



Critical Power for Midstream Gas Processing Plant

Oil & Gas Midstream

At A Glance

Installation:
3 X OP16-3B

Location: Permian Basin, Texas, USA

Output:
Electricity: 5.4 MWe

Customer: Major Sour Gas Processing Facility

The Challenge

On this gas compression and distribution plant, the customer was experiencing costly production shutdown caused by electrical grid instability. During power outage, the complete production had to be stopped to avoid the flaring of gas and its environmental impact.

After a shutdown, hours are required to restart production, making reliable source of power a key factor of the profitability of the plant.

The Solution

Three Airem Energy’s modular packages powered by OP16 turbines in Dry Low Emission configuration are operating on a micro-grid connected to the plant’s critical equipment. The system has been configured to be able to run both in parallel with the utility grid or in island mode, so that the plant is protected from grid outages.

By dividing the critical loads among multiple smaller turbine generator packages, as opposed to one larger unit, this solution guarantees maximum availability, minimizing the downtime due to maintenance events. In addition, it provides maximum flexibility, by operating each unit at optimal parameters based on load variations and transients: the total system efficiency is significantly higher than a single-unit system and emissions also remain lower as each unit operates within its optimal performance range.



The Results

Today the plant is protected from grid instability using 3 OP16-3B Dry Low-NOx turbine generators. The solution is design with a modular approach, that allows future expansion through the incorporation of additional units as demand increases.

The gain in operational uptime allows uninterrupted production and is combined with the economic benefits of self-generation and the reduction of the site emissions.



Annual Savings



Increased Annual Production Time



Increase Of Total Production

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