

Summary

Executive summary

EU28+2 has 281 million metered electricity customers and the annual demand for electricity meters for new installations and replacements is in the range of 12–17 million units. Penetration for smart meters, providing more comprehensive functionality than basic meter data collection, was 22 percent at the end of 2013. By 2019, Berg Insight projects that the rate will increase to 60 percent, driven by large rollouts in Spain, France and the UK, in combination with nationwide rollouts in several smaller countries. The installed base of smart electricity meters is forecasted to grow at a compound annual growth rate of 18.5 percent between 2013 and 2019 to reach 170.1 million units at the end of the period. The high growth rate will slow down towards the end of the decade as nationwide rollouts in Spain and the UK are completed. Germany's decision to not move ahead with a rollout until 2020 will most likely delay the widespread introduction of smart metering in the country until the mid-2020s.

Europe's national governments play a key role for the adoption of smart metering. The EU's highly publicised 20/20/20 targets merely include a recommendation for the member states to evaluate the technology and introduce it – if there is a positive business case. Over the past years, almost all European countries have performed cost benefit analyses of smart metering and the majority of the cases have resulted in a recommendation to go ahead with a rollout. At the end of 2013, thirteen European countries had developed regulatory roadmaps for the full-scale introduction of smart electricity meters and at least five more were close to making the same decision. Seven countries have also committed to nationwide rollouts of smart gas meters. The UK has the most extensive smart metering program where 53 million electricity and gas meters will be networked through 30 million wireless communications hubs before 2020. France plans to begin deployments of 35 million PLC smart meters relatively soon and in Spain, the utilities are already well underway with the upgrading of around 29 million smart meters.

The year 2013 marked a major breakthrough for the use of wireless technologies in the European smart metering market. The UK broke with the trend from Italy, Spain and France and opted for a combination of cellular and wireless mesh technologies. Telefónica was selected as the communication service provider for around 70 percent of the population and will install around 23 million communication hubs in what will become the world's largest wireless M2M deployment to date. The operator's 2G/3G network will offer sufficient coverage for around 98 percent of the population in its service territory by 2020, while the remaining 2 percent will be effectively covered with small scale wireless mesh networks. Arqiva will serve the remaining 30 percent of the UK population with a long-range radio network, based on Sensus' FlexNet technology platform. In the Netherlands, Alliander announced the decision to build a private CDMA450 network in partnership with KPN to use as its communications platform for smart metering and other smart grid applications.

During 2014, Berg Insight expects an increasing level of activity in many European countries, as planned mass-rollouts get underway. The DSOs in Austria and Norway are expected to announce their selection of vendors and technology solutions to enable installations to begin towards the end of the year. Poland will see further expansion of pilot projects, presumably resulting in more clarity on how the full nationwide rollout will unfold. In the Netherlands and the UK, the rates of installation are expected to pick up speed as the final issues related to the respective rollouts are being sorted out. A key milestone for the UK will be the establishment of the DCC organisation for managing smart meter communications and data. In France, a second major smart meter pilot is expected as a preparation for the mass-rollout.

Over the coming years, the adoption of smart gas metering will start to accelerate from low levels in the coming years, driven by combined electricity and gas rollouts in the UK and the Netherlands, as well as standalone deployments in France and Italy. Berg Insight forecasts that the installed base of smart gas meters is forecasted to grow at a compound annual growth rate of 75.9 percent between 2013 and 2019 to reach 53.4 million units at the end of the period and a penetration rate of 45 percent.