

# Global Artificial Intelligence in Energy Market Size Study & Forecast, by Type (Solutions, Services), Application and Regional Forecasts 2025-2035

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# **Abstracts**

The Global Artificial Intelligence in Energy Market is estimated to be valued at around USD 11.3 billion in 2024 and is projected to expand at a robust CAGR of 30.20% over the forecast period 2025 to 2035. As the world accelerates its transition to smart grids and low-carbon economies, AI is steadily transforming how energy is produced, distributed, and consumed. From predictive analytics to intelligent automation, artificial intelligence has entrenched itself as a catalyst for operational efficiency and cost reduction across the global energy value chain. The ability of AI to synthesize vast datasets, identify patterns, and act on real-time anomalies allows stakeholders to not only forecast demand with higher accuracy but also pre-empt equipment failures and optimize energy sourcing strategies.

Increasing adoption of renewable energy sources, volatility in energy markets, and the imperative to meet sustainability targets are amplifying the role of AI in modernizing the energy landscape. AI-driven robotics and automation are being deployed to inspect offshore wind farms, monitor solar panel output, and manage the logistics of distributed energy resources. Moreover, energy companies are leveraging AI to drive smarter infrastructure planning, enhance grid resiliency, and mitigate cybersecurity risks. Applications like demand forecasting, energy storage management, and safety monitoring are becoming more prevalent as digital twins and machine learning algorithms help utilities simulate scenarios and streamline responses. Nevertheless, implementation costs, data privacy concerns, and lack of standardized protocols remain key challenges.

From a regional standpoint, North America currently leads the AI in Energy market, owing to its aggressive technology adoption, strong funding ecosystem, and pioneering



efforts by both government and private sector stakeholders in digital energy transformation. The presence of major tech companies, utility providers, and energy start-ups further fosters innovation. Europe follows closely, supported by green energy mandates, EU digital strategies, and a mature renewable infrastructure base. Meanwhile, Asia Pacific is anticipated to witness the highest growth rate during the forecast timeline. Rapid industrialization, surging urban energy demand, and ambitious government initiatives in nations like China, India, South Korea, and Japan are accelerating the integration of AI solutions across energy grids, power plants, and distribution networks

accelerating the integration of AI solutions across energy grids, power plants, and distribution networks. Major market player included in this report are: **IBM Corporation** Microsoft Corporation General Electric Siemens AG Schneider Electric ABB Ltd. Google LLC **Oracle Corporation** SAP SE **Rockwell Automation** Amazon Web Services, Inc. Accenture PLC

Intel Corporation

Infosys Limited



C3.ai, Inc.

Global Artificial Intelligence in Energy 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\*

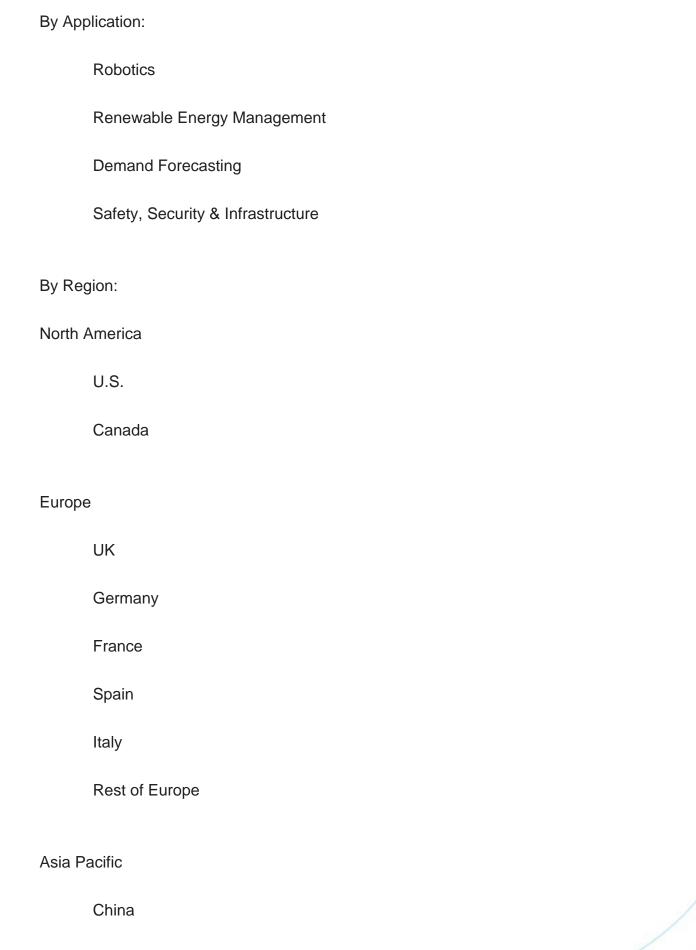
The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values for the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within the countries involved in the study. The report 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 Type:

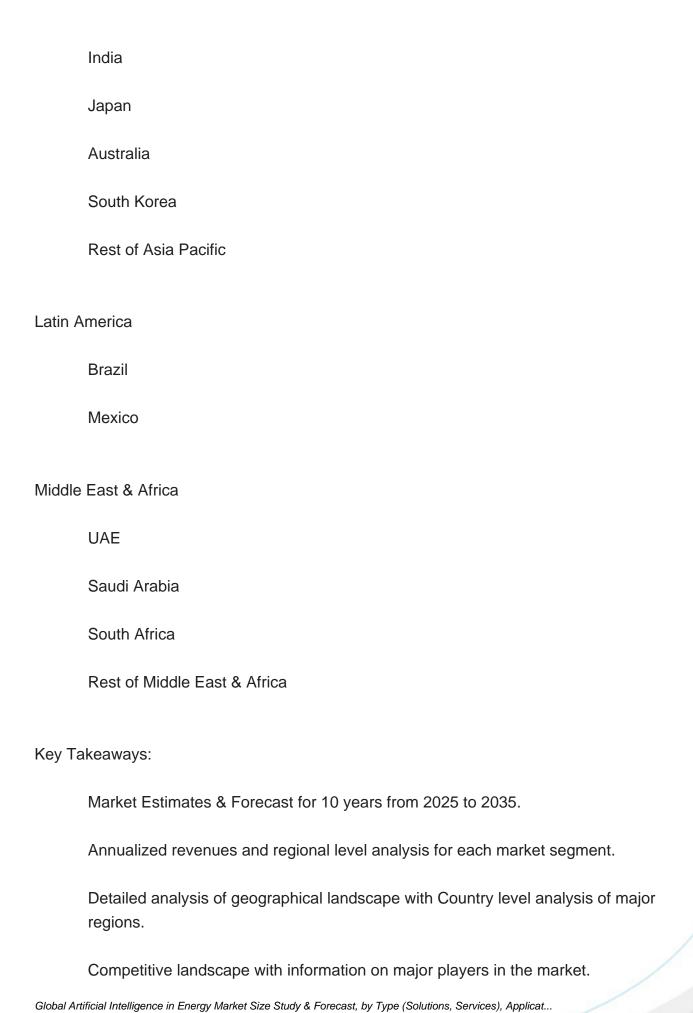
Solutions

Services











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.



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