

# **Global Peaking Power Plant Market Size study & Forecast, by Type (Natural Gas, Hydropower, Diesel, Others), by End-user (Industrial, Commercial, Residential, Utility) and Regional Analysis, 2023-2030**

<https://marketpublishers.com/r/GD6AACD517CBEN.html>

Date: March 2024

Pages: 200

Price: US\$ 4,950.00 (Single User License)

ID: GD6AACD517CBEN

## **Abstracts**

Global Peaking Power Plant Market is valued at approximately USD 112.17 billion in 2022 and is anticipated to grow with a healthy growth rate of more than 4.50% during the forecast period 2023-2030. A peaking power plant is a type of power generation facility designed to operate during periods of high electricity demand, typically for short durations. These plants are called 'peaking' because they are brought online to meet peak electricity demand, which often occurs during periods of high energy consumption, such as hot summer afternoons or cold winter evenings. Peaking power plants are usually equipped with technologies that allow them to quickly start up and ramp up their electricity output to meet sudden spikes in demand. The Peaking Power Plant Market is expanding because of factors such as increasing electricity demand, rising deployment of energy storage technologies and rising urbanization and industrial growth.

As global populations and economies continue to grow, the demand for electricity rises. Peaking power plants are essential for meeting sudden spikes in electricity demand during peak periods. These facilities are strategically positioned to swiftly generate additional power when consumption peaks, ensuring a consistent supply during times of heightened need. Without peaking power plants, grid operators risk overloads, leading to blackouts or brownouts. Thus, the rising electricity demand underscores the critical role that peaking power plants play in maintaining grid stability and meeting the evolving energy needs of growing populations and economies. According to the International Energy Agency, the year-on-year change in electricity demand in the year 2022 stood at 498 Terawatt-Hour (TWh) which increased to 705 Terawatt-Hour (TWh) in the year 2023 and it is projected to reach 938 Terawatt-Hour (TWh) by the year 2025. In

addition, Ongoing advancements in power generation technologies and the growing integration of renewable energy sources are creating new opportunities for market growth. However, the high cost of peaking power plants and environmental concerns stifle market growth throughout the forecast period of 2023-2030.

The key regions considered for the Global Peaking Power Plant Market study includes Asia Pacific, North America, Europe, Latin America, and Middle East & Africa. Asia Pacific dominated the market in 2022. The escalating demand for electricity, fueled by rapid industrialization and urbanization in countries such as China and India, increasing integration of renewable energy sources, such as solar and wind projects, Additionally, government initiatives and policies promoting the development of peaking power plants to enhance grid reliability and meet peak demand are contributing to market growth. North America is expected to grow at the fastest rate over the forecast period, owing to factors such as such evolving focus on enhancing grid reliability, the abundance of natural gas, and initiatives to seamlessly incorporate renewable energy are influencing the energy landscape. Environmental regulations and policies are additional key factors shaping this evolving paradigm.

Major market player included in this report are:

Wartsila Oyj Abp

Siemens AG

Mitsubishi Hitachi Power Systems, Ltd. (MHPS)

Capstone Turbine Corporation

PW Power Systems, Inc.

Ansaldo Energia S.p.A.

MAN Energy Solutions SE

Kawasaki Heavy Industries, Ltd.

Rolls-Royce Holdings plc

General Electric Company (GE)

## Recent Developments in the Market:

In February 2023, LCRA unveiled its intentions to construct a new 190 MW peaking power plant in central Texas. The objective behind this initiative is to fortify grid reliability and address the escalating demand for power in the region. This proposed power plant is designed to deliver dispatchable power specifically during peak demand periods, thereby enhancing the resilience and efficiency of the state's electric grid.

In April 2020, Ylem Energy Ltd. inaugurated a peaking power facility in the Trafford industrial area, located on the outskirts of Manchester City Center in the U.K. This natural gas-based plant incorporates eight 2.5MWe generators, collectively capable of generating up to 20MWe of rapid and flexible power. The primary purpose of this facility is to contribute to the balance of the national grid, particularly during periods of diminished renewable energy output in the U.K.

## Global Peaking Power Plant Market Report Scope:

Historical Data – 2020 - 2021

Base Year for Estimation – 2022

Forecast period - 2023-2030

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

Segments Covered – Type, End-user, Region

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

Customization Scope - Free report customization (equivalent up to 8 analyst's 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 to the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

**By Type:**

Natural Gas

Hydropower

Diesel

Others

**By End-user:**

Industrial

Commercial

Residential

Utility

**By Region:**

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

Rest of Middle East & Africa

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