Project: **REViSITE** **Roadmap Enabling Vision and Strategy for ICT-enabled Energy Efficiency** (www.revisite.eu)	REViSITE
Title: **Recommendations for New Standards to Overcome Interoperability Barriers**	**Deliverable 3.4**

Work Plan:

Executive summary:
REViSITE is working for the European Commission to identify cross-sectoral research priorities, covering the domains of grids, manufacturing, buildings and lighting, in support of ICT for Energy Efficiency (ICT4EE). The priorities are needed to direct EC funding for Research in Technological Developments in this area. Our initial analysis of recent and current research initiatives in the area of ICT4EE suggests that the following research areas are of high priority:

1. Technical interoperability and standardisation
2. Design for energy-efficiency in all sectors
3. Metrics and methods for quantitative assessment of ICT impacts
4. Substantiating the casual connection between research and technical development
5. Data visualisation and decision support particularly in the usage phase of each sector

The D3.4 document provides an overview of pertinent standards for energy efficiency in each of the four sectors (chapter 2). Chapter 3 of this document contains the Cross sectoral standardisation opportunities and main barriers in interoperability standards for energy efficiency. Recommendations to bridge the identified standardisation gaps and to gain from cross-sectoral synergies are formulated in chapter 4.

Through the construction of the Strategic Research Agenda (SRA), the REViSITE Framework and SMARTT Taxonomy an overview of standardisation requirements have been compiled. In terms of rigour, this overview was put through a sanity check, a review by sector specialists and a validation workshop to add ranking and priorities. The process provided an insight into the urgency, contents and scope of standards that are widely considered to be essential for energy efficiency. The key recommendations are:

- Extension of existing ontologies for energy efficiency (eeBDM)

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- **Energy performance indicators (Metrics and measurement)**
- **Product catalogues that include energy dynamics**
- **Data exchange protocols**
- **Harmonisation and extension of the IEC Ontology**

This document underpins the need for these recommendations and offers additional details for each of the suggestions from a cross-sectoral viewpoint. The recommendations have been aligned withy the members of the REViSITE expert group. We would like to thanks the REG-members for their insights and support. The concluding recommendations have been validated through the Paris workshop (see appendices for attendance and voting results). We would also like to express our gratitude towards the participants of the validation workshop for the contribution and constructive discussions.

Keywords: Standards; Smart Grid; Information Models; Ontologies; Energy Efficiency; Roadmap.	**Date: 30/04/2012**