



## **ZigBee+HomePlug Joint Working Group**

# **Smart Energy Profile Marketing Requirements Document (MRD)**

**Draft Revision 1.0**

**March 11, 2009**

### **MRD Overview**

This document is the Marketing Requirements Document (MRD) for the Smart Energy Profile and represents the next generation market requirements for Smart Energy and supporting use cases. Smart Energy enables both wired and wireless communication between utility companies and everyday household devices such as smart thermostats and appliances. Captured in this MRD are details for the next generation of functionality envisioned for the Smart Grid with accompanying consumer control. It includes insight to a variety of use cases including plug-in electric vehicle (PEV) charging, installation, configuration, firmware download for HAN devices, prepay services, user information and messaging, load control, demand response, common information, and application profile interfaces for wired and wireless HANs (Home Area Networks).

It was jointly developed by ZigBee Alliance members, HomePlug Powerline Alliance members, utilities, regulators, suppliers and technology providers as a foundation for an enhanced ZigBee Smart Energy profile and as the basis for global standards development by other organizations. On May 18, the ZigBee/HomePlug Smart Energy profile was selected by the U.S. Department of Energy and the National Institute of Standards and Technology (NIST) as an initial interoperable standard for HAN devices and communications and information model.

The development of the Smart Energy Profile drew upon the collective experience of members involved in the current development and deployment of the existing wireless ZigBee Smart Energy standard. Certified products and services based on this standard are available for use today from a variety of ZigBee members. The standard is supported by a comprehensive certification process that delivers secure, robust, reliable, plug and play interoperability with advanced metering infrastructure (AMI) and Smart Grid applications. Also, there are companies that are members of both the ZigBee Alliance and HomePlug Alliance that are beginning to implement the technology over powerline networks.

This document will serve as the basis for a following Technical Requirements Document (TRD), which is the next step in line with creating the actual specification. Once these steps are complete, the specification will be made publicly available for companies and vendors to design, build and market products and services to further enable the smart grid and consumer energy control. The authors of this document thank all stakeholders for their collaboration, vision and leadership in forging the smart energy market.

For more information about the ZigBee Alliance and the HomePlug Powerline Alliance, visit the web sites: [www.zigbee.org](http://www.zigbee.org) and [www.homeplug.org](http://www.homeplug.org).

## Document Control

### 0.1 Ownership, Authorship

This Marketing Requirements Document was developed under the auspices of the ZigBee Alliance – HomePlug Powerline Alliance Joint Working Group.

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### 0.2 Revision History

Rev #	Date	Description	Main author(s)
0.1	01-13-2009	Incorporated front matter (Sections 0-5)	IO, MB, CR
0.2	01-20-2009	Revisions and additions to Sections 0-6	CT, PK, TM, CR
0.3	01-28-2009	Revisions and additions to Sections 0-6; moved Section 4.1.11 to Appendix A; added Appendix B	MB, PK, RS, TM, CR
0.4	01-30-2009	Revisions and additions to Sections 5, 6	IO, LK, PK, TM, CR
0.5	02-04-2009	Incorporated changes from 01-30-2009 call and subsequent work offline	LK, MB, PK, TM, CR
0.6	02-06-09	Refined Methodology (Section 1), Guiding Principles (Section 2); requirements (Section 6).	IO, LK, MB, PK, TM, CR
0.7	03-02-09	Incorporated new requirements, many changes	All
0.85	03-06-09	Incorporated modified format from TWG	BH, CT
0.9	03-07-09	Tweaked High-Level Requirements (Section 2) and detailed requirements (Section 4)	All
0.95	03-10-09	Continued tweaking High-Level Requirements (Section 2) and detailed requirements (Section 4)	All
0.98	03-11-09	Clean-up and penultimate review	All
1.0	03-11-09	Final version 1.0	All