GE Power

6B POWER PLANTS (50/60 Hz)

Rugged reliability is the best way to describe plants utilizing GE's 6B.03 gas turbine. Capable of black starts on volatile grid environments, the 6B.03 remains a preferred solution for remote installations and extreme operating conditions. It can ramp to 20 MW in less than five seconds and accommodates non-standard fuels in cogeneration and industrial power generation operations.

CAPABILITY

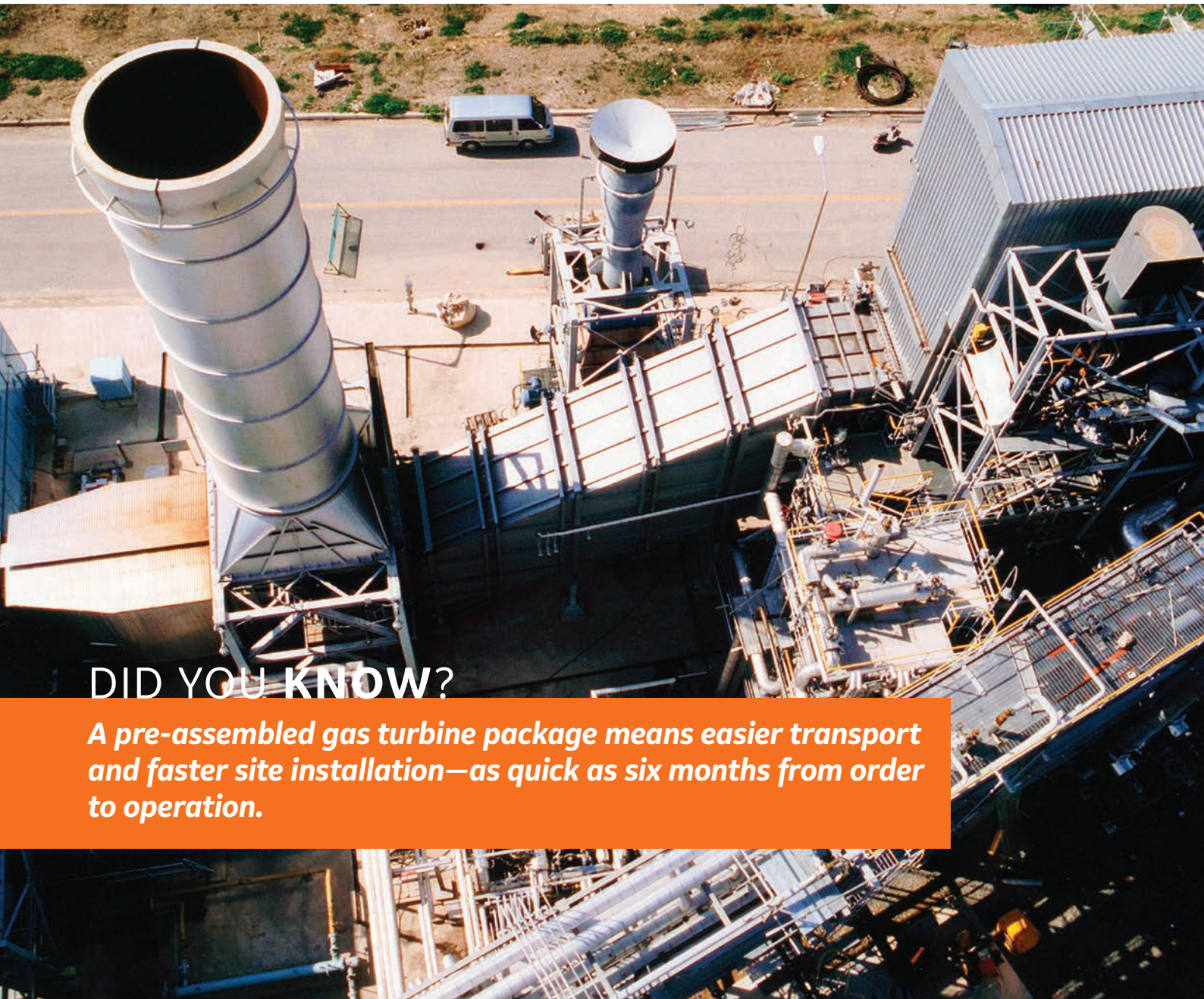
High quantity of steam with pressure up to 110 bar for industrial steam without supplementary firing

VERSATILITY

Operates on broad range of fuels: process/low-calorie gases; 95% hydrogen; heavy fuel oil (HFO) up to 200 ppm vanadium

SUSTAINABILITY

Latest combustion system introduces ultra low NO_X technology, allowing operation on a blend of gases



DID YOU **KNOW**?

A pre-assembled gas turbine package means easier transport and faster site installation—as quick as six months from order to operation.

44 MW SIMPLE CYCLE OUTPUT
>52% COMBINED CYCLE EFFICIENCY

		6B.03
SC Plant Performance	SC Net Output (MW)	44
	SC Net Heat Rate (Btu/kWh, LHV)	10,180
	SC Net Heat Rate (kJ/kWh, LHV)	10,741
	SC Net Efficiency (%, LHV)	33.5%
Gas Turbine Parameters	Compression Pressure Ratio (X:1)	12.7
	GT Generator Type (Cooling)	Air
	Number of Combustor Cans	10
	Number of Compressor Stages	17
	Number of Turbine Stages	3
	Exhaust Temperature (°F)	1,023
	Exhaust Temperature (°C)	551
	Exhaust Energy (MM Btu/hr)	290
	Exhaust Energy (MM kJ/hr)	306
	GT Turndown Minimum Load (%)	50%
	GT Ramp Rate (MW/min)[1]	20
	NO_x (ppmvd) at Baseload (@15% O_2)	4
	CO (ppm) at Min. Turndown w/o Abatement	25
	Wobbe Variation (%)	>+/-30%
	Startup Time, Conventional/Peaking (Min.)[2]	12/10
1x1 CC Plant Performance	CC Net Output (MW)	68
	CC Net Heat Rate (Btu/kWh, LHV)	6,619
	CC Net Heat Rate (kJ/kWh, LHV)	6,984
	CC Net Efficiency (%, LHV)	51.5%
	Plant Turndown – Minimum Load (%)	59%
	Ramp Rate (MW/Minute)[1]	20
	Startup Time (RR Hot, Minutes)[3]	30
1x1 CC Power Plant Features	Bottoming Cycle Type	2PNRH
	HP Throttle Press. (psia/bar)	1,015/70
	HP Throttle Temp. (°F/°C)	1,004/540
	Reheat Temp. (°F/°C)	N/A
	ST Configuration (Type)	STF-A250
	GT Generator Type (Cooling)	Air
	ST Generator Type (Cooling)	Air
2x1 CC Plant Performance	CC Net Output (MW)	137
	CC Net Heat Rate (Btu/kWh, LHV)	6,557
	CC Net Heat Rate (kJ/kWh, LHV)	6,918
	CC Net Efficiency (%, LHV)	52.0%
	Plant Turndown – Minimum Load (%)	28%
	Ramp Rate (MW/Minute)[1]	40
	Startup Time (RR Hot, Minutes)[3]	30
2x1 CC Power Plant Features	Bottoming Cycle Type	2PNRH
	HP Throttle Press. (psia/bar)	1,015/70
	HP Throttle Temp. (°F/°C)	1,004/540
	Reheat Temp. (°F/°C)	N/A
	ST Configuration (Type)	STF-A250
	GT Generator Type (Cooling)	Air
	ST Generator Type (Cooling)	Air

1.) Ramp rates are Fast Ramp via AGC.
2.) Start times recognize purge credit. Turning gear to full speed, full load and synchronized to grid. Peaking maintenance factors may apply depending on the operating profile.
3.) Start times are based on rapid response technologies in hot start conditions with purge credit recognized. Simultaneous start sequence of gas turbine may apply depending on exact project configurations.
NOTE: All ratings are net plant, based on ISO conditions and natural gas fuel. Actual performance will vary with project speci±c conditions and fuel. All performance figures based on Once-Through condenser with 1.2" Hga condenser pressure. 2PNRH = Two pressure, non-reheat; 3PRH = Three pressure, reheat

CUSTOMER HIGHLIGHT

After 20 years of reliable service with a GE 6B gas turbine, Compañía Española de Petróleos (Cepsa) needed to enhance operations and reduce the San Roque (Spain) refinery's environmental impact. Cepsa selected two GE 6B.03 gas turbines with enhanced performance and DLN combustion systems to improve efficiency and reduce emissions.

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