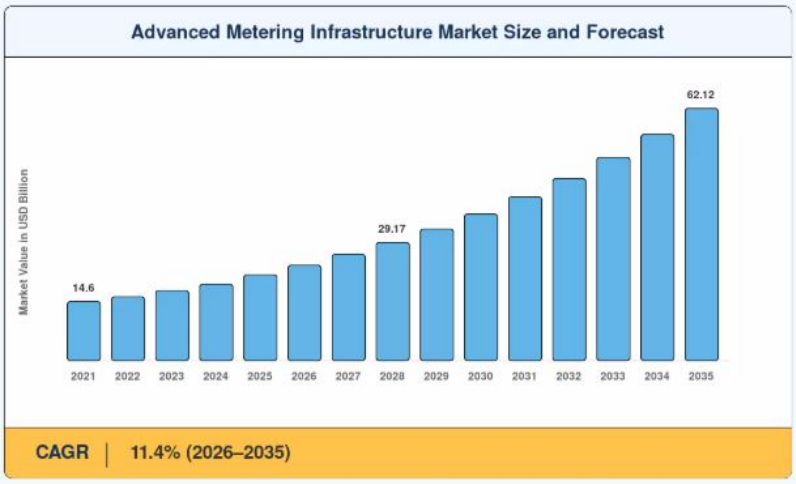
Advanced Metering Infrastructure (AMI) Market 2025–2035, USD 62.12B, CAGR 11.4%

Advanced Metering Infrastructure (AMI) Market Size, Share and Research Report By Application Type (Electricity Metering, Water Metering, Gas Metering)



Advanced Metering Infrastructure (AMI) Market

TOKYO, TOKYO, JAPAN, June 30, 2026 /EINPresswire.com/ -- The Global advanced metering infrastructure (AMI) market reached an estimated USD 21.10 billion in 2025 and is projected to grow from USD 23.50 billion in 2026 to USD 62.12 billion by 2035, registering a CAGR of 11.4% during the forecast period. Two major catalysts are accelerating this trajectory: government-mandated smart meter rollout programs across the United States, European Union, and Asia-Pacific collectively targeting the replacement of over 1.2 billion legacy electromechanical meters by 2030.

> The Advanced Metering Infrastructure (AMI) Market is expanding due to increasing smart grid deployments and the demand for real-time energy monitoring."
>
> *Market Research Future (MRFR)*

Structural integration of distributed renewable energy sources that demands real-time, bidirectional grid communication. With utilities facing mounting pressure to decarbonize infrastructure, reduce non-technical losses, and enable dynamic tariff programs, AMI has rapidly transitioned from a capital expenditure initiative into a strategic grid modernization imperative.

Legacy analog and single-direction metering networks many operating on decade-old radio frequency (RF) mesh or power line carrier (PLC) architectures are rapidly giving way to next-generation AMI platforms that integrate cellular IoT (NB-IoT/LTE-M) communication modules, edge analytics, and cloud-native meter data management systems (MDMS).

A recent Rocky Mountain Institute utility benchmarking study estimated that top-quartile utilities

deploying full AMI ecosystems alongside advanced distribution management systems (ADMS) reduced outage restoration times by 31–38% and cut meter-reading operational costs by over 60% compared to peers still relying on drive-by automated meter reading (AMR) systems. This technology shift is not incremental it represents a foundational re-architecture of how utilities engage with customers, manage grid assets, and prepare for the energy transition.

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 How Significant Is the Advanced Metering Infrastructure (AMI) Market's Growth?

The AMI market has demonstrated consistent and robust expansion, rising from approximately USD 12.37 billion in 2021 to an estimated USD 18.64 billion in 2025, representing a healthy historical growth trajectory. The market is expected to more than double over the next decade, driven by accelerating smart grid investment programs, utility digital transformation mandates, expanding electric vehicle (EV) charging infrastructure requiring granular load visibility, and the convergence of energy management with smart home and smart city ecosystems.

Rising grid complexity stemming from distributed solar generation, battery storage, and vehicle-to-grid (V2G) integration has created acute demand for real-time metering and communication infrastructure. Electric utilities, gas distribution companies, water authorities, and municipal energy providers are all investing heavily in AMI deployments to reduce operational costs, prevent revenue leakage, enable demand response programs, and future-proof their distribution networks against the accelerating pace of energy transition.

 What Does the Future Hold for the Advanced Metering Infrastructure (AMI) Market?

Artificial intelligence and edge computing stand at the forefront of the market's next growth phase. AI-integrated AMI platforms are transforming metering from a passive data collection function into an active grid intelligence layer enabling predictive outage detection, real-time load forecasting, automated demand response dispatch, and non-intrusive load monitoring (NILM) that identifies individual appliance energy consumption without additional in-home hardware. Utilities deploying these capabilities are unlocking new revenue streams from grid services, dynamic pricing, and energy-as-a-service offerings.

The growing emphasis on consumer empowerment and energy efficiency is another defining force shaping the market's future. Regulators and consumers alike are demanding transparent, real-time energy usage insights. AMI platforms offering web and mobile energy dashboards, time-of-use (TOU) tariff support, pre-payment functionality, and EV charging optimization are displacing traditional fixed-rate metering relationships. The integration of Home Area Networks (HAN) and smart thermostat connectivity into AMI ecosystems is expected to further deepen consumer engagement.

Cellular IoT communication is also redefining AMI network architectures. With NB-IoT and LTE-M offering wide-area coverage, deep indoor penetration, and sub-dollar module costs, utilities are increasingly bypassing proprietary RF mesh networks in favor of operator-managed cellular connectivity. This shift significantly reduces AMI network deployment and maintenance complexity while enabling seamless expansion into rural and hard-to-reach metering locations.

 Who Are the Key Players in the Advanced Metering Infrastructure (AMI) Market?

The AMI landscape is characterized by a mix of established metering equipment manufacturers, telecommunications infrastructure providers, software platform vendors, and emerging IoT-native startups. Key participants shaping the competitive dynamics include:

Landis+Gyr — a global leader in smart metering and grid edge intelligence, serving electric, gas, and water utilities across 30+ countries.

Itron Inc. — delivering integrated smart meters, communication networks, and data analytics platforms for energy and water utilities worldwide.

Honeywell (Elster Group) — providing advanced gas, electricity, and water metering solutions with robust global utility distribution networks.

Siemens AG — offering comprehensive smart grid infrastructure including AMI communication modules and meter data management integration.

Schneider Electric — providing end-to-end grid modernization solutions incorporating AMI, ADMS, and distributed energy resource management.

Kamstrup A/S — specializing in intelligent metering systems for electricity, heat, and water utilities with strong European and North American presence.

Sensus (Xylem) — delivering AMI solutions with proprietary FlexNet communication network technology for electric, gas, and water applications.

Aclara Technologies — offering RF-based AMI solutions and meter data management platforms for North American utilities.

Oracle Utilities — providing cloud-native meter data management, customer information systems, and analytics platforms for AMI deployments.

Ericsson — enabling cellular IoT-based AMI communication infrastructure through its global telecommunications network equipment portfolio.

Competition in the market is intensifying as vendors race to embed generative AI capabilities

into meter data analytics, expand cybersecurity frameworks in response to evolving NERC CIP and IEC 62351 compliance requirements, and deepen integrations with distributed energy resource management systems (DERMS) and virtual power plant (VPP) platforms. Strategic acquisitions of IoT software and grid analytics startups are also reshaping the vendor landscape.

 What Are the Emerging Trends in the Advanced Metering Infrastructure (AMI) Market?

Several transformational trends are redefining how the AMI market evolves through 2035:
AMI 2.0 and Edge Intelligence: Next-generation smart meters embedding edge computing processors capable of running AI inference locally are enabling real-time grid event detection, tamper identification, and power quality monitoring without dependence on centralized MDMS processing.

Cellular IoT Network Migration: NB-IoT and LTE-M are rapidly displacing proprietary RF mesh and PLC communication layers in new AMI deployments, driven by lower total network cost, operator-managed maintenance, and compatibility with emerging 5G private network architectures.

EV and V2G Integration: AMI platforms are evolving to support bi-directional energy flow metering for vehicle-to-grid applications, enabling utilities to leverage EV fleets as distributed storage assets within demand response and grid balancing programs.

Cybersecurity and Grid Resilience: The expansion of connected metering endpoints is intensifying investment in AMI cybersecurity — including end-to-end encryption, zero-trust network architectures, and automated threat detection capabilities mandated by NERC CIP and EU NIS2 frameworks.

Water and Gas AMI Convergence: Utilities are increasingly adopting multi-commodity AMI strategies that extend smart metering and real-time analytics from electricity to water and gas networks, unlocking unified operational dashboards and cross-commodity demand forecasting.
Prepayment and Energy Equity Programs: AMI-enabled prepayment metering and granular usage-based billing are gaining traction in emerging markets and low-income utility programs, enabling flexible payment structures and real-time energy budget management for underserved customers.

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 How Is the Advanced Metering Infrastructure (AMI) Market Segmented?

The advanced metering infrastructure (AMI) market report provides a comprehensive

segmentation framework:
By Component: Smart Meters, Communication Networks (RF Mesh, PLC, Cellular IoT), Meter Data Management Systems (MDMS), Head-End Systems, Other Software & Services

By Utility Type: Electric, Gas, Water, Multi-Commodity

By Communication Technology: RF Mesh, Power Line Communication (PLC), Cellular (NB-IoT/LTE-M/5G), Wi-SUN, Other

By End-User: Residential, Commercial & Industrial, Utility Operations

By Deployment Model: On-Premise, Cloud-Based, Hybrid

 What Are the Regional Insights from the Advanced Metering Infrastructure (AMI) Market?

North America commands approximately 36% of global AMI market share, underpinned by the United States' Advanced Metering Infrastructure Investment Program under the Bipartisan Infrastructure Law, which allocated over USD 3 billion for grid modernization including smart meter deployments. The region's mature utility regulatory framework, high electricity prices incentivizing demand response participation, and advanced cloud MDMS adoption further reinforce its leading position.

Europe holds the second-largest share at approximately 29%, with Italy, Sweden, Spain, and the United Kingdom representing the most advanced AMI deployment markets having achieved near-universal smart meter coverage. The European Commission's Energy Efficiency Directive mandating smart meter rollouts across all member states continues to drive investment in MDMS upgrades, communication network modernization, and cross-border AMI interoperability standards.

Asia-Pacific represents a rapidly growing region, driven by China's State Grid Corporation completing the world's largest AMI deployment with over 500 million smart meters installed, alongside aggressive smart meter rollout programs in India (RDSS scheme targeting 250 million prepaid smart meters), Japan, South Korea, and Australia. Cellular IoT communication and prepayment metering are defining architectural choices across APAC's emerging economy deployments.

Middle East & Africa is projected to register the highest CAGR at approximately 10.4% through 2035. GCC utilities in Saudi Arabia, UAE, and Kuwait are executing large-scale smart meter mandates as part of national energy efficiency and Vision 2030-aligned grid modernization programs. Sub-Saharan African deployments are increasingly leveraging cellular IoT-based prepaid AMI to reduce non-technical losses and extend reliable energy access in underserved distribution networks.

South America rounds out the global picture, with Brazil, Chile, and Colombia representing the most active AMI procurement markets, driven by regulatory mandates for smart meter deployment in the residential and commercial segments and growing private utility investment in distribution loss reduction technologies.

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