



DEFINITIVE PROPOSAL FORM 1.2

EXECUTIVE SUMMARY AND TABLE OF CONTENTS

Luma Energy (the Qualified Respondent) hereby acknowledges and affirms that the attached documentation (i) constitutes its full and complete submission for Definitive Proposal Form 1.2 and (ii) meets the requirements described in Section 4.1.2 (*Executive Summary*) of the RFP.

Capitalized terms not defined herein shall have the meaning set forth in the Request for Proposals for Puerto Rico Electric Power Transmission and Distribution System issued by the Puerto Rico Public-Private Partnerships Authority on February 1, 2019 (as amended and supplemented, the "**RFP**") or the final form of the Puerto Rico Transmission and Distribution System Operation and Maintenance Agreement (the "**O&M Agreement**"). If there is a term defined in both, and their definitions conflict, the definition in the O&M Agreement shall prevail.

Luma Energy

QUALIFIED RESPONDENT

Company Name

Gerald Albert Ducey, Jr.

Name of Qualified Respondent's
Authorized Official

Authorized Representative

Title


Signature of Qualified Respondent's
Authorized Official

November 25th, 2019
Date

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EXECUTIVE SUMMARY

November 25, 2019



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Our Consortium composed of Quanta Services (Quanta), ATCO and IEM — is uniquely equipped to reinvigorate Puerto Rico's electricity transmission and distribution (T&D) system, bringing in a clean and resilient energy future for the people of Puerto Rico. We are ideally suited to do so, combining industry-leading experience in building reliable and sustainable infrastructure and skilled workforce training (Quanta); operating several world-class utility businesses that deliver safe, reliable and affordable energy to millions of customers (ATCO); and expertly obtaining, managing and retaining federal funds (IEM).

We are also world leaders in swift, effective disaster response and management. IEM has overseen more than \$51 billion in disaster recovery programs and supported more than 300 state and local jurisdictions with a wide range of emergency management services. Quanta responds regularly and swiftly to natural disasters and was able to deploy 6,000 lineworkers simultaneously to carry out emergency repairs in the U. S. Gulf Coast in response to Hurricanes Harvey, Irma and Maria. ATCO has responded to disasters around the world, from the aftermath of Irma and Maria in Puerto Rico, to earthquake recovery in Pakistan and the wildfires in California and northern Alberta.

Our approach for this exciting initiative is defined by our commitment to Puerto Rico and, above all else, its people. Luma Energy (LUMA) will be a customer-centric T&D Operator that embodies transparency, integrity, safety and operational excellence. Our people will live and work in Puerto Rico and be actively engaged in the communities we are privileged to serve. We will build an expertly managed organization that is one of the best career choices in Puerto Rico, improves the standard of living for all families and businesses, and delivers an affordable, reliable, storm-resilient electricity service that not only saves but also sustainably generates billions of dollars for Puerto Rico's economy.

We commit to delivering for Puerto Rico a T&D system governed by the values set out below.



Safety is our number one priority. We have achieved world-class standards and will incorporate safety into every aspect of our work for employees and customers.



A **customer-centric** focus on new technologies and a world-class customer experience will transform Puerto Rican consumers into prosumers.



We will use our experience in achieving and maintaining operating efficiency and low energy loss levels to increase the **affordability** of energy and reduce rates for customers.



Our cutting-edge asset management and quality assurance will improve system **reliability**, making uninterrupted service the norm for all customers.



As world leaders in disaster preparedness and response, we will increase system **resiliency** and respond swiftly and effectively when storms occur.



To build a **sustainable** workforce, we will open a new Northwest Lineman College training campus in Puerto Rico. For a smarter grid, we will integrate cleaner sources of power and distributed technology.

1.0 INTRODUCTION

Puerto Rico's electricity system is at a crucial inflection point. The catastrophe of the 2017 hurricanes provided a powerful impetus for meaningful change, and the decisions made today to modernize, harden and green the grid will underpin the vitality, sustainability and prosperity of Puerto Rico — and its people — for generations to come. It is a unique opportunity that requires unparalleled expertise.

Despite the challenges of resources, geography and climate, the Government of Puerto Rico (GOPR) and Puerto Rico Electric Power Authority (PREPA) have undertaken initiatives to improve utility infrastructure, combat operational challenges and harden critical assets.

The renewal, modernization and operation of Puerto Rico's electrical grid necessitates a commitment and approach that is carefully tailored to meet the needs of the residents, communities and government of Puerto Rico. Requiring far more than world-class infrastructure and utility expertise, this transition requires a steadfast commitment to the people of Puerto Rico — ensuring their voices are heard and that they are active partners in shaping their energy future. Designed and built from the bottom up, Luma Energy (LUMA) is uniquely equipped to reinvigorate Puerto Rico's electricity transmission and distribution (T&D) system and usher in a clean and resilient energy future for the people of Puerto Rico.

LUMA will enable and expedite this historic and sustainable transformation, guided by GOPR's Grid Modernization Plan (GridMod Plan) and Integrated Resource Plan (IRP). LUMA will help enable Puerto Rico to pivot from an aged and inefficient grid to an energy sector that is **safe, customer-centric, affordable, reliable, resilient** and **sustainable**.

We will create a modern T&D system that the people of Puerto Rico deserve — a system that serves customers well at affordable rates with high reliability, resiliency and long-term sustainability. Concurrently, we will establish meaningful community partnerships based on respect, trust and a genuine openness to the needs and priorities of the communities of Puerto Rico. Our approach will focus on honesty and integrity, transparent communications, employee training and safety, customer collaboration, community engagement and investment, storm response and restoration and a clean energy future.

By bringing together Quanta's superior electric utility services and project execution, ATCO's operational excellence and customer service expertise as a utility provider and IEM's unparalleled experience in federal funds management, we are poised to create a robust, effective Operator for the T&D system. We will carry out a disciplined implementation of targeted investments, efficient operations and superior customer service in accordance with the standards set out in the Operations and Maintenance (O&M) Agreement. We will also rely on the expertise of our people, which includes globally recognized experts in technical fields such as high-voltage transmission engineering, distributed energy resources and microgrid integration. We will leverage the talent currently at PREPA, as well as our team's substantial capacity, experience and expertise to deliver a modern, secure and affordable electric grid for the residents of Puerto Rico.

We are committed to achieving financial stability for the utility, increasing the ability to withstand and quickly respond to catastrophic events, enhancing the capability of the local utility workforce and

deploy new technology in a way that meets the needs of Puerto Rican residents and businesses — to promote overall the economic growth and provide customers with safe and reliable energy.

2.0 WHY WE CAN DELIVER

The modernization of Puerto Rico's T&D system is a strategic priority of the highest order for each member of LUMA. This crucial undertaking will allow each company to leverage its world-class operational expertise in a strategic market, while also making a material contribution to the long-term vitality and prosperity of Puerto Rico.

The skills of Consortium members Quanta, ATCO and IEM combine to provide best-in-class service. We have a long history of collaborating with governments, regulators, communities and customers to provide reliable service and long-term value. Coupled with our expertise is our thorough commitment to achieving the Administrator's objective in a way that maximizes the benefits for the people and economy of Puerto Rico.

Quanta is the leading infrastructure solutions provider for the electric power industry in North America. With over 46,000 employees, Quanta is a U.S. Fortune 500 corporation with approximately \$12 billion in annual revenue and is listed on the NYSE (PWR). Quanta also serves the pipeline, industrial and telecommunications industries.

Our people come first. To that end, safety excellence is Quanta's number-one priority. With the largest skilled workforce in the industry, Quanta's people are trained to do the job correctly and safely. We self-perform more than 85% of our work, collaborating with our customers to provide cost certainty and safe execution. Personnel across Quanta's business lines receive the highest level of training at the Quanta Advanced Training Center on the Lazy Q Ranch, a 2,300-acre ranch transformed into a state-of-the-art training facility in La Grange, Texas, and at Northwest Lineman College (NLC), the Quanta-owned accredited college that specializes in developing electric power, gas distribution and telecommunications service skills and trains more than 9,000 technical field workers per year at four campuses across the U.S.

As part of Quanta's commitment to skilled workforce development, we will develop a brand-new NLC training center in Puerto Rico while fully supporting LUMA in improving operations and hardening the grid. This new NLC campus will be a center of excellence, training the workforce to safely and efficiently operate and maintain the grid. This commitment to add further skills will increase retention of Puerto Rico's key workers. Quanta also plans to extend our commitment to veterans by recruiting, hiring and retaining workers from the large veteran population in Puerto Rico.

ATCO operates leading electric T&D systems, as well as natural gas T&D utilities and a rapidly growing competitive retail energy business. We are known for providing exceptional customer service, reliability and resiliency. ATCO provides electricity and natural gas utility services to more than two million customers in Canada and Australia, along with fit-for-purpose, low-carbon, behind-the-fence energy solutions for industry and municipalities. In Alberta, we own and operate more than 54,000 miles of T&D lines, delivering electricity in a sprawling service territory covering 165,000 square miles. ATCO's operations and customer service are world-class. Our reliability indices outperform regulator-

set targets and our utility peers, scoring over 90 percent with respect to customer satisfaction, while simultaneously decreasing our cost of operation for transmission and distribution per mile.

With 6,000 employees and \$17 billion in assets, ATCO is a diversified global holding corporation that delivers service excellence and innovative business solutions across several platforms, including electricity, natural gas, energy storage, industrial water, modular structures, site support services, transportation (ports and logistics) and commercial real estate.

ATCO maintains T&D systems and provides disaster relief and field support in some of the harshest weather conditions and most remote locations in the world, including the Yukon and Northwest Territories in northern Canada. Spread out over 1.5 million square miles, Canada's North is home to a diverse mix of small communities and thriving cities.

In Puerto Rico, ATCO helped Amgen and their employees after Hurricanes Maria and Irma, supported relief efforts in Haiti after the earthquake in 2010 and quickly restored electric service following the 2016 Fort McMurray wildfire — a disaster that affected 1,500,000 acres with nearly \$7.5 billion in damages. This experience is at the core of ATCO's ability to improve, operate and maintain Puerto Rico's T&D system with world-class reliability, resilience and customer service.

ATCO and Quanta are long-time partners with a track record of superior performance. Our recent Fort McMurray West 500 kV Transmission Project is the largest P3 contract in Canadian history, valued at \$1.6 billion. The companies' inclusive and respectful approach with local communities and the quality of design, procurement and construction plans were key to our success. The strength of our leadership and experience in designing, building, operating and maintaining regulated utility transmission systems, and our ability to define and manage project risks, earned the project an A-credit rating, reducing costs to customers. This achievement led two top global publications in project finance to name the project "North America's P3 Deal of the Year." Because of our close collaboration throughout project execution and effective work with regulators, the team was able to complete the project three months ahead of schedule, with an impeccable safety record and no opposition from local communities or non-governmental organizations. This project is only one of several on which the two companies have collaborated for success.

IEM has over 34 years of experience supporting states and localities in enhancing their level of preparedness, responding effectively, mitigating their risks and implementing disaster recovery programs funded by federal, state and local funding sources. IEM will enable LUMA to act with speed and accuracy in managing federal funds should a disaster occur.

IEM is currently managing recovery efforts for the most recent U.S. disasters: Hurricane Harvey in Texas; Hurricanes Irma, Matthew and Hermine in Florida; Hurricane Matthew in North Carolina; Hurricane Sandy in New Jersey and New York; and the severe floods of 2016 in Louisiana. IEM is currently managing 1,208 employees for programs totaling billions in federal dollars and has implemented projects of over \$10 billion in New York for Hurricane Sandy under FEMA Section 428. Section 428 is the specific process for Public Assistance used in Puerto Rico to secure FEMA recovery funding for its mobile network investment program. IEM employees worked with the State of New York and sub-recipients to properly document all eligible costs, shape recovery projects, identify hazard mitigation opportunities and ensure that auditing and financial review standards were fully met.

IEM has direct experience helping Puerto Rico secure and efficiently deploy federal funds and is currently working with the Puerto Rico Department of Housing to address recovery needs from the 2017 hurricanes. After Hurricanes Irma and Maria, IEM deployed disaster response personnel to five airports in Puerto Rico and various warehouses to coordinate evacuations and relief supplies. For eight months, IEM coordinated disaster response between the airports and the FEMA Joint Field Office and carried out other response activities, including assisting with a limited general population evacuation of sick and elderly patients. IEM is proud to have key personnel who came to the aid of Puerto Rico after disaster struck, including Pam Patenaude, who formerly served as Deputy Secretary for the U.S. Department of Housing and Urban Development.

LUMA will capitalize on the strengths of our world-class organizations to provide safety excellence, skilled workforce development, industry-leading customer service, rapid disaster response and relief, world-class operations and considerable understanding of federal funds management to Puerto Rico.

3.0 WHAT WE PROPOSE

We will establish LUMA as a standalone entity in Puerto Rico, instead of operating the critical T&D system as an extension of an existing mainland U.S. utility. We look forward to a collaborative working relationship with the Administrator and PREB. From the first day on the ground, LUMA will build a new, united organization designed to maximize the benefit of the existing talent from PREPA and respond effectively to Puerto Rico's current challenges.

Since submitting our qualifications more than a year ago, a multidisciplinary and highly-skilled team has worked on a full-time basis to advance this crucially important initiative. With the active support of our executive leadership and Boards of Directors, we have spent considerable time on the ground in Puerto Rico to understand its culture, people, and the economic context. We have also commissioned third-party research to better understand the needs, interests and concerns of our customers specifically, as well as their expectations and perceptions with respect to a new Operator — local insights which informed the development of our brand, LUMA. Taken together, this local knowledge will influence not only our method of operating, but also how we communicate and engage with our customers, stakeholders and communities.

Our commitment and enthusiasm with respect to creating a more prosperous, resilient and sustainable energy future for Puerto Rico continues today undiminished. We are relocating a world-class management team to Puerto Rico. The combined experience of our senior leaders amounts to hundreds of years of successfully leading utility operations teams, building major energy infrastructure on time and on budget and navigating the unique challenges of moving utilities from public to private operation. We also specialize in bringing financial accountability, information technology enhancement and transparency to organizations. We are proud to have Spanish-speaking and bilingual executives who have led the turn-around of electric service in Latin America and the Caribbean.¹

¹ Form 1.4 Section 2, Form 1.5 Section 1.C, and Form 1.6 Section 1.A.

Our team's top professionals have trained utility employees to work safely and at higher competency levels. As we detail in our bid proposal, we are committed to establishing a new NLC campus to train the next generation of Puerto Rico's skilled workforce. This will be a key investment in the successful modernization of the grid and economic growth in Puerto Rico. Additionally, we are accustomed to working with local businesses, and plan to subcontract with qualified local service providers.² This practice will maximize economic activity across Puerto Rico and will contribute to long-term social development in its communities.

3.1 A New Corporate Culture to Enable Transformation

Fostering the right environment for our people is critical to achieving the transformation of any organization. We will establish a corporate culture that champions safety, encourages learning, supports career development and rewards performance. Clear accountability, transparency, integrity and ethical conduct at all levels of the organization will allow us to achieve better safety results and higher performance in utility services.

Our bid proposal includes greater detail on how we will contribute our best-in-class expertise in workforce training and field workforce development, including establishing a local NLC campus.³ We understand that proper training, continuous learning and career-long support are imperative to increasing retention in the critical utility trades. Our goal is to establish LUMA as one of the best career opportunities in Puerto Rico and to build pride in the organization.

A More Horizontal Organization

Communication must take place across functional areas, not only up or down reporting chains. The horizontal structure we propose reflects an organization that will allow teams to work across departments supporting critical operations and customer service, while at the same time lowering costs.⁴ This is critical to providing exceptional customer service, and to ensuring that teams understand how to contribute to the success of the organization.

A Constructive Relationship with Employees and Unions

As the new Operator, we will actively work to build a respectful, resilient relationship with the unions.⁵ We are aware of the challenge of building constructive labor relations given the history at PREPA. However, we work with very large union organizations across North and Latin America. We have extensive experience building effective long-term relationships with organized labor, with more than

² Form 1.4 Section 8 and Form 1.6 Section 1.B.

³ Form 1.4 Section 1.F, Form 1.5 Section 3, and Form 1.6 Section 2

⁴ Form 1.6 Section 1

⁵ The Operator employee roles and responsibilities will reflect a new organization focused on the transformational objectives of the electric system. Our current plan for finalizing the Employment Requirements are presented in Form 1.5 Section 8.E. We also provide detailed information on employment descriptions, classifications and other employee matters in Form 1.6 Section 2, where we describe our Recruitment and Staffing Plan.

16,500 employees who are represented by multiple unions. We understand how to work through issues with labor to find win-win solutions and provide high-quality services for customers. There is no contradiction between a high-performing organization and a fair collective bargaining agreement.

This positive and empowering corporate culture will be central to achieving the GOPR's sector transformation objectives.

3.2 Alignment with Sector Transformation Objectives

In addition to the sector transformation objectives — customer centric, affordable, reliable, resilient and sustainable — established by GOPR, we are adding a sixth strategic objective, safety, which we will infuse throughout the entire organization. We have summarized our approach to achieving initiatives for each sector transformation objective below.



SAFETY

A Safety-Always Culture

We will instill a safety focus throughout the entire organization and integrate safety in all processes. Our job is to complete every task without incident or injury. We will create a culture in which all employees have the opportunity and responsibility to take ownership for their personal safety and the safety of their coworkers. We have always held the belief that our most valuable assets are our people. At the end of the day, there's nothing more important than our employees going home safely. Public safety and emergency preparedness are also vital to operations. Educating customers, first responders and communities on the importance of energy safety will be a focal point.

Figure 1 summarizes performance for Quanta, ATCO and PREPA for Total Recordable Incident Rate (TRIR) and Lost Time Incident Rate (LTIR), two key measures for safety tracked by the Occupational Health and Safety Administration (OSHA). Our Consortium consistently performs near or better than the electric utility peer group, as established by Edison Electric Institute in 2018.

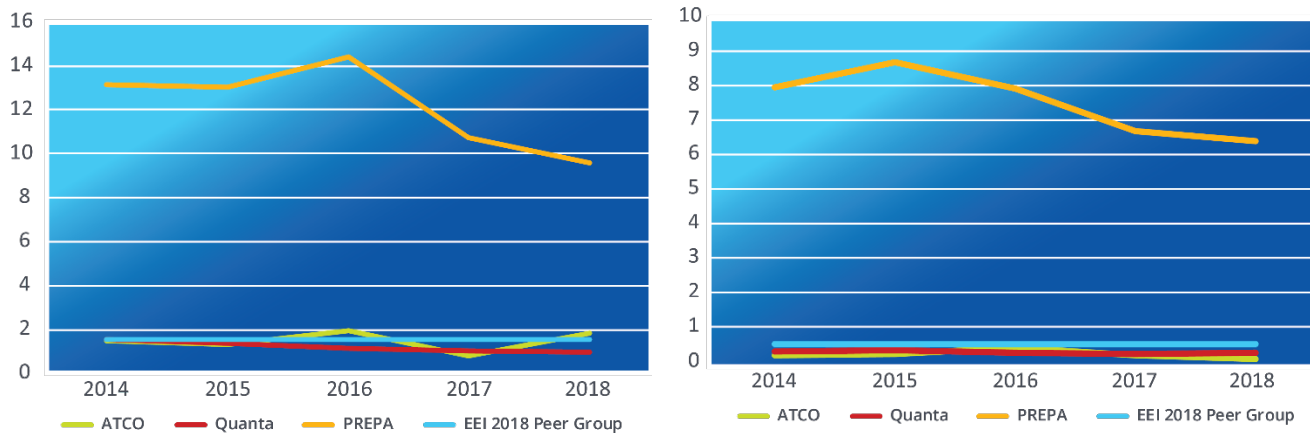


Figure 1: ATCO, Quanta, PREPA and EEI 2018 Utility Peer Group TRIR (left) and LTIR (right)

LUMA's safety initiatives start with an initial investment of training resources so that the whole organization will be engaged in a progressive safety culture.⁶ Safety will be considered a key part of performance and will become an established part of every function. We believe that the safest workplaces are also the best managed, attracting the best people to deliver effective, efficient and reliable energy.

We will launch initiative to build on PREPA's program of outreach to customers and the public about safety. This will help minimize the number of public safety incidents and promote a positive reputation for the utility. A safety-always culture will establish that people — employees, customers and those in the communities in which we live and work — matter first and foremost.



CUSTOMER CENTRICITY

A Customer-Centric Mindset

LUMA will have a customer-centric mindset from the outset and will take all steps necessary to transform Puerto Rico consumers into prosumers — informed, empowered and active “producing consumers” who will consume and produce energy through sustainability programs. To encourage more prosumers to enter the market, ultimately driving economic growth in Puerto Rico, we will introduce a mix of new enabling technologies and, eventually, alternative rates.

⁶ Form 1.4 Section 1.M

To build a high level of trust with our customers, we will develop a best-in-class service organization that delivers an exceptional, responsive customer experience. All employees will receive customer-service training to set the foundation for a customer-centric culture.⁷ We will leverage the practices and processes that have allowed ATCO to achieve world-class customer satisfaction rankings. As Figure 2 shows, ATCO's net promoter score well exceeds the much lower scores that are typical for large North American utilities. The net promoter score is a measure of customer experience widely used by companies that sell products and services to end-use retail customers.⁸ A higher score indicates a better customer experience and higher customer loyalty.

In a 2018 poll, more than 95 percent of ATCO's utility customers in Alberta agreed that the company provides good service, and more than 93 percent of customers agreed that ATCO has a strong reputation in the community.

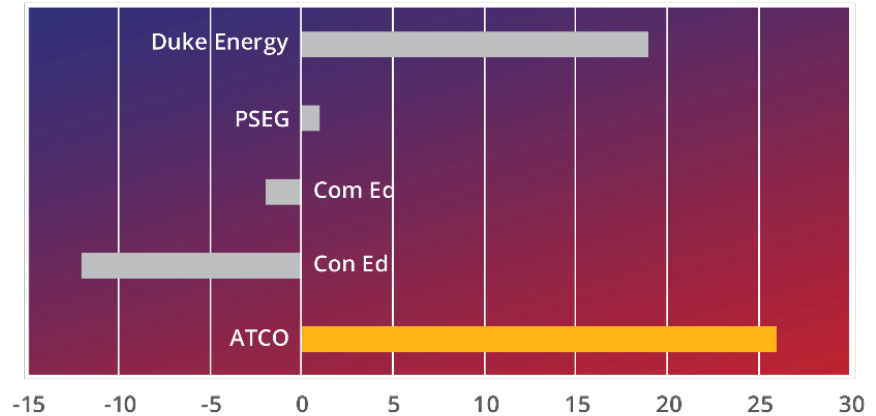


Figure 2: Net promoter scores for ATCO and utility peers

Sources: <https://customer.guru/net-promoter-score/industry/utilities-gas-and-electric> and industry benchmarking through Service Quality Measurement Group (<https://www.sqmggroup.com/>)

Smart Meters and Other Distribution Grid Technologies

Our leadership team has deep experience in the deployment of smart grid technologies in competitive retail markets, including advanced metering. Our experts have advised other utilities on how to build a smarter distribution grid to add greater flexibility for customers with distributed energy resources and microgrids. Notably, in 2008, a senior member of our transition team led the deployment of smart grids and meters for CenterPoint, one of the first large-scale rollouts of its type for a U.S. utility.

Building on what has begun at PREPA, we will develop automated metering infrastructure (AMI) and install smart meters, which will allow time-of-use, interval meter reads, prepayment and complex billing to become available to customers. AMI will enable our implementation of the “Green Button,” a tool that allows customers to track their household or building data online, empowering them to

⁷ Form 1.4 Section 1.E.

⁸ Net Promoter score is calculated using the answers from a poll that asks this question, “Using a 0 – 10 scale: How likely is it that you would recommend [brand] to a friend or colleague?” Respondents are grouped as follows: promoters (score 9 – 10) are loyal enthusiasts who will keep buying and refer others, fueling growth; passives (score 7 – 8) are satisfied but unenthusiastic customers who are vulnerable to competitive offerings; detractors (score 0 – 6) are unhappy customers who can damage your brand and impede growth through negative word of mouth. Subtracting the percentage of detractors from the percentage of promoters yields the net promoter score, which can range from a low of -100 (if every customer is a detractor) to a high of 100 (if every customer is a promoter).

manage their energy needs more efficiently, creating savings.⁹ We will also roll out a campaign to customers to communicate practical tips to save money on energy bills and how to go green at home.

A Transformed Customer Experience

We will expand the offerings for customers in Puerto Rico and change their experience with their electric utility. In our bid proposal, we describe how we plan to redefine the call center experience, improve billing processes and implement solutions for easier customer payments.¹⁰ Our initiatives, such as employing a First Contact Resolution program, will result not only in improved customer service metrics, but also in lower costs to relieve pressure on rates.



AFFORDABILITY

Energy Loss Reduction

One of the key areas for improved financial health in the T&D segment is technical and non-technical loss reduction. PREPA's data indicates technical and non-technical losses of approximately 12.3 percent. We see high potential for millions of dollars in recovered revenues and lower costs annually, which will have a meaningful impact on customer rates. We will achieve this through targeted investment that will reduce technical losses by three to four percentage points within five years.¹¹ LUMA's leadership team has designed and implemented technical loss reduction programs at large electric distribution companies in Argentina and Brazil.

We will also implement a focused program of non-technical energy loss reduction. This will be patterned on successful programs members of our team have implemented at utilities in Latin America with similar or higher initial loss levels to those currently found in Puerto Rico. For example, in a major distribution utility in Argentina, losses that started at over 20 percent were reduced to less than 7 percent over the course of three years. In a major metropolitan utility in Brazil, we reduced losses from 18 to eight percent in three years. Because most North American utilities already have low loss levels, few management teams are experienced in implementing a program to take non-technical losses from a high level and successfully reduce them over a short time.

This energy loss reduction program will begin on the largest portion of demand in the industrial and commercial customer classes, which represent 60 percent of current overall revenue. Once rates of energy loss have been reduced, they must be kept low. ATCO has technology and processes to maintain losses at a very low level, having kept total energy losses (technical and non-technical) below 4.5 percent since 2010. We will adapt these programs for Puerto Rico once the initial reductions are achieved.

⁹ Form 1.4 Sections 1.A and 1.E

¹⁰ Form 1.4 Section 1.E and Form 1.5 Section 4

¹¹ Form 1.4 Section 1.S

Financial Accountability

Part of the change in corporate culture will be training employees in cost management best practices. We will implement a code of ethics that includes accountability for cost management and transparency. We will use proven processes drawn from hundreds of previous successful finance and administration integrations to reduce cost and time for operations and administrative functions. Our team will work to ensure that LUMA's internal accounting and financial reporting control systems meet the requirements for reliable and accurate reporting to the Administrator and PREB.¹² We will implement a robust, formalized control framework to maintain performance during transition, which we will maintain and upgrade throughout the life of the contract. Integral to these control systems are a code of ethics and management policies that provide guidance and direction to employees, as well as a system of corporate governance that provides oversight to LUMA's operating, reporting, administrative and risk management activities.

**RELIABILITY***Improve Productivity and Harness Technology with a Focus on Reliability*

We have flexible proprietary models to predict outages and prioritize operations based on restoring system elements that will have the greatest impact on customer reliability. LUMA will use these models in Puerto Rico.

We will develop an asset management plan (AMP) that will move the existing asset base toward a condition-based asset management program that relies on data to progressively improve reliability. Our AMP will develop projects to address reliability, ensure safety for employees and the public, create maintenance programs for the T&D lines and substations and ensure that capital projects are effectively and efficiently developed and delivered. This will improve SAIDI and SAIFI reliability indices and improve the overall customer experience.¹³ ATCO's AMP has helped achieve SAIFI and SAIDI far better than competitors' metrics — a particularly noteworthy achievement considering that ATCO's sprawling and sometimes remote service territory experiences some of the harshest climactic conditions in the world.

¹² Form 1.4 Section 1.I and Form 1.5 Section 6

¹³ Form 1.4 Section 1.L and Form 1.5 Section 2.C.8.0

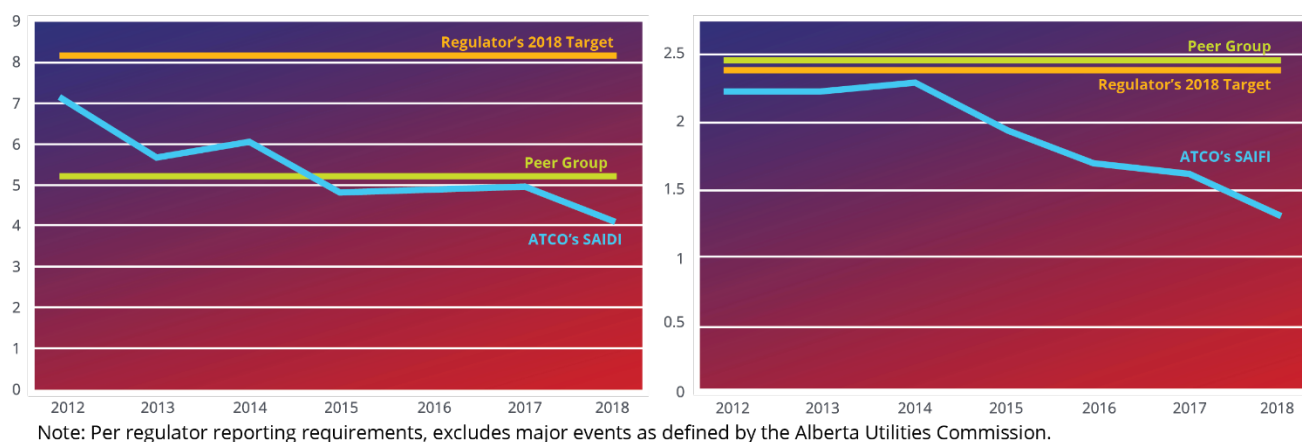


Figure 3: ATCO's SAIDI (left) and SAIFI (right) for the past five years

Quality Assurance

We take an innovative approach to quality — the Safety, Health, Environment and Quality (SHEQ) Integrated Management System (IMS). The SHEQ IMS is an integrated approach acknowledging that critical platforms should be managed by a single management system. Integrating quality with safety, health and environment creates a significant advantage, as it allows for similar processes to be seamlessly managed and executed without duplication while achieving a reduction in operating costs. We have experience implementing quality and continuous improvement among a diverse range of clients for whom quality is a core and challenging need, including NASA, Shell, Exxon and the U.S. Navy.¹⁴

Vegetation Management

Vegetation management (VM) is a critical factor in effective operations. Our VM program will draw from ATCO's experience using technology such as LiDAR and satellite imagery to leverage spatial data related to electric infrastructure and land cover classifications. This will allow us to reduce the need for site visits by remotely identifying areas that need attention. Comparative data also allows us to track the rate of vegetation growth, enabling us to better plan resource distribution.¹⁵ We have already employed these methods to review the VM effort across Puerto Rico's T&D system and, using this data, we will implement a specific plan to target the most affected areas first. Within three years, field-enabled technology will be used in condition assessment work to develop preventive maintenance plans and to assign and manage vegetation maintenance projects.

¹⁴ Form 1.4 Section 1.M

¹⁵ Form 1.4 Section 1.A and Form 1.5 Section 2.C.7.0

**RESILIENCE***Deploy Infrastructure Better*

The ability to execute large capital projects on time and under budget is critical given the large capital expenditure planned as part of the FEMA restoration program for Puerto Rico. Our team has a long history of building infrastructure at a fixed cost and on schedule to improve resiliency. Within its T&D businesses alone, ATCO has invested nearly \$7 billion over the last decade to upgrade aging transmission and distribution systems and to build new, efficient and highly resilient infrastructure. In addition, Quanta has delivered over \$45 billion in electric infrastructure projects in a similar time frame. We will fully use IEM's market leading expertise to establish appropriate controls and processes for expeditious and accurate federal funds reimbursement.

Our analysis of gaps in capability and infrastructure will allow us to develop initiatives to address those gaps. Initiatives will be prioritized using a cost-benefit analysis and effects on reliability, customer satisfaction and transformation. The highest-priority initiatives will make up key deliverables that will be incorporated into our plans, such as the System Remediation Plan, Emergency Operations Plan, baseline performance metrics and budgets. Initiatives in the System Remediation Plan will include the Capital Improvement Program, specifically designed for improved storm hardening, infrastructure deployment and increased reliability and cyber security.¹⁶

Focus Organization on Emergency Preparedness and Operations

Using our considerable emergency response expertise, we will establish a robust Emergency Management and Business Continuity Program to support operational readiness and provide the capacity to respond effectively and efficiently during future disasters.¹⁷ We will draw on our more than 52,000-person-strong workforce and put in place contingency plans to support LUMA directly for future emergencies such as extreme weather events.

ATCO's Frontec subsidiary, a business line dedicated to disaster and emergency management services, has provided equipment, supplies, personnel and essential support in disasters including the 2017 hurricanes in Puerto Rico, 2010 earthquake in Haiti and 2005 earthquake in Pakistan. ATCO also managed the reaction and restoration after 2016's destructive Fort McMurray wildfire, one of the largest and costliest natural disasters in Canadian history. The company deployed nearly 700 employees to the region to provide shelter, inspect and rebuild infrastructure and safely restore the electricity and natural gas services to tens of thousands of customers — all with no lost-time incidents. For these efforts, ATCO was honored with the Alberta Emergency Management Agency's Emergency Management Achievement Award, which celebrates exemplary achievement in emergency management, and by the Edison Electric Institute with an Emergency Recovery Award.

¹⁶ Forms 1.4 Section 1.B and 1.5 Section 3

¹⁷ Form 1.4 Section 1.J and Form 1.5 Section 9.B.2.0

In the last few years, after multiple major hurricanes made landfall within a short period of time, Quanta has deployed up to 6,000 lineworkers, at one time, performing storm restoration work for partner utilities. IEM has over 30 years of experience supporting states and localities in enhancing their



level of preparedness, responding effectively, mitigating their risks and implementing disaster recovery programs funded by federal, state and local funding sources.

SUSTAINABILITY

A Cleaner Grid

The IRP presents a path for investment to take advantage of higher levels of renewable penetration and a flexible, decentralized grid. Our approach to the IRP is to intelligently and pragmatically incorporate cleaner sources of wholesale power and facilitate the adoption of distributed technology to boost reliability, facilitate a more customer-facing service and lower costs.¹⁸ We will draw on our experience in advising on the design and implementation of IRPs.

As customers transition from consumers to prosumers, they will increasingly require accurate energy consumption and billing information in real time. To meet these increasing expectations and empower Puerto Rico's prosumers, we will leverage our diverse experience in technical and practical application of renewable energy sources, smart grid deployment, micro grid integration and other measures.

Transparent and Efficient Interconnection Queue Management Process

To enable more consumers to become prosumers, we will design and administer an interconnection program that will ensure timely processing and completion of interconnection requests. It will include queue management and status reporting so customers can check the status and progress of their requests, and so regulators can see the overall interconnection program status by accessing accurate and timely status reports.¹⁹

Community Engagement

LUMA will deliver far more than operational excellence, an improved customer experience and innovative and reliable electricity service. We recognize that when communities thrive, everyone benefits, which is why we are committed to supporting and empowering individuals, groups and organizations where we provide service in Puerto Rico. We also pride ourselves on being a good neighbor and an active member of the communities in which we live and work. Central to our community engagement efforts will be our people, who will live and work in the communities we serve. For example, since 2006, ATCO has raised a remarkable \$31 million for more than 800 charitable organizations worldwide through its ATCO EPIC (Employees Participating in Communities) program.

¹⁸ Form 1.4 Section 1.K

¹⁹ Form 1.4 Section 1.P

To further refine our understanding of community priorities, we will proactively engage community members, including customers, municipal officials and community leaders. As a first step, we have already begun public opinion polling to assess the most important issues for customers. Our two-way engagement will continue in-market with public meetings and town halls to ensure that our community commitments are appropriately tailored to address local concerns. Equally important, is our process to follow through with action on concerns expressed.²⁰

One initiative we will undertake across Puerto Rico is an intensive public safety campaign in response to the residents' desire for safer neighborhoods and workplaces. Our community outreach will focus on being safe around utility infrastructure and storm preparedness. We believe that engaging with communities on the issues they care about will increase stakeholder support for utility activities, build stronger ties to our customers and positively affect economic development.

We will also continue to work with those who have dedicated support to the Commonwealth of Puerto Rico since the hurricanes, including the New York Power Authority.

Environmental Compliance

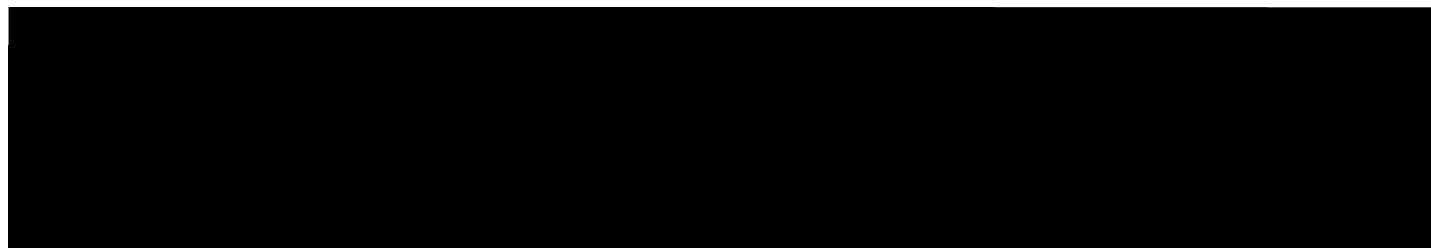
We currently perform work in complex regulatory frameworks and environmentally sensitive areas around the world. Our breadth of energy infrastructure and utility expertise extends to routing, siting and permitting large utility projects, as well as implementing environmental controls and mitigations from planning and execution through to reclamation and remediation.

We mitigate our environmental impacts by systematically and responsibly managing our operations. We are committed to continuously improving our environmental and operational integrity programs by regularly sharing best practices with industry associations and across our respective operations.

We will help transform LUMA into a utility that better ensures and promotes the long-term health of Puerto Rico and saves customer dollars by avoiding regulatory fines.²¹ Our goal is to deliver reliable power with minimal impacts to Puerto Rico's unique biodiversity and plant life and to build its reputation as a world-class destination that champions sustainability for residents and guests.

4.0 SUMMARY OF OPERATIONAL AND FINANCIAL PROPOSALS

The entirety of Form 1.2 Section 4.0 is Confidential



²⁰ Form 1.4 Section 1.C

²¹ Form 1.4 Section 1.O and Form 1.5 Section 2.E

