

Global Smart Grid Communications Market Size Study & Forecast, by Components, Technology, End-User and Regional Forecasts 2025-2035

<https://marketpublishers.com/r/GCF3ECF40D17EN.html>

Date: June 2025

Pages: 285

Price: US\$ 3,218.00 (Single User License)

ID: GCF3ECF40D17EN

Abstracts

The Global Smart Grid Communications Market is valued at approximately USD 41.44 billion in 2024 and is expected to surge at a compound annual growth rate (CAGR) of over 12.75% during the forecast period of 2025 to 2035. Smart grid communications serve as the lifeline of modern electrical grids by enabling real-time, two-way communication between utilities and consumers. These systems enhance operational efficiency, reliability, and energy sustainability by leveraging advanced technologies such as Internet of Things (IoT), Artificial Intelligence (AI), and data analytics. The continual rise in electricity demand, mounting environmental concerns, and the global shift towards decentralized energy production have collectively compelled governments and utilities to adopt intelligent grid infrastructure — thereby catalyzing demand for smart grid communication solutions worldwide.

The escalating emphasis on grid modernization has been pivotal in accelerating the adoption of robust communication frameworks across electric utilities. Key industry players are harnessing both wired and wireless technologies to support fault detection, energy load balancing, remote monitoring, and demand-response capabilities. According to a 2023 report from the International Energy Agency (IEA), smart grid investments reached new heights, with over \$35 billion funneled globally towards communication and automation upgrades. Furthermore, the need to integrate renewable energy sources, electric vehicles (EVs), and energy storage systems into existing grids has intensified the requirement for reliable, low-latency communication platforms — propelling the market's trajectory. However, persistent challenges such as cybersecurity threats, high deployment costs, and interoperability issues continue to temper market expansion across some developing regions.

Regionally, North America commanded a dominant share of the Smart Grid Communications Market in 2024, bolstered by aggressive grid digitalization projects in the U.S. and Canada, favorable regulatory frameworks, and sustained investment by utility giants. Europe closely follows, backed by the EU's decarbonization agenda and smart meter rollouts. Meanwhile, Asia Pacific is poised to exhibit the fastest CAGR throughout the forecast timeline, driven by rapid urbanization, government-backed electrification programs, and expanding smart city initiatives in populous nations such as China, India, and South Korea. Latin America and the Middle East & Africa are also gradually emerging as lucrative markets, supported by improving grid infrastructure and international funding for energy access programs.

Major market player included in this report are:

Honeywell International Inc.

ABB Ltd.

Siemens AG

Cisco Systems, Inc.

General Electric Company

Itron Inc.

Schneider Electric SE

Nokia Corporation

Toshiba Corporation

Ericsson AB

Trilliant Holdings Inc.

Sensus (Xylem Inc.)

IBM Corporation

Qualcomm Technologies, Inc.

Oracle Corporation

Global Smart Grid Communications Market Report Scope:

Historical Data – 2023, 2024

Base Year for Estimation – 2024

Forecast period - 2025-2035

Report Coverage - Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Regional Scope - North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope - Free report customization (equivalent up to 8 analysts' working hours) with purchase. Addition or alteration to country, regional & segment scope*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values for the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within the countries involved in the study. The report also provides detailed information about crucial aspects, such as driving factors and challenges, which will define the future growth of the market. Additionally, it incorporates potential opportunities in micro-markets for stakeholders to invest, along with a detailed analysis of the competitive landscape and product offerings of key players. The detailed segments and sub-segments of the market are explained below:

By Components:

Hardware

Software

Services

By Technology:

Wired

Wireless

By End-User:

Residential

Corporate

Government

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

Rest of Europe

Asia Pacific

China

India

Japan

Australia

South Korea

Rest of Asia Pacific

Latin America

Brazil

Mexico

Middle East & Africa

UAE

Saudi Arabia

South Africa

Rest of Middle East & Africa

Key Takeaways:

Market Estimates & Forecast for 10 years from 2025 to 2035.

Annualized revenues and regional level analysis for each market segment.

Detailed analysis of geographical landscape with Country level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of competitive structure of the market.

Demand side and supply side analysis of the market.

Contents

CHAPTER 1. GLOBAL SMART GRID COMMUNICATIONS MARKET REPORT SCOPE & METHODOLOGY

- 1.1. Research Objective
- 1.2. Research Methodology
 - 1.2.1. Forecast Model
 - 1.2.2. Desk Research
 - 1.2.3. Top Down and Bottom-Up Approach
- 1.3. Research Attributes
- 1.4. Scope of the Study
 - 1.4.1. Market Definition
 - 1.4.2. Market Segmentation
- 1.5. Research Assumption
 - 1.5.1. Inclusion & Exclusion
 - 1.5.2. Limitations
 - 1.5.3. Years Considered for the Study

CHAPTER 2. EXECUTIVE SUMMARY

- 2.1. CEO/CXO Standpoint
- 2.2. Strategic Insights
- 2.3. ESG Analysis
- 2.4. Key Findings

CHAPTER 3. GLOBAL SMART GRID COMMUNICATIONS MARKET FORCES ANALYSIS

- 3.1. Market Forces Shaping the Global Smart Grid Communications Market (2024–2035)
- 3.2. Drivers
 - 3.2.1. Increasing Electricity Demand Worldwide
 - 3.2.2. Integration of Renewable Energy Sources
 - 3.2.3. Grid Modernization and Digitalization Initiatives
- 3.3. Restraints
 - 3.3.1. High Infrastructure and Deployment Costs
 - 3.3.2. Cybersecurity Threats and Data Privacy Concerns
 - 3.3.3. Interoperability and Standardization Challenges

3.4. Opportunities

- 3.4.1. IoT and Advanced Analytics Integration
- 3.4.2. Emerging Markets' Grid Digitalization
- 3.4.3. Expansion of Smart City and Microgrid Projects

CHAPTER 4. GLOBAL SMART GRID COMMUNICATIONS INDUSTRY ANALYSIS

4.1. Porter's 5 Forces Model

- 4.1.1. Bargaining Power of Buyer
- 4.1.2. Bargaining Power of Supplier
- 4.1.3. Threat of New Entrants
- 4.1.4. Threat of Substitutes
- 4.1.5. Competitive Rivalry

4.2. Porter's 5 Forces Forecast Model (2024–2035)

4.3. PESTEL Analysis

- 4.3.1. Political
- 4.3.2. Economical
- 4.3.3. Social
- 4.3.4. Technological
- 4.3.5. Environmental
- 4.3.6. Legal

4.4. Top Investment Opportunities

4.5. Top Winning Strategies (2025)

4.6. Market Share Analysis (2024–2025)

4.7. Global Pricing Analysis and Trends 2025

4.8. Analyst Recommendation & Conclusion

CHAPTER 5. GLOBAL SMART GRID COMMUNICATIONS MARKET SIZE & FORECASTS BY COMPONENTS 2025–2035

5.1. Market Overview

5.2. Global Smart Grid Communications Market Performance – Potential Analysis (2025)

5.3. Hardware

- 5.3.1. Top Countries Breakdown Estimates & Forecasts, 2024–2035
- 5.3.2. Market Size Analysis, by Region, 2025–2035

5.4. Software

- 5.4.1. Top Countries Breakdown Estimates & Forecasts, 2024–2035
- 5.4.2. Market Size Analysis, by Region, 2025–2035

5.5. Services

5.5.1. Top Countries Breakdown Estimates & Forecasts, 2024–2035

5.5.2. Market Size Analysis, by Region, 2025–2035

CHAPTER 6. GLOBAL SMART GRID COMMUNICATIONS MARKET SIZE & FORECASTS BY TECHNOLOGY 2025–2035

6.1. Market Overview

6.2. Global Smart Grid Communications Market Performance – Potential Analysis (2025)

6.3. Wired

6.3.1. Top Countries Breakdown Estimates & Forecasts, 2024–2035

6.3.2. Market Size Analysis, by Region, 2025–2035

6.4. Wireless

6.4.1. Top Countries Breakdown Estimates & Forecasts, 2024–2035

6.4.2. Market Size Analysis, by Region, 2025–2035

CHAPTER 7. GLOBAL SMART GRID COMMUNICATIONS MARKET SIZE & FORECASTS BY END-USER 2025–2035

7.1. Market Overview

7.2. Global Smart Grid Communications Market Performance – Potential Analysis (2025)

7.3. Residential

7.3.1. Top Countries Breakdown Estimates & Forecasts, 2024–2035

7.3.2. Market Size Analysis, by Region, 2025–2035

7.4. Corporate

7.4.1. Top Countries Breakdown Estimates & Forecasts, 2024–2035

7.4.2. Market Size Analysis, by Region, 2025–2035

7.5. Government

7.5.1. Top Countries Breakdown Estimates & Forecasts, 2024–2035

7.5.2. Market Size Analysis, by Region, 2025–2035

CHAPTER 8. GLOBAL SMART GRID COMMUNICATIONS MARKET SIZE & FORECASTS BY REGION 2025–2035

8.1. Smart Grid Communications Market, Regional Market Snapshot

8.2. Top Leading & Emerging Countries

8.3. North America Smart Grid Communications Market

- 8.3.1. U.S. Smart Grid Communications Market
 - 8.3.1.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.3.1.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.3.1.3. End-User Breakdown Size & Forecasts, 2025–2035
- 8.3.2. Canada Smart Grid Communications Market
 - 8.3.2.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.3.2.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.3.2.3. End-User Breakdown Size & Forecasts, 2025–2035
- 8.4. Europe Smart Grid Communications Market
 - 8.4.1. UK Smart Grid Communications Market
 - 8.4.1.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.4.1.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.4.1.3. End-User Breakdown Size & Forecasts, 2025–2035
 - 8.4.2. Germany Smart Grid Communications Market
 - 8.4.2.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.4.2.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.4.2.3. End-User Breakdown Size & Forecasts, 2025–2035
 - 8.4.3. France Smart Grid Communications Market
 - 8.4.3.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.4.3.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.4.3.3. End-User Breakdown Size & Forecasts, 2025–2035
 - 8.4.4. Spain Smart Grid Communications Market
 - 8.4.4.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.4.4.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.4.4.3. End-User Breakdown Size & Forecasts, 2025–2035
 - 8.4.5. Italy Smart Grid Communications Market
 - 8.4.5.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.4.5.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.4.5.3. End-User Breakdown Size & Forecasts, 2025–2035
 - 8.4.6. Rest of Europe Smart Grid Communications Market
 - 8.4.6.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.4.6.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.4.6.3. End-User Breakdown Size & Forecasts, 2025–2035
 - 8.5. Asia Pacific Smart Grid Communications Market
 - 8.5.1. China Smart Grid Communications Market
 - 8.5.1.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.5.1.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.5.1.3. End-User Breakdown Size & Forecasts, 2025–2035
 - 8.5.2. India Smart Grid Communications Market

- 8.5.2.1. Components Breakdown Size & Forecasts, 2025–2035
- 8.5.2.2. Technology Breakdown Size & Forecasts, 2025–2035
- 8.5.2.3. End-User Breakdown Size & Forecasts, 2025–2035
- 8.5.3. Japan Smart Grid Communications Market
 - 8.5.3.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.5.3.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.5.3.3. End-User Breakdown Size & Forecasts, 2025–2035
- 8.5.4. Australia Smart Grid Communications Market
 - 8.5.4.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.5.4.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.5.4.3. End-User Breakdown Size & Forecasts, 2025–2035
- 8.5.5. South Korea Smart Grid Communications Market
 - 8.5.5.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.5.5.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.5.5.3. End-User Breakdown Size & Forecasts, 2025–2035
- 8.5.6. Rest of Asia Pacific Smart Grid Communications Market
 - 8.5.6.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.5.6.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.5.6.3. End-User Breakdown Size & Forecasts, 2025–2035
- 8.6. Latin America Smart Grid Communications Market
 - 8.6.1. Brazil Smart Grid Communications Market
 - 8.6.1.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.6.1.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.6.1.3. End-User Breakdown Size & Forecasts, 2025–2035
 - 8.6.2. Mexico Smart Grid Communications Market
 - 8.6.2.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.6.2.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.6.2.3. End-User Breakdown Size & Forecasts, 2025–2035
- 8.7. Middle East & Africa Smart Grid Communications Market
 - 8.7.1. UAE Smart Grid Communications Market
 - 8.7.1.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.7.1.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.7.1.3. End-User Breakdown Size & Forecasts, 2025–2035
 - 8.7.2. Saudi Arabia Smart Grid Communications Market
 - 8.7.2.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.7.2.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.7.2.3. End-User Breakdown Size & Forecasts, 2025–2035
 - 8.7.3. South Africa Smart Grid Communications Market
 - 8.7.3.1. Components Breakdown Size & Forecasts, 2025–2035

- 8.7.3.2. Technology Breakdown Size & Forecasts, 2025–2035
- 8.7.3.3. End-User Breakdown Size & Forecasts, 2025–2035
- 8.7.4. Rest of Middle East & Africa Smart Grid Communications Market
 - 8.7.4.1. Components Breakdown Size & Forecasts, 2025–2035
 - 8.7.4.2. Technology Breakdown Size & Forecasts, 2025–2035
 - 8.7.4.3. End-User Breakdown Size & Forecasts, 2025–2035

CHAPTER 9. COMPETITIVE INTELLIGENCE

- 9.1. Top Market Strategies
- 9.2. Honeywell International Inc.
 - 9.2.1. Company Overview
 - 9.2.2. Key Executives
 - 9.2.3. Company Snapshot
 - 9.2.4. Financial Performance (Subject to Data Availability)
 - 9.2.5. Product/Services Portfolio
 - 9.2.6. Recent Development
 - 9.2.7. Market Strategies
 - 9.2.8. SWOT Analysis
- 9.3. ABB Ltd.
- 9.4. Siemens AG
- 9.5. Cisco Systems, Inc.
- 9.6. General Electric Company
- 9.7. Itron Inc.
- 9.8. Schneider Electric SE
- 9.9. Nokia Corporation
- 9.10. Toshiba Corporation
- 9.11. Ericsson AB
- 9.12. Trilliant Holdings Inc.
- 9.13. Sensus (Xylem Inc.)
- 9.14. IBM Corporation
- 9.15. Qualcomm Technologies, Inc.
- 9.16. Oracle Corporation

List Of Tables

LIST OF TABLES

- Table 1. Global Smart Grid Communications Market, Report Scope
- Table 2. Global Smart Grid Communications Market Estimates & Forecasts By Region 2024–2035
- Table 3. Global Smart Grid Communications Market Estimates & Forecasts By Component 2024–2035
- Table 4. Global Smart Grid Communications Market Estimates & Forecasts By Component 2024–2035
- Table 5. Global Smart Grid Communications Market Estimates & Forecasts By Component 2024–2035
- Table 6. Global Smart Grid Communications Market Estimates & Forecasts By Technology 2024–2035
- Table 7. Global Smart Grid Communications Market Estimates & Forecasts By Technology 2024–2035
- Table 8. Global Smart Grid Communications Market Estimates & Forecasts By Technology 2024–2035
- Table 9. Global Smart Grid Communications Market Estimates & Forecasts By End-User 2024–2035
- Table 10. Global Smart Grid Communications Market Estimates & Forecasts By End-User 2024–2035
- Table 11. Global Smart Grid Communications Market Estimates & Forecasts By End-User 2024–2035
- Table 12. U.S. Smart Grid Communications Market Estimates & Forecasts 2024–2035
- Table 13. Canada Smart Grid Communications Market Estimates & Forecasts 2024–2035
- Table 14. UK Smart Grid Communications Market Estimates & Forecasts 2024–2035
- Table 15. Germany Smart Grid Communications Market Estimates & Forecasts 2024–2035
- Table 16. France Smart Grid Communications Market Estimates & Forecasts 2024–2035
- Table 17. Spain Smart Grid Communications Market Estimates & Forecasts 2024–2035
- Table 18. Italy Smart Grid Communications Market Estimates & Forecasts 2024–2035
- Table 19. Rest of Europe Smart Grid Communications Market Estimates & Forecasts 2024–2035
- Table 20. China Smart Grid Communications Market Estimates & Forecasts 2024–2035
- ...

List Of Figures

LIST OF FIGURES

- Fig 1. Global Smart Grid Communications Market, Research Methodology
- Fig 2. Global Smart Grid Communications Market, Market Estimation Techniques
- Fig 3. Global Market Size Estimates & Forecast Methods
- Fig 4. Global Smart Grid Communications Market, Key Trends 2025
- Fig 5. Global Smart Grid Communications Market, Growth Prospects 2024–2035
- Fig 6. Global Smart Grid Communications Market, Porter's Five Forces Model
- Fig 7. Global Smart Grid Communications Market, PESTEL Analysis
- Fig 8. Global Smart Grid Communications Market, Value Chain Analysis
- Fig 9. Smart Grid Communications Market By Component, 2025 & 2035
- Fig 10. Smart Grid Communications Market By Component, 2025 & 2035
- Fig 11. Smart Grid Communications Market By Component, 2025 & 2035
- Fig 12. Smart Grid Communications Market By Technology, 2025 & 2035
- Fig 13. Smart Grid Communications Market By Technology, 2025 & 2035
- Fig 14. Smart Grid Communications Market By Technology, 2025 & 2035
- Fig 15. Smart Grid Communications Market By End-User, 2025 & 2035
- Fig 16. Smart Grid Communications Market By End-User, 2025 & 2035
- Fig 17. Smart Grid Communications Market By End-User, 2025 & 2035
- Fig 18. North America Smart Grid Communications Market, 2025 & 2035
- Fig 19. Europe Smart Grid Communications Market, 2025 & 2035
- Fig 20. Asia Pacific Smart Grid Communications Market, 2025 & 2035
- Fig 21. Latin America Smart Grid Communications Market, 2025 & 2035
- Fig 22. Middle East & Africa Smart Grid Communications Market, 2025 & 2035

...

I would like to order

Product name: Global Smart Grid Communications Market Size Study & Forecast, by Components, Technology, End-User and Regional Forecasts 2025-2035

Product link: <https://marketpublishers.com/r/GCF3ECF40D17EN.html>

Price: US\$ 3,218.00 (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/GCF3ECF40D17EN.html>