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SYSTEMS REFERENCE DELIVERABLE

colour inside

Top priority standards development status in the domain of smart energy

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FOREWORD

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IEC SRD 63199, which is a Systems Reference Deliverable, has been prepared by IEC systems committee Smart Energy.

The text of this Systems Reference Deliverable is based on the following documents:

Draft SRD	Report on voting
SyCSmartEnergy/129/DTS	SyCSmartEnergy/139/RVDTS

Full information on the voting for the approval of this Systems Reference Deliverable can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

0.1 General

IEC systems committee Smart Energy (SyC SE) addresses standardization issues in the field of smart energy with the purpose of identifying systems level requirements for standardization, coordination and guidance in the areas of smart grid and smart energy, including interaction in the areas of heat and gas.

To realize this, SyC SE has accepted the idea that "*One concrete approach consists of collectively elaborating on a master development plan to visualize new ideas under consideration by the TCs/SCs consistently with the ongoing program of work*"
[SOURCE: IEC SyC SE, WG2 IEC Smart Energy Development Plan].

To achieve this goal, SyC SE determined that it was essential to consult widely within the IEC community and the broader stakeholder community to provide overall systems level value, support and guidance to technical committees (TCs) and other standards development groups, both inside and outside the IEC. From this consultation effort, SyC SE was able to select important cases that would benefit from standardization. After identifying and assessing the importance of these standardization cases, SyC SE has worked with the affected TCs to promote these efforts and periodically updates their progress in an SRD report (called the SyC SE development plan).

The purpose of the SyC SE development plan is to assist TCs in coordinating and recognizing standardizing action needed for as well to raise awareness of the ongoing standardization efforts.

In order to develop new standards and amendments of existing standards for smart energy, it is important to analyse gaps, resolve each gap's standardization cases (milestones, timelines, dependencies, etc.), progress the development process in accordance with a timetable, and manage the development status by tracking the processes.

The ultimate goal is to boost, facilitate and monitor standardization work where needed, in order to get the most comprehensive and consistent set of standards in the given time scale, needed for a seamless deployment of smart energy domain worldwide.

0.2 Summary of development plan process

The development plan is in essence a living tool, not only because of the progressive resolution of standardization cases included in the development plan, but also because the list of entries will evolve during time.

In order to address this, a formal process was developed with the goal to formalize:

- a way to collect new standardization cases (cases where additional standardization could improve smart energy technology, interoperability and market support);
- a way to rank these standardization cases (from the highest priority to the lowest) – a necessary step in order to allocate the IEC SyC SE effort to the highest priorities only;
- a way to elaborate and select a resolution path;
- a way to engage, monitor and report on each standardization case resolution process.

This overall process is summarized in 4.1.

The review process of the development plan should be synchronized with updates of the smart grid roadmap [1], which consists of revision update and version update. Discussion with related TCs is very important for these updates. In principle, update of this document is expected to be synchronized with version update of the development plan.

TOP PRIORITY STANDARDS DEVELOPMENT STATUS IN THE DOMAIN OF SMART ENERGY

1 Scope

This document presents the current status of the IEC systems committee Smart Energy (SyC SE) development plan for readers (not limited to IEC smart energy related members). The document identifies items that require standardization, their current status and work required, possibly by multiple technical committees or working groups, to address any issues.

Since the content of this document represents a snapshot of the dynamic/living standardization processes to be updated, it is subject to future changes.

Users' perspectives are considered. For example, the analysis of influences of each item (development impact and chance to fill gaps) are stated.

2 Normative references

There are no normative references in this document.

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1.1
actor
entity that communicates and interacts

Note 1 to entry: These actors can include people, software applications, systems, databases, and even the power system itself.

Note 2 to entry: In IEC SRD 62913 (all parts) [2], this term includes the concepts of Business Role and System Role involved in Use Cases.

[SOURCE: IEC 62559-2:2015, 3.2 [3]]

3.1.2
architecture model
generic tool intended to support the modelling activities for use cases, functions, architectures, in order to analyse and visualize them with respect to interoperability, domains and zones

3.1.3
cyber security
protection against unauthorized access, theft, and damage to hardware, software or electronic data (whether stationary or transported), detection of such deliberate or inadvertent events, and coping during such a deliberate or inadvertent event

3.1.4
demand response
action resulting from management of the electricity demand in response to supply conditions

[SOURCE: IEC 60050-617:2011, 617-04-16]