

Ancillary Services for Power Market Expands to USD 16.9 Billion by 2031 Amid 7.8% CAGR Growth - Latest Report by TMR

Ancillary Services for Power Market (Service Type: Frequency Controlled & Network Controlled)- Global Industry Analysis, Size, Share, Growth, Trends to 2031

WILMINGTON, DE, UNITED STATES, December 17, 2024 /EINPresswire.com/ -- Global [Ancillary Services for Power Market](#) Outlook to 2031



Ancillary Services for Power Market to Grow Steadily with Adoption of Renewable Energy and Smart Grid Solutions"

Transparency Market Research

The global ancillary services for power market was valued at US\$ 8.0 billion in 2022 and is estimated to grow at a CAGR of 7.8% from 2023 to 2031, reaching US\$ 16.9 billion by the end of 2031.

This growth is driven by the increasing demand for grid stability, rising renewable energy integration, and the need for reliable backup services to ensure continuous power

supply in the face of fluctuating energy production and consumption.

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The ancillary services for power market plays a critical role in maintaining the stability, reliability, and security of power grids. Ancillary services refer to the support services required to sustain the continuous delivery of electricity, especially with the increasing integration of renewable energy sources like wind and solar.

These services are essential to balance supply and demand, stabilize voltage and frequency, and ensure the grid operates efficiently. The growing complexity of grid management due to renewable energy adoption, along with the advancement of smart grid technologies, is expected to drive significant market growth.

Introduction

Ancillary services for power are defined as services that ensure the reliable and secure operation of the electricity grid. These services are usually provided by power plants or other grid-connected assets to support the transmission and distribution of electricity.

The key ancillary services include:

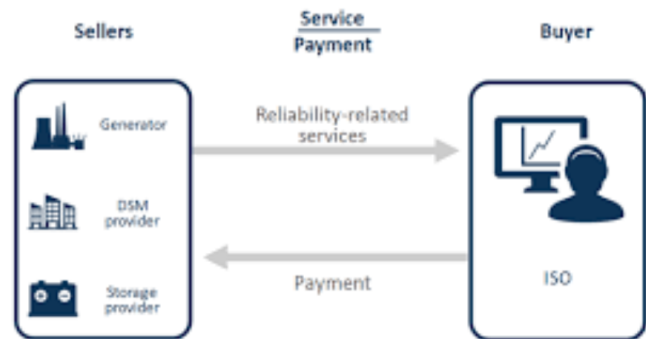
- Frequency Regulation: Balancing the grid frequency by adjusting generation or load in response to fluctuations in demand or supply.
- Voltage Support: Maintaining and controlling voltage levels within safe limits across the grid.
- Spinning Reserve: Backup power generated from reserve plants that can be activated quickly if there is an unexpected loss of generation or a sudden increase in demand.
- Non-Spinning Reserve: Reserve power that is available but not currently online or generating, ready to be dispatched quickly if needed.
- Black Start Services: The ability to restore power to the grid after a large-scale outage, without relying on external power sources.
- Grid Restoration Services: Ensuring that, after an outage, the grid can be restored efficiently and in a controlled manner.

Market Outlook

The demand for ancillary services is primarily driven by:

- Increasing Use of Renewable Energy: The integration of renewable sources such as solar and wind power into national grids requires enhanced ancillary services to manage the grid's fluctuating supply.
- Real-Time Grid Balancing Needs: With the rising demand for electricity, grid operators need to ensure that electricity supply and demand are balanced in real-time, leading to higher demand for ancillary services.
- Growing Adoption of Electric Vehicles (EVs): The increasing adoption of electric vehicles, especially as charging stations become more common, creates new challenges for grid stability, thereby driving the need for additional ancillary services.
- Expanding Energy Storage Solutions: As battery storage technologies improve, the demand for energy storage ancillary services grows, as these solutions help manage excess power and

Ancillary Services for Power Market



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Ancillary Services for Power Market Outlook 2031

- Grid Modernization and Smart Grids: The adoption of smart grid technologies enhances grid control and monitoring, thus increasing the demand for ancillary services.
- Energy Storage Technologies: The development and deployment of energy storage systems, such as batteries, are improving the flexibility of ancillary services by providing faster response times and better grid balancing.
- Regulatory Support and Policy Initiatives: Governments around the world are implementing regulations and policies that support the provision of ancillary services, including market mechanisms to incentivize their use.
- Rising Demand for Grid Stability: With increasing electricity demand and the need for higher reliability, ancillary services are critical to ensuring grid stability and uninterrupted power supply.
- Decentralized Energy Resources: The growing trend of distributed energy resources (DERs) like rooftop solar, wind turbines, and electric vehicles is necessitating advanced ancillary services to coordinate energy flows.

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- Power Generation: Ancillary services ensure that power generation facilities can respond to fluctuations in demand and supply, improving grid stability.
- Transmission and Distribution: These services help manage voltage, frequency, and backup power during outages, supporting the reliable distribution of electricity across the grid.
- Smart Grids: Advanced grid technologies use real-time data and communications to optimize energy flow, increasing the need for ancillary services to ensure proper grid operation.
- Energy Storage Systems: Storage technologies like lithium-ion batteries and pumped hydro storage play a vital role in providing ancillary services, particularly for balancing intermittent renewable energy generation.
- Electric Vehicles and Charging Infrastructure: EV charging stations and vehicle-to-grid (V2G) technology are increasingly integrated into ancillary service systems to support grid stability.

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□ By Service Type:

Frequency Regulation

Voltage Support

Spinning Reserve

Non-Spinning Reserve

Black Start Services

Grid Restoration Services

□ By End-User:

Utility Providers

Independent System Operators (ISOs)

Transmission System Operators (TSOs)

Energy Storage Operators

Others

□ By Region:

North America

Europe

Asia-Pacific

Latin America

Middle East & Africa

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- Comprehensive Market Insights: Detailed analysis of market trends, growth drivers, challenges, and opportunities in the ancillary services for power market.
- Competitive Landscape: Profiles of leading market players, including their strategies, innovations, and market positioning.
- Forecasting and Projections: Market size projections and growth forecasts for the next decade to help companies plan their future strategies.
- Technological Innovations: Insights into new technologies, including smart grids, energy storage systems, and renewable energy integration.
- Policy and Regulatory Overview: Understanding of policies and regulations that impact the market, including government initiatives promoting grid stability and renewable energy integration.
- Global and Regional Analysis: Analysis of regional growth trends and dynamics, identifying key growth opportunities and market potential in emerging markets.

This report is a valuable resource for energy producers, utility companies, policy makers, grid operators, investors, and technology developers seeking to navigate the complexities of the ancillary services for power market and capitalize on emerging trends in grid management.

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- [U.S. Residential Generators Market](#) - The U.S. Residential Generators Market is estimated to grow at a CAGR of 4.5% from 2024 to 2034 and reach US\$ 1.8 Billion by the end of 2034.
- [Floating Nuclear Power Plant EPC Market](#) - The global Floating Nuclear Power Plant EPC Market is estimated to grow at a CAGR of 9.3% from 2024 to 2034 and reach US\$ 1.0 Billion by the end of 2034.

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