

Port Hedland, Australia



At a glance

4 TM2500+
gas turbines



- POWER-DENSE SOLUTION FOR GROWING DEMAND
- UTILITY-GRADE GRID STABILIZATION
- LOW-EMISSION, ENVIRONMENTALLY FRIENDLY
- WITHSTAND 300 KPH WINDS, 48° C TEMPERATURES

“APR Energy’s turbine solutions are ideally suited for our needs as a utility, offering a combination of reliability and low emissions in a dense power package.”

Frank Tudor

*Managing Director,
Horizon Power*

Challenges

- EXTREME WEATHER CONDITIONS (RECORD HIGH TEMPERATURES - CYCLONES)
- IMMEDIATE POWER NEED (GROWING POPULATION AND INDUSTRY)
- EMISSIONS FRIENDLY (NORTH WEST INTERCONNECTED SYSTEM GRID REQUIREMENTS)

Background

Horizon Power, a large state-owned utility, serves Western Australia, a region with growing power demand and the hub of Australia’s extractive industry. The utility supplies more than 10,000 businesses and large industrial customers, as well as more than 100,000 residents, across a range of 2.3 million square kilometers – an area nearly 10 times the size of the United Kingdom.

Solution

Four dual-fuel TM2500+ mobile gas turbine units were immediately available for rapid installation, providing a compact, low-emission solution. This fast-track, power-dense station requires only one-third the space that a reciprocating engine power station would require for the same power output. The spinning reserve of APR Energy’s turbine solution provides greater grid stability, which is essential to compensate for unscheduled changes in voltage, capacity and frequency. The facility was designed with cyclonic tie-down provisions on concrete footings to withstand up to 300 kilometer-per-hour winds and other extreme conditions in Western Australia, where temperatures can reach 48 degrees Celsius (118 degrees Fahrenheit) in the summer.

Outcome

The plant came online in late 2014 providing much-needed, reliable power to the grid. APR Energy’s mobile turbine technology is helping to provide Horizon with utility-grade grid stability, combined with low capital costs, low emissions and rapid scalability. The project further expands APR Energy’s track record in developed markets.