

# 9HA

HEAVY DUTY GAS TURBINE

50<sub>Hz</sub>



**448-571 MW** SIMPLE CYCLE OUTPUT

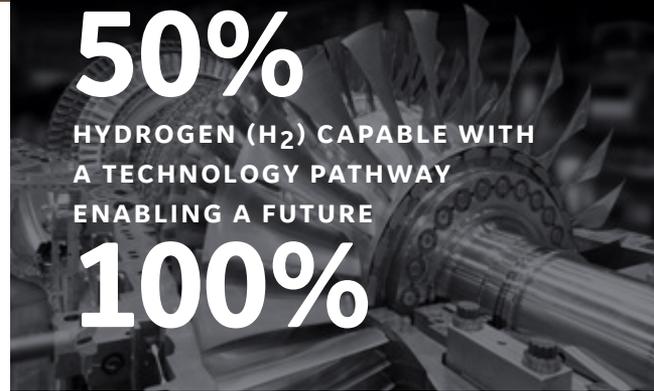
**>64%** COMBINED CYCLE EFFICIENCY

OUTSTANDING COMBINED CYCLE EFFICIENCY >64% FOR REDUCED CUSTOMER CARBON FOOTPRINT.

	9HA.01	9HA.02	
SC PLANT PERFORMANCE	SC Net Output (MW)	448	571
	SC Net Heat Rate (Btu/kWh, LHV)	7,960	7,740
	SC Net Heat Rate (kJ/kWh, LHV)	8,398	8,166
	SC Net Efficiency (% LHV)	42.9%	44.0%
1X CC PLANT PERFORMANCE	CC Net Output (MW)	680	838
	CC Net Heat Rate (Btu/kWh, LHV)	5,356	5,320
	CC Net Heat Rate (kJ/kWh, LHV)	5,651	5,613
	CC Net Efficiency (% LHV)	63.7%	64.1%
	Plant Turndown - Minimum Load (%)	33.0%	33.0%
	Ramp Rate (MW/min)	65	88
	Startup Time (RR Hot†, Minutes)	<30	<30
2X CC PLANT PERFORMANCE	CC Net Output (MW)	1,363	1,680
	CC Net Heat Rate (Btu/kWh, LHV)	5,345	5,306
	CC Net Heat Rate (kJ/kWh, LHV)	5,639	5,598
	CC Net Efficiency (% LHV)	63.8%	64.3%
	Plant Turndown - Minimum Load (%)	15.0%	15.0%
	Startup Time (RR Hot†, Minutes)	<30	<30

NOTE: All ratings are net plant, based on ISO conditions and natural gas fuel. Actual performance will vary with project-specific conditions and fuel.

† Rapid Response/Hot Start



Marrying sheer power with record-breaking efficiency, the 9HA gas turbine provides reliable and dependable capacity for demanding customer economics. It offers the most cost-effective conversion of fuel to electricity as well as industry-leading operational flexibility for increased dispatch and ancillary revenue. The 9HA gas turbine is at the heart of the world's most efficient combined-cycle power plants in commercial operation today and is a key element in the path to decarbonisation.