



# Smart Metering in Asia-Pacific

5th Edition

*Smart Metering in Asia-Pacific is the fifth consecutive market report from Berg Insight analysing the latest smart metering developments in this dynamic region covering both electricity and gas.*

*The countries covered in-depth include China, Japan, South Korea, India, Bangladesh, Indonesia, the Philippines, Thailand, Vietnam, Australia and New Zealand. This strategic research report from Berg Insight provides you with over 200 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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# Asia-Pacific soon to be home to 1 billion smart meters

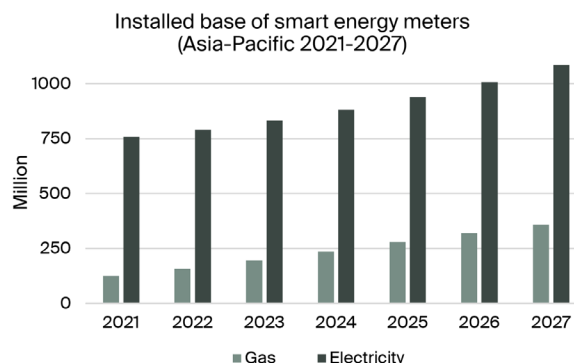
Smart metering is widely regarded as the cornerstone for future smart grids and is currently being deployed all over the developed world, with a growing number of large-scale initiatives now also being launched in developing countries. Asia-Pacific constitutes the world's largest metering market by far with around 1.6 billion electricity and gas customers – more than North America and Europe combined. Annual demand for electricity meters in the region is in the range of 110–190 million units, of which China accounts for the majority. The region saw a wave of massive smart metering projects being launched during the first half of the past decade and several utilities in the region are now preparing for rollouts of second-generation meters to take off, driven by new smart meter functionalities and smart energy use cases. Other markets in South and Southeast Asia are on the other hand just beginning their smart metering journeys, following in the footsteps of the leading markets in East Asia.

Berg Insight forecasts that the installed base of smart electricity meters in Asia-Pacific – defined as China, Japan, South Korea, Bangladesh, India, Indonesia, the Philippines, Thailand, Vietnam, Australia and New Zealand – will grow at a compound annual growth rate (CAGR) of 6.2 percent throughout the forecast period, from 757.7 million in 2021 to 1.1 billion in 2027. Shipments will to a large extent be driven by first-wave installations in India as well as by replacements of first-generation meters in China and Japan, while emerging markets in South and Southeast Asia will contribute with increasingly large volumes throughout the forecast period. In total, Berg Insight forecasts that more than 0.9 billion smart electricity meters will be shipped in Asia Pacific during 2021–2027. The installed base of smart gas metering endpoints in Asia-Pacific is at the same time expected to grow at a CAGR of 19.2 percent throughout the forecast period, from 124.5 million in 2021 to 357.1 million in 2027. China accounts for the vast majority of the market, both in terms of installed base and annual shipment volumes, although emerging markets are expected to account for a significant increase in annual shipments throughout the forecast period.

East Asia – defined as China, Japan and South Korea – has led the adoption of smart metering technology in Asia-Pacific with ambitious national rollouts and today accounts for more than 95 percent of the installed base of smart electricity meters in the region. The rollout of smart electricity meters in China is now complete while Japan and South Korea are expected to reach full coverage in the coming few years. In China and Japan, replacements of first-generation smart meters have already begun and will dominate shipment volumes in the region in the coming years. East Asia also constitutes the leading adopter of smart gas metering technology in Asia-Pacific, accounting for nearly all installed

devices and forecasted shipment volumes in the coming years. South Asia – defined as India and Bangladesh – will constitute the fastest growing smart electricity metering market in Asia-Pacific throughout the forecast period with ambitious governmental initiatives now in place in both India and Bangladesh. The former has for example set a highly ambitious target of reaching 250 million installed smart prepayment meters by 2026. Southeast Asia – defined as Thailand, Vietnam, Indonesia and the Philippines – on the other hand constitutes the most nascent smart metering market in Asia-Pacific. The main utilities in Indonesia and Thailand are now at the very beginning of their large-scale smart metering implementation plans while the leading utilities in the Philippines have similar ambitions. In Vietnam, the national utility has rolled out basic remote metering technologies for years with a vision to eventually transition to more advanced technologies. Australasia – defined as Australia and New Zealand – is characterised by a market-driven and retailer-led approach to smart metering. Nearly half of all smart meters in Australia are now smart while New Zealand has reached a natural saturation of around 90 percent with second-generation installations now about to take off.

The markets in Asia-Pacific are largely dominated by local or regional players and only a few companies such as Landis+Gyr, Itron, EDM I (Osaki Electric) and Trilliant have managed to establish a notable presence in multiple markets across the region. In terms of smart meter communications, domestic PLC technologies dominate the electricity markets in China and South Korea while RF mesh is the main option in Japan. Cellular communications has meanwhile emerged as the dominant technology in Australasia as well as the leading option in India, where RF mesh also has a significant market share. The LPWA technologies NB-IoT, LTE-M, LoRa and Sigfox have at the same time emerged as the favoured options for smart gas metering projects across Asia-Pacific, although major regional differences can be seen.



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## Highlights from the report

**In-depth market profiles** of China, Japan, South Korea, India, Bangladesh, Indonesia, the Philippines, Thailand, Vietnam, Australia and New Zealand.

**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 Asia-Pacific.

**New forecasts** for smart electricity and gas meters until 2027.

**Analysis** of the latest market and industry developments in each of the countries.

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

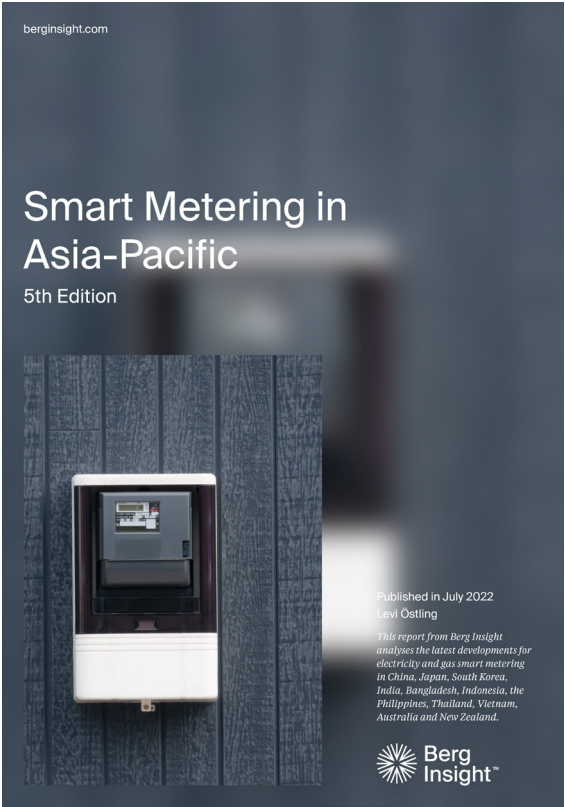
## The report answers the following questions

- How are national energy policies driving the adoption of smart metering?
- What is the current deployment status of major utilities across Asia-Pacific?
- Which countries are leading the adoption of smart gas metering technology in Asia-Pacific?
- Which communications technologies are being used for smart metering across Asia-Pacific?
- Which are the leading smart metering solution providers in Asia-Pacific?
- What is the outlook for second-generation smart metering rollouts in Asia-Pacific?
- How are market-liberalising reforms changing the energy utility sector in Asia-Pacific?
- Which are the main electricity and gas utilities in each country?



## About Berg Insight's IoT market research

Our market reports offer comprehensive information and analysis on key IoT technologies and markets, addressing important concerns including total addressable market, market penetration, market shares, industry landscape, regulatory environment, market trends and forecasts. Our research portfolio today comprises more than 60 items, where each market report focuses on a specific vertical application area or cover horizontal themes. All market reports come with complementary data sets in Excel format that can be easily analysed and converted into tables and charts. We offer a range of different license options together with bundled packages and subscriptions to suit your specific needs.



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# Smart Metering in Asia-Pacific

Are you looking for detailed information and comprehensive data about the Asia-Pacific smart metering market? The study concludes that the installed base of smart electricity meters in Asia-Pacific will grow at a compound annual growth rate (CAGR) of 6.2 percent throughout the forecast period, from 757.7 million in 2021 to 1.1 billion in 2027. The installed base of smart gas metering endpoints in the region is at the same time expected to grow at a CAGR of 19.2 percent from 124.5 million in 2021 to 357.1 million in 2027. 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 Asia-Pacific 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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Levi is an industry expert within the fields of smart metering and smart cities, along with related networking technologies and standards. He is Berg Insight's lead analyst of smart electricity, gas and water metering research. Levi also heads research projects within emerging smart city verticals such as smart streetlighting, smart parking, smart waste management and smart city surveillance. Levi 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 2018.

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