Extensible Home Energy Gateway Integrating Proven Smart Thermostat Performance

Energate introduced its next-generation Foundation platform at DistribuTECH in San Antonio. Foundation is the industry's first multi-load, extensible Home Energy Gateway that supports utility RDR programs and extends control of devices beyond Learning and Smart Thermostats. It combines an in-home display, load control, load management, automatic dynamic price response and an industry leading smart thermostat in a simple, single unit with multi–radio capability. These combined capabilities provide information, insights and control to manage and monitor all of a home's energy needs. Foundation is available immediately to utilities for evaluation in demand response pilot programs. It can also be ordered for large-scale deployment for the 2012 cooling season.

The Foundation Home Energy Gateway is part of Energate's comprehensive home energy management suite and utility demand response solutions delivered using its Consumer-Connected Demand Response (CCDR) platform. Other products include Energate's CORE middleware, utility load management system, consumer web portal, Pioneer series of smart thermostats, wired and plug-in load control switches, the ZIP Connect Internet-to-HAN (home area network) gateway, and MyEnergate mobile applications for smartphones and tablets.

"The future of home energy management, including demand response, will require a versatile, multi-function device like the home energy gateway and Energate has done its homework with the Foundation platform," says Marianne Hedin, senior analyst at Pike Research. "Foundation also offers the flexibility and extensibility required to satisfy changing needs over the foreseeable future, such as charging electric vehicles and integrating distributed renewable energy resources."

As the next generation in-home energy management solutions, Foundation serves as the gateway between utilities and consumers, targeting the needs of both. Utilities gain a secure reliable and cost-effective control interface in the home for demand response and direct load control and consumers get a comprehensive, easy-to-use home energy management tool with optional add-on capabilities to satisfy current and future needs. While Foundation supports interoperability with most smart meters, one is not required to take advantage of the new features allowing utilities to deploy Foundation independent of their smart meter plans. Foundation builds on Energate's successful CCDR platform and leverages experience gained from over 25 utility programs and thousands of consumers to help refine the technology and value.

Foundation's design is the result of over three years of consultation with Energate's utility and technology partners that make the platform's architecture fully extensible while retaining all the performance and features of Energate's Pioneer™

Smart Thermostat. The system's ample memory and CPU power supports new applications and major upgrades, including the eventual migration from Smart Energy Profile version 1.x to SEP 2.x. An over-the-air (OTA) upgrade capability enables new software and applications to be installed remotely and transparently by utilities. In addition, an integral USNAP (Universal Smart Network Access Port) slot can support additional communications standards, such as Wi-Fi or cellular. These features provide an unprecedented level of investment protection for utilities and consumers.

To encourage consumer engagement, Foundation offers an intuitive user interface. The menus are easy to navigate, and multi-language wizards guide users through the set-up process. Only three buttons (up, down and select) are needed to configure the system, and a fourth button toggles between the Energy Manager and thermostat display modes. LEDs allow consumers to quickly determine if prices are high or there is an active RDR event. In addition, Foundation controls HVAC and load switches for pool pumps, electric vehicles, hot water tanks, and other appliances.

"One of our primary objectives is to make Foundation a cost-effective, future-proof platform for the utility that is simple, valuable and extensible for the consumer," says Niraj Bhargava, Energate's co-founder and Chief Executive Officer. "This next-generation home energy gateway builds on Energate's leadership in Smart Thermostats to deliver robust solutions that allow utilities to implement large-scale demand response programs and at the same time give the consumers options for information, insights and control."

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