

Microgrid Controller Market by Connectivity (Grid-connected, Off-grid), Offering (Hardware, Software & Services), End User (Commercial & Industrial, Military, Government, Institutes & Campuses, Healthcare) and Region - Global Forecast to 2029

<https://marketpublishers.com/r/M4208BA9A06EN.html>

Date: March 2024

Pages: 218

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

ID: M4208BA9A06EN

Abstracts

The microgrid controller market is expected to reach USD 18.7 billion by 2029 from USD 6.8 billion in 2024, at a CAGR of 22.6% during the 2024-2029 period.

For more than a century, advanced economies have adhered to the principle of 'bigger is better' in electric power supply. Extensive grids were constructed to link power plants with residences and businesses via extensive networks spanning thousands of miles. Electricity generated by large, distant power plants, which are tied to centralized power grids and rely on fossil fuels, is transmitted across various regions and nations. However, the inefficiencies in power transmission inherent to these power plants have become increasingly apparent.

Traditional grids heavily rely on fossil fuels for electricity production, contributing to pollution and global warming. Moreover, these grids are susceptible to natural disasters, often resulting in network malfunctions or blackouts. For example, Hurricane Sandy in the US and Typhoon Haiyan in the Philippines caused widespread blackouts in major areas, including New York and the islands of Leyte. In the aftermath of such calamities, these regions faced prolonged periods without electricity, prompting a surge in demand for self-generating plants or microgrids. The occurrence of hurricanes, heatwaves, windstorms, wildfires, and other extreme weather events in 2020 led to a significant increase in power outages for electric utility customers in the US. According to PowerOutage US, there were 1.33 billion outages in 2020, marking a 73% rise from approximately 770 million in 2019.

The escalating demand for power also results in interruptions and outages. For instance, in April 2022, power outages were reported in various parts of Mumbai and its suburbs due to increased power demand. Mumbai's power demand during summers has risen to 3,800 megawatts (MW), surpassing the typical range of 3,200-3,300 MW. Although the state requires 25,000 megawatts of electricity, only 21 to 22,000 megawatts are currently being supplied.

Microgrids, with their value proposition centered on reliability, energy security, and power quality, emerge as an appealing alternative to centralized power distribution systems. They represent the next frontier in the electrification drive, enabling access to remote areas inaccessible to large grids. Microgrids can enhance electric service reliability, promote cleaner energy, reduce costs, and mitigate the impacts of power outages. Moreover, microgrids offer the potential to integrate smart technologies, such as smart meters, to enhance operational efficiency. These technologies enable microgrids to engage in demand response, strategically utilize energy storage, and provide grid services. Industries requiring uninterrupted power supply, such as hospitals, universities, refineries, pharmaceutical companies, data centers, and military installations, are driving the global demand for microgrids.

“Growing adoption of microgrids for rural electrification to increase in the demand of microgrid controller market.”

Microgrids are increasingly gaining traction globally, serving both, isolated installations for remote electrification and grid-connected assets to fortify resilient networks and foster local energy communities. According to the International Energy Agency (IEA), approximately 860 million individuals worldwide lacked access to electricity in 2020, with 87% residing in rural or remote regions ('SDG Indicators Goal 7' – 2020). In areas where access to the primary grid is unavailable or conventional grid extension proves prohibitively costly, microgrids emerge as a viable solution to energy access barriers. Moreover, microgrids offer a means to harness renewable energy sources within localized areas, positioning them as a practical choice for rural electrification initiatives. Notably, microgrids can be implemented in constrained spaces and provide electricity at reduced costs compared to traditional grid infrastructure. For instance, the University of California reports annual energy cost savings exceeding USD 8 million following the implementation of microgrids.

Another significant driver of the demand for microgrids in rural electrification efforts is the escalating government support and the surge in microgrid project deployments. For

example, in March 2021, GE (US) secured a contract to modernize three gas-insulated substations (GIS) in Khimti, Barhabise, and Lapsipedi in Nepal. These upgraded substations will deliver uninterrupted hydro energy to numerous households in regions outside Kathmandu, which still lack access to the national grid. In April 2021, the Indian Government's e-governance services arm, CSC, announced a collaboration with Tata Power to establish solar-powered microgrids and water pumps in rural areas across India. Similarly, in December 2020, Hitachi Energy (Switzerland) was commissioned by Ministry of Corporate Affairs (MCA) to contribute to the development of Sub-Saharan Africa's largest photovoltaic project, enhancing access to reliable and clean energy for Angola's population of 30 million people.

“Remote area end user of microgrid controller market recorded the highest market share in 2023”

Remote regions dominated the microgrid controller market in 2022, driven by the growing adoption of microgrid technologies in these areas. The integration of microgrids with hybrid generation proves particularly beneficial in regions lacking access to the primary utility grid. According to the International Energy Agency, approximately 1 billion people in remote locations worldwide lack access to electricity due to the high costs associated with fossil fuel-based generation, uncertainties in availability, and transportation challenges.

Governments across various nations are increasingly investing in electricity infrastructure development to provide affordable and clean energy. This has led to a surge in demand for microgrids in remote regions to both generate power and manage distributed energy resources effectively. For instance, in March 2021, General Electric secured a contract to upgrade three gas-insulated substations in Nepal, ensuring uninterrupted hydro energy supply to numerous households in regions outside Kathmandu that are still without access to the national grid. In April 2021, the Indian Government's e-governance services arm, Common Service Centres (CSC), announced a partnership with Tata Power to establish solar-powered microgrids and water pumps in rural and remote areas across the country.

Similarly, in December 2020, Hitachi Energy was awarded a contract by MCA to contribute to Sub-Saharan Africa's largest photovoltaic project, expanding access to reliable and clean energy for Angola's population of 30 million. In May 2019, ABB supplied an MGS100 integrated microgrid solution to facilitate the delivery of 100% renewable power and energy storage to up to 39,000 households in regions far from public utility infrastructure.

“US is expected to have the largest market share of microgrid controller in North America market in the forecast period”

In 2023, the US emerged as the primary driver of the microgrid controller market within North America. This dominance is fueled by the increasing adoption of sustainable energy sources, aimed at reducing reliance on conventional electricity grids. The country's robust growth trajectory in the microgrid controller sector is further propelled by substantial investments in clean energy initiatives. Notably, legislative actions like the introduction of H.R.1512, the Climate Leadership and Environmental Action for its Nation's Future Act, signal a significant commitment to decarbonization efforts, with allocated funding earmarked for microgrid development.

Furthermore, the recommitment to the Paris Agreement underscores the government's dedication to curbing carbon emissions, thereby encouraging widespread microgrid deployment across diverse industries.

Microgrids also play a pivotal role in ensuring energy resilience, particularly within critical sectors such as healthcare. Notably, in April 2020, Bloom Energy swiftly deployed microgrid systems for California-based hospitals, facilitating uninterrupted power supply during crises. Additionally, the US witnessed a surge in microgrid initiatives, with over 500 new projects initiated in 2019, prominently led by PowerSecure, Enchanted Rock, and the American Red Cross.

In March 2023, ABB is forging a strategic alliance with Direct Energy Partners (DEP) (US), a pioneering startup leveraging digital technology to expedite the adoption of Direct Current (DC) microgrids. This partnership entails a minority investment in Direct Energy Partners through ABB's venture capital arm, ABB Technology Ventures (ATV). Specific financial terms of the investment remain undisclosed.

In March 2023, Siemens Smart Infrastructure, in collaboration with Fluence, a key player in energy storage formed by Siemens and AES in 2018, completed a sustainable energy project on Terceira island, Azores, for EDA – Electricidade dos Açores. The project merges predictive energy software with a robust battery-based storage system, enhancing the integration of renewables like wind and solar into the grid. This blend is anticipated to slash CO2 emissions by over 3,600 tons annually. The Spectrum Power Microgrid Management System (MGMS) software implemented for EDA is part of Siemens Xcelerator portfolio, aiding global power utilities in their digital transformation.

In March 2022, Honeywell International Inc. and Duke Energy's Sustainable Solutions division have partnered to provide microgrid solutions to cities and communities across the United States, enhancing energy resilience during grid-level outages. Through this collaboration, Duke Energy's Sustainable Solutions offers distributed energy resources (DER) alongside Honeywell's battery energy storage systems (BESS) and smart cities software, facilitating the development of municipal microgrids and city-owned assets.

The break-up of the profile of primary participants in the Microgrid controller market-

By Company Type: Tier 1 – 55%, Tier 2 – 25%, Tier 3 – 20%

By Designation Type: C Level – 45%, Director Level – 30%, Others – 25%

By Region Type: Americas – 40%, Europe – 25 %, Asia Pacific – 20%, RoW – 15%,

The major players in the microgrid controller market are Schneider Electric (France), General Electric (US), ABB (Switzerland), Siemens (Germany), Eaton (Ireland), Schweitzer Engineering Laboratories, Inc. (US), Honeywell International Inc. (US), Caterpillar (US), S&C Electric Company (US), Power Analytics Corporation (US), Cummins Inc. (US), Tesla Energy (US), Emerson Electric Co. (US), HOMER Energy (US), Hitachi Energy Ltd. (Switzerland), Pareto Energy (US), Encorp (US), Powerhive (Kenya), Enchanted Rock (US), AutoGrid Systems, Inc. (US), Heila Technologies (US), Ameresco, Inc. (US), PowerSecure, Inc. (US), Canopy Power (Singapore), Scale Microgrid Solutions LLC (US), and Spirae, LLC (US).

Research Coverage

The report segments the microgrid controller market and forecasts its size based and region. The report also provides a comprehensive review of drivers, restraints, opportunities, and challenges influencing market growth. The report also covers qualitative aspects in addition to the quantitative aspects of the market.

Reasons to buy the report:

The report will help the market leaders/new entrants in this market with information on the closest approximate revenues for the overall microgrid controller market and related segments. This report will help stakeholders understand the competitive landscape and

gain more insights to strengthen their position in the market and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, opportunities, and challenges.

The report provides insights on the following pointers:

Analysis of key drivers (Enhanced microgrid efficiency through controllers), restraints (Cybersecurity risks in microgrid control operations), opportunities (Increasing adoption of microgrids across healthcare, military, and government sectors), and challenges (Dynamic government regulation, policies, and standards)

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product launches in the microgrid controller market

Market Development: Comprehensive information about lucrative markets – the report analyses the microgrid controller market across varied regions.

Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the microgrid controller market

Competitive Assessment: In-depth assessment of market shares, growth strategies, and product offerings of leading players like Schneider Electric (France), General Electric (US), ABB (Switzerland), Siemens (Germany), and Eaton (Ireland).

Contents

1 INTRODUCTION

1.1 STUDY OBJECTIVES

1.2 MARKET DEFINITION

1.2.1 INCLUSIONS AND EXCLUSIONS

1.3 STUDY SCOPE

1.3.1 MARKETS COVERED

FIGURE 1 MICROGRID CONTROLLER MARKET SEGMENTATION

1.3.2 REGIONAL SCOPE

FIGURE 2 MICROGRID CONTROLLER MARKET: REGIONAL SCOPE

1.3.3 YEARS CONSIDERED

1.4 CURRENCY CONSIDERED

1.5 LIMITATIONS

1.6 STAKEHOLDERS

1.7 SUMMARY OF CHANGES

1.7.1 RECESSION IMPACT ON MICROGRID CONTROLLER MARKET

2 RESEARCH METHODOLOGY

2.1 RESEARCH DATA

FIGURE 3 MICROGRID CONTROLLER MARKET: RESEARCH DESIGN

2.1.1 SECONDARY DATA

2.1.1.1 Key data from secondary sources

2.1.1.2 Key secondary sources

2.1.2 PRIMARY DATA

2.1.2.1 Key data from primary sources

2.1.2.2 Key participants in primary processes supply chain across microgrid controller market

2.1.2.3 Breakdown of primary interviews

2.1.2.4 Key industry insights

2.1.3 SECONDARY AND PRIMARY RESEARCH

2.2 MARKET SIZE ESTIMATION

FIGURE 4 MARKET SIZE ESTIMATION METHODOLOGY: APPROACH 1 (SUPPLY SIDE) – REVENUE GENERATED BY KEY PLAYERS

FIGURE 5 MARKET SIZE ESTIMATION METHODOLOGY: APPROACH 2 (SUPPLY SIDE) – REVENUE ESTIMATION OF KEY PLAYER

FIGURE 6 MARKET SIZE ESTIMATION METHODOLOGY: APPROACH 3 (DEMAND

SIDE) —BOTTOM-UP ESTIMATION BASED ON REGION

2.2.1 BOTTOM-UP APPROACH

2.2.1.1 Approach to derive market size using bottom-up analysis

FIGURE 7 MARKET SIZE ESTIMATION METHODOLOGY: BOTTOM-UP APPROACH

2.2.2 TOP-DOWN APPROACH

2.2.2.1 Approach to derive market size using top-down analysis

FIGURE 8 MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH

2.3 MARKET SHARE ESTIMATION

2.4 DATA TRIANGULATION

FIGURE 9 DATA TRIANGULATION

2.5 RISK ASSESSMENT

TABLE 1 RISK FACTOR ANALYSIS

2.6 RECESSION IMPACT

2.7 RESEARCH ASSUMPTIONS AND LIMITATIONS

2.7.1 ASSUMPTIONS

2.7.2 LIMITATIONS

3 EXECUTIVE SUMMARY

3.1 IMPACT OF RECESSION

FIGURE 10 MICROGRID CONTROLLER MARKET: IMPACT OF RECESSION

FIGURE 11 GRID-CONNECTED SEGMENT TO HOLD LARGEST MARKET SHARE
THROUGHOUT FORECAST PERIOD (USD MILLION)

FIGURE 12 AMERICAS TO DOMINATE MICROGRID CONTROLLER SOFTWARE &
SERVICES MARKET FROM 2024 TO 2029

FIGURE 13 NORTH AMERICA: LARGEST MARKET IN AMERICAS DURING
FORECAST PERIOD

FIGURE 14 ASIA PACIFIC MICROGRID CONTROLLER MARKET TO REGISTER
HIGHEST CAGR DURING FORECAST PERIOD

4 PREMIUM INSIGHTS

4.1 ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN MICROGRID CONTROLLER
MARKET

FIGURE 15 RISING DEMAND FOR DEPENDABLE AND CONTINUOUS POWER
SUPPLY TO FUEL MARKET GROWTH

4.2 MICROGRID CONTROLLER MARKET, BY OFFERING

FIGURE 16 SOFTWARE & SERVICES TO HOLD LARGEST MARKET SHARE
BETWEEN 2024 AND 2029

4.3 MICROGRID CONTROLLER MARKET, BY END USER

FIGURE 17 COMMERCIAL & INDUSTRIAL SEGMENT TO ACCOUNT FOR LARGEST MARKET SIZE DURING FORECAST PERIOD

4.4 MICROGRID CONTROLLER MARKET, BY COUNTRY

FIGURE 18 INDIAN MICROGRID CONTROLLER MARKET TO REGISTER HIGHEST CAGR DURING FORECAST PERIOD

5 MARKET OVERVIEW

5.1 INTRODUCTION

5.2 MICROGRID CONTROLLER MARKET DYNAMICS

FIGURE 19 MICROGRID CONTROLLER MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES

5.2.1 DRIVERS

5.2.1.1 Emphasis on decarbonization among end users and governments

5.2.1.2 Enhanced microgrid efficiency through controllers

5.2.1.3 Increasing demand for reliable, uninterrupted power supply

5.2.1.4 Growing adoption of microgrids for rural electrification

FIGURE 20 MICROGRID CONTROLLER MARKET DRIVERS: IMPACT ANALYSIS

5.2.2 RESTRAINTS

5.2.2.1 High cost of installation

5.2.2.2 Cybersecurity risks in microgrid control operations

5.2.2.3 Interoperability and compatibility concerns due to large number of components/devices

FIGURE 21 MICROGRID CONTROLLER MARKET RESTRAINTS: IMPACT ANALYSIS

5.2.3 OPPORTUNITIES

5.2.3.1 Growing initiatives for energy and sustainable development in smart cities

5.2.3.2 Increasing adoption of microgrids across healthcare, military, and government sectors

5.2.3.3 Increasing energy consumption and growing need for renewable energy in Asia Pacific

5.2.3.4 Surge in investor interest in EaaS business model for cost optimization

FIGURE 22 MICROGRID CONTROLLER MARKET OPPORTUNITIES: IMPACT ANALYSIS

5.2.4 CHALLENGES

5.2.4.1 Technological, operational, and security risks associated with microgrids

5.2.4.2 Dynamic government regulations, policies, and standards

FIGURE 23 MICROGRID CONTROLLER MARKET CHALLENGES: IMPACT ANALYSIS

5.3 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS

FIGURE 24 REVENUE SHIFT AND NEW REVENUE POCKETS FOR MICROGRID CONTROLLER MARKET PLAYERS

5.4 PRICING ANALYSIS

FIGURE 25 INDICATIVE PRICING OF KEY PLAYER, BY OFFERING, 2024 (USD)

TABLE 2 INDICATIVE PRICING OF KEY PLAYER, BY OFFERING, 2024 (USD)

TABLE 3 INDICATIVE PRICING OF MICROGRID CONTROLLERS, BY REGION (2024)

5.5 SUPPLY CHAIN ANALYSIS

FIGURE 26 SUPPLY CHAIN ANALYSIS: MICROGRID CONTROLLER MARKET

5.5.1 R&D

5.5.2 COMPONENT MANUFACTURERS

5.5.3 SYSTEM INTEGRATORS

5.5.4 MICROGRID CONTROLLER AND SOLUTION PROVIDERS

5.5.5 END USERS

5.6 ECOSYSTEM ANALYSIS

TABLE 4 MICROGRID CONTROLLER MARKET: ECOSYSTEM ANALYSIS

FIGURE 27 KEY PLAYERS IN MICROGRID CONTROLLER MARKET

5.7 INVESTMENT AND FUNDING SCENARIO

FIGURE 28 INVESTMENT AND FUNDING SCENARIO FOR STARTUPS

5.8 TECHNOLOGY ANALYSIS

5.8.1 KEY TECHNOLOGIES

5.8.1.1 Smart Sensors

5.8.1.2 IoT Devices

5.8.2 COMPLEMENTARY TECHNOLOGY

5.8.2.1 Energy Storage Systems (ESS)

5.8.3 ADJACENT TECHNOLOGY

5.8.3.1 Advanced Data Analytics

5.9 PATENT ANALYSIS

FIGURE 29 PATENTS APPLIED AND GRANTED, 2014–2023

TABLE 5 MICROGRID CONTROLLER MARKET: MAJOR PATENTS, 2022–2023

5.10 TRADE DATA ANALYSIS

5.10.1 IMPORT SCENARIO

FIGURE 30 IMPORTS, BY KEY COUNTRY, 2018–2022 (USD MILLION)

TABLE 6 IMPORT SCENARIO FOR HS CODE 853710-COMPLIANT PRODUCTS, BY COUNTRY, 2018–2022 (USD MILLION)

5.10.2 EXPORT SCENARIO

FIGURE 31 EXPORTS, BY KEY COUNTRY, 2018–2022 (USD MILLION)

TABLE 7 EXPORT SCENARIO FOR HS CODE 853710-COMPLIANT PRODUCTS, BY

COUNTRY, 2018–2022 (USD MILLION)

5.11 KEY CONFERENCES AND EVENTS (2024)

5.12 CASE STUDY ANALYSIS

5.12.1 HONEYWELL ADVANCES DECARBONIZATION OBJECTIVES AT ROMANIA FACILITY

TABLE 8 ENERGY SOLUTION IMPLEMENTED AT LUGOJ PLANT TO ENHANCE RESILIENCE AND REDUCE EMISSIONS

5.12.2 SEL INSTALLS MICROGRID CONTROL SYSTEM AT MONTCLAIR STATE UNIVERSITY

TABLE 9 ENHANCED ENERGY EFFICIENCY AND RELIABILITY AT MONTCLAIR STATE UNIVERSITY

5.12.3 PXISE IMPLEMENTS AUTONOMOUS MICROGRID SOLUTION ON MARTHA'S VINEYARD

TABLE 10 REVOLUTIONIZED TRANSIT RESILIENCE THROUGH ADVANCED MICROGRID CONTROL IN MARTHA'S VINEYARD

5.13 REGULATORY LANDSCAPE

TABLE 11 MFN TARIFF FOR HS CODE 853710 EXPORTED BY GERMANY (2023)

5.13.1 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 12 NORTH AMERICA: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 13 EUROPE: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 14 ASIA PACIFIC: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 15 ROW: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

5.14 PORTER'S FIVE FORCES ANALYSIS

FIGURE 32 MICROGRID CONTROLLER MARKET: PORTER'S FIVE FORCES ANALYSIS

TABLE 16 PORTER'S FIVE FORCES ANALYSIS AND IMPACT

5.14.1 INTENSITY OF COMPETITIVE RIVALRY

5.14.2 THREAT OF NEW ENTRANTS

5.14.3 THREAT OF SUBSTITUTES

5.14.4 BARGAINING POWER OF BUYERS

5.14.5 BARGAINING POWER OF SUPPLIERS

5.15 KEY STAKEHOLDERS AND BUYING CRITERIA

5.15.1 KEY STAKEHOLDERS IN BUYING PROCESS

FIGURE 33 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS, BY END

USER

TABLE 17 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR END USER (%)

5.15.2 BUYING CRITERIA

FIGURE 34 KEY BUYING CRITERIA, BY END USER

TABLE 18 KEY BUYING CRITERIA, BY END USER

6 MICROGRID CONTROLLER MARKET, BY CONNECTIVITY

6.1 INTRODUCTION

FIGURE 35 MICROGRID CONTROLLER MARKET, BY CONNECTIVITY

FIGURE 36 GRID-CONNECTED SEGMENT TO RECORD HIGHEST GROWTH RATE DURING FORECAST PERIOD

TABLE 19 MICROGRID CONTROLLER MARKET, BY CONNECTIVITY, 2020–2023 (USD MILLION)

TABLE 20 MICROGRID CONTROLLER MARKET, BY CONNECTIVITY, 2024–2029 (USD MILLION)

6.2 GRID-CONNECTED

6.2.1 INCREASE IN DEPLOYMENT OF UTILITY GRID TRANSMISSION LINES TO BOOST MARKET

TABLE 21 GRID-CONNECTED: MICROGRID CONTROLLER MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 22 GRID-CONNECTED: MICROGRID CONTROLLER MARKET, BY REGION, 2024–2029 (USD MILLION)

6.3 OFF-GRID

6.3.1 EXPANSION OF OFF-GRID SOLAR INITIATIVES TO CREATE NEW OPPORTUNITIES

TABLE 23 OFF-GRID: MICROGRID CONTROLLER MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 24 OFF-GRID: MICROGRID CONTROLLER MARKET, BY REGION, 2024–2029 (USD MILLION)

7 MICROGRID CONTROLLER MARKET, BY OFFERING

7.1 INTRODUCTION

FIGURE 37 MICROGRID CONTROLLER MARKET, BY OFFERING

FIGURE 38 SOFTWARE & SERVICES TO DOMINATE DURING FORECAST PERIOD FROM 2024–2029

TABLE 25 MICROGRID CONTROLLER MARKET, BY OFFERING, 2020–2023 (USD

MILLION)

TABLE 26 MICROGRID CONTROLLER MARKET, BY OFFERING, 2024–2029 (USD MILLION)

7.2 HARDWARE

7.2.1 GROWTH OPPORTUNITIES IN HARDWARE AND COMMUNICATION SYSTEMS

TABLE 27 HARDWARE: MICROGRID CONTROLLER MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 28 HARDWARE: MICROGRID CONTROLLER MARKET, BY REGION, 2024–2029 (USD MILLION)

7.3 SOFTWARE & SERVICES

7.3.1 OPTIMIZED ENERGY MANAGEMENT POSSIBLE WITH MICROGRID CONTROLLER SOFTWARE & SERVICES

TABLE 29 SOFTWARE & SERVICES: MICROGRID CONTROLLER MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 30 SOFTWARE & SERVICES: MICROGRID CONTROLLER MARKET, BY REGION, 2024–2029 (USD MILLION)

8 MICROGRID CONTROLLER MARKET, BY END USER

8.1 INTRODUCTION

FIGURE 39 MICROGRID CONTROLLER MARKET, BY END USER

TABLE 31 MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 32 MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

FIGURE 40 COMMERCIAL & INDUSTRIAL SEGMENT TO RECORD HIGHEST GROWTH RATE DURING FORECAST PERIOD

8.2 COMMERCIAL & INDUSTRIAL

8.2.1 APPLICATIONS ACROSS VARIOUS SETTINGS TO DRIVE SEGMENT

FIGURE 41 COMMERCIAL & INDUSTRIAL SEGMENT IN ASIA PACIFIC TO RECORD FASTEST GROWTH DURING FORECAST PERIOD

TABLE 33 COMMERCIAL & INDUSTRIAL: MICROGRID CONTROLLER MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 34 COMMERCIAL & INDUSTRIAL: MICROGRID CONTROLLER MARKET, BY REGION, 2024–2029 (USD MILLION)

8.3 REMOTE AREAS

8.3.1 ABSENCE OF PRIMARY UTILITY GRID SYSTEMS TO DRIVE ADOPTION IN REMOTE AREAS

TABLE 35 REMOTE AREAS: MICROGRID CONTROLLER MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 36 REMOTE AREAS: MICROGRID CONTROLLER MARKET, BY REGION, 2024–2029 (USD MILLION)

8.4 MILITARY

8.4.1 EXTENSIVE ADOPTION OF MICROGRIDS FOR ENHANCED ENERGY SECURITY AND RESILIENCE

TABLE 37 MILITARY: MICROGRID CONTROLLER MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 38 MILITARY: MICROGRID CONTROLLER MARKET, BY REGION, 2024–2029 (USD MILLION)

8.5 GOVERNMENT

8.5.1 RISING DEMAND FOR CLEAN ENERGY FROM GOVERNMENT SECTOR

TABLE 39 GOVERNMENT: MICROGRID CONTROLLER MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 40 GOVERNMENT: MICROGRID CONTROLLER MARKET, BY REGION, 2024–2029 (USD MILLION)

8.6 UTILITIES

8.6.1 UTILITY INVESTMENTS AND PARTNERSHIPS DRIVE MICROGRID ADVANCEMENTS

TABLE 41 UTILITIES: MICROGRID CONTROLLER MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 42 UTILITIES: MICROGRID CONTROLLER MARKET, BY REGION, 2024–2029 (USD MILLION)

8.7 INSTITUTES & CAMPUSES

8.7.1 NEED FOR ADVANCED SOLUTIONS FOR RELIABLE POWER AND SUSTAINABILITY TO FUEL SEGMENT

TABLE 43 INSTITUTES & CAMPUSES: MICROGRID CONTROLLER MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 44 INSTITUTES & CAMPUSES: MICROGRID CONTROLLER MARKET, BY REGION, 2024–2029 (USD MILLION)

8.8 HEALTHCARE

8.8.1 ENHANCED RESILIENCE AMIDST GRID INSTABILITY – KEY REASON FOR ADOPTION

TABLE 45 HEALTHCARE: MICROGRID CONTROLLER MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 46 HEALTHCARE: MICROGRID CONTROLLER MARKET, BY REGION, 2024–2029 (USD MILLION)

9 MICROGRID CONTROLLER MARKET, BY REGION

9.1 INTRODUCTION

FIGURE 42 AMERICAS TO ACCOUNT FOR LARGEST SHARE OF MICROGRID CONTROLLER MARKET THROUGH 2029

TABLE 47 MICROGRID CONTROLLER MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 48 MICROGRID CONTROLLER MARKET, BY REGION, 2024–2029 (USD MILLION)

TABLE 49 MICROGRID INSTALLED CAPACITY, BY REGION, 2020–2023 (MW)

TABLE 50 MICROGRID INSTALLED CAPACITY, BY REGION, 2024–2029 (MW)

9.2 AMERICAS

FIGURE 43 AMERICAS: MICROGRID CONTROLLER MARKET SNAPSHOT

TABLE 51 AMERICAS: MICROGRID CONTROLLER MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 52 AMERICAS: MICROGRID CONTROLLER MARKET, BY REGION, 2024–2029 (USD MILLION)

TABLE 53 AMERICAS: MICROGRID CONTROLLER MARKET, BY CONNECTIVITY, 2020–2023 (USD MILLION)

TABLE 54 AMERICAS: MICROGRID CONTROLLER MARKET, BY CONNECTIVITY, 2024–2029 (USD MILLION)

TABLE 55 AMERICAS: MICROGRID CONTROLLER MARKET, BY OFFERING, 2020–2023 (USD MILLION)

TABLE 56 AMERICAS: MICROGRID CONTROLLER MARKET, BY OFFERING, 2024–2029 (USD MILLION)

TABLE 57 AMERICAS: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 58 AMERICAS: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.2.1 AMERICAS: RECESSION IMPACT

9.2.2 NORTH AMERICA

TABLE 59 NORTH AMERICA: MICROGRID CONTROLLER MARKET, BY COUNTRY, 2020–2023 (USD MILLION)

TABLE 60 NORTH AMERICA: MICROGRID CONTROLLER MARKET, BY COUNTRY, 2024–2029 (USD MILLION)

TABLE 61 NORTH AMERICA: MICROGRID CONTROLLER MARKET, BY CONNECTIVITY, 2020–2023 (USD MILLION)

TABLE 62 NORTH AMERICA: MICROGRID CONTROLLER MARKET, BY CONNECTIVITY, 2024–2029 (USD MILLION)

TABLE 63 NORTH AMERICA: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 64 NORTH AMERICA: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.2.2.1 US

9.2.2.1.1 Emergence of key players and increasing utilization of renewable energy sources to boost market

9.2.2.2 Canada

9.2.2.2.1 Advancements in microgrid controller technology and sustainable energy initiatives to drive market

9.2.2.3 Mexico

9.2.2.3.1 Critical facilities being empowered with microgrid technology

9.2.3 SOUTH AMERICA

TABLE 65 SOUTH AMERICA: MICROGRID CONTROLLER MARKET, BY COUNTRY, 2020–2023 (USD MILLION)

TABLE 66 SOUTH AMERICA: MICROGRID CONTROLLER MARKET, BY COUNTRY, 2024–2029 (USD MILLION)

TABLE 67 SOUTH AMERICA: MICROGRID CONTROLLER MARKET, BY CONNECTIVITY, 2020–2023 (USD MILLION)

TABLE 68 SOUTH AMERICA: MICROGRID CONTROLLER MARKET, BY CONNECTIVITY, 2024–2029 (USD MILLION)

TABLE 69 SOUTH AMERICA: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 70 SOUTH AMERICA: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.3 EUROPE

FIGURE 44 EUROPE: MICROGRID CONTROLLER MARKET SNAPSHOT

TABLE 71 EUROPE: MICROGRID CONTROLLER MARKET, BY COUNTRY, 2020–2023 (USD MILLION)

TABLE 72 EUROPE: MICROGRID CONTROLLER MARKET, BY COUNTRY, 2024–2029 (USD MILLION)

TABLE 73 EUROPE: MICROGRID CONTROLLER MARKET, BY CONNECTIVITY, 2020–2023 (USD MILLION)

TABLE 74 EUROPE: MICROGRID CONTROLLER MARKET, BY CONNECTIVITY, 2024–2029 (USD MILLION)

TABLE 75 EUROPE: MICROGRID CONTROLLER MARKET, BY OFFERING, 2020–2023 (USD MILLION)

TABLE 76 EUROPE: MICROGRID CONTROLLER MARKET, BY OFFERING, 2024–2029 (USD MILLION)

TABLE 77 EUROPE: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 78 EUROPE: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.3.1 EUROPE: RECESSION IMPACT

9.3.2 GERMANY

9.3.2.1 Leading role in microgrid adoption and government-driven clean energy initiatives

TABLE 79 GERMANY: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 80 GERMANY: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.3.3 FRANCE

9.3.3.1 Rising government investments to drive microgrid adoption

TABLE 81 FRANCE: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 82 FRANCE: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.3.4 UK

9.3.4.1 Use of microgrids to mitigate waste heat from conventional energy systems

TABLE 83 UK: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 84 UK: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.3.5 REST OF EUROPE

TABLE 85 REST OF EUROPE: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 86 REST OF EUROPE: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.4 ASIA PACIFIC

FIGURE 45 ASIA PACIFIC: MICROGRID CONTROLLER MARKET SNAPSHOT

TABLE 87 ASIA PACIFIC: MICROGRID CONTROLLER MARKET, BY COUNTRY, 2020–2023 (USD MILLION)

TABLE 88 ASIA PACIFIC: MICROGRID CONTROLLER MARKET, BY COUNTRY, 2024–2029 (USD MILLION)

TABLE 89 ASIA PACIFIC: MICROGRID CONTROLLER MARKET, BY CONNECTIVITY, 2020–2023 (USD MILLION)

TABLE 90 ASIA PACIFIC: MICROGRID CONTROLLER MARKET, BY CONNECTIVITY, 2024–2029 (USD MILLION)

TABLE 91 ASIA PACIFIC: MICROGRID CONTROLLER MARKET, BY OFFERING, 2020–2023 (USD MILLION)

TABLE 92 ASIA PACIFIC: MICROGRID CONTROLLER MARKET, BY OFFERING, 2024–2029 (USD MILLION)

TABLE 93 ASIA PACIFIC: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 94 ASIA PACIFIC: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.4.1 ASIA PACIFIC: RECESSION IMPACT

9.4.2 CHINA

9.4.2.1 Rising government efforts to encourage adoption of clean energy

TABLE 95 CHINA: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 96 CHINA: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.4.3 JAPAN

9.4.3.1 Increasing demand for reliable electricity supply to drive market

TABLE 97 JAPAN: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 98 JAPAN: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.4.4 AUSTRALIA

9.4.4.1 Increasing adoption of microgrids driven by high cost of conventional grid electricity

TABLE 99 AUSTRALIA: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 100 AUSTRALIA: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.4.5 INDIA

9.4.5.1 Increasing microgrid adoption driven by various government initiatives

TABLE 101 INDIA: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 102 INDIA: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.4.6 REST OF ASIA PACIFIC

TABLE 103 REST OF ASIA PACIFIC: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 104 REST OF ASIA PACIFIC: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.5 ROW

FIGURE 46 AFRICA PROJECTED TO HOLD LARGER SHARE OF ROW MICROGRID CONTROLLER MARKET

TABLE 105 ROW: MICROGRID CONTROLLER MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 106 ROW: MICROGRID CONTROLLER MARKET, BY REGION, 2024–2029 (USD MILLION)

TABLE 107 ROW: MICROGRID CONTROLLER MARKET, BY CONNECTIVITY, 2020–2023 (USD MILLION)

TABLE 108 ROW: MICROGRID CONTROLLER MARKET, BY CONNECTIVITY, 2024–2029 (USD MILLION)

TABLE 109 ROW: MICROGRID CONTROLLER MARKET, BY OFFERING, 2020–2023 (USD MILLION)

TABLE 110 ROW: MICROGRID CONTROLLER MARKET, BY OFFERING, 2024–2029 (USD MILLION)

TABLE 111 ROW: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 112 ROW: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.5.1 ROW: RECESSION IMPACT

9.5.2 MIDDLE EAST

9.5.2.1 Expansion of healthcare industry and increasing need for dependable electricity supply to boost market

TABLE 113 MIDDLE EAST: MICROGRID CONTROLLER MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 114 MIDDLE EAST: MICROGRID CONTROLLER MARKET, BY REGION, 2024–2029 (USD MILLION)

TABLE 115 MIDDLE EAST: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 116 MIDDLE EAST: MICROGRID CONTROLLER MARKET, BY END USER, 2024–2029 (USD MILLION)

9.5.2.2 GCC Countries

9.5.2.2.1 Need for advanced energy efficiency to boost market

9.5.2.3 Rest of Middle East

9.5.3 AFRICA

9.5.3.1 Need to modernize electricity infrastructure to fuel market

TABLE 117 AFRICA: MICROGRID CONTROLLER MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 118 AFRICA: MICROGRID CONTROLLER MARKET, BY END USER,

2024–2029 (USD MILLION)

10 COMPETITIVE LANDSCAPE

10.1 OVERVIEW

10.2 KEY PLAYER STRATEGIES

TABLE 119 MICROGRID CONTROLLER MARKET: OVERVIEW OF KEY STRATEGIES ADOPTED BY LEADING PLAYERS

10.3 REVENUE ANALYSIS, 2019–2023

FIGURE 47 MICROGRID CONTROLLER MARKET: REVENUE ANALYSIS OF FIVE KEY COMPANIES, 2019–2023

10.4 MARKET SHARE ANALYSIS, 2023

TABLE 120 MICROGRID CONTROLLER MARKET: DEGREE OF COMPETITION

FIGURE 48 MICROGRID CONTROLLER MARKET SHARE ANALYSIS, 2023

10.5 COMPANY VALUATION AND FINANCIAL METRICS

10.5.1 COMPANY VALUATION

FIGURE 49 MICROGRID CONTROLLER MARKET: COMPANY VALUATION, 2023

10.5.2 FINANCIAL METRICS

FIGURE 50 MICROGRID CONTROLLER MARKET: FINANCIAL METRICS, 2023

10.6 BRAND/PRODUCT COMPARISON

10.7 COMPANY EVALUATION MATRIX: KEY PLAYERS, 2023

FIGURE 51 MICROGRID CONTROLLER MARKET: COMPANY EVALUATION MATRIX (KEY PLAYERS), 2023

10.7.1 STARS

10.7.2 PERVASIVE PLAYERS

10.7.3 EMERGING LEADERS

10.7.4 PARTICIPANTS

10.7.5 COMPANY FOOTPRINT: KEY PLAYERS, 2023

10.7.5.1 Company footprint

FIGURE 52 MICROGRID CONTROLLER MARKET: COMPANY FOOTPRINT

10.7.5.2 Region footprint

TABLE 121 MICROGRID CONTROLLER MARKET: REGIONAL FOOTPRINT

10.7.5.3 Offering footprint

TABLE 122 MICROGRID CONTROLLER MARKET: OFFERING FOOTPRINT

10.7.5.4 Connectivity footprint

TABLE 123 MICROGRID CONTROLLER MARKET: CONNECTIVITY FOOTPRINT

10.7.5.5 End user footprint

TABLE 124 MICROGRID CONTROLLER MARKET: END USER FOOTPRINT

10.8 COMPANY EVALUATION MATRIX: STARTUPS/SMES, 2023

FIGURE 53 MICROGRID CONTROLLER MARKET: COMPANY EVALUATION MATRIX (STARTUPS/SMES), 2023

10.8.1 PROGRESSIVE COMPANIES

10.8.2 RESPONSIVE COMPANIES

10.8.3 DYNAMIC COMPANIES

10.8.4 STARTING BLOCKS

10.8.5 COMPETITIVE BENCHMARKING: STARTUPS/SMES, 2023

10.8.5.1 Key startups/SMEs

TABLE 125 MICROGRID CONTROLLER MARKET: KEY STARTUPS/SMES

10.8.5.2 Competitive benchmarking of key startups/SMEs

TABLE 126 MICROGRID CONTROLLER MARKET: COMPETITIVE BENCHMARKING OF KEY STARTUPS/SMES**10.9 COMPETITIVE SCENARIOS AND TRENDS**

10.9.1 PRODUCT LAUNCHES

TABLE 127 MICROGRID CONTROLLER MARKET: PRODUCT LAUNCHES, SEPTEMBER 2022–FEBRUARY 2024

10.9.2 DEALS

TABLE 128 MICROGRID CONTROLLER MARKET: DEALS, SEPTEMBER 2022–FEBRUARY 2024**11 COMPANY PROFILES**

(Business Overview, Products/Solutions/Services Offered, Recent Developments, and MnM View (Key strengths/Right to Win, Strategic Choices Made, and Weaknesses and Competitive Threats))*

11.1 INTRODUCTION**11.2 KEY PLAYERS**

11.2.1 SCHNEIDER ELECTRIC

TABLE 129 SCHNEIDER ELECTRIC: COMPANY OVERVIEW**FIGURE 54 SCHNEIDER ELECTRIC: COMPANY SNAPSHOT****TABLE 130 SCHNEIDER ELECTRIC: PRODUCTS/SOLUTIONS/SERVICES OFFERED****TABLE 131 SCHNEIDER ELECTRIC: PRODUCT LAUNCHES****TABLE 132 SCHNEIDER ELECTRIC: DEALS**

11.2.2 GENERAL ELECTRIC

TABLE 133 GENERAL ELECTRIC: COMPANY OVERVIEW**FIGURE 55 GENERAL ELECTRIC: COMPANY SNAPSHOT****TABLE 134 GENERAL ELECTRIC: PRODUCTS/SOLUTIONS/SERVICES OFFERED****TABLE 135 GENERAL ELECTRIC: PRODUCT LAUNCHES**

TABLE 136 GENERAL ELECTRIC: DEALS**11.2.3 ABB****TABLE 137 ABB: COMPANY OVERVIEW****FIGURE 56 ABB: COMPANY SNAPSHOT****TABLE 138 ABB: PRODUCTS/SOLUTIONS/SERVICES OFFERED****TABLE 139 ABB: PRODUCT LAUNCHES****TABLE 140 ABB: DEALS****11.2.4 SIEMENS****TABLE 141 SIEMENS: COMPANY OVERVIEW****FIGURE 57 SIEMENS: COMPANY SNAPSHOT****TABLE 142 SIEMENS: PRODUCTS/SOLUTIONS/SERVICES OFFERED****TABLE 143 SIEMENS: DEALS****11.2.5 EATON****TABLE 144 EATON: COMPANY OVERVIEW****FIGURE 58 EATON: COMPANY SNAPSHOT****TABLE 145 EATON: PRODUCTS/SOLUTIONS/SERVICES OFFERED****TABLE 146 EATON: DEALS****11.2.6 SCHWEITZER ENGINEERING LABORATORIES, INC.****TABLE 147 SCHWEITZER ENGINEERING LABORATORIES, INC.: COMPANY OVERVIEW****TABLE 148 SCHWEITZER ENGINEERING LABORATORIES, INC.: PRODUCTS/SOLUTIONS/SERVICES OFFERED****TABLE 149 SCHWEITZER ENGINEERING LABORATORIES, INC.: PRODUCT LAUNCHES****11.2.7 HONEYWELL INTERNATIONAL INC.****TABLE 150 HONEYWELL INTERNATIONAL INC.: COMPANY OVERVIEW****FIGURE 59 HONEYWELL INTERNATIONAL INC.: COMPANY SNAPSHOT****TABLE 151 HONEYWELL INTERNATIONAL INC.: PRODUCTS/SOLUTIONS/SERVICES OFFERED****TABLE 152 HONEYWELL INTERNATIONAL INC.: DEALS****11.2.8 CATERPILLAR****TABLE 153 CATERPILLAR: COMPANY OVERVIEW****FIGURE 60 CATERPILLAR: COMPANY SNAPSHOT****TABLE 154 CATERPILLAR: PRODUCTS/SOLUTIONS/SERVICES OFFERED****TABLE 155 CATERPILLAR: DEALS****11.2.9 S&C ELECTRIC COMPANY****TABLE 156 S&C ELECTRIC COMPANY: COMPANY OVERVIEW****TABLE 157 S&C ELECTRIC COMPANY: PRODUCTS/SOLUTIONS/SERVICES OFFERED**

11.2.10 POWER ANALYTICS CORPORATION

TABLE 158 POWER ANALYTICS CORPORATION: COMPANY OVERVIEW

TABLE 159 POWER ANALYTICS CORPORATION:
PRODUCTS/SOLUTIONS/SERVICES OFFERED

11.3 OTHER PLAYERS

11.3.1 CUMMINS INC.

11.3.2 TESLA ENERGY (SUBSIDIARY OF TESLA)

11.3.3 EMERSON ELECTRIC CO.

11.3.4 HOMER ENERGY (UL LLC.)

11.3.5 HITACHI ENERGY LTD.

11.3.6 PARETO ENERGY

11.3.7 ENCORP

11.3.8 POWERHIVE

11.3.9 ENCHANTED ROCK

11.3.10 AUTOGRID SYSTEMS, INC

11.3.11 HEILA TECHNOLOGIES (KOHLE CO.)

11.3.12 AMERESCO, INC

11.3.13 POWERSECURE, INC. (SUBSIDIARY OF SOUTHERN COMPANY)

11.3.14 CANOPY POWER

11.3.15 SCALE MICROGRID SOLUTIONS LLC

11.3.16 SPIRAE, LLC

*Details on Business Overview, Products/Solutions/Services Offered, Recent Developments, and MnM View (Key strengths/Right to Win, Strategic Choices Made, and Weaknesses and Competitive Threats) might not be captured in case of unlisted companies.

12 APPENDIX

12.1 INSIGHTS FROM INDUSTRY EXPERTS

12.2 DISCUSSION GUIDE

12.3 KNOWLEDGESTORE: MARKETANDMARKETS' SUBSCRIPTION PORTAL

12.4 CUSTOMIZATION OPTIONS

12.5 RELATED REPORTS

12.6 AUTHOR DETAILS

I would like to order

Product name: Microgrid Controller Market by Connectivity (Grid-connected, Off-grid), Offering (Hardware, Software & Services), End User (Commercial & Industrial, Military, Government, Institutes & Campuses, Healthcare) and Region - Global Forecast to 2029

Product link: <https://marketpublishers.com/r/M4208BA9A06EN.html>

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

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/M4208BA9A06EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below

and fax the completed form to +44 20 7900 3970