



ZigBee®

SUCCESS STORY

Control your world™

Energate Implements ZigBee Smart Energy to Balance the Needs of Utilities and Empower Consumers

Around the world, energy markets are being stressed to their limits during peak demand periods. Fluctuating power flows and increasing price volatility add to the unease about future energy supply security and also increase the potential for a system reliability disaster. To reduce peak energy consumption and the risk of taxing the existing power infrastructure to the point of black-outs, many energy services companies are investigating how to provide their consumers with demand response programs. Energate, a leading provider of home energy management controls, systems, and services for the energy, HVAC, and home automation markets is now offering a solution with its ZigBee® Smart Energy Certified Pioneer Z100 smart thermostats.

Demand response programs specifically focus on reducing energy usage through energy automation in the customer premises. Energate's Pioneer Z100 smart thermostats not only reduce energy demand but also measure this reduction. Past demand response programs nationwide in the U.S. have shown the ability to reduce peak energy demand by 30,000 MW, which is equivalent to reducing the need for up to 250 peaking plants, eliminating the burning of 680 billion cubic feet of gas per year and the release of 31,000 tons of nitrogen oxide emissions.

Among the first companies to receive official ZigBee Smart Energy certification, Energate provides seamless interoperability with smart grid technology to improve energy management and efficiency. By being ZigBee-compliant, utilities can be assured that Energate's smart thermostat is interoperable with ZigBee-enabled Advanced Metering Infrastructure, Demand Response systems, and other home energy management solutions, providing utilities great flexibility to meet their needs and the needs of their consumers.



*Energate
Pioneer Z100
smart thermostat*



ZigBee Smart Energy balances the needs of utilities with those of consumers

BUSINESS GOALS

Building on its vast experience in the HVAC industry, Energate's home energy management solutions with ZigBee technology balance the needs of utilities with those of consumers. Its smart thermostats support demand response and load shedding applications supporting time-of-use rates, critical peak pricing and consumer messaging.

TECHNOLOGY SOLUTION

Energate's Pioneer Z100 smart thermostat uses the ZigBee Smart Energy public application profile and is a ZigBee Certified Product. It allows seamless communication with other smart grid technology. By using ZigBee Smart Energy, utilities can be assured that this smart thermostat is interoperable with other ZigBee Smart Energy features enabling advanced metering infrastructure, demand response systems, and other home energy management solutions with ZigBee Smart Energy, utilities have great flexibility to meet their needs and the needs of their customers.

The ZigBee Smart Energy public application profile offers utility companies a global open standard for implementing secure, easy-to-use wireless home area networks for managing energy. However, for demand response programs to be truly successful, utilities need "the keys to the house." Many consumers will only grant such access if certain important conditions are met. Consumers want to save on their utility bills with easy to use, proven, innovative, intelligent, secure and reliable energy solutions that seamlessly integrate into the complexities of advanced metering infrastructure. But most of all, this sophisticated technology must be easy to understand and even easier to use.

From a homeowner's perspective, Energate's ZigBee Certified Pioneer Z100 smart thermostat delivers consumer empowerment through support of overrides, the use of plain language, multi-lingual interfaces and context-sensitive help screens allowing consumers to understand and control where energy is being used, at what cost, and how it can be reduced. Once configured, the Pioneer Z100's advanced climate control algorithms ensure comfort is maintained consistently and efficiently. It also provides features and information that empower consumers to manage their energy use more effectively.

The Pioneer Z100 smart thermostat is a part of the ZigBee Smart Energy Certified Product portfolio. ZigBee Smart Energy enables wireless communication between utility companies and common household devices such as smart thermostats and appliances. It improves energy efficiency by allowing consumers to manage their energy consumption more precisely using automation and near real-time information while having the ability to choose from a large global ecosystem of companies supplying interoperable products. It also helps utility companies implement new advanced metering and demand response programs to drive greater energy management and efficiency, while responding to changing government requirements.

"We're in the midst of an exciting and significant change in the energy industry as a growing number of utilities roll out smart grid technology," said Jorge Deligiannis, chief technology officer at Energate. "Given the range and sophistication of this technology, it is critical that we help develop and embrace industry standards to ensure security and interoperability. Our ZigBee Certified Pioneer Z100 smart thermostat provides seamless two-way communication, allowing utilities to monitor and manage energy use while giving consumers the tools they need to improve their own energy-use practices."

BENEFITS

- Energy efficiency, reduction of wasted energy
- Cost savings, avoid building new power plants, transmission and distribution networks
- Reducing environmental footprint / impact
- Reduction in peak power prices for electricity
- Security of energy supply, avoiding disruption of service
- Reduced dependency on foreign energy sources

