

DC Grid Connected Microgrid Market, Opportunity, Growth Drivers, Industry Trend Analysis and Forecast, 2024-2032

Market Report | 2024-08-27 | 80 pages | Global Market Insights

AVAILABLE LICENSES:

- Single User \$4850.00
- Multi User \$5350.00
- Enterprise User \$8350.00

Report description:

The Global DC Grid Connected Microgrid Market was valued at USD 3.9 billion in 2023 and is projected to grow at a CAGR of 20.9% from 2024 to 2032. The demand for connectivity from renewable sources, such as solar panels and batteries, drives product demand. These sources reduce conversion losses and enhance system efficiency. Additionally, solutions that bolster the resilience and stability of the electrical grid, especially in areas prone to power outages, fuel business growth.

Advancements in DC technology, particularly in energy management and control systems, boost product adoption. Innovations like smart meters, advanced DC/DC converters, and IoT integration enhance monitoring and optimization of the microgrid, ensuring efficient operations and data-driven decision-making. This trend propels the demand for grid-connected microgrids. Businesses and communities increasingly seek energy independence, leading to a need for solutions that allow users to generate, store, and utilize their energy more effectively. New technologies, including electric vehicles (EVs) and smart buildings, rely on DC power, accelerating product adoption. Their compatibility with the system allows for smoother integration and optimization within microgrids. Moreover, DC solutions' resilience to voltage sags, harmonics, and frequency fluctuations bolsters market growth. The overall DC grid connected microgrid industry is segmented based on power source, storage device, application, and region. The remote segment is projected to surpass USD 8 billion by 2032. Limited access to conventional energy sources in remote areas drives the adoption of renewable energy solutions. These solutions seamlessly integrate with renewable resources, minimizing energy losses and bolstering product growth. Additionally, establishing energy infrastructure in remote areas is often costly due to challenging terrains and distances from centralized grids. This reality makes DC microgrids an attractive, cost-effective solution. The natural gas segment is poised to grow at a CAGR of over 20.3% through 2032. The abundance of natural gas ensures a steady and secure fuel supply, crucial for long-term power planning. As businesses seek affordable power sources for significant long-term savings, natural gas demand rises. Moreover, there's an effort to address challenges faced by decentralized energy systems, especially in microgrids operating in isolated or off-grid environments.

Asia Pacific DC grid connected microgrid market is projected to exceed USD 12.8 billion by 2032. Governments in the region invest in renewable energy and decentralized power systems to lessen reliance on fossil fuels. For instance, China's 14th Five-Year Plan emphasizes the importance of microgrids in building new energy systems. Similarly, India's National Smart Grid Mission

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

integrates microgrids into its power infrastructure. Furthermore, the region's susceptibility to natural disasters, like typhoons and earthquakes, amplifies the demand for these microgrids, given their ability to operate independently and provide crucial power in post-disaster scenarios.

Table of Contents:

Report Content

Chapter 1 Methodology and Scope

1.1 Market definitions

1.2 Base estimates and calculations

1.3 Forecast calculation

1.4 Primary research and validation

1.4.1 Primary sources

1.4.2 Data mining sources

1.5 Market definitions

Chapter 2 Executive Summary

2.1 Industry 360 synopsis, 2021 - 2032

Chapter 3 Industry Insights

3.1 Industry ecosystem

3.2 Regulatory landscape

3.3 Industry impact forces

3.3.1 Growth drivers

3.3.2 Industry pitfalls and challenges

3.4 Growth potential analysis

3.5 Porter's analysis

3.5.1 Bargaining power of suppliers

3.5.2 Bargaining power of buyers

3.5.3 Threat of new entrants

3.5.4 Threat of substitutes

3.6 PESTEL analysis

Chapter 4 Competitive landscape, 2023

4.1 Introduction

4.2 Strategic dashboard

4.3 Innovation and sustainability landscape

Chapter 5 Market Size and Forecast, By Power Source, 2021 - 2032 (MW and USD Billion)

5.1 Key trends

5.2 Diesel generators

5.3 Natural gas

5.4 Solar PV

5.5 CHP

5.6 Others

Chapter 6 Market Size and Forecast, By Storage Device, 2021 - 2032 (MW and USD Billion)

6.1 Key trends

6.2 Lithium-ion

6.3 Lead acid

6.4 Flow battery

6.5 Flywheels

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

6.6 Others

Chapter 7 Market Size and Forecast, By Application, 2021 - 2032 (MW and USD Billion)

7.1 Key trends

7.2 Healthcare

7.3 Educational institutes

7.4 Military

7.5 Utility

7.6 Industrial/Commercial

7.7 Remote

7.8 Others

Chapter 8 Market Size and Forecast, By Region, 2021 - 2032 (MW and USD Billion)

8.1 Key trends

8.2 North America

8.2.1 U.S.

8.2.2 Canada

8.2.3 Mexico

8.3 Europe

8.3.1 Germany

8.3.2 France

8.3.3 UK

8.3.4 Russia

8.3.5 Spain

8.3.6 Italy

8.3.7 Denmark

8.4 Asia Pacific

8.4.1 China

8.4.2 Japan

8.4.3 South Korea

8.4.4 India

8.4.5 Australia

8.4.6 Malaysia

8.4.7 Indonesia

8.5 Middle East and Africa

8.5.1 Saudi Arabia

8.5.2 UAE

8.5.3 South Africa

8.5.4 Iran

8.5.5 Nigeria

8.6 Latin America

8.6.1 Brazil

8.6.2 Argentina

8.6.3 Chile

Chapter 9 Company Profiles

9.1 ABB

9.2 AEG International

9.3 ARDA Power

9.4 Eaton

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 9.5 Nextek Power Systems
- 9.6 Schneider Electric SE
- 9.7 SolarWorX
- 9.8 Schaltbau Group
- 9.9 Stellar Energy
- 9.10 Sumitomo Electric Industries, Ltd



Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

DC Grid Connected Microgrid Market, Opportunity, Growth Drivers, Industry Trend Analysis and Forecast, 2024-2032

Market Report | 2024-08-27 | 80 pages | Global Market Insights

To place an Order with Scotts International:

- ☐ - Print this form
- ☐ - Complete the relevant blank fields and sign
- ☐ - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User	\$4850.00
	Multi User	\$5350.00
	Enterprise User	\$8350.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

☐ ** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2025-05-09
		Signature	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com



Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com
www.scotts-international.com