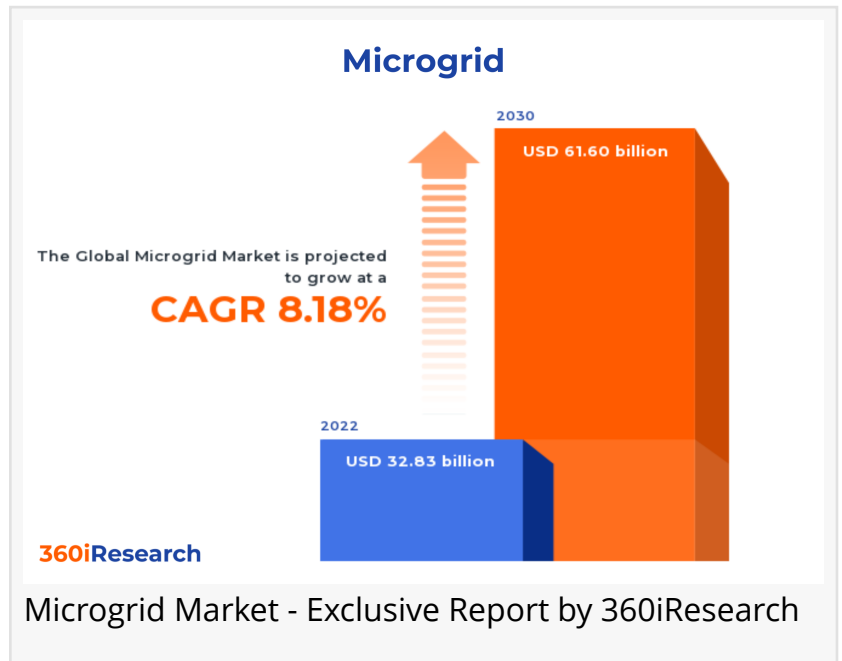


Microgrid Market worth \$61.60 billion by 2030, growing at a CAGR of 8.18% - Exclusive Report by 360iResearch

The Global Microgrid Market to grow from USD 32.83 billion in 2022 to USD 61.60 billion by 2030, at a CAGR of 8.18%.

PUNE, MAHARASHTRA, INDIA, November 9, 2023 /EINPresswire.com/ -- The "[Microgrid Market](#) by Power (Combined Heat and Power, Diesel, Fuel Cell), Product (Grid connected, Hybrid, Remote), Application - Global Forecast 2023-2030" report has been added to 360iResearch.com's offering.



The Global Microgrid Market to grow from USD 32.83 billion in 2022 to USD 61.60 billion by 2030, at a CAGR of 8.18%.

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The microgrid represents a group of distributed energy resources and a mesh of interconnected loads acting as a separate controllable unit of the main power grid. Microgrid offers resilience to overcome grid disturbances and power outages, improving customer reliability on power systems. The rising demand for renewable energy and stable global power supply raise the utilization of microgrid solutions. Cyber attacks on electricity infrastructure have created an increasing need for microgrid solutions to independently operate power grids in disaster situations. However, concerns regarding the high installation costs of microgrids may limit their adoption in the current market scenario. The market is expected to face challenges due to technological concerns encountered during the service of island-style microgrids. However, increasing R&D investments by the public and private sectors for developing advanced electrical infrastructure fuels the adoption of microgrid solutions. In addition, Government initiatives to

encourage the development of microgrids aid in expanding renewable energy capacity in developing countries.

Product: Burgeoning popularity of hybrid microgrids

Grid-connected microgrids are connected to the main electrical grid infrastructure and can operate in parallel with it to enhance overall system resilience. Hybrid microgrids combine multiple generation sources, such as solar photovoltaic, wind turbines, battery storage systems, and conventional generators, such as diesel and gas turbines. This diversification in energy sources ensures improved energy reliability and reduced dependence on a single source of power generation. Remote microgrids cater to isolated communities or off-grid areas where traditional electrical infrastructure is either unavailable or difficult to reach due to geographical constraints, including remote islands or mountainous regions. In addition, remote microgrids also significantly promote energy access and support socio-economic development in rural and remote areas worldwide.

Power: Emerging potential of solar photovoltaic in microgrids

Combined heat and power (CHP) is used for implementing microgrids, owing to its ability to lower energy costs and improve overall system reliability. Diesel generators are conventional power sources integrated with microgrids, known for their quick-start capabilities in existing power infrastructure. Fuel cells generate electricity through electrochemical processes between hydrogen and oxygen, resulting in virtually zero emissions. Fuel cell technology offers significant potential for microgrid applications as it provides continuous power output with minimal maintenance requirements. Natural gas-powered turbines or engines can offer efficient and relatively low-emission alternatives in microgrids compared to diesel generators. Solar photovoltaic (PV) systems are increasingly popular for implementing microgrids as they enable reliable daytime energy generation while contributing to energy resilience that assists in withstanding grid disruptions or extreme weather conditions.

Application: Penetration of microgrids in the utility sector

Microgrid systems are deployed to generate, store, and supply electricity in a commercial building application to operate backup generators and emergency power systems. Mobile microgrids have a wide scope of applications in the defense sector as a properly configured microgrid provides critical resiliency to military installations, ensuring energy security for operating bases and mission readiness when local power is disrupted across the region. Colleges and universities use microgrid technology to offer uninterrupted, affordable power to serve the campus and larger community in a power outage. The government provides services and emergency shelters to supply electricity using microgrids for several emergencies that seamlessly serve critical situations. Microgrids can provide utilities with a lower-cost alternative to meeting peak demand requirements and other chain of supply issues.

Regional Insights:

The microgrid market in the Americas has been experiencing significant growth with growing concerns over climate change and increasing demand for clean and reliable energy sources. The

United States and Canada strongly focus on modernizing energy infrastructure to increase resilience against natural disasters such as hurricanes, wildfires, and ice storms. The U.S. Department of Energy's Office of Electricity Delivery & Energy Reliability has allocated substantial funds to research and develop advanced microgrid technologies. Consequently, California, New York, Massachusetts, and Illinois have implemented policies supporting microgrid deployment. In addition, countries including Brazil, Chile, Mexico, and Colombia are investing heavily in integrating renewable energy generation into their existing electrical networks through microgrids. The growth of the microgrid market in the Asia-Pacific and Europe regions has been experiencing significant growth by various factors, such as increasing demand for reliable and stable power sources, growing emphasis on renewable energy integration, and rising implementation of supportive government policies. The European Union's 'Clean Energy Package' framework promotes local energy communities (LECs) and encourages investments toward innovative solutions, such as microgrids that offer flexibility and stability to electricity grids. In addition, Asia-Pacific witnessed the continued growth of the microgrid sector due to increasing demand for reliable power supply and rising governmental support promoting clean energy solutions. On the other hand, implementing government policies and initiatives plays an important role in promoting the adoption of microgrids in the MEA region. The African Development Bank (AfDB) actively supports rural electrification projects through its "New Deal on Energy for Africa" initiative. Similarly, Kenya and Nigeria have implemented regulatory frameworks encouraging private sector participation in off-grid power projects. Saudi Arabia and Jordan have set ambitious targets for renewable energy generation, which further boost the deployment of microgrids.

FPNV Positioning Matrix:

The FPNV Positioning Matrix is essential for assessing the Microgrid Market. It provides a comprehensive evaluation of vendors by examining key metrics within Business Strategy and Product Satisfaction, allowing users to make informed decisions based on their specific needs. This advanced analysis then organizes these vendors into four distinct quadrants, which represent varying levels of success: Forefront (F), Pathfinder (P), Niche (N), or Vital(V).

Market Share Analysis:

The Market Share Analysis offers an insightful look at the current state of vendors in the Microgrid Market. By comparing vendor contributions to overall revenue, customer base, and other key metrics, we can give companies a greater understanding of their performance and what they are up against when competing for market share. The analysis also sheds light on just how competitive any given sector is about accumulation, fragmentation dominance, and amalgamation traits over the base year period studied.

Key Company Profiles:

The report delves into recent significant developments in the Microgrid Market, highlighting

leading vendors and their innovative profiles. These include ABB Ltd., Bloom Energy Corporation, BoxPower Inc., Caterpillar Inc., CleanSpark, Inc., Cummins Inc., Eaton Corporation PLC, Emerson Electric Co., Enchanted Rock Holdings, LLC, Encorp, Enel X S.r.l., General Electric Company, Gridscape, Hitachi, Ltd., Honeywell International Inc., Hover Energy, LLC, Intel Corporation, Leclanché SA, Lockheed Martin Corporation, MAN Energy Solutions SE, Nidec Corporation, NRG Energy, Inc., Pareto Energy, Power Analytics Global Corporation, Powerhive, PowerSecure, Inc., S&C Electric Company, Saft Groupe SAS, Scale Microgrid Solutions LLC, Schneider Electric SE, Schweitzer Engineering Laboratories, Inc., Siemens AG, Spirae, LLC, Tesla, Inc., UL, LLC, and Veolia Environnement SA.

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Market Segmentation & Coverage:

This research report categorizes the Microgrid Market in order to forecast the revenues and analyze trends in each of following sub-markets:

Based on Power, market is studied across Combined Heat and Power, Diesel, Fuel Cell, Natural Gas, and Solar Photovoltaic. The Solar Photovoltaic commanded largest market share of 36.67% in 2022, followed by Combined Heat and Power.

Based on Product, market is studied across Grid connected, Hybrid, and Remote. The Grid connected commanded largest market share of 58.32% in 2022, followed by Remote.

Based on Application, market is studied across Commercial, Defense, Education, Government, and Utility. The Utility commanded largest market share of 49.78% in 2022, followed by Commercial.

Based on Region, market is studied across Americas, Asia-Pacific, and Europe, Middle East & Africa. The Americas is further studied across Argentina, Brazil, Canada, Mexico, and United States. The United States is further studied across California, Florida, Illinois, New York, Ohio, Pennsylvania, and Texas. The Asia-Pacific is further studied across Australia, China, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand, and Vietnam. The Europe, Middle East & Africa is further studied across Denmark, Egypt, Finland, France, Germany, Israel, Italy, Netherlands, Nigeria, Norway, Poland, Qatar, Russia, Saudi Arabia, South Africa, Spain, Sweden, Switzerland, Turkey, United Arab Emirates, and United Kingdom. The Americas commanded largest market share of 36.53% in 2022, followed by Europe, Middle East & Africa.

Key Topics Covered:

1. Preface
2. Research Methodology
3. Executive Summary
4. Market Overview
5. Market Insights
6. Microgrid Market, by Power
7. Microgrid Market, by Product
8. Microgrid Market, by Application
9. Americas Microgrid Market
10. Asia-Pacific Microgrid Market
11. Europe, Middle East & Africa Microgrid Market
12. Competitive Landscape
13. Competitive Portfolio
14. Appendix

The report provides insights on the following pointers:

1. Market Penetration: Provides comprehensive information on the market offered by the key players
2. Market Development: Provides in-depth information about lucrative emerging markets and analyzes penetration across mature segments of the markets
3. Market Diversification: Provides detailed information about new product launches, untapped geographies, recent developments, and investments
4. Competitive Assessment & Intelligence: Provides an exhaustive assessment of market shares, strategies, products, certification, regulatory approvals, patent landscape, and manufacturing capabilities of the leading players
5. Product Development & Innovation: Provides intelligent insights on future technologies, R&D activities, and breakthrough product developments

The report answers questions such as:

1. What is the market size and forecast of the Microgrid Market?
2. Which are the products/segments/applications/areas to invest in over the forecast period in the Microgrid Market?
3. What is the competitive strategic window for opportunities in the Microgrid Market?
4. What are the technology trends and regulatory frameworks in the Microgrid Market?
5. What is the market share of the leading vendors in the Microgrid Market?
6. What modes and strategic moves are considered suitable for entering the Microgrid Market?

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