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June 6, 2008

Pacific Rim

Gentlemen:

ProEnergy EPC Services ("ProEnergy") proposes to provide engineering, design, procurement, transportation of equipment and materials including two (2) Rolls Royce RB211's and one (1) GE LM2500PE Gas Turbine Generators complete with Balance of Plant equipment delivered from the United States to the local Venezuelan port.

The attached Scope of Supply document describes what will be supplied by ProEnergy. Our overall objective is to provide the major equipment, the required design engineering, balance of plant equipment including mechanical pipe, valves and fittings and electrical wire, cable and cable tray as well as utilizing local Venezuelan labor, material and construction equipment. ProEnergy will also provide start up and commissioning of the plant.

ProEnergy has the ability to deliver the major equipment to the Venezuelan Port within four (4) months from date of contract and receipt of down payment. During this time we can perform engineering and prepare the site and foundations for the equipment once it arrives. The facility should be operational within three (3) months after delivery to site.

ProEnergy's price, including two (2) refurbished RB211 and one (1) LM2500 Gas Turbine Generators, is as follows:

(2) RB211 Gas Turbines price CIF Venezuelan Port	\$16,800,000
(1) LM2500PE Gas Turbine CIF Venezuelan Port	<u>\$ 7,500,000</u>
Total Major Equipment CIF Venezuelan Port	<b>\$24,300,000</b>

Balance of Plant Equipment CIF Venezuelan Port	
Construction, Installation & Commissioning	<b>\$19,038,000</b>

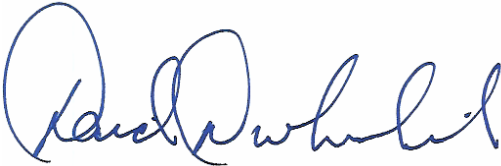
Our price includes a twelve (12) month warranty on all equipment supplied by ProEnergy as well as an experienced technical representative on call in Venezuela during the warranty period.

Our pricing is valid for thirty (30) days and the major equipment offered in this proposal is subject to prior sale.

ProEnergy EPC Services appreciates the opportunity to submit this proposal and looks forward to the receipt of an expression of interest from you. Please feel free to contact me at (713) 240-1450 or Joaquin Mavares at (713) 992-1790 if you have questions in regard to this proposal or need more information.

Thank you for your consideration.

Sincerely,  
ProEnergy EPC Services, LLC



David Whisenhunt  
President

Cc:

Joaquin Mavares  
WT Stewart  
Sherri Meyer  
Jeff Canon

**Scope of Supply  
(2 ea) RB 211's and (1 ea) LM 2500  
Simple Cycle  
Venezuela**

**June 6, 2008  
T 8020**

**The proposed "EPC" Balance of Plant Scope of Work for the installation of the above project in Venezuela is outlined.**

**1.0 Civil, Foundations, and Structural**

- .. Site preparation assuming the site is level and soil of 1500 to 2000 psf
- .. Concrete foundations for 3 ea Gas Turbines with associated ancillaries
- .. Gravel on site
- .. Paved roads and removal areas for turbine and generators
- .. Plant fencing with gates

**2.0 Buildings**

- .. Gas turbine generator to house the 2ea RB 211's with associated ancillaries
- .. Modular Control Building to house the LM 2500 TCP, GCP, MCC, Batteries, and chargers.
- .. Plant office/control and maintenance prefabricated insulated building
- .. Liquid fuel unloading shed
- .. Liquid fuel centrifuge shed

**3.0 Mechanical**

- .. Dual fuel provisions for gas turbines
- .. Fuel gas regulators – adequate gas pressure to be furnished
- .. Liquid with raw fuel storage, pumping, cleaning, with day tank
- .. Instrument air compressor
- .. Oily water separator
- .. Small water treatment system with storage tanks for fuel treatment
- .. Plant instrumentation
- .. Plant pipe, valves, fittings etc.

**4.0 Electrical**

- .. 13.8 KV Generator Breakers, aux breaker to feed aux transformers
- .. Aux transformers
- .. BOP electrical including DP Panels, MCC's, Lighting Panels, etc.
- .. Area Lighting
- .. Plant ground grid, cathodic protection, and lightning protection
- .. Cable, conduit, and cable tray

**5.0 Instrumentation**

- .. Plant instrumentation to augment the GTG's instrumentation and Plant DCS

**6.0 Plant DCS System**

- .. PLC based DCS system to interface with the GTG's and BOP

**6.0 Engineering**

**7.0 Plant Project Management**

- .. Scheduling, Construction Management, O&M Manuals, Commissioning and Start UP, As Built drawings, etc.

**8.0 Transportation to Venezuelan Port**

**Items not included in Proposal:**

- 1.0 Main Generator Step Up Transformers or substation**
- 2.0 Fire Water System ( This can be provided for a sum of \$900,000)**
- 3.0 Fuel Gas Compressors**
- 4.0 Water Injection into gas turbines**
- 5.0 Import duties, taxes, VAT, etc.**
- 6.0 In-country Transportation to Site**
- 7.0 Permits including Building, Environmental, Sound, etc.**

## **I. GAS TURBINE GENERATOR SET SCOPE OF SUPPLY**

We are offering one refurbished dual fueled LM2500PE gas turbine generator set ISO Rated at 22 MW which includes the following scope of supply:

- LM2500PE gas turbine completely overhauled and configured for both natural gas and liquid fuel operation
  - Coupling for direct drive at 3600 rpm, 60hz operation
  - Weatherproof acoustic enclosure for gas turbine and electric generator
  - “Single lift” I beam base plate to support turbine and 23.4 MW Brush generator (13.8KV)
  - New or similar Air inlet filtration system for GT combustion air, generator cooling air and compartment ventilation systems.
  - Turbine exhaust system including industrial grade silencer and stack
  - Separate lube oil systems for turbine and generator including fin-fan coolers
  - Electro hydraulic starting system
  - Fire detection and extinguishing system
  - New or Similar Electronic control panel for gas turbine & generator including 24v control batteries and charger
  - Gas turbine water wash system
  - Neutral and line side cubicles mounted including CT's and lightning arrestors (ProEnergy electrical scope ends at these cubicles)
  - One modular control room with Turbine Control Panel, Generator Control Panel, GTG MCC's, batteries and chargers.
-

### **3. WARRANTY**

**ProEnergy Services will provide a (1) year warranty on the entire gas turbine generator package and any other balance of plant equipment provided.**

### **4 EXCLUSIONS**

- **Fuel supply to the gas turbine.**
- **Interconnection to the power grid**
- **Main step-up transformer**

**1. Picture of the sister unit recently installed in Colombia, S.A.**





## RB211 GAS TURBINE PACKAGE

*The Coberra 6462 GT Units utilizes a Rolls Royce RB211 GG and an RT62 PT. The PT is coupled to an AC Gen via reduction gearbox. The gen set itself is comprised of 5 main packages, each being of modular construction for ease of transportation, handling at site, and assembly.*

*The Rolls Royce RB211-24C Mark 1750 GG two spool high pressure ratio engine with a seven stage intermediate pressure compressor, and a six stage high pressure compressor which drives two independent single stage turbines couples to the compressors through coaxial shafts. The two rotors of the GG are mechanically independent and run at their own optimum speeds.*

### Gas Turbine (GG)

Manufacturer: Rolls Royce  
Model: RB211-24C  
N1 Speed: 6555 RPM  
Fuel: Dual Fuel currently operating on natural gas

### Power Turbine (PT)

Manufacturer: Cooper Bessemer  
Model: RT62 PT two stage impulse reaction  
Rated HP: 27,749 (ISO)  
Rated Speed: 4800  
Maximum Continuous Speed: 5050 RPM  
Serial Numbers: 602RT and 654RT  
Overspeed Trip: 5450  
Turbine Inlet Pressure: 43.2 psia @ 40F ambient  
Turbine Inlet Temp: 1320F @ 40F ambient  
Turbine Exhaust Temp: 861F @ 40F ambient  
Lubrication: Mineral Oil 150 SSU

### Gear Reducer

Manufacturer: Lufkin  
Model Number: F33070  
Rating: 35,960 Hp  
Service Factor: 1.35  
Input Speed: 4800 Rpm  
Output Speed: 1800 Rpm  
Gear Ratio: 2.660:1

### AC Generator

Manufacturer: Brush Electrical Machines, LTD  
Model: BSGMD 131-290-4  
Type: 4 Pole  
RPM: 1800  
Volts: 12500  
Amps: 1454  
Phase: 3  
HZ: 60  
Power Factor: 0.85

### Air Filter System

GT Intake: American Air Filter  
AC Gen Air Vent Filter: American Air Filter

### Main and Auxiliary Lube Oil Pumps and AC Motors

Pump Manufacturer: Transamerica DeLaval  
Pump Rating: 310 GPM @ 1750 RPM and 77 PSI  
Motor Manufacturer: Westinghouse  
Motor Rating: 30 HP, 1750 RPM, 3 Phase, 60 HZ, 460 V

### Emergency Lube Oil Pump and DC Motor

Pump Manufacturer: Transamerica DeLaval  
Pump Rating: 257 GPM @ 1750 RPM and 77 PSI  
Motor Manufacturer: Reliance  
Motor Rating: 20HP, 1800 RPM, 125VDC

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ProEnergy Services de Venezuela C.A.  
Urbanización Los Caobos, Paseo Colón,  
Torre Polar Oeste, Piso 4, Oficina 4-C  
Plaza Venezuela - Caracas  
Venezuela

 **ProEnergy**  
SERVICES  
"Experience Our Energy"

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## RB211 GAS TURBINE PACKAGE

### Water Forwarding Pumps

Pump Manufacturer: Transamerica DeLaval  
Pump Rating: 5GPM @3500 RPM and 400 PSI  
Motor Manufacturer: Westinghouse  
Motor Rating: 3 HP, 3500 RPM, 3 Phase 60 HZ , 460V

### Lube Oil Cooler

Cooler Manufacturer: Air-X-Changer  
Cooler Rating: RT Sec 1,850,000 BTU/HR @234 GPM  
Motors Manufacturer: Westinghouse  
Motors Rating: 10HP, 1800 RPM, 3 Phase, 60 HZ, 460 V  
Type: Fin Fan Radiator

### Lube Oil Filter

Manufacturer: Hilco  
Model: 52718-0150-2006  
Type: Duplex

### Capacities in Approximate U.S. Gallons

PT Lube Oil Reservoir: 2500  
GG Lube Oil Reservoir: 88  
GG Lube Oil Accumulator: 1.5  
GG Cleaner Tank: 45

### Coupling-Power Turbine to Gear

Manufacturer: Zurn Industries  
Model: Ameriflex Series HPS  
Type: Flex

### Coupling-Gear to AC Gen

Manufacturer: Zurn Industries  
Model: Ameriflex, Series HPP  
Type: Flex

### Fuel Gas Preheater

Manufacturer: Bas-Tex Corporation  
Model: 06060  
Shell Side: 340 PSIG  
Tube Side: 960

### Air Conditioning Equipment (Not included)

2 Trane Horizontal Flow P/N TORR-IM-2D

### Building Info

Building with 25 TON Bridge Gaffey Crane  
Battery room located inside Generator Building  
60 ft. x 125 ft. x 38 ft. at the eave and 45 ft. at the peak

### HVAC Equipment

Manufacturer: Frees, Inc.

### Centrifugal Fans

2 Buffalo Forge Ventilating Fans

### Demin Water Storage Tank

Manufacturer: Southwest Tank & Treater  
Capacity: 15,000 gallons

### HCL Tank

Manufacturer: Southwest Tank & Treater

### Caustic Storage Tank

Manufacturer: Southwest Tank & Treater  
Capacity: 3,000 gallons

### High Pressure Fuel Gas Scrubber

Manufacturer: Southwest Computer Inc.  
Description: 640 PSIG @ 300F 36" ID X 10FT

### Turbine Exhaust Duct

Manufacturer: Fish Engineering & Construction

### Demineralization System Package

Manufacturer: H-O-H Systems INC.

### 480 Volt MCC

Manufacturer: Westinghouse Five Star MCC

### Battery Chargers

Manufacturer: Sab Nife Corporation

### Waste Heat Recovery (Not included)

58.52MM BTU/HR (ea)  
470 PSIG @ 650F  
Burner design case (663,120 LB/HR)  
Turbine exhaust gas (600,840 LB/HR)

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1395 S. Marietta Pkwy SE,  
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