



# Smart Metering in Latin America

1st Edition

*Smart Metering in Latin America from Berg Insight analyses the latest smart metering developments in this dynamic region covering both electricity and gas. The countries covered in-depth include Brazil, Mexico, Argentina, Chile, Colombia, Costa Rica, Panama, Peru and Uruguay. This strategic research report from Berg Insight provides you with over 125 pages of unique business intelligence, including 6-year industry forecasts, expert commentary and real-life case studies on which to base your business decisions.*

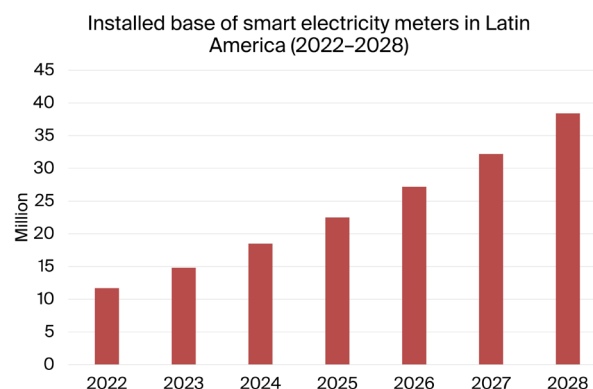
# The future is bright: Latin America's installed base of smart meters to triple by 2028

Smart metering is widely regarded as a 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. With around 187 million electricity customers, Latin America constitutes a large market with significant potential, as well as a significantly lower penetration rate of smart meters in comparison to regions such as East Asia, Europe and North America. The annual demand for electricity meters in Latin America ranges from 16 to 27 million units, out of which Brazil and Mexico together account for over 70 percent. With the exception of Costa Rica and Uruguay, Latin America has not yet seen a wave of massive smart metering projects. However, a number of utilities in the region are scaling-up their smart metering initiatives and in some cases also prepare for large-scale rollouts in the near future. Overall, high energy losses due to the prevalence of energy theft throughout Latin America will continue to be a major driver for smart metering investments. In recent years, Chinese meter vendors have achieved increasing success in the Latin American market. A key contributing factor is their ability to offer competitive pricing, a crucial aspect for the price-sensitive utilities operating in the region.

Berg Insight forecasts that the installed base of smart electricity meters in Latin America – defined as Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Panama, Peru and Uruguay – will grow at a compound annual growth rate of 21.7 percent from 11.7 million in 2022 to 38.4 million in 2028. New installations will largely be driven by deployments in Brazil and Mexico, while countries such as Colombia, Peru and Chile are expected to contribute increasingly large volumes throughout the forecast period. Colombia and Peru will increase their share of annual smart electricity meter shipment volumes in the region from 4.4 percent in 2022 to 16.3 percent in 2028. In Brazil, several utilities such as Cemig, Copel and Enel now increase their investments in AMI infrastructure – particularly Enel which has announced that the company aims to reach 100 percent smart meter coverage across all its subsidiaries worldwide by 2030. Berg Insight projects that over 28.6 million new smart electricity meters will be installed in Latin America during 2022–2028. Annual shipment volumes are forecasted to grow from 1.9 million in 2022 to over 6.1 million in 2028 and the smart meter penetration rate across Latin America is forecasted to reach 19.1 percent in 2028 – up from 6.2 percent in 2022.

The rollout of smart electricity meters in Costa Rica progresses steadily and the country reached a milestone during 2022 when the smart meter penetration rate surpassed 50 percent. The largest DSO group in Costa Rica Grupo ICE announced that it aims to reach 100 percent smart

meter coverage by 2035. In Uruguay, the nationwide rollout by the state-owned utility is largely completed and the country is expected to become the first Latin American country to reach full smart metering coverage in 2024. Brazil is with its 90 million electricity users and low penetration rate of smart meters – 5.7 percent in 2022 – a highly interesting market for smart metering solution vendors. Utilities in the country are increasingly investing in the technology and the country is forecasted to account for close to 60 percent of the shipped smart electricity meters in Latin America during the forecast period. The penetration rate of smart electricity meters in Mexico is forecasted to increase from around 8 percent in 2022 to over 18 percent in 2028. Argentina's high inflation and bleak economic outlook make any large-scale smart meter deployment unlikely in the near future, unless the economic situation significantly improves. Smart metering deployments in Chile peaked in 2018–2019 but have since decreased mainly due to regulatory ambiguity. However, there is potential for a more positive market development if the regulatory environment in Chile improves. In Colombia, the installed base of smart meters is forecasted to increase – driven by deployments by the largest utility group Grupo EPM and the largest domestic individual DSO Enel Colombia. Berg Insight projects that annual shipment volumes in Colombia will grow at an impressive CAGR of 48.5 percent during the forecast period. Peru is a more nascent market in comparison to its neighbour Colombia and smart meter shipment volumes are anticipated to increase after 2024, which is when the country is set to propose technical standards and cost-benefit methodology for future AMI deployments. The installed base of smart meters in Peru is forecasted to grow from around 50,000 in 2022 to 650,000 by 2028. Panama is the smallest market covered in the report and also has the lowest smart meter penetration rate. The installed base of smart electricity meters in Panama is forecasted to reach only 113,000 by 2028. However there is potential for significantly higher growth if the government improves the regulatory framework and creates incentives for smart meter deployments.



# Table of contents

## Executive Summary

## 1 Smart Metering Solutions

- 1.1 Introduction to smart grids
- 1.2 Smart metering
  - 1.2.1 Smart metering applications
  - 1.2.2 Smart metering infrastructure
  - 1.2.3 Benefits of smart metering
- 1.3 Project strategies
  - 1.3.1 System design and sourcing
  - 1.3.2 Rollout and integration
  - 1.3.3 Implementation and operation
  - 1.3.4 Communication with customers
- 1.4 Regulatory issues
  - 1.4.1 Models for the introduction of smart meters
  - 1.4.2 Standardisation
  - 1.4.3 Individual rights issues

## 2 IoT Networks and Communications Technologies

- 2.1 IoT network technologies
  - 2.1.1 Network architectures
  - 2.1.2 Unlicensed and licensed frequency bands
- 2.2 PLC technology and standards
  - 2.2.1 International standards organisations
  - 2.2.2 G3-PLC
  - 2.2.3 PRIME
  - 2.2.4 Meters & More
- 2.3 3GPP cellular and LPWA technologies
  - 2.3.1 2G/3G/4G/5G cellular technologies and IoT
  - 2.3.2 NB-IoT and LTE-M
  - 2.3.3 The role of cellular networks in smart meter communications
  - 2.3.4 LoRa & LoRaWAN
  - 2.3.5 Sigfox
- 2.4 IEEE 802.15.4-based RF
  - 2.4.1 IEEE 802.15.4
  - 2.4.2 Wi-SUN
  - 2.4.3 Proprietary IPv6 connectivity stacks based on 802.15.4

## 3 Smart Metering Industry Players

- 3.1 Meter vendors
  - 3.1.1 Itron
  - 3.1.2 Landis+Gyr
  - 3.1.3 Aclara (Hubbell)
  - 3.1.4 Elgama Elektronika (Linyang Energy)
  - 3.1.5 Gridspertise (Enel)
  - 3.1.6 Hexing Electrical (Eletra)
  - 3.1.7 Holley Technology
  - 3.1.8 Honeywell (Elster)
  - 3.1.9 Iskraemeco
  - 3.1.10 Kaifa Technology
  - 3.1.11 Networked Energy Services
  - 3.1.12 Sagemcom
  - 3.1.13 Sanxing Electric (Nansen)
  - 3.1.14 Wasion
  - 3.1.15 WEG Group
  - 3.1.16 ZIV
- 3.2 Communications solution providers
  - 3.2.1 Corinex
  - 3.2.2 4RF
  - 3.2.3 Tantalus Systems
  - 3.2.4 Trilliant
- 3.3 Software solution providers
  - 3.3.1 Fluentgrid
  - 3.3.2 Harris Utilities

- 3.3.3 Indra
- 3.3.4 Neoris
- 3.3.5 SAP
- 3.3.6 Siemens
- 3.4 System integrators and communications service providers
  - 3.4.1 Accenture
  - 3.4.2 América Móvil
  - 3.4.3 Ativa Soluções
  - 3.4.4 CAS Tecnologia
  - 3.4.5 Cisco
  - 3.4.6 IBM
  - 3.4.7 NTT
  - 3.4.8 Telefónica
  - 3.4.9 Telecom Italia (TIM)
  - 3.4.10 Trópico

## 4 Market Profiles

- 4.1 Regional summary
- 4.2 Argentina
  - 4.2.1 Electricity and gas utility industry structure
  - 4.2.2 Metering regulatory environment and smart metering market deployments
- 4.3 Brazil
  - 4.3.1 Electricity and gas utility industry structure
  - 4.3.2 Metering regulatory environment and smart metering market deployments
- 4.4 Chile
  - 4.4.1 Electricity and gas utility industry structure
  - 4.4.2 Metering regulatory environment and smart metering market deployments
- 4.5 Colombia
  - 4.5.1 Electricity and gas utility industry structure
  - 4.5.2 Metering regulatory environment and smart metering market deployments
- 4.6 Costa Rica
  - 4.6.1 Electricity utility industry structure
  - 4.6.2 Metering regulatory environment and smart metering market deployments
- 4.7 Mexico
  - 4.7.1 Electricity and gas utility industry structure
  - 4.7.2 Metering regulatory environment and smart metering market developments
- 4.8 Panama
  - 4.8.1 Electricity utility industry structure
  - 4.8.2 Metering regulatory environment and smart metering market developments
- 4.9 Peru
  - 4.9.1 Electricity and gas utility industry structure
  - 4.9.2 Metering regulatory environment and smart metering market deployments
- 4.10 Uruguay
  - 4.10.1 Electricity and gas utility industry structure
  - 4.10.2 Metering regulatory environment and smart metering market deployments

## 5 Market Analysis

- 5.1 Smart electricity metering
- 5.2 Market forecasts
  - 5.2.1 Argentina
  - 5.2.2 Brazil
  - 5.2.3 Chile
  - 5.2.4 Colombia
  - 5.2.5 Costa Rica
  - 5.2.6 Mexico
  - 5.2.7 Panama
  - 5.2.8 Peru
  - 5.2.9 Uruguay

## 5.3 Industry analysis and technology trends

- 5.3.1 Technology vendors
- 5.3.2 Technology trends
- 5.4 Smart gas metering

## 6 Case Studies

- 6.1 Copel
- 6.2 Grupo ICE
- 6.3 Light
- 6.4 UTE

## Glossary



## Highlights from the report

**In-depth market profiles** of Brazil, Mexico, Argentina, Chile, Colombia, Costa Rica, Panama, Peru and Uruguay.

**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 Latin America.

**New forecasts** for smart electricity meters until 2028.

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

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

## Questions answered in the report

- How are the national energy policies driving the adoption of smart metering?
- What is the current deployment status of major utilities across Latin America?
- How are market-liberalising reforms changing the energy utility sector in Latin America?
- Which communications technologies are being used for smart metering in Latin America?
- Which are the leading smart metering solution providers in Latin America?
- What is the outlook for the first wave of smart metering rollouts in Latin America?
- 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.



SMART UTILITIES

# Smart Metering in Latin America

Are you looking for detailed information and comprehensive data about the smart metering market in Latin America? The study concludes that the installed base of smart electricity meters in Latin America will grow at a compound annual growth rate (CAGR) of 21.7 percent throughout the forecast period, from 11.7 million in 2022 to 38.4 million in 2028. Get up to date with the latest information about vendors, products and local developments in each country.

PUBLISHED DATE	May 2023
EDITION	1st
PAGES	125
AUTHOR	Mattias Carlsson

PDF & EXCEL: 1 user license	€ 1 800
PDF & EXCEL: 2-10 user license	€ 2 700
PDF & EXCEL: Enterprise license	€ 3 600

[Read more and place order on berginsight.com](#)

## Who should read this report?

Smart Metering in Latin America is the foremost source of information about the ongoing transformation of the metering sector in this region. 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

Mattias Carlsson



Mattias is an IoT analyst covering mainly the smart cities and utilities sectors. He is Berg Insight's lead analyst of smart electricity, gas and water metering research. Mattias also heads research projects within emerging smart city verticals such as smart streetlighting, smart parking, air quality monitoring, smart waste management and smart city surveillance. Mattias holds a Master's degree in Industrial Engineering and Management from Chalmers University of Technology and joined Berg Insight in 2022.

Related products *Find them and more on [berginsight.com](https://berginsight.com)*



CATEGORY  
Smart Utilities



CATEGORY  
Smart Utilities



CATEGORY  
Horizontal Themes

CONTACT

Berg Insight AB  
Viktoriagatan 3  
411 25 Gothenburg  
Sweden

+46 (0)31 711 30 91  
[info@berginsight.com](mailto:info@berginsight.com)  
[www.berginsight.com](https://www.berginsight.com)



*Berg Insight offers premier business intelligence to the telecom industry. We produce concise reports providing key facts and strategic insights about pivotal developments in our focus areas. Berg Insight also offers detailed market forecast databases and advisory services. Our vision is to be the most valuable source of intelligence for our customers.*