

Smart Metering in Western Europe

Smart Metering in Western Europe is the sixth consecutive report from Berg Insight analysing the latest developments for smart metering in Europe.

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Highlights from the sixth edition of the report:

- **Case** studies of smart metering projects by the leading energy groups in Europe.
- **In-depth** market profiles of fourteen countries in Western Europe.
- **Status** updates on the development of smart grid and communication technology.
- **Updated** profiles of the key players in the metering industry.
- **Revised** market forecasts lasting until 2014.
- **Summary** of the latest developments in the European energy industry.

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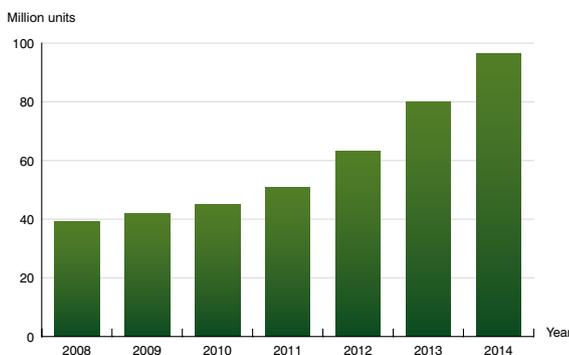


Smart meters to transform the European energy market

Metering is a fundamental enabler for the utilities industry. At the beginning of 2009, there were approximately 253 million electricity meters; 109 million gas meters and 3 million district heating meters in EU23+2. Electricity reaches virtually every household and business in the whole of Europe, while gas is most widely used in the Netherlands, the UK, Italy, Germany, France and Poland. District heating is a significant energy source in the Nordic countries and Central Eastern Europe. The residential sector is the second largest final user of energy, accounting for about 30 percent of consumption.

As part of the efforts to build a sustainable energy system, the traditional mechanical utility meter must be replaced by a smart device. These so called smart meters are a core element in the vision for smart grids – intelligent energy networks that contribute to improved efficiency and reliability in energy distribution and better optimisation in allocation of resources and utilisation of assets. Smart metering solutions may incorporate a wide range of applications in the fields of remote meter reading, customer relationship management, demand-side management and value added services. Remote meter reading is the core application, providing the data recorded by the meter to the metering system operator, which could be the DSO or an independent party. Smart metering solutions can also be used to support customer relationship management and demand-side management (DSM), as well as enable various value added services in for instance home automation.

The adoption of smart metering in Europe is to a large extent driven by regulations. A majority of the countries in Western Europe have adopted a policy of regulation-driven introduction of smart meters. Sweden was first, followed by the Netherlands, Ireland, Norway, France, Italy and Spain. The UK and Finland were the latest countries to announce regulated rollouts in October 2008 and February 2009 respectively and Denmark seems likely to move in the same direction. Furthermore nationwide projects led by publicly owned energy companies are underway in Portugal and Malta. Except for Italy where the rollout is already almost complete, the larger countries have long timeframes. France and Spain have deadlines at the ►



Installed base of electricity smart meters (EU23+2 2008–2014)

► end of the 2010s, while the UK has set the target date to 2020. The common energy policies of the EU, based on the 20-20-20 targets, plays an important role in this development. The 3rd Energy Package, approved by the European Parliament in April 2009, proposes that – subject to an economic assessment – 80 percent of all electricity customers should have smart meters by 2020. Furthermore it defines guidelines for supplier-changes, energy consumption information and service quality level monitoring which are very difficult to meet without smart meters.

Italy was the first European country where smart meters were deployed at a massive scale in the first half of the 2000s. By 2011 all Italian electricity customers will be covered by the technology. Sweden however became the first country to achieve 100 percent penetration in July 2009 following a regulation driven rollout. The other Nordic countries are following with Finland and Norway looking to introduce smart metering legislation by 2013, while Denmark has seen strong uptake of the technology without any regulatory requirements. Spain and Ireland are expected to display high volumes from 2011, with France and most likely Portugal following in 2012. By 2013 these countries alone will account for more than 70 percent of total shipments. Elsewhere in Europe the market prospects are more uncertain. The UK is likely to see the start of large-scale deployments of smart meters within the next five years given that no unexpected events cause delays. The Netherlands appeared to be on track for a nationwide rollout starting already in 2010 but with the recent political setbacks the implementation of smart meters is now delayed until 2013 by the earliest. Germany is not likely to see any major market developments in the short term but it appears likely that some of the large DSOs will go ahead with large-scale installations by the mid-2010s, regardless of the regulatory situation. The market prospects in Central Europe are uncertain but there are good reasons to believe that the pilots and early deployments seen today will evolve into major projects by the mid-2010s.

This report answers the following questions:

- How are EU energy policies driving the adoption of smart metering?
- Which are the latest countries to announce mandatory requirements for smart meters?
- What is the UK government's plan for a nationwide rollout?
- What are the true implications of Germany's new metering regulation?
- What are the latest market developments in the Nordic countries?
- Who are the leading suppliers of smart metering solutions for the European market?
- Which are the main providers of PLC and wireless communication technology for smart meters?

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About the Author



Tobias Ryberg is founding partner of Berg Insight and principal analyst. He is an experienced analyst and author of numerous articles and reports about telecom and IT for leading Swedish and international publishers. The European Smart Metering market has been his major research area for the past 6 years.

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