

# TECHNICAL SPECIFICATION SOLAR TAURUS60 GAS TURBINE



## 1. **Fully Refurb. Solar Taurus 60 Gas Fuel Gas Turbine Scope Details**

We will supply one full-refurbished generator set comprised of the gas turbine assembly from the air inlet filtration system to the exhaust diverter valve with the main gearbox, auxiliary gearbox and electric generator. The supplied equipment shall be mounted on an industrial steel frame and shall include the complete lubricating oil system incorporated within the boundaries of the turbine enclosure plus the air to oil cooler, the fuel system between the interface at the gas turbine

**Taurus 60 Turbine Generator Set**



Package and additional equipment consisting of:

1. Battery chargers/inverters
2. All on skid cabling and pipe-work
3. Ventilation AC motors and fans that are part of the turbine enclosure
4. Turbine control module, fire and gas panel
5. Acoustic Stainless Steel enclosure
6. Vibration monitoring system
7. Hydraulic Start system
8. Main air inlet filter assembly (excludes ducting)
9. Fire and gas system
10. Generator control (including synchronization) system
11. AC Generator

## 1.1 Prime Mover and Driven Equipment



**GEARBOX**

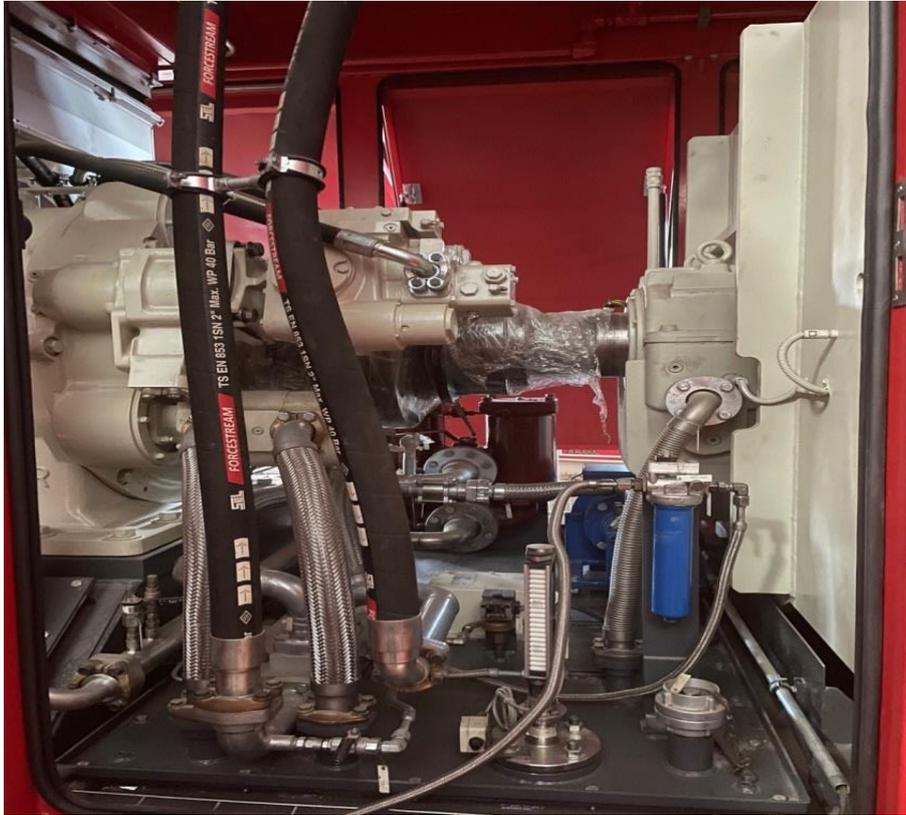


	<b>Scope of Supply</b>	<b>Work scope</b>
3	Generator	Overhauled by NNG. Output voltage 11 Kv , 1500 rpm, 50 Hz

## GENERATOR



	Scope of Supply	Work scope
4	Generator Skid, Lube Oil Tank, and Lube Piping.	Steel construction Lube oil tank with tubing
5	Start system	Hydraulic, VFD, Drive Adapter, & Clutch Assembly
6	Fuel system – Gas	Electronic fuel control system.
7	Lube oil system. (Pre/Post Lube Pumps, Main Lube Pump, Regulators, Thermostats, Filters)	All components refurbish.
8	Lube Oil Cooler	New Oil water exchanger
9	Tubing/Fittings.	All skid tubing.
10	On Skid Electrical.	On skid junction boxes, wiring, connectors and terminal blocks will be suitable industrial grade in good condition.



**Hydraulic, VFD, Drive Adapter, & Clutch Assembly**

	<b>Scope of Supply</b>	<b>Work scope</b>
11	PLC Control (On Skid) / New S7 400 Control system	Integrated control system that incorporates the turbine fuel control, gas turbine start-stop sequencing, Generator Control, temperature monitoring and shutdown protection into a single S7 400 PLC system. Controls for the turbine package includes operator interface (HMI).
12	Generator Control and Monitoring System	Integrated monitoring and control of the generator is provided using a specially designed module in the PLC. The system includes Automatic Synchronizing, Motorized Voltage Adjust, KW Controller and KVAR/Power Factor Controller.

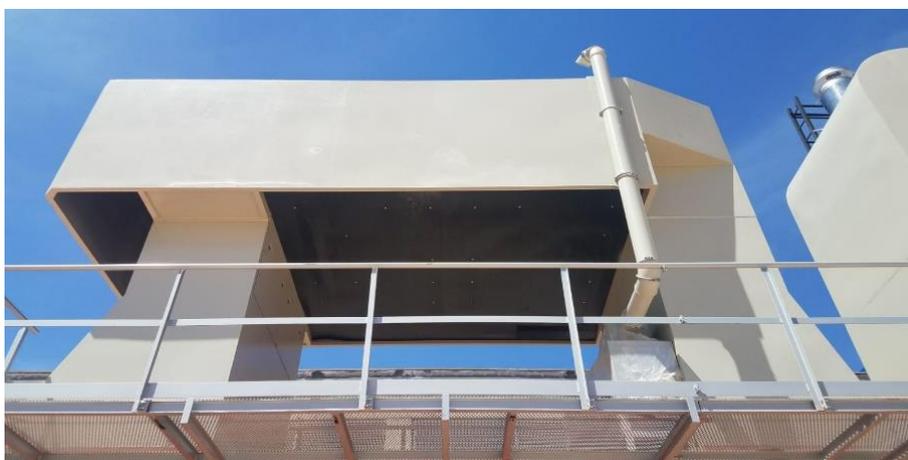
***Control Panels Cabin is New production.***



## 1.2 Enclosure

	Scope of Supply	Work scope
13	Gas Turbine Skid Stainless Steel Enclosure	Weatherproof sound attenuating Stainless Steel enclosure, with all construction and ancillary skid on the roof to support the Air Inlet Filtration and the exhaust silencer.
14	Reducing Vent Silencers and Exhaust Fan	Three reducing vent silencers with fire shutters and exhaust fan.
15	Fire detection and suppression system	Eagle Premier Fire Monitor with CO2 Suppression, UV flame detectors, and rate of rise thermal detectors will be used to detect enclosure fires; The Fire monitor will control the release of the Main and extended release CO2 systems and send signals to shutdown the turbine.

## 1.3 Turbine Inlet and Exhaust Systems



	<b>Scope of Supply</b>	<b>Work scope</b>
16	Inlet System	Barrier Filter and Silencer. To be mounted on ancillary skid on the roof of the enclosure
17	Exhaust System	Exhaust bellows and silencer. Suitable for industrial site standards. To be mounted on the ancillary skid.