

TECHNICAL REPORT – TYPE 3

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Information technology – Home Electronic System (HES) application model –

Part 3: Model of an energy management system for HES

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INFORMATION TECHNOLOGY – HOME ELECTRONIC SYSTEM (HES) APPLICATION MODEL –

Part 3: Model of an energy management system for HES

FOREWORD

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- 2) In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.
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Technical reports of types 1 and 2 are subject to review within three years of publication to decide whether they can be transformed into International Standards. Technical reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

ISO/IEC 15067-3, which is a technical report of type 3, was prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

This publication was drafted in accordance with ISO/IEC directives, Part 3.

This document is not to be regarded as an International Standard. Comments on the content of this document should be sent to IEC Central Office.

ISO/IEC 15067 currently consists of four parts:

Part 1: Application services and protocol (under consideration)

Part 2: Lighting model for HES

Part 3: Model of an energy management system for HES

Part 4: Model of a security system for HES (under consideration)

INTRODUCTION

This model of an energy management system for residences extends the set of HES (Home Electronic System) application models. Models for lighting and security have already been developed and accepted. These models should facilitate the validation of the language specified for HES in ISO/IEC 15067-1.

These models have been developed to foster interoperability among products from competing or complementary manufacturers. Product interoperability is essential when using home control standards, such as HES. This document defines a typical security system and describes the communications services needed. A high-level model for an energy management system using HES is presented.

ISO and IEC would appreciate comments by developers of energy management systems regarding possible enhancements to this model.

INFORMATION TECHNOLOGY – HOME ELECTRONIC SYSTEM (HES) APPLICATION MODEL –

Part 3: Model of an energy management system for HES

1 Scope

The model for energy management presented in this Technical Report is generic and representative of a wide range of situations. Since one model cannot be completely comprehensive other models or operating modes may be more appropriate for certain applications.

This model for energy management accommodates a range of load control strategies. Examples of implementations that could be described with this model include:

- the CELECT Intelligent Load Management System in the United Kingdom. The utility transmits electricity cost data and forecasted outdoor air temperatures to residential heater controllers;
- the “bleu, blanc, rouge” technique used by Electricité de France to announce price tiers one day in advance. The tier signal is displayed using a blue, white or red light to alert the customer;
- real-time pricing experiments by Consolidated Edison of New York and by Pacific Gas and Electric, both in the United States.

2 Reference documents

ISO/IEC 15067-1: *Information technology – Home Electronic System (HES) Application Model – Part 1: Application Services and Protocol* (under consideration)