

Grid Automation Solutions Market Forecasts to 2034 – Global Analysis By Offering (Hardware, Software, and Services), Technology (Advanced Metering Infrastructure, Distribution Automation, Substation Automation, Transmission Automation, and Digital Substations), Communication, Grid Type, End User, and By Geography

<https://marketpublishers.com/r/G032BA50C801EN.html>

Date: February 2026

Pages: 200

Price: US\$ 4,150.00 (Single User License)

ID: G032BA50C801EN

Abstracts

According to Statistics MRC, the Global Grid Automation Solutions Market is accounted for \$26.4 billion in 2026 and is expected to reach \$55.0 billion by 2034 growing at a CAGR of 9.6% during the forecast period. Grid automation solutions encompass hardware, software, and services designed to enhance the reliability, efficiency, and resilience of electricity transmission and distribution networks. This includes intelligent electronic devices (IEDs), distribution management systems (DMS), substation automation, and advanced communication technologies. Growth is fueled by rising investments in smart grids, increasing renewable energy penetration, regulatory mandates for grid reliability, and the escalating demand for operational efficiency among utilities.

Market Dynamics:

Driver:

Rising investments in smart grid infrastructure

Governments and private utilities worldwide are channeling significant capital into modernizing electrical grids to improve resilience, accommodate renewable energy, and

enable two-way power flow. This investment drive creates substantial demand for automation hardware, such as smart sensors and reclosers, and sophisticated software platforms for real-time grid management and analytics.

Restraint:

High initial capital investment and integration complexity

The deployment of comprehensive grid automation solutions requires substantial upfront expenditure on hardware, software, and system integration. Furthermore, integrating new technologies with legacy grid infrastructure poses significant technical and operational challenges, potentially slowing adoption rates, particularly in cost-sensitive regions and among smaller utilities.

Opportunity:

Integration of AI and IoT for predictive grid management

The convergence of Artificial Intelligence (AI), Machine Learning (ML), and the Internet of Things (IoT) presents a transformative opportunity for advanced grid automation. These technologies enable predictive maintenance, real-time fault detection, self-healing grids, and optimized asset management, moving utilities from reactive to proactive network operations and unlocking new value streams.

Threat:

Cybersecurity vulnerabilities in critical infrastructure

As grids become more digitalized and interconnected, their exposure to sophisticated cyber-attacks increases. A major security breach could lead to widespread outages, financial loss, and erosion of public trust, posing a severe threat to market growth and necessitating continuous, costly investments in advanced cybersecurity protocols.

Covid-19 Impact:

The COVID-19 pandemic initially disrupted supply chains and delayed utility capital projects, temporarily slowing market growth. However, it also underscored the critical importance of resilient, automated, and remotely managed grid infrastructure. The crisis accelerated the digital transformation within the power sector, highlighting the value of

automation in maintaining reliability amidst fluctuating and unpredictable demand patterns, thereby reinforcing long-term growth drivers.

The hardware segment is expected to hold a significant market share during the forecast period

The hardware segment, comprising IEDs, smart sensors, circuit breakers, and RTUs, is anticipated to account for a major market share. This dominance is attributed to the foundational role of these components in any automation upgrade, the ongoing large-scale replacement of aging electromechanical devices, and the continuous expansion of transmission and distribution networks globally.

The software segment is expected to witness robust growth during the forecast period

The software segment, including SCADA, Distribution Management Systems (DMS), and Energy Management Systems (EMS), is projected to exhibit strong growth. This surge is driven by the increasing complexity of grid operations, the need for centralized command and control, and the growing adoption of data-driven analytics for optimizing grid performance and integrating distributed energy resources (DERs).

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share. This leadership is supported by substantial government funding for grid modernization, stringent reliability standards, early adoption of digital technologies, and the presence of major grid automation solution providers. A strong focus on replacing aging infrastructure and mitigating outage risks further consolidates North America's dominant position.

Region with highest CAGR:

The Asia Pacific region is anticipated to register the highest CAGR over the forecast period. This rapid growth is propelled by massive investments in new power generation and T&D infrastructure, ambitious national smart grid initiatives in countries like China, India, and Japan, and the pressing need to manage escalating electricity demand and improve grid efficiency in urbanizing economies.

Key players in the market

Some of the key players in Grid Automation Solutions Market include ABB Ltd., Siemens AG, Schneider Electric SE, General Electric (GE Vernova), Hitachi Energy Ltd., Eaton Corporation, Honeywell International Inc., S&C Electric Company, Schweitzer Engineering Laboratories (SEL), Cisco Systems, Inc., Itron Inc., Oracle Corporation, AutoGrid Systems, Rockwell Automation, and Mitsubishi Electric Corporation.

Key Developments:

In December 2025, Schneider Electric launched AI-powered grid automation software, piloted in France.

In October 2025, Eaton Corporation introduced cybersecure automation solutions for North American utilities.

In August 2025, ABB expanded its Ability Grid Automation portfolio, integrating real-time fault detection.

Offerings Covered:

Hardware

Software

Services

Technologies Covered:

Advanced Metering Infrastructure

Distribution Automation

Substation Automation

Transmission Automation

Digital Substations

Communications Covered:

Wired

Wireless

Grid Types Covered:

Transmission Grid

Distribution Grid

End Users Covered:

Public Utilities

Private Utilities

Industrial Users

Commercial & Residential

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 3032 and 2034
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

Contents

1 EXECUTIVE SUMMARY

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Technology Analysis
- 3.7 End User Analysis
- 3.8 Emerging Markets
- 3.9 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL GRID AUTOMATION SOLUTIONS MARKET, BY OFFERING

5.1 Introduction

5.2 Hardware

5.2.1 Intelligent Electronic Devices (IEDs)

5.2.2 Smart Sensors and Transformers

5.2.3 Reclosers, Switches, and Circuit Breakers

5.2.4 RTUs (Remote Terminal Units) & Gateway Devices

5.3 Software

5.3.1 Supervisory Control and Data Acquisition (SCADA)

5.3.2 Distribution Management Systems

5.3.3 Energy Management Systems

5.3.4 Grid Asset Management Platforms

5.3.5 Distributed Energy Resource Management Systems

5.4 Services

5.4.1 Professional Services

5.4.2 Managed Services

6 GLOBAL GRID AUTOMATION SOLUTIONS MARKET, BY TECHNOLOGY

6.1 Introduction

6.2 Advanced Metering Infrastructure

6.3 Distribution Automation

6.4 Substation Automation

6.5 Transmission Automation

6.6 Digital Substations

7 GLOBAL GRID AUTOMATION SOLUTIONS MARKET, BY COMMUNICATION

7.1 Introduction

7.2 Wired

7.3 Wireless

8 GLOBAL GRID AUTOMATION SOLUTIONS MARKET, BY GRID TYPE

8.1 Introduction

8.2 Transmission Grid

8.3 Distribution Grid

9 GLOBAL GRID AUTOMATION SOLUTIONS MARKET, BY END USER

- 9.1 Introduction
- 9.2 Public Utilities
- 9.3 Private Utilities
- 9.4 Industrial Users
- 9.5 Commercial & Residential

10 GLOBAL GRID AUTOMATION SOLUTIONS MARKET, BY GEOGRAPHY

- 10.1 Introduction
- 10.2 North America
 - 10.2.1 US
 - 10.2.2 Canada
 - 10.2.3 Mexico
- 10.3 Europe
 - 10.3.1 Germany
 - 10.3.2 UK
 - 10.3.3 Italy
 - 10.3.4 France
 - 10.3.5 Spain
 - 10.3.6 Rest of Europe
- 10.4 Asia Pacific
 - 10.4.1 Japan
 - 10.4.2 China
 - 10.4.3 India
 - 10.4.4 Australia
 - 10.4.5 New Zealand
 - 10.4.6 South Korea
 - 10.4.7 Rest of Asia Pacific
- 10.5 South America
 - 10.5.1 Argentina
 - 10.5.2 Brazil
 - 10.5.3 Chile
 - 10.5.4 Rest of South America
- 10.6 Middle East & Africa
 - 10.6.1 Saudi Arabia
 - 10.6.2 UAE
 - 10.6.3 Qatar

10.6.4 South Africa

10.6.5 Rest of Middle East & Africa

11 KEY DEVELOPMENTS

11.1 Agreements, Partnerships, Collaborations and Joint Ventures

11.2 Acquisitions & Mergers

11.3 New Product Launch

11.4 Expansions

11.5 Other Key Strategies

12 COMPANY PROFILING

12.1 ABB Ltd.

12.2 Siemens

12.3 Schneider Electric

12.4 General Electric (GE Vernova)

12.5 Hitachi Energy

12.6 Eaton Corporation

12.7 Honeywell International Inc.

12.8 S&C Electric Company

12.9 Schweitzer Engineering Laboratories (SEL)

12.10 Cisco Systems

12.11 Itron Inc.

12.12 Oracle Corporation

12.13 AutoGrid Systems

12.14 Rockwell Automation

12.15 Mitsubishi Electric Corporation

List Of Tables

LIST OF TABLES

Table 1 Global Grid Automation Solutions Market Outlook, By Region (2023–2034) (\$MN)

Table 2 Global Grid Automation Solutions Market Outlook, By Offering (2023–2034) (\$MN)

Table 3 Global Grid Automation Solutions Market Outlook, By Intelligent Electronic Devices (IEDs) (2023–2034) (\$MN)

Table 4 Global Grid Automation Solutions Market Outlook, By Smart Sensors and Transformers (2023–2034) (\$MN)

Table 5 Global Grid Automation Solutions Market Outlook, By Reclosers, Switches & Circuit Breakers (2023–2034) (\$MN)

Table 6 Global Grid Automation Solutions Market Outlook, By RTUs & Gateway Devices (2023–2034) (\$MN)

Table 7 Global Grid Automation Solutions Market Outlook, By Supervisory Control and Data Acquisition (SCADA) (2023–2034) (\$MN)

Table 8 Global Grid Automation Solutions Market Outlook, By Distribution Management Systems (2023–2034) (\$MN)

Table 9 Global Grid Automation Solutions Market Outlook, By Energy Management Systems (2023–2034) (\$MN)

Table 10 Global Grid Automation Solutions Market Outlook, By Grid Asset Management Platforms (2023–2034) (\$MN)

Table 11 Global Grid Automation Solutions Market Outlook, By Distributed Energy Resource Management Systems (2023–2034) (\$MN)

Table 12 Global Grid Automation Solutions Market Outlook, By Professional Services (2023–2034) (\$MN)

Table 13 Global Grid Automation Solutions Market Outlook, By Managed Services (2023–2034) (\$MN)

Table 14 Global Grid Automation Solutions Market Outlook, By Technology (2023–2034) (\$MN)

Table 15 Global Grid Automation Solutions Market Outlook, By Advanced Metering Infrastructure (2023–2034) (\$MN)

Table 16 Global Grid Automation Solutions Market Outlook, By Distribution Automation (2023–2034) (\$MN)

Table 17 Global Grid Automation Solutions Market Outlook, By Substation Automation (2023–2034) (\$MN)

Table 18 Global Grid Automation Solutions Market Outlook, By Transmission

Automation (2023–2034) (\$MN)

Table 19 Global Grid Automation Solutions Market Outlook, By Digital Substations (2023–2034) (\$MN)

Table 20 Global Grid Automation Solutions Market Outlook, By Communication (2023–2034) (\$MN)

Table 21 Global Grid Automation Solutions Market Outlook, By Wired (2023–2034) (\$MN)

Table 22 Global Grid Automation Solutions Market Outlook, By Wireless (2023–2034) (\$MN)

Table 23 Global Grid Automation Solutions Market Outlook, By Grid Type (2023–2034) (\$MN)

Table 24 Global Grid Automation Solutions Market Outlook, By Transmission Grid (2023–2034) (\$MN)

Table 25 Global Grid Automation Solutions Market Outlook, By Distribution Grid (2023–2034) (\$MN)

Table 26 Global Grid Automation Solutions Market Outlook, By End User (2023–2034) (\$MN)

Table 27 Global Grid Automation Solutions Market Outlook, By Public Utilities (2023–2034) (\$MN)

Table 28 Global Grid Automation Solutions Market Outlook, By Private Utilities (2023–2034) (\$MN)

Table 29 Global Grid Automation Solutions Market Outlook, By Industrial Users (2023–2034) (\$MN)

Table 30 Global Grid Automation Solutions Market Outlook, By Commercial & Residential (2023–2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

I would like to order

Product name: Grid Automation Solutions Market Forecasts to 2034 – Global Analysis By Offering (Hardware, Software, and Services), Technology (Advanced Metering Infrastructure, Distribution Automation, Substation Automation, Transmission Automation, and Digital Substations), Communication, Grid Type, End User, and By Geography

Product link: <https://marketpublishers.com/r/G032BA50C801EN.html>

Price: US\$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G032BA50C801EN.html>