



## **Yokogawa Delivers Community Energy Management System to F-Grid Ohira, Miyagi LLP**

Johannesburg, July 14 2015 - Yokogawa Solution Service Corporation, a subsidiary of Yokogawa Electric Corporation that is responsible for the company's control business in Japan, announces that a community energy management system (CEMS) that it has built and delivered to the F-Grid Ohira, Miyagi Limited Liability Partnership (LLP)\* is now fully operational. The LLP is headed by Toyota Motor Corporation. Over a two-year period, this system was developed by the LLP, built by Yokogawa, and field tested. Funding for the testing of this system, which was developed as part of a smart community project undertaken by the LLP was provided by the Japanese government.

This LLP's CEMS optimises the use of electricity by balancing the supply of power from the LLP's own natural gas cogeneration and solar power facilities with the purchase of electricity from the local power utility, and efficiently controls the supply of electricity and heat to the members of the LLP. From each of these companies' facilities, the CEMS collects data on electricity and steam demand, and, based on electricity and gas tariffs, calculates how much power should be generated by the LLP's own power systems. In the aforementioned field testing of the CEMS (April 2013 to March 2015), the LLP members reduced their energy costs by 20%.

The LLP's CEMS has a function that can also predict the energy demand at individual plants by collecting data that is strongly correlated with energy demand. Based on these estimates, the CEMS can be used to plan the optimisation of electricity and heat supply by, for example, adjusting the operation of the gas cogeneration system. The LLP members can also compare these demand estimates with actual results and use this to make adjustments that will save more energy.

The CEMS is connected with a backup power system and plug-in hybrid vehicles that can feed power to LLP members and the local community when there is a temporary interruption or shortfall in the supply of power from the grid. By encouraging plants to voluntarily participate in this electric power sharing scheme, the LLP has established a foundation for the full implementation of demand-response policies that will mandate such cooperation.

In the future, Japan's energy policy will require communities and plants to make adjustments in energy supply and demand. By leveraging the expertise gained from its participation in the development of this CEMS, Yokogawa will be able to contribute at the regional level in building a distributed energy infrastructure.

\* Founded in February 2013 by Toyota Motor Corporation and other companies that have facilities at the Second North Sendai Central Industrial Area. Through its smart community initiative, the LLP provides electricity and heat (steam and hot water) to member companies; sells, leases, maintains, and manages equipment and facilities; and supplies emergency backup power electricity. The LLP operates a 7.8 MW gas-fired cogeneration system, a 740 kW solar power system, and a 50 kW backup power system. Through cooperation with the local community, the LLP aims to provide secure access to electric power. This LLP's smart community initiative is a first for an industrial complex in Japan.

### **About Yokogawa**

Yokogawa's global network of 88 companies spans 56 countries. Founded in 1915, the US\$3.5 billion company conducts cutting-edge research and innovation. Yokogawa is active in the Industrial Automation and Control (IA), Test and Measurement, and other businesses segments. The IA segment plays a vital role in a wide range of industries including Oil & Gas, Chemical, Food & Beverage, Iron & Steel, LNG Supply Chain, Petrochemical, Oil & Gas, Pharmaceutical, Power, Pulp & Paper, Refining, Renewable Energy and Water & Wastewater.

Yokogawa South Africa (Pty) Limited is an empowered South African company jointly owned by Identity Capital Partners (Pty) Ltd, a local black women-owned organisation, and Yokogawa Europe BV, incorporated in the Netherlands. Yokogawa Europe BV is owned by Yokogawa Electric Corporation, a Japanese company listed on the Tokyo Stock Exchange.

Yokogawa South Africa (Pty) Limited's comprehensive solutions range from sensors such as Pressure transmitters, Temperature, Flow meters, Level and Liquid & Gas Analysers) and network solution products, to control and safety systems. This includes the software for advanced control that optimises productivity; and services that minimise plant lifecycle costs. Yokogawa South Africa's Service Training Department is accredited and proficient in theoretical and practical training for Instrumentation and Control systems from first principles. Our Internship Programme contributes to the continued technical skills improvement in South Africa.

For more information about Yokogawa, please visit the company's website [www.yokogawa.com/za](http://www.yokogawa.com/za) or contact Christie Cronje in Corporate Communications.

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