

e*Message Equips Power Utilities with Innovative Control Technology

Next-generation load management technology introduced in cooperation with Bosch Software Innovations and the grid operator Stromnetz Berlin

Berlin, March 2014. The electrical power distribution network operator Stromnetz Berlin GmbH, a wholly-owned subsidiary of Berlin's power utility Vattenfall GmbH, has commissioned e*Message to build and operate the new wireless load management technology e*Nergy to support load and generation management in Berlin. The service, which was designed in cooperation with Stromnetz Berlin GmbH and will be available to all network operators throughout Germany, will control some 30,000 loads on the Berlin power grid, gradually replacing the expensive and technically obsolete ripple control load management technology.

In Berlin this system will be able to switch grid-connected power producing and consuming equipment on and off, including photovoltaic systems, heat pumps, storage heaters, micro-CHPs, electric vehicle charging stations, and even outdoor lighting on public buildings. The new load management technology will be able to gradually regulate services, grid-connected power generation and power consumption.

"The broadcast system will permit a significant reduction in risk of power outages in Berlin," said Dr. Helmar Rendez, CEO of Stromnetz Berlin GmbH: "Now we can also control individual systems or groups of systems in a street or borough. This is another contribution to operating an innovative network for our customers."

The new Berlin-Britz electrical substation, in which Stromnetz Berlin GmbH has invested some €28 million, will supply about 25,000 household and 1,400 commercial customers on its completion in September 2014. This is the first part of the network where the new e*Nergy service will replace the old load management technology. The new technology will then be expanded step by step to serve all of Berlin.

Reliable Transmission of Control Signals by e*Nergy

The control signals are carried over e*Nergy, the service provided by e*Message, reliably and with uniform high network coverage. e*Message uses its professional paging network, the same digital wireless network that is used by emergency services for alerting firefighters, by major energy suppliers and public utilities for fast mobile notification of emergency technicians, and for transmission of weather forecasts to radio weather stations in millions of households. The network is available throughout every state in Germany and every département in France, and uses frequency bands that have been assigned exclusively to e*Message for this purpose by the national regulating authorities, the Federal Network Agency in Germany and ARCEP in France.

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Dr. Dietmar Gollnick, CEO of e*Message Deutschland GmbH, said about the communication protocol developed in cooperation with Stromnetz Berlin GmbH: “e*Nergy communication services are especially suitable for simultaneous, economical communication to multiple receivers, and are secure against manipulation. Important data privacy considerations are ‘built in’ so to speak thanks to the characteristics of the network technology. Consumer privacy is ensured in a similar way as in smart-meter technology. Furthermore, the service is unaffected by any faults or outages in the power grid itself. I am glad to say that e*Nergy, the newest product based on our network infrastructure, is available now throughout Germany and France.”

The IT platform supplied by Bosch Software Innovations can not only turn off and on groups of systems controlled over e*Nergy, but also regulate individual elements or sub-groups. The new load management technology offers many advantages, such as remote configuration of receivers. It is IT-based and hence more economical, since the cost of microchips is much lower than the current upstream technology used in the substations. Michael Hahn, CEO of Bosch Software Innovations GmbH, said: “The Bosch group and Bosch Software Innovations in particular have been busy for years developing suitable solutions that will provide advanced and innovative energy management. With our client Stromnetz Berlin GmbH, we have been able to add an important solution that we will be offering to other energy suppliers and public utilities.”

In conventional ripple control load management, control signals are fed into the power grid itself by means of large, high-powered and expensive systems installed at substations. The ripple control method is also increasingly unreliable because of the growing use of electronically controlled devices in households and businesses.

For further information and photos, please contact:

e*Message Wireless Information Services Deutschland GmbH
Schönhauser Allee 10–11
10119 Berlin
Phone: +49-(0)30-4171 1213
E-mail: presse@emessage.de
<http://www.emessage.de>

e*Message Wireless Information Services GmbH (e*Message Europe)

e*Message Europe, with subsidiaries in Germany and France, is the leader in the European continental paging market and owns and operates its own independent networks. The company provides the services e*BOS, e*Cityruf, Alphapage*, e*Warn and more over its own paging networks. These services are used by hundreds of thousands of individuals, government agencies, institutions and renowned companies. e*Message constantly transfers innovative ideas to existing and new services. e*Message Europe was founded and acquired the paging operations of Deutsche Telekom AG and France Télécom in 2000, and has been developing them continuously ever since. The group’s head offices are in Berlin and Paris. Since 2005 e*Message has also been the operator of e*Dispatch, a powerful trunked radio network for voice and data in the Berlin–Brandenburg region. For more information, see: <http://www.emessage.de>

Stromnetz Berlin GmbH

Stromnetz Berlin GmbH is a wholly-owned subsidiary of Vattenfall GmbH. As a partial successor of the municipal utility BEWAG, the company has operated Berlin's power grid for almost 130 years. The company's distribution network safely and reliably supplies some 2.3 million households and commercial customers in Berlin. Stromnetz Berlin GmbH provides utility customers with a connection to the supply network, and provides network access to electrical power suppliers. About 14 billion kilowatt-hours of electricity flow through the Berlin grid every year.

For more information, see: <http://www.stromnetz-berlin.de>

BOSCH Software Innovations GmbH

Bosch Software Innovations GmbH, the software and systems supplier of the Bosch group, with operations in 150 countries, designs, develops and operates innovative software and systems worldwide, in particular in the mobility, energy, facility management, industry and financial services sectors. Bosch Software Innovations GmbH employs about 550 people with locations in Germany, Singapore, China, Australia and the USA.

For more information, see: <http://www.bosch.de>

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