



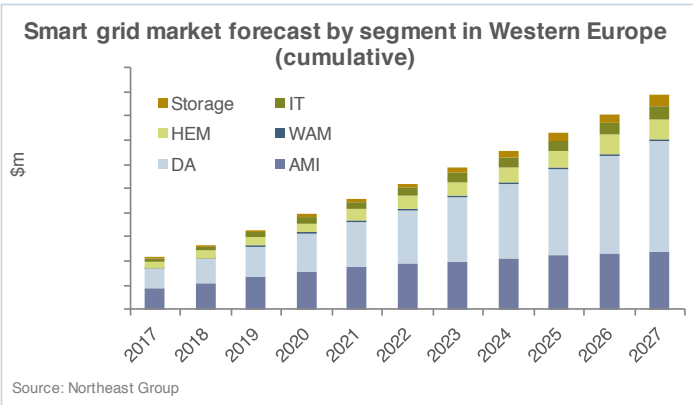
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Western Europe Smart Grid: Market Forecast (2017 – 2027)

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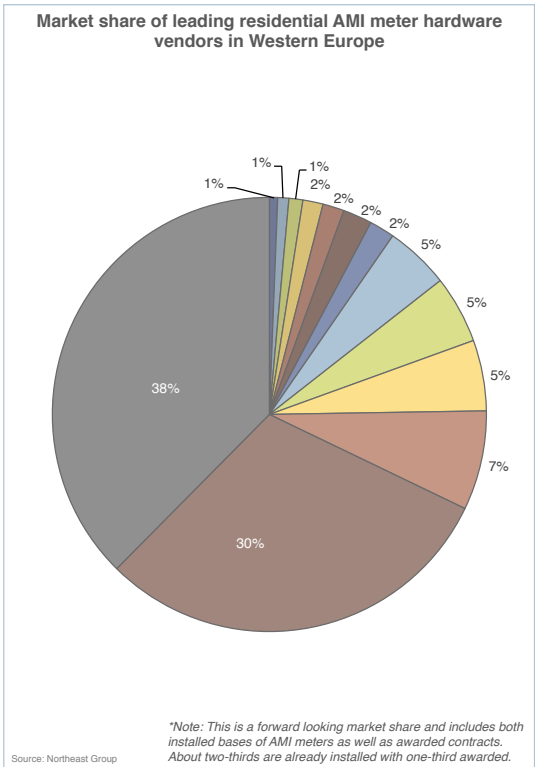
Western Europe Smart Grid: Market Forecast (2017-2027)

Western Europe is a mature smart grid market, propelled by multiple strong drivers and anchored by regional energy goals set by the European Union (EU). The region includes a range of markets, from countries that were among the first in the world to complete national smart meter rollouts to others that have achieved only minimal smart meter penetration.



The energy policies of Western European countries are more synchronized than those in other regions, owing to the influence exerted by the EU. In response to the threat of climate change, the EU has initiated a broad regional shift towards a green energy economy that requires very significant smart grid infrastructure investment. Several consequences of this regional policy have already come to pass, including national smart meter rollouts and rapid integration of renewable energy resources across the continent. Most countries covered in this study are adhering to an EU smart meter mandate requiring 80% AMI penetration by 2020. Three countries covered in the study—Iceland, Switzerland, and Norway—are not EU members, though the latter two are deeply

connected to the European energy grid and generally shadow policies followed by EU members.



Western Europe’s smart grid policy framework is arguably the strongest in the world, with several countries on the verge of completing national rollouts. Even so, business case realities would likely drive the market if policy directives were to falter. Smart meter rollouts, some of which were in fact enacted prior to the passage of EU smart meter mandates, would go a long way in addressing both Western Europe’s high electricity prices and high levels of electricity consumption.

Barriers for the Western European market are limited. Even with low GDP growth rates, the region is wealthy, precluding issues of project

funding that are encountered elsewhere. Public opinion is also largely behind energy efficiency and green energy initiatives. The main concern is unforeseen economic turbulence. Smart grid programs – particularly for countries in Southern Europe such as Greece or Portugal – could be vulnerable to government cutbacks. Another limiting factor for the Western European smart grid market is that contracts have been awarded or rollouts completed in many countries, reducing near-term opportunities.

Despite the Western European smart grid market having progressed to an advanced stage, the completion of a national rollout does not signal an end to a country's smart grid investment. On the contrary, smart meters will allow for further investment in other segments of smart grid infrastructure including DA, IT, and battery storage, among other segments. Further, smart meters will allow for a more advanced electricity retail market to develop, featuring demand response (DR) programs and more options for tariff structures. The move towards a customer-oriented market made possible by AMI will drive rather than curb overall smart grid investment.

Vendors within Western Europe have capitalized on their geographic advantage, winning the lion's share of smart metering contracts. The most active to date have been Landis+Gyr of Switzerland, Sagemcom of France, Ziv of Spain, Kamstrup of Denmark, and Aidon of Finland, among others. Vendors from outside the region have also established a strong foothold in Western Europe, most notably US-based Itron.

Key questions answered in this study:

- How large will the smart grid market be across Western Europe over the next decade?
- How quickly are Western European countries expected to comply with EU smart grid requirements?
- How will the region's rapid renewable energy expansion impact smart grid investment?
- How will smart grid investment develop in countries already finished with smart metering?
- What regional projects have been completed by the top international smart grid vendors?

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