European Commission

SGTF – EG1
Expert Group 1
Standards

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Energy

M490 – Smart Grids

European Commission

Phase I - ***6/2011 until 12/2012***

Reference Architecture -> SGAM, conceptual model

Sustainable processes ->Use Cases

Smart Grid Information security (SGIS) – SGIS Toolbox

First standards

- **Prioritisation, work programme**
- **First set of standards**

Framework for new standardization process for complex systems

Phase II - until end of 2014

Methodology (Use Cases, reference architecture, SGAM, conceptual model, market and flexibility, new applications)

SGIS

Set of Standards (Update)

Interoperability (recommendations, Excel tool)

All reports of phase 1 are available under
http://ec.europa.eu/energy/gas_electricity/smartgrids/taskforce_en.htm
http://www.cencenelec.eu/standards/HotTopics/SmartGrids/Pages/default.aspx

Phase I Achievements

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New process for standardization

Use Cases Sources

1. Step
Identification of Generic Use Cases

Use Cases Management Repository

2. Step
Map GUCs to SGAM
Security and privacy evaluation

SGAM

SL & DPC

3. Step
Locate requirements for standards

4. Step
Identify existing standards and new gaps

existing standards, gaps

5. Step
Definition of standardization projects

Standardization projects (responsible committees, work plan, deliverables)

6. Step
Work on standards

Smart Grid Standards

existing, modified and new standards

Prioritization

Phase II Achievements

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Methodology

- **Systematic process in place**
  (current focus on information, e.g. joint workshop with StarGrid on Hanover fair)

Set of Standards and work on Gaps

- **Work on Gaps progressed**
  (additional gaps included in work program: Power quality)
- **Work on Flexibility / Demand Response covers all available use cases**
  (several standards are developed in this area)

Interoperability

- **Overview of existing testing procedures available**
  (List shows available conformity assessment, certification, testing, etc.)

Information Security

- **Recommendation and guidance for security implementation**
  (extensive collaboration/alignment with other groups, e.g. SGTF-EG2)

Achievements and Next Steps

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General Achievements

- On time
  (All Work packages on time)
- Quality
  (wide acceptance of results, e.g. best practice ICT Rolling plan exclusively refers to SG-CG work, no additional actions necessary)
- International acknowledgement
  (results used and referred to by e.g. IEC, NIST, Japan etc.)

Next Steps

- Finalization of reports
  (Deadline 01.09.14; final approval end of 2014)
  (Update of Set of Standards; Prioritization of Assessment and Testing needs)
- Dissemination of Results
  (Qualitative Assessment, Workshops on SG-CG results, Proposal for EC conference beginning of 2015)

Achievements and Next Steps

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Qualitative Assessment

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Background

- **Request from EC during last SG-CG plenary meeting on 2013-10-30** **(Email circulated to SG-CG members on 2013-11-06 + special address to specific organizations)**
- **Feedback from ENTSO-E, ORGALIME, T&D Europe, ESMIG, EDSO4SG, Eurelectric, CEER, ECOS and Dutch, Swedish and British NC**

Reaction is overall positive, but some concerns

- **Impact** **(Implementation is hard to measure, verify)**
- **Readability** **(Hard to use reports for non-experts)**
- **Completeness** **(Did we cover all topics?)**
- **Barrier** **(Standardization seen as a barrier to development of Smart Grid)**
- **Update** **(Update of set of standards seen as threat to deployment)**
- **Lack of harmonization/uniformity** **(Too many solutions exist)**
- **Alignment** **(How to align with international activities (esp.IEC))**

Other relevant Mandates for Smart Grid

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M/441 Smart Metering

- Smart Meter Coordination Group (SMCG) of CEN, CENELEC, ETSI

M/468 Electromobility

- eMobility Co-ordination Group (eM-CG) CEN, CENELEC
  Common WG with SG-CG for Smart Charging

Smart Cities (new)

- Coordination Group "Smart and Sustainable Cities and Communities" (SSCC-CG) CEN, CENELEC

There are **liaisons** between the SG-CG and the other CG's.

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Basic Advanced Metering Infrastructure

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http://ec.europa.eu/energy/index_en.htm

http://ec.europa.eu/energy/gas_electricity/smartgrids/taskforce_en.htm