



OSBORNE

Adelaide, South Australia

Capacity

- 180 megawatts
- 410 tonnes/hr. of steam

Equipment

- 120 megawatt GE-9EA gas turbine
- 60 megawatt GE steam turbine
- Heat recovery steam generator
- Two auxiliary gas-fired boilers
- Salt water cooling tower to process waste heat

Highlights

- Design flexibility allows the station to operate in combined-cycle and cogeneration modes
- Long-term steam supply agreement with Penrice Soda Products
- Long-term agreement with Flinders Power to provide base power to South Australia's electric grid

Commissioned

- 1998

Ownership

- ATCO – 50%
- Origin Energy – 50%

The Osborne Cogeneration Station located near Adelaide is one of Australia's largest cogeneration facilities. The 180 megawatt (MW) facility, a joint venture between ATCO and Origin Energy of Australia, was commissioned in 1998.

Penrice Soda Products, Australia's sole producer of soda ash, purchases up to 1.2 million tonnes of steam each year from the plant. Under a long-term agreement with Flinders Power, Osborne provides about 10% of South Australia's electric energy.

ATCO managed the construction of the station, which incorporated many state-of-the-art features. ATCO operates the facility, which consists of a 120 MW gas turbine, fueled by natural gas from South Australia's Cooper Basin and a 60-megawatt steam turbine.

The station is over 50% more efficient than a conventional gas or coal-fired power facility. This advanced technology reduces nitrous oxide (NOx) emissions by at least 80% and carbon dioxide (CO₂) emissions by 35% to 50% over that of conventional power stations.



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