

Bridge Links Electric Meters to Z-Wave Networks in the House

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By [Steven Castle](#)



Blue Line Innovation's PowerCost Monitor sensor fits on a smart meter or electro-mechanical meter with a spinning disc to read a home's energy usage data, which can now be sent to a Z-Wave bridge and Z-Wave devices in the house.

A conundrum has faced those interested in monitoring and managing the energy usage in their home: Should you create an in-home network using the many wireless products that rely on the [Z-Wave](#) protocol—such as thermostats and lighting and device control modules—if Z-Wave's wireless rival, [ZigBee](#), is the technology of choice for the millions of two-way communicating smart meters being rolled out by electric utilities as part of upcoming smart grid services?

Fret no more, perhaps. [Sigma Designs](#) and [Zonoff](#) (formerly BuLogics) have partnered on a ZigBee to Z-Wave bridge that takes the wireless ZigBee signal from a smart meter and sends it to Z-Wave-enabled devices like thermostats, plug-in modules for lights and devices, power strips and door locks, among other products. The bridge debuted Monday at the Autovation 2011 show in Washington, D.C.

Sigma says the modular platform could work with ZigBee's Smart Energy or Home Automation protocols.

“Now all types of meters, including smart and electro-mechanical, can communicate to the more than 500 interoperable Z-Wave home control products, saving consumers both energy and money,” says Gabi Hilevitz, vice president and general manager of Sigma's Home Connectivity Group.

A retail version may be available in early 2012, we're told. Though the ZigBee to Z-Wave bridge is originally intended for electric utilities providing smart grid services and big service providers like [ADT](#), [Comcast/Xfinity](#), Verizon and [Vivint](#), which are selling energy management solutions as part of security and remote connectivity packages like ADT's Pulse and Xfinity Home Security. These service provider solutions tend to use Z-Wave to communicate throughout the house, and this could enable them to deliver smart grid programs from utilities, such as information on [demand response](#) events that provide a discount if people agree to have big energy-using appliances like air conditioners turned down or off during peak load periods—as well as Time of Use rates that can vary by the hour or minute, with peak load periods priced higher.

Blue Line Module for Consumers

For consumers, Zonoff has also partnered [Blue Line Innovations](#), maker of the PowerCost Monitor that attaches a sensor to an electric meter and wirelessly relays the home's energy usage information to a small screen inside. The module will transfer Blue Line's 433MHz signal to Z-Wave, so Z-Wave devices can read and display energy usage.

Partnered with Blue Line's optical sensor, even non-smart electro-mechanical meters can communicate with Z-Wave devices in the home. Smart meters whose functionality has yet to be activated can also be read through both the Zonoff and Blue Line solution, says Blue Line CEO Peter Porteous. Pricing on Blue Line's Z-Wave module should be available in two months, Porteous adds.

The Zonoff Z-Wave Bridge Platform was designed using Electric Power Research Institute (EPRI) and Universal Smart Network Access Port (USNAP) standards to communicate with the wide variety of wireless standards currently in place with Smart Grid devices.

Experts believe we'll see a lot more bridging between ZigBee, Z-Wave, Wi-Fi and other housewide communications platforms, possibly included in devices like TVs, appliances, set-top boxes, you name it.

Tags: [Sigma](#), [smart grid](#), [smart meter](#), [Z-Wave bridge](#), [ZigBee to Z-Wave](#), [Zonoff](#)