

Microgrid Market by Connectivity (Grid-connected, Off-grid), Offering (Power Generators, Controllers, Energy Storage, Software, Services), End User (Commercial & Industrial, Military, Utilities), Type, Power Rating & Geography - Global Forecast to 2027

Market Report | 2022-07-05 | 294 pages | MarketsandMarkets

AVAILABLE LICENSES:

- Single User \$4950.00
- Multi User \$6650.00
- Corporate License \$8150.00
- Enterprise Site License \$10000.00

Report description:

The global microgrid market size is estimated to be USD 26.9 billion in 2022 and is projected to reach USD 63.2 billion by 2027, at a CAGR of 18.6% during the forecast period. Some of the major factors contributing to the growth of microgrid market includes the increasing number of microgrid projects across different industries, surging energy demand and adoption of renewable energy in Asia Pacific, growing interest of investors in EaaS business model to minimize costs, and rising encouragement from governments for developing microgrid projects.

"Grid-connected microgrids accounted for larger share, due to expansion of utility-based grid networks and use of renewable sources"

The grid connected segment likely to hold largest market share and expected to grow at the highest CAGR during the forecast period. Grid-connected microgrids are physically connected to the utility grid via a switching mechanism at the point of common coupling (PCC), but they can also disconnect into island mode and reconnect to the main grid when required. Grid-connected microgrids contain multiple generators, distribution systems, and sophisticated controls. Furthermore, these technologies enhance grid resiliency, enhance power quality, and reduce their environmental effects, in addition to improving grid reliability. This results in an increase in demand.

"Microgrid software market likely to witness higher growth between 2022 and 2027"

The microgrid software market is projected to record the highest growth rate during the forecast period. Software used in microgrids established in remote locations allows microgrid operators to dynamically manage and control distributed energy resources with integrated weather and load forecasting. The hosted software services used by microgrids eliminate the requirement for onsite hosting of the IT infrastructures. This is expected to drive the growth of the microgrid software market in the near future.

"The power generators for microgrid hardware segment likely to witness highest market share between 2022 and 2027"

The power generators segment held the largest size of the microgrid hardware market in 2021 and expected to dominate the microgrid hardware segment during the forecast period. The use of renewable sources of energy such as PV cells, wind turbines, and hydro turbines for power generation is one of the prominent factors contributing to the growth of the microgrid hardware market globally. Other advantages of integrating renewable sources of energy with microgrids are reduced emissions of greenhouse gases and lowered dependency on local or imported fuels.

Americas likely to be the largest market during the forecast period between 2022 and 2027.

The microgrid market in the Americas has been studied for North America and South America. North America accounted for ~70% share in the overall Americas microgrid market in 2021. Countries such as US, and Canada have formulated number of policies to enhance the establishment of microgrids. The US is leading the microgrid market in Americas. The US and Canadian governments are initiating several funding programs and investments to expand decentralized grids; this is supporting the adoption and development of microgrids in these countries. An increase in the adoption of renewable sources of energy for electricity generation and the flexibility of microgrids in terms of using multiple power sources for electricity generation are also driving the growth of the microgrid market in the region.

A variety of executives from key organizations operating in the microgrid market were interviewed in-depth, including CEOs, marketing directors, and innovation and technology directors.

- \Box By Company Type: Tier 1 = 50%, Tier 2 = 30%, and Tier 3 = 20%

- \Box By Designation: C-level Executives = 35%, Directors = 30%, and Others (sales, marketing, and product managers, as well as members of various organizations) = 35%

- By Region: Americas = 40%, Europe= 25%, APAC=20%, and ROW=15%

Schneider Electric (France), General Electric (US), Siemens (Germany), Eaton Corporation (US), ABB (Switzerland), Hitachi Energy (Switzerland), Honeywell International Inc. (US), HOMER Energy (US), S&C Electric (US), Power Analytics (US) are the key players in the microgrid market. These top players have strong portfolios of products and services and a presence in both mature and emerging markets.

The study includes an in-depth competitive analysis of these key players in the microgrid market, with their company profiles, recent developments, and key market strategies.

Research Coverage

This report offers detailed insights into the microgrid market based on connectivity (grid connected, off-grid connected), offering (hardware, software, services), type (AC microgrids, DC microgrids, hybrid), patterns (urban/metropolitan, semiurban, rural areas/

islands), power source (natural gas, solar PV, combined heat and power, diesel, fuel cell, and others), power rating (less than 1 MW, 1 MW to 5 MW, 5 MW to 10 MW, and above 10 MW), end use (commercial & industrial, remote, institutes & campuses, government, utilities, military, and healthcare), and region (Americas, Europe, Asia Pacific (APAC), and Rest of the World (RoW) which includes the Middle East and Africa (MEA)) and Africa.

The report also provides a comprehensive review of microgrid market drivers, restraints, opportunities, and challenges in the market. The report also covers qualitative aspects in addition to the quantitative aspects of these markets.

Key Benefits of Buying the Report

The report will help the leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall market and the sub-segments. This report will help stakeholders understand the competitive landscape and gain more insights to better position their businesses and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the microgrid market and provides them information on key market drivers, restraints, challenges, and opportunities.

Table of Contents:

1 INTRODUCTION 23 1.1 STUDY OBJECTIVES 23 1.2 DEFINITION AND SCOPE 23 1.2.1 ⊓INCLUSIONS AND EXCLUSIONS: OFFERING SEGMENT □24 1.2.2 INCLUSIONS AND EXCLUSIONS: OTHER SEGMENTS 24 1.3 STUDY SCOPE 25 1.3.1 MARKETS COVERED 25 FIGURE 1 MARKET SEGMENTATION 25 1.3.2 REGIONAL SCOPE 25 1.3.3 YEARS CONSIDERED 26 1.4 CURRENCY 26 1.5 UNIT CONSIDERED 26 1.6 LIMITATIONS 26 1.7 STAKEHOLDERS 26 1.8 SUMMARY OF CHANGES 27 2 RESEARCH METHODOLOGY 28 2.1 RESEARCH DATA 28 FIGURE 2⊓MICROGRID MARKET: RESEARCH DESIGN□28 2.1.1 SECONDARY DATA 29 2.1.1.1 Major secondary sources 29 2.1.1.2 Key data from secondary sources 30 2.1.2 PRIMARY DATA 30 2.1.2.1 Primary interviews with experts 30 2.1.2.2 List of key primary interview participants 31 2.1.2.3 Breakdown of primaries 31 2.1.2.4 Key data from primary sources 32 2.1.3 SECONDARY AND PRIMARY RESEARCH 2.1.3.1 Key industry insights 33 2.2 MARKET SIZE ESTIMATION 34 2.2.1 BOTTOM-UP APPROACH 34 2.2.1.1 Approach used to arrive at market size using bottom-up analysis 34

FIGURE 3 MARKET SIZE ESTIMATION METHODOLOGY: BOTTOM-UP APPROACH 34 2.2.1.2 Approach for obtaining company-specific information in microgrid value chain 35 2.2.2 TOP-DOWN APPROACH 2.2.2.1 Approach used to arrive at market size using top-down analysis 35 FIGURE 4 MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH 35 2.3 FACTOR ANALYSIS 36 2.3.1 MICROGRID MARKET: SUPPLY-SIDE ANALYSIS 36 FIGURE 5 MARKET SIZE ESTIMATION METHODOLOGY: (SUPPLY SIDE): REVENUE GENERATED FROM SALES OF MICROGRIDS[]36 FIGURE 6⊓MARKET SIZE ESTIMATION METHODOLOGY: (SUPPLY SIDE): REVENUE FROM MICROGRID HARDWARE, SOFTWARE, AND SERVICES 37 2.3.2 MICROGRID MARKET: DEMAND-SIDE ANALYSIS 38 FIGURE 7 MARKET SIZE ESTIMATION METHODOLOGY: (DEMAND SIDE): BOTTOM-UP APPROACH FOR ESTIMATION OF SIZE OF MICROGRID MARKET BASED ON REGION 38 FIGURE 8[]MARKET SIZE ESTIMATION METHODOLOGY: DEMAND-SIDE ANALYSIS (COUNTRY LEVEL)[]39 2.3.3 GROWTH FORECAST ASSUMPTIONS 40 TABLE 1□MICROGRID MARKET: KEY FORECASTING ASSUMPTIONS□40 2.4 DATA TRIANGULATION 41 FIGURE 9]DATA TRIANGULATION METHODOLOGY[]41 2.5 ASSUMPTIONS 42 TABLE 2 KEY ASSUMPTIONS: MACRO- AND MICRO-ECONOMIC ENVIRONMENT 42 2.6 RISK ASSESSMENT 43 TABLE 3 RISK ASSESSMENT: MICROGRID MARKET 43 3 EXECUTIVE SUMMARY 44 3.1 REALISTIC SCENARIO (POST-COVID-19) 44 3.2 OPTIMISTIC SCENARIO (POST-COVID-19) 45 3.3 □ PESSIMISTIC SCENARIO (POST-COVID-19) □ 45 FIGURE 10[MICROGRID MARKET: OPTIMISTIC, REALISTIC, AND PESSIMISTIC SCENARIO ANALYSIS, 2018-2027 (USD BILLION)[]45 FIGURE 11[MICROGRID MARKET FOR GRID-CONNECTED SEGMENT TO RECORD HIGHER GROWTH RATE DURING FORECAST PERIOD₁₄₆ FIGURE 12 HARDWARE SEGMENT TO ACCOUNT FOR LARGEST MARKET SHARE OF MICROGRID MARKET DURING FORECASTING PERIOD∏46 FIGURE 13 CONTROLLERS TO RECORD HIGHEST CAGR IN MICROGRID HARDWARE MARKET FROM 2022 TO 2027 147 FIGURE 14 MICROGRID MARKET FOR COMMERCIAL & INDUSTRIAL END USER TO HOLD LARGEST SHARE IN 2027 48 FIGURE 15[MICROGRIDS WITH POWER RATINGS BETWEEN 1 MW TO 5 MW HOLD LARGEST MARKET SHARE[]48 FIGURE 16[]MICROGRID MARKET IN ASIA PACIFIC TO RECORD HIGHEST CAGR DURING FORECAST PERIOD[]49 4 PREMIUM INSIGHTS 50 4.1 ATTRACTIVE GROWTH OPPORTUNITIES IN MICROGRID MARKET 50 FIGURE 17 INCREASING DEMAND FOR UNINTERRUPTED AND RELIABLE POWER SUPPLY DRIVING MICROGRID MARKET 50 4.2 MICROGRID MARKET, BY OFFERING 50 FIGURE 18 HARDWARE TO HOLD LARGEST SHARE OF MICROGRID MARKET IN 2022 AND 2027 50 4.3 MICROGRID MARKET, BY HARDWARE TYPE 51 FIGURE 19 POWER GENERATORS TO ACCOUNT FOR LARGEST SIZE OF MICROGRID HARDWARE MARKET FROM 2022 TO 2027 51 4.4 MICROGRID MARKET, BY CONNECTIVITY 51 FIGURE 20[]GRID-CONNECTED MICROGRIDS TO ACCOUNT FOR LARGER SHARE OF MARKET FROM 2022 TO 2027[]51 4.5□MICROGRID MARKET, BY POWER RATING□52 FIGURE 21 MICROGRIDS WITH POWER RATINGS FROM 1 MW TO 5 MW ARE LIKELY TO ACCOUNT FOR LARGEST MARKET SIZE FROM

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

2022 TO 2027 52 4.6 MICROGRID MARKET, BY END USER 52 FIGURE 22 COMMERCIAL & INDUSTRIAL TO ACCOUNT FOR LARGEST SIZE OF MICROGRID MARKET FROM 2022 TO 2027 52 5 MARKET OVERVIEW 53 5.1 INTRODUCTION 53 5.2 MARKET DYNAMICS 53 FIGURE 23[MICROGRID MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES 53 5.2.1 DRIVERS 54 5.2.1.1 Increasing emphasis on decarbonization by end users and governments 54 FIGURE 24 GLOBAL SOLAR PV AND WIND INSTALLATIONS, 2018-2027 IN GIGAWATTS (GW) 55 FIGURE 25 GLOBAL INVESTMENTS IN CLEAN ENERGY AND ENERGY EFFICIENCY, 2018-2021 55 5.2.1.2 Growing need for reliable, uninterrupted power supply 55 5.2.1.3 Surging use of microgrids for rural electrification 56 5.2.1.4 Rising instances of cyberattacks on energy infrastructure 56 FIGURE 26 DRIVERS AND THEIR IMPACT ON MICROGRID MARKET 57 5.2.2 RESTRAINTS 57 5.2.2.1 Huge installation and maintenance costs of microgrids 57 FIGURE 27 RESTRAINTS AND THEIR IMPACT ON MICROGRID MARKET 58 5.2.3 OPPORTUNITIES 58 5.2.3.1 Increasing number of microgrid projects across different industries 58 5.2.3.2 Surging energy demand and adoption of renewable energy in Asia Pacific 59 5.2.3.3 Growing interest of investors in EaaS business model to minimize costs 59 TABLE 4 BUSINESS MODEL OF COMPANIES IN MICROGRID ECOSYSTEM 60 5.2.3.4 Rising encouragement from governments for developing microgrid projects 60 FIGURE 28 OPPORTUNITIES AND THEIR IMPACT ON MICROGRID MARKET 61 ? 5.2.4 CHALLENGES 61 5.2.4.1 [Lack of standardization and regulatory frameworks related to microgrid operations]61 5.2.4.2 Technical challenges of microgrids operating in island mode 61 FIGURE 29 CHALLENGES AND THEIR IMPACT ON MICROGRID MARKET 62 5.3 VALUE CHAIN ANALYSIS 62 FIGURE 30 MICROGRID MARKET: VALUE CHAIN ANALYSIS 62 5.4 MICROGRID MARKET ECOSYSTEM TABLE 5 MICROGRID MARKET: ECOSYSTEM 64 FIGURE 31 KEY PLAYERS IN MICROGRID MARKET ECOSYSTEM 65 5.5 ⊓PRICING ANALYSIS ⊓66 FIGURE 32 AVERAGE MICROGRID COST, BY END USER AND PROJECT SIZE 66 TABLE 6∏AVERAGE COST OF MICROGRID PROJECTS FOR TOP 3 APPLICATIONS (USD MILLION/MW)∏66 5.5.1 ANALYSIS AND TREND OF AVERAGE MICROGRID COST 67 FIGURE 33 MICROGRID MARKET: AVERAGE COST OF MICROGRID PROJECTS 67 5.6 TRENDS/DISRUPTIONS IMPACTING CUSTOMER'S BUSINESS 67 FIGURE 34 REVENUE SHIFT FOR MICROGRID MARKET 67 5.7 KEY TECHNOLOGY TRENDS 68 5.7.1 BLOCKCHAIN-BASED MICROGRIDS/BLOCKCHAIN MICROGRIDS 68 5.7.2 SMART MICROGRIDS 68 5.7.3 ADVENT OF AI-BASED MICROGRIDS 68

5.8 PORTER'S FIVE FORCES ANALYSIS 69 FIGURE 35[MICROGRID MARKET: PORTER'S FIVE FORCES ANALYSIS[69 FIGURE 36 IMPACT OF PORTER'S FIVE FORCES ON MICROGRID MARKET 69 TABLE 7 IMPACT OF PORTER'S 5 FORCES ON MICROGRID MARKET 70 5.8.1 THREAT OF NEW ENTRANTS 70 5.8.2 THREAT OF SUBSTITUTES 70 5.8.3 BARGAINING POWER OF SUPPLIERS 70 5.8.4 BARGAINING POWER OF BUYERS 71 5.8.5 INTENSITY OF COMPETITIVE RIVALRY 71 5.9 KEY STAKEHOLDERS & BUYING CRITERIA 71 5.9.1 REY STAKEHOLDERS IN BUYING PROCESS 71 FIGURE 37 INFLUENCE OF STAKEHOLDERS IN BUYING PROCESS FOR TOP 3 END USERS 71 TABLE 8 INFLUENCE OF STAKEHOLDERS IN BUYING PROCESS FOR TOP 3 END USERS (%)∏72 5.9.2 BUYING CRITERIA 72 FIGURE 38 KEY BUYING CRITERIA FOR TOP 3 END USERS 72 TABLE 9 KEY BUYING CRITERIA FOR TOP 3 END USERS 72 5.10 CASE STUDIES: MICROGRID MARKET 73 5.10.1 GE PROVIDED CAMPUS-BASED MICROGRID SYSTEM TO UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY (CANADA) 73 TABLE 10 GE INSTALLED BATTERY ENERGY STORAGE SYSTEM FOR UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY CAMPUS₇₃ 5.10.2 GE PROVIDED SYSTEMS OFFERING RESILIENT, RELIABLE POWER FOR NAVY SHIPYARD PROJECT IN PHILADELPHIA (US) 73 TABLE 11 GE: MICROGRID ENERGY MANAGEMENT SYSTEM FOR NAVY SHIPYARD PROJECT IN PHILADELPHIA 73 5.10.3 SOLAR ONE ENERGY USED HOMER GRID TO MODEL ENERGY COSTS FOR ACE NATURAL 74 TABLE 12[HOMER ENERGY PROVIDED HOMER GRID SOFTWARE FOR SOLAR ONE ENERGY]74 5.10.4 S&C ELECTRIC SUPPLIED SERVICES FOR HALF MOON VENTURES' PROJECT 74 TABLE 13 S&C ELECTRIC COMPANY PROVIDED ENERGY STORAGE FOR MICROGRID PROJECT BY HALF MOON VENTURES IN WESTERN OHIO, US₇₄ 5.10.5 ERGON ENERGY PARTNERED WITH S&C ELECTRIC COMPANY 75 TABLE 14 S&C ELECTRIC PROVIDED ENERGY STORAGE SYSTEMS FOR MICROGRIDS OF ERGON ENERGY 75 5.11 TRADE ANALYSIS 76 TABLE 15⊓IMPORT DATA FOR ELECTRIC MOTORS AND GENERATORS (EXCLUDING GENERATING SETS), HS CODE: 8501 (USD MILLION) 76 FIGURE 39 ELECTRIC MOTORS AND GENERATORS (EXCLUDING GENERATING SETS), IMPORT VALUES FOR MAJOR COUNTRIES, 2017-2021 76 TABLE 16 EXPORT DATA FOR ELECTRIC MOTORS AND GENERATORS (EXCLUDING GENERATING SETS), HS CODE: 8501 (USD MILLION) 77 FIGURE 40 ELECTRIC MOTORS AND GENERATORS (EXCLUDING GENERATING SETS), EXPORT VALUES FOR MAJOR COUNTRIES, 2017-2021[]77 TABLE 17∏IMPORT DATA FOR ELECTRONIC-INTEGRATED CIRCUITS AS PROCESSORS AND CONTROLLERS, HS CODE: 854231 (USD MILLION)∏78 FIGURE 41 ELECTRONIC-INTEGRATED CIRCUITS AS PROCESSORS AND CONTROLLERS, IMPORT VALUES FOR MAJOR COUNTRIES, 2017-2021 78 TABLE 18 EXPORT DATA FOR ELECTRONIC-INTEGRATED CIRCUITS AS PROCESSORS AND CONTROLLERS, HS CODE: 854231 (USD MILLION) 79 FIGURE 42 ELECTRONIC-INTEGRATED CIRCUITS AS PROCESSORS AND CONTROLLERS, EXPORT VALUES FOR MAJOR COUNTRIES, 2017-2021 79

5.12 PATENT ANALYSIS 80 FIGURE 43 NUMBER OF PATENTS GRANTED IN MICROGRID MARKET, 2011-2021 80 FIGURE 44 REGIONAL ANALYSIS OF PATENTS GRANTED FOR MICROGRIDS, 2011-2021 81 TABLE 19 LIST OF KEY PATENTS IN MICROGRID MARKET, 2020-2022 81 5.13 KEY CONFERENCES AND EVENTS IN 2022-2024 83 TABLE 20 MICROGRID MARKET: DETAILED LIST OF CONFERENCES AND EVENTS 83 5.14 TARIFFS AND REGULATORY LANDSCAPE 87 5.14.1 ⊓REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 187 TABLE 21 LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 87 5.14.2 CODES AND STANDARDS RELATED TO MICROGRIDS 89 TABLE 22□CODES AND STANDARDS RELATED TO MICROGRIDS□89 6⊓MICROGRID MARKET, BY CONNECTIVITY∏90 6.1⊓INTRODUCTION⊓91 FIGURE 45 MICROGRID MARKET, BY CONNECTIVITY 91 TABLE 23[[MICROGRID MARKET, BY CONNECTIVITY, 2018-2021 (USD BILLION)[]91 FIGURE 46 GRID-CONNECTED MICROGRIDS TO RECORD HIGHER GROWTH RATE DURING FORECAST PERIOD 92 TABLE 24□MICROGRID MARKET, BY CONNECTIVITY, 2022-2027 (USD BILLION)□92 6.2 GRID-CONNECTED 93 6.2.1 GRID-CONNECTED MICROGRIDS ACCOUNTED FOR LARGER SHARE DUE TO EXPANSION OF UTILITY-BASED GRID NETWORKS AND USE OF RENEWABLE SOURCES 93 TABLE 25 GRID-CONNECTED MICROGRID MARKET, BY REGION, 2018-2021 (USD BILLION) [93 FIGURE 47 ASIA PACIFIC TO RECORD HIGHEST GROWTH RATE IN GRID-CONNECTED MICROGRID MARKET DURING FORECAST PERIOD[]94 TABLE 26 GRID-CONNECTED MICROGRID MARKET, BY REGION, 2022-2027 (USD BILLION)[]94 6.3 OFF-GRID 95 6.3.1 GROWING OFF-GRID SOLAR PROJECTS TO CREATE NEW MARKET OPPORTUNITIES IN COMING YEARS 95 TABLE 27[]OFF-GRID MICROGRID MARKET, BY REGION, 2018-2021 (USD BILLION)[]95 FIGURE 48 AMERICAS HOLDS LARGEST MARKET SIZE IN OFF-GRID MICROGRID MARKET IN 2022 96 TABLE 28⊓OFF-GRID MICROGRID MARKET, BY REGION, 2022-2027 (USD BILLION)∏96 7 MICROGRID MARKET, BY OFFERING 97 7.1 INTRODUCTION 98 FIGURE 49 MICROGRID MARKET, BY OFFERING 98 TABLE 29[|MICROGRID MARKET, BY OFFERING, 2018-2021 (USD BILLION)[]98 FIGURE 50 SOFTWARE TO RECORD HIGHEST GROWTH RATE DURING FORECAST PERIOD 99 TABLE 30 MICROGRID MARKET, BY OFFERING, 2022-2027 (USD BILLION) 99 TABLE 31□MICROGRID HARDWARE MARKET, BY TYPE, 2018-2021 (USD BILLION)□99 TABLE 32[|MICROGRID HARDWARE MARKET, BY TYPE, 2022-2027 (USD BILLION)]]100 7.2 HARDWARE 100 FIGURE 51 MICROGRID HARDWARE MARKET, BY TYPE 100 TABLE 33[[MICROGRID HARDWARE MARKET, BY REGION, 2018-2021 (USD BILLION)]]101 FIGURE 52[MICROGRID HARDWARE MARKET IN ASIA PACIFIC TO RECORD HIGHEST GROWTH RATE DURING FORECAST PERIOD[101 TABLE 34⊓MICROGRID HARDWARE MARKET, BY REGION, 2022-2027 (USD BILLION)∏101 7.2.1 POWER GENERATORS 102 7.2.1.1 Power generators to account for largest share of microgrid hardware market during forecast period 102 TABLE 35∏MICROGRID HARDWARE MARKET FOR POWER GENERATORS, BY REGION, 2018-2021 (USD BILLION)∏103

TABLE 36∏MICROGRID HARDWARE MARKET FOR POWER GENERATORS, BY REGION, 2022-2027 (USD BILLION)∏103 7.2.2 ENERGY STORAGE SYSTEMS 103 7.2.2.1 Growing need for energy storage systems to optimize power delivery 103 TABLE 37 MICROGRID HARDWARE MARKET FOR ENERGY STORAGE SYSTEMS, BY REGION, 2018-2021 (USD BILLION)[104 TABLE 38 MICROGRID HARDWARE MARKET FOR ENERGY STORAGE SYSTEMS, BY REGION, 2022-2027 (USD BILLION) ⊓104 7.2.2.2 Lithium-ion batteries 104 7.2.2.3 Flow batteries 105 7.2.2.4 Flywheels 106 7.2.2.5 Others 106 7.2.3 CONTROLLERS 107 7.2.3.1 Controllers are required to monitor and optimally carry out different functions of microgrids 107 TABLE 39 MICROGRID HARDWARE MARKET FOR CONTROLLERS, BY REGION, 2018-2021 (USD BILLION)[]108 TABLE 40 MICROGRID HARDWARE MARKET FOR CONTROLLERS, BY REGION, 2022-2027 (USD BILLION) 108 7.3 SOFTWARE 108 7.3.1 USE OF SOFTWARE IN MICROGRID PROJECTS HELPS SIMPLIFY TECHNICAL AND ECONOMIC FACTORS 108 TABLE 41⊓MICROGRID SOFTWARE MARKET, BY REGION, 2018-2021 (USD BILLION)⊓109 FIGURE 53[MICROGRID SOFTWARE MARKET IN AMERICAS TO ACCOUNT FOR LARGEST SHARE DURING FORECAST PERIOD[109 TABLE 42[MICROGRID SOFTWARE MARKET, BY REGION, 2022-2027 (USD BILLION)]110 7.4 SERVICES 110 7.4.1 RISING NUMBER OF MICROGRID INSTALLATIONS CREATES NEW OPPORTUNITIES FOR SERVICES 110 TABLE 43 MICROGRID MARKET FOR SERVICES, BY REGION, 2018-2021 (USD BILLION)[]111 FIGURE 54[]MICROGRID SERVICES MARKET IN ASIA PACIFIC TO RECORD HIGHEST GROWTH RATE DURING FORECAST PERIOD[]111 TABLE 44 MICROGRID MARKET FOR SERVICES, BY REGION, 2022-2027 (USD BILLION) 112 8⊓MICROGRID MARKET, BY POWER SOURCE⊓113 8.1⊓INTRODUCTION⊓113 FIGURE 55∏MICROGRID MARKET, BY POWER SOURCE∏113 FIGURE 56∏GLOBAL MICROGRID PROJECT DEPLOYMENT TREND, BY POWER SOURCE, 2021 VS. 2027∏114 8.2 NATURAL GAS 114 8.3 SOLAR PV 115 8.4 COMBINED HEAT AND POWER 115 8.5⊓DIESEL⊓116 ? 8.6 FUEL CELL 116 8.7 OTHERS 117 9⊓MICROGRID MARKET, BY PATTERN⊓118 9.1 INTRODUCTION 118 9.2 URBAN/METROPOLITAN 118 9.2.1⊓INCREASING DEVELOPMENT OF MICROGRIDS IN URBAN AREAS BOOSTING MARKET GROWTH∏118 FIGURE 57 DRIVERS OF MICROGRID MARKET IN URBAN/METROPOLITAN AREAS 119 9.3 SEMIURBAN 119 9.3.1 GROWING INITIATIVES TO DEVELOP MICROGRIDS FOR SEMIURBAN AREAS IN VARIOUS COUNTRIES DRIVING MARKET[119

9.4 RURAL/ISLAND 120 9.4.1 RISING NUMBER OF ELECTRIFICATION PROJECTS LEADING TO GROWTH OF MICROGRID MARKET 120 10 MICROGRID MARKET, BY TYPE 121 10.1 INTRODUCTION 121 FIGURE 58 MICROGRID MARKET, BY TYPE 121 10.2 AC MICROGRIDS 122 10.2.1 ELIMINATE INVERTER REQUIREMENT FOR POWER SUPPLY TO AC LOADS 10.3 DC MICROGRIDS 122 10.3.1 OFFER HIGHER EFFICIENCY, RELIABILITY, AND STABILITY 122 10.4 HYBRID MICROGRIDS 123 10.4.1 IUSE OF DIFFERENT ENERGY SOURCES FOR POWER GENERATION REDUCES DEPENDENCE ON FOSSIL FUEL 123 11 MICROGRID MARKET, BY POWER RATING 124 11.1⊓INTRODUCTION⊓125 FIGURE 59[1 MW TO 5 MW MICROGRID POWER RATING TO HOLD LARGEST MARKET SHARE DURING FORECAST PERIOD[125 TABLE 45[|MICROGRID MARKET, BY POWER RATING, 2018-2021 (USD BILLION)]]125 TABLE 46 MICROGRID MARKET, BY POWER RATING, 2022-2027 (USD BILLION) 126 11.2 LESS THAN 1 MW 126 11.2.1 REMOTE AREAS, GOVERNMENTS, AND UTILITIES USE MICROGRIDS WITH POWER RATINGS OF LESS THAN 1 MW 11.301 MW TO 5 MW0126 11.3.1 GROWTH OF MARKET FOR MICROGRID SYSTEMS WITH POWER RATINGS BETWEEN 1 MW AND 5 MW FUELLED BY INCREASING DEPLOYMENT IN COMMERCIAL AND INDUSTRIAL SECTOR 126 11.4₀5 MW TO 10 MW₀127 11.4.1 ⊓MICROGRIDS WITH POWER RATINGS BETWEEN 5 MW TO 10 MW MEET HIGH-POWER REQUIREMENTS IN UNIVERSITIES, SMART CITIES, AND COMMERCIAL APPLICATIONS 127 ? 11.5 ABOVE 10 MW 127 11.5.1 SECTORS WITH HIGH POWER REQUIREMENTS UTILIZE MICROGRID SYSTEMS WITH POWER RATINGS ABOVE 10 MW 12 MICROGRID MARKET, BY END USER 128 12.1 INTRODUCTION 129 FIGURE 60 MICROGRID MARKET, BY END USER 129 TABLE 47⊓MICROGRID MARKET, BY END USER, 2018-2021 (USD BILLION)⊓130 FIGURE 61 COMMERCIAL & INDUSTRIAL SEGMENT TO RECORD HIGHEST GROWTH RATE DURING FORECAST PERIOD 130 TABLE 48 MICROGRID MARKET, BY END USER, 2022-2027 (USD BILLION) 131 12.2 COMMERCIAL & INDUSTRIAL 131 12.2.1 REQUIREMENT FOR UNINTERRUPTED ELECTRICITY SUPPLY IN COMMERCIAL AND INDUSTRIAL SECTOR TO DRIVE MARKET TABLE 49 MICROGRID MARKET FOR COMMERCIAL & INDUSTRIAL END USER, BY REGION, 2018-2021 (USD BILLION) □132 FIGURE 62[]COMMERCIAL & INDUSTRIAL SECTOR IN ASIA PACIFIC TO RECORD HIGHEST GROWTH RATE DURING FORECAST PERIOD 132 TABLE 50 MICROGRID MARKET FOR COMMERCIAL & INDUSTRIAL, BY REGION, 2022-2027 (USD BILLION) 133 12.3 REMOTE AREAS 133 12.3.1 SURGE IN DEPLOYMENT OF MICROGRID PROJECTS IN REMOTE AREAS DUE TO UNAVAILABILITY OF MAIN UTILITY-GRID SYSTEMS FOR ENERGY DISTRIBUTION TO BOOST MARKET 133 TABLE 51 MICROGRID MARKET FOR REMOTE AREAS, BY REGION, 2018-2021 (USD BILLION)[]134 FIGURE 63 REMOTE AREAS SEGMENT IN ASIA PACIFIC TO RECORD HIGHEST GROWTH RATE DURING FORECAST PERIOD 134

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

TABLE 52 MICROGRID MARKET FOR REMOTE AREAS, BY REGION, 2022-2027 (USD BILLION)[]134 12.4[]MILITARY[]135 12.4.1 WIDE USE OF MICROGRIDS FOR ENERGY SECURITY AND RESILIENCY TO PROPEL MARKET GROWTH 135 TABLE 53∏MICROGRID MARKET FOR MILITARY, BY REGION, 2018-2021 (USD BILLION)∏135 FIGURE 64 MILITARY SEGMENT IN AMERICAS TO ACCOUNT FOR LARGEST SHARE IN 2022 136 TABLE 54[MICROGRID MARKET FOR MILITARY, BY REGION, 2022-2027 (USD BILLION)]136 12.5 GOVERNMENT 137 12.5.1 □ DECLINE IN PRICES OF ELECTRICITY GENERATED FROM RENEWABLE ENERGY SOURCES LEADS TO RISING ADOPTION OF MICROGRIDS 137 TABLE 55 MICROGRID MARKET FOR GOVERNMENT, BY REGION, 2018-2021 (USD BILLION) 137 TABLE 56 MICROGRID MARKET FOR GOVERNMENT, BY REGION, 2022-2027 (USD BILLION)[[137 12.6 UTILITIES 138 12.6.1 MICROGRIDS PROVIDE UTILITIES WITH LESS EXPENSIVE ALTERNATIVE 138 TABLE 57∏MICROGRID MARKET FOR UTILITIES, BY REGION, 2018-2021 (USD BILLION)∏138 FIGURE 65[]UTILITIES SEGMENT IN AMERICAS TO RECORD HIGHEST GROWTH RATE DURING FORECAST PERIOD[]139 TABLE 58⊓MICROGRID MARKET FOR UTILITIES, BY REGION, 2022-2027 (USD BILLION)∏139 12.7 INSTITUTES & CAMPUSES 139 12.7.1 INCREASED ADOPTION OF MICROGRIDS TO ENSURE UNINTERRUPTED POWER SUPPLY 139 TABLE 59 MICROGRID MARKET FOR INSTITUTES & CAMPUSES, BY REGION, 2018-2021 (USD BILLION)[]140 TABLE 60[[MICROGRID MARKET FOR INSTITUTES & CAMPUSES, BY REGION, 2022-2027 (USD BILLION)[]140 12.8 HEALTHCARE 141 12.8.1 HOSPITALS RAPIDLY TURNING TO MICROGRIDS TO COUNTER GRID INSTABILITY 141 TABLE 61 MICROGRID MARKET FOR HEALTHCARE, BY REGION, 2018-2021 (USD BILLION) 141 TABLE 62 MICROGRID MARKET FOR HEALTHCARE, BY REGION, 2022-2027 (USD BILLION) 142 13 MICROGRID MARKET, BY REGION 143 13.1⊓INTRODUCTION⊓144 FIGURE 66 SOUTH KOREA TO EXPERIENCE HIGHEST CAGR DURING FORECAST PERIOD 144 FIGURE 67 AMERICAS ACCOUNTS FOR LARGEST SHARE OF MICROGRID MARKET IN 2022 145 TABLE 63 MICROGRID MARKET, BY REGION, 2018-2021 (USD BILLION) 145 TABLE 64 MICROGRID MARKET, BY REGION, 2022-2027 (USD BILLION) 145 TABLE 65∏MICROGRID INSTALLED CAPACITY, BY REGION, 2018-2021 (MW)∏146 TABLE 66 MICROGRID INSTALLED CAPACITY, BY REGION, 2022-2027 (MW) 146 13.2□AMERICAS□147 FIGURE 68 AMERICAS: MICROGRID MARKET SNAPSHOT 147 TABLE 67⊓AMERICAS: MICROGRID MARKET, BY REGION, 2018-2021 (USD BILLION)∏148 TABLE 68□AMERICAS: MICROGRID MARKET, BY REGION, 2022-2027 (USD BILLION)□148 TABLE 69 AMERICAS: MICROGRID MARKET, BY CONNECTIVITY, 2018-2021 (USD BILLION)[]148

TABLE 70 AMERICAS: MICROGRID MARKET, BY CONNECTIVITY, 2022-2027 (USD BILLION)[]148 TABLE 71 AMERICAS: MICROGRID MARKET, BY OFFERING, 2018-2021 (USD BILLION) 149 TABLE 72∏AMERICAS: MICROGRID MARKET, BY OFFERING, 2022-2027 (USD BILLION)∏149 TABLE 73 AMERICAS: MICROGRID HARDWARE MARKET, BY TYPE, 2018-2021 (USD BILLION) 149 TABLE 74 AMERICAS: MICROGRID HARDWARE MARKET, BY TYPE, 2022-2027 (USD BILLION)[]150 TABLE 75[]AMERICAS: MICROGRID MARKET, BY END USER, 2018-2021 (USD BILLION)[]150 TABLE 76⊓AMERICAS: MICROGRID MARKET, BY END USER, 2022-2027 (USD BILLION)∏150 13.2.1 NORTH AMERICA 151 TABLE 77 NORTH AMERICA: MICROGRID MARKET, BY COUNTRY, 2018-2021 (USD BILLION) [151 TABLE 78 NORTH AMERICA: MICROGRID MARKET, BY COUNTRY, 2022-2027 (USD BILLION)[151 TABLE 79 NORTH AMERICA: MICROGRID MARKET, BY CONNECTIVITY, 2018-2021 (USD BILLION)[[151 TABLE 80 NORTH AMERICA: MICROGRID MARKET, BY CONNECTIVITY, 2022-2027 (USD BILLION)[]152 TABLE 81 NORTH AMERICA: MICROGRID MARKET, BY OFFERING, 2018-2021 (USD BILLION)[]152 TABLE 82 NORTH AMERICA: MICROGRID MARKET, BY OFFERING, 2022-2027 (USD BILLION) 152 TABLE 83 NORTH AMERICA: MICROGRID HARDWARE MARKET, BY TYPE, 2018-2021 (USD BILLION)[]152 TABLE 84 NORTH AMERICA: MICROGRID HARDWARE MARKET, BY TYPE, 2022-2027 (USD BILLION)[[153 TABLE 85 NORTH AMERICA: MICROGRID MARKET, BY END USER, 2018-2021 (USD BILLION)[]153 TABLE 86 NORTH AMERICA: MICROGRID MARKET, BY END USER, 2022-2027 (USD BILLION) [153 13.2.1.1 US 13.2.1.1.1 Growing use of renewable energy sources in microgrids and presence of key players to drive market in coming years 154 TABLE 87⊓MICROGRID PROJECTS IN US FROM 2018 TO 2020⊓155 13.2.1.2 Canada 156 13.2.1.2.1 Remote communities in Canada to create opportunities for microgrid developers 156 13.2.1.3 Mexico 156 13.2.1.3.1 Mexican market to record highest CAGR in North America during forecast period 156 13.2.2 SOUTH AMERICA 156 TABLE 88 SOUTH AMERICA: MICROGRID MARKET, BY COUNTRY, 2018-2021 (USD BILLION) 157 TABLE 89 SOUTH AMERICA: MICROGRID MARKET, BY COUNTRY, 2022-2027 (USD BILLION) 157 TABLE 90 SOUTH AMERICA: MICROGRID MARKET, BY CONNECTIVITY, 2018-2021 (USD BILLION)[[157 TABLE 91 SOUTH AMERICA: MICROGRID MARKET, BY CONNECTIVITY, 2022-2027 (USD BILLION)[[157

TABLE 92 SOUTH AMERICA: MICROGRID MARKET, BY OFFERING, 2018-2021 (USD BILLION)[]158 TABLE 93 SOUTH AMERICA: MICROGRID MARKET, BY OFFERING, 2022-2027 (USD BILLION)[158 TABLE 94 SOUTH AMERICA: MICROGRID HARDWARE MARKET, BY TYPE, 2018-2021 (USD BILLION) 158 TABLE 95 SOUTH AMERICA: MICROGRID HARDWARE MARKET, BY TYPE, 2022-2027 (USD BILLION) 158 TABLE 96 SOUTH AMERICA: MICROGRID MARKET, BY END USER, 2018-2021 (USD BILLION) [159 TABLE 97 SOUTH AMERICA: MICROGRID MARKET, BY END USER, 2022-2027 (USD BILLION) [159 13.2.2.1 Brazil 160 13.2.2.1.1 Brazil held largest size of microgrid market in South America in 2021 160 13.2.2.2 Argentina 160 13.2.2.2.1 Focus on renewable energy sources and development of smart grids 160 13.2.2.3 Rest of South America 160 13.3 EUROPE 160 FIGURE 69[EUROPE: MICROGRID MARKET SNAPSHOT]161 TABLE 98⊓EUROPE: MICROGRID MARKET, BY COUNTRY, 2018-2021 (USD BILLION)∏162 TABLE 99⊓EUROPE: MICROGRID MARKET, BY COUNTRY, 2022-2027 (USD BILLION)⊓162 TABLE 100 EUROPE: MICROGRID MARKET, BY CONNECTIVITY, 2018-2021 (USD BILLION) [162 TABLE 101 UROPE: MICROGRID MARKET, BY CONNECTIVITY, 2022-2027 (USD BILLION)[163 TABLE 102 EUROPE: MICROGRID MARKET, BY OFFERING, 2018-2021 (USD BILLION) 163 TABLE 103 TEUROPE: MICROGRID MARKET, BY OFFERING, 2022-2027 (USD BILLION) T163 TABLE 104 EUROPE: MICROGRID HARDWARE MARKET, BY TYPE, 2018-2021 (USD BILLION) [163 TABLE 105⊓EUROPE: MICROGRID HARDWARE MARKET, BY TYPE, 2022-2027 (USD BILLION)∏164 TABLE 106□EUROPE: MICROGRID MARKET, BY END USER, 2018-2021 (USD BILLION)□164 TABLE 107□EUROPE: MICROGRID MARKET, BY END USER, 2022-2027 (USD BILLION)□164 TABLE 108⊓MICROGRID PROJECTS IN EUROPE FROM 2018 TO 2021⊓165 13.3.1 UK 165 13.3.1.1 [Rising use of microgrids to reduce wastage of heat generated by traditional systems]165 TABLE 109 MICROGRID PROJECTS IN UK FROM 2018 TO 2021 166 13.3.2 GERMANY 166 13.3.2.1 Surging adoption of microgrids due to government initiatives 166 13.3.3 FRANCE 166 13.3.3.1 Increasing government investments to promote adoption of microgrids 166 13.3.4 || ITALY || 167 13.3.4.1 Growing installations of PV systems to boost demand for microgrids 167 13.3.5 REST OF EUROPE 167 13.4 ASIA PACIFIC 167 FIGURE 70 ASIA PACIFIC: MICROGRID MARKET SNAPSHOT 168 TABLE 110 ASIA PACIFIC: MICROGRID MARKET, BY COUNTRY, 2018-2021 (USD BILLION)[]169

TABLE 111 ASIA PACIFIC: MICROGRID MARKET, BY COUNTRY, 2022-2027 (USD BILLION)[]169 TABLE 112 ASIA PACIFIC: MICROGRID MARKET, BY CONNECTIVITY, 2018-2021 (USD BILLION)[]169 TABLE 113 ASIA PACIFIC: MICROGRID MARKET, BY CONNECTIVITY, 2022-2027 (USD BILLION) 170 TABLE 114 ASIA PACIFIC: MICROGRID MARKET, BY OFFERING, 2018-2021 (USD BILLION) [170 TABLE 115 ASIA PACIFIC: MICROGRID MARKET, BY OFFERING, 2022-2027 (USD BILLION) 170 TABLE 116 ASIA PACIFIC: MICROGRID HARDWARE MARKET, BY TYPE, 2018-2021 (USD BILLION) 170 TABLE 117 ASIA PACIFIC: MICROGRID HARDWARE MARKET, BY TYPE, 2022-2027 (USD BILLION) [171 TABLE 118 ASIA PACIFIC: MICROGRID MARKET, BY END USER, 2018-2021 (USD BILLION) 171 TABLE 119 ASIA PACIFIC: MICROGRID MARKET, BY END USER, 2022-2027 (USD BILLION)[]171 13.4.1 AUSTRALIA 172 13.4.1.1 Rising shift to microgrids due to surging prices of traditional grid electricity TABLE 120 MICROGRID PROJECTS IN AUSTRALIA FROM 2018 TO 2020 172 13.4.2 CHINA 172 13.4.2.1 □Increasing government initiatives to promote use of clean energy □172 13.4.3 JAPAN 173 13.4.3.1 Growing need for reliable power supply fueling growth of microgrid market 173 13.4.4 SOUTH KOREA 173 13.4.4.1 South Korea to record highest CAGR in microgrid market during forecast period 13.4.5 REST OF ASIA PACIFIC 173 TABLE 121 MICROGRID PROJECTS IN REST OF ASIA PACIFIC FROM 2018 TO 2021 174 13.5 ROW 175 TABLE 122 ROW: MICROGRID MARKET, BY REGION, 2018-2021 (USD BILLION) 175 TABLE 123 ROW: MICROGRID MARKET, BY COUNTRY, 2022-2027 (USD BILLION) 175 TABLE 124 ROW: MICROGRID MARKET. BY CONNECTIVITY. 2018-2021 (USD BILLION) 175 TABLE 125 ROW: MICROGRID MARKET, BY CONNECTIVITY, 2022-2027 (USD BILLION) 176 TABLE 126 ROW: MICROGRID MARKET, BY OFFERING, 2018-2021 (USD BILLION) 176 TABLE 127 ROW: MICROGRID MARKET, BY OFFERING, 2022-2027 (USD BILLION) 176 TABLE 128⊓ROW: MICROGRID HARDWARE MARKET, BY TYPE, 2018-2021 (USD BILLION)∏176 TABLE 129 ROW: MICROGRID HARDWARE MARKET, BY TYPE, 2022-2027 (USD BILLION) 177 TABLE 130 ROW: MICROGRID MARKET, BY END USER, 2018-2021 (USD BILLION) 177 TABLE 131 ROW: MICROGRID MARKET, BY END USER, 2022-2027 (USD BILLION) 177 13.5.1 MIDDLE EAST 178 13.5.1.1 [Growth of healthcare sector and rising demand for reliable power supply contribute to growth of microgrid market]178 13.5.2 AFRICA 178 13.5.2.1 Surging number of microgrid projects in region due to various government initiatives 178 TABLE 132 MICROGRID PROJECTS IN AFRICA FROM 2018 TO 2020 179

?

14 COMPETITIVE LANDSCAPE 180

14.1 INTRODUCTION 180 14.2 KEY PLAYER STRATEGIES/RIGHT TO WIN 180 TABLE 133 OVERVIEW OF STRATEGIES ADOPTED BY KEY PLAYERS IN MICROGRID MARKET 180 14.3 MARKET SHARE ANALYSIS 183 FIGURE 71 MICROGRID MARKET: MARKET SHARE ANALYSIS 183 TABLE 134 MICROGRID MARKET: DEGREE OF COMPETITION 184 14.4 HISTORICAL REVENUE ANALYSIS (2017-2021) 185 FIGURE 72 REVENUE ANALYSIS OF KEY COMPANIES IN PAST FIVE YEARS 185 14.5 COMPANY EVALUATION QUADRANT, 2021 187 FIGURE 73 MICROGRID MARKET (GLOBAL) COMPANY EVALUATION MATRIX, 2021 187 14.5.1 STARS 188 14.5.2 EMERGING LEADERS 188 14.5.3 PERVASIVE COMPANIES 188 14.5.4 PARTICIPANTS 188 14.6 COMPANY FOOTPRINT 189 TABLE 135□COMPANY FOOTPRINT□189 TABLE 136 COMPANY FOOTPRINT, BY OFFERING 190 TABLE 137 COMPANY FOOTPRINT, BY END USER 191 TABLE 138 COMPANY FOOTPRINT, BY REGION 192 14.7 SMALL AND MEDIUM-SIZED ENTERPRISES (SME) EVALUATION MATRIX 193 FIGURE 74 SME EVALUATION MATRIX, 2021 193 14.7.1 PROGRESSIVE COMPANIES 193 14.7.2 RESPONSIVE COMPANIES 194 14.7.3 DYNAMIC COMPANIES 194 14.7.4 STARTING BLOCKS 194 14.8 COMPETITIVE BENCHMARKING 194 TABLE 139 MICROGRID MARKET: DETAILED LIST OF KEY SMES 194 TABLE 140 MICROGRID MARKET: COMPETITIVE BENCHMARKING OF KEY PLAYERS (SMES)[]195 14.9□COMPETITIVE SCENARIO AND TRENDS□196 14.9.1 PRODUCT LAUNCHES AND DEVELOPMENTS 196 TABLE 141 MICROGRID MARKET: PRODUCT LAUNCHES AND DEVELOPMENTS, JUNE 2018- FEBRUARY 2022 196 14.9.2 DEALS 202 TABLE 142 MICROGRID MARKET: DEALS, JANUARY 2018-JANUARY 2022 202 14.9.3 OTHERS 216 TABLE 143 MICROGRID MARKET: OTHERS 216 ? 15 COMPANY PROFILES 217 (Business overview, Products/solutions/services offered, Recent developments & MnM View)* 15.1 KEY PLAYERS 217 15.1.1 SCHNEIDER ELECTRIC 217 TABLE 144 SCHNEIDER ELECTRIC: BUSINESS OVERVIEW 217 FIGURE 75 SCHNEIDER ELECTRIC: COMPANY SNAPSHOT 218 TABLE 145 SCHNEIDER ELECTRIC: PRODUCTS OFFERED 219 TABLE 146 SCHNEIDER ELECTRIC: PRODUCT LAUNCHES 220 TABLE 147 SCHNEIDER ELECTRIC: DEALS 221 TABLE 148 SCHNEIDER ELECTRIC: OTHERS 222

15.1.2[]SIEMENS[]223 TABLE 149 SIEMENS: BUSINESS OVERVIEW 223 FIGURE 76 SIEMENS: COMPANY SNAPSHOT 224 TABLE 150 SIEMENS: PRODUCTS OFFERED 225 TABLE 151 SIEMENS: PRODUCT LAUNCHES 225 TABLE 152 SIEMENS: DEALS 227 15.1.3 GENERAL ELECTRIC 231 TABLE 153 GENERAL ELECTRIC: BUSINESS OVERVIEW 231 FIGURE 77 GENERAL ELECTRIC: COMPANY SNAPSHOT 232 TABLE 154 GENERAL ELECTRIC: PRODUCTS OFFERED 233 TABLE 155 GENERAL ELECTRIC: PRODUCT LAUNCHES 234 TABLE 156 GENERAL ELECTRIC: DEALS 235 15.1.4 EATON CORPORATION 240 TABLE 157 EATON CORPORATION: BUSINESS OVERVIEW 240 FIGURE 78 EATON CORPORATION: COMPANY SNAPSHOT 241 TABLE 158 EATON CORPORATION: PRODUCTS OFFERED 242 TABLE 159 EATON CORPORATION: PRODUCT LAUNCHES 243 TABLE 160 EATON CORPORATION: DEALS 244 TABLE 161 EATON CORPORATION: OTHERS 247 15.1.5 ABB 248 TABLE 162⊓ABB: BUSINESS OVERVIEW□248 FIGURE 79 ABB: COMPANY SNAPSHOT 249 TABLE 163⊓ABB: PRODUCTS OFFERED⊓249 TABLE 164 ABB: PRODUCT LAUNCHES 251 TABLE 165 ABB: DEALS 251 15.1.6 HITACHI ENERGY 254 TABLE 166 HITACHI ENERGY: BUSINESS OVERVIEW 254 TABLE 167 HITACHI ENERGY: PRODUCTS OFFERED 254 TABLE 168[]HITACHI ENERGY: PRODUCT LAUNCHES[]256 TABLE 169⊓HITACHI ENERGY: DEALS∏256 ? 15.1.7 HONEYWELL INTERNATIONAL INC. 259 TABLE 170 HONEYWELL INTERNATIONAL INC.: BUSINESS OVERVIEW 259 FIGURE 80 HONEYWELL INTERNATIONAL INC.: COMPANY SNAPSHOT 260 TABLE 171 HONEYWELL INTERNATIONAL INC.: PRODUCTS OFFERED 261 TABLE 172 HONEYWELL INTERNATIONAL INC.: PRODUCT LAUNCHES 261 TABLE 173 HONEYWELL INTERNATIONAL INC.: DEALS 262 15.1.8 HOMER ENERGY (PART OF UL) 263 TABLE 174 HOMER ENERGY: BUSINESS OVERVIEW 263 TABLE 175 HOMER ENERGY: PRODUCTS OFFERED 264 TABLE 176 HOMER ENERGY: PRODUCT LAUNCHES 265 TABLE 177 HOMER ENERGY: DEALS 267 15.1.9 S&C ELECTRIC COMPANY 268 TABLE 178⊓S&C ELECTRIC COMPANY: BUSINESS OVERVIEW⊓268 TABLE 179 S&C ELECTRIC COMPANY: PRODUCTS OFFERED 268 TABLE 180 S&C ELECTRIC COMPANY: PRODUCT LAUNCHES 270 TABLE 181 S&C ELECTRIC COMPANY: DEALS 271

TABLE 182 S&C ELECTRIC COMPANY: OTHERS 271 15.1.10 POWER ANALYTICS CORPORATION 272 TABLE 183 POWER ANALYTICS CORPORATION: BUSINESS OVERVIEW 272 TABLE 184 POWER ANALYTICS CORPORATION: PRODUCTS OFFERED 273 TABLE 185 POWER ANALYTICS CORPORATION: PRODUCT LAUNCHES 274 TABLE 186 POWER ANALYTICS CORPORATION: DEALS 275 *Details on Business overview, Products/solutions/services offered, Recent developments & MnM View might not be captured in case of unlisted companies. 15.2 OTHER PLAYERS 276 15.2.1 CATERPILLAR INC. 276 15.2.2 TESLA ENERGY (SUBSIDIARY OF TESLA) 277 15.2.3 EMERSON ELECTRIC 278 15.2.4 PARETO ENERGY 279 15.2.5 ANBARIC TRANSMISSION 279 15.2.6 EXELON CORPORATION 280 15.2.7 SPIRAE LLC 280 15.2.8 GENERAL MICROGRIDS 281 15.2.9 GRAM POWER INC. 282 15.2.10 POWERHIVE 283 15.2.11 ADVANCED MICROGRID SOLUTIONS 283 15.2.12 GO ELECTRIC 284 15.2.13 FERROAMP 284 15.2.14 CANOPY POWER 285 15.2.15 GREEN ENERGY CORP 285 ? 16 APPENDIX 286 16.1 INSIGHTS FROM INDUSTRY EXPERTS 286 16.2 DISCUSSION GUIDE 286 16.3 KNOWLEDGE STORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL 290 16.4 AVAILABLE CUSTOMIZATIONS 292 16.5 RELATED REPORTS 292 16.6 AUTHOR DETAILS 293



Microgrid Market by Connectivity (Grid-connected, Off-grid), Offering (Power Generators, Controllers, Energy Storage, Software, Services), End User (Commercial & Industrial, Military, Utilities), Type, Power Rating & Geography - Global Forecast to 2027

Market Report | 2022-07-05 | 294 pages | MarketsandMarkets

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		\$4950.00
	Multi User		\$6650.00
	Corporate License		\$8150.00
	Enterprise Site License		\$10000.00
		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*	

7in	Code*
Zip	Code

Country*

Date

Signature

2025-05-19