

Response to Smart Metering Implementation Programme Consultation Dated August 2011

PRESENTED BY:

THE Z-WAVE ALLIANCE
1778 MCCARTHY BOULEVARD
MILPITAS, CALIFORNIA 95035 USA

Background

Z-Wave Alliance

The Z-Wave Alliance is an open consortium of over 160 manufacturers who create products and services based on Z-Wave, the standard in wireless control.

The Z-Wave Alliance membership is comprised of industry leaders from across the entire spectrum of the home controls market. They share a common consensus and a common goal -- to provide advanced yet practical systems that deliver increased comfort, convenience, safety and security.

Z-Wave Technology

Z-Wave[®] is an interoperable, lightweight wireless technology that empowers both consumers and manufacturers with an ecosystem of products that work together. The Z-Wave[®] ecosystem offers the largest number of interoperable home control products in the market.

Partial list of Z-Wave Alliance Partners active in the United Kingdom market

- 3 View (HomeInteractive)
- Aeon Labs
- BeNext
- Blueline
- Current Cost
- Danfoss
- Diehl
- Evolve
- Fakro
- GreenWave Reality
- HomeSeer
- Honeywell
- Horstmann(Secure)
- Ingersoll Rand
- Kamstrup
- Leviton
- Merten
- MK Electric
- MiCasaVerde
- NorthQ
- Qees
- Somfy
- There Corporation
- TrickleStar
- Tridium
- Zonoff

For a complete list of interoperable products please visit: www.z-wave.com

Response to Select Questions in the Consultation

Question 30 Do you agree that the Government should include a requirement for a Communications Hub in the SMETS? Please explain your reasoning.

Yes, the Z-Wave Alliance supports the requirement for a Communications Hub for the reasons stated in Section 116 of the Response to Smart Metering Implementation Programme Consultation Dated August 2011.

The Z-Wave Alliance feels the consumer is best served by decoupling the HAN and WAN areas. This allows for more consumer choices on the HAN side without diminishing the overall Smart Grid. The Z-Wave Alliance envisions the Communications Hub as the gateway device between the “Smart Grid” and the home. The Communication Hub will provide access to the HAN side nodes by translating whatever technology is used on the HAN side of the Communications Hub to the standardized technologies on the WAN side of the system.

Question 34 Do you agree with the Government’s proposal that fully integrated electricity meters and Communications Hubs will not comply with the SMETS? Please explain your reasoning

The Z-Wave Alliance agrees with the Government’s proposal for the reasons given in the in Section 131 of the RESPONSE TO SMART METERING IMPLEMENTATION PROGRAMME CONSULTATION DATED AUGUST 2011. Specifically for the flexibility for procurement by the suppliers.

Question 36 Do you agree there should be no restrictions on the HAN standards adopted by suppliers, provided they are available as a European (CEN, CENELEC or ETSI) or International (IEC or ISO) standard? Please provide evidence to support your position.

No, the Z-Wave Alliance supports an open market driven approach to the HAN portion of the Smart Metering topology. History has shown time and again many successful, market driven technologies first emerge outside of formal standards bodies. For example, the iPad IPort Docking Cable (transport layer) and the Apple Accessory Protocol (applications layer). Both are successful and widely adopted, neither are part of the standards bodies listed above.

The Z-Wave Alliance also feels that technologies such as the emerging G.hn powerline carrier standard and the Modular Communications Interface standard (MCI) will be important to Smart Metering implementations. These technologies are being established outside of the included list of standards bodies namely by the International Telecommunications Union (ITU) and the Consumer Electronics Association (CEA) respectively.

Question 37 The IDTS has recommended that all standards should be recognised or be in the process of being recognised by 31 December 2014; do you agree with this recommendation? Please explain your reasoning.

The Z-Wave Alliance does not agree with this position for the reasons stated in its response to question number 36.

Question 40 Do you agree with industry's recommendation that DLMS and Zigbee SEP 1.x should be adopted as the application layer for communications within the consumer premises, provided they install the necessary translation equipment?

No, the Z-Wave Alliance feels that ZigBee SEP 1.x should not be adopted for the applications layer because its name includes the brand name "ZigBee" and thus promotes a single RF physical and media access layer. Even specifying ZigBee 1.x for the application layer only does not address this intentional co-mingling of a branded physical and media access technology.

The United States National Institute of Standards (NIST) together with the WiFi Alliance, the Home Grid Forum, the ZigBee Alliance and the Home Plug Alliance are addressing this with their work on Smart Energy Profile 2.0 (SEP 2.0). SEP 2.0 provides for all of the functionality of 1.x however explicitly focuses on the applications layers and removes the intentional co-mingling of the ZigBee brand and technology with the applications protocol.

Do you believe there are any consumer, economic or technical issues with this solution which could be resolved by an alternative approach?

Yes, the Z-Wave Alliance favors a solution that supports and promotes multiple choices for the physical and MAC layers. NIST testing of the ZigBee physical and MAC layers has shown that in some installation conditions low power RF communications will not work. An example might be where the Smart Meter is in the basement and the Communications Hub or HAN bridging device cannot be reached by RF? A powerline carrier technology might be a more appropriate physical layer in this application. This non-RF physical layer is allowed in SEP 2.0 but not in SEP 1.x

Do you have any economic, technical or consumer evidence to assist Government in evaluating industry's proposal?

Excerpt from SEP 2.0 press release:

SEP 2 was selected in 2009 by the U.S. National Institute of Standards and Technology (NIST) as a standard profile for smart energy management in home devices. The profile is suitable for operation on a variety of IP-based technologies. This consortium establishes a communications technology-agnostic forum to unify and accelerate the realization of interoperable SEP 2 products through a joint test and certification program. The consortium intends to utilize the processes and best practices recommended by the Smart Grid Interoperability Panel (SGIP) for smart grid testing and certification programs.

"As the hybrid wireless and wired home of the future takes shape, the need for easy interoperability becomes key," said xxxx. "We are excited to bring HomePlug Alliance's strong expertise to this collaboration and help provide a robust certification program."

"The smart grid will be comprised of all types of devices connecting in many different ways, and we must ensure those devices interoperate and communicate seamlessly, regardless of how they connect," said xxx. "This collaboration represents a groundbreaking step in the industry. Through this collaboration, the smart grid ecosystem will benefit from interoperable smart energy products that use some of today's most popular connectivity technologies."

"HomeGrid Forum, which is responsible for certifying and promoting G.hn technology, is excited to be working with other leading industry organizations to help accelerate the adoption of the Smart Grid throughout the world," said xxxx. "We believe SEP 2 will be an important factor in ensuring that wired and wireless technologies combine together to deliver Smart Grid and other services inside and outside the home and we are committed to using our expertise to help drive industry adoption."

"As the organization that initiated the home Smart Energy standards activity, the ZigBee Alliance is committed to ensuring that the years of work invested by a broad stakeholder community in developing it translates into success in the marketplace," said xxxx. "The ZigBee Alliance is pleased to contribute its considerable experience and expertise certifying Smart Energy products today to this new independent certification and testing consortium to ensure that consumers get smart products that are easy to use, independent of communications technology."

A complete version of the press release can be found at

<http://www.zigbee.org/Default.aspx?Contenttype=ArticleDet&tabID=319&moduleId=778&Aid=340&PR=PR>

The above responses to the consultation are respectfully offered on behalf of the member companies of the Z-Wave Alliance by their chairman: