# Internal market in electricity. Third energy package

2007/0195(COD) - 17/06/2014 - Follow-up document

The Commission presents a report on progress on the deployment of intelligent metering in

Member States in line with the provisions of the Third Energy Package, made up of the Electricity Directive (2009/72/EC) and the Gas Directive (2009/73/EC).

To recall, Member States are required to prepare a timescale (of up to 10 years in the case of electricity) for the deployment of intelligent metering systems, subject positive economic assessment of the long-term costs and benefits (CBA) to be completed by 3 September 2012. For electricity, there is a target of rolling out at least 80% by 2020, of the positively assessed cases.

The report looks at progress in the EU-27 to date and frames recommendations for the way forward. It notes that Intelligent metering systems should:

- be **equipped with fit-for-purpose functionalities** in line with standardisation and as proposed in Commission Recommendation 2012/148/EU in order to ensure technical and commercial interoperability, or ensure the possibility to add functionalities at a later stage;
- guarantee **data privacy and security;**
- enable demand response and other energy services to evolve; and
- support retail markets that deliver full benefits to consumers and the energy system.

Progress on smart metering deployment in the EU-27: appreciable progress has been made. **Following positive CBAs for electricity in over two thirds of cases**, Member States are now committed to proceeding with (or have already completed) the roll-out of smart metering. There are close to 45 million smart meters already installed in three Member States (Finland, Italy and Sweden), representing 23% of envisaged installation in the EU by 2020. The roll-out commitments amount to an investment of around EUR 45 billion for the installation by 2020 of close to 200 million smart meters for electricity (representing approximately 72% of all European consumers) and 45 million meters (around 40% of consumers) for gas. These figures are encouraging. They demonstrate that where roll-out of smart metering is positively assessed, the expected penetration rate for electricity in these Member States exceeds the Third Energy Package target of 80% but falls short of an EU-wide penetration rate of 80%. This also indicates that the **business case for rolling out smart metering is not yet overwhelming throughout Europe, and this is something more of a challenge in the case of gas.**

**Overview of the benchmarking results**:

- ***Electricity***: 16 Member States (Austria, Denmark, Estonia, Finland, France, Greece, Ireland, Italy, Luxemburg, Malta, Netherlands, Poland, Romania, Spain, Sweden and the UK) will proceed with large-scale roll-out of smart meters by 2020 or earlier, or have already done so. In seven Member States (Belgium, the Czech Republic, Germany, Latvia, Lithuania, Portugal, and Slovakia), the CBAs for large-scale roll-out by 2020 were negative or inconclusive, but in Germany, Latvia and Slovakia smart metering was found to be economically justified for particular groups of customers.

- ***Gas:*** five Member States (Ireland, Italy, Luxembourg, the Netherlands and the UK) have decided to roll-out smart meters by 2020 or earlier. In 12 Member States (Belgium, the Czech Republic, Denmark, Finland, Germany, Greece, Latvia, Portugal, Romania, Slovakia, Spain and Sweden), the results of the CBA were negative. Two Member States (France and Austria) have plans to proceed with a large-scale roll-out but have yet to take official decisions.

The Commission recommends that national authorities, in particular in those Member States not opting for large-scale roll-out (Belgium, the Czech Republic, Germany, Hungary, Latvia, Lithuania, Portugal and Slovakia), **consider a review of the critical parameters used and assumptions made in their current CBA scenarios** using relevant information from pilot programmes and 'real-life' experience to refine technology choices and assumptions as to associated costs and benefits.

The report notes that **smart metering systems are expected to deliver an overall benefit per customer of EUR 160 for gas and EUR 309 for electricity** along with assumed energy savings of 3%. The latter range from 0% in the Czech Republic to 5% in Greece and Malta. Of the countries that have completed roll-outs, Finland and Sweden have indicated energy savings of the order of 1-3%, but no data were available for Italy.

Member State authorities considering **next steps in the deployment of smart metering** are advised to reflect upon the following issues:

**Consumers' trust and confidence**: an intensive communication effort is required to help consumers understand: (i) their rights, (ii) the benefits of installing smart meters; (iii)the functionalities, what data will be collected, and what these data will be used for.

**Stakeholder incentives**: measures should be devised to provide incentives for all stakeholders involved to ensure the quick development of smart metering products and services so as to speed up their uptake. The Internal Energy Market (IEM) Communication Member States to produce action plans which reflect how to modernise the grid, including rules an obligations for distribution system operators (DSOs).

**Data protection:** the report recommends assessing the **need for a specific data privacy and security framework** under national and EU legislation prior to roll-out. Particular emphasis should be placed on:

- the implications for DSOs' regulated roles, incentives and obligations (in 15 out of the 16 Member States that have decided to proceed with a large-scale roll-out, the DSOs are responsible for implementation and own the meters);

- fostering more dynamic competition in retail through market rules allowing dynamic pricing; exploring possibilities in data management and synergies with the ICT sector.

**Smart metering functionalities**: it is strongly recommended that at least the minimum set of functionalities proposed in Commission Recommendation 2012/148/EU, which are in line with standardisation work in this field, be adhered to at EU level. It will enable Member States to identify common means of achieving cost efficiencies in their roll-out plans, facilitate the necessary procurement and ensure the roll-out of fit-for-purpose smart metering systems that are worth the investment.