

Next steps for smart grids: Europe's future electricity system will save money and energy

The European Commission presented today its Communication on smart grids. It sets policy directions to drive forward the deployment of future European electricity networks. Bringing together latest progress in Information and Communication technologies and network development will allow electricity current to flow exactly where and when it is needed at the cheapest cost. Smart grids will give in particular to consumers the ability to follow their actual electricity consumption in real time : smart meters will give consumers strong incentives to save energy and money. Estimates show that smart electricity grids should reduce CO₂ emissions in the EU by 9% and the annual household energy consumption by 10%. They also help to ensure secure functioning of the electricity system and are a key enabler of both the internal energy market and integration of vast amounts of renewable.

Energy Commissioner Günther Oettinger said: *"We will have to address the issues that stand in the way of full implementation of smart grids right now. We cannot afford to miss out on the opportunities an upgraded electricity system would offer in terms of decarbonising our economy and providing real added value for consumers."*

The implementation of more active transmission and distribution systems in the form of smart grids are central to the development of the internal market for energy. The drive for lower-carbon generation, combined with greatly improved efficiency on the demand response, will motivate consumers to become much more inter-active with the electricity supply system.

Smart grids are expected to offer great benefits to all the actors of the upgraded electricity system. Grid operators can manage the network more efficiently, retailers will be able to improve customer service. For consumers smart electricity grids mean a shift from a passive receiver of electricity into an interactive participant in the supply chain. The Commission will closely monitor that Member States ensure consumers' access to their consumption and billing information: being able to follow their actual electricity consumption in real time gives consumers strong incentives to save energy and money. The trends show that through smart meters European households could save 10 % of their consumption, i.e. around 60 € per year on average.

By September 2012 Member States will have to produce an implementation plan and timetable for the roll-out of smart metering systems.

As smart grids allow the coexistence of centralised and decentralised electricity generation, they create conditions for new players to enter the market and for developing new innovative services while maintaining the overall reliability of the system and conventional power generation. Furthermore, the deployment of smart grids and smart meters boosts the EU technology development and helps create new skills and jobs.

Over the last decade the EU has spent about €300 million on the research and development projects for modern electricity networks. The Commission will promote coordinated approach towards the deployment of smart grids at European and regional level.

To drive the smart grids from innovation and demonstration stage to the deployment phase the Commission proposes the following actions:

- develop common EU-level technical standards that would provide interoperability of different systems: anyone connected to the electricity grid should be able to exchange and to interpret the available data to optimise its consumption or/and production. The Commission has given a mandate to the European Standardisation Organisation to develop and deliver to the European and international markets the standards needed for a quick development of this. A first set of smart grid standards should be in place by the end of 2012.
- ensure the highest level of data protection for consumers and grid operators
- adjust the existing EU legislative framework which incentivises grid investments that are targeted at enhancing energy efficiency and higher quality of services. Beyond the targets for smart meters in the Electricity Directive, the Commission will request Members States to produce action plans with targets for the implementation of smart grids.
- guarantee transparency and competitiveness of the retail market. The Commission will monitor the implementation of the internal energy market legislation. Minimum requirements for the information provision for customers will be introduced through the Energy Services Directive. The revision of the Directive will be proposed in June 2011.
- promote further technological innovation. Still in 2011 the Commission will propose new large-scale smart grids' demonstration initiatives. The Commission will also launch an Industrial Initiative on Smart Cities and Communities.