550 KW / 687 KVA
POWERED by

MODEL	TP-P550-T2-60

Triton Power is a world leader in the design, manufacture of stationary, mobile and rental generator sets and Power Modules from 10 to 2000 kW. Through our commitment to quality we manufacture with only the highest quality components from companies like Cummins, John Deere, Perkins, Marathon, and Deep Sea. All of this plus our worldwide warranty, customer service professionals, is why Triton is the

THE POWER OF QUALITY

Available Voltage	**Standby**	**kVA**	**687**
3 Phase		**kW**	**550**
120/208, 110/220, 120/240, 277/480	**Prime**	**kVA**	**625**
Power Factor 0.8		**kW**	**500**

Standby : Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046 .
Prime : Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. In accordance with ISO 8528, ISO 3046.

- High quality, reliable and complete power unit
- Compact design
- Easy start and maintenance
- Every generator set is subject to a comprehensive test program which includes full load testing and checking and providing of all control and safety shut down functions testing
- Full engineered with a wide range of options and accessories:
  - Sound Attenuated Enclosure
  - Trailer with fuel tank
  - UL Listed Fuel Tank
  - Permanent Magnet Generator
  - Electronic Governor

ENGINE INFORMATION		
ENGINE MAKE		**PERKINS**
Model		**2506C-E15TAG4**
Engine Speed	**RPM**	**1800**
Engine Power Output at rated rpm	**kWm**	**623**
	HP	**836**
Cooling		**Radiator Cooled**
Aspiration		**Turbocharged & air-to-air charge cooled**
Total Displacement	**Liter**	**15.2**
No. of Cylinders and Build		**6-inline**
Bore and Stroke	**mm x mm**	**137 x 171**
Compression Ratio		**16:1**
Governor		**Electronic**
Fuel Consumption (L/hr)	**Full Load**	**123**
	75% Load	**90**
	50% Load	**61**
Fuel Tank Capacity (Non-UL)	**Liter**	**1100 Open / 945 SAE**
Oil Capacity	**Liter**	**60**
Coolant Capacity	**Liter**	**58**
Radiator Cooling Air	**m^3/min**	**852**

Economic Power

- Mechanically operated unit fuel injectors with electronic control, combined with carefully matched turbocharging, provide excellent fuel economy and low emissions.

Reliable Power

- Developed and tested using the latest engineering techniques and finite element analysis for high reliability, low oil usage and low wear rates.
- High compression ratios ensure clean rapid starting in all conditions.

Compact, Clean and Efficient Power

- Exceptional power to weight ratio and compact size give optimum power density for ease of installation and more cost effective transportation.
- Designed to provide excellent service access for ease of maintenance.

Product Support

- Total worldwide service is provided through a network of 4,000 distributors and dealers.
- TIPSS - The Integrated Parts and Support System enables customers to specify and order parts electronically as well as service engines with on-line guides and service tools.

CONTROLLER INFORMATION
DEEP SEA MODEL 7420

The DSE7420 is a control module for single gen-set applications. The module incorporates a number of advanced features to meet the most demanding on-site applications. The DSE7420 is an Automatic Start Control Module designed to start and stop diesel and gas generating sets that include electronic and non-electronic engines. The module includes USB, RS232 and RS485 ports as well as dedicated DSENet® terminals for expansion device connectivity. The modules are simple to operate and feature a simple menu layout for improved clarity. Enhanced features include a real time clock for enhanced event and performance monitoring, Ethernet communications for low cost monitoring, dual mutual standby to reduce engine wear and tear, and preventative maintenance features to detect engine part faults prior to a major problem occurring.

MAIN FEATURES:

NEW FEATURES
- Neutral position on breakers
- Mains current protection
- Improved mains detection 3phase 3 wire
- Additional programmable logic
- Improved modem diagnostics
- Remote control sources (10) can be accessed via SCADA
- Additional electrical trip options
- Additional start delay functions
- Oil pressure values from additional engines
- Front panel editing of scheduler
- Now displays kW as % of rated kW setting

STANDARD FEATURES
- Backed up real time clock
- True dual mutual standby with load balancing timer
- Ethernet communications
- Multiple date and time maintenance scheduler
- 132 x 64 pixel LCD display
- Configurable display languages
- Programmable event logging (250), showing reason, date and time
- Robust module enclosure
- Five key menu navigation
- Durable soft touch membrane buttons
- Fully configurable via PC software
- LED and LCD alarm indication
- Engine exercise mode
- Configurable start & fuel outputs
- kWh monitoring
- Automatic load transfer
- (11)Configurable inputs
- (8) Configurable outputs
- Configurable timers and alarms
- Modbus RTU / TCP
- Magnetic pick-up

Selected front panel programming
- Multiple date and time exercise scheduler
- Configurable display pages
- Programmable load shedding/acceptance
- Mutual standby
- Preventative maintenance
- kW overload protection
- 3 alternative configurations
- Unbalanced load protection
- SMS messaging (external modem required)
- Power save mode
- Security levels - PC software has password system to control access to PC software features
- Configuration file downloads from an external memory device
- RS232 & RS485 communications
- DSENet® compatible

BENEFITS
- 132 x 64 pixel ratio makes information easy to read
- Real time clock provides accurate event logging
- PC software is license free
- Set maintenance periods can be configured to maintain optimum engine performance
- Ethernet communications provides advanced remote monitoring at low cost
- Modules can be integrated into building management systems
- Preventative maintenance avoids expensive engine down time
- Advanced PCB layout ensures high reliability

OPERATION

The module is operated using the front STOP/RESET, MANUAL, AUTO, TEST and START pushbuttons. An additional pushbutton next to the LCD display is used to scroll through the modules metering displays.

ALTERNATOR INFORMATION	
Manufacturer	Stamford - HCI544D
Design	Brushless single bearing, revolving field
Stator	2/3 pitch
Rotor	Single bearing, flexible disc
Insulation System	Class H
Standard Temperature Rise	125 -163°C Continuous
Exciter Type	Self Excited
Phase Rotation	A (U), B (V), C (W)
Alternator Cooling	Direct drive centrifugal blower fan
AC Waveform Total Harmonic Distortion	No load < 1.5%. Non distorting balanced linear load < 5%
Telephone Influence Factor (TIF)	<50 per NEMA MG1-22.43
Telephone Harmonic Factor (THF)	<2%

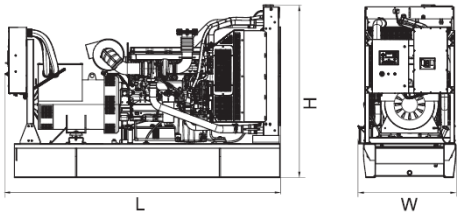
STANDARD ITEMS

- Mainline Circuit Breaker
- Generator Set mounted on Heavy Duty Steel Base Frame
- Anti-Vibration Pads between Engine/Alternator and Frame
- 8 to 10 Hour Base Fuel Tank (up to 600 kW)
- Forklift Pockets within Base Frame (up to 400 kW)
- Battery Charging Alternator

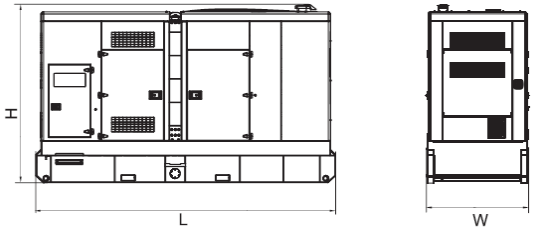
OPTIONAL ITEMS

ENGINE OPTIONS	• Engine Block Heater • Racor Fuel Water Separator • Oil Heater
ALTERNATOR OPTIONS	• Permanent Magnet Generator • Anti-Condensation Heater • Oversized Alternator (Motor Starting)
OTHER OPTIONS	• Sound Attenuated Enclosure with Critical Silencer (70 db at 7 meters) • Trailer (with or without fuel tank) • UL-142 Base Mounted Fuel Tank • Residential or Critical Grade Silencer

WEIGHT AND DIMENSIONS



SKID MOUNTED GENERATOR		
DIMENSIONS (LxWxH)	mm	3800 x 1536 x 2204
DRY WEIGHT	kg	4662



SOUND ATTENUATED GENERATOR		
DIMENSIONS (LxWxH)	mm	4692 x 1700 x 2488
DRY WEIGHT	kg	6330

FEATURES AND BENEFITS OF ENCLOSURE:

- All enclosure parts are modular
- No welding to reduce corrosion
- Doors on both sides for easy maintenance
- All metal parts are powder coated
- Critical Exhaust Silencer Included
- Thermally insulated exhaust system
- Emergency stop located on exterior
- Easy Lifting and Moving

TRITON POWER CORP
8511 NW 61 STREET MIAMI, FL USA
305-592-6300 Fax: 305-592-5900 email: info@tritonpower.com
www.gopower.com
Triton Power is a subsidiary of Americas Generators, Inc.

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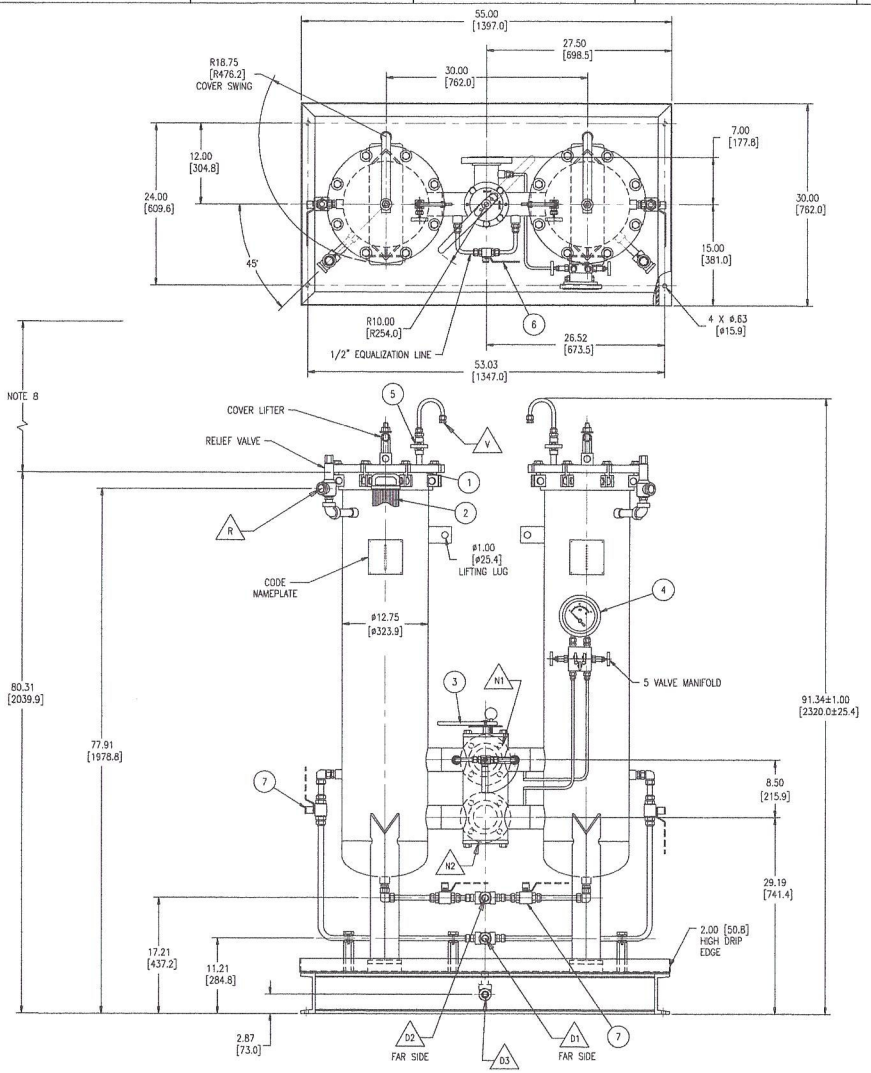
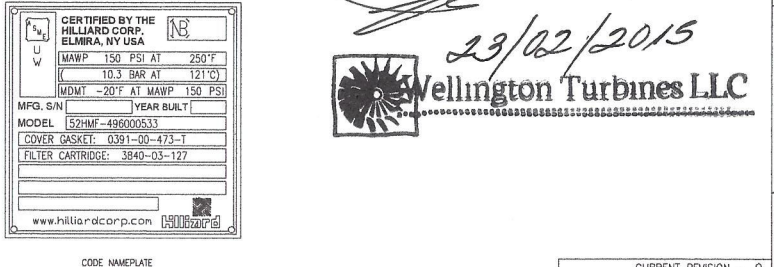


Parts List			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	0391-00-473-T	2	O-RING, COVER (VITON)
2	3840-03-127	10	FILTER CARTRIDGE (NOTE 9)
3	BO3DE300T	1	HILCO TRANSFER VALVE
4	0450-01-050-T	1	DIFFERENTIAL PRESSURE GAUGE (0-25 PSID)
5	0549-00-014-T	2	1/2" FNPT NEEDLE VALVE
6	0553-00-226-T	1	1/2" BALL VALVE
7	0553-00-228-T	4	3/4" BALL VALVE

APPROX. DRY WEIGHT .....1300 LBS. 589.7 KG.]
APPROX. WET WEIGHT .....1825 LBS. [827.8 KG.]
APPROX. COVER WEIGHT .....80 LBS. [36.3 KG.]

NOTES:
1. FILTERS ONLY CONSTRUCTED TO ASME CODE SECTION VIII DIV. 1, INCLUDES ASME STAMP AND NATIONAL BOARD REGISTRATION.
2. SEE 2501-00-325-A FOR OPERATING INSTRUCTIONS.
3. MATERIAL: FILTER HOUSINGS: 316/316L STAINLESS STEEL WITH ZINC PLATED CARBON STEEL BOLTING.
   TRANSFER VALVE: 316/316L SS BODY, SHAFT AND PADS.
   BASE: PAINTED CARBON STEEL.
4. BOLT HOLES TO STRADDLE CENTERLINES ON ALL FLANGES.
5. FLANGE FACE FINISH IS 125-250 AARH.
6. FLANGES PER ASME B16.5.
7. MAX. ALLOWABLE LOADING OF INLET AND OUTLET NOZZLES IS 50 LBS [22.7 KG] IN ANY DIRECTION. CONNECTING PIPING MUST BE SUPPORTED.
8. HEADROOM REQUIRED FOR CARTRIDGE REMOVAL: 42.00 [1066.8].
9. EACH HOUSING CONTAINS 5 FILTER CARTRIDGES.
10. SEE 3805-02-012-C FOR TRANSFER VALVE DETAILS.
11. SEE VOI-1 FOR TRANSFER VALVE INSTRUCTIONS.

CONNECTION	PURPOSE	DESCRIPTION
N1	INLET	3"-150# RF FLANGE
N2	OUTLET	3"-150# RF FLANGE
R (2)	RELIEF VALVE	1" FNPT
D1	DIRTY DRAIN	3/4" FNPT
D2	CLEAN DRAIN	3/4" FNPT
D3 (2)	DRAIN, DRAIN PAN	3/4" FNPT (PLUGGED)
V (2)	COVER VENT	1/2" TUBE (CAPPED)



CODE NAMEPLATE

23/02/2015

Wellington Turbines LLC

CURRENT REVISION - 0

DIVISION	HILCO ENGINEERING

	INITIALS	BY:	DATE:
DRAWN	DJO		2/18/15
CHECKED	RGF		2/20/15
APPROVED	RGF		2/20/15
SIMILAR TO:			
SCALE: 1/8			

TITLE: GENERAL ASSEMBLY DUPLEX DIESEL FUEL FILTER

SHEET: 1 OF 1

DRAWING SIZE: D

4960-00-533

UNLESS OTHERWISE SPECIFIED
FRACTIONAL DIMENSIONS ±
DECIMAL DIMENSIONS .XX ± .03 .XXX ± .5
ANGLES ± 2°
BREAK CORNERS ____ MAX
√ MACHINE MICROINCHES
DIMENSIONS ARE IN INCHES MILLIMETER DIMENSIONS IN [ ]

THE HILLIARD CORPORATION
100 WEST FOURTH STREET
ELMIRA, NEW YORK 14902

R.B. Mosher Co.

MosherFlo - G & D ANSI Pumps

MOSHER FLO

281-339-3382
pumps@rbmosherco.com

Physical Address:
5902 FM 517
San Leon, TX 77539

Mailing Address:
Drawer - A
Dickinson, TX 77539

www.rbmosherco.com

AEE_2243

Mosherflo-G Features

INPRO LABYRINTH SEALS – STANDARD
All Inboard and Outboard Isolators are installed to prevent bearing failure due to contamination or loss of oil. Bearing life is extended by running cooler & cleaner.

ADJUSTABLE PERFORMANCE
An easy external adjustment can be made to extend the performance of the conditions of service for which the pump is rated.

HEAVY DUTY BEARINGS & SHAFT
The bearings are sized for 10 year average life span. SKF bearings are standard. The shaft is ridged, designed with or without Sleeve, for minimum deflection at seal faces less than 0.002-in. (.05mm)

EXTRA LARGE OIL SUMP CAPACITY
Larger capacity provides for better heat transfer and durability.

3-D BULLSEYE™ SITE-GLASS
Makes viewing oil levels easy from any angle, even when pumps are in hard to reach places. This non-staining, solid acrylic site-glass will withstand more wear and tear than a typical sight window will allow.

HEAVY DUTY POWER END
Designed for extra heavy duty applications that demand reliability.

RIDGED FRAME AND CASING FEET
Reduces effect of pipe loads and helps maintain shaft alignment, reducing vibration.

MOUNTING FLANGE
Supports optional C-face adapter. Accommodates standard ANSI flanges.

BEARING TEMPERATURE GAUGE
Standard with every ANSI pump, this feature allows you to check your bearing temperature with ease, and helps with prevention and detection of overheating of bearing fluid & any problems resulting from an overheated bearing chamber.

CARBON STEEL FRAME ADAPTER
Carbon Steel strength for safety and reliability.

CASING
- Top Center-line Discharge
- Back pull-out design
- Integral casing feet
- Class 150 flange standard

CASING BOLTS
S.S. Material

IMPELLER – FULLY OPEN
Designed for corrosive environments.

POSITIVE SEAL CASING JOINT
Protects alignment fit from liquid and eases disassembly.

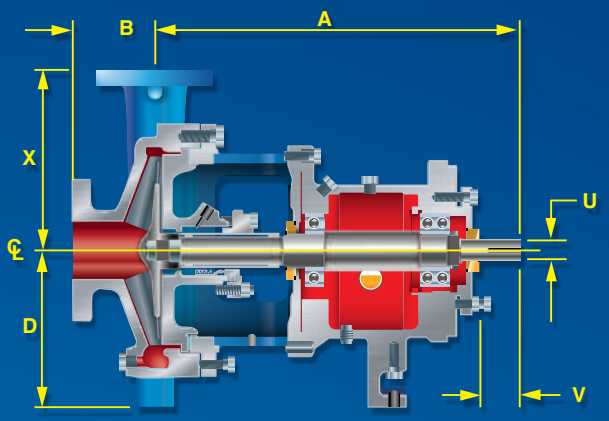
SEALING FLEXIBILITY
Available with a variety of sealing options—all types of packing, and component & cartridge-type mechanical seals from a large number of well-known suppliers.

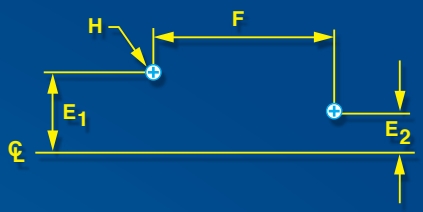
WE ARE OEM BUYERS FOR:
- Eagle-Burgmann
- John Crane
- APEX Sealing
- AES
- and many others.

WE OFFER MANY COVER PLATE OPTIONS
- Standard
- Taper
- Large Bore

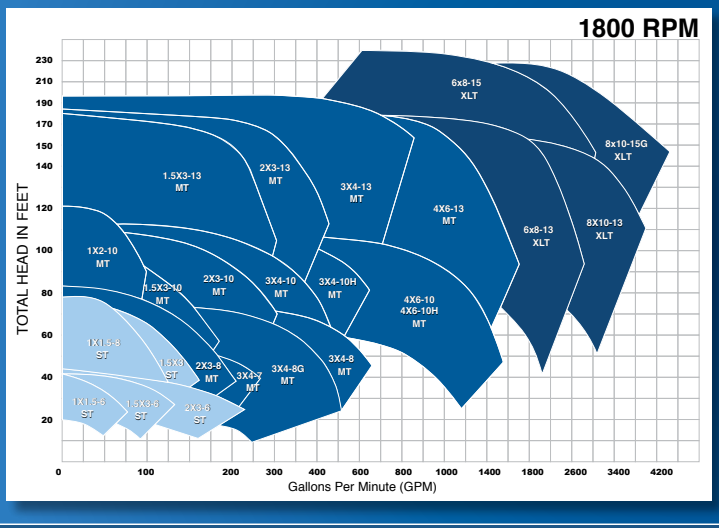
AEE_2244

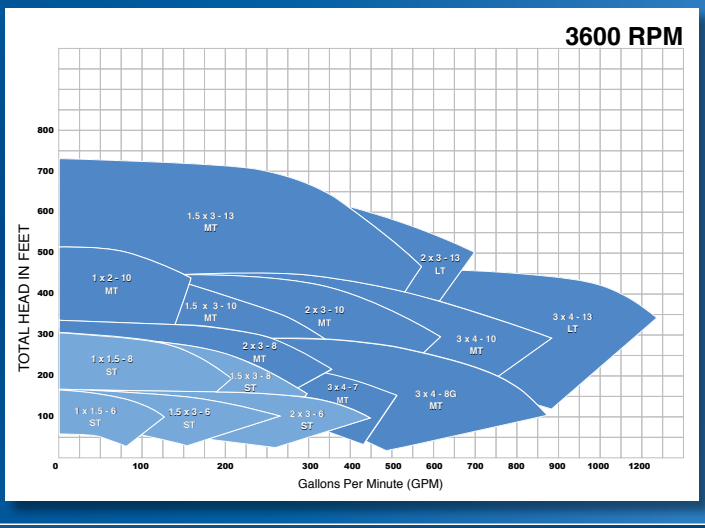
Mosherflo-G Interchangeability and Dimensional Data





Pump Frame		Size			All Measurements In Inches					Foot Pattern				Shaft		
	ANSI	DIS	SUC	IMP	X	D	B	A	SP	E1	E2	F	H	U	KEYWAY	V
ST	AA	1	1.5	6	6 ½	5 ¼	4	13 1/2	3 ¾	3	0	7 ¼	5/8	0.88	3/16 x 3/32	2
	AB	1.5	3	6												
	AC	2	3	6												
	AA	1	1.5	8												
	AB	1.5	3	8												
MT or LT	A60	2	3	8	9 ½	8 ¼	4	19 ½	3 ¾	4 7/8	3 5/8	12 ½	5/8	MT-1.125/ LT1.875	MT ¼ x 1/8 LT ½ x ¼	2 5/8
	A70	3	4	8	11											
	A70	3	4	8G	11											
	A05	1	2	10	8 ½											
	A50	1.5	3	10	8 ½											
	A60	2	3	10	9 ½											
	A70	3	4	10	11											
	A40	3	4	10H	12 ½	10								LT 1.875	LT ½ x ¼	
	A80	4	6	10	13 ½											
	A80	4	6	10H	13 ½											
	A20	1.5	3	13	10 ½											
	A30	2	3	13	11 ½											
	A40	3	4	13	12 ½											
	A80	4	6	13	13 ½											
XLT	A90	6	8	13	16	14 ½	6	27 7/8	5 ¼	8	4 ½	18 ¾	7/8	2.38	5/8 X 5/16	4
	A100	8	10	13	18											
	A110	6	8	15	18											
	A120	8	10	15	19											
	A120	8	10	15G	19											





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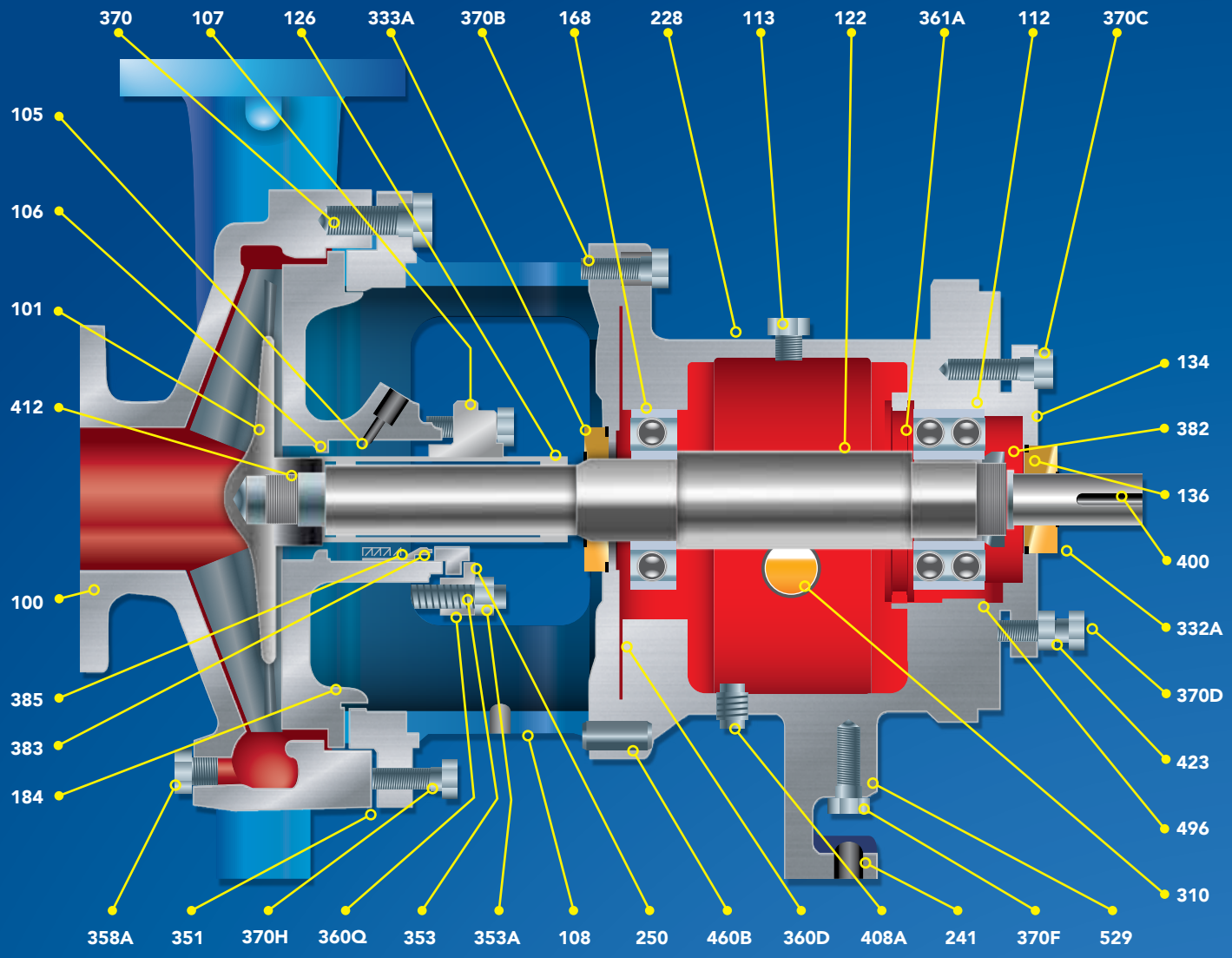
Mosherflo-G Parts List



PART #	Qty	Name
100	1	CASING
101	1	IMPELLER
105	1	RING, LANTERN (Optional)
106	5	PACKING (Optional)
107	1	GLAND, PACKING (Optional)
108	1	ADAPTER
112	1	BEARING, OUTBOARD
113	1	PLUG, OIL FILL
122	1	SHAFT Solid / Sleevable
126	1	SLEEVE, SHAFT
134	1	HOUSING, BEARING
136	1	LOCKNUT, BEARING
168	1	BEARING, INBOARD
184	1	COVER, STUFFING BOX
228	1	BEARING FRAME
241	1	BEARING FRAME FOOT
250	1	GLAND, MECHANICAL SEAL (Optional)
310	1	GAUGE: SIGHT, OIL
332A	1	LABYRINTH, OUTBOARD ISOLATOR
333A	1	LABYRINTH, INBOARD ISOLATOR
351	1	GASKET, CASE
353	4	STUD, GLAND

PART #	Qty	Name
353A	4*	NUT, GLAND STUD
358A	1	PLUG, CASING DRAIN (Optional)
360D	1	GASKET. FRAME / ADAPTER
360Q	1	GASKET GLAND, MECHANICAL SEAL
361A	1	SNAP RING, BEARING
370	0,12,15	BOLT, CASING
370B	4	BOLT, FRAME / ADAPTER
370C	3	BOLT, FRAME / BEARING HOUSING
370D	3	JACK BOLT, BEARING HOUSING
370F	2	BOLT FRAME FOOT
370H	2	BOX COVER / ADAPTER STUD
382	1	LOCKWASHER, BEARING
383	1	SEAL, MECHANICAL ROTATING ELEMENT (Optional)
385	1	SEAL, MECHANICAL STATIONARY ELEMENT (Optional)
400	1	KEY, COUPLING
408A	1	MAGNETIC PLUG, FRAME DRAIN
412	1	O-RING, IMPELLER
423	3	JAMNUT, BEARING HOUSING JACK BOLT
460B	2	DOWEL PIN, FRAME / ADAPTER
496	1	O-RING, BEARING HOUSING / FRAME
529	2	WASHER, FRAME FOOT TO FOOT
		*PACKING GLAND HAS ONLY 2 STUDS & NUTS

Mosherflo-D MIII Features

INPRO LABYRINTH SEALS – STANDARD
All Inboard and Outboard Isolators are installed to prevent bearing failure due to contamination or loss of oil. Bearing life is extended by running cooler & cleaner.

BEARING TEMPERATURE GAUGE
Standard with every ANSI pump, this Feature allows you to check your bearing Temperature with ease, and helps with prevention and detection of overheating of bearing fluid & any problems resulting from an overheated bearing chamber.

LARGER BEARING AND SHAFTS
In comparison to other ANSI pumps, Extending bearing life and reducing vibration and shaft deflection.

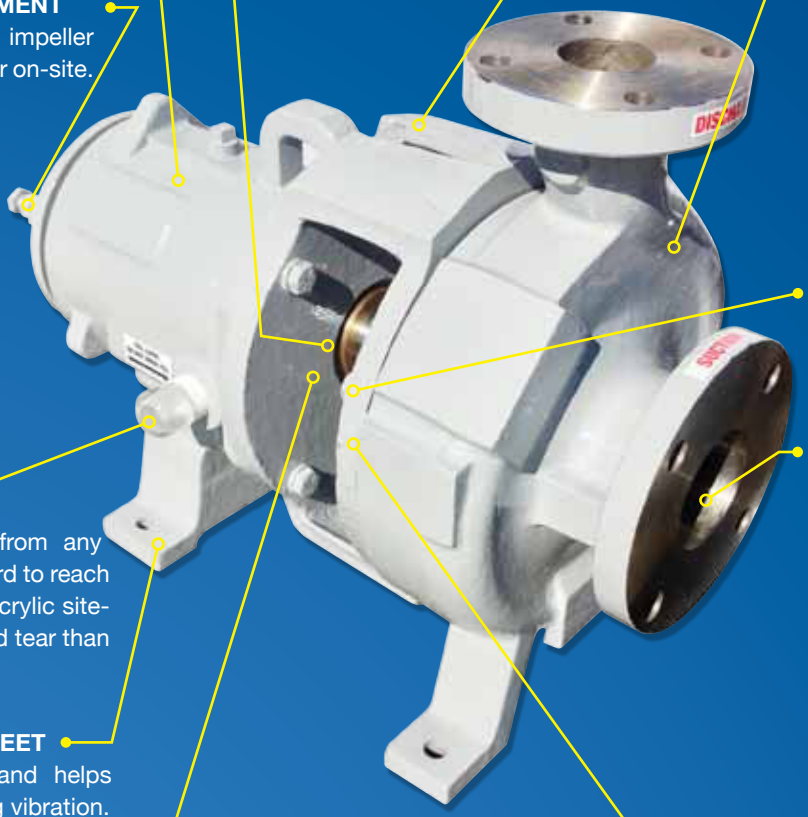
ADJUSTABLE PERFORMANCE
An easy external adjustment can be made to extend the performance of the conditions of service for which the pump is rated.

EXTERNAL IMPELLER ADJUSTMENT
Quickly allows for setting the impeller clearance during initial assembly or on-site.

CARBON STEEL FRAME ADAPTER
Carbon Steel strength for safety and reliability.

CASING
- Top Center-line Discharge
- Back pull-out design
- Integral Casing Feet
- Class 150 Flanges standard

3-D BULLSEYE™ SITE-GLASS
Makes viewing oil levels easy from any angle, even when pumps are in hard to reach places. This non-staining, solid acrylic site-glass will withstand more wear and tear than a typical sight window will allow.



CASING BOLTS
S.S. Material

SPECIALLY DESIGNED REVERSE VANE IMPELLER
Offers consistent performance throughout the pump's lifetime. Reverse Vane is standard. Open impellers are available upon request.

RIDGED FRAME AND CASING FEET
Reduces effect of pipe loads and helps maintain shaft alignment, reducing vibration.

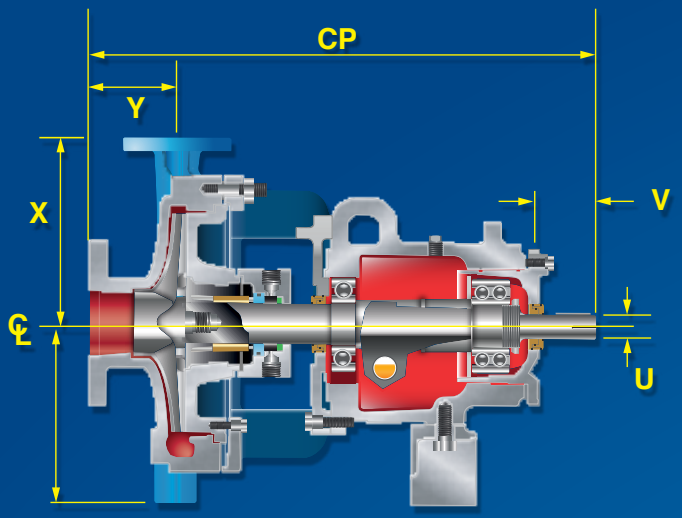
SEALING FLEXIBILITY
Available with a variety of sealing options—all types of packing, and component & cartridge-type mechanical seals from a large number of well-known suppliers.

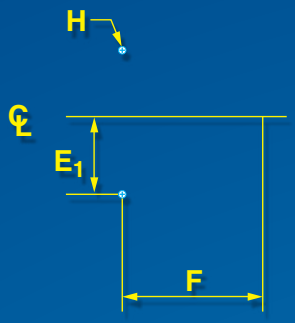
POSITIVE SEAL CASING JOINT
Protects alignment fit from liquid and eases disassembly.

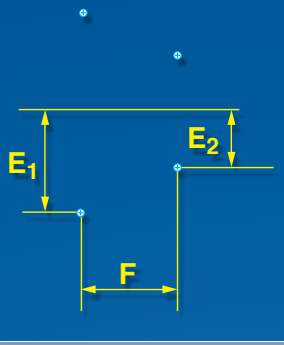
WE ARE OEM BUYERS FOR:
- Eagle-Burgmann
- John Crane
- APEX Sealing
- AES
- and many others.

WE OFFER MANY COVER PLATE OPTIONS
- Standard
- Taper
- Large Bore

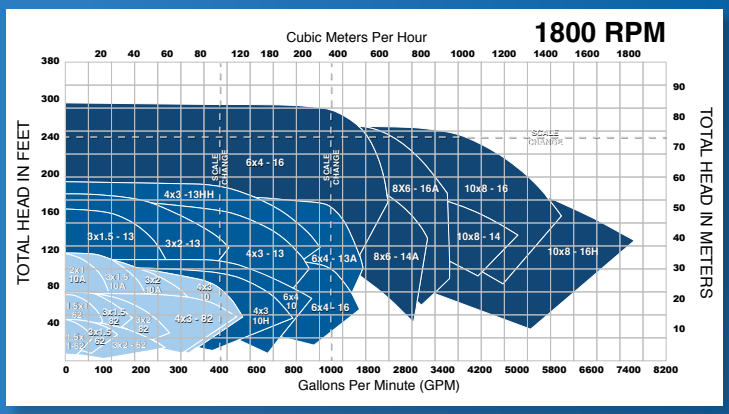
Mosherflo-D Interchangeability and Dimensional Data

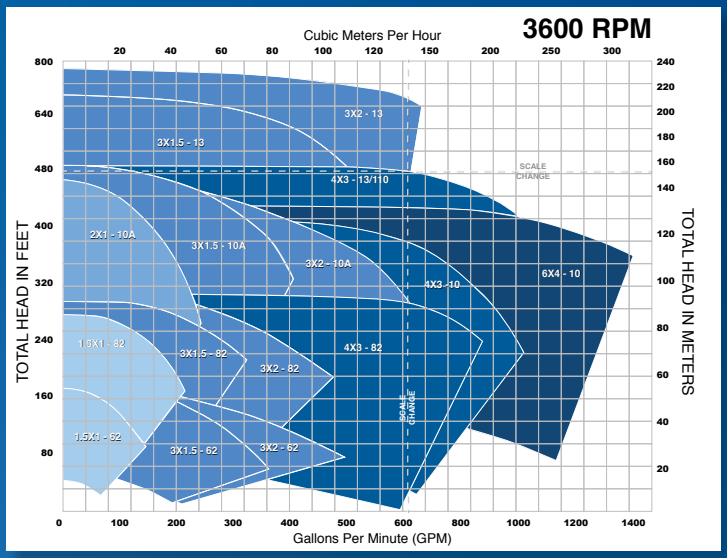






Pump Group	ANSI Desig.	Size			Pump Weight lbs. - (kg)	MosherFlo D Pump Dimensions										
		SUC.	DIS.	IMP.		X in. (mm)	D in. (mm)	E1 in. (mm)	E2 in. (mm)	CP in. (mm)	F in. (mm)	H in. (mm)	U Dia in (mm)	U Keyway in (mm)	V Min in.(mm)	Y in. (mm)
MosherFlo-D MIII G1	AA	1.5	1	6	97 (44)	6 ½ (165)	5 ¼ (133)	3 (76)	0	17 ½ (445)	7 ¼ (184)	5/8 (16)	7/8 (22.3)	3/16x3/32 (4.76x2.38)	2	4 (102)
	AB	3	1.5	6	112 (51)											
	A10	3	2	6	116 (53)											
	AA	1.5	1	8	103 (47)											
	AB	3	1.5	8	124 (56)	7 ½ (190.5)	7 (177.8)									
MosherFlo-D MIII G2	A60	3	2	8	200 (90)	9 ½ (242)	8 ¼ (210)	4 7/8 (124)	3 5/8 (92)	23 ½ (597)	12 ½ (318)	5/8 (16)	1 1/8 (28.58)	1/4x1/8 (6.35x3.18)	2 5/8 (67)	4 (102)
	A70	4	3	8	227 (103)	11 (280)										
	A05	2	1	10A	210 (95)	8 ½ (216)										
	A50	3	1.5	10A	220 (100)	8 ½ (216)										
	A60	3	2	10A	226 (103)	9 ½ (242)										
	A70	4	3	10	225 (101)	11 (280)										
	A70	4	3	10H	249 (112)	12 ½ (318)										
	A80	6	4	10	290 (130)	13 ½ (343)							1 ¼ (38.1)	3/8x3/16 (9.54x4.76)		
	A80	6	4	10H	328 (149)	13 ½ (343)	10 (254)	4 7/8 (124)	3 5/8 (92)	23 ½ (597)	12 ½ (318)	5/8 (16)	1 1/8 (28.58)	1/4x1/8 (6.35x3.18)		
	A20	3	1.5	13	250 (112)	10 ½ (266)										
	A30	3	2	13	258 (116)	11 ½ (292)										
	A40	4	3	13	281 (126)	12 ½ (318)										
	A40	4	3	13HH	281 (126)	12 ½ (318)										
	A80	6	4	13A	324 (145)	13 ½ (343)										
MosherFlo-D MIII G3	A90	8	6	14A	680 (306)	16 (406)	14 ½ (368)	8 (203.2)	4 ½ (11403)	33 7/8 (860)	18 ¾ (476)	7/8ths	2 3/8 (60.33)	5/8x5/16 (15.88x7.94)	4 (102)	6 (152)
	A100	10	8	14	899 (408)	18 (457)										
		6	4	16	641 (291)	16 (406)										
	A110	8	6	16A	832 (377)	18(457)										
	A120	10	8	16	917 (416)	19 (483)										
	A120	10	8	16H	992 (450)	19 (483)										





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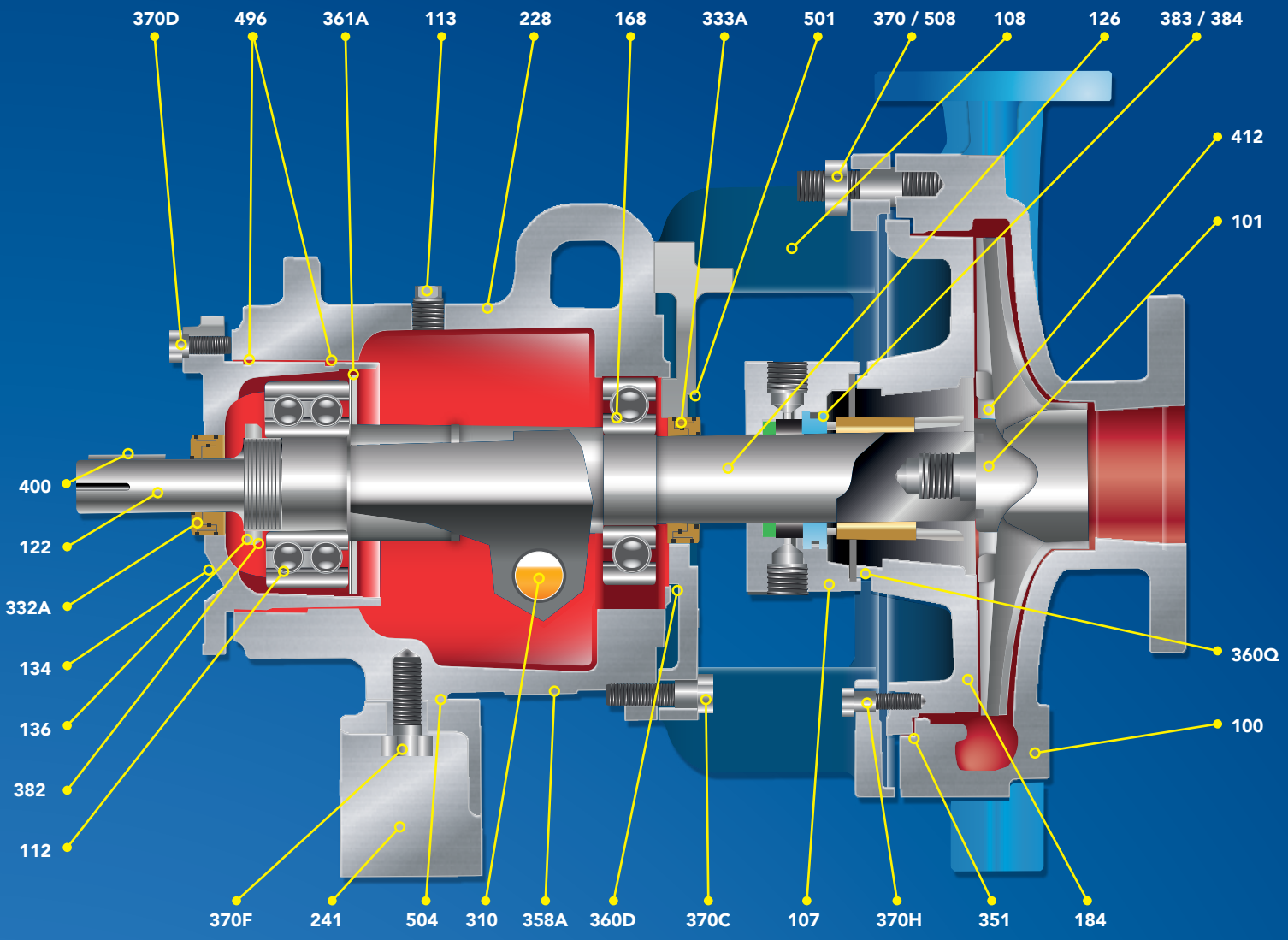
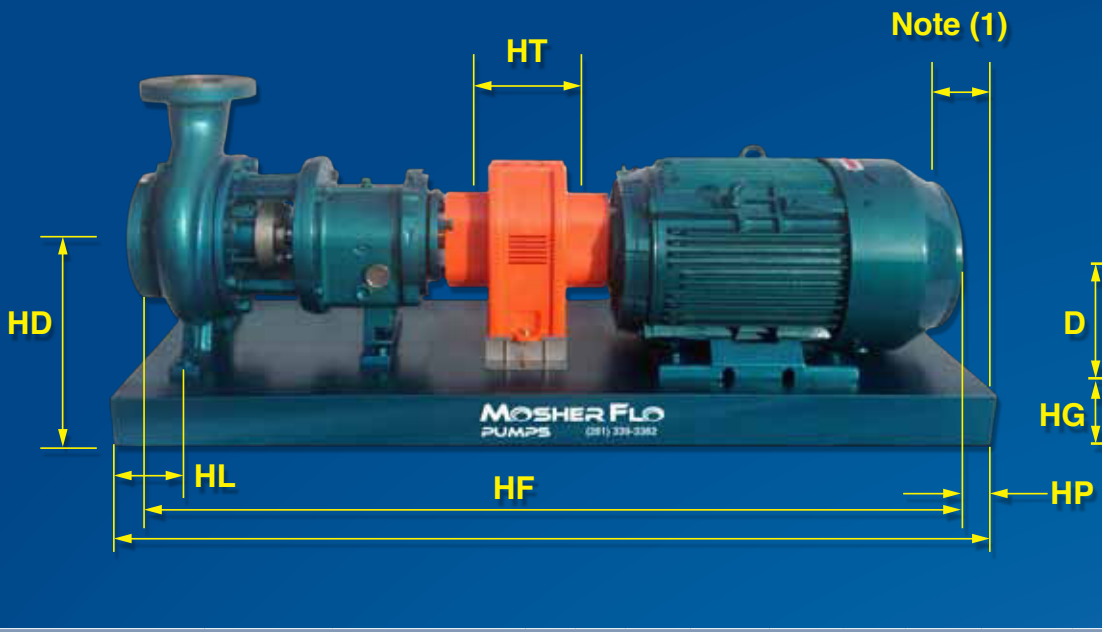
Mosherflo-D Parts List

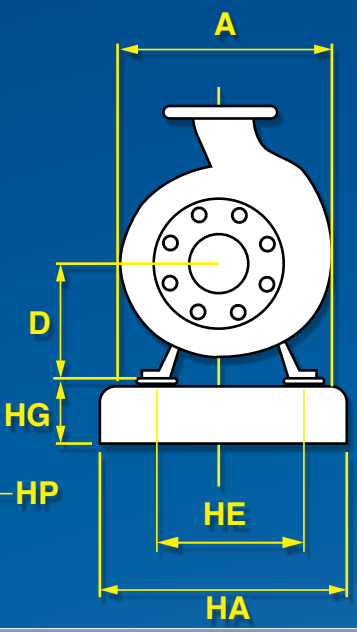


PART #	Name
100	CASING
101	IMPELLER
106	PACKING (Optional Not Shown)
107	GLAND
108	ADAPTER – BEARING HOUSING
112	BALL BEARING – OUTBOARD
113	PLUG – OIL FILL
122	SHAFT
126	SLEEVE (Optional)
134	BEARING CARRIER
136	BEARING LOCKNUT
168	BALL BEARING – INBOARD
184	COVER
228	BEARING HOUSING
241	SUPPORT FOOT
250	SEAL CAGE (W/Packing Not Shown)
310	SIGHT GAUGE – BEARING HOUSING 3D BULLSEYE
332A	OIL SEAL – LABYRINTH, OUTBOARD ISOLATOR
333A	OIL SEAL – LABYRINTH, INBOARD FRAME, ISOLATOR
351	GASKET – COVER
353A	NUT – GLAND – (Not Shown)
358A	MAGNETIC PLUG – BEARING HOUSING DRAIN

PART #	Name
360D	O-RING – ADAPTER
360Q	GASKET – GLAND
361A	RETAINING RING – BEARING
370	STUD – CASING
370C	SCREW – BEARING HOUSING
370D	SCREW – BEARING CARRIER SET
370F	SCREW – FOOT
370H	SCREW – COVER/ADAPTER
382	LOCKWASHER BEARING
383 / 384	MECHANICAL SEAL
400	KEY – SHAFT/COUPLING
412	GASKET – IMPELLER
496	O-RING – BEARING CARRIER
500	RETAINING RING – CLAMP TYPE (Not shown)
501	DEFLECTOR INBOARD (Optional)
502	OIL FLINGER (Optional, Not Shown)
503	CONSTANT LEVEL OILER (Optional, Not Shown)
504	SHIM
505	PLUG – BEARING HOUSING VENT (Not Shown)
506	SCREW – CLAMP (Not Shown)
507	STUD – GLAND – (Not Shown)
508	NUT – CASING

MosherFlo G & D ANSI Interchangeability and Dimensional Data





BASEPLATE DIMENSIONS (Dimensions In Inches)																
						HD Max. (Note 2)										
Model	Baseplate No.	Nema Frames Available	HA	HB	HT	D=5.25	D=3.25	D=10	D=14.5	HE	HF	*HG		HH	HL	HP
ST/G1	1	56-145T	10	35	3.75	8.25	---	---	---	4.5	32.5	3		0.75	4.5	1.25
	2	182-215T	12	39	3.75	8.5	---	---	---	6	36.5	3.25		0.75	4.5	1.25
	3	254U-286TS	15	46	3.75	9.38	---	---	---	7.5	43.5	4.125		0.75	4.5	1.25
												D=8.25	D=10			
MT/G2	1	143-215	12	45	3.75	---	12	13.75	---	4.5	42.5	3.75	3.75	0.75	4.5	1.25
	2	254-286	15	52	3.75	---	12.38	14.13	---	6	49.5	4.125	4.125	0.75	4.5	1.25
	3	324-326	18	58	3.75	---	13	14.75	---	7.5	55.5	4.75	4.75	1	4.5	1.25
	3	364-365	18	58	3.75	---	14	14.75	---	7.5	55.5	5.75	4.75	1	4.5	1.25
	4	404-405	18	60	3.75	---	15	15	---	9.5	57.5	6.75	5	1	4.5	1.25
	4	440 SER.	18	80	3.75	---	16	16	---	9.5	57.5	7.75	6	1	4.5	1.25
XLT/G3	1	213-266T	22	68	5.25	---	---	---	19.25	9.5	65.5	4.75		1	6.5	1.25
	2	324-365TS	22	68	5.25	---	---	---	19.25	9.5	65.5	4.75		1	6.5	1.25
	3	404-447TS	22	80	5.25	---	---	---	19.25	9.5	77.5	4.75		1	6.5	1.25

Notes:

(1) Motor should not extend beyond end of baseplate.

(2) If applicable, Motor Requires Shims/Risers to Meet Centerline of Pump. (not shown in above diagram)

*For channel baseplate, refer to your MosherFlo Distribution Center or R.B. Mosher Co. for weight per Ft. # information.

BASETEK DIMENSIONS					
BASE	NEMA	HA	HB	HG	HL
127		15	27	3.63	4.50
139	143/5T, 182/4T	15	39	3.63	4.50
148	213/5T, 254/6T	18	48	4.00	4.50
153A	284T/TS,286T/TS	21	53	4.00	4.50
153B	324T/TS,326T/TS	21	53	4.00	4.50
245	143/5t, 182/4T	15	45	3.63	4.50
252	213T,215T	18	52	4.00	4.50
258A	254T,256T	21	58	4.00	4.50
258B	284T/TS,286T/TS	21	58	4.00	4.50
264A	324T/TS,326T/TS	21	64	4.00	4.50
264B	364T/TS,365T/TS	21	64	4.00	4.50
268	404T/TS,405T/TS	26	68	4.00	4.50
280	444/5/7/9TS	26	80	4.00	4.50
368	284T,286T	26	68	4.00	6.50
380A	324/6T,404T/TS	26	80	4.00	6.50
380B	364/5T,405T/TS	26	80	4.00	6.50
398	444/5T/TS,447/9T	26	98	4.00	6.50

C-CHANNEL Steel Base ≈1/2"		HA	Weight per Ft.	HG - HEIGHT	THICKNESS
		10	15.30#	2.6	0.24
		10	20.00#	2.739	0.379
		10	25.00#	2.886	0.526
		10	30.00#	3.033	0.673
		12	20.70#	2.94	0.28
		12	25.00#	3.047	0.387
		12	30.00#	3.17	0.51
		12	31.00#	3.67	0.37
		15	33.90#	3.4	0.4
		15	40.00#	3.52	0.52
		15	50.00#	3.716	0.716
		18	42.70#	3.95	0.45
		18	45.80#	4	0.5
		18	51.90#	4.1	0.6
		18	58.00#	4.2	0.7

MosherFlo is offering, as standard on their baseplates, Falk Orange Peel Guards--Never dents, rusts, or needs painting with 3 year heavy-duty factory warranty. Orange Peel guards comply with OSHA, ASME, and ANSI standards.

Orlando Soto
Product Sales gas
Caribe GE Energy Services Corp
El Mundo Office Bldg. 383
F. D. Roosevelt Ave, Suite 205
Hato Rey, PR 00918

T 787 999 6410
F 787 625 2358
orlando.Soto@ge.com

September 20, 2018

Delis Tamara Zambrana Colón
Jefa de Subdivisión de Compras
Puerto Rico Electric Power Authority
PO Box 3670151
San Juan, PR 00936

RE: PREPA'S RFP 82695 REQUEST FOR PROPOSALS FOR MOBILE GENERATION UNITS, "RFP"

Dear Mrs. Zambrana,

Caribe GE Energy Services Corp and its affiliate, GE Global Parts & Products GMBH, ("GEGP&P"), has designated RG Engineering, Inc. (here after RGE) as our authorized representative solely for RFP for the supply, installation, set in service, and two year operation and maintenance (O&M), as may be extended in accordance with the RFP, of three new TM2500 mobile gas turbines to be located at the Palo Seco and Yabucoa power plants.

The contact in RGE would be Jose M. Robles, who will issue a proposal as prime contractor using GEGP&P, as the equipment supplier and a GEGP&P affiliate for technical support for both installation and O&M services through a cooperation and sale agreement. The parties have executed a binding agreement reflecting the foregoing on September 20, 2018. RGE is registered under PREPA's bidder's registry number 001505 (see Attachment A) and has offices in 605 Condado Street, Suite 322, Santurce, Puerto Rico. RGE shall enter into the contract with PREPA in its own name and shall not be authorized to enter into any agreement on behalf of GEGP&P or its affiliates or bind GEGP&P or its affiliates in any way.

RGE has already installed GE TM2500 mobile turbine generators at the Palo Seco and Yabucoa sites, and has been performing works for PREPA for over 36 years.

This authorized representation of GEGP&G and its affiliate companies is limited to this RFP for the sale of new TM2500 mobile gas turbine generator packages and related balance of plant. Provided that RGE is awarded the contract in the RFP, the parties

relationship shall continue through the completion of the work including warranty and/or O&M.

The scope split between RGE and GEGP&P is approximately 30% RGE and 70% GEGP&P. RGE will be performing all the engineering, installation, and construction of the plant and O&M and GEGP&P and its affiliates will provide the equipment including OEM warranty, spare parts, and technical support.

If awarded a contract resulting from this RFP, upon title transfer to PREPA, all equipment warranties and guarantees shall be vested upon PREPA directly from the original equipment manufacturer (OEM).

If there are any questions, or if PREPA's needs any further communications to accept RGE as our authorized representative for this bid, please contact us at 787-999-6410.

Cordially,

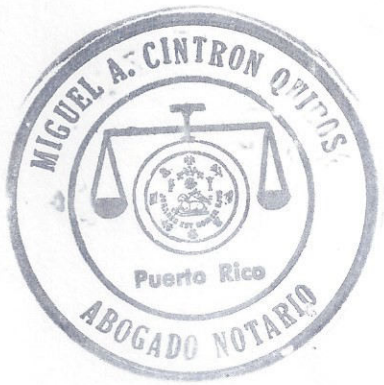
Orlando Soto
Caribe GE Energy Services Corp

AFF. # 29,539

Sworn and subscribed before me by, Orlando Soto,of legal age, married, maneger and with permanent residence in San Juan, Puerto Rico.

In San Juan, Puerto Rico, on this 20 day of September 2018.

MIGUEL A. CINTRON QUIROS
NOTARY PUBLIC
NOTARY NUMBER: 6190



Attachment A

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

SAN JUAN, PUERTO RICO

ACEPTACIÓN SOLICITUD DE INGRESO

Yo, **Ydsa M. Álvarez Cepeda**, Supervisora Oficina del Registro Licitadores de la Autoridad de Energía Eléctrica.

Certifico: Que **"R G ENGINEERING INC"** número de suplidor **001505**, forma parte de nuestro registro como Proveedor Registrado efectivo el **3 de octubre de 1989.**

Que su compañía será invitada a participar en el(los) renglón(es) dentro de lo(s) cual(es) está registrado.

Que puede participar en subastas y contratos de bienes y productos.

Que las obligaciones y derechos de las compañías y personas incluidas en el Registro de Licitadores están expresados en nuestro Reglamento de Subastas.

Que todo proveedor tiene la obligación continua con la Autoridad de mantener al día toda la información y documentos necesarios sobre su negocio.

Que la Autoridad tiene el derecho de referir a su compañía al Comité de Evaluación de Proveedores Registrados para evaluar y recomendar la aprobación de equipos, productos o servicios especializados para cualificarse como Proveedores Evaluados.

Emitida hoy, 17 de enero de 2008

Ydsa M. Álvarez Cepeda, Supervisora
Registro de Licitadores

GE Attendees for tomorrow's visit (9-10-18):

1. Robin McAdams
2. Vinay Srinath
3. José Robles
4. Ramon Ortiz

Prepa RFP 82695 Dated September 6, 2018 - RFP Questions GE/RGE

#	RFP Section	Topic	RFP Language
1	1.1 Art 3.1	Evaluation Criteria	PREPA will evaluate the proposals based on the lowest all-inclusive price submitted by the proponent. Part of the evaluation may include analysis of the cost assuming some level of unit dispatch. This evaluation may or may not include incorporating the cost and performance parameters in a system dispatch model to determine PREPA's least cost alternative.

2	1.1 Art 3.1	Evaluation Criteria	Experience and Capacity
3	1.1 Art 3.1	Evaluation Criteria	Approach and Methodology
4	1.1 Art 3.1	Evaluation Criteria	Compliance with all Applicable Federal, and Puerto Rico Regulations
5	1.1, Art 2	Training	A full O&M training shall be provided by the manufacturer to PREPA personnel (group of 10). The objective of the O&M training is to achieve full operation and maintenance capabilities of the attendees

6	1.1, Art 2	Permits	"Contractor shall furnish all construction and operation permitting and modification to current sites permits, process the agencies approvals (with PREPA's review and approval)."
7	1.1, Art 2	Operational Profile	Proponent shall also include a separate itemized proposal that includes the pricing and terms and conditions for a two-year Operation and Maintenance (O&M) Contract, with two (2) options of one (1) additional year.
8	1.1, Art 2	Environmental Permits	The units shall be equipped with modern environmental control and monitoring equipment, as well as control logics to meet all local, state, and federal current requirements. "Contractor should warranty compliance with current local, state and federal regulations"
9	1.1, Art 2	GT and BOP Equipment	The units shall be equipped with modern environmental control and monitoring equipment,
10	1.1, Art 2	Gas Turbines and Balance of Plant	Contractor shall provide and install three (3) zero-fired hours, portable gas turbines (GTs). Fixed/base load/frequency regulation of 25 to 40 MW net power output at generator terminals without water or steam injection at 85^{o}F compressor inlet ambient temperature, 70% relative humidity at sea level inlet condition.
11	1.1, Art 2	Evaluation Criteria	Each mobile unit shall have a net generating capacity between 25 and 40 MW at the specified ambient conditions and shall include the necessary new, unused Balance of Plant (BOP) equipment and new, unused black start power generating system.
12	1.1, Art 2	Evaluation Criteria	Each mobile unit shall have a net generating capacity between 25 and 40 MW at the specified ambient conditions and shall include the necessary new, unused Balance of Plant (BOP) equipment and new, unused black start power generating system.

13	1.1, Art 2	GT and BOP Equipment	Requirements for, "Necessary BOP Equipment", and "dual fuel capability."
14	1.1, Art 2	GT and BOP Equipment	Remote, new, separate HMI's complete with all logic/control functions and capabilities to allow full operation of the units and their BOP from the remote control room trailers. Minimum of two HMI monitors per mobile turbine package shall be installed inside the remote control rooms. All necessary control system software shall be installed and fully operational on said HMI's.
15	1.1, Art 2	GT and BOP Equipment	Centrifugal and coalescer fuel filters.
16	1.1, Art 2	GTs Protection System	Grant access to PREPA to protective relay events.
17	1.1, Art 2	GTs Protection System	At least the generator CT for unit differential protection (PREPAs transformer + proponent generator) shall be 5 Amps secondary. For example: 3000/5.
18	1.1, Art 2	GTs Protection System	Protective Relay Study and its settings for the proposed mobile power system.
19	1.1, Art 2	Scope	Contractor shall provide all electrical, power, control and communications wiring and cables in enclosed, weatherproof cable trays or tubing as applicable, in compliance with applicable codes and standards.
20	1.1, Art 2	Scope of Services	Existing equipment, materials or installations shall be properly relocated by the contractor and reinstalled, as per instructed by PREPA.
21	1.1, Art 2	Scope of Services	New language
22	1.1, Art 2	Scope of Services	New language
23	1.1, Art 2	Scope of Services	New language
24	1.1, Art 2	Scope of Services	New language
25	1.1, Art 2	Scope of Services	New language

26	1.1, Art 2	Scope of Services	New language
27	1.1, Art 2	Scope of Services	New language
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29	1.1, Art 2	Scope of Services	New language
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31	1.1, Art 2	Scope of Services	New language
32	1.1, Art 2	Scope of Services	New language
33	1.1, Art 2	Scope of Services	New language
34	1.1, Art 2	Scope of Services	New language
35	1.1, Art 2	Scope of Services	New language
36	1.1, Art 2	Scope of Services	Not provided yet
37	1.1, Art 2	Scope of Services	Not defined
38	1.1, Art 2	Not defined	Transformer oil test reports
39	1.1, Art 2	Waste management system	No requirements listed in RFP
40	1.1, Art 2	Fire Protection requirements	No requirements listed in RFP
41	1.1, Art 2	Grounding requirements	No requirements listed in RFP
42	1.2, Art 1	Contract documents	The Contractor shall furnish all the supply, delivery, installation, testing, and commissioning of the three units or other necessary services for the Yabucoa Power Station and Palo Seco Power Plant in strict accordance with the provisions of this Contract, including the General Conditions, Special Conditions, Technical Specifications No. ***[number]*** , Proposal Forms, Contractor's Bidding Proposal, and reference drawings, all of which are hereby made a part hereof

43	1.2, Art 6	Other work at site	If any part of the Contractor's work depends for proper execution or results upon the work of PREPA or of any other Contractor, the Contractor shall inspect and promptly report to PREPA any defects in such work
44	1.2, Art 11.1	Inspection	PREPA shall have the right to reject defective material, equipment or workmanship or require its correction
45	1.2, Art 15	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
46	1.2, Art 16	Penalties	If the Contractor fails to complete the Yabucoa installation work or any separable part thereof, within the time of completion of the work established in the ARTICLE 4, Commencement and Completion of Work, the Contractor shall pay to PREPA a penalty
47	1.2, Art 17	Liabilities	New language

48	1.2, Art 17.3	Save and hold harmless	The Contractor agrees to save and hold harmless and to indemnify PREPA for all expenses and costs of any nature (including attorneys' fees) incurred by PREPA arising out of any claim made by any person for personal injuries, including death or for property damage, caused by the Contractor or any of its subcontractors, by act or omission, in the performance or nonperformance of its obligations under the Contract.
49	1.2, Art 19	Termination	PREPA shall have the right to terminate this Contract immediately in the event of negligence, dereliction of duty, noncompliance, or material breach by the Contractor, as determined in the sole discretion of PREPA, or for any other reason described elsewhere in this Contract as a basis for termination.
50	1.2, Art 19	Termination	Contractor shall have no further right to compensation except for what has been accrued for services rendered under this Contract until said date of effective termination
51	1.2, Art 2.2	Act of God	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
52	1.2, Art 2.20	Notice to Proceed	2.20 Notice to Proceed – a written order sent to the Contractor by the Contracting Officer, or his designated representative, notifying the Contractor of the date upon which the Contractor is given authority to begin the work.----------
53	1.2, Art 20	INSURANCE	NA
54	1.2, Art 20	Risk of Loss	NA
55	1.2, Art 20	CGL	The Commercial General Liability and Commercial Automobile Liability Insurance required under this Contract shall be endorsed to include: A. As Additional Insured; Waiver of Subrogation in favor of Puerto Rico Electric Power Authority (PREPA)

56	1.2, Art 32	WAIVERS	All remedies afforded by PREPA in this Contract shall be taken and construed as cumulative, that is, in addition to every other remedy provided herein or by law
57	1.2, Art 36	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 Contractor's costs when supplying the products or services to be acquired by PREPA, shall be of Contractor's responsibility and PREPA 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
58	1.2, Art 39	Warranty	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
59	1.2, Art 39	Warranty	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 one (1) year
60	1.2, Art 39	Warranty	NA

61	1.2, Art 39	Warranty	NA
62	1.2, Art 48 & 49	SAFETY PROVISIONS & ENVIRONMENTAL LIABLITY	NA
63	Sept 12 Clarification	Authorized Representative	The clarification sent on 09/06/18 references 'authorized representatives'. For purposes of this RFP, an authorized representative is a company that has a contractual agreement with the manufacturer for exclusive representation. For PREPA to grant access to this event 82695 to an exclusive/authorized representative of the manufacturer, the manufacturer must request that access be granted to the representative and provide evidence in the form of a copy of the contract that establishes the business relationship. Any confidential provisions of the contract shall be omitted from the copy provided to PREPA. PREPA will evaluate information regarding the date of the contract, its terms, the parties mentioned in the contract, among other commercial aspects.
64	Sept 12 Clarification	Authorized Representative	"Proponents shall demonstrate experience and success in fabricating, installing, testing and commissioning mobile gas turbines"

Question
In the scoring criteria with 60% of the evaluation criteria based solely on proposal price, why are you not considering power output in relative terms ($ per MW installed) and unit heat rate (BTU/kW-hr) as part of the evaluation criteria?

Please consider a formula that is measurable for this criteria similar to the following: incorporate the total number of mobile units deployed in projects worldwide similar to the following: Bidder with highest number of mobile units deployed = 15 points. Remaining bidders are awarded points based on a percentage of the bidder with the highest number of deployed units. (For example, Bidder A has 100 units deployed, Bidder B has 30 units, Bidder C has 0 units. Bidder A receives 15 points. Bidder B receives 30/100 * 15 = 4.5 points. Bidder C receives 0/100 * 15 = 0 points.) **In addition:** Q1. Proponents Experience: a. Please advise which documents will be required to be presented as evidence of applicable experience? Please provide a form with the specific information requirements. Q2. Proponents Experience: b. Please advise which documents will be required to be presented as evidence of applicable performance? Please provide a form with the specific information requirements. Q3. Proponent Experience: c. & d. Please define the meaning of experience in similar projects?
Please clarify what specifit documents shall the Proponents present to meets and substantial exceeds the minimum standards set by the RFP and presents the best proposal for the criteria ?
Q1. Please advise which are the documents required to demonstrate compliance with all applicable federal and Puerto Rico regulations? Q2. Please advise how does a Proponent could prove/show its adherence to strong ethical & integrity practices and commitment to solid administrative practices? Q3. Please advise how does a Proponent could prove/show its understanding of federal and local requirements?
What language is the Training to be delivered in, English or Spanish? Can PREPA provide the classroom and required facilities?

We are generally OK to accept responsibility for requested permits on this project. However, if permits delay the project due to circumstances beyond our control, we request that PREPA offer a grace period in assessing schedule adherence during project execution. PREPA indicated in the prebid meeting that PREPA would be responsible for the modifications to the emissions (air quality permits) with the information provided by the gas turbine manufacturers, please confirm. Also clarify if the contractors will be required to attain the following permits, - Permiso General Consolidado - Extraccion Corteza Terrestre - Permiso Disposicion JCA.
What approximate operational profile should bidder consider for the O&M phase? ~3,500 FH/Y/GT (~40% Dispatch)? When can we expect to receive this input?
Please clarify what the stack emissions requirements are for both Natural Gas and Distillate #2 fuels.
Can the proponent use a Predictive Emissions Monitoring System (PEMS) for this or is a Continuous Emissions Monitoring System (CEMS) required?
Are unit emissions values required with and without water injection for Nox control?
What are the boundary points and boundary conditions for the liquid and gas balance of plant equipment that Proponents are to provide?
Can the supplied balance of plant be shared across more than one mobile generating unit at Palo Seco (fuel polishing module, PCM, BOP HMI, etc.)?

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Do we need to provide a remote HMI with two monitors for each Mobile Generating Unit or two complete remote HMIs per Mobile Generating Unit? Which BOP equipment does PREPA require monitoring for?
Is Centrifugal filtration a requirement? If so, is good quality potable water available for process use?
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Please confirm that the requested Protective Relay Study is not a plant overall coordination study.
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Will PREPA require design approvals prior to procurement and installation of the systems and equipment? If so, how long would be the revision and approval period?

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Will contractors be required to pay the Municipal Construction Taxes?
Will contractors be required to pay any equipment importation taxes?
Will contractors be required to pay the professional services taxes?
Please confirm if above ground pipe routing is acceptable OR if trenches will be required.
Please provide the PREPA specification for pipe preparations and coating/painting.
Please confirm if an unloading skid is required at Yabucoa site.
Please confirm the electrical connections to the grid for both sites are the same as the connections performed during the recent TM2500 emergency project.
Please provide a detailed demolition plan for both sites.
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Please provide a Low Sulfur Distillate fuel specification as soon as possible. When will this be provided?
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Please clarify that the penalties, together with Prepa's right to terminate, are PREPA's sole remedy and Contractor's sole liability for delays.
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Please clarify that Contractor won't be responsible for extra costs as a result of change in law.
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Please clarify that the warranty will commence on the commercial operation date.
Please clarify the repair or replacement of defective parts of Equipment and reperformance of defective services shall be the sole remedy for defects and that the warranty set forth above shall be the sole warranty as follows: Remedy. If the Equipment or Services do not meet the above warranties during the Warranty Period, Buyer shall promptly notify Contractor in writing and make the Equipment available for correction. Contractor shall thereafter, as soon as is practicable, correct any warranty defect, at its expense, by at its option (i) repairing any defective part of the Equipment; or (ii) making available replacement parts at Contractor's factory and/or re-performing any defective Services. If a defect in the Equipment or part thereof cannot be corrected by Contractor's reasonable efforts, the Parties will negotiate an equitable adjustment in Contract Price with respect to such Equipment. (Continued in next row down)

Exclusion. Contractor does not warrant the Equipment or any repaired or replacement parts against normal wear and tear, including that due to environment or operation, type or quality of fuel, detrimental air inlet conditions or erosion, corrosion or material deposits from fluids. The warranties and remedies set forth herein are further conditioned upon (i) proper storage, installation, operation, and maintenance of the Equipment in conformance with the operation instruction manuals provided by Contractor and/or its Subcontractors or Suppliers (including any required warranty preservation services in the event of long term storage) and (ii) repair or modification of the Equipment only pursuant to Contractor's instructions or approval. Buyer shall keep and make available proper records of operation and maintenance during the Warranty Period.
Please clarify that contractor shall not be responsible for any existing conditions or contamination at the Sites.
At what point in the RFP process do we need to demonstrate any "Authorized Representative" documentation?
In place of "fabricating," would a letter of support from the OEM for the supply of the equipment and provision of parts and other maintenance services suffice?

Background: The industry standard is to evaluate the performance (Power Output in relative terms – $ per MW installed & Heat Rate – BTU/kW-hr) of power generation equipment because it has a direct impact in the price of the equipment & BOP, their installation and in the respective O&M. Such factors are generally considered when purchasing power generation equipment, including by PREPA in prior RFPs. For example, PREPA utilized the PREPA Specification No. 210-06106 - Technical Specification (BOD) Mayagüez Gas Turbine Replacement on the Mayagüez project which included a Life Cycle Cost Evaluation to determine the best evaluated offer for the project. By incorporating the power output in relative terms and unit heat rate parameters together with the price in the evaluation formula, PREPA could determine the evaluated least cost alternative, considering that a 1 point better efficiency could be worth approximately $10M in fuel savings in 20 years and 1 additional MW could provide electricity to 10K more families in an emergency.

Recommendation: We respectfully recommend PREPA to use a Life Cycle Cost Evaluation for the RFP 82695 - Mobile Generation Units, and, for your consideration, we have modified the evaluation formula used in the Specification No. 210-06106 to the attached document – "Adapted_LCCE_No.210-06106" that can be used for this RFP.

Prepa RFP 82695 Dated September 6, 2018 - RFP Questions GE/RGE

#	RFP Section	Topic	RFP Language
1	1.1 Art 3.1	Evaluation Criteria	PREPA will evaluate the proposals based on the lowest all-inclusive price submitted by the proponent. Part of the evaluation may include analysis of the cost assuming some level of unit dispatch. This evaluation may or may not include incorporating the cost and performance parameters in a system dispatch model to determine PREPA's least cost alternative.
2	1.1 Art 3.1	Evaluation Criteria	Experience and Capacity
3	1.1 Art 3.1	Evaluation Criteria	Approach and Methodology
4	1.1 Art 3.1	Evaluation Criteria	Compliance with all Applicable Federal, and Puerto Rico Regulations

5	1.1, Art 2	Training	A full O&M training shall be provided by the manufacturer to PREPA personnel (group of 10). The objective of the O&M training is to achieve full operation and maintenance capabilities of the attendees
6	1.1, Art 2	Permits	"Contractor shall furnish all construction and operation permitting and modification to current sites permits, process the agencies approvals (with PREPA's review and approval)."
7	1.1, Art 2	Operational Profile	Proponent shall also include a separate itemized proposal that includes the pricing and terms and conditions for a two-year Operation and Maintenance (O&M) Contract, with two (2) options of one (1) additional year.
8	1.1, Art 2	Environmental Permits	The units shall be equipped with modern environmental control and monitoring equipment, as well as control logics to meet all local, state, and federal current requirements. "Contractor should warranty compliance with current local, state and federal regulations"
9	1.1, Art 2	GT and BOP Equipment	The units shall be equipped with modern environmental control and monitoring equipment,
10	1.1, Art 2	Gas Turbines and Balance of Plant	Contractor shall provide and install three (3) zero-fired hours, portable gas turbines (GTs). Fixed/base load/frequency regulation of 25 to 40 MW net power output at generator terminals without water or steam injection at 85^{o}F compressor inlet ambient temperature, 70% relative humidity at sea level inlet condition.
11	1.1, Art 2	Evaluation Criteria	Each mobile unit shall have a net generating capacity between 25 and 40 MW at the specified ambient conditions and shall include the necessary new, unused Balance of Plant (BOP) equipment and new, unused black start power generating system.

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13	1.1, Art 2	GT and BOP Equipment	Requirements for, "Necessary BOP Equipment", and "dual fuel capability."
14	1.1, Art 2	GT and BOP Equipment	Remote, new, separate HMI's complete with all logic/control functions and capabilities to allow full operation of the units and their BOP from the remote control room trailers. Minimum of two HMI monitors per mobile turbine package shall be installed inside the remote control rooms. All necessary control system software shall be installed and fully operational on said HMI's.
15	1.1, Art 2	GT and BOP Equipment	Centrifugal and coalescer fuel filters.
16	1.1, Art 2	GTs Protection System	Grant access to PREPA to protective relay events.
17	1.1, Art 2	GTs Protection System	At least the generator CT for unit differential protection (PREPAs transformer + proponent generator) shall be 5 Amps secondary. For example: 3000/5.
18	1.1, Art 2	GTs Protection System	Protective Relay Study and its settings for the proposed mobile power system.
19	1.1, Art 2	Scope	Contractor shall provide all electrical, power, control and communications wiring and cables in enclosed, weatherproof cable trays or tubing as applicable, in compliance with applicable codes and standards.
20	1.1, Art 2	Scope of Services	Existing equipment, materials or installations shall be properly relocated by the contractor and reinstalled, as per instructed by PREPA.
21	1.1, Art 2	Scope of Services	New language
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33	1.1, Art 2	Scope of Services	New language
34	1.1, Art 2	Scope of Services	New language
35	1.1, Art 2	Scope of Services	New language
36	1.1, Art 2	Scope of Services	Not provided yet
37	1.1, Art 2	Scope of Services	Not defined
38	1.1, Art 2	Not defined	Transformer oil test reports
39	1.1, Art 2	Waste management system	No requirements listed in RFP
40	1.1, Art 2	Fire Protection requirements	No requirements listed in RFP
41	1.1, Art 2	Grounding requirements	No requirements listed in RFP

42	1.2, Art 1	Contract documents	The Contractor shall furnish all the supply, delivery, installation, testing, and commissioning of the three units or other necessary services for the Yabucoa Power Station and Palo Seco Power Plant in strict accordance with the provisions of this Contract, including the General Conditions, Special Conditions, Technical Specifications No. ***[number]*** , Proposal Forms, Contractor's Bidding Proposal, and reference drawings, all of which are hereby made a part hereof
43	1.2, Art 6	Other work at site	If any part of the Contractor's work depends for proper execution or results upon the work of PREPA or of any other Contractor, the Contractor shall inspect and promptly report to PREPA any defects in such work
44	1.2, Art 11.1	Inspection	PREPA shall have the right to reject defective material, equipment or workmanship or require its correction
45	1.2, Art 15	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
46	1.2, Art 16	Penalties	If the Contractor fails to complete the Yabucoa installation work or any separable part thereof, within the time of completion of the work established in the ARTICLE 4, Commencement and Completion of Work, the Contractor shall pay to PREPA a penalty

47	1.2, Art 17	Liabilities	New language
48	1.2, Art 17.3	Save and hold harmless	The Contractor agrees to save and hold harmless and to indemnify PREPA for all expenses and costs of any nature (including attorneys' fees) incurred by PREPA arising out of any claim made by any person for personal injuries, including death or for property damage, caused by the Contractor or any of its subcontractors, by act or omission, in the performance or nonperformance of its obligations under the Contract.
49	1.2, Art 19	Termination	PREPA shall have the right to terminate this Contract immediately in the event of negligence, dereliction of duty, noncompliance, or material breach by the Contractor, as determined in the sole discretion of PREPA, or for any other reason described elsewhere in this Contract as a basis for termination.
50	1.2, Art 19	Termination	Contractor shall have no further right to compensation except for what has been accrued for services rendered under this Contract until said date of effective termination

51	1.2, Art 2.2	Act of God	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
52	1.2, Art 2.20	Notice to Proceed	2.20 Notice to Proceed – a written order sent to the Contractor by the Contracting Officer, or his designated representative, notifying the Contractor of the date upon which the Contractor is given authority to begin the work.----------
53	1.2, Art 20	INSURANCE	NA
54	1.2, Art 20	Risk of Loss	NA
55	1.2, Art 20	CGL	The Commercial General Liability and Commercial Automobile Liability Insurance required under this Contract shall be endorsed to include: A. As Additional Insured; Waiver of Subrogation in favor of Puerto Rico Electric Power Authority (PREPA)
56	1.2, Art 32	WAIVERS	All remedies afforded by PREPA in this Contract shall be taken and construed as cumulative, that is, in addition to every other remedy provided herein or by law
57	1.2, Art 36	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 Contractor's costs when supplying the products or services to be acquired by PREPA, shall be of Contractor's responsibility and PREPA 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
58	1.2, Art 39	Warranty	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
59	1.2, Art 39	Warranty	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 one (1) year

60	1.2, Art 39	Warranty	NA
61	1.2, Art 39	Warranty	NA
62	1.2, Art 48 & 49	SAFETY PROVISIONS & ENVIRONMENTAL LIABLITY	NA
63	1.2, Art 53 (Y)	Compliance with applicable laws	The Contractor shall comply will all applicable Federal and Government of Puerto Rico law, regulations, executive orders, policies, procedures, and directives, including but not limited to all Federal Cost Principles set forth in 2 C.F.R. Part 200, and all applicable FEMA regulations in 44 C.F.R. Chapter I. 2 C.F.R. Part 200

64	1.2, Art 53 (Z)	Compliance with applicable laws	Provisions Required by Law Deemed Inserted. Each and every provision required by law regulation, executive order, policy, procedure, directive, Federal grant award or agreement, or cooperative agreement with any Federal agency to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein.
65	Sept 12 Clarification	Authorized Representative	The clarification sent on 09/06/18 references 'authorized representatives'. For purposes of this RFP, an authorized representative is a company that has a contractual agreement with the manufacturer for exclusive representation. For PREPA to grant access to this event 82695 to an exclusive/authorized representative of the manufacturer, the manufacturer must request that access be granted to the representative and provide evidence in the form of a copy of the contract that establishes the business relationship. Any confidential provisions of the contract shall be omitted from the copy provided to PREPA. PREPA will evaluate information regarding the date of the contract, its terms, the parties mentioned in the contract, among other commercial aspects.
66	Sept 12 Clarification	Authorized Representative	"Proponents shall demonstrate experience and success in fabricating, installing, testing and commissioning mobile gas turbines"

Footnote: Contract clarifications apply to 1.3 O&M Contract as well.

Question
In the scoring criteria with 60% of the evaluation criteria based solely on proposal price, why are you not considering power output in relative terms ($ per MW installed) and unit heat rate (BTU/kW-hr) as part of the evaluation criteria?
Please consider a formula that is measurable for this criteria similar to the following: incorporate the total number of mobile units deployed in projects worldwide similar to the following: Bidder with highest number of mobile units deployed = 15 points. Remaining bidders are awarded points based on a percentage of the bidder with the highest number of deployed units. (For example, Bidder A has 100 units deployed, Bidder B has 30 units, Bidder C has 0 units. Bidder A receives 15 points. Bidder B receives 30/100 * 15 = 4.5 points. Bidder C receives 0/100 * 15 = 0 points.)
Please clarify what documents shall the Proponents present to score favorably on this topic? Is there a way to measure this non-subjective scale?
On the Compliance with all Applicable Federal, and Puerto Rico Regulations criteria, how will compliance be subjectively measured? Would this topic be either compliant or non-compliant in a black or white fashion?

What language is the Training to be delivered in, English or Spanish? Can PREPA provide the classroom and required facilities?
We are generally OK to accept responsibility for requested permits on this project. However, if permits delay the project due to circumstances beyond our control, we request that PREPA offer a grace period in assessing schedule adherence during project execution. PREPA indicated in the prebid meeting that PREPA would be responsible for the modifications to the emissions (air quality permits) with the information provided by the gas turbine manufacturers, please confirm. Also clarify if the contractors will be required to attain the following permits, - Permiso General Consolidado - Extraccion Corteza Terrestre - Permiso Disposicion JCA.
What approximate operational profile should bidder consider for the O&M phase? ~3,500 FH/Y/GT (~40% Dispatch)? When can we expect to receive this input?
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PW Power Systems
A Group Company of Mitsubishi Hitachi Power Systems

PW Power Systems LLC
628 Hebron Avenue, Suite 400
Glastonbury, CT 06033
www.pwps.com

September 13, 2018

Mrs. Delis Zambrana
PREPA
Purchasing Department

Subject: RFP # 82695 "MOBILE GENERATION UNITS"

Dear Mrs. Zambrana,

This letter is to inform you that PW Power Systems LLC ("PWPS") will bid its mobile gas turbine generation packages to only A R G Precision Corp. ("ARG") in connection with the PREPA RFP 82695 "MOBILE GENARATION UNITS" process. ARG has informed us that it intends to bid such mobile gas turbine generation packages, together with its engineering, procurement and construction services, to PREPA.

PWPS ratifies that ARG is fully and exclusively authorized to offer this power generation equipment and spare parts manufactured by PWPS and represent PWPS in connection with this RFP. As such, ARG will be able to sign and present its proposal, including our mobile gas turbine generation packages, and answer questions and clarifications to this RFP 82695 process on behalf of PWPS.

PWPS is dedicated to the success of this project and will support its development as well as aftermarket necessary during and after the expiration of the warranty of the equipment.

Sincerely,

Harsh Shah
Vice President – Sales & Business Development

PW Power Systems
A Group Company of Mitsubishi Hitachi Power Systems

PW Power Systems LLC
628 Hebron Avenue, Suite 400
Glastonbury, CT 06033
www.pwps.com

September 11, 2018

Attention:
Purchasing Department
Mrs. Natalia Martinez Lugo

Subject: PREPA REQUEST FOR PROPOSALS for Mobile Generation Units " RFP 82695

Dear Madam,

Hereby we confirm that ARG Precision Corp., will act as PWPS sole representative for this PREPA's Request for Proposal Process for the acquisition of MOBILE Power Generation Units and is fully authorized to offer power generation equipment on behalf of PWPS .

Our Company is compromised with the success of this project and will fully support its development as well as aftermarket necessary during and after the expiration of the warranty of the equipment.

Sincerely

Eleazar F. Rodriguez

PWPS Latin American Sales director

Exhibit A GE Power Letter of Authorization of Project Proponent

Orlando Soto
Product Sales gas
Caribe GE Energy Services Corp
El Mundo Office Bldg. 383
F. D. Roosevelt Ave, Suite 205
Hato Rey, PR 00918

T 787 999 6410
F 787 625 2358
orlando.Soto@ge.com

September 20, 2018

Delis Tamara Zambrana Colón
Jefa de Subdivisión de Compras
Puerto Rico Electric Power Authority
PO Box 3670151
San Juan, PR 00936

RE: PREPA'S RFP 82695 REQUEST FOR PROPOSALS FOR MOBILE GENERATION UNITS, "RFP"

Dear Mrs. Zambrana,

Caribe GE Energy Services Corp and its affiliate, GE Global Parts & Products GMBH, ("GEGP&P"), has designated RG Engineering, Inc. (here after RGE) as our authorized representative solely for RFP for the supply, installation, set in service, and two year operation and maintenance (O&M), as may be extended in accordance with the RFP, of three new TM2500 mobile gas turbines to be located at the Palo Seco and Yabucoa power plants.

The contact in RGE would be Jose M. Robles, who will issue a proposal as prime contractor using GEGP&P, as the equipment supplier and a GEGP&P affiliate for technical support for both installation and O&M services through a cooperation and sale agreement. The parties have executed a binding agreement reflecting the foregoing on September 20, 2018. RGE is registered under PREPA's bidder's registry number 001505 (see Attachment A) and has offices in 605 Condado Street, Suite 322, Santurce, Puerto Rico. RGE shall enter into the contract with PREPA in its own name and shall not be authorized to enter into any agreement on behalf of GEGP&P or its affiliates or bind GEGP&P or its affiliates in any way.

RGE has already installed GE TM2500 mobile turbine generators at the Palo Seco and Yabucoa sites, and has been performing works for PREPA for over 36 years.

This authorized representation of GEGP&G and its affiliate companies is limited to this RFP for the sale of new TM2500 mobile gas turbine generator packages and related balance of plant. Provided that RGE is awarded the contract in the RFP, the parties

relationship shall continue through the completion of the work including warranty and/or O&M.

The scope split between RGE and GEGP&P is approximately 30% RGE and 70% GEGP&P. RGE will be performing all the engineering, installation, and construction of the plant and O&M and GEGP&P and its affiliates will provide the equipment including OEM warranty, spare parts, and technical support.

If awarded a contract resulting from this RFP, upon title transfer to PREPA, all equipment warranties and guarantees shall be vested upon PREPA directly from the original equipment manufacturer (OEM).

If there are any questions, or if PREPA's needs any further communications to accept RGE as our authorized representative for this bid, please contact us at 787-999-6410.

Cordially,

Orlando Soto
Caribe GE Energy Services Corp

AFF. # 29,539

Sworn and subscribed before me by, Orlando Soto,of legal age, married, maneger and with permanent residence in San Juan, Puerto Rico.

In San Juan, Puerto Rico, on this 20 day of September 2018.

MIGUEL A. CINTRON QUIROS
NOTARY PUBLIC
NOTARY NUMBER: 6190

Attachment A of Exhibit A GE Power Letter of Authorization of Project Proponent

SAN JUAN, PUERTO RICO

ACEPTACIÓN SOLICITUD DE INGRESO

Yo, **Ydsa M. Álvarez Cepeda**, Supervisora Oficina del Registro Licitadores de la Autoridad de Energía Eléctrica.

Certifico: Que **"R G ENGINEERING INC"** número de suplidor **001505,** forma parte de nuestro registro como Proveedor Registrado efectivo el **3 de octubre de 1989.**

Que su compañía será invitada a participar en el(los) renglón(es) dentro de lo(s) cual(es) está registrado.

Que puede participar en subastas y contratos de bienes y productos.

Que las obligaciones y derechos de las compañías y personas incluidas en el Registro de Licitadores están expresados en nuestro Reglamento de Subastas.

Que todo proveedor tiene la obligación continua con la Autoridad de mantener al día toda la información y documentos necesarios sobre su negocio.

Que la Autoridad tiene el derecho de referir a su compañía al Comité de Evaluación de Proveedores Registrados para evaluar y recomendar la aprobación de equipos, productos o servicios especializados para cualificarse como Proveedores Evaluados.

Emitida hoy, 17 de enero de 2008

Ydsa M. Álvarez Cepeda, Supervisora
Registro de Licitadores

"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, impedimento físico, mental o ambos o condición de veterano".

Exhibit E Letters of Recommendations

APR ENERGY®

3600 Port Jacksonville Parkway
Jacksonville, FL 32226 USA
+1 904 223.8488
+1 904 223.8955

aprenergy.com
info@aprenergy.com

September 24, 2018

To Whom It May Concern,

APR Energy, hereby certifies that RG Engineering Inc., based out of Puerto Rico, has executed the works of the following contract and fulfilled all of their contractual conditions and technical specifications required in the contract.

Contract: APR-RGE-001

Description: Civil, mechanical and electrical works to install two (2) TM2500 gas turbines under emergency conditions after Hurricane Maria at the Puerto Rico Electric Power Authority's Palo Seco Steam Plant.

Location: Palo Seco Steam Plant, Toa Baja, Puerto Rico

Completion Date: October 2017

The works were inspected and verified, so we certify that they were made to our satisfaction.

Sincerely,

Christopher King
Vice President Commercial Operations
APR Energy

APR ENERGY®

3600 Port Jacksonville Parkway
Jacksonville, FL 32226 USA
+1 904 223.8488
+1 904 223.8955

aprenergy.com
info@aprenergy.com

September 24, 2018

To Whom It May Concern,

APR Energy, hereby certifies that RG Engineering Inc., based out of Puerto Rico, has executed the works of the following contract and fulfilled all of their contractual conditions and technical specifications required in the contract.

Contract: APR-RGE-001

Description: Civil, mechanical and electrical works to install one (1) TM2500 gas turbine under emergency conditions after Hurricane Maria at the Puerto Rico Electric Power Authority's Yabucoa Plant.

Location: Yabucoa, Puerto Rico

Completion Date: December 2017

The works were inspected and verified, so we certify that they were made to our satisfaction.

Sincerely,

Christopher King
Vice President Commercial Operations
APR Energy

APR ENERGY®

3600 Port Jacksonville Parkway
Jacksonville, FL 32226 USA
+1 904 223.8488
+1 904 223.8955

aprenergy.com
info@aprenergy.com

September 24, 2018

To Whom It May Concern,

APR Energy, hereby certifies that RG Engineering Inc., based out of Puerto Rico, has executed the works of the following contract and fulfilled all of their contractual conditions and technical specifications required in the contract.

Contract: 47509 000 OP

Description: Demolition, civil, mechanical and electrical works to install one (1) TM2500 gas turbine to replace VIWAPA's Unit 18 in the St. Thomas Harley Power Plant to operate on diesel and propane.

Location: VIWAPA Plant, St. Thomas, U.S. Virgin Islands, Unit 18

Completion Date: May 2018

The works were inspected and verified, so we certify that they were made to our satisfaction.

Sincerely,

Christopher King
Vice President Commercial Operations
APR Energy

APR ENERGY®

3600 Port Jacksonville Parkway
Jacksonville, FL 32226 USA
+1 904 223.8488
+1 904 223.8955

aprenergy.com
info@aprenergy.com

September 24, 2018

To Whom It May Concern,

APR Energy, hereby certifies that RG Engineering Inc., based out of Puerto Rico, has executed the works of the following contract and fulfilled all of their contractual conditions and technical specifications required in the contract.

Contract: 40434 000 OP

Description: Demolition, civil, mechanical and electrical works to install one (1) TM2500 gas turbine to replace VIWAPA's Unit 22 in the St. Thomas Harley Power Plant to operate on diesel and propane.

Location: VIWAPA Plant, St. Thomas, U.S. Virgin Islands, Unit 22

Completion Date: November 2017

The works were inspected and verified, so we certify that they were made to our satisfaction.

Sincerely,

Christopher King
Vice President Commercial Operations
APR Energy

RFP-82695

Proposal for

Mobile Generation Units

Palo Seco & Yabucoa, Puerto Rico

AEE_2306

Cover Letter

We want to thank PREPA for inviting GE to participate in this important project for the agency as well for all citizens of Puerto Rico.

GE has created a business partnership and has authorized RG Engineering Inc. as delegate and the principal Proponet firm for this Project. The integration of both firms will warrantee a sucessfull completion of the project, satisfying generation capacity while meet with the installation and construction agressive schedule of 60 days that PREPA has required.

I, Eng. José M. Robles, Director of Operations from RG Inc., have been assigned and authorized officially by GE Power to prepare and sign this proposal on behalf of GE Power. An official letter of authrization from GE Power has been included in the Proposal herein as Exhibit A.

CERITFICATION OF INFORMATION SUBMITTED:

I hereby certify that all the information submitted in the proposal herein is true and accurate, and that RG egineering, Inc. has been authorized by Caribe GE Energy Services Corp. and its affiliate, GE Global Parts / Products GMBH, ("GEGP&P"), to propose on behalf of the aforementioned companies a Proposal for PREPA RFP-82695. Such authorization is included in *Exhibit A GE Power Letter of Authorization of Project Proponent* on page 145.

Respecfully Yours,

Eng. José M. Robles, PE

Director of Operations of RG Inc.

RG ENGINEERING INC.

September 24, 2018

Natalia Martinez
Purchasing Agent
Puerto Rico Electric Power Authority

Subject: 3x TM2500 Gas Turbine Packages and Associated Equipment and Services for the PREPA RFP 82695 For Mobile Generation Units for the Palo Seco and Yabucoa Sites.

Dear Mrs. Martinez,

RG Engineering, Inc., a corporation organized and existing in Puerto Rico, with head office at 605 Condado St., San Alberto Bldg. Ste 322, San Juan, Puerto Rico 00907 (the "Seller") is pleased to present the following proposal for the delivery of three new TM2500 Gas Turbines and associated balance of plant, construction, installation, commissioning, and O&M and services ("Proposal") to **PREPA** (the "Buyer") for the PREPA RFP 82695 for Mobile Generation Units for the Palo Seco and Yabucoa sites ("Plant").

This Proposal letter and the following attached files constitute the entire Proposal and no other term or condition shall apply:

- **Technical** – Attachment A – Seller's Technical Proposal #1325010 dated 24 September 2018 (the "Technical Proposal").
- **Operations & Maintenance** - Attachment B – Seller's Operations and Maintenance Proposal dated 24 September 2018
- **Commercial** – Attachment C – Terms and conditions in accordance with Section 6 ("Contract Agreement and General Terms and Conditions of Sale")

This Proposal is submitted by Seller in utmost good faith. In the case that the Proposal is accepted by Buyer, a contract shall be entered into by Buyer and Seller, subject to the terms and conditions herein ("Contract").

We are pleased to offer the following conditions:

1. **Scope of Supply**

The Seller's scope of supply consists of the Equipment and Services, as detailed in the attached technical proposal in Attachments A, B, and related appendices.

The Equipment, which shall be new and not yet used except for testing, consists of three Units.

2. **Payment Terms and Termination Schedule**

Buyer shall pay Seller the following price (the "Contract Price"), at the times and in the manner set forth below, in consideration of the Equipment and Services:

Payment Event No.	Payment Event	Payment Amount (% of Contract Price)
1	Down Payment, upon signature of the Contract by both Parties due and payable 15 days from invoice date.	25%
2	Upon Submittal of Engineering Drawings, due	20%

605 CONDADO ST. SUITE 322, SANTURCE, PR 00907 TEL 787-723-4623, FAX 787-787-6678

	net 30 days	
3	Upon Commencement of Construction Activities, due net 30 days	10%
4	Upon delivery of the Equipment, pro rata, due and payable 30 days from invoice date.	30%
5	Upon First Fire of Units, pro rata, due net 30 days	10%
6	Upon commercial operation, due and payable 30 days from invoice date.	10%

Termination schedule:

Months Prior to Title Transfer	**Calendar month**	**Termination charge (As percent of the Equipment price)**
For Equipment	From day 1 to Title Transfer	20%
	From Title Transfer onwards	100%
For Services	From day 1 on	Seller will be entitled to charge Buyer for all Services performed to the date of Termination

3. Pricing Summary

- Price Per Unit (including all its BOP Equipment and Accessories) $16,952,250.00
- Installation Price Per Unit, with all necessary equipment, materials, labor, testing and commissioning $3,114,450.00

Each price must be multiplied by 3 in order to get the total lump price for both the Palo Seco and Yabucoa sites.

Pricing includes all applicable taxes, permits, licenses, insurances and other PR related indirect costs.

4. Contract Agreement and Terms and Conditions of Sale

This Proposal is subject to the Terms and Conditions included in Attachment C.

This Proposal will remain valid through November 30, 2018 and may be modified or withdrawn by Seller prior to receipt of buyer's acceptance.

We sincerely appreciate this opportunity to provide you with this Proposal and are willing to discuss any issues and resolve them on a mutually acceptable basis. Please, contact the undersigned for assistance at 787-723-4623.

Yours sincerely,

Jose Robles
Sales Manager

605 CONDADO ST. SUITE 322, SANTURCE, PR 00907 TEL 787-723-4623, FAX 787-787-6678

Table of Contents

Project Summary

As explained by PREPA in the RFP no. 82695 documents, the Puerto Rico's electrical system still vulnerable to plant trips or transmission line outages in different region of the island. One of the most affected regions in transmission line outages during the past hurricane emergency in Puerto Rico was in the Yabucoa/Humacao area. Also, the San Juan Metropolitan region was affected with insufficient power supply and maintain reliable service. The temporary solution that proved to be successful for both plant site was the installation of several Mobil generation Turbine units. We at RGE are very proud to be part of emergency response team during the emergency, being the installation & Construction firm for both projects.

Due to the fact that the installation of those turbines on the affected area was a temporary solution made by FEMA, The Puerto Rico Power Authority (PREPA) desires now through this RFP to award a contract to supply new mobile generating units in order to provide power to those area again, Yabucoa TC and Palo Seco as a permanent solution. Having these units available will maintained and provide a reliable service in case of an outage due to a natural disaster or restoration works on the powerlines. In addition, these units will provide PREPA the flexibility to create micro grids during the restoration works after an emergency event or during programmed works.

To achieve this goal, The Puerto Rico Power Authority has allowed for RG Engineering Inc. and General Electric "RGE/GE partnership to submit a proposal for design, construction and commissioning, for two Mobil turbines at Palo Seco Plant located in the municipality of Toa Baja, PR and one Turbine to be installed at Yabucoa TC located at Yabucoa municipality, PR. The scope also includes a separated price for the Operation and Maintenance contract for both plant site for a minimum of two years.

1 Experience and Capacity

History of Firm

Per Section 3.1 on pg.11 of RFP 82695 – Shall submit an abbreviated history of firm.

Since its founding in 1982, the RG Engineering, Inc. group of companies has focused on activities related to the operation, maintenance and modernization of transmission and distribution systems and electric power plants.

At first, the company concentrated on the sale of spare parts for gas and steam turbines in Puerto Rico, the U.S. Virgin Islands and the Dominican Republic. The success of these efforts rapidly led to addition of product lines for diesel engines, electric distribution and transmission equipment, pumps, process controls, instrumentation, valves, clutches, boiler peripherals, and related services. Today, RG Engineering, Inc. represents over 30 companies among which are industry powerhouses such as Siemens, Alfa Laval, and others.

To fill the needs of the installation and maintenance service market for its supplied equipment, RG Engineering, Inc. entered the market for specialized installations in power plants and modernization of transmission, distribution and power plant equipment in 1989. Currently RG Engineering, Inc. has the organization and human resources to administer and effectively manage the most complex installation and service projects.

In order to service the needs of a growing volume of business and distributed power generation needs in the Dominican Republic, an affiliate of RGE (LAESA, Ltd.) was organized in 1989 which owns and operates energy generating plants in the Dominican Republic becoming the first independent power producer in the Dominican Republic. Currently, the total available generating capacity is 171 MW with another 100 MW in progress.

In 1999 another affiliate company (MEC Engineering, PSC) was created to engage and provide engineering and design services related to the power generation, transmission and distribution industry. MEC has had contracts with the Puerto Rico Electric Power Authority for the design and project management of their transmission and distribution systems.

All these companies (RG Engineering, LAESA and MEC Engineering) are wholly own by the same person, Roberto Camino. The RG Engineering group has over 230 employees in its four offices and power plants located in San Juan, Puerto Rico and the Dominican Republic. The engineering staff has an average of 20 years' experience as end-user or major OEM technical managers. All members of the executive and engineering staff are registered professional engineers.

Summary of Mobile Equipment Installation & Commissioning (types of services)

The Proponent will provide labor and Installation and Commissioning Spare Parts and Tooling, to install and commission the Mobile Generation Units described herein.

1.1. <u>Installation of the Equipment includes the following activities:</u>
Proponent will utilize a qualified mechanical and electrical technicians working in parallel to install the Units.

i. Conduct an installation planning meeting with PREPA

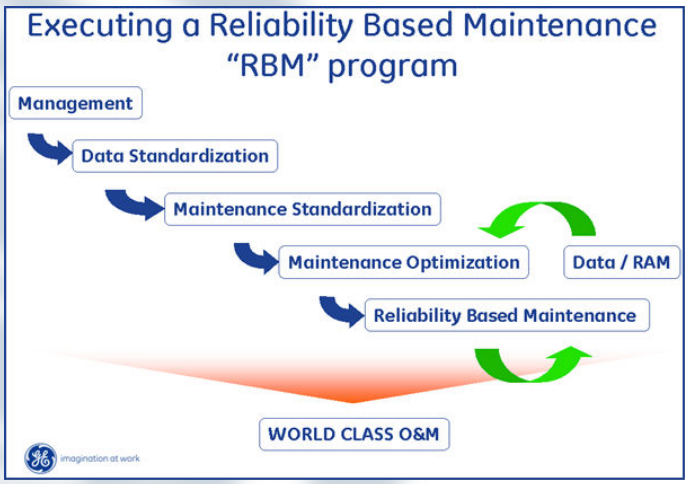
ii. Perform receiving and inspection of the Equipment
iii. Tie Equipment into the grounding system
iv. Setup, level, and align the Turbine and generator trailers
v. Install the air filter System
vi. Install the exhaust silencer module
vii. Setup Control House trailer
viii. Install Ventilation Fan Module
ix. Connect mechanical interconnections
x. Connect electrical interconnections
xi. Fill fluid reservoirs in accordance with Proponent's specifications
xii. Health and safety management for Proponent provided activities

1.2. Commissioning of the Equipment including the following activities:

i. Conduct a commissioning planning meeting with the PREPA
ii. Perform static Equipment checks
iii. Perform Equipment system configurations inspections, and commissioning with auxiliary power
iv. Conduct high speed crank test
v. Execute first fire of the gas turbine(s)
vi. Conduct full speed no load generator checks
vii. Synchronize to the grid
viii. Tune the fuel and water systems from minimal load to full load
ix. Execute test run
x. Declare the Equipment commercially available
xi. Health and safety management for Proponent-provided activities

Summary of Operations & Maintenance (types of services)

Reliability Based Maintenance is a method used to ensure plant assets perform as required. Establishing the most economical balance of corrective, preventive, and predictive maintenance activities to achieve environmental, health and safety compliance and desired plant operability.



Applicable Experience

Per Section 3.1 on pg.11 of RFP 82695 – Shall provide evidence of applicable experience and performance in at least two related scope projects within the past five years, and references.

Mobile Equipment EPC & Installation:

Following the most recent experience list of RG Engineering Inc. installing specifically mobile gas turbines of the power range being considered in this bid.

End User	Customer Name	Date	Project	Scope (Fabricating, Installing, testing, and commission of mobile gas turbines)
Virgin Islands Water and Power Authority	APR Energy	January 2017	EPC Installation of one (1) TM2500 GE gas turbine to operate on diesel and LPG at the St Thomas Power Plant	Demolition of existing facilities and Installation of one (1) TM2500, including fuel and electrical infrastructure, civil and site works, testing and commission
Puerto Rico Electric Power Authority	USACE-Weston-APR Energy	October 2017	EPC installation of two (2) TM2500 GE gas turbines at the Palo Seco Power Plant	Demolition of existing facilities and Installation of one (1) TM2500, including fuel and electrical infrastructure, civil and site works, testing and commission
Puerto Rico Electric Power Authority	USACE-Aptim-APR Energy	December 2017	EPC installation of one (1) TM2500 GE gas turbines at the Yabucoa Power Plant	Demolition of existing facilities and Installation of one (1) TM2500, including fuel and electrical infrastructure, civil and site works, testing and commission
Virgin Islands Water and Power Authority	APR Energy	March 2018	EPC Installation of one (1) TM2500 GE gas turbine to operate on diesel and LPG at the St Thomas Power Plant	Demolition of existing facilities and Installation of one (1) TM2500, including fuel and electrical infrastructure, civil and site works, testing and commission

Following experience lists for other RG Engineering Inc. works relating to power plants and fuel terminals in Puerto Rico, USVI and Dominican Republic.

GE's Mobile Generation Experience Highlights

Customer name	Customer challenge	Capacity (MW)	Installation time*	Why GE won
Egypt	Expand grid capacity	500 MW	180 days	Equipment availability & turnkey capability
Mexico	Hurricane impact on power generation	100 MW	30 Days	Availability
Tohoku, Japan	Tsunami impact on power generation	50 MW	30 days	Availability & delivery time
GECOL, Libya	Expand grid capacity	100 MW	90 Days	Equipment availability & temp solution
Ecuador	Emergency Power	160 MW	1@30 Days; 6 @ 90 days	Equipment availability & turnkey capability
Sonelgaz, Algeria	Expand grid capacity	200 MW	150 Days	Mobile solution & availability

Combined Cycle Power Plants - EPCs:

These are only the projects which RGE has developed on an EPC or contractor basis. RGE has supplied equipment and services for all the various turbine and engine-based systems for over 34 years as well as performing construction works for the balance of plant systems which are not included in these lists.

Combined Cycle And Combined Heat & Power Experience

Client	Location	Type	Description	Dates
PREPA	PR	EPC	Design Build Upgrades and Replacements to 8 existing Frame 7 GE Gas Turbines including inlet air and exhaust gas systems, diverter dampers, starting package, fire protection system, HRSG refurbish and water circulation system repairs	2007-2014
PREPA	PR	C	Rewinding 165MW gas turbine generator, upgrades to excitation controls for Un. #5 Combined Cycle Plant San Juan Power Plant	2014
LAESA Ltd	DR	EPC	Phase III of design build 51 MW heavy fuel engine (Wärtsilä) based power plant in Pimentel, Dominican Republic including Three HRSG for auxiliary heating	2009
Innovative Steam Tech	PR	C	Replacement of three recovery steam generators for 3 each 85MW gas turbines at Cambalache Power Station	2008
LAESA Ltd	DR	EPC	Phase II Design build 28 MW heavy fuel engine (Wärtsilä) based power plant in Pimentel, Dominican Republic including Three HRSG for auxiliary heating	2008
LAESA Ltd	DR	EPC	Phase I Design build 32 MW heavy fuel engine (Wärtsilä) based power plant in Pimentel, Dominican Republic including Three HRSG for auxiliary heating	2006
IEMCA	DR	C	Electromechanical installations of One 100MW Siemens Gas turbine in Haina Power Plant	1996
CDE	DR	C	Electromechanical Installation Two Westinghouse 251D5A 105MW each, Los Minas Un. 5&6	1991

Operations & Maintenance O&M:

These are the plants which, the Proponent's affiliate company LAESA provides O&M Services.

Client	Location	Description	Dates
Poseidon	DR	Design build of 50MW wind based power plant under construction to be operated and maintained by RG Engineering	Ongoing
Los Origenes	DR	Operation and maintenance of Los Origenes 60MW Power Plant in San Pedro de Macoris, Dominican Republic	2017-P
LAESA	DR	Operation and maintenance of 7.5 MW EMD diesel engine based power plant in Rio San Juan, Dominican Republic.	2011-P
LAESA	DR	Operation and maintenance of 55 MW EMD diesel engine based power plant in Pimentel, Dominican Republic	2001-P
LAESA	DR	Operation and maintenance of 3.5 MW EMD diesel engine based power plant in Sabana de la Mar, Dominican Republic	1999-2011
LAESA	DR	Operation and maintenance of 3 MW EMD diesel engine based power plant in Yamasa, Dominican Republic	1999-2012
LAESA	DR	Operation and maintenance of 1.5 MW EMD diesel engine based power plant in Boya, Dominican Republic	1998-2012
LAESA	DR	Operation and maintenance of 3.2 MW EMD diesel engine based power plant in Monte Plata, Dominican Republic	1998-2012
LAESA	DR	Operation and maintenance of 14 MW EMD diesel engine based power plant in Monte Cristi, Dominican Republic	1998-2012
LAESA	DR	Operation and maintenance of 1.5 MW EMD diesel engine based power plant in La Isabela, Dominican Republic	1998-2012
LAESA	DR	Operation and maintenance of 3.5 MW EMD diesel engine based power plant in Dajabon, Dominican Republic	1998-2012
LAESA	DR	Operation and maintenance of 7.5 MW EMD diesel engine based power plant in Arroyo Barril, Dominican Republic	1997-2012

Operations & Maintenance O&M:

These are the plants which, the Proponent's affiliate company LAESA provides O&M Services.

Client	Location	Description	Dates
Poseidon	DR	Design build of 50MW wind based power plant under construction to be operated and maintained by RG Engineering	Ongoing
Los Origenes	DR	Operation and maintenance of Los Origenes 60MW Power Plant in San Pedro de Macoris, Dominican Republic	2017-P
LAESA	DR	Operation and maintenance of 7.5 MW EMD diesel engine based power plant in Rio San Juan, Dominican Republic.	2011-P
LAESA	DR	Operation and maintenance of 55 MW EMD diesel engine based power plant in Pimentel, Dominican Republic	2001-P
LAESA	DR	Operation and maintenance of 3.5 MW EMD diesel engine based power plant in Sabana de la Mar, Dominican Republic	1999-2011
LAESA	DR	Operation and maintenance of 3 MW EMD diesel engine based power plant in Yamasa, Dominican Republic	1999-2012
LAESA	DR	Operation and maintenance of 1.5 MW EMD diesel engine based power plant in Boya, Dominican Republic	1998-2012
LAESA	DR	Operation and maintenance of 3.2 MW EMD diesel engine based power plant in Monte Plata, Dominican Republic	1998-2012
LAESA	DR	Operation and maintenance of 14 MW EMD diesel engine based power plant in Monte Cristi, Dominican Republic	1998-2012
LAESA	DR	Operation and maintenance of 1.5 MW EMD diesel engine based power plant in La Isabela, Dominican Republic	1998-2012
LAESA	DR	Operation and maintenance of 3.5 MW EMD diesel engine based power plant in Dajabon, Dominican Republic	1998-2012
LAESA	DR	Operation and maintenance of 7.5 MW EMD diesel engine based power plant in Arroyo Barril, Dominican Republic	1997-2012

Proponent Qualifications of experienced key personnel (project manager, engineers, supervisors, etc.) with at least ten (10) years of experience in similar projects. For complete resumes information please see ***Appendix 6 Experience and Capacity Supporting Documents*** on page 94. These were the same personnel that performed the installations of the Palo Seco and Yabucoa TM2500 mobile gas turbine installations for PREPA after the Maria Hurricane.

Existing Staff	Role	Experience / Qualifications	Time Allocation	Residing in PR
Jose Robles	Contract Manager	23 Yrs PE License	75%	Yes
Alberto Borrelli	Field Operations Manager	30 Yrs PE License	75%	Yes
Claudio Jaques	Project Manager	26 Yrs PE License	100%	Yes
Jose Auli	Project Manger	20 Yrs PE License	100%	Yes
Raul Berrios	Civil Project Engineer	28 Yrs PE License	75%	Yes
Angel Cruz	Construction Engineer	30 Yrs PE License	75%	Yes
Jose Negron	Mechanical Project Engineer	33 Yrs PE License	100%	Yes
Edgardo Sureda	Safety Officer	23 Yrs BSIE	100%	Yes
Miguel Rojas	HSE Manager	27 Yrs BSEE	100%	Yes
Jose Segarra	Cost and Scheduler Manager	30 Yrs PE License	75%	Yes
Angel T. Rodriguez	Sr. Electrical Engineer	35 Yrs PE License	60%	Yes
Wenceslao Torres	Sr. Electrical Engineer	35 Yrs PE License	60%	Yes
Yancarlo Mondriguez	QA/QC Engineer	10 Yrs PE License	100%	Yes

GE Mobile Generation Unit Installation & Commissioning Personnel qualifications of experienced key personnel (project manager, engineers, supervisors, etc.) with at least five (5) years of experience in similar projects. For complete resumes information please ***Appendix 6 Experience and Capacity Supporting Documents*** on page 94

Existing Staff	Role	Experience / Qualifications	Time Allocation	Residing in PR
Michael Kane	Sr. Project Manager	28 Yrs BSEE, MBA, PE	100%	No
Ardalan Kamae	Sr. Electrical Engineer	23 Yrs BSEE	80%	No
Jeff Farrow	Sr. Engineer Customer Project Engineering	33 Yrs BSEE	100%	No
Rene Graziano	Sr Controls Engineer	16 Yrs MSEE	90%	No
Kenneth Lloyd	Sr Engineer and Team Leader, BOP Equipment	26 Yrs BSME	100%	No

Also attached are the qualifications and resumes of the GE personnel to supervise the equipment installations, and perform the commissioning, testing and startup of the gas turbines and balance of plant equipment

O&M Qualifications and resumes of experienced key personnel of GE with at least five (5) years of experience in similar projects. For complete resumes information **please *Appendix 6 Experience and Capacity Supporting Documents*** on page 94

Existing Staff	Role	Experience / Qualifications	Time Allocation	Residing in PR
Saad Farooq	Field Engineer	14 Yrs BSME	100%	Yes
Nwabuw Chukuneku	Mechanical Technician	15 Yrs. BEME, CAPM	100%	Yes
Nihad Samawi	Technical Field Advisor	34 Yrs. BSME	100%	Yes
Hernan Henao	Controls & Electrical Technician	14 Yrs BSME	100%	Yes

Qualifications of Key Personnel

Per Section 3.1 on pg.11 of RFP 82695 – d) Shall provide qualifications and resumes of experienced key personnel (project manager, engineers, supervisors, etc.) of the installation subcontractor (if any) with at least five (5) years of experience in similar projects."

RG Engineering Inc. is the Proponent for this bid and is also the installation contractor. Therefore, the same key personnel will apply for the RG Engineering's personnel resumes included as part of the previous attachment for Proponent key personnel.

Similar Projects Summaries

Engagement and/or experience details of 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.

Project #1

Name of client organization:

APR Energy

Description of engagement or experience and objectives of the project including beginning and ending dates:

Performed as EPC of the exact same gas turbine installations as being requested for this bid for the Palo Seco and Yabucoa power plants. These installations were done on an emergency basis after Hurricane Maria between October and December 2017.

Examples of recommendations offered to the client and the results of the implementation of those recommendations:

RGE's best recommendations are those from the Corp. of Engineers (USACE), FEMA and PREPA personnel who supervised the installations and can testify that the works were done on time, with the expected quality and with no accidents nor incidents during the course of execution. All goals were met.

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:

RG Engineering was able to perform the installation of the two (2) gas turbines in Palo Seco within 15 days of notice to proceed, and within 40 days in Yabucoa. Therefore, RGE performed the same scope of work required for this bid, in less time than what is being required with this bid.

If the example involves a private sector client, describe how the experience could be applied to the public sector:

Not applicable as it was done with a public utility.

Description of Federal funding programs managed during the engagement:

Project was done with FEMA funding just like for this bid. RGE had to comply with all applicable federal guidelines and regulations as a subcontractor due to the requirements of the Prime contractor.

Description of key infrastructure programs or projects advanced as part of the engagement, if any:

RGE was able to successfully start these mobile gas turbines when the Puerto Rico power grid was still unstable and required distributed power where these units were installed.

Contracted value:
$6,431,369.00

Project #2

Name of client organization:
LAESA

Description of engagement or experience and objectives of the project including beginning and ending dates:
Performed as EPC of a new engine based 51MW power plant in the Dominican Republic. Project included all civils, mechanical and electrical works to set in service three (3) Wartsila 18W50DF engines. Project included heavy fuel oil storage and treatment, water treatment, power house construction, engine and balance of plant equipment installations, extend existing electrical substation and all other works in order to set in service the power plant.

Examples of recommendations offered to the client and the results of the implementation of those recommendations:
For references please contact the Pimentel Plant Manager, Edwin de Jesus, via email at edwin.dejesus@laesard.com. Project was executed on time, within budget, with the highest quality standards and with no accident nor incident to report. Project was executed between February 2009 and November 2009. Plant has been in operation since 2009 with no claims to RGE.

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:
The installations were done within 9 months from notice to proceed which is below industry standards for this type of installation. RGE included various upgrades to the plant as the EPC that Wartsila had not implemented elsewhere. In doing so, RGE was able to improve plant performance and reliability.

If the example involves a private sector client, describe how the experience could be applied to the public sector:
The work implied constructing a new power plant with the latest technology and at the fastest term possible. As RGE has inhouse design, procurement, construction, commissioning, testing and start up capabilities, RGE was able to perform the works in a shorter period of time with a greater degree of efficiency while not sacrificing any quality nor safety. This same principles can be applied to a public utility project such as in this PREPA bid.

Description of Federal funding programs managed during the engagement:
No US federal funding was used in this project.

Description of key infrastructure programs or projects advanced as part of the engagement, if any:
RGE was able to design build the fuel storage and distribution system and the medium and high voltage installations. Similar concepts will be required to be implemented in this project.

Contracted value:
$57,213,715.00

Project #3

Name of client organization:
Puerto Rico Electric Power Authority

Description of engagement or experience and objectives of the project including beginning and ending dates:

Performed as EPC of a 6.6MW emergency power plant in the island of Vieques. RGE performed all designs, earth and site works, civil, mechanical and electrical installations to install two (2) Wartsila engines along with the balance of plant equipment. The project also included new diesel fuel storage, distribution and treatment as well as electrical substation and transmission line. Project similar in scope to the current bid, but based on operating with reciprocating engines.

Examples of recommendations offered to the client and the results of the implementation of those recommendations:

For references please contact the site inspector, Jorge Lopez, who still works in PREPA. Project was executed on time, within budget, with the highest quality standards and with no accident nor incident to report. Project was executed between February 2003 and May 2004 within the contracted time frame. Plant has been in operation since 2004 with no claims to RGE.

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:

The installations were done in an island with less resources than those in the mainland Puerto Rico. This implies a higher degree of difficulty in performing the works with limited resources and more difficult logistics. RGE was able to perform this works with equivalent of higher quality, within budget with no accidents nor incidents to report.

If the example involves a private sector client, describe how the experience could be applied to the public sector:

The works was done with PREPA who is a public utility. This shows RGE's capabilities to work PREPA's power generation projects successfully with the particular parameters and conditions that doing work for PREPA and in Puerto Rico require. RGE has proven experience performing these types of EPC power plant works for PREPA unlike any other company.

Description of Federal funding programs managed during the engagement:

No US federal funding was used in this project.

Description of key infrastructure programs or projects advanced as part of the engagement, if any:

RGE was able to design build the fuel storage and distribution system and the medium and high voltage installations. Similar concepts will be required to be implemented in this project.

Contracted value:

$7,532,000.00

References

Public Utility References as Prime Proponents with Project Manager for which RGE has performed previous projects in PREPA, See Exhibit E Letters of Recommendations.

1. Harry Velazquez, Aguirre Combined Cycle Power Plant Manager, PREPA, email harry.velazquez@prepa.com, 787.235.2065 787.521.3961
2. Jose Vazquez, Project Manager Power Plant Projects, PREPA, email jose.vazquez@prepa.com, 787.528.4176 787.521.7749
3. Damian Marius, Maintenance Manager, VIWAPA St Croix Power Plant, email damian.marius@viwapa.vi, 340.513.1846 340.712.6670

References for partners or subcontractors

1. Libby Owen, Sales Director North America, APR Energy, email libby.owen@aprenergy.com, 863.412.7139 904-223-2279
2. Sampo Suvisaari, Sales Directos Central and South America, Wartsila, email sampo.suvisaari@wartsila.com, 281.233.6204

GE Reference 1	GE Reference 2
Mr. Akinwole Omoboriowo II	Mr. Mochammad Ichsan
Chairman and CEO	Project Manager, Gorontalo Project
Genesis	PT. PP (Persero)
Address: 48 Anthony Enahoro Street, Utako,	Address is: Plaza PP
Abuja, Nigeria	Jl. Letjend T.B. Simatupang No. 57
M +44 (0) 7498995314	Pasar Rebo, Jakarta 13760 Indonesia
M +234 (0) 9092344330	+62 21 840 3902 (office)
Email: akinwole@genesisenergygroup.net	Email: moch_ichsan@pt-pp.com

Summary of Expertise Proponent's Unique Capabilities

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 Material Management services.

RG Engineering's (RGE) expertise is performing power plant EPC works and operation and maintenance of units in Puerto Rico, Dominican Republic and the US Virgin Islands where we have been doing this for over 30 years. Our particular knowledge on the applicable codes, standards, public utility practices, logistics, resource and material management, construction practices and all other conditions required to perform these works, provides for fast turn key solutions with lesser risk to the clients. In particular, having performed a variety of works in the Palo Seco and Yabucoa Power Plants over the years including fuel tank dike refurbishing, boiler and water intake structural works fire protection systems, turbine overhauls, generator refurbishment, switchgear and turbine exciter placement, and others. RGE performed the installations of the gas turbines that were installed after Hurricane Maria and which are being replaced with this bid, so it has the greatest possible knowledge and expertise on how to execute this project.

Regarding material management services, RGE represents over 20 companies in the power sector and has been selling parts and equipment to PREPA for 36 years. Beyond having to deal with the management of materials for projects, PREPA imports and handles materials and equipment to be sold to PREPA every week. RGE has an expertise on the commercial terms needed for importation of materials; quality control on tracking, receiving and establishing inventory on parts; handling customs and immigration process at the PR ports; local transportation throughout Puerto Rico; inhouse staff to receive and store materials; and handling the entire process of material management.

For this project we will have the support of General Electric (GE) who is known for their high standards of quality and material management which RGE will follow as part of the quality control process. GE also has over 40 years' experience importing, handling, receiving, delivering, storing and providing inventory for the Puerto Rico Power Authority.

Our group (RGE-GE) has vast more experience in the construction of power plants and material management services for the Puerto Rico Electric Power Authority that any other group that could bid this project.

Schedule of Project Delivery:

Per Section 4.3.2 – Proponent Shall provide a proposed project schedule based on continuous work with key and critical tasks.

See Appendix 4 Project Schedule on page 91

Biographies

Provide biographical summaries for Key Individuals and their proposed roles. Resumes can be attached as an appendix and will not count toward the page limit of the proposal.

See ***Appendix 6 Experience and Capacity Supporting Documents*** on page 94.

Proponent **and GE Code of Conduct**

Be honest, fair and trustworthy in all your activities and relationships. Obey applicable laws and regulations governing our business worldwide. Fulfill your obligation to be the Voice of Integrity and promptly report any concerns you have about compliance with law, Proponent & GE policy and Codes. Simple compliance is more effective compliance. Effective compliance is a competitive advantage. Work to run the company in as competitive a way as possible — with speed, accountability and compliance.

Proponent and GE Integrity Policy

Easy Rules To Remember Helps Us

The Proponent and GE's integrity policies are the foundation to our commitment ***To Do The "Right Thing" by "Doing Things Right".*** Each employee must comply with annual training of the following

- Improper Payments - Don't bribe; don't permit bribes; watch third parties.
- Anti-Money Laundering
- International Trade Compliance (ITC) Overview
- Environment, Health, & Safety - Follow EHS procedures and be alert to EHS hazards in your workplace.
- Competition Law - Never agree with competitors to fix prices, rig bids, or allocate customers, projects or territories.
- Working with Governments - Never take shortcuts when dealing with government; never deviate from the contract.
- Supplier Relationships
- Fair Employment Practices - Treat all employees fairly; respect the right to associate; base decisions on merit; don't harass or discriminate
- Security & Crisis Management - Respect privacy rights and protect against cyber risks
- Intellectual Property - Identify and protect IP without authorization.

Proponent Power Drug and Alcohol Policy

The Proponent and GE are committed to the responsible conduct of its business and the safe operation. Policies are in placed to help assure the safety, security and performance of the Proponent and GE by excluding alcohol and/or illegal drugs from the workplace and eliminating the use of illegal drugs by covered employees.

It is the policy of the Proponent and GE to maintain a work place free from the use/abuse of alcohol and/or illegal drugs and the effects of such use/abuse, to identify covered employees who exhibit the effects of such use/abuse, and to commit appropriate resources to assist affected covered employees, including, but not limited to treatment, rehabilitation, education, and benefits coverage.

The Proponent and GE are prohibited from:

- Engaging in or attempting to engage in the sale, use, possession, or transfer of alcohol, illegal drugs, unauthorized controlled substances, drug-related materials/paraphernalia, and/or contraband,
- Reporting to work in an unfit/impaired condition, and/or
- Performing or attempting to perform their duties in an unfit/impaired condition,Covered employees who violate this policy will be subject to disciplinary action, up to and including discharge.

In addition, the Proponent and GE will typically require vendors who provide contractors to work on “Company Premises” or “Customer Site/Facility” to adopt similar requirements for their employees.

Safety and Environmental Performance, History and Experience

The Proponent and GE are dedicated to the safety of its employees and the environment.

Procedure - The Proponent and GE O&M has over 50+ Environmental, Health and Safety procedures and work plans to identify regulatory requirements, address business-specific applicability, and leverage best practices learned throughout GE and industry.

Education and Training - education and training is comprised of regulatory required training, procedural training, best practice training, and on-going efforts to increase general EHS awareness. The Proponent and GE’s training program outlines the necessary EHS training requirements for each position at the facility.

Hazard Elimination - From facility design to facility closure, there is always the potential for hazards to exist in the workplace. The goal for every facility is to identify and promptly correct all hazards identified. GE will provide Advisory Services to RGE relared to the identification, and notifying management of hazardous conditions in the workplace.

Currently, greater emphasis has been placed in the measurement and review of leading indicators of injury or environmental events. This forward looking view of potential sources of injuries and environmental misses allows for proactive correction before an event occurs. These leading indicators form part of our Hazard Reduction Program and are:

GE currently has two USA sites that are certified in OSHA's Voluntary Protection Program (VPP). In addition to GE O&Ms participation in the OSHA VPP program, GE has initiated a similar internal program called Global Star, with the purpose of driving similar EHS excellence and recognition with international sites. GE O&M currently has 4 facilities recognized as Global Star sites.

Local Parties on page 26

Contact Person

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

Jose M. Robles
Operations Director
RG Engineering Inc.
Cel # 787-565-6430
Off # 787-723-4623
jose.robles@rgepr.com

2 Approach and Methodology

The PREPA RFP 82695 requests a turnkey proposal to provide mobile generating units in a fast track power generation project. To successfully accomplish this, the Proponent will focus on five key goals and objectives:

2.1. Fast development of final design
2.2. On time/early arrival of equipment to site
2.3. Utilize parallel work streams
2.4. Utilize on site consultants
2.5. Quality control

The methods for achieving success with these goals and objectives are as follows:

2.1. Fast Development of Final Design

The Proponent successfully designed and installed nearly-identical mobile powerplants in Palo Seco and Yabucoa for the PREPA emergency associated with Hurricane Maria approximately one year ago. Our team already has demonstrated to PREPA our expertise on the project engineering requirements, project management, construction, installation, and commissioning of mobile power plants. We have already coordinated most of this proposed project with the existing PREPA plant management staff. Combining this expertise with the expertise of the OEM of the mobile gas turbines, GE, allows for extremely fast development of the final design. By now, we have completed our final design work, which incorporate the lessons learned during the previous PREPA emergency projects, such as PREPA specific requirements for each tie in point and their impact to the existing facility's operations. Our final design will be presented to PREPA for comments/approval, before releasing our Issue For Construction (IFC) drawings. This eliminates a substantial amount of project time in back and forth design approvals.

2.2. On Time/Early Arrival of Equipment to Site

The Proponent has, ready to ship, the critical components of the project like forwarding pumps, filters systems, electrical auxiliary systems as well as the three mobile turbines and the balance of plant already manufactured and allocated to this project. We ship this equipment to the most remote locations in the world and effectively understand the specific PREPA project logistics requirements and schedule to allow the equipment to arrive to the sites to support the project schedules' deadlines (for more detail, please see the project schedule).

2.3. Utilize Parallel Work Streams

The Proponent has executed countless power projects including several fast track generation projects with mobile units, and well understands the substantial work required to deploy fast track generation mobile units into commercial operation. We will utilize hundreds of

calculated parallel work streams organized within the master project schedule to converge on the required commercial operation date.

2.4. Utilize On-Site Consultants

The Proponent shall employ third party experienced consultants at the sites (ie Protection & Control experts) which allows Proponent to address any PREPA concerns or tackle project issues with fast solutions vs. waiting for experts to allocate the time to help.

2.5. Quality Control

Proponent's commitment to quality has led to the development of a robust Quality Management System (QMS). QMS was built with a process approach, to ensure activities are properly coordinated, decision making is based on objective evidence, resources are efficiently allocated, processes are properly controlled and monitored, and customer and regulatory requirements are met. Efficient and effective site operation and the identification and management of risk are achieved by constantly monitoring and conducting periodic analysis to foster continual improvement. Also, in addition to already understanding PREPA's previous mobile power project specific requirements for each tie point and their impact to the existing facility's design and operation. Proponent will maintain on-site communication with PREPA to allow for easy coordination with PREPA site personnel allowing for a double check of all installations and the prevention of rework.

Project Execution Plan

To accomplish PREPA's three major Scope of Services requests in this RFP on a fast track basis, a) Supply dual fuel mobile power generation units equipped with modern environmental control and monitoring equipment including control logic to meet current requirements and fast start capability, b) Supply Balance of Plant, and c) Supply Operation and Maintenance for two years, the Proponent will execute in an organized manner via the following Work Plan.

The project intends to utilize new, in-stock, state-of-the-art, latest technology TM2500's and BOP modules with expedited delivery to meet the project schedule. Below describes Proponent's Work Plan, working methods, logistics, manpower, equipment to be used, and subcontractors.

Work Plan & Working Methods

The project will provide a compliment of experienced management, supervisory and technical personnel to manage and direct the work of subcontractors. The overall project management system and organization used to implement the engineering, procurement, construction, installation and commissioning of the equipment is:

- Develop a thorough understanding of all project objectives and contract requirements
- Define and sequence the work required to achieve the most efficient and effective implementation of these objectives and requirements

- Establish a project organization that can complete the work in the most effective manner
- Identify and commit personnel to staff the organization, as well as the facilities and equipment required to perform the work
- Establish the required communications with PREPA to assure an integrated design
- Provide the management systems to plan, integrate, measure and control the project performance

Prior to PREPA releasing the notice to proceed, the Proponent will be poised to immediately start a series of critical activities that will begin during the ten-day mobilization period. The notice to proceed shall trigger the following events:

Pre On-Site Installation Phase

- Project mobilization
- Coordination of permits with PREPA and pertinent agencies
- Prefabrication of pipeline segments, electrical cable trays, supports, etc.
- Coordination with PREPA for final site assessment and final construction drawings based on the Proponent already having executed the similar PREPA projects at the same sites.
- Confirm with PREPA the electrical and mechanical utility routings and the final locations of all supplied equipment.
- Release for all previously allocated BOP equipment
- Critical path engineering, and site preparation activities

Starting the Pre On-Site Installation Phase activities begins the project on the right foot and is key for on-time commencement of the Installation Phase.

On-Site Installation Phase

Our mechanical, electrical and civil work force will arrive to site with a pre-established work plan based on the installation assessment agreed with by PREPA. The supervising team will assign tasks and direct instructions with each crew responsible to complete a specific task. Multitasking coordination will assure the work flow needed to achieve the projects goals. With prompt coordination of construction activities, the schedule will progress in parallel moving activities instead of activities in series. As an example, we plan to complete three activities simultaneously: a mechanical crew can work on the installation of a fuel forwarding pump and fuel pipe line while an electrical crew can work on the installation of auxiliary equipment while a turbine specialist crew can work on the placement of the mobile generating units. The end result of the installation phase will be complete mechanical and electrical interconnections and full fluid reservoirs.

Commissioning

Proponent will utilize a commissioning and startup team to supervise the plant commissioning and startup program. The details of this program will be provided as a part of the technical information package to be submitted during the development of the construction and commissioning requirements.
To effectively commission the mobile power plants, Proponent shall perform static equipment checks, perform equipment system configurations inspections and commissioning with auxiliary power, conduct high speed crank tests, execute first fire of the gas turbines, conduct full speed no load generator checks, synchronize to the grid, tune the fuel system from minimal load to full load, and perform final testing.

Operation and Maintenance,

Proponent has over 25 years of experience in power plant Operations and Maintenance. During this time, we have developed extensive operations and maintenance procedures that are continually updated based on experience, latest industry practice, and government requirements. Proponent has over 400 Operations, Maintenance and EHS procedures, which, combined with training and management oversight, ensure compliance, integrity and health and safety during operations and maintenance activities.

Proponent utilizes a three-step approach to implementing O&M services at a site: Plan, Mobilize, and Operate. The Proponent's staff will be specialists in Human Resources, Environmental Health & Safety, and Information Technology Operations who will assist in the development of plant operating, maintenance, and administration procedures as well as the establishment and setup of an inventory and maintenance management system.

Logistics

The Proponent will charter vessels to transport the major equipment in an expedited fashion to San Juan, Puerto Rico. Once, on island, the Proponent will carefully transport the heavy equipment to the respective sites utilizing appropriate road permits and specialized haulage equipment where necessary.

Manpower

Proponent will have a crew of managers and supervisors on site to cover all project tasks. Construction Manager, Project Manager, Mechanical Project Engineer, Electrical Project Engineer, Civil Project Engineer, Safety officers will control and coordinated the work flow in a safe and productive way. Our manpower covers all areas of the project, from carpenters to expert turbine mechanics. For this project, we repeat our successful formula of dividing our crew into several categories to avoid any missed or delayed task. Truck drivers, heavy equipment operators, carpenters, electricians, welders, fabricators, electrical testing crew, skill

labors, mechanics, crane operators, and others will be on site at all times to support the aggressive timeline proposed for both projects. Our plan is to have at least a 70 person crew at Palo Seco and at least a 40 person crew for Yabucoa. These quantities of people are the minimum consideration and will be incremented as per work flow requirements.

Project Equipment

Proponent shall extensively utilize heavy equipment to maintain a continuous workflow during the project. Examples of heavy equipment to be utilized are: 2x Sky Track 10 ton material handlers, 2x Sky Track 2.5 ton material handler, 1x 100 ton crane, 1x 50 ton crane, and 1x 375 ton crane (please see Appendix 7 of this proposal for a more complete list). The largest crane is oversized for the project requirements, but we have proven that putting this crane in one staging area is very effective at expeditiously handling all the lifting required for construction activities. Proponent will have more than enough equipment at site to avoid any loss of schedule time.

Subcontractors

The project views the use of local suppliers as a significant advantage to the project implementation plan. We intend to maximize local procurement of equipment, material and services to the extent that local suppliers can meet the schedule and quality requirements of the project. A short list of Proponent's local consultants and subcontractors is: Iron Tech, Professional NDT, Star Electrical service, Metal electric, and Esmo Crane.

The Proposed Approach & Methodology is Appropriate and Suited for the Project

The above described work plan focused on accomplishing PREPA's requested Scope of Services is best suited for the project because it has been demonstrated to work on hundreds of successful mobile generation power plant projects throughout the word on a fast track basis. Examples of how Proponent's project approach has successfully completed similar projects in the public and/or private sector are numerous with more than 290 units sold and successful installations in over 20 countries over 18 years. However, the Proponents most similar and recent public-sector projects to the proposed PREPA project under this RFP 82695 are twofold:

A. First, and most importantly, the Proponent has successfully installed PREPA's three mobile power plants at Palo Seco and Yabucoa between October 13 and December 8th, 2017 for PREPA/FEMA/USACE. Not only were the two projects executed in record time, but they were executed directly in the aftermath of the devastation of 2017's Hurricane Maria. This nearly identical experience of installing mobile power plants at the same sites as the proposed PREPA project combined with the partnership of GE's extensive operations and maintenance experience is a perfect example of how our project approach has demonstrated excellent success.
B. Secondly, in 2017-2018, the Proponent has performed the construction and installation work for a 2xTM2500 project for The Virgin Islands Water and Power

Authority (VIWAPA), a public entity similar to PREPA on the island of St. Thomas. The Proponent completed the project on a non-emergency basis in three months as per the project schedule. The 3xTM2500 units continue to successfully operate to this day.

Staffing Plan

Proponent's organization structure allows for effective deployment of key personnel is summarized in the table below which shows Proponents existing staff that will execute the services described herein, their role in the organization, qualifications, and allocation of time dedicated to this project. Their CVs are available as part of *Appendix 6 Experience and Capacity Supporting Documents* on page 94. The Proponent has the ability to respond to this project with sufficient key and line staff as well as the proposed Key Individuals.

In order to ensure adequate execution of Proponent has identified the required heavy equipment and machinery to carry out the Scope of Work.

The following is a list of equipment available for use on this work:

Item No.	Qty	Description, Size Capacity, Etc.	Condition	Years of Services	Present Location
1	4	Electric Shipping Hammer	Good	9 Years	RG Eng
2	1	Compactor	Good	7 Years	RG Eng
3	2	Compressor-Air	Good	9 Years	RG Eng
4	1	Crane, Hydraulic, Truck Mounted	Good	8 Years	RG Eng
5	1	Crane, Hydraulic, Tone on Wheels	Good	5 Years	RG Eng
6	2	Drill, Core-Diamond	Good	7 Years	RG Eng
7	1	Dewatering Equipment	Good	6 Years	RG Eng
8	3	Electric Generator	Good	6 Years	RG Eng
9	1	Fork Lift	Good	6 Years	RG Eng
10	1	Digger	Good	6 Years	RG Eng
11	2	Truck ¾ Tons Pick-up	Good	6 Years	RG Eng
12	2	Truck 1½ Tons	Good	6 Years	RG Eng
13	1	Vacuum Tank Truck	Good	6 Years	RG Eng
14	2	Welding Machine, Gas Driven Engine	Good	6 Years	RG Eng
15	2	Welding Machine, Electric Motor Driven	Good	6 Years	RG Eng
16	2	Tamper	Good	6 Years	RG Eng
17	1	Concrete Saw Machine	Good	6 Years	RG Eng
18	1	Excavator	Good	10 Years	RG Eng
19	1	Material Handler – 5 tons	Good	10 Years	RG Eng

** Proponent and its subcontractors will supply all equipment required for this work.

Project Staff

Identify existing staff that will be involved in the services described 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.

Proponents Existing Staff for the PREPA Mobile Generation Units Project

Existing Staff	Role	Qualifications	Time Allocation	Residing in PR
Jose Robles	Contract Manager	23 Yrs PE License	75%	Yes
Alberto Borrelli	Field Operations Manager	30 Yrs PE License	75%	Yes
Claudio Jaques	Project Manager	26 Yrs PE License	100%	Yes
Jose Auli	Project Manger	20 Yrs PE License	100%	Yes
Raul Berrios	Civil Project Engineer	28 Yrs PE License	75%	Yes
Angel Cruz	Construction Engineer	30 Yrs PE License	75%	Yes
Jose Negron	Mechanical Project Engineer	33 Yrs PE License	100%	Yes
Edgardo Sureda	Safety Officer	23 Yrs BSIE	100%	Yes
Miguel Rojas	HSE Manager	27 Yrs BSEE	100%	Yes
Jose Segarra	Cost and Scheduler Manager	30 Yrs PE License	75%	Yes
Angel T. Rodriguez	Sr. Electrical Engineer	35 Yrs PE License	60%	Yes
Wenceslao Torres	Sr. Electrical Engineer	35 Yrs PE License	60%	Yes
Yancarlo Mondriguez	QA/QC Engineer	10 Yrs PE License	100%	Yes
Michael Kane	Sr. Project Manager	28 Yrs BSEE, MBA, PE	100%	No
Ardalan Kamae	Sr. Electrical Engineer	23 Yrs BSEE	80%	No
Jeff Farrow	Sr. Engineer Customer Project Engineering	33 Yrs BSEE	100%	No
Rene Graziano	Sr Controls Engineer	16 Yrs MSEE	90%	No
Kenneth Lloyd	Sr Engineer and Team Leader, BOP Equipment	26 Yrs BSME	100%	No

Acknowledgement of Sufficient Ability to Complete

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.

I hereby acknowledge that Proponents (RG & GE) and subcontractors have the ability, equipment and sufficient personnel available to carry out the Scope of Work.

Jose Robles – Contract Manager — Sep-24-2018 Date

3 Price and Performance Proposal

Per Section 2.2 on pg.10 of RFP 82695 - The price proposals shall include all costs associated with the complete installation of the units including design, procurement, construction, consumables, and operation and maintenance of the equipment. Operation and maintenance and technical advisor prices shall be presented separately.

Per Section 3.1 on pg.10 of RFP 82695 - ***Units Pricing:***

a) Shall submit a price per unit (including all its BOP equipment and accessories)
b) Shall provide an installation price per unit, with all necessary equipment, materials, labor, testing, and commissioning
c) Shall provide price for Operation and Maintenance as required in this document.

Per Section 4.3.4 on pg.15 of RFP 82695 - Performance Proposal - Proponents shall complete the Performance Proposal in the Technical Tab in PowerAdvocate.

Per Addendum 6 - The following information shall be clearly itemized in the proposals:

a) Price per unit. Shall be the total price of the proposal (not including the O&M and TA proposals) divided by three.

Performance Proposal

Guaranteed net unit output (diesel) @ specified conditions without water or steam injection	28,643 MW
Guaranteed net unit output (NG) @ specified conditions without water or steam injection	30,021 MW
Unit minimum load for continuous operation	Unlimited MW
Time from shutdown to guaranteed net unit output	8 minutes
Unit Heat Rate (diesel – LHV) Assume 18,646 BTU/Lb energy content @ guaranteed net unit output	9,393 BTU/KW-hr
Unit Heat Rate (NG – LHV) Assume 21,414 BTU/Lb energy content @ guaranteed net unit output	9,246 BTU/KW-hr

[1] If energy price varies with output, provide data related to this variation. Provide output vs. Energy Price curves if applicable

Pricing Proposal

Price Per Unit (Including all its BoP Equipment and Accessories)	$ 16,952,250.00 /unit
Installation price per unit, with all necessary equipment, materials, labor, testing, and commissioning	$ 3,114,450.00 /unit
Price for Operation and Maintenance as required in this document	$ 19,065,550.00 /2 years $ 8,102,240.00 /first addt'l year $ 8,530,320 /second addt'l year

4 Compliance with Applicable Federal, and Puerto Rico Regulations

It has been stated by PREPA in Addendum 5 the following:

"The units are intended for emergency use, and the proponent should anticipate securing such permits in accordance with EPA and Commonwealth emergency generator permitting equipment."

Based on this statement RG Engineering will rely apply for the applicable permits based on the installation of emergency generators as defined by the Puerto Rico Environmental Quality Board (Junta de Calidad Ambiental). In doing so, the permit process can be processed in much more expedited fashion as no major emissions permits will need to be solicited.

We would like to clarify that the definition of emergency generators with the Puerto Rico Environmental Quality Board implies that the operation would be limited to 500 hours per year and installed less than twelve (12) months at each site. Longer than 12 months within a site is interpreted as a stationary source on the current Puerto Rico Air Regulation and will not comply with emergency use. Given the size of the generators this emergency generator concept will normally require a detailed environmental document unless exempted specifically by OGPe, the government of Puerto Rico or as agreed with PREPA. We are assuming, based on PREPA's bid specifications, that they have received such exemption, and these can be permitted as emergency generators.

Based on PREPA's bid assertion that the permits can be achieved within a 45 day schedule, including the installation of the units, RGE is also assuming that PREPA has already issued and is pending a response from the PR Commonwealth via OGPe's Environmental Recommendation (REA) and Environmental Assessment Determination (DEA) which would establish the Construction and Use Permits, EQB's and Air Construction Permits, and EPA's Emergency Standby Generation exemptions, or has received a temporary permit waiver through a category exclusion or through an Executive Emergency order still ongoing from the Maria Hurricane.

II – OGPe (Commonwealth of Puerto Rico):

A. Environmental Recommendation (REA)

Process in which the Proponent presents the project to OGPe with the required documentation that proves the proposed project will not cause an environmental impact.

RGE has assumed that PREPA has already submitted this as the owner and impact generator.

B. Environmental Determination (DEA)

Final determination by OGPe or the applicable board that the proposed project will not cause a significant environmental impact.

C. Agencies Endorsements:

OGPe can request before the approval of the Construction Permit that certain government agencies evaluate the proposed project and presents an endorsement establishing the compliance with their respective laws and regulations. For this project we are expecting endorsements form the Fire Department and Health Department.

D. Construction Permit

Final determination by OGPe or the applicable board that the proposed infrastructure complies with all applicable laws and regulation and can begin the construction under the supervision of a certified professional the will certify the construction. Once approved the construction of the project can be started.

E. Use Permit

Once the project is finalized and certified by the designated Certified Professional, OGPE will proceed to emit a Use Permit which will authorize the operation of the proposed project. PR Law establishes 15 days for OGPE to approve the permits. Once approved, the operation can be started. Endorsement form the Fire Department and Health Department are required to submit the Use Permit application.

III – Environmental Quality Board (EQB):

A. Air Construction Permit:

With presentation of the proposed project and its projected air emission the EQB will determine the compliance with local applicable regulations. Once approved the project can be started.

RGE will submit permit as an emergency power plant and as minor emissions source.

B. Consolidated General Permit:

The EQB will require compliance with other emissions controls like erosion, water quality, dust and non-toxic material. These controls will be implemented during the duration of the project and all inspections and reports will be submitted for record.

C. Air Operation Permit under Title V (not been considered for this project)

Although the facilities operates under Title V permit, we are submitting the permits an emergency generator where Title V and a new source is not being considered. If PREPA is requested to provide information to modify the Title V permit, RGE can provide as necessary.

As per PREPA's specifications our proposal is not considering the use of water injection for emission control. As PREPA not requiring any emissions control equipment, as this is to be an emergency power plant, no emissions control systems has been considered.

RGE will use Environmental Resource Management as our consultant's for all the permitting works to be performed as of this project.

Proponent and GE Code of Conduct

Be honest, fair and trustworthy in all your activities and relationships. Obey applicable laws and regulations governing our business worldwide. Fulfill your obligation to be the Voice of Integrity and promptly report any concerns you have about compliance with law, Proponent & GE policy and Codes. Simple compliance is more effective compliance. Effective compliance is a competitive advantage. Work to run the company in as competitive a way as possible — with speed, accountability and compliance.

Proponent and GE Integrity Policy

Easy Rules To Remember Helps Us

The Proponent and GE's integrity policies are the foundation to our commitment ***To Do The "Right Thing" by "Doing Things Right".*** Each employee must comply with annual training of the following

- Improper Payments - Don't bribe; don't permit bribes; watch third parties.
- Anti-Money Laundering
- International Trade Compliance (ITC) Overview
- Environment, Health, & Safety - Follow EHS procedures and be alert to EHS hazards in your workplace.
- Competition Law - Never agree with competitors to fix prices, rig bids, or allocate customers, projects or territories.
- Working with Governments - Never take shortcuts when dealing with government; never deviate from the contract.
- Supplier Relationships
- Fair Employment Practices - Treat all employees fairly; respect the right to associate; base decisions on merit; don't harass or discriminate
- Security & Crisis Management - Respect privacy rights and protect against cyber risks
- Intellectual Property - Identify and protect IP without authorization.

Proponent Power Drug and Alcohol Policy

The Proponent and GE are committed to the responsible conduct of its business and the safe operation. Policies are in placed to help assure the safety, security and performance of the Proponent and GE by excluding alcohol and/or illegal drugs from the workplace and eliminating the use of illegal drugs by covered employees.

It is the policy of the Proponent and GE to maintain a work place free from the use/abuse of alcohol and/or illegal drugs and the effects of such use/abuse, to identify covered employees who exhibit the effects of such use/abuse, and to commit appropriate resources to assist affected covered employees, including, but not limited to treatment, rehabilitation, education, and benefits coverage.

The Proponent and GE are prohibited from:

- Engaging in or attempting to engage in the sale, use, possession, or transfer of alcohol, illegal drugs, unauthorized controlled substances, drug-related materials/paraphernalia, and/or contraband,
- Reporting to work in an unfit/impaired condition, and/or

- Performing or attempting to perform their duties in an unfit/impaired condition,Covered employees who violate this policy will be subject to disciplinary action, up to and including discharge.

In addition, the Proponent and GE will typically require vendors who provide contractors to work on "Company Premises" or "Customer Site/Facility" to adopt similar requirements for their employees.

Safety and Environmental Performance, History and Experience

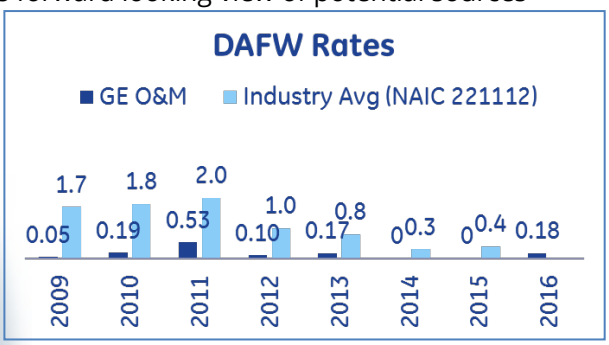
The Proponent and GE are dedicated to the safety of its employees and the environment.

Procedure - The Proponent and GE O&M has over 50+ Environmental, Health and Safety procedures and work plans to identify regulatory requirements, address business-specific applicability, and leverage best practices learned throughout GE and industry.

Education and Training - education and training is comprised of regulatory required training, procedural training, best practice training, and on-going efforts to increase general EHS awareness. The Proponent and GE's training program outlines the necessary EHS training requirements for each position at the facility.

Hazard Elimination - From facility design to facility closure, there is always the potential for hazards to exist in the workplace. The goal for every facility is to identify and promptly correct all hazards identified. GE will provide Advisory Services to RGE relared to the identification, and notifying management of hazardous conditions in the workplace.

Currently, greater emphasis has been placed in the measurement and review of leading indicators of injury or environmental events. This forward looking view of potential sources



of injuries and environmental misses allows for proactive correction before an event occurs. These leading indicators form part of our Hazard Reduction Program and are:

GE currently has two USA sites that are certified in OSHA's Voluntary Protection Program (VPP). In addition to GE O&Ms participation in the OSHA VPP program, GE has initiated a similar internal program called Global Star, with the purpose of driving similar EHS excellence and recognition with international sites. GE O&M currently has 4 facilities recognized as Global Star sites.

5 Local Parties

The Proponent plans to use local parties for critical services that required high level of expertise. The use of these local professional and well recognized companies, in the Puerto Rico construction industries, will assure full knowledge of PREPA operational protocol guidelines, and local and federal regulations as well. Not only do these firms have excellent standing with PREPA, but more importantly, all three of them had the experience of working in this project as part of the team that worked within the Palo Seco and Yabucoa Emergency Generation Projects promptly after Hurricane Maria.

The following table lists our local parties' key personnel and describe their specific expected level of involvement level with PREPA.

Key Personal Local Party(ies)	Level of Involvement
Eng. Carlos Ponce de Leon	Eng. C. Ponce De Leon as our Protection/Relays on-site consultant will work hand to hand with PREPA in the Project Protection Coordination, perhaps the most critical step in integrating the proposed equipment to PREPA's electrical grid. Eng. De Leon's knowledge and professional reputation is well known by PREPA.
Star Electrical Services	As our local party for all electrical testing and HV terminations installer. Star Electric knows very well how to work with PREPA and is a company of excellent standing in its expertise area.
Professional NDT Services	As our local party for welding inspections, Professional NDT has the experience and knowledge to carry on an excellent QC endeavor per code requirement.

Appendix 1. O&M Proposal

Per Section 2 on pg.9 of RFP 82695 - Proponent shall also include a separate itemized proposal that includes the pricing and terms and conditions for a two-year Operation and Maintenance (O&M) Contract, with two (2) options of one (1) additional year.

Per Addendum 6 - The following information shall be clearly itemized in the proposals:

- *O&M proposal price (two-year contract, plus two one-year options)*

See O&M Proposal in the next 43 pages.

RG ENGINEERING INC.

September 24, 2018

Natalia Martinez
Purchasing Agent
Puerto Rico Electric Power Authority

Subject: Service Support for a 2 year O&M on GE TM2500 power plants as offered by RG Engineering Inc ("RGE") under Puerto Rico Electric Power Authority's ("PREPA") RFP 82695 dated September 5, 2018, and all addendums thereto.

Dear Mrs. Martinez:

RG Engineering, Inc. ("Contractor") is pleased to present this Proposal for support of a future 2-year Operation and Maintenance agreement between RGE and PREPA under PREPA´s RFQ 82695.

We trust this document provides sufficient information regarding the scope of equipment, services, responsibilities and overall structure for further discussions resulting in an executed agreement between RGE and PREPA (the "Agreement").

1. CONTRACTOR SCOPE OF SUPPLY

CONTRACTOR shall provide PREPA the following scope for the Plant Covered Equipment (as defined in Annex 2):

- BOP spare parts as detailed in Annex 5 at time of Commercial Operation Date ("COD") including Routine Maintenance spare parts and excluding spare parts on the IOC equipment
- Supply of tools and equipment as detailed in Annex 6.
- Supply of a part time Contract Performance Manager, who will not be a resident.
- Pre-COD Technical Advisory support for the set-up of the O&M procedures and documentation system.
- Set up of Computerized Maintenance Management System (CMMS). Contractor anticipates that the timeline for full set up is at minimum 4 months.
- Technical Advisory Services during the 2-year O&M period
- Training as detailed below:
    - Scope as detailed in Annex 8
    - Training session as below:

Description	Max people	duration	no of sessions	comments
Gas Turbine - TM2500 Aero Package Operation/Familiarization	12	5 days	2	back to back
routine maintenance of TM 2500s	12	5 days	1	estimation to get it up for 12 people

NOTE: The cost for Course #E-AER10501 "Gas Turbine - TM2500 Aero Package Operation/Familiarization", is applicable only if the 2 sessions are conducted back-to-back in the same trip, as well as being conducted during a date approved by GE Power Services Customer Training in which a qualified instructor is available.

- Planned Maintenance on the TM Engines and BOP Equipment (included in Contractor price), consisting of biannual boroscopic inspections on the Engines.
- Unplanned Maintenance on the TM Engines and BOP Equipment, if required billed as Extra Work to PREPA.
- Inspection type Services Bulletins, where the onsite GE TA can implement the scope of the Bulletin are covered in the fixed monthly fee, other Service Bulletins will be billed as Extra Work to PREPA
- Remote monitoring and diagnostics on the Engines (Remote Monitoring Health & Diagnostics), set up and services for the 2yr period. As more fully described in Annex 4.
- As Required by PREPA RFP, itemized scope and pricing for Spare Parts.
- As Required by PREPA RFP, itemized pricing for Hot Section Inspection and Major Overall Inspection on the engines, even though those inspections should not happen within the term of the Agreement [the price for such inspections is not included in the fixed fee]:
- Hot Section Exchange (HSE) inspection is normally required at 25,000 firing hours when operating on gas fuel. Operation on distillate fuel will shorten the interval depending also on load and the amount of water injection.
- Major Overall scheduled to happen @ 50,000 firing hours.

1.1. BASE PRICING

-	Price for Operation and Maintenance First Two Years	$19,065,550.00
-	Price for additional first year	$8,102,240.00
-	Price for additional second year	$8,530,320.00

1.2. OPTIONAL PRICING FOR PERFORMING A HOT SECTION INSPECTION ON THE ENGINES

HSE price per engine invoiced by RGE = $2,395,000 USD (Two Million and Eighty Thousand US Dollars)

This price is provided in base year 2018 and shall be escalated at a yearly rate of 4%. In case a Hot Section is required PREPA shall give the notification to GE CARIBE with 6 months advance notice and shall make the payment in full at the latest 3 months prior to the expected date of performance of each HSE.

1.3. OPTIONAL PRICING FOR PERFORMING A MAJOR OVERALL INSPECTION ON THE ENGINES

MOH price per engine invoiced by GE Packaged Power Inc = $4,600,000 USD (Four million US Dollars)

This price does not include the lease engine substitution during the time required for performing the MOH. If required such lease engine substitution will be billed at $517,500 USD

Those prices are provided in base year 2018 and shall be escalated at a yearly rate of 4%. In case a Major Overall is required PREPA shall give the notification to Contractor with 6 months advance notice and shall make the payment in full at the latest 3 months prior to the expected date of performance of each MOH

This Proposal will remain valid through November 30, 2018 and may be modified or withdrawn by Seller prior to receipt of buyer's acceptance.

We sincerely appreciate this opportunity to provide you with this Proposal and are willing to discuss any issues and resolve them on a mutually acceptable basis. Please, contact the undersigned for assistance at 787-723-4623.

Yours sincerely,

Jose Robles

Sales Manager

ANNEX 1 – DEFINITIONS

""PREPA Taxes" means any and all taxes, duties, fees, or other charges of any nature (including, but not limited to, ad valorem, consumption, excise, franchise, gross receipts, import, export, license, property, sales, stamp, storage, transfer, turnover, use or value-added taxes, deficiency, penalty, addition to tax, interest, or assessment related hereto), other than Contractor Taxes, imposed by any governmental authority of any country on either Party due to the execution of any agreement or the performance of or payment for the Parts and Services or relating to the delivery, importation, lease, use, PREPA ship or possession of a Lease Unit. For the avoidance of doubt products exported from the United States are presumed to be exempt from PREPA Taxes levied within the United States

"**Covered Unit**" shall mean one Engine and related Package.

"Contractor" shall mean collectively RG Engineering, Inc ("RGE").

"**Contractor Taxes**" means for RGE any and all corporate taxes that are measured by net income or profit imposed by any government authority of any applicable city, state or country on RGE, or its subcontractors , due to the performance of or payment for work under this Agreement; and for RGE means any and all corporate taxes that are measured by net income or profit imposed by any governmental authority of any applicable city, state or country other than the country of the Site on RGE, or their subcontractors, due to performance of or payment for work under this Agreement. In particular any items of withholding are included in GE CARIBE taxes and RGE taxes with regards to services. If PREPA withholds taxes on a scope of supply other than services then PREPA shall gross up payments to RGE in the amount of the applicable tax.

"**Excluded Event**" means an Excusable Event [TBD] , an Assumption Deviation [TBD], the use of goods or services provided by parties other than Contractor, or Contractor's subcontractors, acting under this Agreement, the presence of contaminants including, but not necessarily limited to, chemicals, salt air and harmful gases in the physical environment affecting a Covered Unit, or improper operation of a Covered Unit or the use of other equipment which adversely affects a Covered Unit.

"Extra Work"

During the Term of this Agreement, PREPA and Contractor may from time to time mutually agree upon the provision of Extra Work by Contractor. In particular, Extra Work shall mean Parts provided and Services performed by Contractor under the following circumstances:

a) To assess the condition of and to correct and address damage and other impact to the Covered Unit arising from Excluded Events;

b) To perform commercially available conversions, modifications and upgrades, and other work on a Covered Unit or other equipment all as mutually agreed upon by PREPA and Contractor;

c) Supply replacement parts for any part or system which becomes obsolete, including any work with PREPA to find a suitable solution, as mutually agreed to between PREPA and Contractor;

d) To address damage to a Gas Turbine or a Covered Unit resulting from the use of Excluded Parts (third party supplied parts);

e) To provide any planned maintenance for the Covered Unit other than as specified in Annex 7;

The Extra Work shall be paid by PREPA to Contractor at the Time and Material Rates in effect at the time the work is performed. The terms and conditions applicable to such Extra Work shall be the terms and conditions of this Agreement, subject to any modifications expressly set out and agreed by the Parties in writing. The scope to be performed by Contractor shall be duly justified to PREPA. In the case that the Contractor establishes more than one option which is technically feasible for the performance of such Extra Work, the Contractor shall present to PREPA for each option the expected Extra Work amount together with the associated Covered Unit Outage time, and the PREPA shall choose one of the options. Contractor Extra Work shall be commenced upon (a) the receipt by Contractor of PREPA's written acceptance of a Contractor proposal or (b) receipt by Contractor of an acceptable purchase order from PREPA. Contractor's current publish Time and Material Rates are included as Annex 8.

"**Planned Maintenance**" means, with respect to the Covered Unit(s), the following:

a) Planned periodic inspection, testing, repair, and/or replacement of components of a Covered Unit, as specified in Annex 2, as reasonably necessary in light of deterioration due to normal wear and tear on the Covered Unit(s) and in accordance with Contractor's or its subcontractor's recommendations under this Agreement and Prudent Industry Practices; and

b) any periodic inspection, testing, repair, and/or replacement of components of a Covered Unit as advised in, and in accordance with, any Service Bulletin, including any Service Bulletin issued after the manufacture of the Covered Unit and prior to the installation and commissioning of the Covered Unit, but not including Optional Service Bulletins; and

c) the repair and/or replacement of components and parts of a Covered Unit subject to maintenance set out in paragraph (a) and (b) above, (1) the need for which is found during any Planned Maintenance Outage (excluding planned borescope inspections) and (2) which is reasonably determined to be necessary prior to the next scheduled Planned Maintenance Outage to continue safe operation in each case in accordance with Prudent Industry Practices, except in the event that the need or requirement for such repair or replacement is caused by an Excluded Event; provided that paragraphs a), b), and c) above shall not include the performance of Unplanned Maintenance, Routine Maintenance or Extra Work.

"Routine Maintenance" means maintenance of a regular, preventive or minor nature that is performed to maintain the Covered Unit and other equipment in good working order on a day-to-day basis, including, but not limited to: inspection, lubrication, calibration, adjustment, minor leak repair, painting, water washes, provision of fluids, compressed gases, greases, and resins, cleaning and replacement of all strainers, cartridges and filters (including inlet air filters), maintenance or replacement of sensors, fuses, thermocouples, gauges, switches, and light bulbs, and other similar preventive, routine or minor work as identified in the Operation and Maintenance Manual or other instructions of the manufacturer of the Covered Unit or components thereof.

"Service Bulletin" means any written Service Bulletin applicable to the PREPA's Gas Turbine(s) that is issued to PREPA by Contractor or any Affiliate of the Contractor. Each Service Bulletin identifies the timing code for implementation and the category as one of the following: Alert, - action needed to ensure product safety (failure to implement might result in engine or Facility damage or personal injury); Campaign - an improvement which if not implemented, might result in major module replacement or unscheduled engine removal; Routine – product improvements or inspections that primarily enhance life or operating characteristics of parts and/or reduce life-cycle costs; or Optional - product improvements which may be beneficial to some, but not necessarily all, PREPAs.

"**Unplanned Maintenance**" means maintenance of the Covered Unit that is neither Routine Maintenance, nor Planned Maintenance, nor Extra Work, which is required to remedy an in-service failure or abnormality of a component, whether discovered during an Outage which occurs as a result of a problem or failure of the Covered Unit, or during inspection or monitoring of the Covered Unit, including, but not by way of limitation, the discovery, during a Planned Maintenance event, of the need for additional Repair Services or Parts over and above the planned scope for such event.

ANNEX 2 – PLANT COVERED EQUIPMENT

1- **The "Engines", part of the Plant Covered Equipment, shall be defined by:**
The TM2500 GT and auxilliaries as defined as a Unit by Attachment A Technical Proposal.

2- **The Balance of Plant ("BOP"), part of the Plant Covered Equipment, shall be defined as:**
Any equipment identified as "BOP Equipment" in Attachment A Technical Proposal

The scope of work of Contractor for IOC the Engines or BOP Equipment shall be limited to visual inspections when access is available without dismantling equipment, during routine and planned maintenance. RGE will provide support for O&M procedures and documentation and CMMS on IOC equipment too.

3- **The excluded equipment from the Plant Covered Equipment, "Excluded Equipment" shall be defined by:**

HV equipment and switchyard, roads, buildings…transformers

RGE shall have no responsibilities as part of this Agreement for this scope.

ANNEX 3 – Not Used

ANNEX 4 – REMOTE MONITORING AND DIAGNOSTICS OVERVIEW

MONITORING AND DIAGNOSTICS SYSTEM

Contractor or one of its Affiliates may place On-Site Monitors ("OSM") on, and/or connect an OSM to, the Covered Unit. The OSM will be connected by a telephone line, digital connection or other approved communication to a GE or GE-affiliated Monitoring and Diagnostic Center.

The OSM, data retrieval software, and related systems and equipment are collectively referred to in this Exhibit as the "RM&D System".

The OSM consists of some or all of the following components, or substitute components, as the same may be updated, modified, omitted or replaced from time to time, to be installed at the Site:

1. One Windows NT-based, 2000, XP or equivalent, computer system for each Gas Turbine to be monitored.
2. One internal modem, or other hardware, per computer system to provide remote access.
3. The required interconnection device(s) to interface with the Gas Turbine control system.
4. The software package and configuration to collect data from such control system and other necessary devices.

In lieu of, or in addition to, an OSM, Seller may utilize data retrieval software on existing Buyer's control system equipment.

The RM&D System is passive and will not interfere with the operation of that equipment.

The following conditions shall apply to the RM&D System:

1. Contractor assumes no greater or lesser liability than it has under the terms of the Agreement as a result of the application of the RM&D System. Further, Contractor shall not be responsible, whether in contract, tort (including negligence), strict liability, warranty, extracontractual liability or otherwise for failing to monitor the RM&D System, failure to notify Owner of abnormalities or failure of the RM&D System to detect abnormalities or prevent damage to the Covered Units or the Facility.

2. Title to RM&D System and all software is and shall remain with Contractor or its Affiliates. Contractor does not sell or license the RM&D System or any part thereof, and does not grant any ownership interest in the system to Owner by virtue of this use or this Agreement. Owner acknowledges that, in addition to Contractor-owned software, the RM&D System may contain certain third party software, which Contractor is licensed to use. Contractor does not extend any license to any such software to Owner. Owner agrees not to alter the hardware, software, connections or configuration of the RM&D System or its software or its connection to the data stream, and will not add tags, links to other devices or systems or otherwise change the RM&D System setup, functioning, configuration or connectivity.

3. Owner will return and/or deliver up all RM&D System equipment and software upon termination of this Agreement (or termination of the RM&D coverage if earlier).

4. Owner agrees not to access any data, displays, information, software or other parts or functions of the RM&D System that have not been specifically made available to it by Contractor, whether or not protected or restricted.

5. Owner agrees not to disassemble, reverse engineer, reverse assemble, decompile or otherwise attempt to derive the source code of any RM&D System, or system-related, software, including third party software.

6. In the event that Owner uses, accesses or alters any data, displays, information, software or hardware, or otherwise breaches the conditions herein, Contractor, and if applicable the third party software owner, shall have the right to recover damages from Owner and Owner shall indemnify and hold harmless Contractor from all claims, losses, damages, judgments, expenses, including attorneys' fees and litigation expenses, arising out of or related to any such breach. Owner further understands and acknowledges that third party software providers may be able to assert certain other property rights, such as copyright rights, on their own behalf.

7. Owner shall provide, at its expense, data communications service (e.g., dedicated telephone line(s), direct internet address(es), digital connections or other means of communication for Contractor connection to the RM&D System, with such communication methodology assigned specifically for use of the identified components of the RM&D System. Multiple data communication services and connections may be necessary for monitoring multiple Covered Units. Such data communication services shall not be used by Owner or others for any other purposes. This service shall be and remain continuously connected to the RM&D System or control system. The data communication services must be direct and not through a switchboard. Owner shall not connect, or allow to be connected, to any part of the RM&D System any other phone line or communications service. Owner shall not initiate or allow any remote access to the RM&D System whether through the assigned data communication service or otherwise, or allow others to do so.

8. Subject to distance restrictions of Ethernet networking and mutual agreement of the Parties, a current maximum of three OSMs may be interconnected with a master OSM in order to utilize one data communication service. If the Parties agree upon such interconnection, Owner will provide Ethernet cabling as required for interconnection of multiple OSMs at the Facility.

9. Owner does not have any right or responsibility to maintain or repair the RM&D System or its software, however, Contractor may request assistance from Owner to conduct minor troubleshooting of the system to enable reduced Outage time in the event of a fault

10. Owner will provide properly configured control systems for interfacing with the RM&D System. Owner will notify Contractor of all control system upgrades and modifications, in order to permit Contractor to assess effects of such changes on the data retrieval processes.

11. Owner will provide a suitable permanent mounting location for each OSM in the Facility control room.

12. Owner shall supply and maintain an uninterruptible power supply for all RM&D System components. Contractor shall have a right to access the RM&D System and its connections at all reasonable times.

13. Owner will ensure that each of its employees and agents who may come in contact with the RM&D System is made aware of Owner commitments described herein, and abides by them.

14. Contractor shall have a perpetual royalty-free right and license to use data collected through the RM&D System however all Owner data shall not be disclosed to third parties in a manner identifiable to Owner or the Facility.

ANNEX 5 – Not Used

ANNEX 6 - TOOLS AND EQUIPMENTS SUPPLIED BY CONTRACTOR

This is an indicative list. A complete list will be provided if awarded the PREPA RFP

Pos.	O&M ID *	Description (en)	Quantity selected	Unit *
A, Micrometer				
1-1	1000-A01-01	Set of precision external micrometers	1	SET
1-2	1000-A02-01	Micrometer with interchangeable anvils 100 - 200 mm (4"-8" inch)	1	PC
1-3	1000-A02-02	Micrometer with interchangeable anvils 200 - 300 mm (8"-12 inch)	1	PC
1-4	1000-A02-03	Micrometer with interchangeable anvils 300 - 400 mm (12"-16" inch)	1	PC
1-7	1000-A03-01	Internal micrometer set	1	SET

Pos.	O&M ID *	Description (en)	Quantity selected	Unit *
B, Verniers				
2-1	1000-B01-01	Vernier caliper 0 - 150 mm (0 - 6" inch)	3	PC
2-2	1000-B01-02	Vernier caliper 0 - 300 mm (0 - 12"inch	2	PC
2-3	1000-B01-03	Vernier caliper 0 - 500 mm (0 - 20" inch)	1	PC
2-5	1000-B02-01	Precision vernier height gauge 0 - 200 mm (0 - 8" inch)	1	PC
2-6	1000-B02-02	Precision vernier height gauge 0 - 300 mm (0 - 12" inch)	1	PC
2-8	1000-B03-03	Vernier depth gauge Inox 0 - 300 mm (0 - 12" inch)	1	PC
2-10	1000-B04-01	Angle protractor with vernier 200 mm (0 - 8" inch)	1	PC

Pos.	O&M ID *	Description (en)	Quantity selected	Unit *
C, Gauges				
3-1	1000-C01-01	Telescoping gauges MITUTOYO	1	SET
3-2	1000-C02-01	Feeler gauge set	5	PC
3-3	1000-C02-02	Feeler gauge set (long blades)	1	PC
3-4	1000-C03-01	Radius gauge 1 - 7 mm (0 - 0.3" inch)	1	PC
3-5	1000-C03-02	Radius gauge 7.5 - 15 mm (0.3" -0.6" inch)	1	PC
3-6	1000-C03-03	Radius gauge 15.0 - 25.0 mm (0.6" - 1" inch)	1	PC
3-7	1000-C04-01	Thread calibrating gauges UNC / UNF	1	SET
3-10	1000-C07-01	Precission thickness Gauge 0-10mm (0 - 0.4" ich)	1	PC
3-12	1000-C09-01	Adjustable paralles	1	SET

Pos.	O&M ID *	Description (en)	Quantity selected	Unit *
D, Dial Indicator Gauges				
4-1	1000-D01-01	Indicator stand w ith magnet base for dial gauges	6	PC
4-2	1000-D02-01	Dial gauge 0 - 10 mm (0 - 0.4" ich)	6	PC
4-3	1000-D02-02	Dial gauge 0 - 50 mm (0 - 2" inch)	2	PC
4-4	1000-D02-03	Dial gauge 0 - 100 mm (0 - 4" inch)	1	PC
4-6	1000-D03-01	Bourdon Tube Pressure Gauge -1..+3 bar	3	PC
4-7	1000-D03-02	Bourdon Tube Pressure Gauge 0...6 bar	4	PC
4-8	1000-D03-03	Bourdon Tube Pressure Gauge 0...10 bar	2	PC
4-9	1000-D03-04	Bourdon Tube Pressure Gauge 0....16 bar	2	PC
4-10	1000-D03-05	Bourdon Tube Pressure Gauge 0...40 bar	2	PC
4-11	1000-D03-06	Bourdon Tube Pressure Gauges (Safety Pattern Version) 0....60 bar	2	PC
4-12	1000-D03-07	Bourdon Tube Pressure Gauges (Safety Pattern Version) 0...100 bar	2	PC
4-13	1000-D03-08	Bourdon Tube Pressure Gauges (Safety Pattern Version) 0...250 bar	2	PC
4-14	1000-D03-09	Bourdon Tube Pressure Gauges (Safety Pattern Version) 0...400 bar	2	PC

Pos.	O&M ID *	Description (en)	Quantity selected	Unit *
E, Ruler & Divider				
5-2	1000-E01-02	Folding ruler (polyamid) 2 m (6.6 ft)	**10**	PC
5-7	1000-E02-05	Measuring tape 20m (65.6 ft)	**1**	PC
5-9	1000-E03-01	Precision straight edge gauge	**1**	PC
5-11	1000-E03-03	Straight edge gauge Length 1000 mm 35 x 1.3 mm	**1**	PC
5-12	1000-E03-04	Straight edge gauge Length 1500 mm 35 x 1.3 mm	**1**	PC
5-16	1000-E04-01	Divider (Feather-pointed)	**1**	PC
5-17	1000-E04-02	Divider (Inner feeler)	**1**	PC

Pos.	O&M ID *	Description (en)	Quantity selected	Unit *
F, Water Level & angle square				
6-2	1000-F01-02	Shaft w ater level	**1**	PC
6-4	1000-F01-04	Water level w ith magnetic base	**1**	PC
6-6	1000-F01-06	Water level w ith magnetic base	**1**	PC
6-10	1000-F02-03	Machinist angle square	**1**	PC
6-11	1000-F02-04	Precision steel square	**1**	PC

Pos.	O&M ID *	Description (en)	Quantity selected	Unit *
G, Inspection				
7-1	1000-G01-01	Digital Photo Camera and accessories	**1**	PC
7-2	1000-G02-01	Infrared Camera Flir E60	**1**	PC
7-3	1000-G02-02	Wide Angle Optic 45°	**1**	PC
7-4	1000-G02-03	Softw are Flir Tools Plus	**1**	PC
7-5	1000-G02-04	Sunshield (Hood for LCD Flir E60)	**1**	PC
7-17	1000-G05-01	Ultrasonic greasing device	**1**	PC

Pos.	O&M ID *	Description (en)	Quantity selected	Unit *
H, Calibrator				
8-1	1000-H01-01	Multifunction Process calibrator (digital, hand held, to measure and source (TC's, RTD's etc.)	1	PC
8-4	1000-H04-01	Loop Calibrator 4-20ma	1	PC
8-10	1000-H10-02	MC4 Documenting Process Calibrator (need + 1 HART interface)	1	SET
8-11	1000-H09-01	Field Communicator HART	1	PC
8-13	1000-H10-04	External Pressure Kit for MC6 / MC4	1	SET
8-14	1000-H10-05	Beamex Calibration Pump (0-20 bar)	1	SET
8-15	1000-H10-06	Beamex Calibration Pump (0-700 bar)	1	SET

Pos.	O&M ID *	Description (en)	Quantity selected	Unit *
I, Meters, Recordes & Testers				
9-1	1000-I01-01	Precision infrared thermometer	1	PC
9-18	1000-I09-02	Relay tester Omicron: Alibaba / rent?	1	PC
9-25	1000-I12-03	Bentley Nevada Data Analyzer Scout 220-IS	1	PC
9-26	1000-I13-02	Bentley Nevada System 1 Fundamental package	1	PC
9-39	1000-I22-01	Gaussmeter	1	PC
9-41	1000-I24-01	Voltage Detector	4	PC
9-42	1000-I25-01	Magnetic Pen (green)	6	PC
9-44	1000-I26-02	Counter scale 50kg	1	PC

Pos.	O&M ID *	Description (en)	Quantity selected	Unit *
J, Earthing & Detection				
10-3	1000-J01-03	Telescopic earthing pole	1	PC
10-4	1000-J02-01	Voltage Tester Fluke T110	4	PC
10-5	1000-J02-02	Voltage Multitester	1	PC
10-9	1000-J04-01	Cable locator (Line Finder)	1	PC
10-10	1000-J05-01	Phase Rotation Indicator	1	PC

Pos.	O&M ID *	Description (en)	Quantity selected	Unit *
K, Gas, Fire & Smoke				
11-3	1000-K02-01	Multi Gas Detector X-am 7000, hand-held	**1**	PC
11-8	1000-K05-02	Portable multi gas monitor HoneyWell Microclip	**2**	PC

Pos.	O&M ID *	Description (en)	Quantity selected	Unit *
L, Speed, Time				
12-1	1000-L01-01	Digital Tachometer (Speed and length measuring instrument)	**1**	PC
12-2	1000-L01-02	Digital tachometer	**1**	PC
12-3	1000-L01-03	Digital stroboscope tachometer	**1**	PC
12-4	1000-L02-01	Stopw atch electronic, 1/100 sec	**1**	PC

Pos.	O&M ID *	Description (en)	Quantity selected	Unit *
P, Computers				
16-4	1000-P01-04	Laptop Computer for Instruments	**1**	PC
16-5	1000-P02-01	Communication Cards	**1**	PC

ANNEX 7 – PLANNED MAINTENANCE

Planned Maintenance shall be:

- Bi-yearly inspections on the Engines (boroscopic)

ANNEX 8 – TRAINING COURSE OUTLINE

Control System - RX3i Operation, Maintenance & Troubleshooting

RG ENGINEERING INC.

Course Number

Course # E-CON13603

Course Description

This course introduces plant maintenance personnel to the RX3i turbine control systems. Course content includes the hardware layout of typical systems; from chassis to I/O cards to field termination modules. Software tools will be used to evaluate fuel control, sequence logic, and turbine-based alarms. Control actuator and other I/O calibration procedures will be discussed. Additional class work includes general information on the operator interface (HMI).

Duration

5 Days

Target Audience

- Supervisors
- Operations
- Electrical Maintenance
- Instrumentation & Controls

Prerequisites

Participants must have:

- Reasonable computer skills
- Basic understanding of gas turbine equipment and its operation
- Familiarity with control system basics

Class Size

Maximum number of students: 12

Learning Objectives

This course will provide basic knowledge on the following:

- RX3i Hardware
- Control Fundamentals
- Interfaces

Course Content

INTRODUCTION

A. Instructor Background
B. Participant Background
C. Course Schedule

LESSON 1 – Control Fundamentals

A. Introduction and Overview of Control Functions
B. Gas Turbine Fuel Control
C. Auxiliary Equipment Control and Sequencing
D. Gas Turbine and Package Protective Systems

LESSON 2 – System Hardware

A. Control System Architecture
B. Control System Documentation
C. Turbine Control Panel and System Components
D. Speed Signal Generation
E. Valve Actuation

F. High Signal Select / Low Signal Select Logic
G. Digital Control Philosophy

LESSON 3 – Software Tools and Interfaces

A. Application Manager
B. Control Assistant
C. File Transfers and Backup
D. Signal Forcing
E. Tunable Parameters, Adjustments and File Maintenance
F. I/O Calibrations
G. Valves, Valve Interfaces and Valve Files
H. Data Logs

LESSON 4 – Field Procedures

A. File Transfers and Backup
B. Signal Forcing
C. Tunable Parameters, Adjustments and File Maintenance
D. I/O Calibrations
E. Valves, Valve Interfaces and Valve Files
F. Retrieving and Displaying Data Logs

Summation and Review

A. Final Review
B. Questions & Answers

Revisions

REVISION	DETAILS	PERFORMED BY	DATE
0	Document created	HC	1/19/17
1	Add place holder for course number Review for legal wording requirements and grammar Added LESSON to the content section Remove statement - For more detailed learning objectives, contact the course administrator	HC	05/11/17
2	Revise – Audience Remove - Ability to speak and understand English Revise title and add course number	H Chandler	10/02/17


RG ENGINEERING INC
INTEGRATED ENERGY SOLUTIONS PROVIDER

RG ENGINEERING INC.

Gas Turbine - TM2500 Aero Package Maintenance

AEE_2361

RG ENGINEERING INC.

Course Number

Course # E-AER10502

Course Description

This course is designed to introduce operations and maintenance personnel to the TM2500 Package and to the minor mechanical maintenance required to attain high levels of availability, and reliability from the Aeroderivative gas turbine package. This course will cover basic troubleshooting, and a summary of the inspections required for minor gas turbine generator mechanical maintenance. Operating and maintenance personnel should attend this course together to develop a working relationship regarding the maintenance requirements of the unit, and how unit operation may affect these requirements.

Included in this training are the routine preventative maintenance requirements of the Aeroderivative gas turbine generator package and support systems. The training will also detail the Level 1 maintenance work BOP Equipment and familiarization of the O&M Manual. The course does not include repair procedures for gas turbine components. If the course is held at the customer's location it may include site visits to familiarize personnel with the physical layout of the gas turbine generator, and the location of the various system components.

Duration

5 Days

Target Audience

- Supervisors
- Mechanical Maintenance

Prerequisites

Participants must have:

- Prior general knowledge of power plant systems and operation
- Participants MUST bring safety glasses and work shoes for tours

Class Size

Maximum number of students: 12

Learning Objectives

This course will provide basic knowledge on the following:

- Gas turbine basics
- Familiarity of the package layout
- Maintenance scheduling
- Support systems maintenance requirements
- Understanding of Operations & Maintenance Manual
- Troubleshooting basics

Course Content

INTRODUCTION

A. Instructor Background
B. Participant Background
C. Course Schedule

LESSON 1 – Maintenance Introduction

A. Safety
B. Cleanliness
C. Filters
D. Fans
E. Preservation
F. Chip detectors

LESSON 2 – Turbine Construction

A. LM2500 History, Models and Options
B. Stations and Orientation
C. Shaft and Bearing Configuration
D. Frame/Support Members
E. HP Compressor Assembly
F. Variable Stator Vane Assembly
G. Combustor Assembly
H. HP Turbine Assembly
I. Power Turbine Assembly
J. Accessory Gear Box
K. Engine Airflow
L. Turbine Instrumentation
M. Key Performance Features and Operating Parameters

LESSON 3 – Package Documentation

A. Package Operation & Maintenance Manuals
B. Engine GEK
C. Engine IPB
D. Product/Service Letter
E. Product/Service Bulletin

LESSON 4 – Gas Turbine Maintenance Requirements

A. Maintenance Definitions
B. Critical Parts Life
C. Abnormal Operation
D. Basic Maintenance Practices
E. Troubleshooting

LESSON 5 – Maintenance Schedules

A. Engine
    1. Minor Inspections
    2. Major Inspections
B. Instrument Calibration
C. Sub- Systems
    1. Maintenance Requirements

LESSON 6 – Level 1 Maintenance

A. Appendix A – Fuel, Water, Oil Spec's
B. Appendix B – Preservation
C. LM2500 Tools & Consumables
D. LM2500 Work BOP Equipment

Revisions

REVISION	DETAILS	PERFORMED BY	DATE
0	Document created	ADJ	2/9/17
1	Add place holder for course Review for legal wording requirements Remove - Ability to understand and speak English	ADJ	05/16/17
2	Various changes to Course Content Section	GDW	07/31/17
3	Revise title and add course number	H Chandler	09/15/17

RG ENGINEERING INC.

Gas Turbine - TM2500 Aero Package Operation/ Familiarization

AEE_2365

RG ENGINEERING INC.

Course Number

Course # E-AER10501

Course Description

This course introduces the basic skills and knowledge required to ensure proper operation of the TM2500 model turbines and their associated systems. The course focuses on operator responsibilities such as startup, loading and monitoring during operation.

Duration

5 Days

Target Audience

- Supervisors
- Operations
- Mechanical Maintenance

Prerequisites

None

Class Size

Maximum number of Students:12

Learning Objectives

This course will provide basic knowledge on the following:

- Introduction and history of the TM2500
- Gas turbine basics
- TM2500 engine construction
- Support systems (hydraulic start, turbine lube oil, generator lube oil, VSVs, ventilation and combustion air, fuel systems, fire protection, vibration, etc.)
- Generator and electrical systems
- Control system
- Startup and shutdown
- Faults and alarms, analyzing problems, taking proper action

Course Content

INTRODUCTION

A. Instructor Background
B. Participant Background
C. Course Schedule

LESSON 1 – Gas Turbine Basics

A. Compressor Theory, Types, Operation, and Stall
B. Gas Turbine Combustors
C. NOx Reduction
D. Turbine Section
E. Air/Exhaust Gas Flow Characteristics
F. Gas Turbine Configurations

LESSON 2 – Turbine Construction

A. LM2500 History, Models and Options

B. Engine Stations and Orientation
C. Shaft and Bearing Configuration
D. Frame/Support Members
E. HP Compressor Assembly
F. Variable Stator Vane Assembly
G. Combustor Assembly
H. HP Turbine Assembly
I. Power Turbine Assembly
J. Accessory Gear Box
K. Engine Airflow
L. Turbine Instrumentation
M. Key Performance Features and Operating Parameters

LESSON 3 – Gas Turbine Support Systems

A. Introduction to Package Configuration and Support Systems
B. Engine/Package Documentation
C. Turbine (Synthetic) Lube Oil System
D. Variable Geometry Systems
E. Hydraulic Starting System
F. Fuel System, including Dry or Water/Steam Injection NOx Reduction Systems, as applicable
G. Ventilation and Combustion Air System, including Inlet Cooling and Anti-Icing, as applicable
H. Water Wash System
I. Vibration Monitoring System
J. Fire and Gas Protection System

LESSON 4 – Electrical Systems

A. Fundamentals of Electricity and Power Generation
B. Static vs. Brushless Excitation
C. Voltage Regulation, VAR and Power Factor Control
D. Synchronization
E. Electrical Protection
F. Motor Control
G. Battery/Charging Systems

LESSON 5 – Generator

A. Generator Construction
B. Generator (Mineral) Lube Oil System
C. Load Reduction Gear, as applicable
D. Optional Synchronous Clutch, as applicable

LESSON 6 – Control System

A. Control System Architecture

B. Control Panel Layout and Hardware
C. Control System Functionality
D. HMI Screen Set

LESSON 7 – Operation

A. Pre-Start Activities
B. Permissive Conditions
C. Startup Sequence
D. On Line Operation
E. Droop vs. Isochronous Operation
F. Shutdown Sequences

Revisions

REVISION	DETAILS	PERFORMED BY	DATE
0	Document created	ADJ	1/23/17
1	Add Place holder for Course Number Review for legal Wording Remove - Ability to understand and speak English	ADJ	05/16/17
2	Various changes to Course Content Section	GDW	07/31/17
3	Revise title and add course number	H Chandler	09/15/17

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Appendix 2. Description of Generating Units

Per Section 2.2 on pg.9 of RFP 82695 – A description of the project scope including a description of the generating units proposed, expected emissions for each type of fuel,

TM2500 Gas Turbine

		Palo Seco	Yabucoa
		2xTM2500	1xTM2500
Item	**Equipment Description**	**Quantity**	**Quantity**
1	TM 2500 Gen 8 with Generator	2	1
	Frequency	60 Hz	60 Hz
	Fuel - Primary	Low Sulfur Diesel Fuel	Low Sulfur Diesel Fuel
	Fuel – Backup	Gas	Gas
	Air Filtration (Static/Pulse/Universal)	Static	Static
	Location	Outdoor	Outdoor
	Compressor cleaning	Offline water wash	Offline water wash
	Provision to avoid a 4 hr Lockout after an emergency shutdown. (Included)	2	1
	Remote HMIs for GT	2	1

Each TM2500 GTG is a unit ("Unit"). The 3 Units included with this Proposal are the equipment ("Equipment.") The TM2500 Mobile Gas Turbine Generator (GTG) set is a trailer-mounted mobile power package. The trailer system allows for expedited transportation and set up of the package.

TM2500 Mobile Gas Turbine Generator

The TM2500 GTG typically consists of three trailers: The Turbine Trailer, the Generator Trailer, and the Control House Trailer. The basic scope of supply for each of these trailers is described in the following subsections

Turbine Trailer

The main deck of the turbine trailer contains an inlet silencing system for the turbine and the turbine module. Located on the gooseneck of the trailer is the auxiliary skid, which contains the TCP (Turbine Control Panel) along with various package support systems. When the package is fully installed, the turbine trailer assembly is fitted with the air filter modules, the turbine exhaust silencer, and the ventilation fan assembly for the turbine enclosure.

Located at the rear of the turbine trailer is a docking station that provides the female interface required to connect the turbine and generator trailers together for the operational configuration.

Located on the turbine trailer are the following components and assemblies:

- Gas Turbine Engine w/ Turbine Enclosure
- Turbine Gauge Panel (TGP)
- Fire Protection Aerosol Canisters
- Auxiliary Skid - including the following:
    - Turbine Control Panel (TCP)
    - Hydraulic Start System
    - Turbine Lube Oil (TLO) System (shared)
    - Off-Line Water Wash System
- Air Inlet Silencer with enclosure
- Inlet Air Filter System (when package is fully assembled)
- Dual Fuel with Water Injection system
- Turbine Exhaust (when package is fully assembled)
- High Speed Coupling Shaft
- Ventilation Fan Assembly skid (when package is fully assembled)
- Alignment System

Trailer

A four-axle, air ride suspension trailer with two steerable axles is used to transport the turbine trailer components. At the Site, the turbine trailer is connected to the generator trailer. Landing legs are provided to support and level the equipment at the Site.

Turbine Enclosure

The turbine trailer is supplied with a weatherproof, acoustic enclosure for the turbine which provides ventilation and fire system containment.

The enclosure is designed for noise abatement to 90 dB(A) for liquid fuel and 87 dB(A) for gas fuel. The enclosure is completely assembled and mounted over the equipment prior to testing and shipment. Provisions for turbine removal and personnel access are included.

Gas Turbine Engine

Located inside the turbine enclosure is a General Electric gas turbine engine (Model LM2500-RC-MDW™), the turbine engine is equipped to operate on liquid fuel or natural gas with or without water injection. The turbine engine is mounted to the turbine trailer which is independent from the generator trailer.

This engine is a two-shaft design with the gas generator separate from the power turbine. This mechanically decoupled design allows the power turbine to operate at a continuous speed of either 3,000 rpm (50Hz) or 3,600 rpm (60Hz), regardless of the gas generator speed. Torque developed in the aerodynamically coupled power turbine is transferred to the rotor of the alternating current (AC) generator through a flexible diaphragm coupling. The AC generator operates at a synchronous speed of either 3,000 rpm (50Hz) or 3,600 rpm (60Hz), eliminating the need for a speed reducing gearbox.

The inlet section, at the entrance of the silencer, is equipped with a stainless-steel mesh screen in the inlet air stream for protection against foreign object damage to the engine. The engine is shock mounted whenever shipped in position inside the package.

Turbine Gauge Panel (TGP)

The turbine gauge panel is located on the right-hand side of the turbine enclosure (with respect to the turbine aft looking forward) beside the turbine enclosure door. The turbine gauge panel provides an enclosure used to house various pressure transmitters.

Fire Protection Aerosol Canisters

Fire protection aerosol canisters are located on top of the turbine enclosure, included as part of the ventilation fan assembly. These canisters are connected to the fire protection system located in the Generator Control Panel (GCP) and provide extinguishing agent in the event of a fire inside the enclosure.

Auxiliary Skid

The auxiliary skid is a compact installation of several systems and equipment and is positioned on the gooseneck of the turbine trailer. The major items on this skid include a TCP, the Hydraulic Start System with shared turbine lube oil reservoir, the Turbine Lube Oil System, and the Off-Line Water Wash System. Some of the systems on the skid contain transmitters that provide remote system monitoring. The pressure and pressure differential transmitters have instrument valves in their feed lines to simplify maintenance.

Mechanical interconnections between the auxiliary skid and turbine skid are made with hoses as required and come preassembled from the factory on the turbine trailer. Electrical interconnections are provided to allow the required interfacing between the auxiliary skid and the control house as needed, otherwise wiring is factory installed.

TCP – The Turbine Control Panel mounted on the auxiliary skid includes:

- RX3i
- Bently Nevada 3701
- Servo Position Controllers (For variable geometry and compressor discharge)
- VersaMax Controllers
- Jaquet T401

Hydraulic Start System

The equipment package is supplied with a hydraulic starting system. The hydraulic start system turns the engine and can rotate it for engine start, fuel purging, water wash cleaning, and conducting maintenance. The hydraulic starter system has components located on the auxiliary skid and inside the turbine enclosure.

The DC hydraulic starter motor drives a hydraulic pump assembly consisting of a charge pump, pressurized filter, main pump, and variable SOV-actuated valve.

The hydraulic start system mounted on the auxiliary skid includes:

- Hydraulic Pump & Motor
- Oil Reservoir (shared)
- Various Temperature Elements, Pressure Gauges, and Hydraulic filters

Turbine Lube Oil (TLO) System

The purpose of the TLO system is to provide clean, cool oil to lubricate bearings, and to provide pressurized oil for operation of the turbine's variable geometry (VG) actuators. The turbine lube oil system has two separate circuits:

- Supply System – Provides clean, cool oil to the turbine bearings
- Scavenge System – Recovers (scavenges) the lube oil from the bearing drain-sumps, filters and cools the oil, then returns it to the reservoir.

The synthetic lube oil system mounted on the auxiliary skid includes:

- Tank Flame Arrestor
- Turbine and Hydraulic Lube Oil Reservoir
- Tank Demister
- Turbine / Hydraulic Start Fin-Fan Heat Exchanger

Off-Line Water Wash System

The equipment package is supplied with an "off-line" cleaning system, with a water wash reservoir and all necessary filters and instrumentation supplied. Buyer is required to provide purified water which

shall not contain particles larger than 100 microns absolute and shall comply with Water Wash Specification (MID-TD-0000-4).

The water wash system mounted on the auxiliary skid includes:

- Polyethylene Tank
- Water Inlet Shut-Off Valve
- Suction Pump
- Strainer

Air Filter Assembly and Silencer Enclosure

The air filter assembly contains combustion and ventilation air filtration equipment including pre-filters, high-efficiency filters, a ventilation fan assembly, and a concentric intake silencer in an enclosure. The turbine compartment is fully ventilated by a ventilation fan which draws filtered air from the silencer enclosure.

Dual Fuel with Water Injection System

The GTG offers dual fuel (gas and liquid) capabilities for (Single Annular Combustor) SAC combustor through the full load operations and are sequenced and controlled automatically by the control system. The GTG is designed to start up on either gas or liquid fuel.

A natural gas fuel system with electronically controlled fuel-metering valve(s) is supplied in the basic package. For full-load operation, the gaseous fuel must be supplied to the main skid unit at an acceptable range depending on engine model and combustor option. Maximum flow and temperature of the Buyer-supplied gas fuel is monitored and required to be acceptable. Buyer shall provide gas fuel in accordance with Specification MID-TD-0000-1

The package is also equipped with a liquid fuel system. For full-load operation, the liquid fuel must be supplied to the package at the specified range. Liquid fuel must arrive filtered to 5 microns. Buyer shall provide clean and filtered Liquid fuel in accordance with Specification MID-TD-0000-2

With some exceptions, all components for the dual fuel system with water injection are located on the turbine trailer. All components come preassembled from the factory. Mechanical interconnect locations for liquid fuel and water are provided for connection just below the turbine gauge panel.

Gas fuel s*ystem* major components include:

- Gas Fuel Strainer
- Gas Fuel Vent Valve
- Gas Fuel Purge & Bleed Ball Valve
- Woodward Gas Fuel Valve
- Gas Fuel Purge Check Valve
- Purge Valve
- Gas detectors

Liquid fuel system major components include:

- Liquid Fuel Y-strainer
- Purge & Bleed Valve
- Liquid Fuel Pump/Motor
- Primary & Secondary Shut-off Valve
- Liquid Fuel Ball Valve
- Fuel Manifold
- Liquid Fuel Relief Valve
- 30 Fuel Nozzles
- Liquid Fuel Duplex Filter Assembly
- Return Check Valve
- Liquid Fuel Control Valve

Water Injection System:

Seller provides the necessary controls, metering equipment, and interconnecting piping within the turbine enclosure. All piping is stainless steel, and the valves are trimmed with stainless steel. Water injection can reduce NOx emissions to 25 ppm (51 mg/Nm^3) for gaseous fuel and to 42 ppm (86 mg/Nm^3) for liquid fuel (see Guarantees, for Site specific emissions data). The Buyer shall provide a supply of pressurized water in accordance with the Injection Water Quality Specification MID-TD-0000-3.

Gas Fuel Skid

The gas fuel skid is transported on the gooseneck of the generator trailer and provides the final filtration of gas fuel to the package. When in operation the gas fuel skid is connected to the turbine trailer with a Seller-provided mechanical interconnect to the package.

Turbine Exhaust

The LM2500-RC-MDW™ gas turbine exhaust flows through an exhaust collector and roof mounted exhaust silencer. The standard TM2500 exhaust collector exit is oriented in the upright position.

The exhaust collector provides a direct path into the turbine exhaust silencer. The exhaust collector consists of an inner and outer duct forming a diffusing passage from the power turbine rear frame.

Exhaust system components include:

- Exhaust Collector
- Exhaust Silencer

High Speed Coupling Shaft

A high-speed flexible coupling shaft connects the low-pressure turbine/power turbine to the generator. It consists of a forward adapter which mates with the power turbine, two flexible couplings, a distance piece, and

an aft adapter which mates with the connected load. The flexibility in the coupling allows for minor deviations between the turbine and generator shafts, this flexibility aids in successful connection between the turbine and the generator.

Generator Trailer

The main deck of the generator trailer contains the generator, generator ventilation, generator lube oil system, and switchgear. The gooseneck of the generator trailer may be optionally removed in operational configurations to reduce the overall installed footprint.

Located at the rear of the generator trailer is a docking station that provides the male interface required to connect the turbine and generator trailers together for the operational configuration.

The Generator Trailer consists of the following components:

Generator Trailer

Generator Ventilation

Generator

For transportation purposes, the generator trailer has a hydraulically steered stinger intended to be connected during any type of trailer move. The stinger must be connected when transporting the generator trailer at all times.

Generator Trailer with Stinger

A five-axle, air ride suspension trailer with three tracking axles and a three-axle steerable stinger is used to transport the generator trailer components. At the Site, the generator trailer is connected to the turbine trailer. Landing legs are provided to support and level the equipment at the Site.

Generator

The AC generator operates at a synchronous speed of 3,600 rpm (60-Hz applications) or 3,000 rpm (50-Hz applications), eliminating the need for a speed-reducing gearbox during simple-cycle operation. The TM2500 generator is an air-cooled GEPC Generator with an air filter assembly and exhaust assembly.

Dry coupled to the engine, the generator is mounted directly to the generator trailer. This arrangement enables engine/generator shaft alignment to be adjusted with the turbine trailer with the suspension system of the turbine trailer, while the generator remains fixed.

Generator Lube Oil (GLO) Skid

The GLO skid is a compact installation of generator lube system equipment on the generator trailer and is positioned on the generator end of the generator trailer.

The skid contains transmitters that provide remote system monitoring. The pressure transmitters have instrument valves in their feed lines to simplify maintenance.

The generator lube oil system will include:

- GLO Filter
- GLO Tank

- DC Lube Oil Pump
- Generator Cooler Vent Valve
- Mechanical Lube Pump
- GLO Fin-Fan Heat Exchanger
- GLO Air/Oil Separator
- GLO Pressure Control Valve

Switchgear

The TM2500 has self-contained, metal clad switchgear which is located on the front portion of the generator trailer.

The switchgear houses the following components:

- Generator breaker
- Current Transformers
- Buses
- Voltage Transformers

Generator Ventilation

The generator is supplied with its own ventilation components to provide cooling air solely for the generator. Shaft mounted fans direct cooling air through the generator- unit. The cooling air is then exhausted out of the generator through the exhaust silencer located on top of the generator

Control House Trailer

The control house trailer includes a lighted and insulated control house. The control house is equipped with an access door and air conditioner/heater.

The control house trailer consists of the following components:

- Control House Trailer
- Control House – which includes:
  - Human-Machine Interface (HMI)
  - Motor Control Center (MCC)
  - Generator Control Panel (GCP)
  - Batteries and Chargers

When in the transport configuration, the control house goose neck provides the storage location for the turbine enclosure ventilation fan while the rear platform of the trailer is storage for the generator exhaust silencer.

It is a two-axle, air ride suspension trailer. At the Site, it is inter-connected electrically to the turbine and generator trailers. Landing legs are provided to support and level the equipment at the Site.

Control House

The control house packaged equipment is described below:

HMI - The human machine interface allows operator interaction to operate and control the package. The HMI is integrated with the control system PLC located in the TCP. A computer with separate workstation and chair is provided for HMI control. Alarm and shutdown events are displayed on the HMI automatically.

GCP - The GCP contains the voltage regulator and switches for controlling generator operation. This panel also contains local controls, the Beckwith Integrated Generator Protection System (IGPS) for monitoring the operation of the turbine engine and generator and the fire protection panel and VersaMax modules integrated with the control system PLC. The GCP also houses DC circuit breakers for the distribution of DC voltage throughout the package. The framework of interconnects required for complete package communications are distributed through this panel via interconnect cables.
MCC - The MCC (motor control center) is a free-standing metal cubicle that houses various low-voltage circuit breakers, motor starters, and their controls. It is installed in the control house and includes a 45-kVA lighting and distribution transformer.

Batteries and Chargers - The TM2500 has a 24 VDC control system battery system and charger, a 24 VDC fire system battery system and charger, and a 125 VDC switchgear and backup generator lube pump motor battery system and charger. The battery systems are fully wired and mounted in racks located in a separate ventilated compartment of the control house accessible from outside. The standup charger unit for all these components is located inside the control house for easy accessibility. The 24 VDC distribution circuit breakers for the fire and gas protection system are located in the battery charger cabinet.

Factory Testing

In addition to the supply of the equipment, for each unit Seller will conduct component and package testing as follows:

Every new gas turbine is performance tested under load in a GE Test Cell, using procedures developed for flight turbine reliability. The generator is tested to IEEE C50.13 standards at its factory of manufacture.

All gas turbine generator sets receive a static test including:

- Switch State (N.O. or N.C., actuation, wiring, and set point)
- Temperature element output, and wiring
- Transmitter range, output, and wiring
- Solenoid operation
- Control valve torque motor, excitation, and return signal
- Fire system continuity, and device actuation
- System flushing verification
- Tubing integrity (not plugged)

Drawings and Documentation

The documentation provided is a digital copy of Buyer's drawings, Operation and Maintenance (O&M) manual, and the Installation and Commissioning (I&C) manual.

Remote Monitoring and Diagnostic Service

Monitoring and Diagnostics Service helps plant operators improve their availability, reliability, operating performance, and maintenance effectiveness. The 24x7 equipment monitoring of key parameters by factory experts may lead to early warning of equipment problems and avoidance of expensive secondary damage. Diagnostic programs seek out emerging trends on the Equipment; prompting proactive communications to avoid forced outages and extended downtime.

During the Warranty Period, the proactive communication process includes a 24x7 call center (known as Quick Response Center) consisting of highly skilled technical representatives who can immediately begin assessing and diagnosing an Equipment problem on the phone. These technical representatives are trained to be able to remotely provide the same high level of troubleshooting support that customers would receive from an on-site controls technician.

The ability for the Quick Response Center team to remotely view real-time operating data via the Monitoring & Diagnostic service accelerates troubleshooting of the Equipment. As part of the execution of the Monitoring and Diagnostic Service, Buyer will provide, as requested by Seller, a high-speed connection to the internet and IT support in the configuration of the Virtual Private Network (VPN) as required for installation and for connection to Seller's remote monitoring center during the installation, commissioning, and Warranty Period. Remote Monitoring and Diagnostic Service can be extended after the warranty period via a Multi-Year Service Agreement sold separately.

Codes and Standards

The applicable sections of the Global Codes and Standards listed are the most relevant standards for Seller's manufactured gas turbine. Seller designs and procedures are compliant with the applicable sections of the following listed standards.

US and Canadian Codes and Standards

GE 60 Hz designs and procedures are compliant with the applicable sections of the following listed directives and standards. Canadian Standards applicable to Gas Turbines are equivalent to U.S. Codes and Standards.

Standard	Edition	Title
ANSI/ABMA 9	90(R2008)	Load Ratings and Fatigue Life for Ball Bearings
ANSI/ABMA 11	90(R2008)	Load Ratings and Fatigue Life for Roller Bearings
ASCE 7-10	2010 SUPP 1 2013	Minimum Design Loads for Buildings and Other Structures
ASME B1.1	2003 (R2008)	Unified Inch Screw Threads
ASME B1.20.1	2013	Pipe Threads, General Purpose, Inch
ASME B16.5	2013	Pipe Flanges and Flanged Fittings: NPS 1/2 Through NPS 24
ASME B16.9	2012	Factory-Made Wrought Butt Welding Fittings
ASME B16.21	2011	Nonmetallic Flat Gaskets for Pipe Flanges
ASME B31.1	2014	Power Piping
ASME B133.8	2011	Gas Turbine Installation Sound Emissions

NFPA 70	2014 ERRATA 4 2014	National Electrical Code
IEEE 37.90	2005	Relays Associated with Electric Power Apparatus
API 614	5ED 2008 ERRATA 08	Lubrication, Shaft-Sealing and Oil-Control Systems and Auxiliaries
API 616	5ED 2011	Gas Turbines for Petroleum, Chemical, & Gas Industry Services
API 650	2013 ERRATA 2013	Storage Tanks

US and Canadian Codes and Standards (continued)

Standard	Edition	Title
API 670	4ED 2000(R2010)	Machinery Protection Systems
API 671	4ED 2007(R2010)	Special-Purpose Couplings for Petroleum, Chemical, andGas Industry Services
ASME PTC22	2005	Performance Test Code On Gas Turbines
ASME PV Code 8 DIV 1	2013	ASME Boiler and Pressure Vessel Code
ASME PV Code 9	2013	ASME Boiler and Pressure Vessel Code
IEEE C37.2	2008	Electrical Power System Device Function Numbers, Acronyms, and Contact Designations
IEEE 100	7ED 2000	Authoritative Dictionary of IEEE Standards Terms
NEMA MG 1	2011	Motors and Generators
NEMA MG 2	2014	Safety Standard and Guide for Selection, Installation, and Use of Electric Motors and Generators
ANSI S12.51	2012	Acoustics - Determination of Sound Power Levels and Sound Energy Levels of Noise Sources Using Sound Pressure - Precision Methods for Reverberation Test Rooms
ANSI S1.4-1	2014	Specification for Sound Level Meters
ANSI S1.13	2005(R2010)	Measurement of Sound Pressure Levels in Air
ASHRAE 52.2	2012	Gravimetric and Dust Spot Procedures for Testing Air- cleaning Devices Used in General Ventilation for Removing Particulate Matter
SAE J 184	2014 STABILIZED	Qualifying a Sound Data Acquisition System
AGMA 6011	I2003	Standard Practice for High Speed Helical and Herringbone Gear Units
IBC	2015	International Building Code
IEEE 421.1	2007	Definitions for Excitation Systems for Synchronous Machines
ISO 4413	2010	Hydraulic Fluid Power - General Rules and Safety Requirements for Systems and Their Components

TIA 232	F1997(R2012)	Interface Between Data Terminal Equipment and Data Circuit Terminating Equipment Employing Serial Binary Data Interchange
UL 796	10ED REV SEP 2013	Printed-Wiring Boards
J-STD-001	F2014 ADDENDUM 14	Guidelines
EN 55011	2009 AMD 1 2010	Industrial, Scientific and Medical (ISM) Radio-Frequency Equipment - Electromagnetic Disturbance Characteristics - Limits and Methods of Measurement

Standard seismic loads are due to 0.35 g static acceleration applied in the longitudinal and transverse direction as per equivalent lateral force procedure for seismic design of buildings. These loads are per IBC 2015 code, section 1613 that reference ASCE 7 -10. Wind loads are per ASCE 7 – 10 code, 100 MPH for low rise building, H < 60 ft. Additional ground acceleration and wind load is available with the addition of the High Seismic Kit at an additional cost.

1.1.1 European Directives and Standards

GE 50 Hz designs and procedures are compliant with the applicable sections of the following listed directives and standards. Several International Standards are equivalent to listed European Normative (EN) Standards. Directives and Standards are mandatory for projects installed in the European Union (EU) and recommended for non-EU countries that accept the standards in lieu of their own local standards.

Directive	Title
ATEX 2014/34/EU	Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres Directive
PED 97/23/EC	Pressure Equipment Directive
RoHS 2011/65/EU	Restriction of Hazardous Substances (RoHS) Directive
WEEE 2012/19/EU	Waste Electrical & Electronic Equipment (WEEE) Directive
EMC 2004/108/EC	Electromagnetic Compatibility Directive
REACH 1907/2006/EC	Registration, Evaluation, Authorization of Chemicals (REACH) Directive
MD 2006/42/EC	Machinery Safety Directive
2006/66/EC	Battery Directive
LVD 2006/95/EC	Low Voltage Directive
IED 2010/75/EU	Industrial Emissions Directive

TRS Category	Standard	Edition	Title	Harmonized/ Design Standard
Electromagnetic Compatibility/ Interference	EN 55011	2009 AMD 1 2010	Industrial, Scientific and Medical (ISM) Radio-Frequency Equipment - Electromagnetic Disturbance Characteristics - Limits and Methods of Measurement	Harmonized
Electromagnetic Compatibility/ Interference	IEC 61000-4-2	2ED 2008	Electromagnetic Compatibility (EMC) - Part 4-2: Testing and Measurement Techniques - Electrostatic Discharge Immunity Test	Design
Electromagnetic Compatibility/ Interference	IEC 61000-4-3	2010 (CON ED) 3.2	Electromagnetic Compatibility (EMC) - Part 4-3: Testing and Measurement Techniques - Radiated, Radio-Frequency, Electromagnetic Field Immunity Test	Design
Electromagnetic Compatibility/ Interference	IEC 61000-4-4	3ED 2012	Electromagnetic Compatibility (EMC) - Part 4-4: Testing and Measurement Techniques - Electrical Fast Transient/ Burst Immunity Test	Design
Electromagnetic Compatibility/ Interference	IEC 61000-4-5	3ED 2014	Electromagnetic Compatibility (EMC) - Part 4-5: Testing and Measurement Techniques - Surge Immunity Test	Design
Electromagnetic Compatibility/ Interference	IEC 61000-4-6	4ED 2013	Electromagnetic Compatibility (EMC) - Part 4-6: Testing and Measurement Techniques - Immunity to Conducted Disturbances, Induced by Radio- Frequency Fields	Design
Electromagnetic Compatibility/ Interference	IEC 61000-4-11	2ED 2004	Electromagnetic Compatibility (EMC) - Part 4-11: Testing and Measurement Techniques - Voltage Dips, Short Interruptions and Voltage Variations Immunity Tests	Design
Low Voltage Directive 2006/95/EC	IEC 60034-1	12ED 2010	Rotating Electrical Machines – Part 1: Rating and Performance	Harmonized
Low Voltage Directive	IEC 60034-3	6ED 2007	Rotating Electrical Machines – Part 3: Specific Requirements for ynchronous Generators Driven by Steam Turbines or	Harmonized
Electrical Safety	IEEE C37.90.1	2012	Standard for Surge Withstand Capability (SWC) Tests for Relays and Relay Systems Associated with Electric Power Apparatus	Design
Electrical Safety	EN 61010-1	2010	Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use, Part 1: General Requirements	Harmonized
Explosive Atmospheres	EN 60079-15	2010	Electrical apparatus for explosive gas atmospheres - Part 15: Construction, test and marking of type of protection "n" electrical apparatus	Harmonized

Drafting Standards

The GE Gas Turbine Drafting Standards are based on the following Standards appropriated to the Gas Turbine. Please note that in several instances, symbols, etc. have been devised for GE's special needs (such as flow dividers and manifolds):

Standard	Edition	Title
ASME B46.1	2009	Surface Texture, Surface Roughness, Waviness, and Lay
ASME V14.36M	96(2008)	Surface Texture Symbols
IEEE 315	75(R1993)	Graphic Symbols for Electrical and Electronics Diagrams (Including Reference Designation Letters)
AWS D1.1	2010 ERRATA 2011	American Welding Specification
AWS A2.4	2012	Standard Symbols for Welding, Brazing, And Nondestructive Examination

Compliance with Legislations and Regulatory Approvals

Engineering and manufacture of the Gas Turbine equipment is in accordance with GE Aviation design practices, manufacturing processes, procedures, and quality assurance programs, to comply with the applicable portions of the codes and standards listed in this section. Separate analysis for each project for compliance to the applicable national laws of a country that impact the design requires review and approval.

Factory Options (Included in Firm Pricing)

The equipment and services listed above are included with the TM2500 Mobile Gas Turbine Generator set basic price. Options (to the basic package) include:

Option A	Lifting Equipment
Option B	Level 1 and 2 Installation and Commissioning Tools
Option C	Stairs and Platforms
Option D	Remote HMI (Desktop or Laptop)
Option E	Accommodation for 4 hr. Lockout Prevention

Option A **Lifting Equipment**

This option consists of combinations of the lifting equipment options listed below for assembly at Site or for facilitating specific transportation methods.

Options include:

i. **Field Lift** - Field Lift Equipment is the set of tools, slings, bars and shackles required for the initial installation of the TM2500 Package. It's required to assemble shipped loose components, such as Exhaust Silencer, Air Filter Panels and others to the Package. Single Field Lift Equipment can be used multiple times, nevertheless it's required to static test it prior each use

ii. **2 Point Package Lift** - To lift complete TM2500 Package Trailer with two cranes Two Point Package Lift Equipment is required. It allows to load and unload complete trailers on vessels or final positioning of the trailer if transport on wheels is not possible. It consists of spreader bars and shackles.

Option B Installation and Commissioning Tools

Level 1

This comprehensive tool set provides tools such as adjustable wrenches, torque wrenches, slings, shackles, beams, drum pump, hoist, storage cabinet, process calibrators, grease guns, etc. Required to perform Level 1 maintenance. Typical scope of Level 1 maintenance includes for example replacement of selected external components including variable geometry actuators, hydraulic control unit, variable geometry control, lubrication and scavenge pump, pressure and temperature sensors, fuel nozzles, vibration accelerometers, ignition components, starter, speed sensors, air/oil separator, carbon seals, and external pipes and hoses.

Level 2

On-Site Internal Maintenance & Module Replacement - requiring partial disassembly of the engine and replacement of components including: compressor blade/vane replacement, hot section component replacement, HPT blade replacement, Accessory Gearbox replacement, etc. is part of Level 2 maintenance scope. To perform these activities GE Power can provide comprehensive set of tools including: hex key sets, dial caliper, feeler gauges, instrument pipe fittings, transmitter test hose kit, jacking equipment, etc. Level 2 maintenance shall be performed by GE qualified personnel.

for low rise building, H < 60 ft. One kit is provided per TM2500 unit. Suitable foundation for anchoring is required.

Option C Stairs and Platforms

This option consists of a preassembled set of stairs and platforms used for ingress/egress of the aux skid, LH turbine enclosure door, RH turbine enclosure door, control room and battery room. The platform surface is made of anti-slip grating and/or self-draining checkered plate.

Option D Remote HMI

Desktop

A remote HMI system can be placed virtually anywhere a network communication link to the Control House can be installed. For distances of greater than 300 feet, a fiber optic card will be required under the customer scope. The standard remote HMI is a desktop computer version of the HMI installed locally in the Control House. The same Cimplicity® HMI application is loaded into both the local HMI and the remote HMI. The ability to configure the remote HMI as a viewer-only is standard. These units each have one remote HMI

Option E 4 Hour Lockout Avoidance and Slow Roll Kit

The 4 Hour Lockout Avoidance and Slow Roll Kit allows the GTG to keep rotating after a shut down event to provide minimum air flow requirements for cooling the turbine and thereby avoiding the thermal expansion that sets in during rapid deceleration. Normally, this thermal expansion forces a 4 hour shutdown of the GTG to allow for the engine to cool and return to normal. With this option the unit may be kept ready to ramp back up to power as soon as the problem which caused the event is repaired. In addition, the Slow Roll Kit is capable of rotating the engine as slowly as 1-2 RPM for borescope inspection, and the entire system is battery powered so it can operate during a blackout.

Note this option will not be ready at the unit shipment and will be installed at site within 5 months of Notice to Proceed

Factory Options NOT included in the base scope

The equipment and services listed above are NOT included with the TM2500 Mobile Gas Turbine Generator set basic price and are offered at additional cost:

Option F	Clutchless Synchronous Condenser mode kit

Option F Clutchless Synchronous Condenser Mode Kit

The Clutchless Synchronous Condenser Mode Kit allows the GTG to operate in synchronous condenser mode and easily adjust to fluctuations in the grid. In synchronous condenser mode, the grid drives the generator and the mechanically coupled Low Speed Power Turbine (LSPT), and the GG spins freely due to aerodynamic coupling with the LSPT. Auxiliary systems are powered by the grid. The kit includes hardware to keep the bearings properly lubricated while spinning freely, and special control software. Ramp time to full Synch Condenser operating mode is less than 8 minutes from cold iron, and less than 2 minutes from Power mode operation.

Note this option will not be ready at the unit shipment and will be installed at site within 5 months of Notice to Proceed

Appendix 3. Expected Emissions

Per Section 2.2 on pg.9 of RFP 82695 – A description of the project scope including a description of the generating units proposed, expected emissions for each type of fuel,

Operating Point	Fuel	Dry or Water Injected	Unit Net Output (kW)	Unit Net Heat Rate BTU/KW-HR, LHV	NOX PPMVD AT 15% O2	CO PPMVD AT 15% O2
Design Base* Unit Net at Generator Terminal	Liquid fuel -Low Sulfur Diesel	Dry	28643	9393	474	15
Design Base* Unit Net at Generator Terminal	Liquid fuel -Low Sulfur Diesel	Water Injected	31438	9694	42	15
Design Base* Unit Net at Generator Terminal	LNG	Dry	30021	9246	329	15
Design Base* Unit Net at Generator Terminal	LNG	Water Injected	31408	9639	25	233