

Global Turbogenerator Market Size Study & Forecast, by Capacity (10 - 175 MVA, 175 MVA - 550 MVA, 550 MVA & Above), Cooling (Air Cooled, Hydrogen Cooled, Water Hydrogen Cooled), and End-User (Coal Power Plants, Gas Power Plants, Nuclear Power Plants, Others) and Regional Forecasts 2025-2035

<https://marketpublishers.com/r/G352A247E255EN.html>

Date: August 2025

Pages: 285

Price: US\$ 3,750.00 (Single User License)

ID: G352A247E255EN

Abstracts

The Global Turbogenerator Market is valued at approximately USD 213.3 billion in 2024 and is projected to exhibit a compelling growth trajectory with a steady CAGR of 5.32% over the forecast period 2025-2035. A turbogenerator, a dynamic fusion of a turbine and an electrical generator, has cemented itself as a foundational technology for centralized energy production across traditional and emerging economies. These systems are vital to transforming mechanical energy, typically sourced from steam, gas, or water turbines, into electrical power—thereby forming the heartbeat of energy generation in coal, gas, nuclear, and even hybrid power facilities. As global energy consumption intensifies, governments and power companies are doubling down on modernizing legacy generation systems, which directly accelerates the demand for high-efficiency turbogenerators across diversified sectors.

The proliferation of large-scale power plants in developing regions, the decarbonization push in industrialized economies, and the retrofitting of aging thermal power infrastructure are key catalysts propelling the turbogenerator market forward. These machines have become more than just mechanical marvels—they're at the center of the global transition toward clean and reliable energy, particularly as nations aim to strike a balance between energy security and carbon neutrality. Technological leaps such as advanced cooling techniques, digitized monitoring systems, and modular construction are reshaping performance benchmarks, thus prompting utility operators to transition

from outdated models to advanced, high-capacity turbogenerators capable of operating under extreme thermal and mechanical loads.

Regionally, North America remains a vital stronghold due to its early adoption of smart grid technologies, robust investment in gas-fired power generation, and a high volume of ongoing upgrades in nuclear energy infrastructure. Europe is also significantly influencing the market dynamics, especially countries like France, Germany, and the UK, where nuclear power remains a strategic pillar in their energy mix. Meanwhile, Asia Pacific is forecasted to witness the most accelerated growth curve during the forecast period, driven by soaring electricity demands, aggressive infrastructure expansion, and growing reliance on both fossil-fuel and hybrid generation models in economies such as China, India, and Indonesia. Investments in ultra-mega power projects and continuous governmental emphasis on reliable base-load generation are playing a pivotal role in positioning Asia Pacific as the global turbogenerator hotspot.

Major market player included in this report are:

Siemens AG

General Electric Company

Mitsubishi Electric Corporation

Bharat Heavy Electricals Limited (BHEL)

Toshiba Corporation

Ansaldo Energia

Harbin Electric International Company Limited

Doosan Heavy Industries & Construction

ABB Ltd.

Alstom S.A.

Shanghai Electric Group Company Limited

Fuji Electric Co., Ltd.

WEG S.A.

Sulzer Ltd.

Hitachi Energy Ltd.

Global Turbogenerator 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 Capacity:

Global Turbogenerator Market Size Study & Forecast, by Capacity (10 - 175 MVA, 175 MVA - 550 MVA, 550 MVA & Ab...

10 - 175 MVA

175 MVA - 550 MVA

550 MVA & Above

By Cooling:

Air Cooled

Hydrogen Cooled

Water Hydrogen Cooled

By End-User:

Coal Power Plants

Gas Power Plants

Nuclear Power Plants

Others

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 TURBOGENERATOR 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 TURBOGENERATOR MARKET FORCES ANALYSIS

- 3.1. Market Forces Shaping the Global Turbogenerator Market (2024–2035)
- 3.2. Drivers
 - 3.2.1. Accelerating modernization of existing thermal power plants
 - 3.2.2. Rising global electricity demand across emerging economies
- 3.3. Restraints
 - 3.3.1. High initial investment and maintenance cost
 - 3.3.2. Growing inclination toward renewable energy sources
- 3.4. Opportunities
 - 3.4.1. Increasing deployment of combined cycle gas turbine (CCGT) plants
 - 3.4.2. Technological advancements in cooling and monitoring systems

CHAPTER 4. GLOBAL TURBOGENERATOR 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 Force Forecast Model (2024–2035)
- 4.3. PESTEL Analysis
 - 4.3.1. Political
 - 4.3.2. Economic
 - 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 TURBOGENERATOR MARKET SIZE & FORECASTS BY CAPACITY 2025–2035

- 5.1. Market Overview
- 5.2. Global Turbogenerator Market Performance – Potential Analysis (2025)
- 5.3. 10 – 175 MVA
 - 5.3.1. Top Countries Breakdown Estimates & Forecasts, 2024–2035
 - 5.3.2. Market Size Analysis, by Region, 2025–2035
- 5.4. 175 MVA – 550 MVA
 - 5.4.1. Top Countries Breakdown Estimates & Forecasts, 2024–2035
 - 5.4.2. Market Size Analysis, by Region, 2025–2035
- 5.5. 550 MVA & Above
 - 5.5.1. Top Countries Breakdown Estimates & Forecasts, 2024–2035
 - 5.5.2. Market Size Analysis, by Region, 2025–2035

CHAPTER 6. GLOBAL TURBOGENERATOR MARKET SIZE & FORECASTS BY COOLING 2025–2035

- 6.1. Market Overview
- 6.2. Global Turbogenerator Market Performance – Potential Analysis (2025)
- 6.3. Air Cooled
 - 6.3.1. Top Countries Breakdown Estimates & Forecasts, 2024–2035
 - 6.3.2. Market Size Analysis, by Region, 2025–2035
- 6.4. Hydrogen Cooled
 - 6.4.1. Top Countries Breakdown Estimates & Forecasts, 2024–2035
 - 6.4.2. Market Size Analysis, by Region, 2025–2035
- 6.5. Water Hydrogen Cooled
 - 6.5.1. Top Countries Breakdown Estimates & Forecasts, 2024–2035
 - 6.5.2. Market Size Analysis, by Region, 2025–2035

CHAPTER 7. GLOBAL TURBOGENERATOR MARKET SIZE & FORECASTS BY END-USER 2025–2035

- 7.1. Market Overview
- 7.2. Global Turbogenerator Market Performance – Potential Analysis (2025)
- 7.3. Coal Power Plants
- 7.4. Gas Power Plants
- 7.5. Nuclear Power Plants
- 7.6. Others

CHAPTER 8. GLOBAL TURBOGENERATOR MARKET SIZE & FORECASTS BY REGION 2025–2035

- 8.1. Turbogenerator Market, Regional Market Snapshot
- 8.2. Top Leading & Emerging Countries
- 8.3. North America
 - 8.3.1. U.S.
 - 8.3.1.1. Capacity Breakdown Size & Forecasts, 2025–2035
 - 8.3.1.2. Cooling Breakdown Size & Forecasts, 2025–2035
 - 8.3.1.3. End-User Breakdown Size & Forecasts, 2025–2035
 - 8.3.2. Canada
 - 8.3.2.1. Capacity Breakdown Size & Forecasts, 2025–2035
 - 8.3.2.2. Cooling Breakdown Size & Forecasts, 2025–2035
 - 8.3.2.3. End-User Breakdown Size & Forecasts, 2025–2035
- 8.4. Europe
 - 8.4.1. UK

- 8.4.2. Germany
- 8.4.3. France
- 8.4.4. Spain
- 8.4.5. Italy
- 8.4.6. Rest of Europe
- 8.5. Asia Pacific
 - 8.5.1. China
 - 8.5.2. India
 - 8.5.3. Japan
 - 8.5.4. Australia
 - 8.5.5. South Korea
 - 8.5.6. Rest of Asia Pacific
- 8.6. Latin America
 - 8.6.1. Brazil
 - 8.6.2. Mexico
- 8.7. Middle East & Africa
 - 8.7.1. UAE
 - 8.7.2. Saudi Arabia
 - 8.7.3. South Africa
 - 8.7.4. Rest of Middle East & Africa

CHAPTER 9. COMPETITIVE INTELLIGENCE

- 9.1. Top Market Strategies
- 9.2. Siemens AG
 - 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. General Electric Company
- 9.4. Mitsubishi Electric Corporation
- 9.5. Bharat Heavy Electricals Limited (BHEL)
- 9.6. Toshiba Corporation
- 9.7. Ansaldo Energia
- 9.8. Harbin Electric International Company Limited

- 9.9. Doosan Heavy Industries & Construction
- 9.10. ABB Ltd.
- 9.11. Alstom S.A.
- 9.12. Shanghai Electric Group Company Limited
- 9.13. Fuji Electric Co., Ltd.
- 9.14. WEG S.A.
- 9.15. Sulzer Ltd.
- 9.16. Hitachi Energy Ltd.

List Of Tables

LIST OF TABLES

- Table 1. Global Turbogenerator Market, Report Scope
- Table 2. Global Turbogenerator Market Estimates & Forecasts By Region 2024–2035
- Table 3. Global Turbogenerator Market Estimates & Forecasts By Capacity 2024–2035
- Table 4. Global Turbogenerator Market Estimates & Forecasts By Cooling 2024–2035
- Table 5. Global Turbogenerator Market Estimates & Forecasts By End-User 2024–2035
- Table 6. U.S. Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 7. Canada Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 8. UK Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 9. Germany Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 10. France Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 11. Spain Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 12. Italy Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 13. Rest of Europe Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 14. China Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 15. India Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 16. Japan Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 17. Australia Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 18. South Korea Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 19. Rest of APAC Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 20. Brazil Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 21. Mexico Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 22. UAE Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 23. Saudi Arabia Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 24. South Africa Turbogenerator Market Estimates & Forecasts 2024–2035
- Table 25. Rest of MEA Turbogenerator Market Estimates & Forecasts 2024–2035

List Of Figures

LIST OF FIGURES

- Figure 1. Global Turbogenerator Market, Research Methodology
- Figure 2. Global Turbogenerator Market, Market Estimation Techniques
- Figure 3. Global Market Size Estimates & Forecast Methods
- Figure 4. Global Turbogenerator Market, Key Trends 2025
- Figure 5. Global Turbogenerator Market, Growth Prospects 2024–2035
- Figure 6. Global Turbogenerator Market, Porter's Five Forces Model
- Figure 7. Global Turbogenerator Market, PESTEL Analysis
- Figure 8. Global Turbogenerator Market, Value Chain Analysis
- Figure 9. Turbogenerator Market By Capacity, 2025 & 2035
- Figure 10. Turbogenerator Market By Cooling, 2025 & 2035
- Figure 11. Turbogenerator Market By End-User, 2025 & 2035
- Figure 12. North America Turbogenerator Market, 2025 & 2035
- Figure 13. Europe Turbogenerator Market, 2025 & 2035
- Figure 14. Asia Pacific Turbogenerator Market, 2025 & 2035
- Figure 15. Latin America Turbogenerator Market, 2025 & 2035
- Figure 16. Middle East & Africa Turbogenerator Market, 2025 & 2035
- Figure 17. Global Turbogenerator Market, Company Market Share Analysis (2025)

I would like to order

Product name: Global Turbogenerator Market Size Study & Forecast, by Capacity (10 - 175 MVA, 175 MVA - 550 MVA, 550 MVA & Above), Cooling (Air Cooled, Hydrogen Cooled, Water Hydrogen Cooled), and End-User (Coal Power Plants, Gas Power Plants, Nuclear Power Plants, Others) and Regional Forecasts 2025-2035

Product link: <https://marketpublishers.com/r/G352A247E255EN.html>

Price: US\$ 3,750.00 (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/G352A247E255EN.html>