

## PRESS RELEASE

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# European standards organisations make progress towards Smart Grid standards and reference architecture

**Preparing the electricity networks of the future – CEN, CENELEC and ETSI have presented two interim reports to the European Commission**

The three European Standards Organisations (ESOs) – **CEN** (European Committee for Standardization), **CENELEC** (European Committee for Electrotechnical Standardization) and **ETSI** (European Telecommunications Standards Institute) – are working together to develop standards for the next generation of electricity networks, known as 'Smart Grids'.

The ESOs have been tasked by the European Commission (under standardisation mandate M/490 – published on 1 March 2011 and accepted in June 2011)<sup>1</sup> to deliver the following:

1. **A technical reference architecture** to represent the functional information data flows between the main domains and integrate many system and subsystem architectures.
2. **A set of consistent standards** to support the information exchange (communication protocols and data models) and the integration of all operators within the system.
3. **Sustainable standardization processes** and collaborative tools to enable stakeholder interaction, while also ensuring interoperability, security and privacy, etc.

Furthermore, the ESOs have also been asked to investigate standards for **information security and data privacy** encompassing harmonised high level requirements<sup>2</sup>.

The European Commission's policy in this area is set out in the communication 'Smart Grids: from innovation to deployment' (published in April 2011)<sup>3</sup>. According to the Commission, smart electricity grids should reduce CO<sub>2</sub> emissions by 9% and household energy consumption by 10%. They will also facilitate the expansion of renewable energy including de-centralised micro-generation of electricity using solar panels (photovoltaic) and wind turbines. Smart grids therefore have a crucial role to play in enabling the EU to reach the targets of its integrated energy and climate change policy (adopted in December 2008)<sup>4</sup>.

The ESOs have set up a **Smart Grid Coordination Group** (SG-CG) with four working groups focusing on the main elements of the mandate. In accordance with the calendar agreed with the European Commission, the SG-CG already produced in 2011 a list of standardisation gaps and associated priorities, as well as a programme for standardisation work.

In Brussels yesterday (8 March) a delegation from the SG-CG met with European Commission officials and business representatives to present two further interim reports: on the proposed technical reference architecture for smart grids, and on sustainable standardisation processes. The report on 'Reference Architecture' describes in detail a conceptual model and general Smart Grid Architecture Model (SGAM), while the report on 'Sustainable Processes' focuses on the application of use cases in standardisation processes.

Ralph Sporer, Chairman of the SG-CG, said: “*Thanks to the involvement of experts from the whole smart grid community in our work, we are able to present interesting and promising results. The European Commission has welcomed the efforts made by these experts and given positive feedback on the interim reports that we have presented*”.

The SG-CG is continuing to work on the various aspects specified in the mandate from the Commission, and is aiming to present a first set of standards for smart grids, as well as a report covering data security and privacy issues, by the end of 2012.

The work on smart grids (under mandate M/490) is being coordinated with other standardisation work that is currently underway in relation to smart meters and electric vehicles (under mandates M/441 and M/468 respectively) so as to ensure a coherent framework<sup>5</sup>. The SG-CG is also collaborating with several international and regional standards organisations, with the aim of working towards common international standards for smart grids.

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## Notes

1. Standardisation mandate M/490 for Smart Grids, issued on 1 March 2011  
[http://ec.europa.eu/energy/gas\\_electricity/smartgrids/taskforce\\_en.htm](http://ec.europa.eu/energy/gas_electricity/smartgrids/taskforce_en.htm)
2. as proposed by the European Commission’s Smart Grid Task Force  
[http://ec.europa.eu/energy/gas\\_electricity/smartgrids/taskforce\\_en.htm](http://ec.europa.eu/energy/gas_electricity/smartgrids/taskforce_en.htm)
3. Communication ‘Smart Grids: from innovation to deployment’ [COM(2011)202]  
[http://ec.europa.eu/energy/gas\\_electricity/smartgrids/smartgrids\\_en.htm](http://ec.europa.eu/energy/gas_electricity/smartgrids/smartgrids_en.htm)
4. The EU adopted an integrated energy and climate change policy in December 2008, including ambitious targets to be met by 2020. These so-called “20-20-20” targets refer to:
  - **cutting greenhouse gas emissions** by 20% (or 30% with international agreement)
  - reducing energy consumption by 20% through **increased energy efficiency**
  - **developing renewable sources** so they can meet 20% of total energy needs[http://ec.europa.eu/climateaction/eu\\_action/index\\_en.htm](http://ec.europa.eu/climateaction/eu_action/index_en.htm)
5. For more information on standardisation activities related to Smart Grids, please see:  
[www.cen.eu/cen/Sectors/Sectors/UtilitiesAndEnergy/SmartGrids/Pages/default.aspx](http://www.cen.eu/cen/Sectors/Sectors/UtilitiesAndEnergy/SmartGrids/Pages/default.aspx)  
[www.cenelec.eu/aboutcenelec/whatwedo/technologysectors/smartgrids.html](http://www.cenelec.eu/aboutcenelec/whatwedo/technologysectors/smartgrids.html)  
[www.etsi.org/WebSite/Technologies/SmartGrids.aspx](http://www.etsi.org/WebSite/Technologies/SmartGrids.aspx)

**CEN (European Committee for Standardization)** and **CENELEC (European Committee for Electrotechnical Standardization)** are officially recognised organisations responsible for developing and defining standards at European level. These standards set out specifications and procedures in relation to a wide range of products and services.

The members of CEN and CENELEC are the National Standards Bodies and National Electrotechnical Committees of 32 European countries including all of the EU member states plus Croatia, Iceland, Norway, Switzerland and Turkey. European Standards (ENs) approved by CEN and CENELEC are accepted and recognised in all of these countries.

For more information please see: [www.cencenelec.eu](http://www.cencenelec.eu)

**ETSI (European Telecommunications Standards Institute)** produces globally-applicable standards for Information and Communications Technologies (ICT), including fixed, mobile, radio, converged, aeronautical, broadcast and internet technologies and is officially recognised by the European Union as a European Standards Organisation. ETSI is an independent, not-for-profit association with more than 700 members including companies and organisations from around the world. For further information, please visit: [www.etsi.org](http://www.etsi.org)

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