



KARRATHA

Karratha, Western Australia

Capacity

- 86 megawatts

Equipment

- Two 43 megawatt GE LM6000 high efficiency gas turbines

Highlights

- Most efficient and environmentally friendly power station in the region
- Uses less gas while generating the same amount of electricity
- Long-term agreement with state-owned Horizon Power supplying power to the Pilbara North West Interconnected System
- Designed to allow for expansion to meet the growing needs of the region
- Quick start-up capability

Commissioned

- 2010

Ownership

- ATCO - 100%

The Karratha Power Station, located 1,600 kilometres north of Perth, is the most efficient and environmentally friendly power generation facility in the Pilbara North West Interconnected System (NWIS) in Western Australia.

The state-of-the-art 86 megawatt (MW) gas-fired power station uses less gas while generating the same amount of electricity as traditional gas-fired power stations in the region. With 35 per cent less gas used, 35 per cent less carbon dioxide is emitted. In addition, with the advanced technology installed, other pollutants such as nitrous oxide and sulphur dioxide are even further reduced.

The design of the power station incorporates an inter-cooled engine which combines the best simple-cycle heat rate of any gas turbine in its class today. It significantly increases the airflow by cooling the air during the compression process. The result is more power, a better heat rate and a gas turbine without any increase in maintenance costs.

Comprised of two 43 MW high-efficiency General Electric gas turbines, the facility can be augmented with a heat recovery steam generator (HRSG) that would generate electricity from waste heat. Adding HRSG's (or similar technology) and a steam turbine, would increase output without the need to burn any more gas fuel.

The facility, commissioned in April 2010, ensures added security to the NWIS. With rapid growth and unprecedented demand for power from major resource companies and the growing communities of Karratha and Port Hedland, the station is extremely important in maintaining a reliable power system in the region.

The facility supplies electricity to residential and business consumers under a long-term contract with state-owned energy company Horizon Power. It is adjacent to Horizon's 132 kilovolt substation giving it a direct link into the local network.



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