We are pleased to been given the opportunity to submit this budgetary proposal for power generation equipment and services for a compact modular power plant according to the scope of supply described in this proposal.

The general compilation consists of 1 unit of GE Gas turbine power plant. The gross electrical output of this plant is approximately 41 MW specified at the generator terminals.

Price is based on as is and where is.

DELIVERY TERMS

The plant can be dismantled and re-installed against repowering contract to be closed separately

DELIVERY TIME

Delivery time will be conditional to equipment available in stock or production capacity.
The equipment is to prior sale and at availability the equipment will be ready for shipment from location after the date of receipt of advance payment.

Datasheet Gasturbine

GmbH / Germany

General:

Designation of Gasturbine	Gasturbine
Type	GE Frame 6B(PG6551B) Gas Turbine
Producer	Thomassen International B.V.
Year of Production	1995/2008 Change to Natural Gas Operation
Operating Hours	89796

Data of Compressor and Turbine:

Compressor Design	Axial Flow, 17 Compressor Stages, Housing horizontally divided, Entrance Blades infinitely adjustable, Speed 5114 rev./min
Turbine Design	3 Turbine Stages, Housing horizontally divided, Guide Wheels fixed
Combustion Chamber Design	10 Natural Gas burner, 1 Fuel Nozzle per Combustion Chamber, 4 Flame Detectors, 2 Spark Plugs
Generator	Type TA 30-46 (Air/Water cooled), Complex Power 56.25 MVA, Frequency 80 cps, Voltage 10.5 kV, Speed 3000 rev./min

Fuel Types	Natural Gas H	
Fuel Consumption	2.5856	kg/s
Fuel Inlet Pressure	25	bar
Compressor Pressure Ratio	12.25	-
Mass Flow Air Inlet	142.3	kg/s
Combustion Temperature	1140	°C
Exhaust Gas Temperature	552.6	°C
Exhaust Gas Mass Flow	144.9	kg/s
Spec. Heat Capacity	1.1598	kJ/kgK
Electrical Power	41.238	MW
Electrical Efficiency	32.38	%
Power Consumption	150	kW

Equipment /Accessories:

Fuel System	Gas Pre-pressure control System, Gas Shut-off valve, Fuel control system, SPEEDTRONIC
Start System	E-Motor from ABB incl. Torque Converter
Lubricant System	Pump, Aux. Pump, Emergency Pump, Heat Exchanger, Filter Storage Tank (6400 ltr.)
Hydraulic System	Drive of Main Pump through aux. Gear, Drive of Aux. Pump through E-Motor
Atomization System	Centrifugal Compressor driven by aux. Transmission, Start Compressor driven by electric Motor, Air Pre-cooler, Purifier

Gear	Speed Reduction Gear in the Generator unit (BHS Voith Type AD 6 USo) Power 54 MW, Wave speed Ratio 5114/300 rev./min
Exciter	Type TKJ 70-10, Power 246 vde, 594 adc
Acoustic Protection	Acoustic Enclosure and Silencer in the Air Inlet

Dimensions:

Length / Width / Height	5000 / 3000 / 2000	mm
Start System	5000 / 3300 / 3000	mm
Compressor-Combustor-Gas Turbine-Exhaust Duct	8900 / 3350 / 4380	mm
Gear Generator		

Bild 1: Gasturbinenumhausung

Bild 2: Startsystem

Bild 3: Erdgasbrenner und Brennkammer

Fig. 1 Gas Turbine Covering
Fig. 2 Start System
Fig. 3 Natural Gas Burner and Burner Chamber


Thomassen
International bv