

# Permanent Magnet Generator Market Size is Projected to Reach US\$ 8,606 Million by 2035 With a CAGR of 6.7% | Fact.MR

*Permanent Magnet Generator market grows with demand for compact, efficient systems; rising use in wind turbines and industry drives innovation, says Fact.MR.*

ROCKVILLE, MD, UNITED STATES, May 29, 2025 /EINPresswire.com/ -- According to Fact.MR, a market research and competitive intelligence provider, the [Permanent Magnet Generator market](#) was valued at USD 4,216.9 million in 2024 and is expected to grow at a CAGR of 6.7% during the forecast period of 2025 to 2035.

The modern power generation industry increasingly depends on Permanent Magnet Generators (PMGs) since these devices provide high performance and compact design with minimal maintenance needs. PMGs function differently from regular induction generators through utilizing either rare-earth magnets or ferrite magnets that create a steady magnetic field without requiring external excitation systems. The system achieves better performance throughout different operating conditions because energy losses reduce significantly. PMGs serve applications in renewable energy systems primarily with wind turbines of small to medium scale to deliver stable power performance for grid-connected and off-grid operations.

The technology finds its commercial applications in aerospace and automotive industries together with marine applications and portable energy solutions. The applications of PMGs in electric vehicles involve motor propulsion systems alongside their presence in industrial systems that facilitate energy recovery mechanisms and variable-speed driver operation. Customers who need portable generators that are simultaneously lightweight and high in power density select PMGs due to their design characteristics. The worldwide move toward sustainable power



systems combined with electrical power implementation leads OEM producers and infrastructure developers to use PMG-based solutions for dependable operation while reducing environmental effects.

The Permanent Magnet Generator market advances because renewable and hybrid applications along with efficient low-maintenance energy system operations continue to increase in demand. The growing wind energy sector and electric vehicle market drives PMG adoption because these generators offer both compact design and high torque density together with efficient energy conversion.

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### Key Takeaways from Market Study

The Permanent Magnet Generator market is projected to grow at 7% CAGR and reach USD 4,106.58 million by 2035

The market created an absolute \$ opportunity of USD 24 million between 2025 to 2035

North America is a prominent region that is estimated to hold a market share of 5% in 2035

Predominating market players include are ABB, Siemens, Rockwell Automation, Nidec Corporation, Toshiba Infrastructure Systems & Solutions Corporation, Arnold Magnetic Technologies, Dexter Magnetic Technologies, Ningbo Zhaobao Magnet Co., Ltd., Adams Magnetic Products Co., Ltd., Eclipse Magnetics Ltd., Goudsmit Magnetics Group.

North America is expected to create an absolute \$ opportunity of USD 989.8 million

“Increasing adoption of renewable energy systems, rising demand for high-efficiency and low-maintenance power generation, and expanding applications in wind turbines and electric vehicles will drive the Permanent Magnet Generator market.” says a Fact.MR analyst.

### Leading Players Driving Innovation in the Permanent Magnet Generator Market

Key market players of the permanent magnet generator industry are ABB, Siemens, Rockwell Automation, Nidec Corporation, Toshiba Infrastructure Systems & Solutions Corporation, Arnold Magnetic Technologies, Dexter Magnetic Technologies, Ningbo Zhaobao Magnet Co., Ltd., Adams Magnetic Products Co., Ltd., Eclipse Magnetics Ltd., and Goudsmit Magnetics Group.

### Market Development

The Permanent Magnet Generator (PMG) market is growing rapidly, driven by advancements that offer high efficiency, compact design, and zero maintenance—ideal for renewable energy and industrial applications. These generators now integrate seamlessly with wind turbines, hydro systems, and hybrid platforms, enabling reliable and sustainable power generation.

Modern PMGs use neodymium magnets for high torque at low speeds, making them suitable for remote power systems. Manufacturers are developing lightweight models compatible with smart grids, energy storage, and electric vehicle powertrains. New designs also feature improved heat management and sensor-based monitoring for predictive maintenance.

PMG adoption is increasing in microgrids, marine systems, and portable power due to the global push for decarbonization and sustainable energy solutions. Innovations like axial flux designs and integrated inverters support broader market acceptance.

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Permanent Magnet Generator Industry News:

In April 2025, Siemens launched the Drivetrain Analyzer Cloud in its Xcelerator portfolio, providing AI-based drive system optimization. This technology aids industrial customers in getting up to 20% savings in energy through monitoring, analyzing, and optimizing drivetrain performance in advancing sustainability objectives.

More Valuable Insights on Offer

Fact.MR, in its new offering, presents an unbiased analysis of the the Permanent Magnet Generator market, presenting historical data for 2020 to 2024 and forecast statistics for 2025 to 2035.

The study reveals essential insights on the basis of the Power Rating (<10 kW, 10–100 kW, >100 kW), Application (Wind Power Generation, Off-grid Power Systems), Fuel Type (Wind-driven, Hydro-driven), Cooling Method (Air-Cooled, Liquid-Cooled), Sales Channel (OEM, Distributors), Across Major Regions of the World (North America, Latin America, Western Europe, Eastern Europe, East Asia, South Asia & Pacific, and Middle East & Africa).

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The global [magnetic induction heating device market](#) is projected to reach USD 586.98 million by 2025, with growth expected to continue at a 4.3% CAGR, hitting USD 894.27 million by 2035.

The [demagnetizers market](#) is forecasted to grow from USD 745.0 million in 2024 to USD 1,236.9 million by 2034, expanding at a 5.2% CAGR over the decade.

About Us:

Fact.MR is a distinguished market research company renowned for its comprehensive market reports and invaluable business insights. As a prominent player in business intelligence, we deliver deep analysis, uncovering market trends, growth paths, and competitive landscapes.

Renowned for its commitment to accuracy and reliability, we empower businesses with crucial data and strategic recommendations, facilitating informed decision-making and enhancing market positioning.

With its unwavering dedication to providing reliable market intelligence, FACT.MR continues to assist companies in navigating dynamic market challenges with confidence and achieving long-term success. With a global presence and a team of experienced analysts, FACT.MR ensures its clients receive actionable insights to capitalize on emerging opportunities and stay competitive.

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