Santos Tarbat Oil Field

Oil & Gas / Microgrid

The Challenge

Serving as one of Australia's largest independent oil and gas producers, Santos Limited has a 65-year history of safely and sustainably developing Australia's natural gas resources while powering the country's industries and households. As a company that strives to grow its business while also delivering shareholder value, Santos recently took the opportunity to dramatically improve energy efficiency and reduce costs at its Tarbat oil production facility in Southwest Queensland.

Constructed at a time of large-scale oil field development, the Tarbat site used an inefficient gas turbine to power a number of wells, as well as its own infrastructure. But as oil production declined, the site no longer required the amount of energy the turbine was producing.

Officials sought a solution that would help the company achieve several objectives including reducing fuel consumption, lowering operating and maintenance costs, improving efficiency, and reducing emissions. Working with Optimal Group Australia and GPA Engineering, Santos moved forward with the development of a microgrid that included a 1,000 kW microturbine at the heart of its integrated power system. Because the remote site has significant load fluctuations (as much as 250 kW every 8 seconds), the microgrid would also be ideal for improving both power system stability and availability.

Power Profile

Customer
Tarbat Oil Field

Location
Southwest Queensland, Australia

Commissioned
June 2019

Fuel
Pipeline Natural Gas

Technologies
- 1 C1000S Microturbine
- Grid Stability Module
- 250 kW 5B Solar
- Jinko Panels

Capstone Green Energy Distributor
Optimal Group Australia

This project is a prime example of how the unique features of the Capstone microturbine deliver exceptional results for customers looking to improve efficiency and reap the benefits of cost and emissions reductions."

— Kane Ravenscroft, Sales Director
Optimal Group Australia