OPRA has installed an OP16-3B gen-set with dry-low emissions technology for Respell & Deiters GmbH in Germany.

OPRA Hits High Notes

Healthy 2012 order book powering future plans, aiming for new gas turbine power range, expanding to Southeast Asia and Americas

Hengelo, Netherlands-based gas turbine maker OPRA Turbines rounded off 2012 with its highest-ever order book, entered into new markets in Germany, Romania, Estonia and Indonesia, and set expansion plans for this upcoming year.

A key market for OPRA has been in Russia, where it sold 12 of its OP16 turbines in 2012. OPRA also opened a new office in Moscow to strengthen its sales activities in the country and to increase local service support to existing and future customers.

OPRA said an added reason for a presence in Moscow was to meet the need for gas turbines in the 2 MW range to run on flare gas in remote oil fields. To date, OPRA has almost 50 all-radial 2 MW OP16 gen-sets operating in Russia.

The first OP16 gas turbines were delivered to Russia in 2005 and have achieved more than 50 000 running hours on associated gasses at the Tedinskoe oil field, which is operated by Lukoil Sever.

Single or multiple OP16 units can provide installations with an electrical power demand from 1.5 to 10 MW and, according to the company, are well suited for a variety of applications including combined heat and power (CHP) and oil and gas applications.

"We achieved an all-time high order book in 2012 and are expanding to meet our need for more production space, testing and office requirements," said Fredrik Mowill, OPRA Turbines' chief executive officer. Four major installations — in Indonesia, Estonia, Romania and Germany — were completed in 2012.

The recent installation of two OP16-3A dual-fuel turbines to PT Amerta Indahin Sukabumi in Indonesia represented OPRA's first sale in Asia. Due to the unpredictable local supply of electricity, the client needed a reliable source of continuous power — 3 MW of power and almost 11 T/hr of steam for the production of its isotonic drink.

OPRA supplied two OP16-3A turbines, each delivering up to 1.5 MWe and 4.3 MW of heating power. Exhaust gas heat produces just less than 11 T/hr of steam, exactly what PT Amerta Indahin needed to sterilize the water bottles and prepare the drinks. The gas turbines have dual-fuel capability and can operate on liquid and gaseous fuels and switch under full load. The CHP system has a waste heat recovery steam boiler, and OPRA arranged for the supply of a gas boost compressor for the project.

A Romanian government decision to add 5% of ethanol into gasoline was beneficial to alcoholic drink-maker S.C Murex S.A., which can produce 10 million L of bio-ethanol by using corn as their main raw material.

The company, based in Braila, set up a CHP plant and chose a single OP16-3A gas turbine to provide steam and electricity to the factory 24 hours per day in local ambient temperatures down to -30°C.

The OP 16-3A turbine produces 1.8 MWe and is connected to a co-fired waste heat recovery steam boiler to generate almost 11 T/hr of steam. Murex has also signed a long-term service agreement with OPRA.

OPRA has also recently installed an OP16-3B gen-set with dry-low emissions technology to Respell & Dieters GmbH, which makes adhesives for the corrugated board and paper industries

OP16s are installed on this FPSO facility off the coast of Brazil.

at its factory in Ibbenbüren, Germany.

The company uses wheat starch for its products. The OP16 supplied its 1.8 MWe of power at the factory and the exhaust heat is used for direct drying of the starch production and for other production processes. The new unit replaces an existing gas turbine that did not meet air emissions regulations. An added key feature, OPRA said, is that because the OP16's bearings are in the gas turbine's cold section, the lubrication is prevented from being exposed to the hot section.

This means the turbine has near-zero lubrication oil consumption and it is impossible for oil to enter the exhaust. Turbine exhaust gases that are oil free are vital for manufacturing food and paper products. Excess electricity produced at Ibbenbüren is exported into the grid.

In Estonia, OPRA has supplied an OP-16 gas turbine for CHP application for the Sorbes Group in Switzerland, Estonia and the Ukraine. Sorbets Estonia needed 2 MW of power and 4 MW of heat to produce wooden boards. The heat is used to heat the thermal oil through a heat exchanger and the rest is used in the drying process.

Mowill said OPRA is working on the development of a new gas turbine aimed more at applications in power ranges below 1 MW. Mowill added that the company is expanding its sales office network with particular emphasis on Southeast Asia and the Americas, and is also looking to carry out packaging work in in the United States.

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