



Smart Metering in North America

7th Edition

Smart Metering in North America is the seventh consecutive market report from Berg Insight analysing the latest smart metering developments in the US and Canada covering both electricity and gas. This strategic research report from Berg Insight provides you with over 145 pages of unique business intelligence, including 5-year industry forecasts, expert commentary and real-life case studies on which to base your business decisions.



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The smart electricity meter penetration rate in North America will reach 91 percent in 2030

Smart metering is widely regarded as the cornerstone for future smart grids and is currently being deployed all over the developed world, with a growing number of large-scale initiatives now also being launched in developing countries. Asia-Pacific constitutes the largest market by far while North America ranks as the third largest market after Europe. North America and Europe are two highly dynamic market regions that saw a wave of massive smart metering projects being launched or completed during the first half of the past decade. Several major utilities in these regions are thus now preparing for a second-wave of deployments to take off, driven by new smart meter functionalities and smart energy use-cases. Berg Insight forecasts that the installed base of smart electricity meters in North America will grow at a compound annual growth rate of 2.9 percent throughout the forecast period, from 152.4 million in 2024 to a total of 180.9 million in 2030. The installed base of smart electricity meters in the US reached 136.9 million in 2024, while the installed base of smart electricity meters in Canada reached 15.5 million in the same year. The penetration of smart electricity meters is higher in Canada compared to the US however this difference is expected to continuously shrink until 2030 when the countries are forecasted to have penetration rates of 97 percent and 91 percent respectively.

North America was the first region in the world to move beyond traditional energy metering through the widespread introduction of AMR which started in the 1980s. Today, intelligent grids are becoming an integral part of the development of smart cities, and smart meters' ability to improve the reliability and resilience of energy supply constitutes an important driver of growth in the region. A significant majority of the large investor-owned utilities in North America are now either fully deployed or in the implementation or planning phases of large-scale projects, and a second-wave of deployments is on the horizon for the early adopters. The penetration of smart electricity meters in the region was around 82 percent in 2024 and is expected to increase to over 91 percent in 2030, mostly driven by large investor-owned utility projects in the US as the relatively mature market in Canada is only expected to see moderate growth. In terms of total shipments of smart electricity meters, second-wave rollouts for early adopters are ramping up and will grow their share of annual shipment volumes throughout the forecast period, accounting for almost 75 percent by the end of the forecast period.

The market in North America is dominated by the two US-based companies Aclara and Itron, as well as Swiss-based Landis+Gyr. Itron and Landis+Gyr have a 35 and 32 percent market share respectively of the installed base of smart electricity meters in North America. Aclara is in third place with a market share of 21 percent and the remaining 12 percent is predominately shared between Honeywell and Sensus. In terms of network endpoints, the largest player is Itron with a market share of 64 percent, followed by Landis+Gyr with a market share of 25 percent and Sensus with an 8 percent market share.

North America is a technologically advanced market where smart electricity metering is implemented in the context of the smart grid. Wireless RF technologies are today preferred and account for the vast majority of installations, both in the electricity and the gas sectors. The leading players provide proprietary RF mesh or star topology platforms for the unlicensed 915 MHz ISM band, in addition to licensed sub-GHz spectrums. Wi-SUN-based mesh networks offered by vendors such as Landis+Gyr and Itron is currently the most widespread variant and also accounts for the majority of shipments. In the North American region PLC has generally been perceived as inferior in terms of performance and cost mainly due to the characteristics of the grid, where the ratio of meters per substation is low. Cellular communications have also historically enjoyed limited adoption in the region, partly due to the technology being perceived as too costly compared to RF communications. The evolution of public cellular standards has also raised questions about network longevity and backward compatibility, leading to concerns that meters reliant on cellular technologies might become unsupported before the end of their useful life. A few significant cellular deployments totalling less than 5 million meters have however been made throughout the past decade. The prospects for cellular technology in the North American smart metering sector are meanwhile improving, particularly driven by the utilities' increasing interest in private cellular networks which hold the potential to address some of the key challenges that has previously held back wider adoption of cellular communications.

Among utilities which have already deployed advanced electricity metering infrastructure, interest is now growing for being able to leverage the installed RF network for applications beyond smart metering and bring a wider array of devices onto the platform. Most network platforms are already designed to support a number of smart grid applications in addition to two-way communications with meters. With the advanced metering infrastructure in place, increasing investments in areas such as distribution automation, distributed energy resources (DERs), electric vehicle (EV) charging infrastructure and smart streetlighting are however highlighting the need for further synergies.

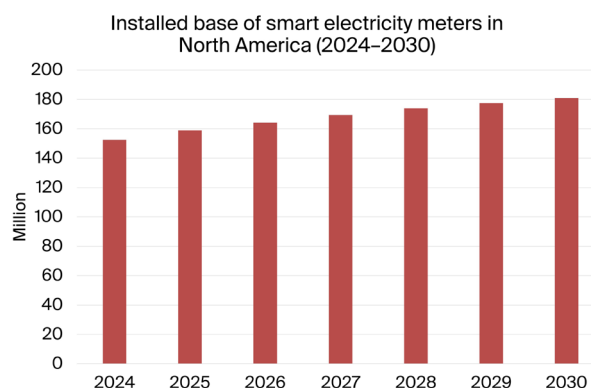


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In-depth market profiles of the US and Canada.

360-degree overview of next-generation PLC, RF and cellular technologies for smart grid communications.

Profiles of the key players in the smart metering industry in North America.

New forecasts for smart electricity meters until 2030.

Analysis of the latest market and industry developments in the US and Canada.

Case studies of smart metering projects by the leading energy groups.

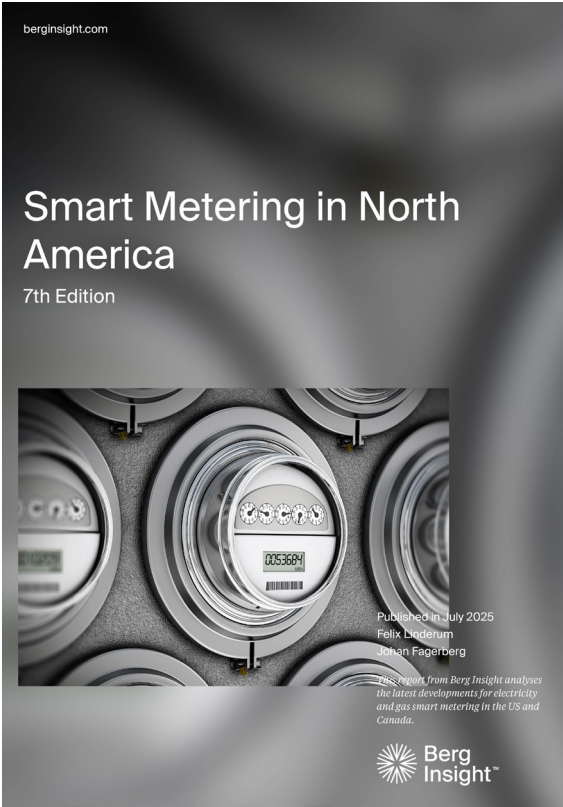
Questions answered in the report

- How are energy policies driving the adoption of smart metering in the US and Canada?
- What is the current deployment status of major utilities across North America?
- Which utilities are leading the adoption of smart metering in North America?
- Which communications technologies are being used for smart metering in North America?
- Which are the leading smart metering solution providers in North America?
- What is the outlook for second-generation smart metering rollouts in North America?
- Which are the main electricity and gas utilities in the US and Canada?



About Berg Insight's IoT market research

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Smart Metering in North America

Are you looking for detailed information and comprehensive data about the North American smart metering market? The study concludes that the installed base of smart electricity meters in north America will grow at a compound annual growth rate (CAGR) of 2.9 percent throughout the forecast period, from 152.4 million in 2024 to 180.9 million in 2030. Get up to date with the latest information about vendors, products and local developments in each country.

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Who should read this report?

Smart Metering in North America is the foremost source of information about the ongoing transformation of the metering sector. Whether you are a solution vendor, utility, telecom operator, investor, consultant or government agency, you will gain valuable insights from our in-depth research.

AUTHOR

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Felix is an IoT analyst covering mainly the smart cities, retail and utilities sectors. He heads research projects within IoT verticals such as connected vending machines, digital signage, smart parking, public transport ticketing, parking meters, smart city surveillance as well as smart electricity and gas metering in various regions. Felix holds a Master's degree in Innovation and Industrial Management from the School of Business, Economics and Law at the University of Gothenburg and joined Berg Insight in 2023.

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