**LM6000PC Sprint 60 HZ Gas Turbine Generator Set Scope of Supply**

**No original scope, this is to the best of our ability**

History: YOM 2002 Site rating 44 mw @ site Both Turbine were overhauled in 2022

CTG 1: Total Hours 32 k Since O/H Hours 2.7k 130 Starts CTG 2: Total Hours 35 k Since O/H Hours 1.7k 100 Starts

,,,,,**Qty. 2 LM6000 PC -SPRINT Turbine w/inlet bell mouth and screen**

General Electric gas turbine model LM6000 is a two-shaft/two-spool engine consisting of a five-stage low-pressure compressor, a fourteen-stage high-pressure compressor, a two-stage high-pressure turbine, and a five-stage low-pressure turbine. The engine is equipped with a stainless-steel mesh screen in the inlet air stream for "last chance" protection against foreign object damage.

1. Package Configuration

a. Exhaust Axial

b. Turbine Removal Doors

c. Lineside Cubicle

d. Neutral Cubicle

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2. Generator

Manufacturer/Model: 60 Hz Brush 290ERJT

Brushless

Air-cooled

13.8 kV

0.85 Power Factor

Brush analog Power System Stabilizer, System study by others

3600RPM

71,176 kVA

Neutral and Line cubicles w/CT's, surge protectors and lightning arrestors

3. Air Inlet System for Turbine and generator

a. Anti-ice 2 row heating coil for combustion and ventilation air

b. Filter module

c. Weather hoods

d. Inlet Screen with guard filters

e. 17.5" dia x 26" L canister barrier filter with internal pre-filter

f. Inlet Silencer

g. Filter house platforms, ladders, & walkways

4. Enclosure and Ventilation

a. 85 dBA @ 3 ft. near-field

b. Heat tracing in turbine and generator rooms

c. AC internal lighting

d. Enclosure personal heaters, 2 X 10 kW in Turbine enclosure and 2 X 10 kW in Generator enclosure

e. Gauge panel heaters, 2 X 1.5 kW per unit

f Turbine and Generator room exhaust silencers

*5.* Axial Exhaust System

6. Electro-hydraulic Start System

7. On-line and Off-line (soak) Water Wash System

8. Lube Oil System

a. Turbine Lube Oil duplex filters

duplex shell & tube coolers w/SS internals

*SS* piping and reservoir

b. Generator Lube Oil duplex filters

duplex shell & tube coolers w/SS internals

SS piping and reservoir

Overhead rundown tanks

9. Natural Gas Fuel System

a. Self-contained on main unit w/customer connection on baseplate b. To be filtered and regulated by customer to 675 psig ±20 psig.

10. Simplex water for NOx boost pump skid (no enclosure) for indoor installation.

11. Fire Protection System

a. C02 extinguishing system mounted external to main unit w/24VDC battery and 25-amp charger, including an enclosure and heater

b. Fire and gas detection system for both turbine and generator compartments

12. Control System

a. The unit control system panel includes monitoring, controls, and protective functions for both the turbine and the generator. The control system components are housed in free-standing steel enclosures, which accommodate either top or bottom cable entry. Sequencer is GE Fanuc 90-70 PLC with rack mounted I/0 and field control distributive

 It provides System Data for communications linked to Local HMI,

Engine and Fuel Control is GE Mark VI Controller

Panel mounted HMI is a touch screen Pentium-based industrial based PC

The vibration monitor for engine and generator vibration levels is Bently Nevada 3500

Fire system is Allestec 800 fire panel

Generator protection is Beckworth M-3420 IPS Generator control is Brush Micro-A VR

Ethernet Capable Bi directional serial link capable to support RS232, RS422, RS485, Modbus-R'I'U

interface

Simplex Megawatt control

200psig start

run logic

Unit paralleling controls

b. DC NiCad Battery Power System

24VDC for Turbine Control Panel

150 Amp Dual Battery Chargers for Turbine Control Panel

13. Electrical Equipment

a. Lineside Cubicle cable entry - top

b. Neutral Cubicle bottom-entry- bottom

Cubicle mounted high impedance grounding - transformer and resistor

14. 15. Drawings

a. Drawings and documentation

b. Two installation manuals on CD-ROM,

 17. The unit will be equipped with Enhanced Sprint. A simplex sprint boost pump skid (no enclosure) is included