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NG-Energo and Cummins Join Up to Power Drilling Rigs in Yamal

In mid-April, executives and technical specialists of Russia's major drilling companies took part in presentation of a diesel power complex with a capacity of 4,360 kW developed by NG-Energo

By [Elena Zhuk](#)

The presentation was arranged within the scope of testing at the company's plant several kilometers away from St. Petersburg and demonstrated features of the new development.

Power supply is one of the key aspects of both exploration and production drilling. Experts pay special attention to issues of supplying power to drilling rigs since those are units featured by some peculiarities that are not typical of standard power consumers. "An electric motor runs as a power consumer, but sometimes it changes over to generator mode," General Director of NG-Energo Andrei Rudskoi explained to journalists at the presentation. "In the U.S. and Western Europe the hooking up of drilling units to power grids is prohibited."

The featured complex is a joint development by engineering departments of NG-Energo and Uralmash-VNIIBT. It is based on the Cummins diesel generator unit.

Cummins units earned acclaim in the Russian market since 1999 due to their reliability and thanks to efforts of NG-Energo, a permanent partner of Cummins in the Russian market. Artyom Kapustin, Marketing and Sales Director of NG-Energo mentioned that "for two years, NG-Energo signed contracts and supplied equipment with a total capacity of over 260 MW; although a maximum capacity of a Cummins unit is only 2 MW."

These are some examples of the great reputation of Cummins units in the Russian market: NG-Energo won a contract to supply gas-fired power plants with a combined capacity of 18 MW to Surgutneftegaz for oil production power supply at the Yaon-Lorskoye, Severno-Seliyarovskoye, and Zapadno-Sakhalinskoye fields; it also completed start-up of the first stage of the diesel units with a total capacity of 5 MW at the Maiskoye field under Allianceneftegaz's order.

Three complexes similar to those demonstrated during testing have already been shipped to Gazprom's Drilling Company Burgaz. In 2008, NG-Energo plans to supply 15 more similar power complexes to drilling companies: 4 diesel power plants with a total capacity of 4 MW, one standby diesel generator unit, an indoor switchgear, and control panel. Serial production of the complexes has already started.



When NG-Energo's General Director was asked about a projected volume of supply of power complexes he tried to give a "well-rounded" answer: "The company is prepared to completely satisfy the market demands." Alongside with that, according Rudskoi, an order for 2009 is already being prepared jointly with Uralmash-VNIIBT. It is hard to forecast figures of market demands not only for power complexes but for drilling rigs as well. Yuri Karpov, Uralmash-VNIIBT's First Vice President, also hesitates to make forecasts even in approximate terms. Rudskoi mentions that in the Soviet times "only Uralmash supplied 365 units annually, which translates to one drilling rig per day!" At that time, all those units were designated primarily for development of West Siberia. Today, oil and gas machinery industry is not capable of meeting the Russian market demand for renewal of worn-out rig fleet, as well as manufacturing rigs for developing new areas such as East Siberia. The demand outgrows the supply substantially.

Nevertheless, the companies' short-term plans may be roughly outlined.

"This year, our company schedules to supply 67 drilling rigs to the Russian market on a tender basis," Karpov says. "As of today, our production output is about 200 MW-units per year. In the future we plan to increase this quantity to 400", Rudskoi says. "In addition to Gazprom (Burgaz), we also cooperate with LUKOIL, Rosneft, and Surgutneftegaz to find joint solutions."

During the presentation the features of the complex, the development of which had required over \$1 million investment, attracted attention of the representatives of companies that manufacture drilling rigs.



Bentec's Managing Director Arend Lodden visited the tests to understand the capacities of Russian companies in the field of manufacturing equipment included in drilling facilities. In autumn, Bentec plans to start assembly of drilling rigs at the company's plant set up in Tyumen.

"The power supply system is a critical part of drilling facilities. We would like to have a