Case Study

Gravity Oil Field Services

Creating an Alternative Generation Source that Maximizes Efficiency and Redundancy

Founded in 1994, Gravity Oil Field Services began as a small company that provided portable site lighting. Today, Gravity operates in all of the US shale fields providing site illumination, tanks, pumps, portable natural gas and diesel generators, portable housing, fluid management and other technology-based solutions. Most recently, a division was created providing contracted generation services.

SCOPE

- To provide 8MW of power generation as emergency backup power for a cryo processing facility.
- The system, consisting of 23 units, must also operate within the parameters of ERCOT's ERS Program.

SCHEDULE

Almost nine months, with the commissioning and testing completed the week of November 14, 2016.

DESIGN AND SOLUTION

Gravity Oil Field Services had established a large inventory of generators based on the projected growth of the product in the wellsite generation space. The versatility of the engines revolutionized the oil & gas rental market with the ability to consume well gas, providing exponential cost savings for the Customer.

The decline in activity during a market down cycle had Gravity Oil Field Services looking for other applications. While engaging with a client on a redundant and efficient strategy for a plant, the multi-gen/segmented bus design was proposed and selected by the client.

TESTING

During peak testing while the plant load was at 7MW, all 23 generators were closed to the bus and the plant was off of utility in 17 seconds.

All modes of operation were tested locally and from a remote location more than 600 miles away using MODBUS TCP/IP over a secure private connection. The generators were commissioned within three hours using two 5MW medium voltage resistive load banks tied into the switchgear.

WRAP UP

After overcoming the challenges with the interconnection and testing during the final construction of the plant, the Customer has a completely functional system. All of the requests made by the Customer were accomplished in part by utilizing the technology available in the DGC-2020HD. By challenging the status quo, this system allows the Customer to take control of their power security in an efficient way, and maximize the way they buy power.

"This system utilizes the capabilities of the DGC-2020HD as part of a segmented bus system. The overall consensus was very positive. Everyone involved was impressed with the capabilities of the DGC-2020HD without the need for an external PLC to control the various modes of operation."

Ronnie Carroll - Basler Electric
Genset Application Specialist

12570 State Route 143
Highland, IL 62249

618-654-2341
www.basler.com