

# Geothermal Power Market Report by Power Plant Type (Binary Cycle Power Plants, Flash Steam Plants, Dry Steam Plants), End User (Industrial, Residential, Commercial, and Others), and Region 2024-2032

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# **Abstracts**

The global geothermal power market size reached 111.6 GWh in 2023. Looking forward, IMARC Group expects the market to reach 184.0 GWh by 2032, exhibiting a growth rate (CAGR) of 3.1% during 2024-2032.

Geothermal power is a form of renewable energy produced from heat stored within the continental earth's crust. It originates from the radioactive decay of materials and uses hydrothermal resources that combine heat and water. It is widely used in various geothermal establishments for electricity generation, heating and cooling buildings, gold mining, and milk pasteurizing. Geothermal power is a sustainable and non-traditional source that assists in reducing air pollution, eliminating the combustion of fossil fuels, and ensuring silent energy production processes, low maintenance, high power output, and economic development. As a result, geothermal energy is a readily available, safe, and long-lasting power source that produces electricity with minimal environmental impact.

# Geothermal Power Market Trends:

The global geothermal power market is primarily being driven by the increasing demand for electricity. Geothermal power offers an eco-friendly, reliable, high-capacity, and costeffective solution to the rising electricity demand across the globe. In line with this, the significant need to reduce air pollution due to rising environmental concerns, global warming, and the increasing instances of respiratory disease is favoring the market growth. Furthermore, the increasing adoption of geothermal power over other renewable sources, such as wind energy, hydropower, and bioenergy, can be attributed



to the various advantages of the solution, including minimum land usage, zero liquid pollution, and high availability. Additionally, the introduction of horizontal drilling techniques to explore good reservoir formation and produce geothermal power at comparatively lower costs is providing an impetus to the market growth. Apart from this, the rising popularity of binary cycle technology in geothermal power plants due to its efficiency, reservoir sustainability, high-reliability operation, environmental friendliness, and enhanced performance is positively influencing the market growth. Moreover, the integration of artificial intelligence (AI) in geothermal power systems to empower the platform with intelligent behavior, learning, and informed decision-making capabilities is creating a positive outlook for market growth. Besides this, extensive research and development (R&D) activities to optimize production processes and explore new reservoirs and the implementation of various government initiatives to generate electricity from renewable sources are anticipated to drive the market toward growth.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global geothermal power market report, along with forecasts at the global, regional and country level from 2024-2032. Our report has categorized the market based on power plant type and end user.

Breakup by Power Plant Type:

Binary Cycle Power Plants Flash Steam Plants Dry Steam Plants

Breakup by End User:

Industrial Residential Commercial Others

Breakup by Region:

North America United States Canada Asia-Pacific



China Japan India South Korea Australia Indonesia Others Europe Germany France United Kingdom Italy Spain Russia Others Latin America Brazil Mexico Others Middle East and Africa

#### Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being ABB Ltd., Ansaldo Energia S.p.A., Berkshire Hathaway Energy (Berkshire Hathaway Inc.), Calpine Corporation, Enel S.p.A., First Gen Corporation, Fuji Electric Co. Ltd., Halliburton Company, Mitsubishi Corporation, Ormat Technologies Inc., Toshiba Corporation and Yokogawa Electric Corporation.

Key Questions Answered in This Report

1. What was the size of the global geothermal power market in 2023?

2. What is the expected growth rate of the global geothermal power market during 2024-2032?

3. What are the key factors driving the global geothermal power market?

4. What has been the impact of COVID-19 on the global geothermal power market?

5. What is the breakup of the global geothermal power market based on the power plant type?

6. What is the breakup of the global geothermal power market based on the end user?

7. What are the key regions in the global geothermal power market?



8. Who are the key players/companies in the global geothermal power market?



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