Juan Units 5 & 6. Mitsubishi shall be responsible for the startup and commissioning of equipment provided and installed inside the gas turbine enclosure as part of the dual fuel conversion and the restart of the combustion turbines, inclusive of combustor tuning. Mitsubishi will coordinate with PREPA for the outage plans as shown in the Mitsubishi schedule in Exhibit 25.

NFE will continue to cooperate with plant management and coordinate with PREPA to ensure impacts are lessened during the project execution. Pipe routing within the San Juan Power Plant is determined

and will minimize impacts on the current operations of the facility due to faster construction and minimal impacts to existing structures.

There are few interface points between the MFH facility and the San Juan Power Plant, including only 5 piping connections and specific safety and operational instrument signals to be communicated through the process control logic system. Any required MFH facility construction and commissioning that affects the PREPA power plant will take place at a time when similar activities are underway at the San Juan Power Plant in order to minimize any impacts.

The division of responsibility for this scope of work is as follows.

FUEL OIL SYSTEM	NFE / Others	MHPS- AMER	Notes
Demo of existing system or individual Components			
*MHPS-AMERA - TGE and all internal components		х	
*Other - Components external to TGE	X (scope definition)		
Design of interconnect piping from fuel oil HP pump skid to metering skid		х	
Supply of interconnect piping from fuel oil HP pump skid to metering skid		х	
Installation of interconnect piping from fuel oil HP pump skid to metering skid		х	
Fuel Oil Metering Skid (Design/supply/install)		х	
Foundation / anchoring / site / civil needs for skid		Х	1
Provide common skid connection points for power and ground		х	
Design power and grounding to skid	х		
Supply & install power and grounding to skid	Х		
Design and supply of Instrument air		х	
Cable, conduit / cable tray from skid to control cabinet		Х	
Loop checks		х	7
Design of vents and drain connections		Х	
Supply and installation of vents and drain		Х	
Layout of control oil system piping from control oil skid to Fuel Oil Metering Skid		х	2
Design, Supply, Installation of hydraulic lines from con- trol oil skid to Fuel Oil Metering Skid		х	3
Design of interconnect piping from fuel oil metering skid to distribution manifold (Primary + Secondary)		х	
Supply of interconnect piping from fuel oil metering skid to distribution manifold (Primary + Secondary)		х	
Installation of interconnect piping from fuel oil metering skid to distribution manifold (Primary + Secondary)		х	
Design of GT Manifolds / Pigtails to fuel nozzles + supports		Х	

FUEL OIL SYSTEM	NFE / Others	MHPS- AMER	Notes
Supply of GT Manifolds / Pigtails to fuel nozzles + supports		Х	
Installation of GT Manifolds / Pigtails to fuel nozzles + sup- ports		x	
Duplex Oil Nozzles (at GT combustors)		х	
Fuel Oil PCV (Supply)		х	
Demo Existing		Х	
Cap Instrument Air lines		х	
Modify existing piping and supports for new PCV		Х	3
Layout of control oil system piping		Х	3
Supply & installation of hydraulic lines and supports		х	
Design cable, conduit / cable tray from skid to control cabinet		x	
Supply & install cable, conduit / cable tray from skid to control cabinet		x	
Loop checks		х	7,9

FUEL GAS SYSTEM	NFE / Others	MHPS- AMER	Notes
Fuel gas filter separator (Design/supply)	х		
Install filter separator	Х		
Design filter separator foundation	Х		
Supply and install filter separator foundation	х		
Design grounding to filter separator	Х		
Supply & install grounding to filter separator	х		
Design cable, conduit /cable tray from filter separator to control cabinet	х		
Supply & install cable, conduit /cable tray from filter sepa- rator to control cabinet	x		
Loop checks	Х	х	3
Fuel gas metering Skid (Design/supply/install)		х	
Mezzanine level platform design (above oil skid - Tur- bine left)		х	
Supply and installation of mezzanine level platform (above oil skid - Turbine left)		х	
Design piping from fuel conditioning skid to fuel gas me- tering skid		х	3

FUEL GAS SYSTEM	NFE / Others	MHPS- AMER	Notes
Supply piping from fuel conditioning skid to fuel gas me- tering skid		х	3
Install piping from fuel conditioning skid to fuel gas me- tering skid		х	3
Coriolis Meter, FG (Design/supply)		х	
Design valves and piping for Coriolis meter isolation/bypass	Х		
Supply & install valves and Piping for Coriolis meter isola- tion/bypass	х		
Design connecting piping and supports for Coriolis meter	Х		
Supply & install connecting piping and supports for Coriolis meter	х		
FG Manifold / Pigtails (Design / Supply)			
Design of FG Manifold / Pigtails to fuel nozzles + supports		Х	
Supply of FG Manifold / Pigtails to fuel nozzles + supports		Х	
Installation of FG Manifold / Pigtails to fuel nozzles + supports		x	
Design piping from metering skid to ring (distribution) manifolds		х	
Supply piping from metering skid to ring (distribution) manifolds		х	
Installation of piping from metering skid to ring (distri- bution) manifolds		х	
Cable, conduit / cable tray from skid to control cabinet		х	3
Loop checks		х	7
Design, Supply, Installation of Instrument air supply		х	3
Design, Supply, Installation of Vents to ATM		х	3
Design, Supply, Installation of Drains / oil water / turbine drains		х	
Provide common skid connection points for power and ground		х	
Design power and grounding to skid	Х		
Supply & install power and grounding to skid	Х		
Layout of control oil system piping		х	

CONTROL OIL SYSTEM	NFE / Others	MHPS- AMER	Notes
Hydraulic Control Oil Pump Skid (Design/Supply)		х	
Design foundation and anchoring	х		
Supply and install foundation and anchoring		х	Use existing
Provide common skid connection points for power and grounding (Desing)		х	
Design power and grounding to skid	Х		
Supply & install power and grounding to skid	Х		
Design cable, conduit / cable tray to and from skid to control cabinet		х	
Supply & install cable, conduit / cable tray to and from skid to control cabinet		х	
Loop checks	Х	Х	7
Design drains and vents			
Supply and install drains and vents	Х		
Layout of control oil system piping		Х	
Supply & install control oil system piping		х	
Design, Supply, Installation of Control Oil connections from Control Oil (HPU) Pump Skid to Hydraulic systems of the following:		х	
Fuel Gas Metering Skid		Х	
Fuel Oil Metering Skid		х	
Fuel Oil PCV		х	
Steam Injection FCV		Х	
IGV Actuator		Х	
Accumulators		Х	
Accumulators installations		Х	

SWEEP AIR SYSTEM	NFE / Others	MHPS- AMER	Notes
Sweep Air System Design (Partially located on Gas skid - Partially shipped loose)		х	
Modifications to GT Manway / compressor combus- tor wrapper (design/supply/install)		x	
Piping from GT take off to Fuel Gas skid (de- sign/supply/install)		х	
Piping from Fuel Gas system to Primary and Secondary fuel oil manifolds (design/supply/install)		x	

SWEEP AIR SYSTEM	NFE / Others	MHPS- AMER	Notes
Valve Mounting and Supports (design/supply/install)		х	
Instrument Air (design/supply/install)		Х	
Cable, conduit / cable tray from Gas skid to control cabi- net (design/supply/install)		х	
Loop checks		Х	7

PURGE AIR SYSTEM	NFE / Others	MHPS- AMER	Notes
Purge Air System (Design/supply/install)		Х	
Valve supply		Х	
Valve Mounting and Supports (design/supply/install)		Х	
Design, supply, installation of interconnection piping & sup- ports to Fuel Gas Metering and Fuel Oil Metering		x	
Cable, conduit / cable tray from skid to control cabinet		Х	
Loop checks		Х	7
Drain connections / Turbine Drains (design/supply/install)		X X	
Vents to ATM (design/supply/install)		х	
Instrument air (design/supply/install)		х	3

OTHER ITEMS	NFE / Others	MHPS- AMER	Notes
Steam Injection Throttle Valve (Design/supply/install)		Х	
Hydraulic Connections		Х	
Piping Modifications (design/supply/install as needed)		х	
Cable, conduit / cable tray from skid to control cabinet		Х	
Loop checks		х	7
Insulation		Х	
IGV Actuator (Design/supply/install)		Х	
Demo Existing		Х	
Cap Instrument Air lines		Х	
Install mounting bracket / IGV / Turnbuckle & me- chanical		x	
Layout of control oil system piping		Х	3
Supply & installation of hydraulic lines and supports		х	
Cable, conduit / cable tray from skid to control cabinet		х	
Loop checks		Х	7
GT Control system expansion (design/supply/install)		х	

OTHER ITEMS	NFE / Others	MHPS- AMER	Notes
HRSG/STG/BOP Control System Evaluation - logic, graphics, upgrades (design/supply/install)	х		
Fuel gas heating (to meet minimum absolute or dew point requirements, not GT heat rate improvement heating)	х		3
Fuel gas compression (not required)			
Fuel gas conditioning (design)	Х		
Fuel gas conditioning (supply and install)	Х		
Identification of electrical supplies for new equipment	х		4
GT Enclosure Mod's (design/supply/install)			
GT Enclosure Modifications for Skid Access (de- sign/supply/install)		х	3
GT Enclosure Ventilation (Evaluate/modify and upgrade as needed)		x	
GT Enclosure Hazardous Gas Detection (Evaluate/modify and upgrade as needed)		x	
GT Enclosure Fire Protection (Evaluate/modify and upgrade as needed)		х	
Hazardous Classification Review around new components (outside Enclosure) and any required modifications	х		6
Hazardous Classification Review around new components (inside Enclosure) and any required modifications		х	
Instrument air vessel in enclosure		х	

OTHER ITEMS	NFE / Others	MHPS- AMER	Notes
Upgraded ignitors / transformers (design/supply/install)		Х	
Design cable, conduit / cable tray from skids to con- trol cabinet		х	
Supply & install cable, conduit / cable tray from skids to control cabinet		х	
CTG performance testing – natural gas and fuel oil (development of test procedure, supply/install test instrumentation, test execution, test calculations/ report)		х	
CTG emissions testing – natural gas and fuel oil (de- velopment of test procedure, supply/install test in- strumentation, test execution, test calculations/ re- port)		х	

OTHER ITEMS	NFE / Others	MHPS- AMER	Notes
Ignitor leak air manifold		х	
Piping Modifications Outside GT Enclosure (design, sup- ply, install as needed)	х		8
Piping Modifications Inside GT Enclosure (design, sup- ply, install as needed)		х	8
Hydro / X-ray / other	Х	х	8
Insulation	Х	х	8
CTG fuel gas operation and maintenance training		х	

#### 2.5 ASSURANCES OF PROJECT APPROACH & METHODOLOGY

#### 2.5.1 Environmental

NFE has had an Environmental Assessment approved for the development, construction and operation of its micro fuel handling facility in San Juan. If awarded the contract for conversion of and fuel supply to San Juan Units 5 & 6, NFE would modify the existing Environmental Assessment document. Because this project would reduce emissions from Units 5 & 6, this modification would be non-substantial in nature. Prior to beginning the demolition of Warehouses A & B on the project location site, NFE successfully permitted and performed the work for the abatement of asbestos and lead that were contained at the site. If necessary, NFE would similarly obtain any necessary permits to perform abatement work as needed for the completion of the project proposed herein. During this project, NFE will continue to meet all requirements as outlined in Section 4.1 Permitting Path and Matrix.

During operations, there are no adverse chemicals or materials used in the process that have negative impacts to the environment. The gas fired vaporizers contain an exhaust that is designed for <= 9PPM NOx emissions to meet codes, regulations, and best practices.

At NFE, we believe that all employees and stakeholders are entitled to the same level of protection regardless of where in the world they work. To ensure a consistent approach to safeguarding Health, Safety, Environment and Security we have developed a global HSE Management System supported by our HSE processes, procedures, instructions and guidelines, as well as a mature security system. See Exhibit 29, which contains NFE's "Health, Safety, Security & Environmental Manual". NFE will develop and employ a similar manual and procedures for its operations in San Juan. Safety is one of our core values, and we believe that by working together with integrity, we will create an incident-free NFE workplace every day, everywhere.

#### 2.5.2 Safety & Quality Assurance

NFE's operations have not incurred a lost time incident. NFE's approach to Safety & Quality Assurance have allowed for a safe working environment during all phases of project execution. NFE works with reputable companies, which also value and execute safe design and operations practices.

NFE and NFE's proposed engineer's Quality Assurance plans are attached as Exhibit 28.

#### 2.5.3 Proven Approach & Organizational Structure

If selected, NFE has the ability to respond with sufficient key and line staff in addition to the proposed key individuals in this Section 2. NFE will be organized to effectively deploy support for PREPA.

NFE has proven the effectiveness of our organizational approach through the successful completion and operation of similar projects in Jamaica and Barbados, which have been described in previous sections of this proposal. Please refer to Section 1.2.1 for more detailed information regarding the projects that have been executed, demonstrating the successful approach and methodology employed by NFE.

#### 2.6 LIST OF EXHIBITS

The following exhibits are included in the appendix.

- 19. MFH Division of Responsibility
- 20. Power Plant Division of Responsibility
- 21. MFH Process Flow Diagram
- 22. Power Plant P&IDs (P199399-CTGP-M2626 / P199399-CFGA-M2381)
- 23. Basic Engineering Design Data
- 24. Marine, Civil, and Electrical Design
- 25. Mitsubishi Schedule
- 26. Mitsubishi Letter Confirming Subcontracting for Natural Gas Conversion and Responding to Inquiries Regarding LPG Conversion
- 27. Ship to Ship Manual
- 28. Quality Assurance Plans
  - a. Black & Veatch Quality Plan
  - b. Moffatt & Nichol Quality Plan
  - c. TSK Quality Plan
- 29. Health, Safety, Security and Environmental Manual
- 30. Gas Supply Confirmation Exhibits
  - a. Centrica Letter confirming Gas Supply
  - b. Centrica Corporate Snapshot
- 31. Ship Confirmation

- a. Letter from Anthony Veder confirming arrangements for ships
- b. Evidence of Charter Agreement for Golar Freeze
- c. Evidence of Charter Agreement for Golar Arctic



# SECTION 3.0

## **Price Proposal**



### 3.0 Price Proposal

#### 3.1 PRICE PROPOSAL

Price Proposal Component #1:

Fixed Annual Capacity Payment (for initial 5-year base): \$10mm per year.

Price Proposal Component #2:

Annual Consumption Rate: 25 TBTU as per the RFP.

Unit Cost \$/MMBtu: \$7.10/MMBtu Unit Cost for the initial 5-year period on average.

Year 1 Unit Cost: \$8.50/MMBtu. Year 2 Unit Cost: \$7.50/MMBtu. Year 3 to 5 Unit Cost: \$6.50/MMBtu.

The Unit Cost is incremental to the Price Proposal Component #3.

Price Proposal Component #3:

Applicable Index for Unit Fuel Cost: Henry Hub multiplied by 115%. The specified price for Henry Hub is published under the heading Monthly Bidweek Spot Gas Prices (\$/MMBtu): Louisiana/Southeast: Henry Hub in the issue of Platts's Inside FERC's Gas Markets Report.

Price Proposal Component #4:

Please see Exhibit 32 for our draft of PREPA's proposed contracts.

The terminal can be a catalyst to develop additional generation projects. As such, NFE is willing to work in coordination with PREPA and PREC to establish a volumetric discount to incentivize further natural gas generation development in the Northern part of the Island.

#### **3.2 TERMS AND CONDITIONS**

We have reviewed the contracts that PREPA provided for the fuel supply and the conversion work. We are confident that NFE and PRPEA can reach an agreement on terms that are acceptable to both parties. Please refer to our draft of PREPA's proposed contract for fuel supply and the conversion work on Units 5 & 6 attached as Exhibit 32.

#### 3.3 LIST OF EXHIBITS

The following exhibits are included in the appendix.

32. NFE Draft of Terms and Conditions Proposed by PREPA

<sup>&</sup>lt;sup>1</sup> Assumes agreed on payment terms including being current over previous year.



# SECTION 4.0

## **Progress & Path Forward**



### 4.0 Progress & Path Forward

#### 4.1 PERMITTING PATH AND MATRIX

NFEnergía LLC (referred to in this section as "NFE") has already made substantial progress on the permitting for our micro fuel handing facility in the Puerto Nuevo section of the Port of San Juan. NFE has already obtained several of the permissions for the facility, many of which overlap with the requirements of this project, and is well along the in the authorization process to obtain the remaining permissions.

NFE has obtained a Strategic Project designation from the Puerto Rico Planning Board for the micro fuel handling facility. This designation means that permitting for development of NFE's micro fuel handling facility project as well as the additional work necessary on Wharfs A and B to deliver natural gas to PREPA Units 5 & 6 would go through the Puerto Rico Permit Management Office ("OGPe") in an expedited fashion, which allows NFE to have a single point of contact for its permitting needs in Puerto Rico. This streamlines the permitting process with respect to our development.

This section outlines NFE's anticipated permitting path for both NFE and PREPA through a permitting matrix for each area of the construction and operation of the project. Each line of the matrix shows the activity that must be permitted, the applicable permit, the current status, and the plan for the path forward.

#	PROCESS STEP	COMPLETED ON	NOTES
1	Letter of Intent (LOI)	December 12, 2017	LOI for development of a Micro Fuel Handling Facility submitted to US Coast Guard Sector San Juan ("USCG")
2	Preliminary Waterway Suitability Assessment (PWSA)	December 12, 2017	PWSA submitted to USCG Sector San Juan for Micro Fuel Handling Facility
3	Area Maritime Security Commission	February 22, 2018	Presented to AMSC regarding plans to bring LNG into San Juan Harbor via Micro Fuel Handling Facility
4	Water Suitability Assessment Risk Workshop	March 20-21, 2018	Workshop with USCG and Stakeholders conducted in San Juan (including PREPA)
5	Navigation Simulation	May 3, 2018	Navigation Simulation conducted with San Juan Pilots at Resolve Maritime Academy
6	Follow-On Waterway Suitability Assessment (FWSA)	May 22, 2018	FWSA submitted to USCG Sector San Juan for Micro Fuel Handling Facility
7	Operational Risk Assessment Workshop	May 23-24, 2018	Workshop with USCG and Stakeholders conducted in San Juan

#### Table 4-1 - NFE Steps Completed Toward Issuance of United States Coast Guard Letter of Recommendation

#	PROCESS STEP	COMPLETED ON	NOTES
8	USCG Visit to NFE Facilities & Operations Observation	July 11 & 21, 2018	USCG visit to Montego Bay and Kingston, Jamaica to observe Ship-to-Ship & Ship-to-Shore transfers
9	Letter of Recommendation (LOR)	Expected September 2018	Draft LOR has been completed by USCG Sector San Juan

#### Table 4-2 - NFE Permits Related to Liquified Natural Gas Delivery (Marine)

#	ACTIVITY	PERMIT	STATUS	PLAN
1	Ship to ship transfers and movement of a storage vessel	U.S. Customs and Border Protection Jones Act approval	NFE has obtained a letter from U.S. Customs and Border Protection approving the delivery of LNG to the storage vessel.	NFE plans to design its operations in compliance with its Jones Act approval.
2	Crew on storage vessel to stay with vessel for up to 180 days	U.S. Customs and Border Protection approval	NFE has obtained an approval from U.S. Customs and Border Protection.	NFE plans to design its operations in compliance with this approval.
3	Import natural gas on vessels from various sources	U.S. Department of Energy approval	Complete	NFE will import LNG in accordance with the terms of the approval.
4	Importation, distribution, delivery, and supply of natural gas in Puerto Rico	Department of Transportation and Public Works ("DTOP") Natural Gas Company Authorization	Application submitted.	Respond to agency comments and modify as necessary if PREPA awards NFE the conversion work.

#### Table 4-3 - NFE Permits Related to Construction on the Wharf (Outside the PREPA Site for San Juan Units 5 & 6)

#	ACTIVITY	PERMIT	STATUS	PLAN
1	Discharges of stormwater during construction on Wharfs A and B	National Pollutant Discharge Elimination System ("NPDES")	NFE is drafting a notice of intent for the construction.	NFE will submit the complete notice of intent in advance of the construction.
2	Archeology Division from the Instituto de Cultura Puertoriqueña	Historic Preservation Consultation Phase 1A and 1B archeological study.	Complete.	N/A
3	Construction and operation of micro fuel handing facility	Environmental Assessment	Complete.	N/A
4	Additional construction and operation of	Modify Environmental Assessment.	Coordinating with OGPe.	Work with OGPe to determine best route for modification if

#	ACTIVITY	PERMIT	STATUS	PLAN
	equipment related to delivery of natural gas to San Juan Units 5 & 6			PREPA awards NFE the conversion work.
6	Demolition of warehouses on the wharf	Lead-based Paint Removal Permit	Complete.	N/A
7	Demolition of warehouses on the wharf	Asbestos Removal Permits	Complete.	N/A
8	Demolition of warehouses on the wharf	Demolition Permit	Complete.	N/A
9	Construction of air emissions sources	Puerto Rico Environmental Quality Board Air Permit	Pending receipt of OGPe Construction Permit.	To be submitted immediately upon receiving Construction Permit, as applicable to construction.
10	Connections to water, telephone and electricity utilities	Infrastructure endorsements	NFE submitted its infrastructure endorsements.	To be incorporated into construction permit.
11	Construction of micro fuel handling facility	OGPe Construction Permit	NFE is currently drafting construction designs/plans.	Expected to file next week.
12	Authorization of erosion and sediment control measures, fugitive emissions, and waste disposal during construction	Consolidated General Permit	NFE is currently drafting plans for erosion and sediment control, fugitive emissions mitigation, and waste disposal for construction.	Expected to file next week.
13	Operation of air emissions sources	Puerto Rico Environmental Quality Board Air Permit	Pending installation of equipment that will result in air emissions.	To be submitted immediately upon installation of equipment that will result in air emissions.
14	Authorization of industrial operations	Use Permit	Pending completion of construction.	NFE will apply once construction is complete.

#### Table 4-4 - NFE Permits Related to Construction at the PREPA Site for San Juan Units 5 & 6

#	ACTIVITY	PERMIT	STATUS	PLAN
1	Construction of air emissions sources	Puerto Rico Environmental Quality Board Air Permit	Assessment of San Juan Units 5 & 6 currently underway. NFE currently expects there will not be a significant air emissions increase in any air pollutant (net	No construction permit is expected to be required under the Environmental Quality Board rules for the LNG conversion. If selected, NFE will assist PREPA in the

#	ACTIVITY	PERMIT	STATUS	PLAN
			emissions are projected to decrease), unless PREPA determines the conversion should be to LPG.	preparation of any applications as necessary and would submit application immediately upon receiving OGPe Construction Permit.
2	Construction at PREPA site for San Juan Units 5 & 6	Construction Permit	Pending infrastructure endorsements.	If selected, NFE will apply once construction design and any necessary infrastructure endorsements have been received.
3	Authorization of erosion and sediment control measures, fugitive emissions, and waste disposal during construction	Consolidated General Permit	NFE is currently drafting plans for erosion and sediment control, fugitive emissions mitigation, and waste disposal for construction at the micro fuel handing facility.	If selected, NFE will modify its plans address regasification and connection to PREPA prior to application or, if such permit has already been approved, NFE will amend it accordingly.
4	Removal of lead-based paint during construction, if applicable	Lead-based Paint Removal Permit	To discuss if construction will impact lead-based paint in PREPA's facility.	If selected, NFE will apply as necessary.
5	Removal of asbestos during construction, if applicable	Asbestos Removal Permits	To discuss if construction will impact asbestos- containing materials in PREPA's facility.	If selected, NFE will apply as necessary.
6	Demolition of any existing structures, if applicable	Demolition Permit	Unlikely to be required.	If selected, NFE will apply as necessary.

#### Table 4-5 - Illustrative PREPA Permits (NFE Will Assist with Preparation and Submission as necessary)

#	ACTIVITY	PERMIT	STATUS	PLAN
1	Ownership or operation of air emissions sources (regasification equipment and/or San Juan Units 5 & 6)	Title V Permit	Evaluation of air emissions equipment at PREPA site underway.	PREPA's Title V Permit must be modified to include any new air emissions sources and/or pollution control equipment. If selected, NFE will assist PREPA in modifying its Title V Permit based on

#	ACTIVITY	PERMIT	STATUS	PLAN
				equipment owned or operated by PREPA.
2	Construction of air emissions sources	Prevention of Significant Deterioration ("PSD")/New Source Review ("NSR") Permit	Assessment of San Juan Units 5 & 6 currently underway. NFE currently expects there will not be a significant air emissions increase in any air pollutant (net emissions are projected to decrease), unless PREPA determines the conversion should be to LPG.	A PSD/NSR permit would not be required. If NFE is selected and the analysis determines that emissions will exceed PSD/NSR thresholds, NFE will assist PREPA in evaluating potential enforceable limits on its operations to avoid PSD/NSR permitting and/or preparing any permit application.
3	Construction and operation of converted San Juan Units 5 & 6	Environmental Document	Assessment of San Juan Units 5 & 6 currently underway.	If selected, NFE will assist PREPA in preparing and submitting its applicable environmental document to OGPe.
4	Changes to discharges of stormwater as a result of the work on San Juan Units 5 & 6 and change to the operational status of San Juan Units 5 & 6 during construction	PREPA's current National Pollutant Discharge Elimination System ("NPDES") may need to be modified or updated.	NFE understand that draft NPDES permit No. PR0000698 is currently pending.	If selected, NFE will assist PREPA in preparing and submitting any necessary modifications or updates to its NPDES permit.
5	If applicable, authorization of/modifications to wireless radio services	PREPA's Federal Communications Commission ("FCC") License(s), if any	To discuss if PREPA has any FCC licenses that will be affected by conversion of San Juan Units 5 & 6.	If selected, NFE will assist PREPA in applying for or modifying the relevant FCC licenses, as necessary.

#### 4.2 FEDERAL APPROVALS: JONES ACT & DEPARTMENT OF ENERGY LETTERS

Please refer to the following exhibits:

- Exhibit 33 Evidence of Jones Act Compliance
- Exhibit 45 Department of Energy Natural Gas Import Approval

#### 4.3 PUERTO RICO PORTS AUTHORITY LETTER

Please refer to the following exhibit:

Exhibit 34 – Puerto Rico Ports Authority Letter of Support

#### 4.4 MITSUBISHI LETTER

Exhibit 26 – Mitsubishi Letter Confirming Subcontracting for Natural Gas Conversion and Responding to Inquiries Regarding LPG Conversion

#### 4.5 ADDITIONAL LEGAL EXPLANATIONS / DOCUMENTS

#### 4.5.1 Registered Puerto Rico Entity

NFE is formed as a Puerto Rico limited liability company and is properly registered to do business in Puerto Rico. Please see Exhibit 39 - Certificate of Formation, Exhibit 40 - Certificate of Good Standing and Exhibit 38 - Merchant's Registration Certificate.

#### 4.5.2 Commitment to Compliance with Applicable Law

NFE is committed to complying with all applicable law, including Puerto Rico or U.S. laws and requirements relevant to the proposed project. NFE has not been the subject of a government investigation in the U.S. or Puerto Rico. NFE has not been the subject of any recent or historical legal proceedings, interviews or investigations by any US law enforcement agency involving our firm or team related to transactions executed in or on behalf of the Government of Puerto Rico and/or its public corporations. NFE has not been the subject of any adverse findings that would prevent PREPA from selecting NFE, including:

- Negative findings from a Federal Inspector General or from the U.S. Government Accountability Office, or from an Inspector General in another state.
- Pending or unresolved legal action from the U.S. Attorney General or from the U.S an attorney general in Puerto Rico or another state.
- Pending litigation with the Government of Puerto Rico, or any other state.
- Arson conviction or pending case
- Harassment conviction or pending case.
- Puerto Rico and Federal or private mortgage arrears, default, or foreclosure proceedings
- In rem foreclosure.
- Sale tax lien or substantial tax arrears.
- Fair Housing violations or current litigation.
- Defaults under any Federal and Puerto Rico-sponsored program.
- A record of substantial building code violations or litigation against properties owned and/or managed by Proponents or by any entity or individual that comprises Proponents.
- Past or pending voluntary or involuntary bankruptcy proceeding.
- Conviction for fraud, bribery, or grand larceny.

#### 4.5.3 Commitment to Compliance with Permitting Requirements

NFE is committed to adhering with all applicable Federal and Puerto Rico permits and regulations. NFE's commitment is shown by our work done so far in these areas, as evidenced by the attached Jones Act Letter, completion of the Coast Guard LOR process and our progress on permitting the micro fuel handling facility shown in Section 4.1. Our legal team is closely integrated with our business team, allowing us to comply with permitting requirements efficiently in accordance with our developments and operations.

#### 4.5.4 Advisory or Other Contracts with Government Entity in Puerto Rico

NFE does not have any current or former advisory contracts with any Government Entity in Puerto Rico. NFE does have a lease with PRPA, as discussed in Section 2.1.4 and evidenced by our letter with PRPA in Exhibit 34. Other than that lease, NFE does not have any significant contracts with any Government Entity in Puerto Rico.

#### 4.5.5 No Work for Creditors or Guarantors of Puerto Rico

NFE has not performed any work for creditors or guarantors of the Government of Puerto Rico or any public corporation debt about their positions in Puerto Rico debt obligations.

#### 4.5.6 Certificates and Certifications

Please find as exhibits to this proposal the following certificates and certifications:

- Income Tax Certification from MRCC (Exhibit 35)
- Property Tax Certification from CRIM (Exhibit 36)
- Sales and Use Tax Certification from the Treasury Department (Exhibit 37)
- Merchant's Registry Certificate (Exhibit 38)
- Certificate of Formation (Exhibit 39)
- Certificate of Good Standing (Exhibit 40)
- Certification of compliance with Ethics Act of the Government of Puerto Rico, on PREPA's form. (Exhibit 41)
- Certification to comply with Act No. 2-2018 which established the Anti-Corruption Code for a New Puerto Rico on PREPA's form. (Exhibit 42)
- Sworn statements. (Exhibit 43)
  - Sworn Statement on PREPA's form that neither NFEnergía LLC nor its affiliates has pled guilty to various crimes.
  - Certification that NFE has made all payments required for unemployment, workmen's compensation, and social security for chauffeurs. NFE will provide a certification from the Department of Labor or on a form from PREPA if requested and provided.
  - Certification that NFE, nor any of its owners, affiliates or subsidiaries have any debt or legal procedures to collect child support payments registered with the Puerto Rico Child Support Administration. NFE will provide a certification on PREPA's form if requested and provided.

- Certification that if there is any Judicial or Administrative Order demanding payment pursuant to Act No. 168-2000, NFE is current and in all aspects of compliance. NFE will provide a certification on PREPA's form if requested and provided.
- Certification of no conflict of interest on PREPA's form (Exhibit 44)

#### 4.6 LIST OF EXHIBITS

The following exhibits are included in the appendix.

- 33. Evidence of Jones Act Compliance
- 34. Puerto Rico Ports Authority Letter of Support
- 35. Income Tax Certification from MRCC
- 36. Property Tax Certification from CRIM
- 37. Sales and Use Tax Certification from the Treasury Department
- 38. Merchant's Registry Certificate
- 39. Certificate of Formation
- 40. Certificate of Good Standing
- 41. Certification of compliance with Ethics Act of the Government of Puerto Rico, on PREPA's form.
- 42. Certification to comply with Act No. 2-2018 which established the Anti-Corruption Code for a New Puerto Rico on PREPA's form.
- 43. Sworn statements
  - a. Prohibition Against Awarding Bid or Contract to Juridical Person Convicted of Felonies or Misdemeanors
  - b. Puerto Rico Child Support Administration
  - c. Compliance with the Department of Labor of the Commonwealth of Puerto Rico
  - d. Law for the Strengthening of the Family Support and Livelihood of Elderly People
- 44. Non-Conflict of Interest
- 45. Department of Energy Natural Gas Import Approval



# SECTION 5.0

# Financial Information & Required Qualifications



## **5.0 Financial Information & Required Qualifications**

#### 5.1 CAPITAL COST ESTIMATE

The cost of converting San Juan Units 5 & 6 to run on natural gas is estimated to be approximately \$30MM, which includes all work by Mitsubishi on the gas turbines and Black & Veatch, TSK and local subcontractors on the balance of the plant for engineering, construction and commissioning.

#### 5.2 FINANCIAL ABILITY

NFE does not have any financing contingencies in order to complete the project.

Please refer to Exhibit 46 for audited financial statements for NFEnergía LLC and Fortress Investment Group LLC.

Please refer to Exhibit 47 for letter from a bonding company that commits the bonding company to provide the required bonding on behalf of NFE if awarded the contract for the Project.

Please refer to Exhibit 48 for letter from an insurance company, satisfactory to PREPA that commits the insurance company to provide the required insurance on behalf of NFE if awarded the contract for the Project.

#### 5.3 LIST OF EXHIBITS

The following exhibits are included in the appendix.

- 46. Audited Financial Statements
  - a. NFEnergía LLC
  - b. New Fortress Energy Holdings LLC Balance Sheet
  - c. Fortress Investment Group LLC
- 47. Bonding and Surety Letter
- 48. Insurance Letter



PUMA Energy Caribe LLC Proposal for Request for Proposals for Fuel Supply in the North and Conversion of San Juan Units 5 and 6 RFP 81412 Issued by the Puerto Rico Electric Power Authority ("PREPA")

#### TABLE OF CONTENTS

	Pages
Cover Letter	3-5
Experience and Capacity	6-18
Approach and Methodology	18-47
Price Proposal	48-52
Commitment to Complying with all Applicable Federal and Puerto Rico Local Permits and Regulations	53
Local Parties	54
Confidentiality of Responses and Proprietary Information	54
Conflicts of Interest	54-55

#### LIST OF EXHIBITS AND ATTACHMENTS

Exhibit 1	Customer Recommendation Letters.
Exhibit 2	KN's Key Members Curriculum Vitae (CV)
Exhibit 3	KN's Capabilities Statement.
Exhibit 4	Proposal of Mitsubishi to perform scope of conversion of San Juan 5 and
	6 and Offer Letter.
Exhibit 5	Supplier's Letter of Intent for LNG.
Exhibit 6	Supplier's Letter of Intent for LPG.
Exhibit 7	Project Schedule with permitting path and permit request/approval matrix.
Exhibit 8	Sworn Statement Conflict of Interest.
Exhibit 9	Sworn Statement on Prohibition Against Awarding Bid of Contracts to
	Judicial Person Convicted of Felonies or Misdemeanors.
Exhibit 10	Sworn Statement Conflict of Interest Act 458.
Attachment 1	Request for Proposals 81412 from PREPA.
Attachment 2	Ownership Structure.
Attachment 3	Audited Financial Statements for the most recent three (3) fiscal years, certified by certified public accountant in accordance with generally accepted accounting principles.
Attachment 4	Letter from Bonding Company.
Attachment 5	Commitment Letter from Insurance Company.
Attachment 6	Subcontractor Letters and CV's.
Attachment 7	Fuel Sale and Purchase Agreement ("Agreement") and List of Comments to Agreement.

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#### **COVER LETTER**

Puma Energy Caribe, LLC ("Puma") hereby presents an all-inclusive, turnkey proposal to:

- furnish, install, connect, deliver and operate a safe, stable, and reliable fuel supply system to the San Juan Units 5 & 6 combustion turbine combined cycle power generating plant (the "SJ Power Plant"),
- supply the fuel gas for five (5) years to such SJ Power Plant; and
- perform all work, including but not limited to: engineering/design, environmental permit support, equipment/materials supply, construction, and commissioning, as required for the conversion of Units 5 & 6 of the SJ Power Plant to firing fuel gas ("the Proposal").

The Proposal is true and accurate and hereby certified by Víctor M. Domínguez Resto, General Manager of Puma Energy Caribe LLC. Puma's Proposal is prepared in response to the need for more localized power generation source in the north of Puerto Rico, as well as the much-needed modernization of the generation fleet at no capital expenditure to the Puerto Rico Electric Power Authority ("PREPA") and the need to implement public/private partnerships or full privatization of the energy generation sector. Our proposal provides a solution to ensure updated, safe, compliant, reliable, and efficient power generation, located close to the demand center in the north of the island and in the San Juan urban district. The intention for the Proposal is for it to be regarded as a Critical Project under the PROMESA Law and/or as a project to address the infrastructure emergency declared under Act No. 76 of May 5, 2000 ("Act 76-2000") and by Executive Order No. OE-2018-025.

The Proposal fits PREPA's priority criteria for identified infrastructure projects, including: addressing infrastructure gaps, favorable cost-benefit ratio (no Capex for PREPA), time to realization (turnkey approach) and alignment with the Puerto Rico's Government current policy goals, among others.

Puma, a global midstream and downstream retail and distribution oil group, has a vested interest in cleaner, affordable, and reliable energy to support local economic growth by leveraging on its existing presence in the country. LNG and/or LPG bridges the need for cleaner-burning fuels with the simultaneous demand for cost reduction, potentially delivering substantial fuel surcharge savings to end consumers.

Why Puma?

- 1. Puma, has an excellent financial standing and presents this proposal with private investment, leveraging on our core competency skills.
- 2. Puma is strategically leveraged to provide the LNG and/or LPG solution and will utilize Puma's existing fuel infrastructure at Puma's Bayamón terminal (the "Bayamón Terminal") and extensive in-country logistics experience and relationships to realize a complete supply chain for both products.

3. Puma has formed a team that comprised of PUMA Energy (PUMA) as prime with Klaipedos Nafta ("KN"), and CSA Architects & Engineers, LLP (CSA Group), as team members (advisors/consultants). Leveraging each firm's unique experience and relevance to the RFP requirements, the PUMA Team will deliver a turnkey LNG and/or LPG solution to PREPA for cleaner-burning fuels with the simultaneous demand for cost reduction and potentially delivering substantial fuel surcharge savings to end consumers.

All team members have different strengths, though collectively we form a wellqualified team to meet all requirements of the project. KN is a specialized developer and operator of liquified natural gas ("LNG") import terminals across the world, has established relationships with all Floating Storage and Regasification Units ("FSRUs") owners and has a proven capability to structure and deliver LNG terminal infrastructure including FSRUs, jetties, and pipelines. KN has unmatched technical capability, financial strength, and a global set of references and track record, including in the Americas region and is able to address the requirements for clean reliable power and accommodate the diversification of fuel in the north of the island to LNG and/or liquified propane gas ("LPG") for power generation at the SJ Power Plant. CSA Group, founded in 1956 (Puerto Rico) is a local is a full-service project delivery, consulting and asset optimization firm, providing engineering and environmental services to utility and power industry clients for more than 30 years. CSA is very familiar with the current permitting requirements and the available expedited process through the new permitting reform that would apply to this type of project ("PROMESA Title V -Puerto Rico Oversight, Management, and Economic Stability Act; S. 2328"). CSA Group's Environmental Unit provides comprehensive environmental compliance and permitting services for public and private sector clients. Service areas include environmental planning; natural resource assessment and management plans; environmental impact analysis; pollution prevention, site characterization and remediation; pre-construction and construction permitting; and environmental compliance.

4. The Proposal can be delivered and operational in approximately eighteen (18) to twenty-four (24) months for the LNG option and approximately twelve (12) months for the LPG option after executing with PREPA a certain offtake agreement provided that Mitsubishi can complete the conversion of the SJ Power Plant Units 5 & 6 and acquiring all necessary, relevant and applicable permits, authorizations, licenses, certifications, consent, and other related determinations (hereinafter, the "Permits").

Puma is pleased to submit this Proposal to provide a cost-effective power generation solution for Puerto Rico and its residents. We are eager to continue to build our relationship with PREPA in this role, to deliver the benefits available from this Proposal to the people of Puerto Rico within the soonest possible timeframe.

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Victor M. Domínguez Resto General Manager Authorized Representative Puma Energy Caribe, LLC

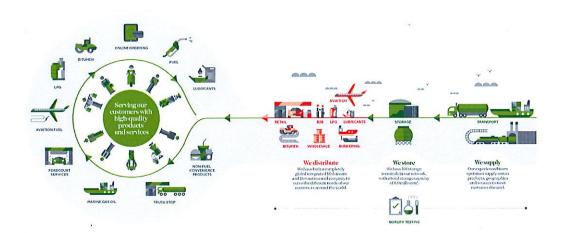
#### **1. EXPERIENCE AND CAPACITY**

#### a. Puma's Experience and Approach

Puma is a global integrated midstream and downstream oil company active in over 48 countries. Formed in 1997 in Central America, Puma has since expanded its activities worldwide, achieving rapid growth, diversification and product line development.

The company directly manages over 8,000 employees. Headquartered in Geneva, Switzerland, it has regional hubs in Singapore, Johannesburg (South Africa), San Juan (Puerto Rico), Brisbane (Australia) and Tallinn (Estonia). Puma core activities in the midstream sector include the supply, storage and transportation of petroleum products. Puma activities are underpinned by investment in infrastructure which optimizes supply chain systems, capturing value as both asset owner and marketer of product. Puma's downstream activities include the distribution, retail sales and wholesale of the full range of refined products, with additional product offerings in the lubricants, bitumen, LPG and marine bunkering sectors.

#### Figure 1: Puma Midstream & Downstream



Currently, Puma supplies power generation feed stocks globally. The active projects list encompasses around 2,500MW across Latin America ("LATAM"), Middle East, Africa and Asia. Puma has developed a strong natural footprint in power deficit regions, providing the ability to deliver quick, viable solutions to local governments in need. Puma also brings a proven track record in efficient supply chain management across multiple industries into the power generation space.

In 2011, Puma acquired in a bidding process at the U.S. Bankruptcy Court of Delaware, most of the assets of Caribbean Petroleum Company ("Capeco") for around **\$82MM**. As part of the transaction, Puma agreed to substantially redevelop the former Capeco refining facilities into a

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state-of-the-art fuel storage depot, and to launch a significant program of environmental remediation in close cooperation with federal and local authorities.

Prior to the purchase, the Department of Justice ("DOJ") notified the court that cooperation in the ongoing clean-up activities would be expected of the purchaser and, as a result, the Bankruptcy Court conditioned its authorization of the sale on Puma entering into settlement agreements with the United States Environmental Protection Agency ("EPA"). Under these agreements, Puma consented to perform clean-up work at the Bayamón facility and its newly acquired gas stations. Puma also replaced Capeco as the party responsible for implementing remaining obligations under the 1995 RCRA AOC.

As illustrated in Figure 2, the total area of 173.81 acres at the Puma Bayamón Terminal with an overall storage capacity of 2,030,000 barrels presently includes seventeen (17) petroleum storage tanks with a storage capacity for gasoline, diesel, ethanol and jet fuel, vapor recovery units, and laboratory facilities with additional land for development. A truck loading rack with eight lanes is located within the total site acreage, in addition to the LPG (propane and butane) facility which consists of fifty-eight (58) bullet tanks, and a sphere. The propane bullets tanks consist of forty-one (41) bullets for either the storage of propane. The total design storage capacity of the propane bullets is 100,265 barrels. Each bullet is connected to the Dock 10-inch pipeline for filling purpose and connected to propane pumps 16-inch suction header.



Figure 2: Puma Facilities

To date, Puma has completed the clean-up and rehabilitation of the assets and finalized the actions required of some of the EPA agreement and invested an excess of **\$500MM** in the acquisition, development and improvement of assets and infrastructure in Puerto Rico and will continue to invest in the development and maintenance of its assets. Other projects developed by Puma are listed below in <u>Table 1</u>.



Location	Project Description	Contract Price	Completion Dates
PCA Dock	PUMA Fuels dock structural re-habilitation and upgrade project including construction of new loading arms platform and structure to receive LR1 ships 236M LOA 75K MTON.	\$15MM	December 2013
Puma Bayamón	Phases 1 & II: Installation of new LPG infrastructure including new tanks, pump station, truck loading, transmission piping	\$12MM	April 2014-November 2014
Puma Bayamón	Phase I: Installation of new LPG infrastructure including new tanks, pump station, truck loading, transmission piping	\$500K Engineering Fees	April 2014-November 2014
Puma Bayamón	Phase II: Installation of new LPG infrastructure including new tanks, pump station, truck loading, transmission piping	\$750K Engineering Fees	April 2014-November 2014
Puma Bayamón	Phase I: Repair of 30 existing pressure vessels for LPG	\$6MM	April 2013- December 2013

#### Table 1. Puma Projects in Puerto Rico

Puma has also engaged with private and public-sector clients, including PREPA, on projects similar to those included in this Proposal:

#### i. <u>PREPA</u>

Since 2011, Puma has delivered to PREPA No. 2 Fuel Oil requirements at San Juan, Palo Seco, Cambalache, Mayaguez, Aguirre, and the Satellite Generating Plants that PREPA demands on time. In the two previous Bids Puma was the only bidder, which demonstrates Puma's commitment to PREPA and Puerto Rico. The No. 2 Fuel Oil in our Terminals is available to assure the Product and Quality required by PREPA. Puma employees 200 people in Puerto Rico who are devoted to assuring a strong and reliable relationship with PREPA. Puma is ready to deliver fuel to PREPA 24/7. In emergency situations, PREPA and Puma have worked toward solving supply problems. In 2016, we were able to deliver almost a **1MM barrels in a month**. The monthly average consumption is close to 400K barrels/month. Deliveries are done via Pipeline, Vessels, Barges and Tank Trucks as needed by PREPA.

The Proposal offers many technical advantages, diesel will be temporarily used by Puma as a backup fuel for the Proposed Project to ensure continuous operations at all times.

#### ii. APR Energy

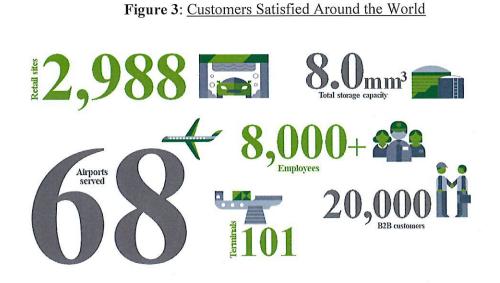
APR & Puma recent demonstrated success in its fast-track delivery of emergency power generation equipment, services and fuel, as well as the integration with PREPA's staff and existing equipment at Palo Seco and Yabucoa Power Stations, which has established our collective team as a credible, reliable and cost-effective player within the Puerto Rico power market, particularly in support of the emergency events following hurricanes Irma and Maria. As a reliable Supplier, Puma served 750K barrels from January-September 2018 to support all electrical situations after hurricane Maria.

#### iii. LPG Industrial Projects

- a. **Dupont Agricultural & Electronic Pharmaceutical-** In 2016, Dupont took the decision to change their LPG supplier in all their facilities in Puerto Rico to Puma Energy. Puma managed all projects with strong efficiency, guaranteeing a continuous flow and without interruption of the critical operations in pharmaceutical sites. Project Commencement Date- 2015-2016 is still part of our customer portfolio.
- b. Puerto Rico Coffee Roaster- An update recommendation was developed to assure their safety stock, incrementing their storage capacity on site. Phase 1 consisted of an update of a new storage tank and construction works, and finally, Phase 2, a final installation of storage tank with 70% more capacity of product. This benefited all logistic receiving/delivery of product and actualized a more reliable operation. Project Commencement Date- 2016-2017, is still part of our customer portfolio
- c. Caribbean Can Manufacturing- Puma recommended a storage tank update to the largest Can manufacturer in PR via a joint venture with Cervecera of P.R. This recommendation was made in order to minimize the risk and safety situation of using a storage tank of more than 30 years age. The successful change in their storage was made without interruption to their operations in Puerto Rico and their exports to USVI and Dominican Republic. Project Date-2017, still is part of our customer portfolio.

See Exhibit 1 - Customer Recommendation Letters.

Puma is a worldwide reliable supplier and employees 200 professionals in Puerto Rico. Our flexibility identifies Puma as a fast company able to react to any change as was clearly and recently demonstrated during hurricanes Irma and Maria, in its support for delivery of emergency power generation equipment. Puma is the only supplier, with a private dock and ready to receive fuels to promptly meet customer needs.

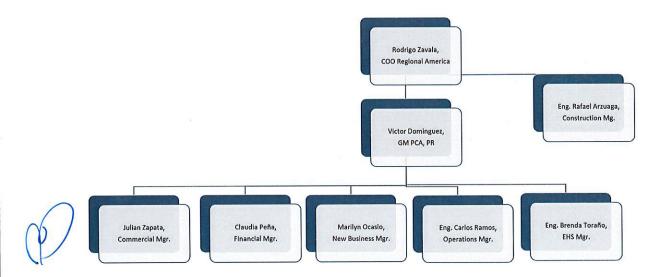


Some of our key personnel for this project, we identify the following professionals:

Table 2.	Key	Personnel	for	Pro	ject

Name	Title	Year of Experience
Rafael Arsuaga, P.E.	Regional Construction Manager	20
Carlos Ramos	Operation Manager	7
Carlos Faris	Operation Project Manager	20
Brenda Toraño, P.E.	EHS Manager	23

#### Figure 4. Puma's Organizational Chart

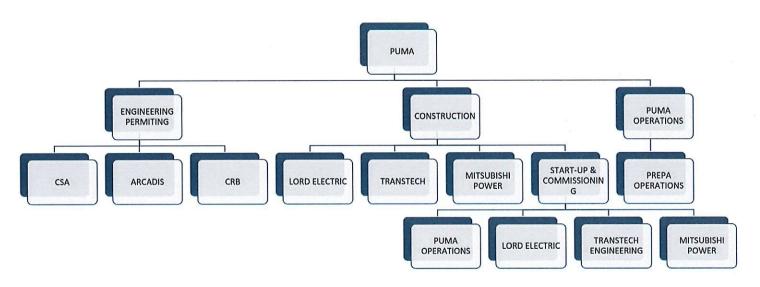


Moreover, below a list of subcontractors to be engaged by Puma for the development of the Proposed Project.

#### **Subcontractor Name Main Project Tasks** Mitsubishi Power Systems Puerto Rico (1) Unit 5 & 6 Conversion CSA Group (2) Permits / Environmental & Inspection Arcadis Design & Consultancy (3) Engineering & Design **CRB** Caribe (4) Engineering & Design (5) General Contractor **Mechanical / Electrical** Lord Electric Industrial Distributors Ltd **Instrumentation & Controls** Transtech (6) Commissioning and start-up activities

#### Table 3. Subcontractors for Project

#### Figure 5. Puma's Organizational Chart - SJ Power Plant Unit 5 & 6 Project



The primary contact person for the Proposal is Victor M. Domínguez Resto, General Manager of Puma with the following contact information:

Physical Address: Carr. 28 Km 2.0 Luchetti Industrial Park, Bayamón, Puerto Rico Postal Address: PO Box 11961, San Juan 00922 Tel. 787-552-0510 E-mail: Victor.dominguez@pumaenergy.com

#### b. KN's Experience and Approach

Puma has engaged KN as an advisor who is a specialized developer and operator of LNG import terminals across the world, has established relationships with all FSRUs owners and has a proven capability to structure and deliver LNG terminal infrastructure including FSRUs, jetties, and pipelines. KN has unmatched technical capability, financial strength, and a global set of references and track record, including in the Americas region and is able to address the requirements for clean reliable power and accommodate the diversification of fuel in the north of the island to LPG and/or LNG for power generation.

KN project team include members who have significant experience working on LNG terminal projects including the Klaipeda LNG terminal, Calamari LNG terminal, Klaipeda small-scale reloading and bunkering station, Krk LNG terminal and a number of new LNG terminal development worldwide. Following are the key members and their titles:

- 1. Project Manager:
  - a. Edmundas Tuinyla Senior Project Manager
- 2. Engineering and Design Manager:
  - a. Dangiras Chockevičius Head of Projects Management Unit
  - b. Genadijus Andrejevas Technical Director
- 3. Lead Engineers:
  - a. Valdas Mockevičius Project Engineer
  - b. Algimantas Abrutis Project Manager
  - c. Justinas Jazbutis LNG Project Engineer
  - d. Tomas Karalius Deputy Head of Mechanical Department
  - e. Rimas Rusinas Operations Director
- 4. Inspector Manager.
  - a. Marius Mažeikis Quality Manager
- 5. Safety Officers, QA/QC Managers, Environmental specialists.
  - a. Saulius Lukauskas Deputy Head of LNG Operations Department
  - b. Lauras Mataitis LNG Terminal Health & Safety Manager
- 6. Other key personnel required, including subcontractors.
  - a. Gediminas Jotauta Head of LNG Operations
  - b. Renata Navikaite Head of LNG Commercial Operations
  - c. Tautrimas Lengvinas Business Developer
  - d. Linas Kilda Head of Project unit

See <u>Exhibit 2</u> – Key Members Curriculum Vitae (CV), Letters of recommendation from previous or current client (s) will be provided upon request subject to the signing of a confidentiality agreement.

KN, as advisor to Puma, has numerous key LNG terminal development projects similar to those included in this Proposal:

#### 1. Development, Construction and O&M Services of Klaipeda LNG Terminal

#### a. Description of Project:

Klaipeda LNG terminal was developed, constructed, and is currently owned and operated by AB Klaipedos Nafta. It is an FSRU based LNG terminal in the Port of Klaipeda, ensuring energy security of Lithuania, Latvia and Estonia by providing LNG regasification and LNG reloading services. The FSRU Independence is provided by Höegh LNG under a ten (10) year lease agreement with a buy-out option.

Each year it holds an open season procedure for its users and it currently holds three (3) clients which deliver 16 standard LNG cargoes and reload 4 small-scale LNG cargoes.

Key components of Klaipeda LNG terminal include:

- FSRU "Independence" (new built 170,000 m3 storage, 4bcma regas capacity) on a Time Charter Party;
- Off-shore jetty, 400 m long marine structure;
- 18 km connecting natural gas pipeline DN700, of which 3 km length section is constructed by horizontal directional drilling (HDD) technique; and
- Gas metering station and connection point to the transmission system operator.

Technical characteristic:

- Terminal's regasification capacity: Up to 10,281,552 m3 NG / day
- Total capacity of LNG tanks: 170,000 m3
- Maximum LNG load rate: 9,000 m3 LNG / h
- Maximum LNG reload rate, when LNG regasification is not performed during LNG reload: 9,000 m3 LNG/h
- Maximum LNG regasification rate: 428,398 m3 NG / h

b. Work performed:

• Management of initial development, such as feasibility studies, territorial planning, environmental permitting, conceptual design, pipeline and jetty FEED;

- Establishment of legal and regulatory framework on the state level and successful coordination of state aid scheme with the European Commission;
- Development of commercial arrangements;
- Leading Time Charter Party (hereinafter TCP) negotiations with FSRU suppliers;
- Management of engineering, procurement and construction contractor's activities for the pipeline and jetty;
- Management of health, safety and environment activities;
- Management of the terminal commissioning and start-up;
- Building the organization for operation and maintenance;
- Establishment of the terminal usage rules;
- Operations and maintenance of the facility on the EU compliant Third-Party Access (hereinafter TCP) regime with three terminal users;
- Overall Terminal Operator functions (management of Annual Delivery Programme, scheduling, nominations of LNG regasification and LNG break-bulking, inventory management, Time Charter Party management, Terminal Usage Agreement management).

Project Title:	Klaipeda LNG Terminal	
Client:	AB Klaipedos Nafta	
Location:	Klaipeda, Republic of Lithuania	
Dates (start/end):	2011 - 2014	
CAPEX:	USD 140 million	

 Table 4 - Klaipeda LNG Terminal Project Summary

## 2. Development, Construction and O&M of Klaipeda LNG Reloading and Bunkering Station

#### a. Description of Project:

Klaipeda LNG small-scale reloading and bunkering station has been developed, constructed, is owned and operated by AB Klaipedos Nafta. It is an on-shore LNG terminal built 7 km away from Klaipeda LNG terminal and is supplied with LNG with a shuttle LNG small-scale carrier.

The goal of the station is to complement Klaipeda LNG terminal with new services: on-shore regasification, truck loading and bunkering.

Key components of Klaipeda LNG reloading and bunkering station include:

- LNG bullet type storage tanks, 5x1,000 m3;
- Jetty shared with KN's oil product terminal, 250 m length;
- Truck loading station with 2 loading bays;
- Regasification unit to supply natural gas to the boiler facility of the oil product terminal.

Technical characteristic:

- Station's reloading capacity Up to 250,000 m3 / year
- Total capacity of LNG tanks 5,000 m3
- Maximum LNG load to vessel rate 500 m3 LNG / h
- Maximum LNG load to truck rate 100 m3 LNG / h
  - b. Work performed:

KN has leading role for overall project management including major activities, such as:

- Management of initial development such as feasibility studies, territorial planning, environmental permitting, conceptual design, FEED engineering procurement and construction ("EPC");
- Development of commercial arrangements;
- Management of engineering, procurement and construction contractors' activities for pipeline and jetty;
- Health, safety and environment management;
- Management of terminal commissioning and start-up;
- Building the operating organization and terminal usage contracts;
- Operations and maintenance of the facility;
- Overall Terminal Operator functions (management of Annual Delivery Programme, scheduling, nominations of LNG truck loading, LNG regasification, LNG bunkering, inventory management, Terminal Usage Agreement management).

Project Title:	Klaipeda LNG Reloading and Bunkering Station
Client:	AB Klaipedos Nafta
Location:	Klaipeda, Republic of Lithuania
Dates (start/end):	2014 - 2017
CAPEX:	USD 33 million

Table 5- Klaipeda LNG Reloading and Bunkering Station Project S	ummary
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#### 3. Development and Advisory Services for Krk LNG Terminal

#### a. Description of Project:

KN has been selected as preferred partner for development of Krk LNG terminal during Call for Equity process organized by LNG Croatia LLC. Krk LNG terminal project is an ongoing effort of LNG Croatia LLC to develop, construct, own and operate the first FSRU LNG terminal in Croatia. Project, with the support of KN and other companies, has received CEF Energy subsidy of 102 mln. EUR and is targeting a Final Investment Decision ("FID") in early 2019 with Commercial Operations Date planned for 2020.

KN has supported LNG Croatia LLC under a Technical Services Agreement and was responsible for technical and commercial implementation of the project.

Key components of Krk LNG terminal include:

- Purchase of FSRU;
- Conventional jetty to accommodate the FSRU and an LNG carrier moored side-by-side to the FSRU;
- Connecting pipeline from the LNG terminal to the gas metering station in Omišalj.
  - b. Services provided:
- Project development plan;
- Conceptual design, FEED, territorial planning, environmental permitting, environmental impact assessment;
- EPC and FSRU contracting strategy;
- Health, safety and environment studies management;
- Establishment of legal and regulatory framework on the state level;

- Development of commercial arrangements; and
- Development of Terminal rules and regulations.

 Table 6 - Krk LNG terminal Development and Advisory Services Project Summary

Project Title:	Krk LNG Terminal Project
Client:	LNG Croatia LLC
Location:	Krk, Republic of Croatia
Dates (start/end):	2016 - 2018
CAPEX:	N/A

#### 4. Advisory Services for Calamari LNG Terminal

#### a. Description of Project:

KN has been selected as advisor for Cartagena LNG terminal project company – Sociedad Portuaria El Cayao SA ESP (hereinafter referred to as, "*SPEC*") on management, planning and scheduling of the project activities and assistance during preparations for commercial operations.

The terminal is based on an FSRU (new build 170,000 m3 storage, 5 bcma regas capacity), provided by Höegh LNG, and a newly constructed jetty. Commercial operations started at the end of 2016.

Key components of Calamari LNG terminal include:

- FSRU "Grace" (new built 170,000 m3 storage, 5 bcma regas capacity) on a Time Charter Party;
- A maritime pier of 700 meters long; and
- 10 km connecting natural gas pipeline connected to the national gas grid.
  - b. Services provided:

KN has been advising SPEC since 2015 on project implementation and building the organization for operation and maintenance. Particularly, advisory activities include the following:

- Advising project company, SPEC, regarding overall project implementation;
- Management support in decision making regarding operations;
- Advisory regarding technical conditions on port and terminal operations and risk and safety management;

17

- Trainings for commercial and operational teams; and
- Support for commissioning.

Table 7- Calamari LNG Terminal Advisory Services Project Summary

Project Title:	Calamari LNG Terminal
Client:	Sociedad Portuaria El Cayao SA ESP (SPEC)
Location:	Cartagena de Indias, Colombia
Dates (start/end):	2015 - 2016
CAPEX:	N/A

Also, see Exhibit 3 - KN's Capabilities Statement.

#### 2. APPROACH AND METHODOLOGY

Puma is hereby submitting two (2) options for this Request for Proposal No. 81412 (the "RFP"): (i) LNG as fuel supply to SJ Power Plant Units 5&6; and (ii) LPG as fuel supply to SJ Power Plant Units 5&6. Puma is available to implement any of the proposed options upon PREPA's award of the RFP to Puma. Moreover, Puma is available to implement the LPG option at a lower cost and shorter timeframe while it concurrently implements the LNG option upon PREPA's decision to award the RFP to Puma. The project contemplated in the RFP will be developed in full compliance with all applicable laws, rules and regulations to environmental and operational safety standards.

#### a. LNG Terminal and Supply Option

i. Background

In response to PREPA's RFP, Puma has prepared this Proposal for the fast track integrated LNGto-power project being developed by PREPA in the port of San Juan, Puerto Rico (the "Project"). The Project consists of LNG procurement, a floating LNG import terminal, marine infrastructure, including the construction of a new jetty, and an onshore high pressure natural gas pipeline from the LNG terminal to the existing combined cycle Units 5 and 6 at the SJ Power Plant, which will be converted to run natural gas as per Mitsubishi's Proposal enclosed herein as **Exhibit 4**.

As the required annual demand of natural gas is at least 25 TBTU, the Project requires a regasification capacity of 70 million standard cubic feet per day ("mmscfd") or approx. 0.5 million tons per year ("mtpa").

Puma proposes a solution where it (i) procures and delivers the LNG in the Port of San Juan and (ii) develops, builds, owns and operates a medium scale floating regasification unit ("FRU"). The LNG would be supplied from an existing, standard LNG carrier ("LNGC") acting as an FSU, to

be semi-permanently moored near the FRU (collectively referred to as, the "Puma LNG Terminal"). The FSU is intended to be supplied by Puma through Trafigura, Puma's proposed LPG and LNG supplier for this Project (the "Supplier"). Puma shall develop, build and operate the marine infrastructure and the pipeline in accordance with the proposed SJ Power Plant units' conversion.

Puma, through its subcontractors, operator of the renowned integrated maritime services company Bernhard Schulte Shipmanagement ("BSM"), shall carry out operations and maintenance of the Puma LNG Terminal. BSM has strong experience with operating floating LNG import terminals through their affiliate Pronav Shipmanagement.

By offering capacity specifically designed for the Project, the Puma LNG Terminal will optimize efficiency and economies of scale for PREPA. The Puma LNG Terminal will also allow for possible future changes in demand by allowing for adjusting regasification and storage capacity separately, as well as offering flexible commercial terms. Moreover, the upgraded jetty will allow for future use of a conventional FSRU if and when actual demand requires it.

The Puma LNG Terminal can be ready for start-up approx. eighteen (18) to twenty-four (24) months from FID.

#### ii. Option

To determine the most feasible and economically viable option for natural gas supply to the SJ Power Plant, detailed studies of the San Juan port navigation conditions were performed: Metocean, environmental, geological conditions were studied, sites and right of ways comparison performed, etc.

LNG delivery sources and methods were assessed, LNG vessel market research was extensively made, and detailed Capital Investment ("CAPEX") indications were procured for the erection of infrastructure and related topside equipment installation. Alongside this, the implementation timeline of various terminal layout options was undertaken, and a comparison of available solutions was finally performed with several final options selected after an iterative process.

The concept presented in the Proposal elaborates on the most economically attractive terminal concept and implementation timeline, reflecting current market and Puma's unique capability.

The proposed LNG reception and regasification terminal will be comprised of an in the range of 60,000 to 170,000 m<sup>3</sup> storage capacity which will be permanently moored to a fixed jetty, located at a suitable dock that forms part of the marine facility. To supply the natural gas fuel to PREPA's CCGT units, LNG will be transferred to the floating regasification unit, installed adjacent to the identified jetty. This will form the marine facility.

LNG will be supplied to the FRU that will subsequently perform the regasification process, from where natural gas will be conveyed to the gas metering unit and sent out through an  $\emptyset$  12" pipeline further to the CCGT units in the SJ Power Plant.

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The pipeline will be buried underground near the shore, lead to the Cataño Oil Dock ("COD") jetty infrastructure installation and subsequently cross PR-28 (Ave. Central Juanita). From there the pipeline will be buried underground at the Puma operated oil terminal site PCA Dock leading to the intersection with Calle Portuaria. At this point, the pipeline will be installed under the road of Ave Central Juanita using an open excavation method and it will run out parallel with Calle Portuaria to PREPA's PP gate A. After entry to PREPA's premises, the OP will be installed on pipeline racks and reach CCGT 5&6 for further processing and feeding to CCGT's.

The LNG storage facility and all envisaged jetty and onshore installations will be project specific, designed to optimize gas send-out demand and the required project parameters and thus allowing for optimization of the O&M costs during contract period.

Puma's proposed technological concept of the proposed LNG Terminal is based on the floating solution shown in the below <u>Figure 6</u>, which consist of:

- 1. FSU vessel for unloading and storage of LNG;
- 2. FRU and send-out of natural gas;
- 3. Metering station for gas metering;
- 4. Jetty to permanently moor the dedicated FSU vessel capable withstand additional loads due to LNG carrier during ship-to-ship operations;
- 5. Send-out pipeline to deliver natural gas from the regasification unit to PREPA.

20

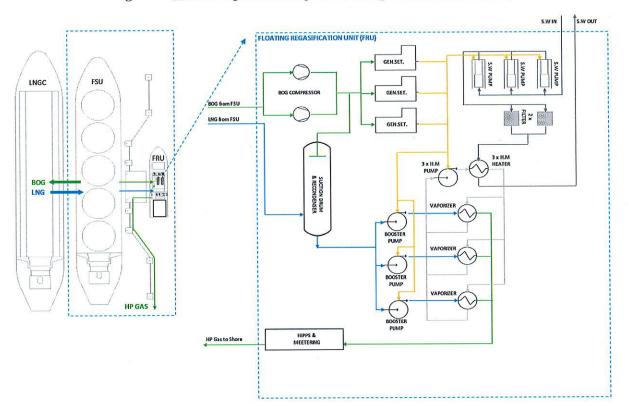


Figure 6. Technological Concept of the Proposed LNG Terminal

The technology being proposed is a well proven concept with four FSU-based terminals currently in operation globally and located in: Jamaica, Malta (*See* Figure 7 below), Indonesia and Malaysia with a few other LNG projects based on this FSU concept currently under development, such as the Bahrain LNG terminal. Finally, the first phase of the Chilean Mejillones LNG terminal is yet another example of this technology.

One of the biggest advantages of such a terminal concept is the ability to substitute onshore tanks with a fast-track efficient solution that contains excellent mobility under hurricane conditions.

For an onshore storage solution, an extensive onshore facility has to be completed that incorporates cryogenic topside and piping systems, firefighting systems to deal with LNG spills, regasification trains, water intake and release systems and other equipment.

21



Figure 7. Malta FSU Based Terminal (Google maps view)

Among the possible feasible solutions for the proposed LNG terminal, employment of a FSRU was carefully considered. Even though, this solution potentially brings benefits of lower operational costs compared to the FSU and FRU concept being presented, a number of important limitations and uncertainties were identified:

- Overcapacity of this solution for the scope of this RFP (RFP expected demand and BASE Term).
- Draft restrictions of San Juan port entry channels;
- Navigation restrictions in San Juan port for large scale FSRUs in operation globally.
- Space availability of berthing large scale FSRU at San Juan port

#### iii. Location

The Project is assumed to be in the Port of San Juan where benign metocean conditions allow for semi-permanent mooring and expected high availability. In the event of hurricanes or any other related natural event, the FSU and FRU will discontinue terminal operation, disconnect and sail

away. Both vessels will remain flagged and crewed for the duration of the Project, and as such maintain the ability to leave the port by means of own propulsion.

Puma has access to a suitable jetty in San Juan Bay to deliver this technical solution within eighteen (18) to twenty-four (24) months from award of RFP from PREPA to Puma.

#### iv. <u>FRU</u>

The FRU consists of regasification equipment and related utilities on a platform supply vessel ("PSV"). Its main dimensions are 80 x 18 x 7 m (L x B x D), with a clear deck area of 890 sqm. The operational draft of the FRU will be approximately 4.0 meters. Dual fuel diesel generators will be installed in the forward area of the cargo deck and supply power for the regasification system consumers, as well as, for PSV domestic service. The FRU has accommodation for up to twenty-five (25) people on board ("POB") and will during normal operation have a crew of twenty (20) persons. The classification of the vessel will be 1A1 Supply Vessel REGAS GAS FUELLED. See Figure 8 below.

The FRU topside comprises three regasification trains, each with capacity 75 mmscfd, giving a nominal and peak regasification rate of 150 and 225 mmscfd respectively. Design natural gas discharge pressure is up to 100 barg at the FRU's natural gas export manifold. The FRU will comply with relevant requirements from IMO, flag state and class.

At nominal capacity the FRU will have energy shrinkage (on-board fuel gas consumption) of approximately 0.6% of the total energy in form of LNG feed received from the FSU. Parts of the boil off gas ("BOG") generated on the FSU will be used to power the FSU and the FRU. Excess BOG will be compressed and recondensed on-board the FRU to ensure zero loss and venting during normal operations.

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24

#### v. <u>FSU</u>

The FSU will have accommodation and crew in line with its existing gas ship certificate, and will be equipped with fenders, mooring lines, flexible hoses and associated equipment for ship to ship ("STS") LNG loading and return gas transfer. The STS mooring and transfer equipment on the FSU will be outfitted to accommodate side by side operation with a broad range of LNGC designs. Communications links between FRU and FSU and shore side as necessary will be established.

A new build or newly converted and refurbished vessel is envisaged for the project FSU and will be available within the shortest possible time. The dry-docking period of such a vessel exceeds the initial contract time period and no berth leave is expected during this time, unless under extreme circumstances (such as major cyclonic events).

LNG for storage in the FSU facility and subsequent send out to the SJ Power Plant facility will be received from an LNG carrier, via Ship to Ship transfer.

#### vi. LNG Supply Operations

LNG carrier vessels typically range between 50,000 and 170,000m<sup>3</sup> in capacity and with typical dimensions in the range of 200 - 294 m LOA, 34 - 46 m beam and 7 - 12 m draft.

The LNG facility will include the following major systems:

- Floating storage unit;
- LNG unloading system (hard arm/flexible hoses), mooring jetty;
- Regasification module from FRU with relevant control and metering systems;
- Fire-fighting system and emergency equipment; and
- Other auxiliary systems.

The jetty will provide safe mooring for the FSU and also berthing to the LNG supply carriers in an STS mooring configuration.

Support vessels from the San Juan port, including a pilot boat, tug boats and general support vessels, will assisting the port at all times with safe navigation and maneuvering of the LNG Carriers. Anticipated vessel types include:

- escort tugs;
- line handlers;
- pilot boats; and
- security and response boats.

It is anticipated that the proposed LNG terminal will lease service vessels that provide support for operations in the form of these tugs and supporting vessels.

#### a. The main tug activities will include:

• providing potential escort services for the FSU and LNG Carriers as they transit to the facilities;

• providing assistance to the FSU and LNG Carriers during berthing and unberthing operations at the Jetty/FSU and STS operations;

• providing firefighting, rescue services and spill response in the unlikely event this is required.

The supporting vessels will likely consist of small utility boats to facilitate general operations and provide extra security.

- b. The main functions of the utilities boat(s) will include:
- mooring line transfer (depending on terminal operating procedures);
- general maintenance of facilities; and
- security.

Besides assisting during the LNG carrier berthing and unberthing operations, the utility boats may be in operation on a daily basis, fulfilling the various functions outlined above. It is conservative to assume that two utility boats may be required to support operations. These include Pilots and Line Handlers to assist in mooring operations.

The FSU will be assisted by the Puma LNG Terminal approved line handling boats and mooring crews.

Line handling boats and crews together with mooring crews on the Terminal stationed at each end of the FSU will transfer and secure the mooring lines. A mooring crew will also remain on the Puma LNG Terminal during the LNG Carrier's call at the Terminal to release the LNG Carrier and be available in case of emergency or requirement to renew or secure a mooring line. Dedicated patrol boat might be required to enforce the moving exclusion zone around LNG carrier vessels during the time that they are under pilot control.

The proposed LNG import terminal will require that the following tug resources are in place to ensure the safe harbor channel transit and berthing of LNG vessels calling at the terminal:

- 1. A minimum of four (4) tugs shall be available for all vessel arrivals and departures.
- 2. A minimum of two (2) of the tugs on arrivals and departures must be equipped with marine FiFi 1 capabilities.
- 3. One (1) tug with FiFi 1 capabilities will remain on stand-by, in close proximity to the terminal and dedicated to the LNG vessel that is at the terminal.

4. The total bollard pull of the tugs on arrival and departure shall not be less than two hundred (200) short tons, none of the tugs having less than fifty (50) short tons bollard pull capability.

Operating parameters covering the FSU and LNG vessels draft/daylight hour operation/weather conditions etc. will be set at a restricted level in the early stages of the LNG Operations facility commencing. These parameters will be reviewed during the 'settling in period' where the working results can be validated against the simulation results in order to mirror or modify the operational condition requirements determined during simulation.

It is up to the vessel's Master and/or pilot to decide if additional tug capability is needed over and above the minimums required by the proposed LNG import terminal.

In the unlikely event that an emergency departure from the berth is required, a second tug will be required in addition to the standby tug (the response time for the second tug to be determined); thirty (30) minutes is considered acceptable.

In general, the operation of the FSU and LNG carriers within San Juan Bay shall comply with industry recommendations as agreed by the Puerto Rico Port Authority ("PRPA") and the United States Coast Guard ("USCG"). Necessary port modifications shall be made, and additional safe navigation aids shall be implemented to ensure safe navigation of dedicated vessels in the port at all times.

- c. LNG supply operations are envisaged as follows:
- 1. The FSU moored alongside a suitable jetty in San Juan Bay.
- 2. An LNGC conventionally moored in a side by side configuration to the FSU during loading operation in accordance with the established practice and relevant SIGTTO/OCIMF guidelines.
- 3. The FRU moored to a dedicated loading platform and mooring structures on the shore side of the jetty.
- 4. Transfer of LNG from the LNGC to the FSU and vapor return from the FSU to the LNGC during cargo loading will be done by STS transfer using flexible hoses in line with current industry practice.
- 5. Necessary interconnecting pipe for the LNG (and BOG) transfer between the FSU and the FRU is arranged jetty topside between the two berths.
- 6. High pressure send-out connection (flexible pipe) and send out line arranged from the FRU to the onshore pipeline.

An illustration of the configuration is shown below as **Figure 9**.



28

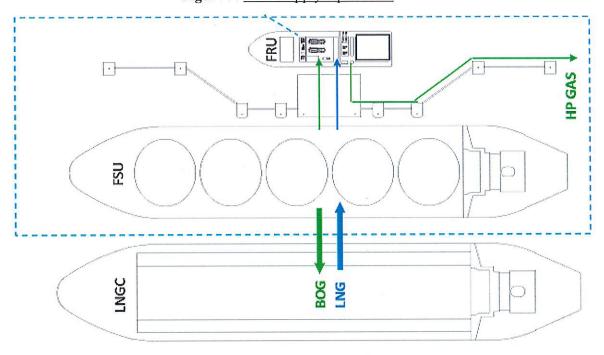


Figure 9. LNG Supply Operations

vii. Jetty & Topside

To receive LNG vessels within the range of  $60,000 - 170,000 \text{ m}^3$  LNG storage capacity, refurbishments will be required at a suitable jetty in San Juan Bay with minor dredging envisaged at the potential site identified to deliver the proposed LNG Terminal.

The dedicated FSU vessel will be permanently moored to a suitable jetty identified by Puma. Space of over 300m in length will be ensured to accommodate the dedicated FSU storage vessel and floating regasification facility infrastructure. Local contractors are envisaged to obtain permits, design and erect the civil part and installation of the required topside equipment.

A suitable system will be installed for LNG supply to the FRU.

The LNG will be pumped from the LNG storage tanks on FSU to the FRU, where it will be regasified and sent out to the metering facility and pipeline for delivery to Units 5&6 of the SJ Power Plant.

A 12" high pressure gas pipeline ("UP") is envisaged for natural gas supply to PREPA. 25 - 32 bar pressure gas at a temperature between 25-40 degrees Celsius natural gas will enter pipeline from regasification and gas metering facility.

The onshore topside installation will include the equipment and systems listed below:

LNG unloading system with necessary piping, manifolds, and hydraulic power racks for handling the LNG;

29

- Glycol/water heat exchange system;
- Seawater heat exchange system;
- Gas Metering/Reduction Station;
- Electricity supply and distribution system;
- Fire-fighting system;
- Nitrogen generation package; and
- Other auxiliary systems which include: water supply and sewages, ship-to-shore link, lighting, metocean station, berthing aid system, closed-circuit television ("CCTV").

The proposed LNG terminal with gas metering/reduction station ("GMS/GRS"), Pipelines and Jetty are intended to be managed by the Terminal Operator except possibly the FSU which may - where required be managed within the FSU Owner scope to operate and maintain the FSU.

Near the onshore regasification facility, a Metering System/Reduction system will be installed, in order to measure flow, verify natural gas quality and keep constant pressure and flow.

### viii. Onshore Pipeline:

The onshore pipeline leading to the delivery point at the SJ Power Plant will be approximately 2.0km. The user rights for the land corridor shall be acquired in cooperation with local municipal authorities and other authorities as required and leverage Puma Energy's unique access to rights of way into the SJ Power Plant.

- The pipeline will be buried underground near the shore, lead to the COD jetty infrastructure installation and subsequently cross PR-28 (Ave Central Juanita).
- From there the OP will be buried underground at the Puma operated oil terminal site PCA Dock leading to the intersection with Calle Portuaria.
- At this point, the pipeline will be installed under the road of Ave Central Juanita using an open excavation method and it will run out parallel with Calle Portuaria to PREPA's PP gate A.
- After entry to PREPA's premises, the pipeline will be installed on pipeline racks and reach CCGT 5&6 for further processing and feeding to CCGT's.

The onshore natural gas system includes the following equipment and systems: two (2) highpressure gas arms with necessary piping, manifolds, and hydraulic power racks for handling the high-pressure gas, blow down system, pipeline, and metering system.

The auxiliary utilities include: Fire-fighting system, gangway, electric system, water supply and sewages, ship-to-shore link, lighting, metocean station, berthing aid system, and CCTV.

The proposed LNG terminal with GMS/GRS, pipelines and jetty are intended to be managed within the terminal operator scope.

#### ix. Potential Operational Subcontractors

Below a list of potential operational subcontractors:

#### 1. Klaipedos Nafta

A specialized developer and operator of LNG import terminals around the world (Klaipeda LNG terminal, Cartagena LNG terminal, satellite LNG terminal in the Baltic, etc.) with established relationships with all FRSU owners and major LNG suppliers. Klaipedos Nafta own and operate the only true multi-user and multi service terminal in the world. KN have a proven capability to structure and deliver LNG terminal infrastructure including FSRUs, jetties and pipelines.

#### 2. Dreifa Energy

Dreifa Energy Limited ("Dreifa") offers medium-scale floating regasification solutions to new LNG markets and industrial consumers worldwide. Dreifa's solution offers attractive unit costs, short delivery schedule, short contract durations and optionality to terminate early or extend depending on actual LNG demand.

In 2016 Dreifa was founded by among others two of the former founders of FLEX LNG Limited. FLEX LNG is listed on the Oslo stock exchange with ticker FLNG.

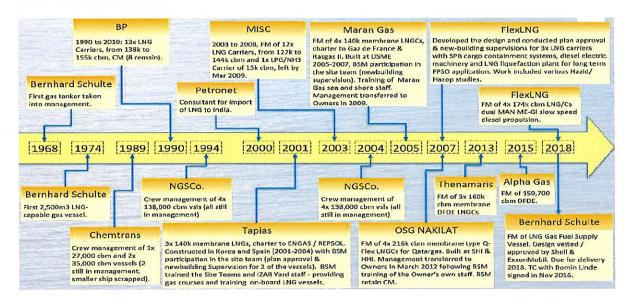
The company has experience in conversion engineering and expedited approval processing. Approval in principle from DNV GL, acquired the first conversion vessel and partnered with an industry leading LNG ship management firm.

### 3. <u>BSM</u>

The Bernhard Schulte Group of Hamburg has a history stretching over one hundred thirty (130) years in shipping, ship owning and maritime industries. BSM is part of the Schulte Group and is an integrated maritime solutions leader. Managing a fleet of 600 vessels, BSM's 20,000 employees globally enable it to deliver safe, reliable and efficient ship management services through a network of ten ship management, 24 crew service and five wholly owned maritime training centers across the world. Bernhard Schulte Group and BSM have owned & managed gas carriers for forty-five (45) years, and currently have over 25 LNG carriers on the books in addition to a large managed LPG fleet. Bernhard Schulte has a 175,000 m3 "Panamax" LNGC under construction for a long-term charter, and in December 2016 placed an order for a 7,500 m3 LNG Gas Supply Vessel. BSM's extensive in-house experience is underlined by the recent election of the Chief Operating Officer, David Furnival, as President of the Society of Gas Tanker & Terminal Operators (SIGTTO), while his colleague Chris Clucas is President of the Society for Gas as a Marine Fuel (SGMF).

31

#### **BSM LNG Experience:**



# 4. <u>PRONAV</u>

In the beginning of 2018, Schulte Group acquired Pronav Shipmanagement ("PRONAV"), a highly specialized ship manager exclusively managing large LNG Carriers for ship-owners. PRONAV has been involved in twenty (20) plus FSRU projects worldwide over the last 20 years as a ship manager and as technical consultant providing its extensive operational experience of handling LNG. PRONAV is accepted by energy majors such as ExxonMobil, Mitsu&Co. Ltd., Uniper and others as ship manager of FSRUs under long-term contracts. Similarly, asset holders of FSRU tonnage such as Excelerate and Flex LNG consider PRONAV as qualified for ship managing and crewing their FSRUs. Furthermore, PRONAV is exclusively working within a well proven partnership with in-house engineering consultant having broad experience in FSRU newbuilding projects and LNGC conversion project.

#### x. Terminal Implementation

A turnkey regasification plant with existing and proven technology from world leading suppliers can be secured in the shortest possible amount of time due to the consortium's previous cooperation with other power generation initiatives and performed procurement engineering.

Three (3) world leading shipyards in Singapore and China have been shortlisted for a final selection process for a turnkey contract for the conversion project. The Project execution risk is reduced through a robust technical concept, proven technology and suppliers and yard contract structure.

Puma and its subcontractors will be actively involved to ensure (i) safe and reliable design based on best practices from decades of experience; (ii) successful execution of the conversion project; and (iii) high quality operation of the Puma LNG Terminal.

Based on equipment with the longest lead items, the Puma LNG Terminal can be delivered in eighteen (18) to twenty-four (24) months from the FID.

#### xi. Operating and Maintenance

The terminal operator will be responsible for ensuring the fulfilment of the gas supply targets by maintaining the SJ Power Plant availability and responding to any issues that may prevent the transfer of re-gasified LNG from the FSU to onshore facilities.

The primary objective of the proposed operating and control system to be developed for the proposed LNG terminal system is to provide the basis for safe, reliable and efficient GMS/GRS, pipeline and jetty operation with an optimum of operations and maintenance personnel, consistent with current practices in the gas industry.

The scope covers:

- Common functionality of the entire Puma LNG terminal system;
- Control modes;
- Pipeline operation, based on station operation;
- Leak detection, batch/pig tracking, simulation, scheduling, etc.; and
- Gas quality and quantity measurement.

The LNG terminal shall be designed for base load and four (4) shifts operation. The SJ Power Plant will be monitored and controlled twenty-four (24) hours a day and thee hundred sixty-five (365) days a year. The intended operating regime for the immediate future will be base load, operating 8,320 to 8,500 hours per year equating to a typical annual availability of 95% to 97%.

The SJ Power Plant's normal start-up and shutdown will be initiated from the control room. The monitoring and control system is a Supervisory Control and Data Acquisition ("SCADA") System. The gas supply from FRU, metering units and other well control equipment will be monitored and operated primarily from the Distributed Control System ("DCS") in the main control room in GMS and only monitored in jetty control room. Each gas supply and metering unit shall also have the capability to be monitored and controlled via the control systems local to each unit. Main and auxiliary equipment on the jetty (firefighting equipment, diesel generators, quick release hooks etc.) will be operated primarily from the DCS in the jetty Cargo Control Room ("CCR") and locally to each unit. During operation, leak detection will be by continuous measurements of pressure and flow rates at the inlet and outlet of the stations and pipeline. If a leak is detected, an alarm is triggered. The SJ Power Plant will be automated to reduce the manual intervention required by operations staff.

The operations premise is based on minimum manning and as such, maintenance activities will likely be restricted to first line routine maintenance and any activity required to support initial equipment intervention. Maintenance of the LNG Terminal and any activity beyond the normal capacity of the maintenance team will be contracted to third party entities and vendors.

Offshore maintenance shall follow existing best practice campaign maintenance where effectiveness of offshore visits is maximized to make best use of jetty visits.

33

Exact maintenance requirements will be fully determined during detailed design when equipment technical specifications are mature with better information available to assess vendor maintenance requirements.

The maintenance plan is summarized as follows:

- Design-out maintenance by careful selection of equipment which is appropriate for the application and environment, and which embraces proven technology to minimize and reduce maintenance burden (*e.g.*, replacing conventional lighting with LED lighting etc.);
- Undertake the selection of maintenance strategies through a structured auditable technique (*e.g.*, Maintenance Strategy Review using Reliability Centered Maintenance to support the designed availability);
- Use of on-line condition monitoring for key equipment where it is demonstrably cost effective. Staff will be made competent and appropriate diagnostic tools will be provided to facilitate rapid fault finding and rectification;
- Maximize opportunistic maintenance during SJ Power Plant outages by appropriate planning and spare parts holding;
- Monitor system and equipment availability and reliability against design intent and to evaluate the effectiveness of that design, the equipment and the maintenance and operations activities;
- The designed availability, developed at facility conceptual design stage, will determine the criticality of certain equipment. Equipment criticality will be taken into account during the maintenance strategy selection. *See* **Table 8** below.

System	Sub-System	Maintenance Type							
Pipelines	Above ground	Risk Based Inspection, Corrosion monitoring							
		(Coupons, &							
Process & Utility Piping	Visual, Risk Based Inspection, Corrosion monitoring								
		(Coupons, & Sampling)							
	Valves	Leak Testing, (TSO Performance Standard), ESD							
		Function							
	Metering units	Visual, Condition Monitoring, Calibration							
Electrical Equipment	All Systems	Visual, Condition Monitoring, Thermal Imaging, Risk							
		Based Inspection, Duct Testing, Earth Loop							
Instrumentation	All Systems	Visual, Function Testing, Earth Loop Impedance, Ri							
t,		Based Inspection, Smart Technology							
Wellhead	Integrity	Valve Leak Testing (Performance Standard), Visual,							
864 124 yr - 50 120		Risk							

# Table 8. Maintenance Strategy

With the exception of equipment governed by frequencies set by statutory regulations, inspections will be reviewed using tools such as Risk Based Inspection ("RBI") to optimize the inspection

programs. The evaluation will be carried out based on experience, historical data and criticality to derive a cost-effective inspection frequency without compromising technical integrity.

#### xii. Gas Metering and Composition

The fiscal metering system is provided to measure gas supplied to PREPA ("Fiscal Gas Metering"). The function of the metering system is to measure the total volumetric throughput of gas, calculate the heating value and Wobbe index from the gas chromatograph.

Fiscal Gas Metering shall be provided on board the FRU or onshore. The gas metering shall comprise of the following:

- Two (2) independent flow measuring sensors (typically ultrasonic type);
- Two (2) independent temperature sensors sets;
- Two (2) independent pressure sensors sets;
- Two (2) independent flow & mass flow computers;
- Gas analyzing system, with probe (sampling system);
- In line gas chromatograph; and
- One (1) supervisor computer with operator station (located in main control room).

The design shall take into account the noise reduction to avoid interferences with the ultrasonic meter (*i.e.*, noise of the pressure reducing valve).

The Fiscal Gas Metering system will be established in accordance with the prevailing Gas Sales Agreement Specifications (the "<u>Gas Sales Agreement</u>"), and any relevant and applicable regulatory requirements.

All LNG loaded into a regasification terminal shall conform to the LNG specifications set forth in the Gas Sales Agreement. Similarly, all regasified gas produced by a regasification terminal shall conform to the regasified gas specifications set forth in the relevant Agreement.

The specifications for LNG and regasified gas specifications shall consist of various components and may include gross heating value, specific gravity, Wobbe index, hydrocarbon dew point, water dew point, H2S content, total Sulphur content and inert gas content.

Supplier shall use the range of LNG compositions shown in the following table as the basis for his/her proposal. The objective is for the Supplier's design to cover all of the likely sources of traded LNG cargoes. *See* **Table 9** below.

Component	Unit	Lean	Median	Rich
Methane (C1)	Mol%	97.76	92.30	87.2
Ethane (C2)	Mol%	2.10	6.10	6.50
Propane (C3)	Mol%	0.07	1.30	3.40
I-Butane (i-C4)	Mol%	0.04	0.1	1.00
n-Butane (n-C4)	Mol%	0.01	0.1	1.00
I-Pentane (i-C5)	Mol%	0	0	0.1
Nitrogen (N2)	Mol%	0.02	0.1	0.8
Total	Mol%	100	100	100
Molecular Weight	g/mol	16.38	17.36	18.90
Boiling emperature@ 1 atm	•C	-161.4	-161.0	-163.3
Liquid density@ 1 atm and BT	kg/m <sup>3</sup>	430.2	448.9	479.3
Gas density@ 1 atm and 0 °C	kg/m <sup>3</sup>	0.7308	0.7745	0.8433
Higher heating value*	kWh/m³	10.68	11.22	11.96
Lower heating value*	kWh/m <sup>3</sup>	9.62	10.13	10.81
Higher Wobbe Index*	kWh/m <sup>3</sup>	14.19	14.48	14.79
Lower Wobbe Index*	kWh/m <sup>3</sup>	12.79	13.07	13.38
Relative density		0.5655	0.5993	0.6521

#### Table 9. LNG Composition

\* - values calculated according to ISO 6976 (1995) with conditions 15/15 °C.

xiii. Operation and Maintenance Quality Assurance and Quality Control Plan

The proposed LNG Terminal operations will establish a quality management system based on ISO 9001 standard requirements. The operation and maintenance philosophy will be based on OCIMF requirements.

To ensure integrity of the terminal and associated marine facilities maintenance, an inspection system will be elaborated.

The system will ensure that procedures and processes are in place and will include:

- Routine inspections;
- Routine testing and calibration regimes;
- Scheduled maintenance;
- Identification of critical systems;
- Spare parts inventories;

36

- Record keeping;
- Unplanned maintenance, defect reporting and follow-up procedure;
- Structural surveys at defined frequency; and
- Reporting and management review requirements.

# xiv. Project Execution Plan and Timeline

After contract award, the proposed LNG terminal implementation will be split into two major development phases: procurement followed by the design/construction phase. *See* Exhibit 7.

## 1. Vessel Procurement and Delivery

There are several companies around the globe, who own and operate large scale LNG vessels that Puma has access to at the shortest possible notice. However, given the navigation restrictions in San Juan Bay, project specific vessels in the range of  $60,000 - 170,00 \text{ m}^3$  storage capacity will be obtained in the market.

The proposed LNG terminal has access to experienced LNG vessel owners that have already been approached to supply these project specific FSU options on a TCP basis suitable for this project on a new build or cargo conversion basis.

There are several shipyards around the globe, specializing in the design and construction of LNG vessels. The majority of these are located in South Korea, Singapore and China and are likely to be used for vessel design and build where required.

Fast track solutions are available for chartering to Puma, however final alignments with the PRPA have to be made and navigation conditions approved, also necessary refurbishment of vessel equipment to adjust it to project specific requirements of storage and send out have to be made. This fast track solution will allow Puma to employ a candidate vessel within a timeframe of between six (6) to thirteen (13) months from award, allowing for the project to be operational by within the year 2020.

#### 2. EPC Design and Build Procurement

The Gulf of Mexico region and the Caribbean Sea is very active in the oil and gas industry. The concentration of oil and gas EPC companies is dense in this area and local companies have rich experience databases in order to design and build site specific oil and gas infrastructure.

The Puma Dock was built and has been operational by Puma in San Juan Bay for many years and several modifications have successfully been made to the jetty. Site specific database have collected during all developments and operations in the Bay with navigational, environmental studies performed.

With this unique rich database, Puma envisages to employ an EPC contractor for the full scope to design and construct the proposed LNG jetty, topside installations, regasification units and pipeline up to CCGT units.

Two (2) to three (3) months are envisaged for the procurement process of this EPC contractor in order to align: necessary investigations, final permitting requirements, rights of way, site and construction activities.

The investigation design and permitting phase will take up to six (6) months and will run in parallel. Another six (6) to twelve (12) months is planned for civil construction and topside equipment installation. Total envisaged implementation time is estimated up to at between eighteen (18) to twenty-four (24) months from award with infrastructure commissioning for vessel berthing and LNG regasification by the year 2021.

A fast track solution is feasible to Puma given Puma's ability to order long lead items in advance and to obtain necessary long-lead items and equipment from the market at shorter notice given our strategic partnerships. Therefore, Puma envisages the potential to deliver Commercial Operation Date (COD) of the proposed LNG terminal by year 2021.

#### xv. Supply

Supplier shall provide to Puma the exclusive supply of LNG at the outboard flange of the FSU (the "LNG Supply"). *See* Exhibit 5 – Supplier Letter of Intent.

# 1. Source(s) of LNG supply

Puma will obtain its LNG supply from Supplier, the world's largest independent LNG trader having delivered 8.2 million tons of LNG in the last financial year. Supplier has been the largest LNG supplier to Egypt from 2015 to 2017, Argentina (2016-2017) and Mexico (2014-2017) in addition to being the largest re-loader of LNG in the world during 2015 and 2016. Supplier is on track to deliver 10 million tons for this financial year.

In addition to this, Supplier holds agreements for long-term LNG offtake from the USA and the Middle East. Such agreements start from 2019 and are unconditional. This makes Supplier, not only a leader in the realm of LNG trading business, but also an established long-term player in the LNG industry and for Puerto Rico.

Supplier also has extensive experience of supplying both private and public-sector clients in the region.

- 1. PLTL (Government of Pakistan)
  - a. Provision of floating regasification infrastructure in the port of Ben Qasim, inclusive of design, procurement, installation and operations of a Floating Storage and Regasification Unit, berth and pipeline tie in to the national grid. Project began commercial operations in January 2018 for a period of 15 years.
  - b. Project has been tested to a maximum of 750mmscf/d (well in excess of the 600mmscf/d required by the client) and has operated within all defined metrics (availability etc) since start of commercial operations.
  - c. Letters of recommendation available upon request and subject to signature of binding confidentiality.
- 2. EGAS (Government of Egypt)
  - a. Trafigura has been the largest supplier of LNG to Egypt from 2015-2017

38

- 3. CFE (Government of Mexico)
  - a. Trafigura has been the largest spot supplier of LNG to Mexico from 2014-2017
- 4. ENARSA (Government of Argentina)
  - a. Trafigura has been the largest supplier of LNG to Argentina from 2016-2017

Supplier has access to a diverse portfolio of LNG supplies over various tenures to support the growth of its LNG business which when combined with its storage positions in Kochi and Singapore and significant activity in the spot market provides both supply security and flexibility to manage customers' requirements.

Supplier has emerged as a long-term time charterer of LNG vessels. *See* Figure 10 and 11 below.

Figure 10. Supplier's LNG Diversified Fleet

# long-term control over a diversified fleet:

#	'16-'17	<b>'18-'20</b>	'21-'24	'25-'30			
MEGI	0	1	1	1			
TFDE	FDE 8 3		3	3			
Steam	0	4	4	3			
Total	8	8	8	7			

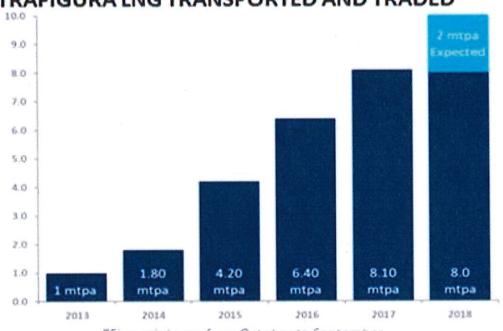


Figure 11. Supplier's LNG Transported and Traded

TRAFIGURA LNG TRANSPORTED AND TRADED

In addition to LNG trading, Supplier has an active global LNG infrastructure business whereby it develops fast track and economical LNG importation solutions for its customers and in order to open new markets. Supplier has control of a FSRU which enables LNG import and can be deployed in twelve (12) months. Moreover, Supplier has access to various smaller scale regasification solutions which provide a fast track mechanism to import smaller volumes of LNG and can be ideal for power generation requirements. As of today, Supplier is developing such solutions in the United Kingdom, Pakistan and Argentina and other locations globally.

Supplier has vast engagements and/or experience with private and public-sector clients related to LNG supply. The Government of Pakistan is one of Supplier public sector clients. One example is the development of a second floating LNG import project which included the provision of floating regasification infrastructure in the port of Ben Qasim, inclusive of design, procurement, installation and operations of a FSRU, berth and pipeline tie in to the national grid. The referenced project began commercial operations in January 2018 for a period of fifteen (15) years. Moreover, the referenced project has been tested to a maximum of 750mmscf/d (well in excess of the 600mmscf/d required by the client) and has operated within all defined metrics (availability etc) since start of commercial operations. For the referenced project, Supplier implemented international best practice with regards to the operation and construction of floating LNG regasification terminals. Letters of recommendation from Supplier clients are available upon request subject to the signing of a binding confidential agreement.

In addition, Supplier is one of the top three (3) global independent commodities traders and has moved over 256 million tons of oil and petroleum products in 2017 along with 15.3 million tons

<sup>&</sup>quot;Financial year from October to September

of metals and 54.6 million tons of minerals. Its group revenue exceeded \$136 billion in 2017 and with assets in excess of \$48 billion. Thus, Supplier is the world largest independent LNG trader having delivered 8.2 million tons of LNG in the last financial year. It has been the largest LNG supplier to Egypt (2015 to 2017), Argentina (2016 to 2017) and Mexico (2014 to 2017) in addition to being the largest re-loader of LNG in the world during 2015 and 2016. Supplier is on track to deliver 10 million tons for this financial year.

Supplier also holds agreements for long-term LNG offtake from the USA and the Middle East. Such agreements commence on the year 2019 and are unconditional. This makes Supplier, not only a leader in the realm of LNG trading business, but also an established long-term player in the LNG industry. Supplier also has access to a diverse portfolio of LNG supplies over various tenures to support the growth of its LNG business which when combined with its storage positions in Kochi and Singapore and significant activity in the spot market provides both supply security and flexibility to manage customer requirements. In light of the foregoing, Supplier's exclusive supply of LNG to Puma will compliance with PREPA's requested LNG supply to the SJ Power Plant as part of the Project.

#### b. LPG Supply Option

# i. Introduction

Puma owns and operates LPG storage and distribution networks in strategic locations across the world and works closely with leading traders in the rapidly changing LPG market tailoring cargo specifications to suit a wide range of customers, from power generation conglomerates to petrochemical consumers and blenders. Puma also has access to most of the non-U.S. sourced product in the Americas. More specifically, Puma has access to a Very Large Gas Carrier ("VLGC") Floating Storage Unit ("FSU") (575kb vessel) in Aruba and leverages off the largest LPG supply system into the Caribbean and Latin American markets, allowing for additional supply and discharge options and flexibility at all times in case required.

Puma's global presence and very strong logistical system support our supply activities. Effective vessel rotations, high-traded volumes, and rapid decision making allow us to prioritize clients' requirements and respond quickly to changing market conditions. Thus, Puma has a strong interest and is in a strong position to supply LPG for the SJ Power Plant Units 5&6 in Puerto Rico.

Figure 12. Puma's Global Supply Network

# Global supply network

We have a unique, integrated asset base



ii. Puma Existing LPG Footprint:

Puma already owns and operates 100,000 bbls of propane storage in its Bayamon Terminal. If necessary, Puma could increase the capacity of that storage in its Bayamon Terminal. Puma has previous experience in obtaining the necessary permits to increase its LPG storage during its last expansion.

In addition to its in-land storage capacity, Puma envisages operating a Medium Gas Carrier ("MGC") or VLGC ship as floating storage in San Juan Bay. Puma will perform dredging where required to allow for the receiving capacity of the VLGC FSU option at to be maximized at near 575kb but an MGC or partially laden VLGC can be accommodated immediately.



Figure 13. Puma's Proposed Floating Storage San Juan Bay

Puma's total receiving capacity will therefore amount to between 355,000 - 675,000 bbls (Puma Bayamon Terminal LPG storage capacity plus MGC or VLGC FSU storage capacity) and with the possibility of a higher receiving capacity in future should incremental in-land storage be built on the Bayamon Terminal.

#### iii. Conceptual Supply Chain Logistics:

Puma's proposal for the supply of LPG as follows:

### **Offshore Supply Chain:**

- 1. Base case LPG barrels load into a vessel under long-term contract, V1 (Puma leverages off one of largest global supply footprints with alternative sources in Mediterranean, West Africa and Trinidad).
- 2. V1 sails to San Juan with a minimum of 2-weeks' worth of Propane supply onboard for the Proposal.
- 3. Another vessel (Floating Storage Unit MGC or VLGC FSU) under long-term contract sits moored and hooked up to a suitable dock in San Juan Bay.
- 4. V1 swaps position with depleted MGC or VLGC FSU and hooks up to this suitable Dock to commence discharge operations. Depleted FSU sails back to load port.

- 5. 1-4 repeat at optimized intervals to ensure continuous supply operations and complete supply reliability for the Proposal.
- 6. Puma has access to a VLGC FSU (575kb vessel) in Aruba and leverages off the largest LPG supply system into the Caribbean and Latin American markets, allowing for additional supply and discharge options and flexibility at all times in case required.

#### **Onshore Supply Chain:**

- 1. Puma has 100K barrels LPG storage in Bayamón.
- 2. SJ56 RFP LPG Supply needs approximately 590K barrels/month.
- 3. Puma to maintain seven (7) working days of inventory in-tank or offshore (MGC or VLGC FSU) at all times.
- 4. In the unlikely event of an unforeseen LPG supply chain disruption, diesel or No. 2 Fuel Oil can temporarily be used by Puma as a backup fuel for the Proposal to ensure continuous operations at all times via leveraging Puma's existing No. 2 Fuel Oil and diesel logistics footprint on the island and as requested in the RFP.

#### **Timeline Indication:**

Puma will be able to deliver an expedited supply given the flexibility offered by our unique existing infrastructure position in Bayamón and a floating storage option.

Puma will build the following infrastructure:

a) Pipelines connecting PUMA's dock, PUMA's Bayamon Terminal, the Shed A/B dock, PREPA's facilities and other locations where required.

b) Vaporizers (Puma has these immediately ready for deployment).

c) Control systems.

d) Safety Equipment, including but not limited to monitoring and control systems, firefighting equipment, etc.

In addition to the above described infrastructure, Puma will also finance the following:

a) Commission an independent safety, loss prevention, and hazardous environment inspection and upgrade of the plant to comply with all safety recommendations from the independent inspector and applicable codes.

b) Conversion of the turbines to have the capacity to operate on multiple fuels, including but not limited to propane. Such conversion to be performed according with technical specifications to be provided by Mitsubishi.

Consumption volumes and all other terms and conditions will be as per the RFP instructions.

#### iv. Source of LPG Supply:

The Proponents LPG supply will be provided by Supplier, who currently owns/controls several ships, vessels or major equipment necessary to execute the proposed project as scheduled including initial fuel delivery. *See* Exhibit 6 - Supplier Letter of Intent. Supplier produces its own LPG in its LPG terminal located in Corpus Christi, Texas. The terminal has a capacity to export more than 3MM bbls per month, in all fully refrigerated, semi-refrigerated and pressurized conditions. Moreover, Supplier has supply agreements with Southcross and Phoenix Park Gas Processors Ltd and Targa Resources of 670,000 -1mm bbls per month.

#### Supplier's Fleet Profile:

- 1. Supporting the contracting of 4x80,000 cbm Panamax VLGC's against long term bareboat contracts with Supplier's sole option to purchase;
- 2. A seven (7) year Bareboat contract on 1x35,000 cbm MGC vessel with Supplier's sole option to purchase;
- 3. 7 VLGC's on periods of between 6 months 3 years trading Supplier and 3rd party cargo;
- 4. 4-6 MGC vessel on periods between 3 months 2 years trading Supplier system cargos in the Caribbean/South America and West Africa; and
- 5. 1-3 Pressure vessels at any time trading West Africa / N.W.E and the Caribbean.

Ships/Vessels owned/controlled by Supplier:

- 1. Newbuildings: Matterhorn Explorer / Eiger Explorer / Huyndai Samho Hull 8019 / Huyndai Samho Hull 8020;
- 2. VLGC: Hellas Fos / Pacific Dongying / Gas Gemini / BW Confidence / Fritzi N / BW Tokyo / G.Symphony;
- 3. MGC: Jungfrau Explorer / Waregem / Warisolux / Kortrijk / Bakken Lady (short term) / Telendos (short term); and
- 4. Pressure Ship: Epic Shikoku / Epic Bird (short term).

For the final price structure please see <u>Section 3</u> of this Proposal.

Supplier also has extensive experience of supplying both private and public-sector clients in the region.

- 1. Petroleos Mexicanos, in Mexico: More than 150,000 bbls per month.
- 2. Western Energy, in El Salvador: More than 225,000 bbls per month.
- 3. Lipigas in Chile: More than 330,000bbls per month.
- 4. Puma Energy in Puerto Rico: More than 15,000 bbls per month.
- 5. Rubis: 70,000 bbls per month.

The Proponent acknowledges that, if selected, it has the ability to respond with sufficient key and line staff and the proposed Key Individuals listed below and *see* Attachment 5 – Subcontractor Letters and CV's.

# NEXT SECTION CONTAINS CONFIDENTIAL INFORMATION AND/OR FOR ILLUSTRATION PURPOSES ONLY

# DO NOT DISCLOSE

be liable only for the difference between the Contract Price and the price achieved (inclusive of all additional transportation, hedging, operational and other costs) multiplied by the ACQ volume not taken.

# END OF CONFIDENTIAL SECTION

#### 4. COMMITMENT TO COMPLYING WITH ALL APPLICABLE FEDERAL AND PUERTO RICO LOCAL PERMITS AND REGULATIONS

#### a. Permitting

Puma is committed to delivering a power generation solution that meets and exceeds all issues related to environmental impact and comply with any and all applicable local, state and federal statutes and regulations. Moreover, Puma is committed with obtaining all necessary, relevant and applicable Permits for the Proposal including but not limited to those issued by USCG, PRPA, Public Service Commission ("PSC"), Department of Natural and Environmental Resources ("DNER"), National Oceanic and Atmospheric Administration ("NOAA"), Puerto Rico Environmental Quality Board ("PREQB"), US Environmental Protection Agency ("EPA"), Federal Energy Regulatory Commission ("FERC"), US National Fish and Wildlife Service ("USFWS"), and any other relevant local, state and federal agencies. *See* Exhibit 7 - Permitting Gantt Chart.

Leveraging Puma's existing, industrial-zoned Bayamón Terminal footprint substantially negates the need to find a new location for incremental storage in the case of LPG, eliminates the need to acquire wetlands or undeveloped land on which to build supporting infrastructure, and removes any concern of possible environmental impacts. Few, if any, proposed solutions have that same benefit.

The Proposal will offer a highly efficient and stable power generation with cleaner emissions, a solid health and safety record, and cost savings that benefit the island while meeting the environmental compliance requirements of the EPA and the PREQB.

Puma has actively engaged in communications with the PRPA to discuss the proposed LPG and LNG terminal and supply options related to the use/operation of existing docks located in the San Juan Bay, adjacent to the existing Puma Dock. Any authorization or approval from PRPA will be requested as part of the permitting process.

#### b. Jones Act Compliance

Under the Merchant Marine Act of 1920, commonly known as the Jones Act, the shipment of goods, including LPG and LNG, between two (2) US ports must be carried out on US-flagged vessels, built in the US and operated by a US crew. Currently, there are no US-flagged LPG and LNG vessels, thus prohibiting any shipments of LPG and LNG from the mainland directly to Puerto Rico. Instead, Puma receives LPG and plans to receive LNG from foreign vessels in compliance with the Jones Act. Puma has been importing products to Puerto Rico for approximately ten (10) years and thus, has been and will continue to be in compliance with the Jones Act regarding the importation of LPG and LNG to Puerto Rico.

#### 5. LOCAL PARTIES

#### a. Construction period jobs

The power generation options proposed by Puma will create sustainable 80 to 100 direct and 200 to 300 indirect construction jobs that will drive economic development throughout the Bayamón region and across Puerto Rico. Puma will rely on Puerto Rican labor to complete the construction phases of the Proposed Project. Puma will provide training for numerous highly qualified positions and Puerto Rican subcontractors will be relied upon for all phases of the project.

#### b. Operating period jobs

The power generation options proposed by Puma will create sustainable direct and indirect jobs over the between 2 to 20-year operational period to drive economic development throughout the Bayamón region and across Puerto Rico. Puma will rely on Puerto Rican labor to complete both the construction and operations phases of the project.

Both entities will provide training and direct employment for 30 to 50 highly qualified positions and expect to indirectly employ 100 to 150 personnel throughout Puerto Rico. This is based upon a single point in time and can be multiplied by four over the course of a 20-year operational period (120 to 200 direct jobs and 400 to 600 indirect jobs.)

The broader impact of this proposed power generation solution will be realized through indirect investment in the region due to grid stability and reliable power, as infrastructural stability is widely recognized as a key driver of economic growth. Puma Energy Caribe is committed to creating a strong foundation for Puerto Rico's economic growth, immediately and for years to come.

#### 6. CONFIDENTIALITY OF RESPONSES AND PROPRIETARY INFORMATION

Puma will present a redacted version of the Proposal in accordance with the requirements of Section 1.3 and 5 of the RFP.

#### 7. CONFLICTS OF INTEREST

The Proponent does not have any current and/or former advisory contracts with any government entity in Puerto Rico, or which bear any direct or indirect relation to the activities of the Government of Puerto Rico. Thus, the Proponent is not required to provide a list of such contracts. Moreover, the Proponent, to the best of its knowledge, does not have any recent, historical and/or ongoing legal proceedings, interviews and/or investigations being conducted by any US law enforcement agencies involving the Proponent that are related to transactions executed in and/or on behalf of the Government of Puerto Rico and/or any of its public corporations. Thus, the Proponent is not required to provide a description of such legal proceedings, interviews or investigations. Finally, the Proponent has not performed any work for any creditors and/or guarantors of the Government of Puerto Rico and/or any of its public corporations' debt related to

54

their position in the Puerto Rico debt obligations. Thus, the Proponent is not required to provide a description of such work.

See <u>Exhibit 8</u>-Sworn Statement on Non- Conflict of Interest (Annual Renewal); <u>Exhibit 9</u> - Sworn Statement on Prohibition Against Awarding Bid or Contract to Juridical Person Convicted of Felonies or Misdemeanors; and <u>Exhibit 10</u> - Sworn Statement Act 458.



Exhibit 1	Customer Recommendation Letters.
Exhibit 2	KN's Key Members Curriculum Vitae (CV).
Exhibit 3	KN's Capabilities Statement.
Exhibit 4	Proposal of Mitsubishi to perform scope of conversion of San Juan 5 and 6 and Offer Letter.
Exhibit 5	Supplier's Letter of Intent for LNG.
Exhibit 6	Supplier's Letter of Intent for LPG.
Exhibit 7	Project Schedule with permitting path and permit request/approval matrix.
Exhibit 8	Sworn Statement Conflict of Interest.
Exhibit 9	Sworn Statement on Prohibition Against Awarding Bid of Contracts to Judicial Person Convicted of Felonies or Misdemeanours.
Exhibit 10	Sworn Statement Conflict of Interest Act 458.
Attachment 1	Request for Proposals 81412 from PREPA
Attachment 2	Ownership Structure.
Attachment 3	Audited Financial Statements for the most recent three (3) fiscal years, certified by certified public accountant in accordance with generally accepted accounting principles.
Attachment 4	Letter from Bonding Company.
Attachment 5	Commitment Letter from Insurance Company.
Attachment 6	Subcontractor Letters and CV's.
Attachment 7	Fuel Sale and Purchase Agreement ("Agreement") and List of Comments to Agreement.

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# Attachment I Price Proposal Form Rates

Proponents Name: SeaOne Caribbean, L.L.C.

Price Proposal Component #1:

Fixed Annual Capacity Payment

\$6,427,000/year

Price Proposal Component #2:

Unit Fuel Cost:

Annual Consumption Rate (MMBTU/yr)

Based on an estimated volume of 72,000 MMBtu per day

Unit Cost (\$/MMBTU)

\$8.32/MMBtu, All-in, fully delivered natural gas – 10 year term
\$8.07/MMBtu, All-in, fully delivered natural gas – 20 year term
\$9.00/MMBtu, All-in, fully delivered natural gas – 23 year term

Price Proposal Component #3:

The SeaOne proposal is flat pricing for the term of delivery and does not include any escalation on any component.

Price Proposal Component #4: proponents should provide key terms and conditions for priced proposal.

The numbers above are based on the following assumptions and terms:

1. The annual capacity payment is for 5 years only to cover the San Juan conversion capital cost.

2. 10 year term with the option to extend two additional terms as outlined in the proposal.

3. The commodity portion is based on the forward curve for NYMEX.

4. All pricing is indicative and subject to execution of binding agreements by each company's respective duly authorized executive management.



# Executive Summary SeaOne Natural Gas Supply Proposal for RFP 81412 Conversion of San Juan Units 5 & 6 September 24, 2018

SeaOne and our local partner, San Juan Gas Company, appreciate the opportunity to provide this Proposal to Puerto Rico Electric Power Authority (PREPA) in response to the RFP #81412.

SeaOne offers a competitive approach for long-term sourcing of Natural Gas and Propane from the U.S., with many benefits in terms of supply availability, low pricing, customized pricing structures, delivery flexibility, reliability, and willingness to transact.

In summary, SeaOne is proposing to put in place the following for Puerto Rico:

(1) Through San Juan Gas Company, develop a bridge fuel solution utilizing propane to fuel the converted San Juan Units 5 & 6 as quickly as possible to propane fuel. This includes all storage, buffering and transportation necessary to convert the units to clean burning fuel as quickly as possible.

(2) Contract directly with Mitsubishi-Hitachi Power systems to perform all the necessary scope of work for the full conversion of the facility, including all necessary permitting, engineering, design, installation and testing to convert the facility first to propane, then to natural gas. This will allow PREPA to discontinue the use of diesel in San Juan as early as Q1 2019.

(3) Deliver natural gas from the U.S. market at the most economic price available in a flexible scalable product to allow for the conversion of San Juan Units 5 & 6 as well as any other facility PREPA chooses to eventually be converted to natural gas.

The proposal is the <u>quickest and lowest cost way</u> to (1) reduce emissions in San Juan, (2) reduce fuel cost by replacing diesel with natural gas and propane, and (3) provide a platform that can easily be expanded in scope to provide natural gas and propane to other generating facilities throughout the island.

SeaOne has significant experience working with electric generators, industrials and governmental entities and understands their needs and requirements therefore enabling SeaOne to provide an offer that can be customized to work well for these types of fuel needs. SeaOne's Caribbean fuel supply project is #5 on President Trump's Top 50 Infrastructure Projects and was voted the #1 Infrastructure Project in Latin America by the CG-LA based on the unique product we offer along with the quality of management and customer friendly business structure.

# Table of Contents

The SeaOne Overview
Mitsubishi Power Conversion4
Phase 1 - Bridge Fuel Proposal4
Phase 2 - SeaOne Long Term Natural Gas Pricing Proposal
Expansion capacity7
Fuel Flexibility
Jones Act9
Transportation of Natural Gas and LPG's to San Juan, Puerto Rico9
Experience
Construction Schedule
Conclusion
Figure 1 – Articulated Tug / Barge
Figure 2 – Terminal Layout
Attachment I Price Proposal Form Rates

#### The SeaOne Overview

SeaOne is a subsidiary of SeaOne Holdings L.L.C. and is responsible for the commercial arrangements for the delivery of gas and LPG's to customers in the Caribbean. SeaOne economically transports gas and propane (or any LPG/NGL combination) in the same cargo. The process simply combines natural gas and any NGL combination, usually propane or LPGs, at -40 degrees F and pressurized to 1,440 PSI. At this combination of temperature and pressure natural gas will combine with propane to form SeaOne's Compressed Gas Liquids "CGL<sup>®</sup>" product that in other common situations industrywide would be viewed as "wet" gas. The temperature is industry standard for refrigerating NGL and the pressure is a common pressure used in natural gas transportation pipelines. This allows for the use of standard materials and helps reduce the cost of production and transport of the product.

The underlying process is basic gas processing technology in use for decades at thousands of locations and applications. SeaOne has identified an optimal set of operating parameters that provides the most efficient commercial capability for transport of gas and NGLs/LPGs with the enhanced reliability that results from the utilization of long-proven off-the-shelf equipment, piping and controls. There are no cryogenic or exotic materials or equipment in SeaOne's design. SeaOne has 26 patents worldwide for this process.

The gas and propane/LPGs will be processed, loaded, and shipped from the Port of Gulfport Mississippi on an Articulated Tug Barge (ATB), see Figure 1. SeaOne's facility at the port is located in an area that has access to multiple interstate pipelines for natural gas, allowing PREPA to purchase directly from US producers in a region that transports over 8 BCF of natural gas per day and has access to all major supply basins in the U.S, see Figures 2 and 3. The U.S. gas market is forecasted to be in surplus for an extended period due to continued expansion of shale resources and the associated gas that results from the increased oil exploration. The U.S. market is one of the most abundant and economical sources of energy available in the world.

In addition to the abundant natural gas market, there will also be a connection to the Dixie Pipeline and Hattiesburg Storage for NGL's. This will also provide direct access to multiple NGL producers in the area.

Upon arrival in San Juan, the CGL is fractionated using standard gas processing equipment to separate and send out in real time the desired quantities and/or combinations of gas and LPGs specified. The SeaOne barge remains on site and serves as storage, allowing flexible fuel deliveries that match your generator schedules.

SeaOne has executed a 40 year lease with the Port Authority in Gulfport for the processing and export facility. Initial orders for pipe have been placed and initial discussions with EPC contractors for the facility are underway. SeaOne has executed a Letter of Intent with Samsung Heavy Industries Company for articulated tug and barges for the Caribbean deliveries.

This fuel delivery platform provides significant advantages for PREPA:

- 1. Access to abundant low cost natural gas in the U. S. Market, current 10 year terms are less than \$3.00/MMBtu
- 2. Flexible delivery and storage SeaOne tariff for transport is structured to provide both transport and storage under the same agreement,
- 3. Flexible operations that allow for gas deliveries to match any flexible generation profile.
- 4. Ability to hedge under any multiple varieties of commodity structures to cost effectively manage price risk and provide as much delivery flexibility as possible.
- 5. Flexible fuel supply will allow for more dynamic system operations which will support a broader integration of renewables, helping to continue the transformation of PREPA's generation fleet.

#### Mitsubishi Power Conversion

SeaOne will fund the conversion project for the San Juan Units 5 & 6. Based on the current draft proposal with Mitsubishi Hitachi Power Systems for years 1 thru 5 of the contract, beginning with first fuel deliveries to San Juan, the monthly capacity charge would be \$1.34/kW-mo based on a capacity volume of 400 MW.

#### Phase 1 - Bridge Fuel Proposal

SeaOne has entered into an agreement with the San Juan Gas Company (SJGC) to provide a bridge fuel solution of propane to the San Juan facility. PREPA will be able to realize cost savings as soon as Mitsubishi is able to complete the necessary work on San Juan Units 5 & 6 and at the same time, significantly lowering emissions in the San Juan area. SJGC has been providing reliable premium customer service for propane fuels to the San Juan area for over 67 years.

SJGC intends to purchase propane and deliver it to their gas storage facility in Miramar where they will install 5.2 Million gallons of ISO tank storage. From this facility, an 8" pipeline will be constructed connecting the storage facility to the San Juan power plant. The route will utilize existing ROW currently under control of SJGC along Highway 1 and Highway 2.

In the event there are any delays in permitting or construction, the SJGC has an existing fleet of trucks and alternative storage facilities from which to serve PREPA. This resilient and proven supply network ensures that the conversion of San Juan 5 & 6 can occur as soon as the technical work on the turbines is complete, bringing benefits to PREPA in the quickest and most reliable manner possible.

The major advantage that bridging fuel with SJGC is the secure deliverability from multiple storage facilities, offering a more secure and stable supply network from which to supply PREPA in the most expedient manner possible. SJGC has available in current storage facilities the following volumes:

٠	Peñuelas	12 Million gallons
•	Ponce	1 Million gallons
•	Corco	1 Million gallons

Bayamon500,000 gallons

SJGC brings a wealth of project management experience for new installations in the San Juan area. This will ensure effective permitting, design and installation of upgrades to an existing and resilient pipeline network, ultimately providing an even more reliable source of propane with both pipeline and trucking redundancy and deliverability to Units 5 & 6 for one of the most secure supply options available.

The bridge fuel portion including all necessary costs of installing pipelines and equipment will be priced as follows:

The OPIS average quotations as published in Oil Price Information Service ("OPIS") for Propane under the heading "Any Current Month" average, with pricing date to be around Bill of Lading (B/L) date (3 Days Average: B/L +/-1 Day around Notice of Readiness (NOR) date, plus US\$0.20 per Gallon.

The current market estimate for the delivered product, including all necessary capital installation, for three years is \$11.88/MMBtu.

Based on a capacity factor of 50% and the estimate of \$16/MMBtu used by PREPA, this pricing structure in 2017 would have yielded savings in excess of \$63 Million in a single year without any capital outlay from PREPA. Based on the current three year forecast for propane the annual savings would be over \$47 Million per year.

Phase 2 - SeaOne Long Term Natural Gas Pricing Proposal

The single greatest advantage SeaOne brings to customers is its ability to offer a flat fee for transport only, along with a separate commodity pricing portion of the delivered fuel. This allows the customer to procure the commodity according to his scheduled needs and to receive the commodity under flexible supply plans to accommodate daily operational and budgetary needs.

The fixed portion of the fee is priced on a volumetric rate to be applied to the level of transport capacity of 72,000 MPCD for San Juan 5 & 6. The fee is flat for the entire term of the contract with zero escalation. This includes not only transport but storage as well. PREPA may store the product for as long as needed and use based on its generation needs. SeaOne outline three basic pricing proposals below:

# Alternative One

· 영향, 신왕 (1		Estimated			
Tours	Transport	Commodity <sup>1</sup>	<b>Total Price</b>		
Term	(\$/MPC)	(\$/MMBtu)	(\$/MMBtu)		
Years 1-10	\$5.50	\$2.82	\$8.32		

Note 1: Estimated Commodity based on average of CME NYMEX settlement prices quoted September 13, 2018 from October 2018 thru December 2030 at the following website: <a href="https://www.cmegroup.com/trading/energy/natural-gas/natural-

The transport fee calculation would be as follows:

Transport = 72,000 thousand cubic feet per day x 5.50 per thousand standard cubic feet = 396,000/day

The commodity can be purchased in a variety of ways to allow for operational flexibility. The current price of natural gas in the U.S. can easily be purchased for under \$3.00/MMbtu.

PREPA has the ability to extend the service for two separate, additional 5 year terms, at the same terms and conditions as the 10 year offer.

# Alternative Two

A sale is di		Estimated			
Term	Transport (\$/MPC)	Commodity <sup>1</sup> (\$/MMBtu)	Total Price (\$/MMBtu)		
Years 1-20	\$5.25	\$2.82	\$8.07		

The U.S. gas market is capable of offering hedge products to provide price protection in a very cost effective manner for terms out to 20 years.

# Alternative Three

SeaOne is offering a third alternative of one flat price for the entire 20 year term of the natural gas supply and also include the three year term for the for the Bridge fuel period. The flat price for the delivered product of both bridge propane for years 1 thru 3 and then followed by a natural gas supply for years 4-23 would be as follows:

	a la stati	Estimated			
Term	Transport (\$/MPC)	Commodity <sup>1</sup> (\$/MMBtu)	Total Price (\$/MMBtu)		
Years 1-23	\$6.18	2.82	\$9.00		

By separating out the two components, transport and commodity, it allows PREPA complete flexibility in how they structure the pricing and volumes for the commodity. In the liquid U.S. market there is an unlimited variety of hedging options available to provide economic price protection as well as physical flexibility in the delivery of the commodity.

The estimated fuel savings compared to current diesel supplies is well *over \$175 Million* per year for San Juan 5 & 6 for just the 10 year option. The SeaOne platform is capable of easily being expanded to include additional units at Palo Seco and San Juan as well as other generation facilities.

SeaOne has financial capacity to fund additional conversions and or expansions to other sites. The capital required for the additional costs can easily be included in a tariff and amortized over the term of the agreement.

Using SeaOne's service, by procuring directly in the U.S. Market, natural gas and LPG's, PREPA will soon be able to safely purchase fuels with the confidence that they will no longer be subject to market price volatility with no means to hedge long term or face threats from foreign markets that place price pressure on LNG and fuel oil.

#### Expansion capacity

Another significant advantage of SeaOne is the ability to easily expand volumes of natural gas for delivery into other units at San Juan as well as deliver to Palo Seco for either unit conversions or new generation units at that site as well. The barges to be used hold volumes of up to 400,000 MCF, which can easily fuel additional incremental generation conversions. Accounting for San Juan Units 5 & 6, there is easily enough capacity available to fuel an additional 1,000 MW's of conversions at San Juan or Palo Seco alone.

The added benefit of SeaOne is the platform is easily scaled up to match additional requirements at other locations. Incremental barges could easily be shipped directly or from San Juan to fuel conversions at Mayagüez, Cambalache and/or Aguirre in whatever volumes and delivery schedule is necessary. The ATB barges are extremely flexible and only draft 8 meters allowing them to take advantage of available delivery options at local plants or make only minor improvements.

There are significant savings for delivered fuel from expanding the SeaOne platform to additional generation facilities. When comparing the price of delivered SeaOne natural gas to fuel oil and diesel, the spark spread savings would average \$58/MWh.

Average Spark Spread Savings Potential with SeaOne

7

	212724	LUL S IN	1.100	1997 (P)	- 50	671	D)P	1000		Spark	13.000	10	1.16
Unit	Capacity	Heat Rate	Fuel	Cost (1)	Si	aOne	Fun	el Delta		Spread	Wtd Avg	S	/MWh
Aguirre 1 ST	450	9,600	No. 6	\$ 12.00	\$	8.07	\$	3.93	\$	37.73	17%	\$	6.4
Aguirre 2 ST	450	9,700	No. 6	\$ 12.00	\$	8.07	\$	3.93	\$	38.12	17%	\$	6.5
Pala Seco 3 S⊺	216	9,725	No. 6	\$ 12.00	\$	8.07	\$	3.93	\$	38.22	8%	\$	3.13
Palo Seco 4 ST	216	9,725	No. 6	\$ 12.00	\$	8.07	\$	3.93	\$	38.22	8%	\$	3.13
San Juan <b>7 S</b> ⊺	100	10,497	No. 6	\$ 12.00	\$	8.07	\$	3.93	\$	41.25	4%	\$	1.56
San Juan 8 ST	100	10,445	No. 6	\$ 12.00	\$	8.07	\$	3.93	\$	41.05	4%	\$	1.50
Aguirre 1 CC	260	11,140	Diesel	\$ 16.00	\$	8.07	\$	7.93	\$	88.34	10%	\$	8.7
Aguirre 2 CC	260	11,140	Diesel	\$ 16.00	\$	8.07	\$	7.93	\$	88.34	10%	\$	8.7
Cambalache 2 GT	83	11,549	Deisel	\$ 16.00	\$	8.07	\$	7.93	\$	91.58	3%	\$	2.8
Cambalache 3 GT	83	11,549	Diesel	\$ 16.00	\$	8.07	\$	7.93	\$	91.58	3%	\$	2.8
Mayaguez 1 GT	50	9,320	Diesel	\$ 16.00	\$	8.07	\$	7.93	\$	73.91	2%	\$	1.40
Mayaguez 2 GT	50	9,320	Diesel	\$ 16.00	\$	8.07	\$	7.93	\$	73.91	2%	\$	1,40
Mayaguez 3 GT	50	9,320	Diesel	\$ 16.00	\$	8.07	\$	7.93	\$	73.91	2%	\$	1.40
Mayaguez 4 GT	50	9,320	Diesel	\$ 16.00	\$	8.07	\$	7.93	\$	73.91	2%	\$	1.40
Mayaguez 3 GT	50	9,320	Diesel	\$ 16.00	\$	8.07	\$	7.93	\$	73.91	2%	\$	1.40
Pala Seco GT 11 & GT 12	42	14,400	Diesel	\$ 16.00	\$	8.07	\$	7.93	\$	114.19	2%	\$	1.8
Pala Seco GT 21 & GT 22	42	14,400	Diesel	\$ 16.00	\$	8.07	\$	7.93	\$	114.19	2%	\$	1.8
Pala Seco GT 31 & GT 32	42	14,400	Diesel	\$ 16.00	\$	8.07	\$	7.93	\$	114.19	2%	\$	1.8
Aguirre GT 21 & GT 22	42	14,400	Diesel	\$ 16.00	\$	8.07	\$	7.93	\$	114.19	2%	\$	1.8
	2,636				W	eighte	ed A	verage	3				

(1) Cost per PREPA presentation , August 3, 2018

Based on annual energy needs, the further conversion of the PREPA fleet could create significant cost savings. Below is the potential cost savings from just 3 additional expansions that SeaOne is capable of fueling operating at only 50% capacity:

<u>Units</u> Palo Seco 3&4, San Juan 7&8 Aguirre CT 1&2, ST 1&2 Mayagüez 1-4,

Annual Savings \$108 Million \$351 Million \$65 Million

Spark Spread Savings per MWh

\$58.00

### Fuel Flexibility

All pricing assume the Btu content of the delivered pipeline gas to be exactly 1,000Btu/SCF. To the extent the pipeline natural gas content exceeds this amount, the tariff charge for transport will be reduced on a pro rata basis when measured as Btu.

SeaOne is capable of delivering any combination of natural gas and LPG's/NGL's. The tariff structure for transport is a volumetric rate. PREPA would have the ability, if it so chose, to purchase additional higher heat content fuels such as propane and butane and blend that fuel for delivery. By transporting fuel that is higher in caloric content than standard pipeline gas, PREPA can actually lower the per Btu cost of its fuel on a pro rata basis.

For example instead of purchasing standard pipeline gas only, if the heat content can be increased from 1,000 Btu to 1,200 Btu by adding propane, it would have the effect of reducing the transport tariff by 20%, or from \$5.50/MCF to \$4.40/MCF.

#### Jones Act

The SeaOne cargoes for Puerto Rico will arrive via the Dominican Republic. SeaOne will have a trading hub established there to receive and export products to multiple locations. Since cargoes originate in Dominican Republic, they will not be subject to the Jones Act. The natural gas / LPG mix requested by Puerto Rico markets will be produced in the Dominican Republic and delivered to Puerto Rico. The location of the terminal in Dominican Republic also makes it very simple to expand to additional deliveries in Puerto Rico at other sites.

Transportation of Natural Gas and LPG's to San Juan, Puerto Rico

SeaOne Caribbean will ship natural gas and LPG's in the form of Compressed Gas Liquids(CGL) to the terminal in San Juan using Articulated Tug/Barge units (AT/Bs) that will load approximately 0.7 BCF of cargo at SeaOne's Caribbean distribution hub located near San Pedro de Marcoris in the Dominican Republic. These barges are approximately 600 feet in length and 121 feet in width with a draft of 10 meters. It can be custom manufactured to maximize storage available within space limitations at the harbor without impacting harbor operations or safety regulations. These barges allow ease of access into the port as well as flexibility to serve as both storage and transport to meet flexible generation schedules within any given day. CGL is not LNG, therefore, the Coast Guard harbor prohibitions against LNG in San Juan harbor are not applicable to the SeaOne fuel. The U.S. Coast Guard in Puerto Rico has long since approved the operation of SeaOne vessels and delivery of natural gas and LPG's in the form of CGL to a San Juan Harbor terminal.

The distribution hub in San Pedro de Marcoris, Dominican Republic will be supplied by 1.5 BCF CGL carriers that will load at SeaOne's export terminal in Gulfport, Mississippi. When a CGLC carrier arrives at San Pedro de Marcoris, the cargo will be discharged into storage and when ready for distribution to the local market it will be fractionated to separate the natural gas from the solvent. For export to San Juan, the natural gas and solvent will be drawn from storage, fractionated and blended to a Puerto Rico specification CGL blend of gas and LPG's with a different composition than the CGL that was loaded in Gulfport. As the cargo sent to San Juan will differ from the cargo originating in Gulfport, it may be transported by non-U.S.-flag vessels.

The selection of an AT/B for this service permits the tug to be decoupled after the barge is moored to the pier at the terminal. Once mooring operations are complete the tug will move to another berth until the cargo operations are complete.

SeaOne is currently finalizing negotiations of dock space near the San Juan power plant that will allow for ease of access to the facility.

SeaOne has entered into an agreement with Sembcorp Marine Ltd. In Singapore for the construction of large gas carriers for the SeaOne products. Construction slots have been reserved for the construction of these marine vessels. SeaOne can initiate production of those vessels immediately. SeaOne can adapt its construction and equipment schedule for

each individual customers needs with minimal infrastructure development, thus reducing the cost to PREPA.

Please see Figure 2 for a site layout of the terminal and import facility.

#### Experience

Please see below the extensive experience of the executive management and the project team assembled to execute this plan.

### Forrest E. Hoglund, Chairman of the Board and CEO

Mr. Hoglund serves as the Chairman of the Board of Managers of the Company and for SeaOne Holdings, LLC and is the Chief Executive Officer and Chairman of the Board of Directors for SeaOne Maritime Corp. Mr. Hoglund also serves as Chief Executive Officer for SeaOne Pascagoula, LLC. He has had a distinguished career spanning more than 50 years in the oil and gas industry much of that time in top management positions. Most recently, he served as Chairman of Forest Oil Corporation from December, 2000 until May, 2008. Mr. Hoglund is also the retired Chief Executive Officer, President and Chairman of the Board of EOG Resources, Inc. and served as President and CEO of Texas Oil & Gas Corporation. Mr. Hoglund began his career with Humble Oil (now, Exxon Mobil Corp.) in 1956. He remained with that company for over 20 years through its transition into Exxon Corporation working in various capacities, including that of Vice President of Natural Gas & Gas Liquids. He holds a bachelor's degree in mechanical engineering from the University of Kansas.

Dr. Bruce Hall, President and Chief Commercial Officer,

Dr. Hall is a member of the Board of Managers of the Company and for SeaOne Holdings, LLC and is a member of the Board of Directors and serves as the President and Chief Operating Officer of both SeaOne Maritime Corp. and SeaOne Pascagoula, LLC. Dr. Hall has over 30 years of experience in the oil and gas and the petrochemical industries. He served as Vice President of Arctic Resources Company and as Managing Director for ArctiGas Resources Corp. (Canada). Previously, Dr. Hall worked with British Gas Corporation as the Head of Planning and Development where, among other areas of responsibility, he led the development of that company's early interest in the development of Atlantic LNG in Trinidad & Tobago. He also worked for Total S.A. as the Head of Planning and Development of Yemen LNG. Dr. Hall holds a Ph.D. in mechanical engineering from the University of Texas at Austin, an M.B.A. from the University of Toronto, Ontario, Canada, an M.S. in mechanical engineering from the University of California – Berkley, and a B.Sc. in electrical engineering from the University of Witwatersrand, Johannesburg, South Africa.

## M. Barton Baker, CFO,

Mr. Baker is a member of the Board of Managers of the Company and for SeaOne Holdings, LLC and is a member of the Board of Directors of SeaOne Maritime Corp. Mr. Baker serves as the Executive Vice President, Chief Financial Officer, Treasurer and

Secretary for both SeaOne Maritime Corp. and SeaOne Pascagoula, LLC. He has over 40 years of accounting and investment banking industry experience, most recently within the energy industry. Mr. Baker was Senior Vice President and Treasurer of a privately-held Texas company and he has also served as Vice President, Treasurer and Secretary for both Arctic Resources Company and ArctiGas Resources Corp (Canada). Mr. Baker previously worked both with PaineWebber (now, UBS Securities) and with Kemper Securities, Inc. (now, Wells Fargo Advisors LLP). He began his career with Ernst & Ernst (now, Ernst & Young LLP). Mr. Baker is a member of the American Institute of Certified Public Accountants and has been recognized with the Chartered Global Management Accountant (CGMA) designation by the American Institute of Certified Public Accountants and the Chartered Institute of Management Accountants. Mr. Baker holds a B.S. in accounting-management science from the University of Tennessee.

#### James Dondero, Board Member

Mr. Dondero serves as a member of the Board of Managers of the Company and for SeaOne Holdings, LLC. Mr. Dondero is Co-founder and President of Highland Capital Management, L.P. Mr. Dondero has over 30 years of experience in the credit markets. Prior to founding Highland in 1993, he served as chief investment officer of Protective Life's GIC subsidiary and helped grow the business from concept to over \$2 billion between 1989 and 1993. His portfolio management experience includes mortgage-backed securities, investment grade corporates, leveraged bank loans, high-yield bonds, emerging market debt, derivatives, preferred stocks and common stocks. From 1985 to 1989, he managed approximately \$1 billion in fixed income funds for American Express. Prior to American Express, he completed the financial training program at JP Morgan. Jim received a BS in Commerce (Accounting and Finance) from the University of Virginia. Mr. Dondero is a Chartered Financial Analyst and a former CPA and CMA. He currently serves as Chairman for NexBank, Cornerstone Healthcare Group and CCS Medical and is a board member of MGM Studios and American Banknote.

#### Greg Castleman, Director of Marine Services,

Mr. Castleman is a 1976 graduate of Webb Institute of Naval Architecture, Glen Cove, NY. His industry experience spanning over 42 years has been split between Offshore Exploration & Production work and design and construction of offshore and harbor service craft. In the design side, he is best-known for producing designs of a number of tugs with steerable propulsion. He has also designed PSVs, crew-boats, barges, drilling platforms, and production platforms. Mr. Castleman established Castleman Maritime, LLC in 2006. In late 2016, he acted as a consultant to SeaOne Holdings, LLC in the development of the AT/B CGL carriers. By the beginning of 2017, he was asked to join the team to head the marine side of the business. In that role he is responsible for all aspects of the marine transportation segment of the company, including vessel acquisition, operations, support craft requirements, and the like.

Gene Lobrecht, Director of Project Management

Gene has proven expertise in domestic and international project management delivering multi- million dollar projects safely on schedule, cost and quality assurance as well as with a high degree of customer satisfaction. Gene's experience includes a broad array of Upstream Oil and Gas Projects: Offshore Enhanced Oil Recovery, Liquefied Natural Gas (LNG)plants, Ethane Recovery plant, Mono-ethylene Glycol injection and recovery plant, Helium plants, Sour Gas Treatment plants, Offshore Sour gas and condensate production facilities, Sulfur Recovery plant, Floating Production and Storage facilities, Offshore Gas Production Facilities, Engineering Practices and Specifications(IT), Gas plant modifications(Brownfield), Cryogenic Natural Gas plants, Gas compression stations, Gas Separation and High Pressure Gas re-injection facilities, Oil and Gas field gather pipelines, and Well Kill Blowout Control. He holds a Bachelor of Science Degree in Chemical Engineering from the University of Oklahoma in Norman, Oklahoma.

#### **Construction Schedule**

	Hotis Jav	800 200 200 200 200 200 200 200 200 200
eaOne Caribbean and Central America Fuel Supply Project	40	In the following the following the function
ngineering, Procurement & Construction	40	•
Program Milestones	40	•
Receive Permits	0 +	
Bridge Fuel Transition	0	
SEAONE SAN JUAN RECEIVING FACILITY	36	
Site Construction, Module Installation	27 🗧	
Site Infrastructure & CGL Containment Bidg Construction	12 🗖	
Fabricate Modules and Interconnectling Piping Kits	21	
Pre-Commissioning/Commissioning	12	<b></b>
Start Up and TurnOver to Operations	6	
SEAONE CGLC TRANSPORTATION VESSEL	38	
Engineering	12	=
Procurement	19 🗖	
Vessel Hull Construction	27	
Receive & Install CGL Containment Cassettes	7	
Mechanical Completion	5	-
Completion and Commissioning	14	
Vessel C O D	0	•
	le distante d	

#### Conclusion

In summary, the SeaOne Proposal offers numerous benefits that cannot be found with any competing fuel supply source to the Puerto Rico:

- Immediate conversion to Propane to achieve concrete economic savings and significant environmental benefits thru emission reductions,
- The lowest all-in delivered cost for natural gas and propane over the long term,
- Direct access to the U.S. Propane and Gas markets with its long-term stable, transparent pricing and ability to hedge;
- Long term access to environmentally friendly fuels with significantly lower emissions than fuel oil, diesel or coal; and

SeaOne appreciates the opportunity to participate in this RFP and looks forward to continued discussions with PREPA to bring creative, low cost fuel supply alternatives to Puerto Rico. Thank you very much for your consideration.

SeaOne Caribbean, LLC

& I Danley David L. Fairley

Senior Vice President, Fuels & Commodity Supply

This document is intended to for discussion purposes only. The prices, terms, conditions, and concepts set forth are indicative only. No binding obligations will exist until a definitive agreement containing required commercial and credit terms has been negotiated, approved by the management of each party, and signed by their authorized representatives.

Ver12

#### Figure 1 – Articulated Tug / Barge

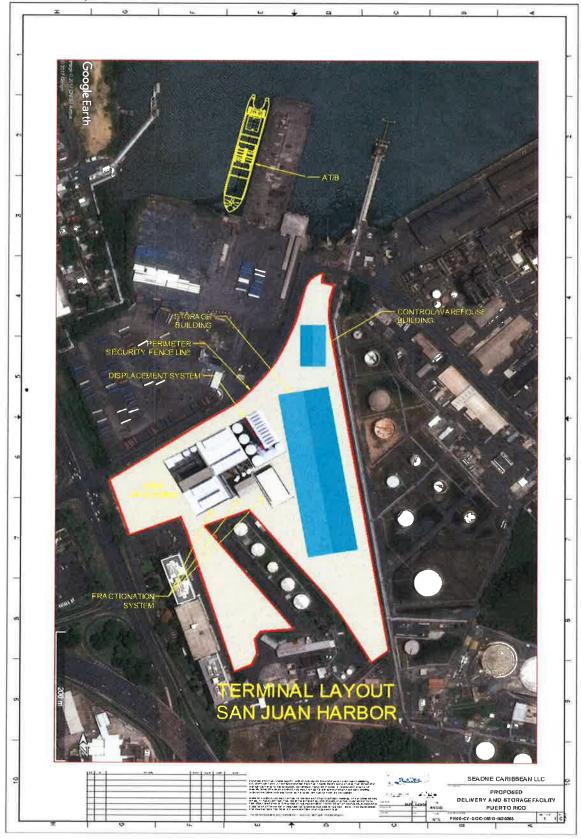


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An articulated tug and barge, or AT/B, consists of a non-motorized barge which has a notch located in the stern that permits an articulated or "triple-locked" connection to a separate tug boat enabling the tug boat to maneuver and push the barge across the open seas.

- Designs incorporating SOH's proprietary designs for the CGL cargo containment and handling systems to be located within the AT/B. The selected AT/B's are the designs of Ocean Tug and Barge Corporation.
- Refrigerated (-40°F/°C) and pressurized (1400 psig/100 Bar) containment system is part of the barge cargo system and, for the purpose of this project, is designed to hold a CGL cargo of 440 MMscf.
- The AT/B's are CGL gas carriers that can be repurposed if not used in the Project any longer.

Figure 2 – Terminal Layout



Attachment I Price Proposal Form Rates

Proponents Name: SeaOne Caribbean, L.L.C.

Price Proposal Component #1:

Fixed Annual Capacity Payment

\$6,427,000/year

Price Proposal Component #2:

Unit Fuel Cost:

Annual Consumption Rate (MMBTU/yr)

Based on an estimated volume of 72,000 MMBtu per day

Unit Cost (\$/MMBTU)

\$8.32/MMBtu, All-in, fully delivered natural gas – 10 year term
\$8.07/MMBtu, All-in, fully delivered natural gas – 20 year term
\$9.00/MMBtu, All-in, fully delivered natural gas – 23 year term

Price Proposal Component #3:

The SeaOne proposal is flat pricing for the term of delivery and does not include any escalation on any component.

Price Proposal Component #4: proponents should provide key terms and conditions for priced proposal.

The numbers above are based on the following assumptions and terms:

1. The annual capacity payment is for 5 years only to cover the San Juan conversion capital cost.

2. 10 year term with the option to extend two additional terms as outlined in the proposal.

3. The commodity portion is based on the forward curve for NYMEX.

4. All pricing is indicative and subject to execution of binding agreements by each company's respective duly authorized executive management.

1

# Contents of this File 04

퉬 AES PUERTO RICO

퉬 Arctas Capital Group

퉬 Lakeside Power and Methane, LLC

퉬 Naturgy

퉬 New Fortress Energy

퉬 Puma Energy Caribe, LLC

퉬 SeaOne Caribbean

## Event Key Event Name

## Message Key Date and Time Sent 1362183 12/17/18 04:47 PM (EST)

## 1362021 12/17/18 02:51 PM (EST)

1360883 12/14/18 10:31 AM (EST)

1359418 12/12/18 02:32 PM (EST)

1358593 12/11/18 04:08 PM (EST)

1359039 12/12/18 10:13 AM (EST)

1358742 12/11/18 05:53 PM (EST)

# 1358661 12/11/18 04:52 PM (EST)

# 1358637 12/11/18 04:31 PM (EST)

1358544 12/11/18 03:49 PM (EST)

# 1360528 12/13/18 04:08 PM (EST)

# 1360508 12/13/18 04:03 PM (EST)

1358475 12/11/18 03:36 PM (EST)

1356874 12/10/18 08:47 AM (EST)

# 1356455 12/07/18 03:01 PM (EST)

1354065 12/04/18 07:50 PM (EST)

# 1353917 12/04/18 04:54 PM (EST)

1353468 12/04/18 12:23 PM (EST)

1353167 12/04/18 08:59 AM (EST)

1351998 12/01/18 06:50 PM (EST)

1351840 11/30/18 04:15 PM (EST)

1351595 11/30/18 02:17 PM (EST)

1351149 11/30/18 07:36 AM (EST)

1351293 11/30/18 02:29 PM (EST)

1351144 11/30/18 07:32 AM (EST)

1347482 11/26/18 10:21 AM (EST)

1334804 11/05/18 11:04 AM (EST)

# 1330545 10/29/18 04:45 PM (EDT)

# 1329001 10/26/18 09:59 AM (EDT)

# 1322835 10/18/18 02:11 AM (EDT)

# 1322809 10/17/18 07:46 PM (EDT)

# 1322807 10/17/18 07:41 PM (EDT)

# 1321294 10/16/18 11:42 AM (EDT)

# 1320455 10/15/18 11:58 AM (EDT)

# 1319743 10/12/18 02:39 PM (EDT)

# 1320142 10/14/18 10:55 PM (EDT)

# 1320129 10/14/18 08:02 PM (EDT)

# 1318962 10/11/18 04:24 PM (EDT)

# 1318951 10/11/18 04:19 PM (EDT)

# 1321042 10/16/18 08:09 AM (EDT)

# 1319260 10/12/18 07:56 AM (EDT)

# 1318620 10/11/18 12:47 PM (EDT)

# 1317582 10/10/18 12:47 PM (EDT)

# 1317129 10/09/18 11:36 PM (EDT)

# 1316558 10/09/18 01:39 PM (EDT)

# 1316564 10/09/18 01:40 PM (EDT)

# 1315138 10/06/18 08:47 PM (EDT)

# 1316527 10/09/18 01:36 PM (EDT)

# 1316297 10/09/18 11:14 AM (EDT)

# 1315142 10/07/18 02:06 PM (EDT)

# 1315137 10/06/18 08:45 PM (EDT)

# 1322868 10/18/18 08:08 AM (EDT)

# 1321090 10/17/18 07:41 PM (EDT)

# 1320178 10/15/18 07:57 AM (EDT)

# 1319275 10/12/18 08:21 AM (EDT)

# 1319263 10/12/18 07:59 AM (EDT)

# 1315136 10/06/18 08:41 PM (EDT)

# 1315135 10/06/18 08:37 PM (EDT)

1315134 10/06/18 08:33 PM (EDT)

1315133 10/06/18 08:30 PM (EDT)

# 1318260 10/10/18 11:48 PM (EDT)

# 1318066 10/10/18 05:03 PM (EDT)

# 1314840 10/05/18 02:35 PM (EDT)

# 1314726 10/05/18 01:09 PM (EDT)

# 1314560 10/05/18 10:47 AM (EDT)

# 1307693 09/25/18 11:51 PM (EDT)

# 1307668 09/25/18 07:59 PM (EDT)

1306666 09/25/18 08:12 AM (EDT)

# 1306468 09/24/18 05:27 PM (EDT)

# 1306867 09/25/18 10:42 AM (EDT)

# 1306461 09/24/18 05:24 PM (EDT)

1305806 09/24/18 11:26 AM (EDT)

# 1304670 09/21/18 09:03 AM (EDT)

# 1304235 09/20/18 02:58 PM (EDT)

1301762 09/18/18 11:36 AM (EDT)

# 1300431 09/15/18 08:34 PM (EDT)

# 1299167 09/13/18 04:02 PM (EDT)

# 1297584 09/12/18 09:27 AM (EDT)

1296389 09/11/18 08:04 AM (EDT)

# 1304667 09/21/18 09:01 AM (EDT)

# 1297885 09/12/18 12:41 PM (EDT)

# 1296327 09/10/18 10:47 PM (EDT)

1296198 09/10/18 05:39 PM (EDT)

# 1296190 09/10/18 05:31 PM (EDT)

# 1296195 09/10/18 05:31 PM (EDT)

# 1295895 09/10/18 03:10 PM (EDT)

# 1295853 09/10/18 02:55 PM (EDT)

# 1296199 09/10/18 05:32 PM (EDT)

# 1295809 09/10/18 02:35 PM (EDT)

# 1295794 09/10/18 02:26 PM (EDT)

# 1295790 09/10/18 02:24 PM (EDT)

# 1294857 09/07/18 04:22 PM (EDT)

# 1294643 09/07/18 02:44 PM (EDT)

# 1295490 09/10/18 11:40 AM (EDT)

1293796 09/06/18 05:00 PM (EDT)

# 1295536 09/10/18 12:17 PM (EDT)

# 1291285 09/04/18 01:47 PM (EDT)

# 1287575 08/28/18 09:19 PM (EDT)

# 1287558 08/28/18 07:48 PM (EDT)

# 1287423 08/28/18 05:12 PM (EDT)

# 1287414 08/28/18 05:01 PM (EDT)

# 1287092 08/28/18 02:15 PM (EDT)

# 1286811 08/28/18 11:32 AM (EDT)

# 1286791 08/28/18 11:30 AM (EDT)

1286726 08/28/18 10:58 AM (EDT)

# 1286412 08/27/18 08:00 PM (EDT)

# 1286234 08/27/18 04:52 PM (EDT)

# 1283859 08/23/18 03:16 PM (EDT)

1283786 08/23/18 02:36 PM (EDT)

# 1282507 08/22/18 02:06 PM (EDT)

# 1281526 08/21/18 04:00 PM (EDT)

1280966 08/21/18 10:55 AM (EDT)

# 1281332 08/21/18 02:06 PM (EDT)

# 1280959 08/21/18 10:28 AM (EDT)

# 1280931 08/21/18 10:10 AM (EDT)

# 1282100 08/22/18 10:57 AM (EDT)

# 1280624 08/20/18 05:57 PM (EDT)

# 1279959 08/20/18 11:31 AM (EDT)

# 1279957 08/20/18 11:30 AM (EDT)

# 1277621 08/15/18 06:24 PM (EDT)

# 1275215 08/13/18 02:25 PM (EDT)

# 1274556 08/13/18 09:06 AM (EDT)

# 1274422 08/12/18 10:27 AM (EDT)

# 1274189 08/10/18 04:35 PM (EDT)

# 1275191 08/13/18 02:12 PM (EDT)

# 1274391 08/11/18 11:10 AM (EDT)

# 1267637 08/02/18 08:41 AM (EDT)

# 1267060 08/01/18 12:55 PM (EDT)

1266776 08/01/18 09:28 AM (EDT)

## Subject Seguimiento

Seguimiento

Urgente - Solicitud de Documentos sobre Adjudicacion de RFP 81412

Lista de Documentos

### DOCUMENTOS SOLICITADOS

## DOCUMENTOS SOLICITADOS

### DOCUMENTOS SOLICITADOS

## NOTIFICATION

## NOTIFICATION

List of New Fortress Representatives

List of New Fortress Representatives

Request for Information and Update RFP Process

Puma Energy Notif. Letter RFP 81412

New Fortress Selection Notification Letter RFP 81412

New Fortress Selection Notification Letter RFP 81412

Resolution Puerto Rico Energy Bureau

Resolution Puerto Rico Energy Bureau

Next Steps - Puma Energy

Next Steps - Puma Energy

Clarification Responses - Puma Energy

Solicitud posposición 12pm 10/15/2018 PUMA RFI

Request for clarifications - New Fortress, 10.11.2018

Request for clarifications - New Fortress, 10.11.2018

Request for clarifications - New Fortress, 10.11.2018

Requests for Clarification Puma, 10.11.2018

short list

short list

short list

10/11/2018 Puma Energy Caribe Presentation 1pm

Puma Presentation 10/10/18 at 1pm

Puma Presentation 10/10/18 at 1pm

Puma Energy Notification Letter Phase 1

Puma Energy Notification Letter Phase 1

Naturgy Notification Letter Phase 1 RFP 81412

Lakeside Notification Letter RFP 81412

AES Notif. Letter Phase 1 RFP 81412

(No Subject)

Puma Proposal RFP 81412

Renewable Energy Bio-Gas

### NOTIFICATION

Supplier Questions submitted 08/28/18

Supplier Questions submitted 08/28/18

**Deadline - Clarification** 

Request for Extension

Request for Extension

Extension - Entrega de Propuesta

Addendum 9 Sept. 15, 2018

Answers To Questions by Siemens

Site Visit Sept 13

81412 visitas

## ADDENDUM NO. 8

### ADDENDUM NO. 8

## ADDENDUM NO. 8

Attendees from AES to Site Visit

Addendum 7 Site Visits Sept. 11 and Sept. 13

site visit Addendum 4

site visit Addendum 4

Addendum # 6

# ADDENDUM NO 5

Site Visit September 13th 2018

ADDENDUM NO 4 - SITE VISIT

ADDENDUM NO 4 - SITE VISIT

Request for Site Visit

Request for Site Visit

Supplier Questions

(No Subject)

(No Subject)

(No Subject)

Puma Energy Questions for RFP 81412

Decentricity RFP Questions

Decentricity RFP Questions

TOTAL's questions and clarification in reference to RFP81412

Questions for the Process

Questions for RFP for Fuel Supply in the North and Conversion of San Juan Units 5 and 6

Siemens Additional questions

Solicitud de permiso para visita al Site

Site visit

Confirmation site visit

RFP 81412 - Promigas Questions and Comments

confirmación de visita 08-23

confirmación de visita 08-23

confirmación de visita 08-23

# ADDENDUM NO. 3 RFP 81412

#### ADDENDUM NO. 3 RFP 81412

PREPA RFP 81412 ; Section 2.IV. ; Conversion of San Juan Units 5 and 6

PREPA RFP 81412 - Section 2.II. ¿ Gas Supply Infrastructure

#### ADDENDUM NO 2 RFP 81412

Acceso

Docs

Documents downloads

Addenda no. 001 Kick Off meeting and site visit

### ADDENDA NO. 001 - KICK-OFF MEETING AND SITE VISIT

### ADDENDA NO. 001 - KICK-OFF MEETING AND SITE VISIT

## ADDENDA NO. 001 - KICK-OFF MEETING AND SITE VISIT

Reuniones 6 y 7 agosto

Reuniones 6 y 7 agosto

## Message

Buenas tardes□

Incluimos copia completa del Anejo C, Informe de Evaluación.

Saludos,□

---- Original Message Sent 12/17/18 02:51 PM (EST). --- □

Buenas tardes:□

El jueves, 13 diciembre de 2018, PUMA Energy Caribe solicitó copia completa del anejo C del informe del comité sobre el RFP81412. Ese anejo se le produjo a PUMA de forma incompleta, ya que solo recibimos las páginas 1, 3 y 5. Al día de hoy, 17 de diciembre de 2018, no hemos recibido respuesta.

Reiremos nuestra solicitud para que la AEE le produzca a PUMA copia completa del anejo C del informe del comité. Ese documento es necesario para que PUMA pueda ejercer sus derechos en torno a la adjudicación del RFP81412. □

Saludos.

Buenas tardes:□

El jueves, 13 diciembre de 2018, PUMA Energy Caribe solicitó copia completa del anejo C del informe del comité sobre el RFP81412. Ese anejo se le produjo a PUMA de forma incompleta, ya que solo recibimos las páginas 1, 3 y 5. Al día de hoy, 17 de diciembre de 2018, no hemos recibido respuesta. □

Reiremos nuestra solicitud para que la AEE le produzca a PUMA copia completa del anejo C del informe del comité. Ese documento es necesario para que PUMA pueda ejercer sus derechos en torno a la adjudicación del RFP81412. □

Saludos.

Buen dia,□ □ Favor ver carta adjunta.□ □ Gracias,□ Marilyn Ocasio Good afternoon□

We included revised redacted copy of NF. If there is any information that is not proprietary information, trade secrets or privileged information that is needed, please specify for our review and due process.  $\Box$ 

□ Best regards□ □

Natalia Martinez Lugo

Buenas tardes, D
D
Adjunto carta con la solicitud de documentos por parte de Puma. D
Saludos, 
D
Marilyn Ocasio Please find attached a revised redacted version of the New Fortress Energy proposal. We limited the redaction in this version to be responsive to PREPA's request, so please let us know if PREPA has additional requests regarding the redacted proposal.

```
Thank you, 

New Fortress Team □
---- Original Message Sent 12/11/18 05:53 PM (EST). --- D
Thanks for confirming. We will submit a digital version via PowerAdvocate tomorrow.□
Thank you.□
---- Original Message Sent 12/11/18 04:52 PM (EST). --- □
Hello 🗆
Digital copy version□
Thank you□
---- Original Message Sent 12/11/18 04:31 PM (EST). --- D
Hello,□
Confirming receipt of the message. Does PREPA expect a hard copy by 1pm tomorrow, or a digital version?
Please advise on preferred submission method so that we can plan accordingly.
Thank you,□
New Fortress Team
---- Original Message Sent 12/11/18 03:49 PM (EST). --- D
Good afternoon□
```

```
Thanks for confirming. We will submit a digital version via PowerAdvocate tomorrow.□
Thank you.□
---- Original Message Sent 12/11/18 04:52 PM (EST). --- D
Hello 🗆
\square
Digital copy version□
Thank you□
---- Original Message Sent 12/11/18 04:31 PM (EST). --- D
Hello,□
Confirming receipt of the message. Does PREPA expect a hard copy by 1pm tomorrow, or a digital version?
Please advise on preferred submission method so that we can plan accordingly.
Thank you,□
New Fortress Team □
---- Original Message Sent 12/11/18 03:49 PM (EST). --- D
Good afternoon□
```

```
Hello 🗆
Digital copy version□
Thank you□
---- Original Message Sent 12/11/18 04:31 PM (EST). --- D
Hello, □
Confirming receipt of the message. Does PREPA expect a hard copy by 1pm tomorrow, or a digital version?
Please advise on preferred submission method so that we can plan accordingly.
Thank you,□
New Fortress Team □
---- Original Message Sent 12/11/18 03:49 PM (EST). --- D
Good afternoon□
```

Hello,□

Confirming receipt of the message. Does PREPA expect a hard copy by 1pm tomorrow, or a digital version? Please advise on preferred submission method so that we can plan accordingly.

□ Thank you,□ □ New Fortress Team □ --- Original Message Sent 12/11/18 03:49 PM (EST). --- □ Good afternoon □

## Good afternoon □

#### 

```
Buenas tardes,□
Queda pendiente ver la carpeta de los exhibits que no estuvo disponible el 10/diciembre. Favor confirmar si
podemos verla manana. 

Gracias,□
Marilyn Ocasio 🛛
---- Original Message Sent 12/13/18 04:03 PM (EST). --- D
Saludos:
En el mensaje adjunto del 11 de diciembre, PREPA nos envio el informe del comite "Evaluation and Selection
Report" sobre el RFP. El anejo C del informe nos llego incompleto. Solo recibimos las paginas 1,3y 5 del anejo
c "attachment C". Solicitamos que por favor nos envien las paginas que faltan del anejo C. Necesitamos copia
completa del anejo C del informe.□
Cordialmente,□
Marilyn Ocasio
```

---- Original Message Sent 12/11/18 03:36 PM (EST). --- D

Incluimos la primera parte de los documentos solicitados.

Buenas tardes□

```
AEE_3654
```

Saludos:□

En el mensaje adjunto del 11 de diciembre, PREPA nos envio el informe del comite "Evaluation and Selection Report" sobre el RFP. El anejo C del informe nos llego incompleto. Solo recibimos las paginas 1,3y 5 del anejo c "attachment C". Solicitamos que por favor nos envien las paginas que faltan del anejo C. Necesitamos copia completa del anejo C del informe.□

```
□
Cordialmente,□
□
Marilyn Ocasio□
```

---- Original Message Sent 12/11/18 03:36 PM (EST). --- □

Buenas tardes  $\square$ 

Incluimos la primera parte de los documentos solicitados.

Buenas tardes□ □ Incluimos la primera parte de los documentos solicitados.

```
Good day, 
Good day, 
Good day, 
Good day, 
Good day, 
Good attend today at 2:00pm.
Good atternoon
Good afternoon
Good afternoon
Good afternoon
Good afternoon
```

Regarding your request, please confirm your availability for 2:00pm on December 10, 2018. The proposal of the proponent selected will be available for your review on the Office of the Chief of the Procurement Department.

Good afternoon□

Regarding your request, please confirm your availability for 2:00pm on December 10, 2018. The proposal of the proponent selected will be available for your review on the Office of the Chief of the Procurement Department.

# Hi,□

Please find our list of representatives for tomorrow's meeting below. We are looking forward to meeting and have made time available for Thursday morning as well. Thank you.

Wes Edens□ Brannen McElmurray Cameron MacDougall Lee Evans Sam Abdalla Emily Willborn Jatila Ranasinghe George Hopkins Alan Alexander 🗆 Alap Shah□ Jeff Wootton□ Carlos Lopez Freytes ---- Original Message Sent 12/04/18 04:54 PM (EST). --- D Hello, 🗆 Please provide the names of the New Fortress representatives that will participate in tomorrow's meeting so that

we may inform our security personnel. Thank you, Delis Zambrana Hello, 🗆

Please provide the names of the New Fortress representatives that will participate in tomorrow's meeting so that we may inform our security personnel.  $\Box$ 

□ Thank you, □ □ Delis Zambrana

```
Hello New Fortress team, □
Tomorrow's meeting will take place in room 610 of PREPA's NEOS Building. We anticipate starting at 12:30pm
and suggest we set aside additional time on Thursday at 8am. \Box
Participants will include PREPA personnel as well as legal and technical advisors.
Please provide the names of the New Fortress representatives. \Box
We look forward to meeting with you. \Box
Thank you,
Delis Zambrana □
---- Original Message Sent 12/04/18 08:59 AM (EST). --- D
Good morning,□
Our team is looking forward to the meeting tomorrow. Do you have additional details on the location of the
meeting and PREPA attendees?
Thanks very much,□
New Fortress Team □
---- Original Message Sent 12/01/18 06:50 PM (EST). --- D
Hello, 🗆
Thank you for confirming your availability on Wednesday. The meeting will take place at 12:30pm at PREPA's
corporate headquarters (NEOS building in Santurce). The conference room and PREPA representatives will be
informed on Monday.
```

Good morning,□

Our team is looking forward to the meeting tomorrow. Do you have additional details on the location of the meeting and PREPA attendees?

```
Thanks very much,□
```

```
New Fortress Team□
```

```
--- Original Message Sent 12/01/18 06:50 PM (EST). --- \square Hello, \square
```

Thank you for confirming your availability on Wednesday. The meeting will take place at 12:30pm at PREPA's corporate headquarters (NEOS building in Santurce). The conference room and PREPA representatives will be informed on Monday. □

□ Regards, □

Regards,

Delis Zambrana

```
----Original Message Sent 11/30/18 04:15 PM (EST). --- □
```

Hello,□

Thank you for the notification. We would like to meet on Wednesday, December 5. If possible, we would appreciate the meeting taking place any time after 11am.  $\Box$ 

As we prepare our team, would it be possible to know who will be present as part of the Evaluation and Negotiation Committee?  $\Box$ 

We will prepare the updated schedule as requested.  $\square$ 

```
Thank you very much,□
```

Hello, 🗆 Thank you for confirming your availability on Wednesday. The meeting will take place at 12:30pm at PREPA's corporate headquarters (NEOS building in Santurce). The conference room and PREPA representatives will be informed on Monday. Regards, Delis Zambrana □ ----Original Message Sent 11/30/18 04:15 PM (EST). ---- D Hello, □ Thank you for the notification. We would like to meet on Wednesday, December 5. If possible, we would appreciate the meeting taking place any time after 11am. □ As we prepare our team, would it be possible to know who will be present as part of the Evaluation and Negotiation Committee? We will prepare the updated schedule as requested. Thank you very much,□ New Fortress Team □ ---- Original Message Sent 11/30/18 02:17 PM (EST). --- D Hello New Fortress Team, □ Please confirm the receipt of the selection notification letter sent this morning.  $\square$ 

The negotiation phase of this RFP will begin on Monday, December 3, 2018. Will your team be available Wednesday or Thursday of next week to meet with PREPA's Evaluation and Negotiation Committee?

Hello, □

Thank you for the notification. We would like to meet on Wednesday, December 5. If possible, we would appreciate the meeting taking place any time after 11am.  $\Box$ 

As we prepare our team, would it be possible to know who will be present as part of the Evaluation and Negotiation Committee?

We will prepare the updated schedule as requested.  $\Box$ 

Thank you very much,□

New Fortress Team 🛛

---- Original Message Sent 11/30/18 02:17 PM (EST). --- □

Hello New Fortress Team, 🗆

Please confirm the receipt of the selection notification letter sent this morning.  $\square$ 

The negotiation phase of this RFP will begin on Monday, December 3, 2018. Will your team be available Wednesday or Thursday of next week to meet with PREPA's Evaluation and Negotiation Committee?

Also, PREPA requests an updated project schedule with a tentative kick off date of January 15, 2018, for evaluation purposes.  $\Box$ 

Thank you for your attention to this request.

Regards, 🗆

Delis T. Zambrana

Hello New Fortress Team,

Please confirm the receipt of the selection notification letter sent this morning.  $\square$ 

The negotiation phase of this RFP will begin on Monday, December 3, 2018. Will your team be available Wednesday or Thursday of next week to meet with PREPA's Evaluation and Negotiation Committee?

Also, PREPA requests an updated project schedule with a tentative kick off date of January 15, 2018, for evaluation purposes.  $\Box$ 

Thank you for your attention to this request.  $\square$ 

Regards,  $\Box$ 

Delis T. Zambrana

Hello Puma Energy Team, Hello Puma Energy Team, Please refer to the attachments for the following documents: 1. Notification Letter 2. Annex A - Final Eval. Scoring 2. Annex A - Final Eval. Scoring Thank you for your interest in this RFP process. Regards, Delis Zambrana Greetings,□ Thank you very much. We are confirming receipt and looking forward to the next steps.  $\square$ Saludos,□ New Fortress Team □ ---- Original Message Sent 11/30/18 07:32 AM (EST). --- D Hello New Fortress Team, □ Please refer to the attachments for the following documents:  $\Box$ 1. Notification Letter 2. English translation of the notification letter (unofficial translation) 3. Annex A Scoring Criteria Thank you for your participation in this RFP process.  $\Box$ Regards, Delis Zambrana

Hello New Fortress Team, Please refer to the attachments for the following documents: Please refer to the attachments for the following documents: Please refer to the attachments for the following documents: 1. Notification Letter 2. English translation of the notification letter (unofficial translation) 3. Annex A Scoring Criteria 3. Annex A Scoring Criteria Thank you for your participation in this RFP process. Regards, Delis Zambrana Good morning,  $\square$ 

We would like to inquire as to whether there is an updated timeline for the announcement of selected bidders, as the expected November 23 notification date has passed.□

```
□
Thanks very much,□
Thanks very much,□
New Fortress Team
The Puerto Rico Energy Bureau (PREB). Said resolution
orders PREPA to submit your proposal for their review. It is PREB's responsibility to maintain the confidentiality
of proprietary information submitted by New Fortress for this RFP. □
```

Please refer to the attachment for more information.  $\ \square$ 

Regards, 🗆

Delis T. Zambrana

Hello New Fortress team,

We received the attached resolution and order from the Puerto Rico Energy Bureau (PREB). Said resolution orders PREPA to submit your proposal for their review. It is PREB's responsibility to maintain the confidentiality of proprietary information submitted by New Fortress for this RFP.  $\Box$ 

Please refer to the attachment for more information.  $\Box$ 

□ Regards, □

Delis T. Zambrana

```
Saludos, □
Estamos en espera de las evaluaciones correspondientes para poder notificar el resultado de este proceso de
RFP. 🗆
Agradecemos su interés en esta solicitud de propuestas. 

Buenas tardes, □
Delis Tamara
              ---- Original Message Sent 10/26/18 09:59 AM (EDT). --- D
Buen dia,□
Por este medio solicitamos conocer cuales son los proximos pasos luego de haber sometido toda la informacion
solicitada como parte del proceso de clarificacion el pasado 15 de octubre.□
Estamos a su disposicion.
Saludos,□
Marilyn Ocasio□
```

Puma Energy 787-632-6404 Buen dia,⊟

Por este medio solicitamos conocer cuales son los proximos pasos luego de haber sometido toda la informacion solicitada como parte del proceso de clarificacion el pasado 15 de octubre.□

□ Estamos a su disposicion. □ □ Saludos,□ Marilyn Ocasio□ Puma Energy□ 787-632-6404 Estimada Delis, confirmamos la recepción del mensaje. Saludos ---- Original Message Sent 10/17/18 07:46 PM (EDT). --- D ---- Original Message Sent 10/17/18 07:41 PM (EDT). --- D Saludos, □ Según solicitado, incluimos las direcciones de las compañías que presentaron propuestas para el RFP 81412. 🗆 Favor de confirmar el recibo de la información. Buenas noches, Delis Zambrana ---- Original Message Sent 10/16/18 11:42 AM (EDT). --- D Estimada Delis, Naturgy presentará una moción de reconsideración. Para cumplir con el procedimiento debemos comunicárselo al resto de participantes en la licitación. ¿Sería posible disponer de los datos del resto de ofertantes para hacerles llegar esta la comunicación? Gracias de antemano,□ 

--- Original Message Sent 10/17/18 07:41 PM (EDT). --- 🗆

Saludos, 🗆

Según solicitado, incluimos las direcciones de las compañías que presentaron propuestas para el RFP 81412. □

Favor de confirmar el recibo de la información.  $\square$ 

Buenas noches, □

Delis Zambrana 🗆

---- Original Message Sent 10/16/18 11:42 AM (EDT). --- □

Estimada Delis,□

Naturgy presentará una moción de reconsideración.

Para cumplir con el procedimiento debemos comunicárselo al resto de participantes en la licitación. ¿Sería posible disponer de los datos del resto de ofertantes para hacerles llegar esta la comunicación?□ Gracias de antemano,□

Saludos, 🗆

Según solicitado, incluimos las direcciones de las compañías que presentaron propuestas para el RFP 81412. □

Favor de confirmar el recibo de la información.  $\square$ 

Buenas noches,  $\square$ 

Delis Zambrana 🗆

--- Original Message Sent 10/16/18 11:42 AM (EDT). ---  $\square$ 

Estimada Delis,□

Naturgy presentará una moción de reconsideración.

Para cumplir con el procedimiento debemos comunicárselo al resto de participantes en la licitación. ¿Sería posible disponer de los datos del resto de ofertantes para hacerles llegar esta la comunicación?□ Gracias de antemano,□

## Estimada Delis,□

Naturgy presentará una moción de reconsideración.

Para cumplir con el procedimiento debemos comunicárselo al resto de participantes en la licitación. ¿Sería posible disponer de los datos del resto de ofertantes para hacerles llegar esta la comunicación?□ Gracias de antemano,□

Good afternoon, Good afternoon, Attached please find clarification responses requested. Please contact us for any questions or additional information needed. Regards, Marilyn Ocasio Puma Energy 787-632-6404 Saludos, 🗆

La solicitud de posposición de Marilyn Ocasio (para someter respuestas al RFI de ayer el lunes a las 12pm) fue aceptada por el Comité Evaluador. Puma tendrá hasta las 12pm del lunes, 15 de octubre de 2018, para entregar sus respuestas.

De requerir alguna información adicional, no duden en comunicarse.  $\square$ 

□ Buenas tardes, □

Delis Zambrana

Hello, 🗆 In response to your request on October 11, 2018, NFEnergia LLC sent information on October 14, 2018 at 8:02 pm. 🗆 Thank you, New Fortress Energy Team □ ---- Original Message Sent 10/14/18 08:02 PM (EDT). --- D Hello,□ Please find our response to your request for information attached here.  $\Box$ Thank you very much,□ New Fortress Energy Team□ ---- Original Message Sent 10/11/18 04:24 PM (EDT). --- D Hello, 🗆 Thank you for the information provided during yesterday's presentation. As mentioned during the meeting, we are formally requesting the following clarifications be submitted via PowerAdvocate no later than Monday, October 15, 2018 at 8am AST: 1. Please clarify the start date for burning LNG. (Figure 2.1 of the NFE proposal does not correspond with the schedule in Proposal Highlights, page 1.)

2. Please submit evidence of the following three updates (letters) mentioned during yesterday's meeting:

a. US Coast Guard

b. Ports Authority

c. Department of Energy□

3. Please confirm the proposal is valid for 150 days from the RFP closing date of Sept. 25, 2018.□

Hello, □ □ Please find our response to your request for information attached here. □ □ Thank you very much, □ New Fortress Energy Team □

□ --- Original Message Sent 10/11/18 04:24 PM (EDT). ---□

Hello, □

Thank you for the information provided during yesterday's presentation. As mentioned during the meeting, we are formally requesting the following clarifications be submitted via PowerAdvocate no later than Monday, October 15, 2018 at 8am AST:

1. Please clarify the start date for burning LNG. (Figure 2.1 of the NFE proposal does not correspond with the schedule in Proposal Highlights, page 1.)  $\Box$ 

2. Please submit evidence of the following three updates (letters) mentioned during yesterday's meeting:

a. US Coast Guard 🗆

b. Ports Authority  $\Box$ 

c. Department of Energy  $\square$ 

3. Please confirm the proposal is valid for 150 days from the RFP closing date of Sept. 25, 2018.□

The clarifications are required for the evaluation of your proposal and must be submitted by the date and time mentioned above.  $\Box$ 

Regards, 🗆

Thank you for the information provided during yesterday's presentation. As mentioned during the meeting, we are formally requesting the following clarifications be submitted via PowerAdvocate no later than Monday, October 15, 2018 at 8am AST:

1. Please clarify the start date for burning LNG. (Figure 2.1 of the NFE proposal does not correspond with the schedule in Proposal Highlights, page 1.)  $\Box$ 

2. Please submit evidence of the following three updates (letters) mentioned during yesterday's meeting:

a. US Coast Guard 🗆

b. Ports Authority

c. Department of Energy□

3. Please confirm the proposal is valid for 150 days from the RFP closing date of Sept. 25, 2018.□

The clarifications are required for the evaluation of your proposal and must be submitted by the date and time mentioned above.

Regards, 🗆

Thank you for the information provided during today's presentation. As mentioned during today's meeting, we are formally requesting the following clarifications be submitted via PowerAdvocate no later than Monday, October 15, 2018 at 8am AST:

1. Please upload a copy of the presentation discussed with PREPA during today's meeting.  $\square$ 

Please clarify your understanding of the RFP requirement noted in the 4.3.4 Price Proposal section of the RFP document ("...Component 2: Unit Cost...(note: there will be no take or pay provisions allowed by the contract)□
 Please clarify the capacity pricing if PREPA were to bridge the LNG with LPG. □

4. Is the LNG contract a five-year term contract with the bridge solution discussed during today's meeting?

5. Please confirm the project schedule is approximately 13 months for LPG and 18-22 months for LNG.

6. Please confirm the proposal is valid for 150 days from the RFP closing date of Sept. 25, 2018.

The clarifications are required for the evaluation of your proposal and must be submitted by the date and time mentioned above.  $\Box$ 

Regards, 🗆

```
Disculpa Delis,□
pero creo que el teléfono no es correcto.
¿Podrías indicarme otro?□
Gracias de antemano□
---- Original Message Sent 10/12/18 07:56 AM (EDT). --- D
Buenos días, 🗆
Para información relacionada al proceso de moción de reconsideración, se puede comunicar con la Secretaría
de Procedimientos Adjudicativos al 787-521-4464. 

Atentamente,
Delis Zambrana 🗆
---- Original Message Sent 10/11/18 12:47 PM (EDT). --- D
Dear Delis and Natalia, 

We tried to contact you by phone but it was impossible.
We do not know if the decision is firm, if so, we will present the motion for reconsideration.
We would like to know if any of you could guide us about the launch of the process.
```

Regards□

□ Miguel

```
Buenos días, 🗆
Para información relacionada al proceso de moción de reconsideración, se puede comunicar con la Secretaría
de Procedimientos Adjudicativos al 787-521-4464. 

Atentamente, 

Delis Zambrana 🗆
---- Original Message Sent 10/11/18 12:47 PM (EDT). --- D
Dear Delis and Natalia,□
We tried to contact you by phone but it was impossible. \square
We do not know if the decision is firm, if so, we will present the motion for reconsideration.
We would like to know if any of you could guide us about the launch of the process.
Regards □
```

```
Miguel
```

Dear Delis and Natalia,□

We tried to contact you by phone but it was impossible.

We do not know if the decision is firm, if so, we will present the motion for reconsideration. We would like to know if any of you could guide us about the launch of the process. Regards

Miguel

PREPA confirms that Puma's presentation is scheduled for tomorrow (Thursday), October 11, at 1pm. This meeting will take place in the 7th floor conference room of the NEOS Building.

We look forward to seeing you tomorrow.  $\square$ 

Regards, 🗆

Good night,□

Our attendance to discuss the proposal was confirmed for Thursday (10/11) afternoon with Mrs. Zamabrana earlier today via text message.□

Any questions or additional information needed, please let us know.

□ Thanks□ Marilyn Ocasio□ 787-632-6404□ □ □ □ □ --- Original Message Sent 10/09/18 01:39 PM (EDT). ---□ Hello Puma,□ □

Tomorrow's meeting will take place at 1pm in the conference rooms of the 7th floor, NEOS Building in Santurce. The PREPA representatives and advisors assigned to this RFP process are:  $\Box$ 

1. Jaime Umpierre, Generation□

2. Edgardo Vázquez, Fuels Office

3. Roberto Medina, Planning

4. Edgardo Díaz, Supply Chain Division

5. Nathan Pollak, Filsinger Energy

Please be prepared to discuss the proposed schedule for this project (milestones for completion) and the breakdown of your price proposal.□

We look forward to meeting you tomorrow. Please feel free to provide my contact information (Delis Zambrana, Procurement, Suite 314, 787-521-3274 or 787-213-7989) to the PREPA security personnel when registering.

□ Regards, □ Hello Puma,□

Tomorrow's meeting will take place at 1pm in the conference rooms of the 7th floor, NEOS Building in Santurce. The PREPA representatives and advisors assigned to this RFP process are:  $\Box$ 

1. Jaime Umpierre, Generation□

2. Edgardo Vázquez, Fuels Office

3. Roberto Medina, Planning

4. Edgardo Díaz, Supply Chain Division

5. Nathan Pollak, Filsinger Energy

Please be prepared to discuss the proposed schedule for this project (milestones for completion) and the breakdown of your price proposal.□

We look forward to meeting you tomorrow. Please feel free to provide my contact information (Delis Zambrana, Procurement, Suite 314, 787-521-3274 or 787-213-7989) to the PREPA security personnel when registering.

--- Original Message Sent 10/06/18 08:47 PM (EDT). ---  $\square$ 

Hello,  $\Box$ 

Please refer to the attachment for the following:  $\hfill\square$ 

- 1. Notification Letter, Phase 1
- 2. Translation (unofficial) of the Notification Letter  $\square$

Please confirm your availability for Wednesday afternoon at 1pm, for a presentation of your proposal to the Evaluation Committee of this RFP process.

Sincerely,  $\Box$ 

Please refer to the attachment for the following:

1. Notification Letter, Phase 1

2. Translation (unofficial) of the Notification Letter

Please confirm your availability for Wednesday afternoon at 1pm, for a presentation of your proposal to the Evaluation Committee of this RFP process.  $\Box$ 

Sincerely,  $\Box$ 

Hello and thank you, New Fortress Team.  $\square$ 

Tomorrow's meeting will take place in the conference rooms of the 7th floor, NEOS Building in Santurce. The PREPA representatives and advisors assigned to this RFP process are:

1. Jaime Umpierre, Generation□

2. Edgardo Vázquez, Fuels Office

3. Roberto Medina, Planning

4. Edgardo Díaz, Supply Chain Division

5. Nathan Pollak, Filsinger Energy

Please be prepared to discuss the proposed schedule for this project (milestones for completion) and the breakdown of your price proposal.□

We look forward to meeting you tomorrow. Please feel free to provide my contact information (Delis Zambrana, Procurement, Suite 314, 787-521-3274 or 787-213-7989) to the PREPA security personnel when registering.

Delis Zambrana 🗆

---- Original Message Sent 10/09/18 11:14 AM (EDT). --- D

Thank you again for the notification and opportunity to speak with you in person. We have arranged to attend the in-person meeting tomorrow, Wednesday, October 10, at 3 pm. Please find below a list of the attendees from our team.  $\Box$ 

1. Brannen McElmurray□

- 2. Jatila Ranasinghe
- 3. Lee Evans□
- 4. Simon Duncan□
- 5. Jake Suski□
- 6. Alap Shah □
- 7. Angela Stoss 🗆

Thank you again for the notification and opportunity to speak with you in person. We have arranged to attend the in-person meeting tomorrow, Wednesday, October 10, at 3 pm. Please find below a list of the attendees from our team.  $\Box$ 

1. Brannen McElmurray 2. Jatila Ranasinghe 3. Lee Evans□ 4. Simon Duncan□ 5. Jake Suski□ 6. Alap Shah □ 7. Angela Stoss 8. John Glass We are looking forward to our meeting.□ Thank you very much,□ New Fortress Energy Team □ ---- Original Message Sent 10/07/18 02:06 PM (EDT). --- D Thank you very much for the notification. We respectfully request the in-person meeting to take place the following week, preferably in the afternoon of Monday, October 15. Please let us know if that would be possible. Furthermore, is there an expected or required number of representatives that you would like to see from our side?□ We are very much looking forward to the meeting.  $\Box$ Thanks very much,□  $\square$ New Fortress Energy Team □ ---- Original Message Sent 10/06/18 08:45 PM (EDT). --- D

Thank you very much for the notification. We respectfully request the in-person meeting to take place the following week, preferably in the afternoon of Monday, October 15. Please let us know if that would be possible. Furthermore, is there an expected or required number of representatives that you would like to see from our side?□ We are very much looking forward to the meeting. Thanks very much,□ New Fortress Energy Team ---- Original Message Sent 10/06/18 08:45 PM (EDT). --- D Hello, 🗆 Please refer to the attachment for the following: 1. Notification Letter, Phase 1 2. Translation (unofficial) of the Notification Letter Please confirm your availability for Wednesday afternoon at 3pm, for a presentation of your proposal to the Evaluation Committee of this RFP process. Sincerely,

Please refer to the attachment for the following:

1. Notification Letter, Phase 1

2. Translation (unofficial) of the Notification Letter

Please confirm your availability for Wednesday afternoon at 3pm, for a presentation of your proposal to the Evaluation Committee of this RFP process.  $\Box$ 

Sincerely,  $\Box$ 

```
Thank you very much for the information.□
---- Original Message Sent 10/17/18 07:41 PM (EDT). --- D
Hello, □
As requested, please refer to the attachment for the mailing addresses of the participants of this RFP process.
Regards, □
Delis Zambrana
---- Original Message Sent 10/15/18 07:57 AM (EDT). --- D
Debra,□
Thanks again for sending the letter. As noted in that letter, if SeaOne decides to file a motion for reconsideration,
a copy of that request must be sent to all the other participants. Could you please let me know where I can find
their registered contact information so that in the case we do decide to file a motion, we can comply with the
stated terms and forward a copy to all of the other participants.
Thanks again for your help. □
---- Original Message Sent 10/12/18 08:21 AM (EDT). --- D
Hello Mr. Sparks,
Per your request, we've emailed you the referenced document. Please do let us know if you've received the
email and are able to open the attachment. \square
Regards, 

Delis Zambrana
```

---- Original Message Sent 10/12/18 07:59 AM (EDT). --- 🗆

I am unable to open this document...can you please e-mail it to me.

michael.sparks@seaonecarib.com

```
Hello,□
As requested, please refer to the attachment for the mailing addresses of the participants of this RFP process.
Regards, 

\square
Delis Zambrana
---- Original Message Sent 10/15/18 07:57 AM (EDT). --- D
Debra,□
```

Thanks again for sending the letter. As noted in that letter, if SeaOne decides to file a motion for reconsideration, a copy of that request must be sent to all the other participants. Could you please let me know where I can find their registered contact information so that in the case we do decide to file a motion, we can comply with the stated terms and forward a copy to all of the other participants.

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Thanks again for your help. □
```

```
---- Original Message Sent 10/12/18 08:21 AM (EDT). --- D
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```

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```
Regards, □
Delis Zambrana
---- Original Message Sent 10/12/18 07:59 AM (EDT). --- 

I am unable to open this document...can you please e-mail it to me.
michael.sparks@seaonecarib.com
---- Original Message Sent 10/06/18 08:41 PM (EDT). --- D
```

Hello, 🗆

Debra,□

Thanks again for sending the letter. As noted in that letter, if SeaOne decides to file a motion for reconsideration, a copy of that request must be sent to all the other participants. Could you please let me know where I can find their registered contact information so that in the case we do decide to file a motion, we can comply with the stated terms and forward a copy to all of the other participants.  $\Box$ 

Thanks again for your help. □

--- Original Message Sent 10/12/18 08:21 AM (EDT). ---□ Hello Mr. Sparks, □

Per your request, we've emailed you the referenced document. Please do let us know if you've received the email and are able to open the attachment.  $\Box$ 

Regards, 🗆

Delis Zambrana 🗆

---- Original Message Sent 10/12/18 07:59 AM (EDT). --- □

I am unable to open this document...can you please e-mail it to me.

michael.sparks@seaonecarib.com

---- Original Message Sent 10/06/18 08:41 PM (EDT). --- D

Hello, 🗆

D Pl

Please refer to the attachment for the following:  $\hfill\square$ 

- 1. Notification letter, Phase 1
- 2. Evaluation Committee Determination
- 3. English translation (unofficial) of the notification letter

We appreciate your interest in this RFP process.  $\square$ 

Hello Mr. Sparks, Per your request, we've emailed you the referenced document. Please do let us know if you've received the email and are able to open the attachment.  $\Box$ Regards, □ Delis Zambrana 🗆 ---- Original Message Sent 10/12/18 07:59 AM (EDT). --- D I am unable to open this document...can you please e-mail it to me. michael.sparks@seaonecarib.com ---- Original Message Sent 10/06/18 08:41 PM (EDT). --- D Hello, 🗆 Please refer to the attachment for the following: 1. Notification letter, Phase 1 2. Evaluation Committee Determination 3. English translation (unofficial) of the notification letter We appreciate your interest in this RFP process.  $\Box$ Sincerely, Delis Zambrana

I am unable to open this document...can you please e-mail it to me.  $\square$ michael.sparks@seaonecarib.com ---- Original Message Sent 10/06/18 08:41 PM (EDT). --- D Hello, 🗆 Please refer to the attachment for the following:  $\hfill\square$ 1. Notification letter, Phase 1 2. Evaluation Committee Determination 3. English translation (unofficial) of the notification letter We appreciate your interest in this RFP process.  $\square$ Sincerely, Delis Zambrana

Please refer to the attachment for the following:  $\hfill\square$ 

- 1. Notification letter, Phase 1□
- 2. Evaluation Committee Determination
- 3. English translation (unofficial) of the notification letter  $\square$

We appreciate your interest in this RFP process.  $\hfill\square$ 

Sincerely,  $\Box$ 

Please refer to the attachment for the following:  $\hfill\square$ 

- 1. Notification Letter, Phase 1□
- 2. Evaluation Committee Determination
- 3. English translation (unofficial) of the notification letter.  $\square$

We appreciate your interest in this RFP process.  $\hfill\square$ 

Sincerely,  $\Box$ 

Hello, Hello, Please refer to the attachment for the following: Please refer to the attachment for the following: 1. Notification Letter, Phase 1 2. Evaluation Committee Determination 3. English translation (unofficial) of the Notification Letter We appreciate your interest in this RFP process. Sincerely, .

Hello, Hello, Please refer to the attachment for the following: Please refer to the attachment for the following: 1. Notification Letter for RFP 81412, Phase 1 2. Evaluation Committee Determination 3. English Translation (unofficial) of the Notification Letter. We appreciate your interest in this RFP process. We appreciate your interest in this RFP process. Sincerely, .

Dear Delis,□ As evidence of Mitsubishi Hitachi Power support, please find attached the offer letter MHPSA sent to us as part of its proposal.□ Regards□ ---- Original Message Sent 10/05/18 10:47 AM (EDT). --- □ Hello, 🗆 To continue the evaluation process of your proposal, please provide the following information, no later than today at 3pm: 1. Confirmation that the price offered is based on initial five-year term contract, as requested in RFP 81412. 2. Evidence of Mitsubishi Hitachi Power support mentioned in your proposal. Thank you for your attention to this request.  $\Box$ Regards, □ 

Dear Delis,□

As we announced in our message last Friday, please find below the conditions for a five-year contract.

4.1.Price Proposal Component 1 ¿ Fixed annual capacity payment

4.1.1.Option #1. Only FSRB

The Capacity Payment (CP) will reflect the fixed costs of the supply natural gas facilities:

CP (USD/Month) = 5.783.205 + 544.417 CPIn/CPI0

4.1.2.Conversion Units Cost□

Naturgy recently received the Mitsubishi proposal, which is still pending some clarifications and discussions to define more in detail their services and the economic impact to be included in Naturgy's final proposal.  $\Box$  4.2. Price Proposal Component 2 ¿ Unit cost $\Box$ 

For both, Option #1 and Option #2, the Unit Cost (UC) will reflect the commodity and the variable LNG shipping costs:□

UCm (USD/MMBtu) = 50% (115% HH + 5.95) + 50% (11.54% FO#2603 + 1.125)□

Naturgy is open to discuss the price condition herein detailed in case the LNG from USA can be delivered.□

---- Original Message Sent 10/05/18 10:47 AM (EDT). --- □

Hello,  $\Box$ 

To continue the evaluation process of your proposal, please provide the following information, no later than today at 3pm:

1. Confirmation that the price offered is based on initial

Dear Delis,□

I answer the two questions  $\square$ 

1. The proposal was made taking into account 10 years of contract because we understand that it is the most convenient term for PREPA, taking into account the investment, the necessary equipment and the most usual term in this type of contract. In any case, if PREPA wishes to have the price for only five years contract, we can recalculate it and send it next week.

2. At this moment we are discussing with MHPS certain aspects related to the work to be carried out on their part. However, the confidentiality agreement signed with them prevents us from showing any evidence about any proposal they could have made.□

We are at your disposal for any further clarification  $\square$ 

Regards

Miguel□

--- Original Message Sent 10/05/18 10:47 AM (EDT). --- □

Hello, 🗆

To continue the evaluation process of your proposal, please provide the following information, no later than today at 3pm:  $\Box$ 

1. Confirmation that the price offered is based on initial five-year term contract, as requested in RFP 81412.

2. Evidence of Mitsubishi Hitachi Power support mentioned in your proposal.

Z.

Thank you for your attention to this request.  $\Box$ 

Regards,  $\Box$ 

Dear Mrs. Zambrana: In response for your request below, please find the following answers: 1.Both the capacity payment and the LNG supply is based on 10 years. The reason for this is that 10 years would be the minimum commitment we are confident with for deploying a full scale FSRU given the short timeline, we might be able to do a shorter term if more time is allowed for us to scour the market. 2. Attached Evidence of Mitsubishi Hitachi Power support mentioned our proposal. Best regards, □ AES 🗆 ---- Original Message Sent 10/05/18 10:47 AM (EDT). --- D Hello, □ To continue the evaluation process of your proposal, please provide the following information, no later than today at 3pm: 1. Confirmation that the price offered is based on initial five-year term contract, as requested in RFP 81412. 2. Evidence of Mitsubishi Hitachi Power support mentioned in your proposal. Thank you for your attention to this request. Regards,

To continue the evaluation process of your proposal, please provide the following information, no later than today at 3pm:  $\Box$ 

□ 1. Confirmation that the price offered is based on initial five-year term contract, as requested in RFP 81412. □

2. Evidence of Mitsubishi Hitachi Power support mentioned in your proposal.

Thank you for your attention to this request.  $\square$ 

Regards,  $\Box$ 

Natalia,□ □ Attached please find informative letter from Arctas Capital Group.□ □ Regards,□ □ Rick Sierra□ VP, Arctas Capital Group

## All,□

Attached please find Puma Proposal for RFP81412 for the Fuel Supply in the North and Conversion of San Juan Units 5&6 and Puma Exhibits and Attachments.

Natalia Martinez Lugo, we are able to produce sufficient volumes of Bio-Gas to act as fuel for PREPA's unit 5 and 6 Power Plants. No other company on the planet can achieve this this volume. We are presenting PREPA with the opportunity to Resell the Renewable Energy Certificates and turn a profit. This will present a zero cost of fuel to PREPA.□

Feel free to call us if you so desire. □ 704-996-2631 □ Mick El-Massri □ Lakeside Renewables Inc. Good afternoon  $\square$ 

PREPA expects to receive the redacted copies in the PREPA's Supplier Registry Office as establish in Section 1.3 Proposal Submission no later than the next business day after the closing of this RFP. The closing date of this RFP in PowerAdvocate is 9/25/18 11:59 pm (AST) as indicated in Addendum No. 2 and in the PowerAdvocate event 81412. All proposals must be fully uploaded by the closing date and time of the RFP in PowerAdvocate.

Natalia,□

Further to our request below for responses to the questions we submitted, we noticed that the responses to questions that PREPA provided on September 10, 2018 in Addendum 8 Attachment 1 suggests that there are more PREPA responses to supplier questions than the 40 responses (listed as Items) provided in Addendum 8 Attachment 1.  $\Box$ 

Specifically, the response to Attachment 1 item #6 question states "Please see response to Question 46." Also, for items #29 and #32 questions the response includes the statement "please see response to item 122."

Further, part of the Attachment 1 file name includes "...56\_Questions\_Set 1.pdf." □

In addition to providing responses to the questions we submitted, please provide questions and responses to any additional supplier questions that were not provided in the September 10, 2018 Addendum 8 or the September 15, 2018 Addendum 9 that was sent to our PowerAdvocate Inbox.□

□
□
Rick Sierra □
∨P, Arctas Capital Group □
□
--- Original Message Sent 09/24/18 05:24 PM (EDT). --- □
Natalia, □
□
We do not see in PREPA responses to supplier questions in Addendum 8 provided on September 10, 2018 or Addendum 9 provided on September 15, 2018 responses to certain questions we submitted on August 28, 2018. □

Specifically, we do not see responses to questions 1, 2, 3, 4, 5, 6, 8a, 9a, 9b.□

Please provide. Thank you.□

Natalia,□

We do not see in PREPA responses to supplier questions in Addendum 8 provided on September 10, 2018 or Addendum 9 provided on September 15, 2018 responses to certain questions we submitted on August 28, 2018.□

Specifically, we do not see responses to questions 1, 2, 3, 4, 5, 6, 8a, 9a, 9b.  $\square$ 

□ Please provide. Thank you.□

Rick Sierra□

VP, Arctas Capital Group

Buen dia, □ □ Favor confirmer fecha y hora limite para someter lo siguiente: □ - Propuesta redactada en Oficina 301□ - Propuesta en Power Advocate □ □

Regards,⊟ Marilyn Ocasio

```
Hello Marilyn, 

This RFP's original due date was 09/11/2018. PREPA has already extended the original due date by two weeks
and will not be considering an additional extension for this request for proposals. \Box
We appreciate your interest in this RFP process.
Regards, □
Delis Zambrana
---- Original Message Sent 09/20/18 02:58 PM (EDT). --- D
Good afternoon,□
We respectfully request that an extension of the submission deadline is considered by PREPA since the
budgetary proposal received from MHPS does not include important technical data/parameters needed. The
information has been requested but it has not been received. \Box
```

□ Regards,□ Marilyn Ocasio□ 787-632-6404 Good afternoon,□

We respectfully request that an extension of the submission deadline is considered by PREPA since the budgetary proposal received from MHPS does not include important technical data/parameters needed. The information has been requested but it has not been received.

□ Regards,□ Marilyn Ocasio□ 787-632-6404 Buen dia,⊟

Por este medio solicitamos la extension de la fecha limite para someter la propusta ya que no hemos recibido la oferta de Mitsubishi para la conversion de las unidades. □

□ Saludos,□ Marilyn Ocasio□ Puma Energy \*\*\*Notice to all participants\*\*\*□

The following documents are now available in the Download Documents Tab of this event 81412:  $\hfill\square$ 

1. Addendum 009

2. Addendum 009 - Attachment 1

3. Addendum 009 - Attachment 2

4. Addendum 009 - Attachment 3□

Thank you for your interest in this RFP process.

## Dear PREPA,□

Siemens would like to know when is PREPA expecting to provide answers to our questions since the Bid due date is fast approaching.□

Thanks for your time  $\square$ 

Janos Ivanyi

To whom it may concern:  $\Box$ 

We understand from the last addendum posted that there is no requirement for registration for the site visit on September 13th. Regardless, Ing. Rodolfo Quiñones will attend the site visit scheduled for September 13th on behalf of Tropigas.

Cordially,□ Luis Humberto Berrios Saludos, buen dia.□ □ Se confirma la asistencia del personal de RG Engineering, Inc. para ambas visitas. □ □ Aida

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Thank you very much.□

□

--- Original Message Sent 09/10/18 10:47 PM (EDT). ---□

Good evening □
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Included Addendum No. 8

Good afternoon,□

Regarding proposal submission: Section 1.3 Proposal Submission indicates that proponents should submit a redacted copy of the proposal to the Supplier Registry Office. Can you please confirm the deadline for submitting a hard copy of redacted proposal to Supplier Registry Office?

Thank you very much.□

--- Original Message Sent 09/10/18 10:47 PM (EDT). ---  $\square$  Good evening  $\square$ 

Included Addendum No. 8

Good evening D Included Addendum No. 8 Hereby we confirm attendance to the Sep 14th Site Visit. From AES the following participants will be participating:  $\square$ 

Ted Fredrik Emanuel Gustavsson - ID number: 18000630  $\square$ 

□ Gabriel Enrique Sanabria Asencio (# Licencia Conducir PR 4471191)□

Regards,

Notice to all participants:  $\Box$ 

Please refer to the attachment for Addendum 7 which confirms the dates and times for the two site visits scheduled for this week.  $\Box$ 

Again, we appreciate your interest in this request for proposals.

## Hello, 🗆

Thank you for your observation. PREPA has issued an Addendum 7 to clarify the Thursday site visit date.  $\Box$ 

Thank you again,  $\Box$ 

Delis Zambrana 🗆

---- Original Message Sent 09/10/18 03:10 PM (EDT). ---□

According to addendum 4, the visit to the site will be on September 13, but in addendum 6 it says September 14. Could you please clarify it?

According to addendum 4, the visit to the site will be on September 13, but in addendum 6 it says September 14. Could you please clarify it?

Greetings Miss Zambrana,□

In the Addendum number 6 states that the site visit schedule on the Addendum number 4 still stands, in September 14. In the Addendum number 4 the date for the visit is the September 13, @1:30pm. Which of the dates is correct? Is the site visit of September 11, @ 8:00 am is different from the other one?

Hello, 🗆 Thank you for your observation. PREPA has issued an Addendum 7 to confirm Thursday's site visit date. Regards, □ Delis Zambrana 🗆 ---- Original Message Sent 09/10/18 02:35 PM (EDT). --- D ---- Original Message Sent 09/10/18 02:26 PM (EDT). --- □ Notice to all participants: Please refer to the attachment for Addendum 006, Site Visit 09/11/2018 - 8am. We appreciate your interest in this RFP process. Thank you for the email. But now I have some confusion, in the Addendum 004 the date for the site visit is September 13 at 1.30 pm but now in the Addendum 006 appears at September 14th. Which is the correct date? Thank you,

--- Original Message Sent 09/10/18 02:26 PM (EDT). --- Notice to all participants: Please refer to the attachment for Addendum 006, Site Visit 09/11/2018 - 8am. We appreciate your interest in this RFP process. We appreciate your interest in this RFP process. Thank you for the email. But now I have some confusion, in the Addendum 004 the date for the site visit is September 13 at 1.30 pm but now in the Addendum 006 appears at September 14th. Which is the correct date? Notice to all participants: 

Thank you,

Notice to all participants:  $\Box$ 

Please refer to the attachment for Addendum 006, Site Visit 09/11/2018 - 8am.  $\ \square$ 

We appreciate your interest in this RFP process.

Notice to all participants:  $\Box$ 

Please refer to the attachment for Addendum 006, Site Visit 09/11/2018 - 8am.  $\ \square$ 

We appreciate your interest in this RFP process.

Good afternoon□ □ Included Addendum No. 5 Dear Nathalia, 
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--- Original Message Sent 09/06/18 05:00 PM (EDT). --- 
Good afternoon 
Included Addendum No. 4 
This is to confirm that we will be participating at this site visit. 
Naturgy
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Good afternoon□ □ Included Addendum No. 4

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Buen dia Sra. Martinez,□
Respetuosamente solicitamos que se considere nuestra peticion de visitar las facilidades el 11/sept ya que
nuestro equipo no estara en PR el 13/sept.
Gracias anticipadas.
Marilyn Ocasio 
Puma Energy□
---- Original Message Sent 09/04/18 01:47 PM (EDT). --- D
Buenas tardes Sra. Martinez,□
Le solicitamos por este medio que nos permitan visitar las facilidades de SJU 5&6 el 11 de septiembre. □
Favor confirmar.
Saludos,□
Marilyn Ocasio□
Business Development Manager
Puma Energy 

787-632-6404
```

Buenas tardes Sra. Martinez, Buenas tardes Sra. Martinez, Le solicitamos por este medio que nos permitan visitar las facilidades de SJU 5&6 el 11 de septiembre. Favor confirmar. Favor confirmar. Saludos, Marilyn Ocasio Business Development Manager Puma Energy 787-632-6404 Natalia, 
\Box Natalia, 
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--- Original Message Sent 08/28/18 05:12 PM (EDT). ---□ Good afternoon□

Please confirm where the questions were uploaded. If these were to the Upload Document tab, we recommend that you submit them through the messaging tab as an attachment. Since we won't be able to see any submission in the upload documents tab until the event is open (Proposal Submission Deadline).  $\Box$ 

---- Original Message Sent 08/28/18 05:01 PM (EDT). --- □

Good afternoon. We just uploaded our Questions to the PowerAdvocate site.  $\Box$ 

 $\text{Regards},\square$ 

□ Hector Good afternoon□

Please confirm where the questions were uploaded. If these were to the Upload Document tab, we recommend that you submit them through the messaging tab as an attachment. Since we won't be able to see any submission in the upload documents tab until the event is open (Proposal Submission Deadline).

--- Original Message Sent 08/28/18 05:01 PM (EDT). --- □

Good afternoon. We just uploaded our Questions to the PowerAdvocate site.

Regards,□

Hector

Good afternoon. We just uploaded our Questions to the PowerAdvocate site.

Good day, Attached please find Puma's questions related to RFP 81412 for the conversion of SJU plant units 5&6. Thanks, Marilyn Ocasio Business Development Manager 787-632-6404 --- Original Message Sent 08/28/18 11:30 AM (EDT). --- Attached please find the questions to the RFP submitted by our client, Decentricity Puerto Rico LLP. Attached please find the questions to the RFP submitted by our client, Decentricity Puerto Rico LLP.

Dear Nathalia and PREPA Buyer team members,

On behalf of TOTAL Global LNG, I am happy to submit enclosed our Clarifications/Questions/Recommendation in reference to the Request for Proposal for Fuel Supply in the North and Conversion of San Juan Units 5 and 6 (¿RFP 81412¿.□

Thanking you in advance for the attention you will give to this document, I remain at your disposal if you have any question.□

With best regards□ Cecile Ballantyne-Jovene Please consider the attached questions for the ongoing tender.

Please see the attached document that outlines our questions for RFP for Fuel Supply in the North and Conversion of San Juan Units 5 and 6.

In addition to the two first questions submitted via PowerAdvocate Platform Messaging tab, as separate messages, on August 20, 2018. Siemens is submitting the additional questions attached for Bid process ¿Fuel Supply in the North and Conversion of San Juan Units 5 & 6 RFP81412

Saludos,⊟

La siguiente es para solicitar acceso a la Central San Juan el 28 o el 29 de agosto de 2018 para poder llevar un personal que viene a evaluar las facilidades para poder licitar la subasta.

Le agradeceré la ayuda que pueda darnos en este respecto.  $\Box$ 

Atentamente.

Hector Pujols

This is to inform that the following persons will attend from San Juan Gas:  $\square$ 

1. Ramon Gonzalez Simounet□

2. Marlon Cabrera 🗆

Thanks

Siemens confirms that will be attending to the site visit August 23, 2018 at 8:30am. Siemens attendees will be Eng. Pablo Colmenares and Eng. Francisco Hernandez

Please find attached copy of Promigas questions and comments regarding the RFP 81412

Hola! Entendemos que 2 persona asistiran a la misma. Gracias.□ Aida 🗆 ---- Original Message Sent 08/21/18 10:28 AM (EDT). --- D Buenos días Aida 🗆 Gracias por la confirmación. Agradeceremos nos indiquen la cantidad de personas que participaran de la misma.□ ---- Original Message Sent 08/21/18 10:10 AM (EDT). --- □ Buenos dias;□ Por este medio se confirma la asistencia de RG Engineering a la visita programada para este jueves 23/agosto en la Central San Juan.□ Saludos,□ Aida Rodriguez

Buenos días Aida 🗆 Gracias por la confirmación. Agradeceremos nos indiquen la cantidad de personas que participaran de la misma.□ ---- Original Message Sent 08/21/18 10:10 AM (EDT). --- □ Buenos dias;□ Por este medio se confirma la asistencia de RG Engineering a la visita programada para este jueves 23/agosto en la Central San Juan.□ Saludos,□

Aida Rodriguez

Buenos dias;  $\Box$ 

Por este medio se confirma la asistencia de RG Engineering a la visita programada para este jueves 23/agosto en la Central San Juan.

Saludos,□

Aida Rodriguez

## Saludos - Confirmación para la visita 23 de agosto en San Juan: En nombre de NFEnergia, los asistentes serán Winnie Irizarry y Lee Evans. ---- Original Message Sent 08/20/18 05:57 PM (EDT). ---- Good afternoon

Included Addendum No. 3

Good afternoon D
Included Addendum No. 3 "The Contractor shall be responsible for the scope of work and associated capital cost required for LNG gas conversion of PREPA's San Juan Units 5 and 6, as well as modifications to associated turbine controls. The Contractor shall include the cost of the scope for PREPA's Unit 5 and 6 conversion as part of its proposal in the form of a capacity payment over the initial Base five (5) year term of the Agreement. The Contractor shall oversee and manage the conversion work with appropriate subcontracts to the combustion turbine original equipment supplier company, Mitsubishi, who will be responsible for defining the scope for the turbine's gas conversion and turbine controls modifications including engineering/design, equipment supply and technical advisors for construction and startup. The Contractor shall be responsible for coordinating outage planning with PREPA to implement the necessary modifications. The Contractor will optimize the conversion of Units 5 and 6 to achieve commercially reasonable improvements in output and heat rate in conjunction with the conversion.

Mitsubishi shall be a sole source subcontractor to the Contractor, and Mitsubishi shall be responsible for engineering, supply, technical advising/installation oversight and commissioning associated with the conversion of San Juan 5 and 6, including but not limited to:"

Question #2 - As the Original Equipment Manufacturer Siemens respectfully requests that PREPA modify the RFQ so that, Siemens can be considered as another potential provider for the conversion of San Juan Units 5 and 6 to dual fuel with applicable performance upgrades.

"The project will include EPC project (engineer/design, procure/supply, and construction) and operation/maintenance for the fuel gas supply infrastructure required to supply and burn natural gas at manufacturer's specifications of two 501F Mitsubishi combustion turbines (Units 5 and 6), keeping the existing distillate #2 oil infrastructure as a secondary backup fuel. The Contractor shall be responsible in supplying all materials, equipment, and personnel to fulfill the project within the scope of supply, starting from the LNG unloading terminal and ending at the combustion turbine nozzle inlet. The engineering shall consider transient loads management solution due to potential load fluctuations of the units."

Question #1 - Siemens would like to clarify that the combustion turbines named San Juan Units 5 and 6, nomenclature W501FC, are Westinghouse engines sold by Siemens, through an EPC Contractor, to the Puerto Rico Electric Power Authority, in 1996. As you may know, Siemens is the owner of the Westinghouse technology so Siemens respectfully hereby requests that PREPA modify the RFQ to reflect Siemens as the Original Equipment Manufacturer.

Good afternoon Is included for your information Addendum No. 2 Logre el acceso. Gracias.

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Mariangely Cruz

Buenas tardes  $\square$ 

De estar confrontando problemas con la aplicación PowerAdvocate puede comunicarse al Technical Support al: (857) 453-5800 o enviar un correo electrónico a la siguiente dirección: support@poweradvocate.com

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---- Original Message Sent 08/11/18 11:10 AM (EDT). --- 🗆
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Buenos dias.□

Me registre pero no puedo bajar los documentos del RFP. Me podria ayudar?□

Gracias□

Manuel Fernandez

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---- Original Message Sent 08/02/18 08:41 AM (EDT). --- □
```

Good Morning

Is included for your information Addenda No. 001

Buenos dias. Me registre pero no puedo bajar los documentos del RFP. Me podria ayudar? Gracias Manuel Fernandez Manuel Fernandez Good Morning Carteria (EDT). --- Good Morning Carteria (EDT). --- Manuel Service (EDT). --- Good Morning Carteria (EDT). --- Carteria (EDT). --- Buenos dias. Buenos dias. Me registre pero no puedo bajar los documentos del RFP. Me podria ayudar? Buenos dias. Me registre pero no puedo bajar los documentos del RFP. Me podria ayudar? Buenos dias. Me registre pero no puedo bajar los documentos del RFP. Me podria ayudar? Buenos dias. Me registre pero no puedo bajar los documentos del RFP. Me podria ayudar? Buenos dias. Me registre pero no puedo bajar los documentos del RFP. Me podria ayudar? Buenos dias. Me registre pero no puedo bajar los documentos del RFP. Me podria ayudar? Buenos dias. Me registre pero no puedo bajar los documentos del RFP. Me podria ayudar? Buenos dias. Me registre pero no puedo bajar los documentos del RFP. Me podria ayudar? Buenos documentos del RFP. Buenos documentos del RFP. Buenos documentos del RFP. Buenos documentos del RFP. Buenos documentos del RFP. Buenos documentos del RFP. Buenos documentos del RFP. Buenos documentos del RFP. Buenos documentos del RFP. Buenos documentos del RFP. Buenos documentos del RFP. Buenos docum

Is included for your information Addenda No. 001

Good Morning Is included for your information Addenda No. 001 Buenas tardes□

Durante la tarde de hoy estaremos proveyendo dicha información.  $\square$ 

--- Original Message Sent 08/01/18 09:28 AM (EDT). --- □

Buen dia,⊟

Se puede proveer detalles sobre la hora y lugar de las reuniones agendadas para el 6 y 7 de agosto?□

Muchas gracias.

Buen dia,⊡

Se puede proveer detalles sobre la hora y lugar de las reuniones agendadas para el 6 y 7 de agosto?  $\Box$ 

Muchas gracias.

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Gobierno de Puerto Rico Autoridad de Energía Eléctrica

24 de septiembre de 2018

Directores de Generación, Transmisión y Distribución, Finanzas, Asuntos Jurídicos; Administradores de Reestructuración y Asuntos Fiscales e Innovación y Operaciones e Infraestructura

José F. Ortiz Vázquez

Principal Oficial Ejecutivo

# Designación Comité Evaluador para la Solicitud de Propuestas (RFP) para el Proyecto *Fuel Supply in the North and Conversion of San Juan Units 5 and* 6

El 30 de julio de 2018, la Autoridad inició un proceso de solicitud de propuestas (RFP) para buscar suplidores de un combustible alterno para las unidades de ciclo combinado 5 y 6 de la Central San Juan. Actualmente, estas unidades solo tienen la capacidad de operar con Destilado #2 (diésel); por lo cual, se persigue obtener una propuesta que ofrezca un combustible más barato que pueda traducirse en ahorros para la Autoridad y sus clientes. El RFP también requiere que las propuestas incluyan las conversiones de ambas unidades para que tengan la capacidad de quemar el combustible propuesto.

Se constituirá un Comité Evaluador, responsable de negociar, evaluar y recomendar a la empresa seleccionada a través de un proceso transparente, que garantice proteger y salvaguardar los mejores intereses de la Autoridad. Además, preparará informes y recomendará la propuesta que ofrezca los mejores resultados y soluciones para la Autoridad. También asegurará que el proveedor seleccionado cumpla sustancialmente con las especificaciones, términos y condiciones establecidos para el RFP. Finalmente, será responsable de evaluar e informar los procesos de negociación y recomendará su determinación al Principal Oficial Ejecutivo y a la Junta de Gobierno.

Principal Oficial Ejecutivo Apartado 364267 San Juan, Puerto Rico 00936-4267

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"Somos un patrono con igualdad de oportunidades en el empleo y no discriminamos por razón de raza, color, sexo, edad, origen social o nacional, condición social afiliación política, ideas políticas o religiosas; por ser víctima o ser percibida(o) como víctima de violencia doméstica, agresión sexual o acecho, sin importar estado civil o orientación sexual, identidad de género o estatus migratorio; por impedimento físico, mental o ambos, por condición de veterano(a) o por información generita.

Directores de Generación... Designación Comité RFP *Conversion San Juan Units 5 and 6* Página 2

Para cumplir con este proceso dentro del plazo estipulado, a las personas designadas, o sus representantes, se les delegará el poder absoluto para tomar decisiones. Los funcionarios designados para formar parte del Comité son los siguientes:

- Sr. Edgardo Díaz Reyes, Jefe División de Suministros o su representante Administración de Operaciones e Infraestructura
- Ing. Jaime A. Umpierre Montalvo, Jefe División de Ingeniería y Servicios Técnicos Directorado de Generación
- Ing. Roberto A. Rivera Medina, Ingeniero Supervisor División de Planificación y Protección Ambiental Directorado de Planificación y Protección Ambiental
- Ing. Edgardo Vázquez Báez, Administrador Oficina de Combustible Administración de Operaciones e Infraestructura

El Comité contará con el señor Nathan Pollak de Filsinger Energy Partners, como consultor, para asistir en las tareas de evaluación.

De requerir información adicional, pueden comunicarse con el señor Fernando M. Padilla, Administrador de la Oficina de Gestión de Proyectos e Innovación, por el 1350.

#### PHASE 1 COMMITTEE EVALUATION - Annex A of Evaluation and Selection Report

Item / Criteria	Lakeside Power and Methane	PUMA Energy	Naturgy Energy Corp.	AES Corp.	New Fortress Energia	SeaOne
				Constanting of the		The state
Experience and Capacity (10%)	No. Contraction					
Evidence of experience in previous projects.	1	4	4	4	4	1
Evidence and success in developing LNG developments of similar scope as the duties described in the RFP.	1	4	4	4	4	1
Description of Proposed Project Team (names and titles of key members, including design entity selected by proposer, with a brief description of the qualifications and experience of project manager, engineering and design manager, lead engineers, inspector manager, safety officers, qa/qc managers, environmental specialists, other key personnel, including subcontracts.	1	4	2	1	4 2	2
dentify and describe potential Subcontractors w/demonstrated proof of echnical capabilities necessary to perform their proposed scope of work and services, expected role and experience	1	4	2	3	4	1
submitted evidence that the proposer is duly and properly organized and ualified to do business in Puerto Rico or will be prior to contract award.	1	2	1	2	4	1
Respondents that demonstrate they have the staff available to begin mmediately will be scored higher than those who need more time, or whose responses are vague.	1	4	3	1	4	1
Approach and Methodology (30%)						
Explain approach to completing the project within the given construction dates and site constraints. Include summary level Critical Path Method Schedule detailing all aspects of the Project. Detailed assessment and response to site conditions constraints.	1	4	4	3	4	2
Dutline a clear and straightforward approach and demonstrated commitment to accomplishing the schedule goal of providing fuel gas no ater than March, 2019. Identify key goals and objectives, methods for chrieving high standards for the delivery of services to meet or exceed hese goals.	1	4	3	2	4	2
Aethods proposer foresees utilizing to accomplish duties at site with ketches or illustrations, if necessary. Approach will include: 1. Demonstrate lear and thorough interpretation and acknowledged assimilation of the roject work scope as described herein and part of this RPP. Satisfactory demonstrate how the duties will be staged to minimize mpacts to PREPA operations. Present a clear and logical approach for the efficient performance of all ords tasks across the proposer's submitted milestone schedule emonstrates a clear understanding and Integration of all interrelated uties. Describe how the proposer intends to address and mitigate adverse nvironmental materials. Provide specific and project team. APC/QC across the proposer's project team. Proposer's outline plan and commitment to safety.	1	4	3	3	4	2
roposers shall explain how they will be organized to effectively deploy upport for PREPA and clearly identify engagement manager and different ork stream leaders.	1	4	2	2	4	2
rice Proposal (60%)				a con		
roposers shall clearly identify Capacity Payment to cover Costs for onversion of units, proposed delivered fuel payment price and proposed uel price indexes for inflation and changing market conditions. Terms and ondition of priced proposal will also be a consideration.	1	4	2	2	4	2
vidence of financial ability and resources to adequately perform and anage the contract, manage risks or ability to obtain such resources as re required. If joint venture or newly formed entity, identify appropriate uarantor(s). Audited financial statement for the most recent three years, artificid by CPA. If Proposer is a partnership of joint venture, then audited nancial statements for each corporation, partnership, LLC, sole coprietorship, member of partner holding an interest in the proposer must e submitted for the same 3 year period.	1	з	3	3	з	1
etter of support Bonding Company that commits the bonding company to rovide the required bonding on behalf of the proposer.	1	2	1	1	4	1
the require company that commits the insurance company to rovide the required insurance on behalf of the proposer if the proposer is warded the contract for the project. See attachments for insurance quirements of the RFP.	1	4	4	1	<b>z</b> = <sup>32</sup>	1
Total	20	70.5	53.3	41.4	71.4	29

So and a solution

Grading Criteria	PUMA Energy Caribe	New Fortress Energía
xperience and Capacity (10%)		
vidence of experience in previous projects.	4	4
vidence and success in developing LNG developments of similar scope as the duties described in		A REAL PROPERTY AND A REAL
he RFP.	4	4
Description of Proposed Project Team (names and titles of key members, including design entity elected by proposer, with a brief description of the qualifications and experience of: project nanager, engineering and design nmanager, lead engineers, inspector maanger, safety officers, ja/gc managers, envinronmental specialists, other key personnel, including subcontracts.	4	5
dentify and describe potential Subcontractors w/demonstrated proof of technical capabilities ecessary to perform their proposed scope of work and services, expected role and experience	4	5
ubmitted evidence that the proposer is duly and properly organized and qualified to do business n Puerto Rico or will be prior to contract award.	2	4
tespondents that demonstrate they have the staff available to begin immediately will be scored ligher than those who need more time, or whose responses are vague.	4	5
pproach and Methodology (30%)	The management with the	
xplain approach to completing the project within the given construction dates and site onstraints. Include summary level Critical Path Method Schedule detailing all aspects of the roject. Detailed assessment and response to site conditions constraints.	3	4
buttine a clear and straightforward approach and demonstrated committenes. he schedule goal of providing fuel gas no later than March, 2019. Identify key goals and bjectives, methods for achieving high standards for the delivery of services to meet or exceed	2	5
Aethods proposer foresees utilizing to accomplish duties at site with sketches or illustrations, if eccessary. Approach will include: 1. Demonstrate clear and thorough interpretation and chowledged assimilation of the project work scope as described herein and part of this RFP. 2. atisfactory demonstrate how the duties will be staged to minimize impacts to PREPA operations. . Present a clear and logical approach for the efficient performance of all work tasks across the roposer's entire project team 4. Describe how the proposer's submitted milestone schedule lemonstrates a clear understanding and integration of all interrelated duties. S. Describe how he proposer intends to address and mitigate adverse environmental materials. 6. Provide pecific and project proven approach and plan for effective QA/QC across the proposer's project eam. . Proposer's outline plan and commitment to safety.	3	4
oposers shall explain how they will be organized to effectively deploy support for PREPA and early identify engagement manager and different work stream leaders.	3	4
rice Proposal (60%)		
roposers shall clearly identify Capacity Payment to cover Costs for conversion of units, proposed elivered fuel payment price and proposed fuel price indexes for inflation and changing market anditions. Terms and condition of priced proposal will also be a consideration.	2	4
Adence of financial ability and resources to adequately perform and manage the contract, anage risks or ability to obtain such resources as are required. If joint venture or newly formed titly, identify appropriate guarantor(s) and provide evidence of financial resources of such uarantor(s). Audited financial statement for the most recent three years, certified by CPA. If oposer is a partnership of joint venture, then audited financial statements for each corporation, artnership, LLC, sole proprietorship, member of partner holding an interest in the proposer must e submitted for the same 3 year period.	3	3
tter of support Bonding Company that commits the bonding company to provide the required inding on behalf of the proposer.	2	4
tter from insurance company that commits the insurance company to provide the required surance on behalf of the proposer if the proposer is awarded the contract for the project. See tachments for insurance requirements of the RFP.	4	2
tal Score:	12.1	15.6
	57.6%	74.3%

#### RFP 81412 Phase 2 Committee Evaluation - Annex B of the Evaluation and Selection Report

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#### GOVERNMENT OF PUERTO RICO Puerto Rico Electric Power Authority

RFP 81412 Evaluation and Selection Report - Attachment C

October 12, 2018

#### **Re: Northern Fuel RFP Proponent Price Evaluation Model**

#### Introduction

The intent of the Request for Proposal (RFP) is to seek significant cost savings in the fuel of San Juan Units 5&6 ("SJ 5&6"). The facility currently burns diesel fuel which is significantly cost disadvantaged in relation to other potential fuels. Diesel also causes increased wear on the combustion turbine and has significantly greater environmental emissions concerns. Thus, incremental savings are also expected in reduced maintenance expenses and the environmental impacts are inestimable.

PREPA is currently in Title III bankruptcy proceedings. Under Title III, PREPA is obligated to work to reduce its expenses to improve on its fiscal situation. Furthermore, the island of Puerto Rico is in deep fiscal crisis which greatly affects the Puerto Rican public. PREPA was established to provide reliable and affordable power to the people of Puerto Rico. Fuels savings for PREPA translate to electricity cost savings for the Island. Thus, it is incumbent upon PREPA to move quickly to reduce its expenditures wherever possible in order to assist the Commonwealth and its citizens in this time of fiscal distress.

SJ 5&6 are ideally situated inside the primary load center of the island of Puerto Rico and adjacent to the water in the port of San Juan. The proximity to major load centers of a reliable 440 MW generation facility provides stability to the grid. Thus, the cost efficiency and reliability of these power generation units are of significant importance to providing affordable, economic & reliable power to the people of Puerto Rico.

The RFP for an Alternative Fuel in the North and the potential Conversion of SJ 5&6 requested a 5-year contract with the potential for three (3) 5-year extensions. Should the alternative fuel require conversion of SJ 5&6 to dual-fuel capability, then the respondent should include the conversion cost as part of the price proposal.

As part of the evaluation process, Filsinger Energy and PREPA advisers developed a model (the "Model") to evaluate the relative economic merits of the proposals. The Model was developed in Microsoft Excel using a monthly cost avoidance approach in which certain assumptions have been held steady "ceterus paribus" to provide a fair comparison between proposals. Each proposal is looked at in isolation in which SJ 5&6 burn their current fuel, diesel,

CN 078-04495 Rev. 11/17



### GOVERNMENT OF PUERTO RICO

Puerto Rico Electric Power Authority

RFP 81412 Evaluation and Selection Report - Attachment C

until the proposed alternative fuel can come online. Benefits of the proposal begin once the new fuel is being provided, and is calculated as the difference between the cost of diesel fuel (the avoided cost) and the proposed fully loaded cost of the proposed alternative fuel.

#### **Model Description**

The Model uses a Net Present Value (NPV) approach in order to fairly compare proposals that start at different points in time. NPV is a fundamental concept in Finance that recognizes the "time-value" of money in which a dollar in the future is worth less than a dollar today. This can be thought of in terms of buying power. Inflation reduces the amount of goods or services that could be acquired in the future for a dollar versus what can be purchased today. Alternatively, a dollar invested today can be invested to earn interest which in total is worth more than waiting to receive that dollar in the future.

Thus, NPV analysis is a time-value of money evaluation approach that "discounts" all monthly pricing back to a comparable present-day dollar and allows for side-by-side comparisons of proposals. In the case where two proposals have the same price but start at different times, the NPV approach will provide some incremental benefit to the proposal that delivers benefits sooner because the savings associated with lowering fuel costs are realized more quickly. The NPV evaluation method in essence captures the idea that a dollar saved today is worth more than a dollar saved next year (or later). Proposals delivered later in time can still be competitive if the expected savings overcomes the time-value effects of discounting the later benefits. NPV analysis allows the model to not only consider the nominal price of a proposal but also the time frame in which the solution can be delivered.

#### **Model Structure and Functionality**

The Model is structured to provide the user with the ability to vary key inputs and evaluate the relative impacts to project results. The Model has one Microsoft Excel "worksheet" called "Assessment" that provides the operational and fuel cost calculations, and financial results. Results are summarized in the "Ranking" worksheet. Key model inputs are clearly labeled as separate worksheets or as blue-colored text in the Assessment worksheet.

Results are presented in both the Assessment and Ranking worksheets as the following comparative values:

- Net Present Value
- Weighted average fuel price of the alternative fuel, fully loaded to include the capacity payment and take-or-pay commitments on a dollars per MMBtu basis
- Total fuel cost on a dollars per MMBtu basis over the evaluation period,

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### GOVERNMENT OF PUERTO RICO

Puerto Rico Electric Power Authority

RFP 81412 Evaluation and Selection Report - Attachment C

considering the capacity payment, the variable fuel payment, and the monthly carrying cost of diesel fuel until the alternative fuel can be delivered.

The following is a brief overview of the Model's worksheets:

- Assessment The core of the Model. This worksheet contains all the calculations used to derive the results of the assessment. Operating assumptions, fuel price assumptions, and other modeling assumptions are capture first. The Model considered a 6-year (72 month) timeframe beginning in January 2019 due to the RFP request for 5-year contracts.
- Timeframe A specific period of analysis was required to normalize the analysis of the proposals. An assumption was made that some period of permitting, construction, etc. would have to occur before a proponent could begin fuel deliveries under a contract. A construction period of one year assumed prior to delivery in under a 5-year contract as contemplated under the terms of the RFP. Thus, a timeframe of 72 months was chosen to provide a reasonable time period over which to evaluate the proposals.
- **Ranking** This worksheet summarizes the results from the Assessment worksheet. The results table shows for each proposal the NPV result of the proposal's avoided cost benefits, the weighted average fully loaded cost of the alternative fuel in dollars per MMBtu, total fuel cost per MMBtu over the period, assumed start date for deliveries of the alternative fuel, the contract term length, and start date of each proposal.
- **CPI** This worksheet contains a Consumer Price Index (CPI) schedule drawn from the Philadelphia Federal Reserve Bank from third quarter 2018. This data is used in the calculation of fuel price in several of the proponents' proposals.

https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters/2018/survq318

- **Diesel\_Fiscal\_Plan** This worksheet contains the monthly \$/MMBtu forward forecast of the price of No.2 Fuel Oil ("Diesel") for the time period of January 2018 through June 2023 from the 2018 Fiscal Plan. For the purposes of this analysis, Diesel was escalated by inflation for the remaining period past June 2023.
- ULSD\_NYH & ULSD\_GLF These worksheets contain the NYMEX Oil & Refined Products Futures data from New York Harbor and Gulf Coast Clovelly LA, respectively, as of September 26, 2018. September 26, 2018 was used as it is the date the RFP closed on Power Advocate. This data was pulled from SNLFinancial. The last period of the forward curve was escalated by inflation to provide data for the full length of the analysis



CN 078-04495 Rev. 11/17



### **GOVERNMENT OF PUERTO RICO**

Puerto Rico Electric Power Authority

RFP 81412 Evaluation and Selection Report - Attachment C

of the model. This data is used in the calculation of fuel price in several of the proponents' proposals.

- NG\_HH This worksheet contains the NYMEX Natural Gas Forward & Futures from Gulf Coast
   LA as of September 26, 2018. September 26, 2018 was used as it is the date the RFP closed on Power Advocate. This data was pulled from SNLFinancial. The last period of the forward curve was escalated by inflation to provide data for the full length of the analysis of the model. This data is used in the calculation of fuel price in several of the proponents' proposals.
- NG\_HH This worksheet contains the NYMEX Natural Gas Forward & Futures from Gulf Coast
   LA as of September 26, 2018. September 26, 2018 was used as it is the date the RFP closed on Power Advocate. This data was pulled from SNLFinancial. The last period of the forward curve was escalated by inflation to provide data for the full length of the analysis of the model. This data is used in the calculation of fuel price in several of the proponents' proposals.
- Propane\_MB This worksheet contains the NYMEX NGL Futures from Mont Belvieu, TX as of September 26, 2018. September 26, 2018 was used as it is the date the RFP closed on Power Advocate. This data was pulled from SNLFinancial. The last period of the forward curve was escalated by inflation to provide data for the full length of the analysis of the model. This data is used in the calculation of fuel price in several of the proponents' proposals. This worksheet also contains a heat content assumption for propane as 0.09133 MMBtu per gallon.

Inputs to the model are generally coded in blue text. Calculated values are represented in black text.

Parameter		Value	Comments				
Plant Capacity		440 MW	Held Constant in all cases, Noted in RFP				
Capacity Factor				85%	Held Constant in all cases, Noted in RFI		
Heat Rate	(Btu/MWh	) HHV			7.5	Held Constant in all cases	
Weighted (WACC)	Average	Cost	of	Capital	8.5%	Discount rate for NPV calculations; source: Integrated Resource Plan (IRP)	
						Assumption as of October 4, 2018	

#### Key Assumptions and Calculations



## GOVERNMENT OF PUERTO RICO Puerto Rico Electric Power Authority

#### RFP 81412 Evaluation and Selection Report - Attachment C

Calculations	Formula / Comments
Fuel Consumption Calculation Formula (per period) (MMBtu)	Plant Capacity x Hours x Capacity Factor x Heat Rate x 1000
Fuel Cost Calculation (per Period) (\$ USD)	MMBtus consumed x Fuel Price
Capacity Cost Calculation (per Period) (\$ USD)	Taken directly from proponent proposals
Fuel Price (per Period)(\$/MMBtu)	Taken directly from proponent proposals
Take or Pay Provision	Taken directly from proponent proposals
Total Proposal Cost Calculation (per Period)	Capacity Cost + Fuel Cost + Take or Pay Provision

### **Economic Evaluation Results**

PREPA staff evaluated each proposal in terms of NPV, weighted average fully loaded cost per MMBtu, and total fuel cost per MMBtu over the period. The following table provides a summary of these results.

Bid	NPV	\$/MMBtu of delivered alternate fuel (during 6- yr eval term)	<u>Total Fuel Cost</u> (Alternative + <u>Diesel</u> )
1 New Fortress	1,186.4	\$10.44	\$12.08
2 SeaOne Caribbean	1,171.2	\$10.90	\$12.16
3 Naturgy Option 2 - FSRU + FSRB	1,127.4	\$11.17	\$12.45
4 Puma Energy Caribe - 10 yr LNG - Jones Act Waiver	972.5	\$12.41	\$13.52
5 Puma Energy Caribe - 5 yr LNG - Jones Act Waiver	950.5	\$12.61	\$13.68
6 Puma Energy Caribe - LPG Bridge to LNG (5-year - No Jones Act Waiver)	936.7	\$13.31	\$13.78
7 Puma Energy Caribe - 10 yr LNG - No Jones Act Waiver	918.7	\$12.91	\$13.90
8 Puma Energy Caribe - 5 yr LNG - No Jones Act Waiver	896.8	\$13.12	\$14.05
9 Naturgy Option 1 - FSRB	891.2	\$10.84	\$14.07
10 Puma Energy Caribe - LPG	674.8	\$15.50	\$15.60
11 AES	429.1	\$10.16	\$17.28



#### GOVERNMENT OF PUERTO RICO Puerto Rico Electric Power Authority

#### RFP 81412 Evaluation and Selection Report - Attachment C

In Phase 1 of the RFP Evaluation Process (see RFP 81412 Evaluation and Selection Report), the above proposal list was narrowed to the short list (the "Shortlist") of proponents who moved into Phase Two of the process. These proponents were New Fortress and Puma Energy.

Bid	<u>NPV</u>	\$/MMBtu of delivered alternate fuel (during 6- yr eval term)	Total Fuel Cost (Alternative + Diesel)
1 New Fortress	1,186.4	\$10.44	\$12.08
2 Puma Energy Caribe - 5 yr LNG - Jones Act Waiver	950.5	\$12.61	\$13.68
3 Puma Energy Caribe - LPG Bridge to LNG (5-year - No Jones Act Waiver)	936.7	\$13.31	\$13.78
4 Puma Energy Caribe - 5 yr LNG - No Jones Act Waiver	896.8	\$13.12	\$14.05

#### Summary Definitions

Parameter	Definition	
NPV	As Described on Page 2;	
\$/MMBtu of Delivered Fuel	This is a "fully loaded" view considering fuel cost, any capacity factor payments, and any take-or-pay provisions included in a proponent's offer	
Total Fuel Cost	The total cost of fuel used over the evaluated 6-year period whether it was the existing fuel (diesel) or the proponent's bid fuel; this is also "fully loaded"	

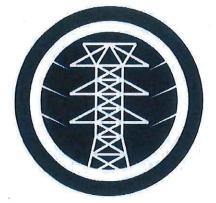
#### Summary Economic Results Discussion

Overall, the analysis favors the New Fortress proposal, as it has the highest NPV. This is due to a competitive price proposal as well as the shortest time to market.

Puma Energy offered a variety of 5-year scenarios in their proposal and all were evaluated.

It should be noted that though the proposal submitted by AES offers the most competitive \$/MMBtu of alternative fuel, the proposed timeline of delivery is mid-2023 which significantly reduces the competitiveness of their offer.

The NPV method of analysis combines favorable pricing and the time-value of money concept to properly evaluate these proposals across both dimensions.



# Autoridad de Energía Eléctrica

**Puerto Rico Electric Power Authority** 

# Evaluation and Selection Report

Request for Proposals (RFP) 81412

Fuel Supply in the North and Conversions of San Juan Units 5 & 6



#### INTRODUCTION

This request for proposals (RFP) was issued by the Puerto Rico Electric Power Authority (PREPA). The purpose of this RFP is to solicit proposals from interested qualified firms which can provide LNG fuel supply in the North and LNG fuel conversion of San Juan Units 5 and 6.

The Puerto Rico Electric Power Authority (PREPA) electric generating fleet is old and in various states of disrepair. Because the majority of the power generation in Puerto Rico is on the South side of the Island and a majority of the load in on the North Side of the Island in the San Juan area, reliable and economic generation is needed in the north. This became especially critical following the 2017 hurricanes when much of the transmission capability from south to north was destroyed.

PREPA seeks to reduce the cost of generation and improving the compliance with environmental requirements for units required to reliably operate at base load in the San Juan area. One alternative being considered by PREPA is to seek suppliers for an alternate fuel supply to the newer, existing and more efficient combined cycle units at the San Juan generating station (San Juan Units 5 and 6). While the Units 5 and 6 are currently only capable of burning #2 Fuel Oil, PREPA will consider converting these units to an alternative fuel if the cost savings associated with the lower cost fuel supply justifies the power plant conversion modification expenditures.

Depending on the exact heat rate of modified units and assuming an 85% capacity factor, it is estimated that the total annual fuel requirements for the converted San Juan Units 5 and 6 would be approximately 25,000,000 MMBTU/year, or 25 TBTU/year.

PREPA is requesting all-inclusive, turnkey proposals to furnish, install, connect, deliver and operate a safe, stable, and reliable fuel supply system to the San Juan Units 5 and 6 combustion turbine combined cycle power generating plant; to supply the fuel gas for five years to the power generating plant; and to perform all work, including but not limited to: engineering/design, environmental permit support, equipment/materials supply, construction and commissioning, as required for the conversion of San Juan Units 5 and 6 to firing fuel gas. The fuel gas supply shall be liquefied natural gas (LNG) with an annual available quantity of at least 25 TBTU/year (alternative fuels can be proposed provided the combustion turbine equipment manufacturer, Mitsubishi Hitachi Power Systems, can confirm the units can safely and reliably upon being converted to the proposed alternate fuel and that can be cleared by PREPA on a risk assessment).

The intent of this RFP is to award one contract for LNG fuel supply, or any other proposed fuel, in the north and for fuel conversion of San Juan Units 5 and 6. Award of contract will be to those qualified firms whose proposal, conforming to RFP81412, is most advantageous to PREPA, the price and other factors will also be considered therein.

#### PROCESS

On July 13, 2018, PREPA's Governing Board approved a request for proposal process for the acquisition of a new fuel contract for San Juan Units 5 and 6 via Board Resolution 4620. PREPA published a public notice for this request for proposal in PowerAdvocate, PREPA's official electronic sourcing platform on July 30, 2018. Invitations to participate were either sent directly to vendors that PREPA understood could provide these services or interested vendors requested access through PowerAdvocate's Opportunities Dashboard. The RFP event link (invitation) was also

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Selection Report RFP81412

Fuel Supply in the North and Conversion of San Juan Units 5 & 6

published on aeepr.com (*Oportunidades de Subastas*). All vendors that requested access before the closing date of the RFP were granted access by the designated points of contact (PREPA Procurement) for this event.

This request for proposals had the following Key Process Events:

- August 9, 2018 RFP Kick-off Meeting
- August 10 and 23; Sept 11 and 13 Site Visits
- August 28, 2018 Questions Deadline
- Sept. 10 and 15 Questions Answered (clarifications to RFP terms were posted as addenda on PowerAdvocate)

By September 25, 2018, the closing date of RFP 81412, approximately sixty-eight companies had been granted access to this event, of which six companies submitted proposals. PREPA received proposals from:

- 1. AES Corporation
- 2. Naturgy Energy
- 3. Lakeside Power and Methane, LLC
- 4. SeaOne Caribbean
- 5. Puma Energy Caribe
- 6. New Fortress Energía

These six submittals were evaluated in accordance with the evaluation requirements set forth in the RFP and the evaluation criteria mentioned in section 3 of the RFP Overview Document.

#### **EVALUATION AND ANALYSIS OF PROPOSALS**

For the evaluation of the proposals, the Chief Executive Officer, Engineer José Ortiz, designated an Evaluation Committee (Committee) on September 24, 2018, which included the following representatives:

- Edgardo Díaz Head, Supply Chain Division
- Jaime Umpierre Head, Engineering and Technical Services Division
- Roberto Rivera Senior Engineer, Planning and Environmental Protection Directorate
- Edgardo Vázquez Administrator, Fuels Office
- Nathan Pollak Filsinger Energy Partners

For phase one of the evaluation, this Committee, with the additional assistance of Paul Harmon and Marcus Klintmalm of Filsinger Energy Partners, evaluated all six proposals based on the following requirements for quality assurance of the proposals received (Section 5.1.a(i) of PREPA's RFP Guide) and as established in Section 3 of the RFP 81412 Overview Document:

#### "Experience and Capacity (10 percent)

Respondents must demonstrate experience and success in developing LNG fuel developments of similar scope as the duties described herein. Proponents shall provide the names and titles of the key members of the Project team (including the Design Entity selected by the Proposer) with a brief description of the qualifications and experience of:

- 1. Project Manager
- 2. Engineering and Design Manager



- 3. Lead Engineers
- 4. Inspector Manager.
- 5. Safety Officers, QA/QC Managers, Environmental specialists.
- 6. Other key personnel required, including subcontractors.

Proponents shall include a clear assignment of responsibility for various project tasks to specific individuals. Proposals shall include resumes identifying the qualifications and experience of all personnel listed above.

Submit a complete list showing all key firms in the Proposer's team. If a partnership and/or joint venture is proposed, clearly explain which parties in the partnership or joint venture will interface with PREPA on design and technical issues, which parties will interface with PREPA on financial or contractual matters, and which member or partner will be responsible to resolve disputes between the Proposer and PREPA.

Identify and describe potential subcontractors with demonstrated proof of the technical capabilities necessary to perform their proposed scope of work and or services.

Submit evidence that the Proposer is duly and properly organized and is qualified to conduct business in Puerto Rico or will be prior to contract award.

Respondents that demonstrate they have the staff available to begin immediately will be scored higher than those who need more time, or whose responses are vague.

#### Approach and Methodology (30 percent)

Explain your approach to completing the Project within the given construction dates and site constraints. Include a summary-level CPM schedule detailing all aspects of the Project. Include a detailed assessment and response to the site condition restraints.

Respondents shall outline a clear and straightforward approach and demonstrated commitment to accomplishing the schedule goal of providing fuel gas for San Juan 5 and 6 no later than March, 2019. Respondents shall identify key goals and objectives, and methods for achieving high standards for the delivery of services, in expectation of meeting or exceeding these goals.

Describe in detail the methods you foresee utilizing to accomplish the duties at the site. Provide sketches or illustrations to explain your approaches if necessary. This approach will include:

- 1. Demonstrating a clear and thorough interpretation and acknowledged assimilation of the project work scope as described herein and that are part of this RFP.
- Satisfactorily demonstrating how the duties will be staged to minimize impacts to PREPA operations.
- 3. Presenting a clear and logical approach for the efficient performance of all work tasks across the Proposer's entire Project Team.
- 4. Describing how the Proposer's submitted milestone schedule demonstrates a clear understanding and integration of all the interrelated duties.
- 5. Describing how the Proposer intends to address and mitigate adverse environmental materials.
- 6. Providing a specific and project-proven approach and plan for effective Quality Assurance/Quality Control across the Proposer's Project Team

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7. The Proposer's outline plan and commitment to safety.

Respondents shall explain how they will be organized to effectively deploy support for PREPA and clearly identify engagement manager and different work stream leaders.

#### Price Proposal (60 percent)

Proposals will be scored based on price proposal format provided. Respondents shall clearly identify proposed capacity payment to cover costs for conversion of San Juan 5 and 6, proposed delivered fuel payment price, and proposed fuel price indices for inflation and changing market conditions. Terms and conditions of priced proposal will also be a consideration.

Provide evidence of the Proposer's financial ability and resources to adequately perform and manage the Contract, manage risk or ability to obtain such resources as are required during the performance of the Project. If Proposer is a joint venture or a newly-formed entity, identify appropriate guarantor(s) and provide evidence of the financial resources of such guarantor(s). Submit audited financial statements for the Proposer for the most recent three (3) fiscal years. certified by certified public accountant in accordance with generally accepted accounting principles. If the Proposer is a partnership or joint venture, then audited financial statements for each corporation, partnership, Limited Liability Company, sole proprietorship, member or partner holding an interest in the Proposer must be submitted for the same three (3) year period. If applicable, provide all such information with respect to any guarantor(s).

Provide a letter from a bonding company satisfactory to PREPA that commits the bonding company to provide the required bonding on behalf of the Proposer if the Proposer is awarded the contract for the Project.

Provide a letter from an insurance company, satisfactory to PREPA that commits the insurance company to provide the required insurance on behalf of the Proposer if the Proposer is awarded the contract for the Project. Insurance requirements can be found in Attachments to this RFP. PREPA may request further clarification to assist the Evaluation Committee in gaining additional understanding of proposal. A response to a clarification request must be to clarify or explain portions of the already submitted proposal and may not contain new information not included in the original proposal."

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The above mentioned criteria was graded using a score of 1 to 5, as established in Section 3 of the RFP document and defined as:

- 1 = Inadequate, does not meet RFP expectations.
- 2 = Adequate, criteria is met, below the standards set by the RFP.
- Good, meets the minimum standards set by the RFP. 3 =
- 4 = Very good, meets the standards set by the RFP.
- 5 = Excellent, presents the best proposal that meets the standards set by the RFP.

The evaluation process of proposals carried out by the Committee during various meetings through October 15, 2018, required the impartial analysis of each proposal to determine compliance on each of these criterion and additional requirements established in the RFP. The Evaluation Committee unanimously agreed, after an unbiased review of each proposal, per the criteria, that the following four companies did not meet the quality assurance of the basic requirements of RFP 81412:

1. Lakeside Power and Methane, LLC



- 2. Naturgy Energy
- 3. SeaOne Caribbean
- 4. AES Corporation

The phase one evaluation table appears as Annex A, *Quality Assurance Evaluation for Short List*. Notification letters for this first evaluation and selection phase of RFP 81412 were sent to all six vendors on October 6, 2018 via PowerAdvocate's Messaging.

The remaining two proposals that best met the quality assurance evaluation and requirements of the RFP, including contract term and evidence of Mitsubishi Hitachi support for the conversion of the units, were selected for this RFP's short list and phase two of the evaluation process.

Phase two allowed **New Fortress Energía and Puma Energy Caribe** to further explain their proposals during presentations held on October 10 and 11, 2018, at PREPA's corporate headquarters with the PREPA Committee members (voting members) as well as Matt Lee and Marcus Klintmalm of Filsinger Energy Partners. During these presentations, the two companies were provided the opportunity to provide additional information regarding non-minor and substantial commercial and technical aspects of their proposals and were informed that, per the RFP document's section 3.1, the Evaluation Committee could alter the scoring of the proposals based upon the presentation. On October 12, 2018, PREPA issued written requests for clarifications to both short list participants regarding information discussed during the presentations, with responses due by October 15, 2018.

The Evaluation Committee then proceeded with a phase two evaluation of New Fortress Energia and Puma Caribe Energy's proposals based on the requirements of the RFP and the grading criteria as established in Section 3 of the RFP documents.

The resulting grading table is included as Appendix B of this Selection Report.

 Puma Energy Caribe – This company ranked second upon completion of the phase one quality assurance evaluation based on the requirements as established in Section 3 of the RFP Overview Document. During the oral presentations held on October 11, 2018, Puma Energy was specifically informed that the RFP states *"there will be no takeor-pay provisions allowed by the contract"* and on October 15, PREPA issued a request for clarifications based on this requirement as set forth in section 4.3.4 of the RFP. Puma Energy responded that their proposal is based on a take-or-pay contractual structure.

The Committee also requested clarification on Puma's proposed timeline and the proponent confirmed they'd be ready to supply LPG in 13 months and LNG in approximately 18-22 months from a possible contract award. This delivery term would result in significantly less cost savings than those expected by PREPA as mentioned in the RFP documents. See Attachment C for the Proposed Price Evaluation Model.

After a thorough and impartial evaluation based on Puma's proposal, presentation and the RFP scoring criteria and requirements, their resulting score was **57.6**%.

 New Fortress Energía - This company ranked first upon completion of the phase one quality assurance evaluation based on the requirements as established in Section 3 of the RFP Overview Document. The proposal included evidence of New Fortress

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Selection Report RFP81412

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Fuel Supply in the North and Conversion of San Juan Units 5 & 6

Energía's import authorization for LNG issued by the Department of Energy on March 26, 2018; as well as evidence of Jones Act compliance confirmation from the Customs and Border Protection Agency dated April 3, 2018.

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During the oral presentations held on October 10, 2018, New Fortress confirmed their proposal contemplated no exceptions to the criteria and requirements of RFP 81412. They also provided the following update based on their proposal:

 US Coast Guard letter dated September 26, 2018, recommending "that the waterways approaching and entering San Juan Harbor to Wharves A and B in Puerto Nuevo, Puerto Rico be considered suitable for LNG marine traffic...provided to assist (NFE) in the proposal, planning and execution of the concept of operations of (NFE's) facility..."

New Fortress's delivery term of approximately six months to supply LNG to San Juan Units 5 &G would result in cost savings as expected by PREPA and mentioned in the RFP documents. See Attachment C for the Proposed Price Evaluation Model.

After a thorough and impartial evaluation of New Fortress's proposal, presentation and the RFP scoring criteria and requirements, their resulting score was **74.3%** which makes New Fortress Energía's proposal the highest ranking proposal.

#### DETERMINATION

Upon completion of a uniform evaluation of the six proposals received for this request for proposals and according to the requirements established therein, the Evaluation Committee unanimously determined on October 15, 2018, that New Fortress's proposal substantially complies with the intent, specifications, terms and conditions of RFP81412 to provide LNG fuel supply in the north of Puerto Rico and the conversions of San Juan Units 5 and 6.

Approved today, October 25, 2018, in San Juan, Puerto Rico.

Evaluating Committee:

Jaime Umpierre Generation Directorate

Roberto Rivera Medina Planning and Environmental Protection

Filsinger Energy Partners Advisers:

Nathan Pollak

Edgardo Díaz Reyes Supply Chain Division Edgardo Vázquez Báez Fuels Office

Paul Harmon

Marcus Klintmalm

Matt Lee

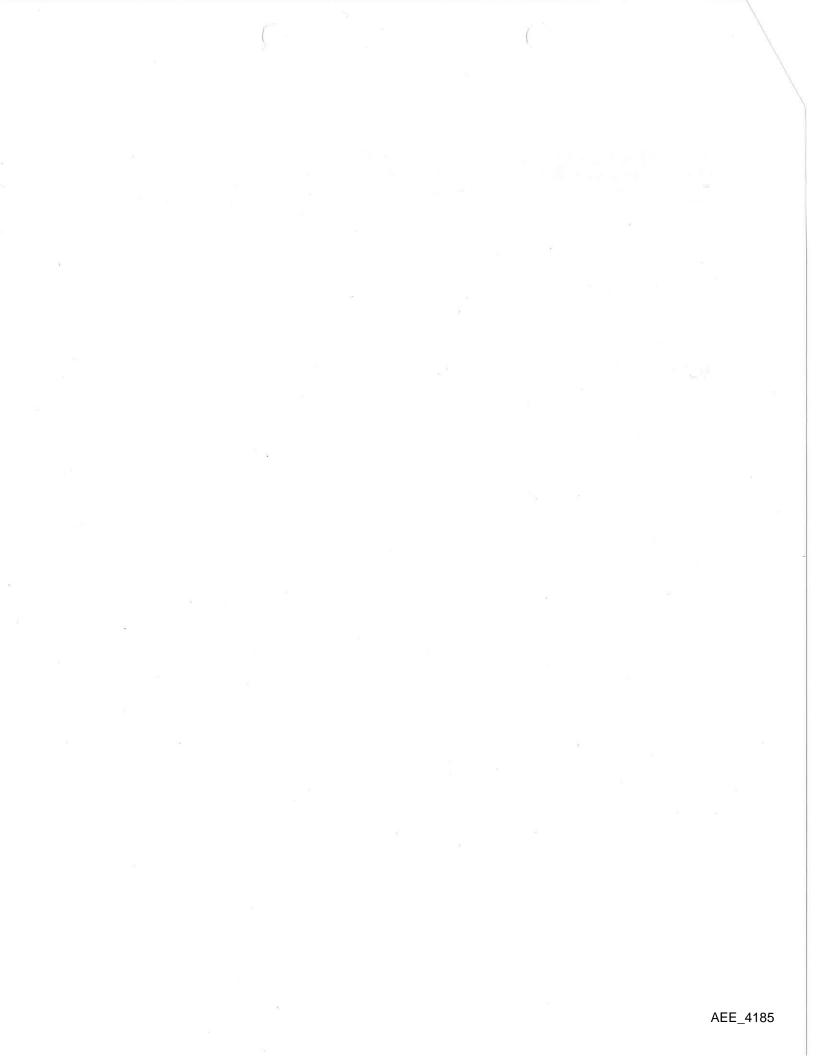
#### PREPA Procurement Representative:

Delis T. Zambrana Colón Supply Chain Division



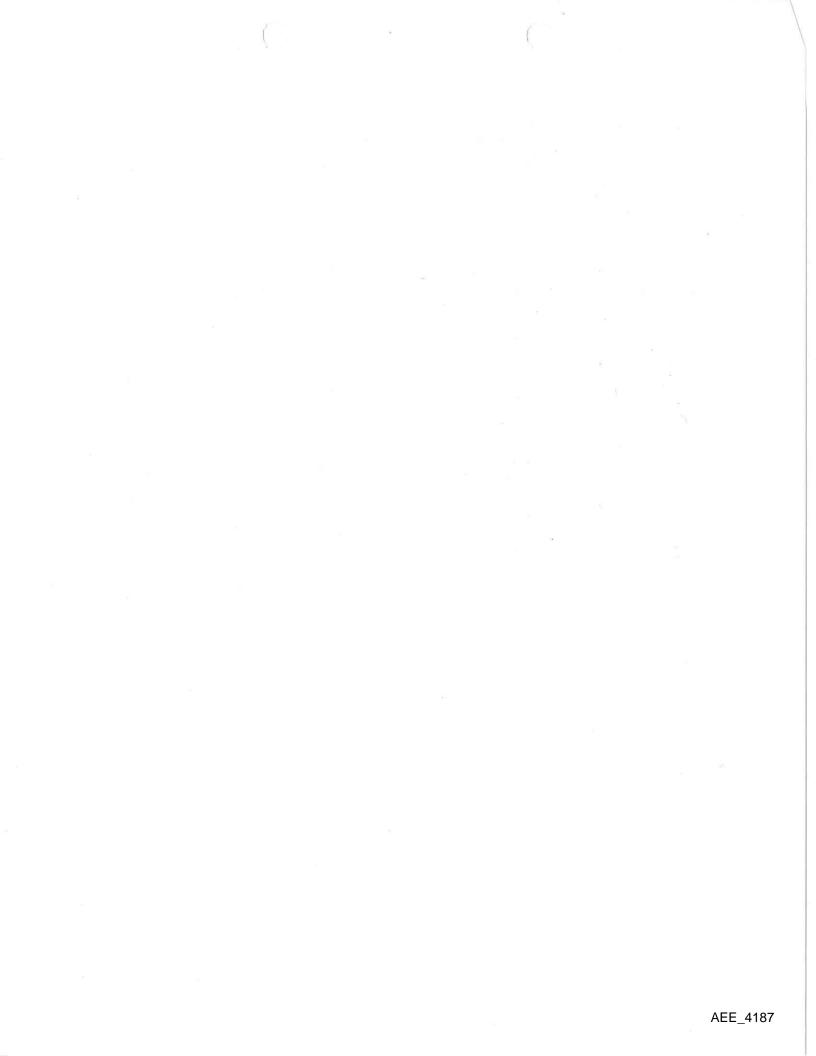
## PHASE 1 COMMITTEE EVALUATION - Annex A of Evaluation and Selection Report

illem / Criteria	Lakes de Power and Methane	PUMA Energy	Naturgy Energy Corp.	AES Corp	New Fortress Energia	SeaOne	
Experience and Capacity (10%)		Torre agen		The shield			
Evidence of experience in previous projects. Evidence and success in developing LNG developments of similar scope as the duties described in the RFP.	1	4	4	4	4	1	
Description of Proposed Project Team (names and titles of key members, including design entity selected by proposer, with a brief description of the qualification is and esprinterne of project manager, engineering and design nmanager, lead engineers, inspector manager, safety officers, qa/qc managers, environmental specialists, other key personnel, including tubcontracts.	1	<b>`</b> 4	2	1	4	2	<u>,</u>
Identify and describe potential Subcontractors w/demonstrated proof of technical capabilities necessary to perform their proposed scope of work and services, expected role and experience	1	4	2	3	4	1	
Submitted evidence that the proposer is duly and properly organized and qualified to do business in Puerto Rico or will be prior to contract award.	1.50 1	2	1	2	4	1	
Respondents that demonstrate they have the staff available to begin immediately will be scored higher than those who need more time, or whose responses are vague.	1	4	3	1	4	1	1
Approzch and Methodology (30%)		1.1.1.1.1.1.1.1	Marshall Participa	21.24		5-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	
Explain approach to completing the project within the given construction datastand site constraints. Include summary level Critical Path Method Schedule detailing all aspects of the Project. Detailed assessment and response to site conditions constraints.	1		4	з	4	2	
Outline a clear and straightforward approach and demonstrated commitment to accomplishing the schedule goal of providing fuel gas no later than March, 2019. Identify key goals and objectives, methods for achieving high standards for the delivery of services to meet or exceed these goals.	1	- 4	3	2	4	2	Sr
Methods proposer forestes utilizing to accomplish duties at site with sketches or illustrations, if necessary. Approach will include: 1. Demonstrate clear and thorough interpretation and actionvitedged assimilation of the project work scope as described herein and part to this RFP. 2. Satisfactory demonstrate how the duties will be staged to minimize impacts to RFRA operations. 3. Prosent a clear and logical approach for the efficient performance of all work tasks across the proposer's antire project team 4. Describe how the proposer's submitted milestone schedule demonstrates a clear understanding and integration of all interrelated duties. 5. Describe how the proposer intends to address and miligate adverse environmental materials. 5. Provide specific and project proven approach and plan for effective 24/QC across the proposer's project team. 7. Proposer's outline plan and commitment to safety.	1	4	3	3	a	2	South S
roposers shall explain how they will be organized to effectively deploy upport for PREPA and clearly identify engagement manager and different work stream leaders.	3	4	2	2	4	2	
Price Proposal (60%)		nie stat				10 St. 1	
Yoposers shall clearly identify Capacity Payment to cover Costs for coversion of units, proposed delivered fuel payment price and proposed uel price indexes for infation and changing market conditions. Terms and ordition of priced proposal will also be a condideration.	1	4	2	2	4	2	
vidence of financial ability and resources to adequately perform and nanage the contract, manage risks or ability to obtain such resources as re required. If joint venture or nexity formed entity, identify appropriate usrantof(s) and provide evidence of financial resources of such usrantof(s). Audited financial statement for the most recent three years, ottified by CPA. If Proposer is a partnership of Joint venture, there audited mancial statements for each corporation, partnership, LLC, sole reprietorship, member of partner holding an interest in the proposer must e submitted for the same 3 year period.	1	a	- a	3	a	1	4
etter of support Bonding Company that commits the bonding company to rovide the required bonding on behalf of the proposer.	1	2	1	1	4	1	
etter from Insurance company that commits the insurance company to rovide the required insurance on behalf of the proposer if the proposer is warded the contract for the project. See attachments for insurance quirements of the RPP.	1	4	4	1	2	1	
Total	20	70.5	53.3	41.4	71.4	29	



Grading Criteria	PUMA Energy Caribe	New Fortress Energia
Experience and Capacity (10%)		
Evidence of experience in previous projects.	4	4
Evidence and success in developing LNG developments of similar scope as the duties described in the RFP.	4	4
Description of Proposed Project Team (names and titles of key members, including design entity selected by proposer, with a brief description of the qualifications and experience of: project manager, engineering and design nmanager, lead engineers, inspector maanger, safety officers, ga/gc managers, environmental specialists, other key personnel, including subcontracts.	4	5
Identify and describe potential Subcontractors w/demonstrated proof of technical capabilities necessary to perform their proposed scope of work and services, expected role and experience	4	5
Submitted evidence that the proposer is duly and properly organized and qualified to do business in Puerto Rico or will be prior to contract award.	2	4
Respondents that demonstrate they have the staff available to begin immediately will be scored higher than those who need more time, or whose responses are vague.	4	5
Approach and Methodology (30%)		
Explain approach to completing the project within the given construction dates and site constraints. Include summary level Critical Path Method Schedule detailing all aspects of the roject. Detailed assessment and response to site conditions constraints.	3	4
Judine a clear and straightforward approach and demonstrated commitment to accomplishing he schedule goal of providing fuel gas no later than March, 2019. Identify key goals and bjectives, methods for achieving high standards for the delivery of services to meet or exceed	2	5
necessary. Approach will include: 1. Demonstrate clear and thorough interpretation and reknowledged assimilation of the project work scope as described renin and part of this RFP. 2. astistactory demonstrate how the duties will be staged to minimize impacts to PREPA operations. B. Present a clear and logical approach for the efficient performance of all work tasks across the proposer's entire project team 4. Describe how the proposer's submitted milestone schedule lemonstrates a clear understanding and Integration of all interrelated duties. 5. Describe how he proposer intends to address and mitigate adverse environmental materials. 6. Provide pecific and project proven approach and plan for effective QA/QC across the proposer's project eam Proposer's outling plan and commitment to safety.	3	4
roposers shall explain how they will be organized to effectively deploy support for PREPA and learly identify engagement manager and different work stream leaders.	3	4
rice Proposal (60%)		
rroposers shall clearly identify Capacity Payment to cover Costs for conversion of units, proposed lefvered fuel payment price and proposed fuel price indexes for inflation and changing market enditions. Terms and condition of priced proposal will also be a consideration.	2	4
vidence of financial ability and resources to adequately perform and manage the contract, nanage risks or ability to obtain such resources as are required. If Joint venture or newly formed nithy, identify appropriate gurantor(s) and provide evidence of financial resources of such uarantor(s). Audited financial statement for the most recent three years, certified by CPA. If roposer is a partnership of Joint venture, then audited financial statements for each corporation, artnership, LCs, coloe proprietoship, member of partner holding an interest in the proposer must e submitted for the same 3 year period.	3	з
etter of support Bonding Company that commits the bonding company to provide the required onding on behalf of the proposer.	2	4
etter from insurance company that commits the insurance company to provide the required surance on behalf of the proposer if the proposer is awarded the contract for the project. See tachments for insurance requirements of the RFP.	4	2
otal Score:	12.1 57.6%	15.6 74.3%

RFP 81412 Phase 2 Committee Evaluation - Annex B of the Evaluation and Selection Report



CN 078-04495 Rev. 11/17



# GOVERNMENT OF PUERTO RICO

Puerto Rico Electric Power Authority

RFP 81412 Evaluation and Selection Report - Attachment C

October 12, 2018

## **Re: Northern Fuel RFP Proponent Price Evaluation Model**

## Introduction

The intent of the Request for Proposal (RFP) is to seek significant cost savings in the fuel of San Juan Units 5&6 ("SJ 5&6"). The facility currently burns diesel fuel which is significantly cost disadvantaged in relation to other potential fuels. Diesel also causes increased wear on the combustion turbine and has significantly greater environmental emissions concerns. Thus, incremental savings are also expected in reduced maintenance expenses and the environmental impacts are inestimable.

PREPA is currently in Title III bankruptcy proceedings. Under Title III, PREPA is obligated to work to reduce its expenses to improve on its fiscal situation. Furthermore, the island of Puerto Rico is in deep fiscal crisis which greatly affects the Puerto Rican public. PREPA was established to provide reliable and affordable power to the people of Puerto Rico. Fuels savings for PREPA translate to electricity cost savings for the Island. Thus, it is incumbent upon PREPA to move quickly to reduce its expenditures wherever possible in order to assist the Commonwealth and its citizens in this time of fiscal distress.

SJ 5&6 are ideally situated inside the primary load center of the island of Puerto Rico and adjacent to the water in the port of San Juan. The proximity to major load centers of a reliable 440 MW generation facility provides stability to the grid. Thus, the cost efficiency and reliability of these power generation units are of significant importance to providing affordable, economic & reliable power to the people of Puerto Rico.

The RFP for an Alternative Fuel in the North and the potential Conversion of SJ 5&6 requested a 5-year contract with the potential for three (3) 5-year extensions. Should the alternative fuel require conversion of SJ 5&6 to dual-fuel capability, then the respondent should include the conversion cost as part of the price proposal.

As part of the evaluation process, Filsinger Energy and PREPA advisers developed a model (the "Model") to evaluate the relative economic merits of the proposals. The Model was developed in Microsoft Excel using a monthly cost avoidance approach in which certain assumptions have been held steady "ceterus paribus" to provide a fair comparison between proposals. Each proposal is looked at in isolation in which SJ 5&6 burn their current fuel, diesel,



## GOVERNMENT OF PUERTO RICO

Puerto Rico Electric Power Authority

### RFP 81412 Evaluation and Selection Report - Attachment C

until the proposed alternative fuel can come online. Benefits of the proposal begin once the new fuel is being provided, and is calculated as the difference between the cost of diesel fuel (the avoided cost) and the proposed fully loaded cost of the proposed alternative fuel.

#### Model Description

The Model uses a Net Present Value (NPV) approach in order to fairly compare proposals that start at different points in time. NPV is a fundamental concept in Finance that recognizes the "time-value" of money in which a dollar in the future is worth less than a dollar today. This can be thought of in terms of buying power. Inflation reduces the amount of goods or services that could be acquired in the future for a dollar versus what can be purchased today. Alternatively, a dollar invested today can be invested to earn interest which in total is worth more than waiting to receive that dollar in the future.

Thus, NPV analysis is a time-value of money evaluation approach that "discounts" all monthly pricing back to a comparable present-day dollar and allows for side-by-side comparisons of proposals. In the case where two proposals have the same price but start at different times, the NPV approach will provide some incremental benefit to the proposal that delivers benefits sooner because the savings associated with lowering fuel costs are realized more quickly. The NPV evaluation method in essence captures the idea that a dollar saved today is worth more than a dollar saved next year (or later). Proposals delivered later in time can still be competitive if the expected savings overcomes the time-value effects of discounting the later benefits. NPV analysis allows the model to not only consider the nominal price of a proposal but also the time frame in which the solution can be delivered.

#### **Model Structure and Functionality**

The Model is structured to provide the user with the ability to vary key inputs and evaluate the relative impacts to project results. The Model has one Microsoft Excel "worksheet" called "Assessment" that provides the operational and fuel cost calculations, and financial results. Results are summarized in the "Ranking" worksheet. Key model inputs are clearly labeled as separate worksheets or as blue-colored text in the Assessment worksheet.

Results are presented in both the Assessment and Ranking worksheets as the following comparative values:

- Net Present Value
- Weighted average fuel price of the alternative fuel, fully loaded to include the capacity payment and take-or-pay commitments on a dollars per MMBtu basis
- Total fuel cost on a dollars per MMBtu basis over the evaluation period,

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CN 078-04495 Rev. 11/17



## GOVERNMENT OF PUERTO RICO

Puerto Rico Electric Power Authority

RFP 81412 Evaluation and Selection Report - Attachment C

considering the capacity payment, the variable fuel payment, and the monthly carrying cost of diesel fuel until the alternative fuel can be delivered.

The following is a brief overview of the Model's worksheets:

- Assessment The core of the Model. This worksheet contains all the calculations used to derive the results of the assessment. Operating assumptions, fuel price assumptions, and other modeling assumptions are capture first. The Model considered a 6-year (72 month) timeframe beginning in January 2019 due to the RFP request for 5-year contracts.
- Timeframe A specific period of analysis was required to normalize the analysis of the proposals. An assumption was made that some period of permitting, construction, etc. would have to occur before a proponent could begin fuel deliveries under a contract. A construction period of one year assumed prior to delivery in under a 5-year contract as contemplated under the terms of the RFP. Thus, a timeframe of 72 months was chosen to provide a reasonable time period over which to evaluate the proposals.
- Ranking This worksheet summarizes the results from the Assessment worksheet. The
  results table shows for each proposal the NPV result of the proposal's avoided cost benefits,
  the weighted average fully loaded cost of the alternative fuel in dollars per MMBtu, total
  fuel cost per MMBtu over the period, assumed start date for deliveries of the alternative
  fuel, the contract term length, and start date of each proposal.
- **CPI** This worksheet contains a Consumer Price Index (CPI) schedule drawn from the Philadelphia Federal Reserve Bank from third quarter 2018. This data is used in the calculation of fuel price in several of the proponents' proposals.

https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters/2018/survq318

- Diesel\_Fiscal\_Plan This worksheet contains the monthly \$/MMBtu forward forecast of the price of No.2 Fuel Oil ("Diesel") for the time period of January 2018 through June 2023 from the 2018 Fiscal Plan. For the purposes of this analysis, Diesel was escalated by inflation for the remaining period past June 2023.
- ULSD\_NYH & ULSD\_GLF These worksheets contain the NYMEX Oil & Refined Products Futures data from New York Harbor and Gulf Coast Clovelly LA, respectively, as of September 26, 2018. September 26, 2018 was used as it is the date the RFP closed on Power Advocate. This data was pulled from SNLFinancial. The last period of the forward curve was escalated by inflation to provide data for the full length of the analysis

## GOVERNMENT OF PUERTO RICO

Puerto Rico Electric Power Authority

RFP 81412 Evaluation and Selection Report - Attachment C

of the model. This data is used in the calculation of fuel price in several of the proponents' proposals.

- NG\_HH This worksheet contains the NYMEX Natural Gas Forward & Futures from Gulf Coast
   - LA as of September 26, 2018. September 26, 2018 was used as it is the date the RFP closed
   on Power Advocate. This data was pulled from SNLFinancial. The last period of the forward
   curve was escalated by inflation to provide data for the full length of the analysis of the
   model. This data is used in the calculation of fuel price in several of the proponents'
   proposals.
- NG\_HH This worksheet contains the NYMEX Natural Gas Forward & Futures from Gulf Coast

   LA as of September 26, 2018. September 26, 2018 was used as it is the date the RFP closed
   on Power Advocate. This data was pulled from SNLFinancial. The last period of the forward
   curve was escalated by inflation to provide data for the full length of the analysis of the
   model. This data is used in the calculation of fuel price in several of the proponents'
   proposals.
- Propane\_MB This worksheet contains the NYMEX NGL Futures from Mont Belvieu, TX as of September 26, 2018. September 26, 2018 was used as it is the date the RFP closed on Power Advocate. This data was pulled from SNLFinancial. The last period of the forward curve was escalated by inflation to provide data for the full length of the analysis of the model. This data is used in the calculation of fuel price in several of the proponents' proposals. This worksheet also contains a heat content assumption for propane as 0.09133 MMBtu per gallon.

Inputs to the model are generally coded in blue text. Calculated values are represented in black text.

Parameter	1				Value	Comments
Plant Capacity		81			440 MW	Held Constant in all cases, Noted in RFP
<b>Capacity Factor</b>	r	II.		ŝi	85%	Held Constant in all cases, Noted in RFP
Heat Rate (Btu/	/MWh)	HHV			7.5	Held Constant in all cases
Weighted Ave (WACC)	erage (	Cost	of	Capital	8.5%	Discount rate for NPV calculations; source: Integrated Resource Plan (IRP) Assumption as of October 4, 2018

#### Key Assumptions and Calculations

CN 078-04495 Rev. 11/17



# GOVERNMENT OF PUERTO RICO Puerto Rico Electric Power Authority

RFP 81412 Evaluation and Selection Report - Attachment C

Calculations	Formula / Comments				
Fuel Consumption Calculation Formula (per period) (MMBtu)	Plant Capacity x Hours x Capacity Factor x Heat Rate x 1000				
Fuel Cost Calculation (per Period) (\$ USD)	MMBtus consumed x Fuel Price				
Capacity Cost Calculation (per Period) (\$ USD)	Taken directly from proponent proposals				
Fuel Price (per Period)(\$/MMBtu)	Taken directly from proponent proposals				
Take or Pay Provision	Taken directly from proponent proposals				
Total Proposal Cost Calculation (per Period)	Capacity Cost + Fuel Cost + Take or Pay Provision				

## **Economic Evaluation Results**

PREPA staff evaluated each proposal in terms of NPV, weighted average fully loaded cost per MMBtu, and total fuel cost per MMBtu over the period. The following table provides a summary of these results.

	NPV	<u>\$/MMBtu of delivered</u> alternate fuel (during 6- yr eval term)	Total Fuel Cost (Alternative + Diesel)
1 New Fortress	1,186.4	\$10.44	\$12.08
2 SeaOne Caribbean	1,171.2	\$10.90	\$12.16
3 Naturgy Option 2 - FSRU + FSRB	1,127.4	\$11.17	\$12.45
4 Puma Energy Caribe - 10 yr LNG - Jones Act Walver	972.5	\$12.41	\$13.52
5 Puma Energy Caribe - 5 yr LNG - Jones Act Waiver	950.5	\$12.61	\$13.68
6 Puma Energy Caribe - LPG Bridge to LNG (5-year - No Jones Act Walver)	936.7	\$13.31	\$13.78
7 Puma Energy Caribe - 10 yr LNG - No Jones Act Waiver	918.7	\$12.91	\$13.90
8 Puma Energy Caribe - 5 yr LNG - No Jones Act Walver	896.8	\$13.12	\$14.05
9 Naturgy Option 1 - FSRB	891.2	\$10.84	\$14.07
10 Puma Energy Caribe - LPG	674.8	\$15.50	\$15.60
L1 AES	429.1	\$10.16	\$17.28

## GOVERNMENT OF PUERTO RICO

**Puerto Rico Electric Power Authority** 

## RFP 81412 Evaluation and Selection Report - Attachment C

In Phase 1 of the RFP Evaluation Process (see RFP 81412 Evaluation and Selection Report), the above proposal list was narrowed to the short list (the "Shortlist") of proponents who moved into Phase Two of the process. These proponents were New Fortress and Puma Energy.

n and a second sec	NPV	\$/MMBtu of delivered alternate fuel (during 6- yr eval term)	Total Fuel Cost (Alternative + Diesel)
1 New Fortress	1,186.4	\$10.44	\$12.08
2 Puma Energy Caribe - 5 yr LNG - Jones Act Waiver	950.5	\$12.61	\$13.68
3 Puma Energy Caribe - LPG Bridge to LNG (5-year - No Jones Act Waiver)	936.7	\$13.31	\$13.78
4 Puma Energy Caribe - 5 yr LNG - No Jones Act Waiver		\$13.12	\$14.05

#### **Summary Definitions**

Parameter	Definition		
NPV	As Described on Page 2;		
\$/MMBtu of Delivered Fuel	This is a "fully loaded" view considering fuel cost, any capacity factor payments, and any take-or-pay provisions included in a proponent's offer		
Total Fuel Cost	The total cost of fuel used over the evaluated 6-year period whether it was the existing fuel (diesel) or the proponent's bid fuel; this is also "fully loaded"		

#### Summary Economic Results Discussion

Overall, the analysis favors the New Fortress proposal, as it has the highest NPV. This is due to a competitive price proposal as well as the shortest time to market.

Puma Energy offered a variety of 5-year scenarios in their proposal and all were evaluated.

It should be noted that though the proposal submitted by AES offers the most competitive \$/MMBtu of alternative fuel, the proposed timeline of delivery is mid-2023 which significantly reduces the competitiveness of their offer.

The NPV method of analysis combines favorable pricing and the time-value of money concept to properly evaluate these proposals across both dimensions.

## FINANCIAL OVERSIGHT AND MANAGEMENT BOARD FOR PUERTO RICO



José B. Carrión III Chair <u>Members</u> Andrew G. Biggs Carlos M. García Arthur J. González José R. González Ana J. Matosantos David A. Skeel, Jr.

*Natalie A. Jaresko* Executive Director

## **BY ELECTRONIC MAIL**

February [5], 2019

Mr. José F. Ortiz Vázquez Chief Executive Officer Puerto Rico Electric Power Authority PO Box 364267 San Juan, Puerto Rico 00936-4267

Dear Mr. Ortiz Vázquez:

We are writing regarding the proposed contract between New Fortress Energía LLC ("NFE") and the Puerto Rico Electric Power Authority ("PREPA") for the services of converting San Juan Units 5 and 6 ("SJ5 and SJ6") to burning natural gas (in addition to diesel fuel), and to supply the same units with natural gas for an initial term of 5 years (the "NFE Contract"), which PREPA has submitted for the Oversight Board's review and approval under the Contract Review Policy established pursuant to Section 204(b)(2) of PROMESA.

The overall purpose of the NFE Contract is aligned with the goals of the PREPA Certified Fiscal Plan, as it aims to diversify PREPA's fuel mix, lower electricity rates by reducing fuel costs and improve environmental compliance. However, based on our review, the price of natural gas supply contemplated in the NFE Contract is higher than other benchmarks and datapoints observed. Particularly, the Unit Cost portion of the proposed Fuel Price is higher than multiple observed benchmarks. The Oversight Board is interested in understanding the reasons for this difference before it can approve the contract.

As per Exhibit C of the NFE Contract, the Fuel Price (per MMBtu) for natural gas delivered to SJ5 and SJ6 is equal to the sum of Unit Cost and Unit Fuel Cost defined as follows:

- Unit Cost:
  - Months 1-12 of Initial Contracting Term: \$8.50/MMBtu
  - Months 13-24 of Initial Contracting Term: \$7.50/MMBtu
  - Months 25 until the end of Initial Contracting Term: \$6.50/MMBtu

- Unit Fuel Cost:
  - 115% multiplied by daily Gas Price Index, defined as the final settlement price (in USD per MMBtu) for the New York Mercantile Exchange's Henry Hub natural gas futures contract for that particular day.

Publicly available data shows that gas delivered to destinations such as Sabine Pass, Texas, and Corpus Christi, Texas have a fixed fee in the range of \$2.50-3.50/MMBtu<sup>1</sup>. Delivery to SJ5 and SJ6 units involve shipping, and regasification/storage via a floating storage and regasification unit ("FSRU"), as proposed in the NFE contract. Our research shows that such shipping costs are typically between \$0.2-\$0.5/MMBtu<sup>2</sup>, while FSRU costs are between \$0.5-\$0.8/MMBtu<sup>3</sup>. Limitations imposed by the Merchant Marine Act of 1920 ("Jones Act") could lead to additional costs in the range of \$0.2-\$0.5/MMBtu<sup>3</sup>. The resulting sum of the above leads to a fixed fee range of \$3.4-\$5.3/MMBtu.

Similarly, the Draft Integrated Resource Plan ("IRP") filed on January 22, 2019 to the Puerto Rico Energy Bureau ("PREB") considers the fixed fee value at \$5.95/MMBtu<sup>4</sup>. Also, the delivered gas price modeled for the EcoEléctrica power plant is \$8.89-\$9.71/MMBtu<sup>5</sup> for years 2019-2024. Based on this, using the IRP's projections for Henry Hub gas price forecasts<sup>6</sup> and assuming a 115% multiplier for the Henry Hub gas price (as in the NFE contract), the resulting implied fixed fee for EcoEléctrica is ~\$5.7/MMBtu.

Based on our analysis of publicly available data and considering the delivered gas prices modeled in the IRP (for both SJ5 and SJ6 and EcoEléctrica), a reasonable estimate for the fixed fee is in the range of \$3.40 to \$5.95/MMBtu. This range is ~\$3-\$5/MMBtu lower than the Unit Cost in the NFE Contract for months 1-12 of the Initial Contracting Period and \$1-\$3/MMBtu lower for month 25 onwards.

Based on an annual purchase volume of 25 TBtu, the difference between the benchmark fixed fee and the Unit Cost established in the NFE Contract results in additional payments to NFE in the amounts of \$64-\$128 million for months 1-12 of Initial Contracting Period, \$39-103 million per year for months 13-24 and \$14-78 million per year for month 25 onwards.

Given one of the primary objectives of the PREPA Certified Fiscal Plan is to deliver meaningful cost savings to PREPA's ratepayers, it is imperative for the Oversight Board to understand the

<sup>&</sup>lt;sup>1</sup> Cheniere Energy Inc. Corporate Presentation (January 2016).

<sup>&</sup>lt;sup>2</sup> Expert interviews with LNG contracts specialist.

<sup>&</sup>lt;sup>3</sup> Based on proposal submitted by Puma Energy in their bids with and without Jones Act waivers.

<sup>&</sup>lt;sup>4</sup> As per Section 7.1.2.1.1 of the IRP, "In the case of Aguirre and San Juan, the P2 pricing formula from the San Juan fuel supply contract was used, which is equal to 115% of Henry Hub plus \$5.95/MMBtu."

<sup>&</sup>lt;sup>5</sup> Exhibit 7-14 of IRP.

<sup>&</sup>lt;sup>6</sup> As per Exhibit 7-7 of IRP (Siemens column).

reasons why the Unit Cost price contemplated in the NFE Contract is 30% to 40%<sup>7</sup> higher than industry benchmarks.

As such, please provide to the Oversight Board a detailed explanation of the reasons for why the Unit Cost of the NFE Contract is consistently higher than industry benchmarks throughout the Initial Contracting Term (including a breakdown of the factors driving the price difference). If available, please provide information on the fixed costs for other gas generators in Puerto Rico under their gas supply contracts for current or future gas deliveries:

We look forward to your responses and to ensuring that the NFE Contract represents a fair price to PREPA, and to Puerto Rico ratepayers. If you have any questions or require clarification regarding the information requested in this letter, please do not hesitate to contact Alejandro Figueroa at alejandro.figueroa@promesa.gov.

Sincerely,

Jank

Jaime A. El Koury General Counsel

<sup>&</sup>lt;sup>7</sup> This 40% excess estimate is consistent with NFE's statements that it intends to earn "a margin of 40% or more, on [its] gas sales." (See, New Fortress Energy LLC SEC S1 Filing of November 9, 2018 at p. 3, ¶2.) https://www.sec.gov/Archives/edgar/data/1749723/000114036118042889/s002392x7\_s1.htm

## FINANCIAL OVERSIGHT AND MANAGEMENT BOARD FOR PUERTO RICO



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*Natalie A. Jaresko* Executive Director

# **BY ELECTRONIC MAIL**

March 4, 2019

Mr. José F. Ortiz Vázquez Chief Executive Officer Puerto Rico Electric Power Authority

# Re: New Fortress Energía LLC.

Dear Mr. Ortiz Vázquez:

In accordance with the contract review policy of the Financial Oversight and Management Board for Puerto Rico ("FOMB") established pursuant to Section 204(b)(2) of PROMESA, we have reviewed the proposed contract between the Puerto Rico Electric Power Authority ("PREPA") and New Fortress Energía LLC ("NFE") which has been submitted to the FOMB for its evaluation (the "Proposed Contract").

After reviewing the Proposed Contract, the FOMB approves it subject to the observations and conditions set forth in Appendix A hereto.

Please note that our review is solely limited to the compliance of the Proposed Contract with the applicable fiscal plan and no other matters. For the avoidance of doubt, the review performed by the FOMB does not cover a legal review of the contractual documentation or the contracting process, including without limitation: (i) compliance with contracting requirements under applicable laws, rules, and regulations, both federal and local and (ii) compliance with applicable laws, rules, and regulations governing procurement activities, both federal and local. In addition, the FOMB has not engaged in any due diligence or background check with respect to the contracting parties nor whether the contracting parties comply with the requirements under the applicable contract. Any material change to the Proposed Contract must be submitted beforehand to the FOMB for its review.

This letter is delivered as of the date hereof and we reserve the right to provide additional observations and modify this letter based on information not available when the review was conducted. In addition, during the course of our review, we may receive information which we may determine to refer to the relevant authorities.

Mr. Ortiz Vázquez March 4, 2019 Page 2 of 2

This letter is issued only to PREPA and solely with respect to the Proposed Contract.

Sincerely,

and

Jaime A. El Koury General Counsel

CC. Christian Sobrino Vega

## Appendix A

## **Fiscal Plan Alignment**

This review covers the proposed contract between New Fortress Energía LLC ("NFE") and the Puerto Rico Electric Power Authority ("PREPA") for the services of converting San Juan Units 5 and 6 (collectively, "SJ 5&6") to burning natural gas (in addition to diesel fuel), and to supply the same units with natural gas for an initial term of 5 years. The proposed contract is valued at approximately \$1.5 billion. The valuation contemplates both the cost associated with the fuel conversion work and the cost of supplying natural gas to SJ 5&6 for the initial 5-year term, excluding any possible contract extension.

Our review was based on five sources of information: (a) the proposed NFE contract; (b) the RFP bidding documents published by PREPA; (c) the RFP evaluation and selection documentation developed by PREPA; (d) correspondence from PREPA in response to Oversight Board inquiries; and (e) in-person meetings with PREPA.

Based on the information made available to us, the Oversight Board estimates that the proposed contract has the potential of generating between \$180 million and \$280 million in savings during the initial 5-year period.<sup>1</sup> Lowering generation costs and transitioning towards cheaper and more environmentally friendly generation resources (including natural gas and renewables) is a key objective of PREPA's certified Fiscal Plan. The proposed contract is consistent with these objectives.

The Oversight Board's approval of the proposed contract is subject to the following conditions:

First, because actual savings are dependent on the overall price of natural gas and the actual capacity factor of SJ 5&6, PREPA must provide periodical reporting on the progress of the SJ 5&6 conversion project, as well as on unit dispatch and utilization. PREPA and Oversight staff shall agree on reporting cadence and other requirements.

Second, to ensure savings to ratepayers are maximized, PREPA must conduct a formal study to assess whether to extend the agreement with NFE (and under which terms and conditions) or hold a new competitive procurement process for supplying natural gas to SJ 5&6. PREPA must conclude such study prior to the deadline for notifying its intention to extend the term of the agreement established in Section 3.1(b) of the proposed contract. Any determination to extend the said assessment.

This contract review was conducted on the basis of information submitted by the Government of the Commonwealth of Puerto Rico. The Financial Oversight and Management Board for Puerto Rico has not independently verified the information included in the submission. Should FOMB become aware of any inaccuracies or misrepresentations – whether intentional or not – it would re-evaluate its assessment.

<sup>&</sup>lt;sup>1</sup> Actual savings dependent on market prices of natural gas and each unit's capacity factor.