

Battery Management System Market by Type (Motive Battery and Stationary Battery), Battery Type (Lithium-ion, Lead-acid, Nickel-based, Solid-state, Flow battery), Topology (Centralized, Distributed and Modular), Application and Region - Global Forecast to 2028

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Report description:

The global battery management system (BMS) market is expected to grow from USD 7.8 billion in 2023 to USD 18.4 billion by 2028, at a CAGR of 18.7% from 2023 to 2028. The battery management system is implemented to manage high-energy batteries efficiently. The functions of the battery management system may vary according to the properties and requirements of the battery it is incorporated into.

The battery management system market based on battery type has been segmented into lithium-ion, lead-acid, nickel-based batteries, and others. Most end users choose the most suitable battery type according to their requirements and the nature of the application. Lithium-ion is a widely used battery in applications such as automobiles and renewable energy systems. "Renewable energy application to hold a significant share of battery management system market in 2028"

Both on-grid and off-grid renewable energy deployments are witnessing steady growth, with batteries being used for energy storage applications for many years. However, battery storage technology has gained greater traction and supports higher electricity generation levels from renewable energy-particularly wind and solar. The rapid fall in battery cost has increased the popularity of battery storage as an option for storing electricity from renewable sources at the household, business, and community levels. These batteries need battery management systems for efficient operations, tracking battery voltage, the amount of power consumed, the state of charge of the battery, etc. In addition, the battery management system in renewable energy is required for PV time shift, peak shaving, and grid support.

"Europe is expected to grow at an impressive CAGR during the forecast period"

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Germany, France, and the UK are among the major European economies. These countries are technologically developed and are also major manufacturing hubs for the automotive and aerospace & defense verticals. Five countries, Germany, France, the Netherlands, Sweden, and Belgium, accounted for more than three-quarters of all electrically chargeable cars in the EU. As there is a growing trend of adoption for electric vehicles in Europe, the requirement for battery management systems is also expected to increase to effectively manage batteries in electric vehicles.

Major players profiled in this report are: Sensata Technologies, Inc. (Japan), Eberspacher (Germany), Panasonic Holdings Corporation (Japan), and LG Energy Solution, Ltd. (South Korea).

Research Coverage

This report covers the battery management system market in detail, with segmentation based on type, battery type, topology, application, and region. The type segment includes motive battery and stationary battery type. The battery types include lithium-ion, lead-acid, nickel-based batteries, and others. The topology segment includes centralized, modular, and distributed topologies. Further, automotive, industrial, renewable energy, telecommunications, military & defense, and other applications of battery management systems have been covered in this report. The market has also been segmented into four regions-North America, Asia Pacific, Europe, and RoW.

Key Benefits of Buying the Report:

The report would help market leaders/new entrants in this market in the following ways:

This report comprehensively segments the battery management system market and provides the closest approximation of the overall market size and subsegments that include type, battery type, topology, application, and region.

The report would help stakeholders understand the pulse of the market and provide them with information on key drivers, restraints, challenges, and opportunities pertaining to the battery management system market.

This report would help stakeholders understand their competitors better and gain more insights to enhance their position in the business.

The competitive landscape section includes the competitor ecosystem and growth strategies, such as product launches and acquisitions conducted by major market players.

Table of Contents:

1⊓INTRODUCTION⊓31

- 1.1□STUDY OBJECTIVES□31
- 1.2 MARKET DEFINITION 31
- 1.2.1∏INCLUSIONS AND EXCLUSIONS∏32
- 1.3 STUDY SCOPE 33
- 1.3.1 MARKETS COVERED 33

FIGURE 1 \square BATTERY MANAGEMENT SYSTEM MARKET SEGMENTATION \square 33

1.3.2 REGIONS COVERED 33

FIGURE 2 BATTERY MANAGEMENT SYSTEM MARKET: REGIONAL SEGMENTATION 33

- 1.3.3 YEARS CONSIDERED 34
- 1.4 CURRENCY CONSIDERED 34
- 1.5□LIMITATIONS□34
- $1.6 \verb||STAKEHOLDERS||35$
- 1.7 SUMMARY OF CHANGES 35
- 2 RESEARCH METHODOLOGY 37
- 2.1 RESEARCH DATA 37

FIGURE 3 RESEARCH DESIGN 37

2.1.1□SECONDARY AND PRIMARY RESEARCH□38

FIGURE 4 RESEARCH APPROACH 38

- 2.1.2 SECONDARY DATA 39
- 2.1.2.1 Key secondary sources 39

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- 2.1.2.2 Key data from secondary sources 40
- 2.1.3 PRIMARY DATA □ 40
- 2.1.3.1 Primary interviews with experts 140
- 2.1.3.2 Key data from primary sources 41
- 2.1.3.3 Key industry insights 41
- 2.1.3.4 Breakdown of primaries 42
- 2.2∏MARKET SIZE ESTIMATION∏42
- 2.2.1 BOTTOM-UP APPROACH 42
- 2.2.1.1 Approaches to determining market size by bottom-up analysis 42

FIGURE 5∏BOTTOM-UP APPROACH∏43

- 2.2.2 TOP-DOWN APPROACH 43
- 2.2.2.1 Approaches to determining market size by top-down analysis 143

FIGURE 6 TOP-DOWN APPROACH 44

FIGURE 7 MARKET SIZE ESTIMATION METHODOLOGY THROUGH SUPPLY-SIDE ANALYSIS 144

2.3 DATA TRIANGULATION 45

FIGURE 8 DATA TRIANGULATION 45

2.4 RESEARCH ASSUMPTIONS 46

FIGURE 9 RESEARCH ASSUMPTIONS 46

2.5 APPROACHES TO UNDERSTANDING IMPACT OF RECESSION ON BATTERY MANAGEMENT SYSTEM MARKET 47

2.6∏RISK ASSESSMENT∏47

3 EXECUTIVE SUMMARY 48

FIGURE 10 MOTIVE BATTERIES TO EXHIBIT HIGHEST CAGR DURING FORECAST PERIOD 48

FIGURE 11 ILITHIUM-ION BATTERY TYPE TO HOLD LARGEST MARKET SHARE BY 2028 149

FIGURE 12 AUTOMOTIVE TO SURPASS OTHER APPLICATION SEGMENTS BETWEEN 2023 TO 2028 50

FIGURE 13 ASIA PACIFIC HELD LARGEST MARKET SHARE IN 2022 51

3.1 BATTERY MANAGEMENT SYSTEM MARKET: IMPACT OF RECESSION 52

FIGURE 14 GDP GROWTH PROJECTION TILL 2023 FOR MAJOR ECONOMIES 52

FIGURE 15 IMPACT OF RECESSION ON BATTERY MANAGEMENT SYSTEM MARKET 53

4 PREMIUM INSIGHTS 54

4.1∏ATTRACTIVE GROWTH OPPORTUNITIES FOR PLAYERS IN BATTERY MANAGEMENT SYSTEM MARKET∏54

FIGURE 16 GROWING ELECTRIC VEHICLE MARKET TO FUEL DEMAND FOR BATTERY MANAGEMENT SYSTEMS DURING FORECAST PERIOD 54

4.2□BATTERY MANAGEMENT SYSTEM MARKET, BY TYPE□54

FIGURE 17 MOTIVE BATTERIES TO ACCOUNT FOR LARGEST MARKET SHARE BY 2028 54

4.3□BATTERY MANAGEMENT SYSTEM MARKET, BY BATTERY TYPE□55

FIGURE 18 LITHIUM-ION TO SURPASS OTHER BATTERY TYPE SEGMENTS DURING FORECAST PERIOD 55

4.4 BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY 55

FIGURE 19 MODULAR SEGMENT TO COMMAND LEADING POSITION BETWEEN 2023 TO 2028 55

4.5 BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION 56

FIGURE 20 AUTOMOTIVE TO REGISTER HIGHEST CAGR DURING FORECAST PERIOD 56

4.6∏BATTERY MANAGEMENT SYSTEM MARKET IN NORTH AMERICA, BY COUNTRY AND APPLICATION∏56

FIGURE 21 \square AUTOMOTIVE AND US TO BE LARGEST SHAREHOLDERS IN NORTH AMERICA \square 56

4.7∏BATTERY MANAGEMENT SYSTEM MARKET, BY COUNTRY∏57

FIGURE 22∏CHINA AND GERMANY TO EXHIBIT HIGHEST CAGR IN BATTERY MANAGEMENT SYSTEM MARKET BY 2028∏57

5∏MARKET OVERVIEW∏58

5.1□INTRODUCTION□58

5.2∏MARKET DYNAMICS∏58

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FIGURE 23∏BATTERY MANAGEMENT SYSTEM MARKET DYNAMICS∏58

- 5.2.1 DRIVERS 59
- 5.2.1.1 Growing penetration of electric vehicles 59

FIGURE 24 LECTRIC VEHICLE STOCK, BY COUNTRY/REGION, 2010-2020 (MILLION UNITS) 59

- 5.2.1.2 High demand for battery monitoring solutions in renewable energy sector 60
- 5.2.1.3 Need for effective power grid management 60

FIGURE 25 BATTERY MANAGEMENT SYSTEM MARKET: IMPACT OF DRIVERS 61

- 5.2.2 | RESTRAINTS | 61
- 5.2.2.1 Lack of standardization in battery management solutions 61

FIGURE 26 BATTERY MANAGEMENT SYSTEM MARKET: IMPACT OF RESTRAINTS 61

- 5.2.3 □ OPPORTUNITIES □ 62
- 5.2.3.1 | Increasing electrification of public transportation | 62
- 5.2.3.2 Rising demand from data centers 62
- 5.2.3.3 Supportive government initiatives for electric vehicles 63
- 5.2.3.4 Advantages of wireless battery management systems 63

FIGURE 27 BATTERY MANAGEMENT SYSTEM MARKET: IMPACT OF OPPORTUNITIES 64

- 5.2.4 CHALLENGES 64
- 5.2.4.1 Complex designing process 64
- 5.2.4.2 Impact of external factors on performance 64

FIGURE 28 BATTERY MANAGEMENT SYSTEM MARKET: IMPACT OF CHALLENGES 65

5.3 □ VALUE CHAIN ANALYSIS □ 65

FIGURE 29 VALUE CHAIN ANALYSIS 65

5.4∏ECOSYSTEM ANALYSIS∏66

FIGURE 30∏ECOSYSTEM ANALYSIS∏66

TABLE 1□BATTERY MANAGEMENT SYSTEM MARKET ECOSYSTEM□66

5.5 PRICING ANALYSIS 67

FIGURE 31∏AVERAGE SELLING PRICE OF BATTERY MANAGEMENT SYSTEMS (USD)∏68

TABLE 2 AVERAGE SELLING PRICE OF BATTERY MANAGEMENT SYSTEMS (USD) 69

5.6 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESSES 69

FIGURE 32 | REVENUE SHIFT AND NEW REVENUE POCKETS FOR PLAYERS IN BATTERY MANAGEMENT SYSTEM MARKET | 169

5.7∏TECHNOLOGY ANALYSIS∏70

5.7.1 | ARTIFICIAL INTELLIGENCE | 70

5.7.2□DIGITAL TWIN□70

5.8 PORTER'S FIVE FORCES ANALYSIS 70

TABLE 3∏BATTERY MANAGEMENT SYSTEM MARKET: PORTER'S FIVE FORCES, 2022∏70

- 5.9 KEY STAKEHOLDERS AND BUYING CRITERIA 71
- 5.9.1 ⊓KEY STAKEHOLDERS IN BUYING PROCESS П71

FIGURE 33∏INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP THREE APPLICATIONS∏71

TABLE 4∏INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP THREE APPLICATIONS (%)∏72

5.9.2 BUYING CRITERIA 72

FIGURE 34 KEY BUYING CRITERIA FOR TOP THREE APPLICATIONS 72

TABLE 5 KEY BUYING CRITERIA FOR TOP THREE APPLICATIONS 72

5.10 CASE STUDY ANALYSIS 73

TABLE 6∏CASE STUDY 1: STATE-OF-THE-ART PRT SYSTEM TO TACKLE PUBLIC TRANSPORT ISSUES∏73

TABLE 7 CASE STUDY 2: LEAD BATTERIES AND BATTERY MANAGEMENT SYSTEMS TO MANAGE MICROGRID 73

TABLE 8 CASE STUDY 3: DESIGNING RELIABLE BATTERY MANAGEMENT SYSTEMS TO OVERCOME COMMON ERRORS 73

5.11 TRADE ANALYSIS 74

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FIGURE 35 IMPORT OF LITHIUM CELLS AND BATTERIES, BY COUNTRY, 2017-2021 (USD MILLION) 74

FIGURE 36[EXPORT OF LITHIUM CELLS AND BATTERIES, BY COUNTRY, 2017-2021 (USD MILLION)[74

5.12 PATENT ANALYSIS 75

FIGURE 37□COMPANIES WITH MAXIMUM PATENT APPLICATIONS□75

TABLE 9 TOP 20 PATENT OWNERS IN US 75

FIGURE 38∏NUMBER OF PATENTS GRANTED PER YEAR, 2012-2021∏76

TABLE 10 BATTERY MANAGEMENT SYSTEM MARKET: PATENTS, 2021-2022 76

5.13 KEY CONFERENCES AND EVENTS, 2022-2024 77

TABLE 11 BATTERY MANAGEMENT SYSTEM MARKET: CONFERENCES AND EVENTS, 2022-2024 77

5.14 ⊓REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS □79

TABLE 12∏NORTH AMERICA: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS∏79

TABLE 13∏EUROPE: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS∏79

TABLE 14 ASIA PACIFIC: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 180

TABLE 15∏ROW: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS∏80

5.15 REGULATORY LANDSCAPE 81

TABLE 16 STANDARDS RELATED TO BATTERY MANAGEMENT SYSTEMS 81

6□BATTERY MANAGEMENT SYSTEM, BY COMPONENT 82

6.1□INTRODUCTION□82

FIGURE 39[BATTERY MANAGEMENT SYSTEM MARKET, BY COMPONENT[82]

6.2∏HARDWARE∏82

6.2.1 BATTERY CONTROL UNITS 82

6.2.2 POWER MANAGEMENT COMPONENTS 83

6.2.3 COMMUNICATION COMPONENTS 83

6.3∏SOFTWARE∏84

7

7□BATTERY MANAGEMENT SYSTEM MARKET, BY SYSTEM TYPE□85

7.1∏INTRODUCTION∏85

FIGURE 40∏BATTERY MANAGEMENT SYSTEM MARKET, BY SYSTEM TYPE∏85

7.2 STANDALONE BMS 185

7.3 INTEGRATED BMS 85

8 BATTERY MANAGEMENT SYSTEM MARKET, BY TYPE 86

8.1∏INTRODUCTION∏87

FIGURE 41 BATTERY MANAGEMENT SYSTEM MARKET, BY TYPE 87

FIGURE 42 MOTIVE BATTERIES TO ACQUIRE HIGHEST SHARE DURING FORECAST PERIOD 87

TABLE 17∏BATTERY MANAGEMENT SYSTEM MARKET, BY TYPE, 2019-2022 (USD MILLION)∏88

TABLE 18 \square BATTERY MANAGEMENT SYSTEM MARKET, BY TYPE, 2023-2028 (USD MILLION) \square 88

8.2 MOTIVE BATTERIES 88

8.2.1 | INCREASING DEMAND FROM AUTOMOTIVE SECTOR | 88

TABLE 19 MOTIVE BATTERIES: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION) 89

TABLE 20 MOTIVE BATTERIES: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION) 89

8.3 STATIONARY BATTERIES 89

8.3.1 WIDESCALE USE IN ENERGY STORAGE APPLICATIONS 89

TABLE 21 \square STATIONARY BATTERIES: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION) \square 90

TABLE 22 STATIONARY BATTERIES: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION) 90

9□BATTERY MANAGEMENT SYSTEM MARKET, BY BATTERY TYPE□91

9.1□INTRODUCTION□92

FIGURE 43 BATTERY MANAGEMENT SYSTEM MARKET, BY BATTERY TYPE 92

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FIGURE 44 LITHIUM-ION TO HOLD LARGEST MARKET DURING FORECAST PERIOD 193

TABLE 23□BATTERY MANAGEMENT SYSTEM MARKET, BY BATTERY TYPE, 2019-2022 (USD MILLION)□93

TABLE 24 BATTERY MANAGEMENT SYSTEM MARKET, BY BATTERY TYPE, 2023-2028 (USD MILLION) 93

 $9.2 \\ \square LITHIUM-ION \\ \square 94$

9.2.1 GROWING POPULARITY OF ELECTRIC VEHICLES WORLDWIDE 94

TABLE 25 COMPARISON: LITHIUM-ION BATTERIES VS. LEAD-ACID BATTERIES 95

FIGURE 45 BEV AND PHEV SALES, BY REGION/COUNTRY, 2020-2021 (THOUSAND UNITS) 95

TABLE 26 LITHIUM-ION: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION) 96 TABLE 27 LITHIUM-ION: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION) 96?

9.3∏LEAD-ACID∏96

9.3.1 HIGH DEMAND FROM RENEWABLE ENERGY SECTOR 96

TABLE 28 LEAD-ACID: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION) 97

TABLE 29 \square LEAD-ACID: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION) \square 97

9.4

☐
NICKEL-BASED

☐
98

9.4.1□EXTENSIVE USE IN AUTOMOTIVE SECTOR□98

TABLE 30∏NICKEL-BASED: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION)∏98

TABLE 31 NICKEL-BASED: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION) 99

9.5 OTHER BATTERIES 99

9.5.1 SOLID-STATE BATTERIES 99

9.5.1.1 Heavy investments by automakers 99

9.5.2 FLOW BATTERIES 99

9.5.2.1 Use in high-energy storage applications 99

TABLE 32 OTHER BATTERIES: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION) 100

TABLE 33 OTHER BATTERIES: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION) 100

10 BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY 101

10.1□INTRODUCTION□102

FIGURE 46 BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY 102

FIGURE 47 MODULAR TOPOLOGY TO HOLD LARGEST MARKET FROM 2023 TO 2028 102

TABLE 34 \square BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2019-2022 (USD MILLION) \square 103

TABLE 35 BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2023-2028 (USD MILLION) 103

10.2 MODULAR 103

10.2.1 SUPERIOR COMPUTATIONAL POWER AND ENHANCED SAFETY 103

TABLE 36 MODULAR TOPOLOGY: ADVANTAGES AND DISADVANTAGES 103

FIGURE 48 TYPICAL STRUCTURE OF MODULAR BATTERY MANAGEMENT SYSTEM 104

TABLE 37 \square MODULAR: BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2019-2022 (USD MILLION) \square 104

TABLE 38 MODULAR: BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 105

TABLE 39∏MODULAR: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION)∏105

TABLE 40 MODULAR: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION) 105

10.3 CENTRALIZED 106

10.3.1 USE IN MEDIUM POWER APPLICATIONS 106

TABLE 41 CENTRALIZED TOPOLOGY: ADVANTAGES AND DISADVANTAGES 106

FIGURE 49∏TYPICAL STRUCTURE OF CENTRALIZED BATTERY MANAGEMENT SYSTEM∏106

TABLE 42∏CENTRALIZED: BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2019-2022 (USD MILLION)∏107

TABLE 43 \square CENTRALIZED: BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2023-2028 (USD MILLION) \square 107

TABLE 44 CENTRALIZED: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION) 107

TABLE 45 CENTRALIZED: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION) 108

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10.4 DISTRIBUTED 108

10.4.1 SIMPLE DESIGN AND HIGH RELIABILITY 108

TABLE 46 DISTRIBUTED TOPOLOGY: ADVANTAGES AND DISADVANTAGES 108

FIGURE 50 TYPICAL STRUCTURE OF DISTRIBUTED BATTERY MANAGEMENT SYSTEM 109

TABLE 47 DISTRIBUTED: BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 109

TABLE 48 DISTRIBUTED: BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 110

TABLE 49 DISTRIBUTED: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION) 110

TABLE 50 DISTRIBUTED: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION) 110

11 BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION 111

11.1□INTRODUCTION□112

FIGURE 51 BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION 112

FIGURE 52 AUTOMOTIVE TO SURPASS OTHER APPLICATION SEGMENTS BY 2028 113

TABLE 51⊓BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2019-2022 (USD MILLION)∏113

TABLE 52∏BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2023-2028 (USD MILLION)∏113

 $11.2 \square AUTOMOTIVE \square 114$

11.2.1 GROWING PREFERENCE FOR ELECTRIC VEHICLES 114

FIGURE 53 GLOBAL EV OUTLOOK, 2020-2030 (MILLION UNITS) 114

11.2.1.1 Passenger vehicles 115

11.2.1.1.1 Battery electric vehicles 115

11.2.1.1.2 Plug-in hybrid electric vehicles 115

11.2.1.2 Commercial vehicles 116

11.2.1.3 Other vehicles 116

TABLE 53 AUTOMOTIVE: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2019-2022 (USD MILLION) 116 TABLE 54 AUTOMOTIVE: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2023-2028 (USD MILLION) 117 TABLE 55 AUTOMOTIVE: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION) 117 TABLE 56 AUTOMOTIVE: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION) 117

11.3∏INDUSTRIAL∏118

11.3.1 INCREASED DEMAND FOR ELECTRIC-POWERED EQUIPMENT 118

TABLE 57 INDUSTRIAL: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2019-2022 (USD MILLION) 118 TABLE 58 INDUSTRIAL: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2023-2028 (USD MILLION) 119 TABLE 59 INDUSTRIAL: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION) 119 TABLE 60 INDUSTRIAL: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION) 119 11.4 RENEWABLE ENERGY 120

11.4.1 HIGH ADOPTION OF RENEWABLE ENERGY SOURCES 120

TABLE 61 TOP 10 COUNTRIES BY TOTAL INSTALLED PV CAPACITY, 2021 120

TABLE 62 RENEWABLE ENERGY: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2019-2022 (USD MILLION) 121 TABLE 63 RENEWABLE ENERGY: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2023-2028 (USD MILLION) 121 TABLE 64 RENEWABLE ENERGY: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION) 121 TABLE 65 RENEWABLE ENERGY: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION) 122 11.5 TELECOMMUNICATIONS 122

11.5.1 INCREASED INVESTMENTS BY REGIONAL AUTHORITIES 122

TABLE 66 TELECOMMUNICATIONS: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2019-2022 (USD MILLION) 122 TABLE 67 TELECOMMUNICATIONS: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2023-2028 (USD MILLION) 123 TABLE 68 TELECOMMUNICATIONS: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION) 123 TABLE 69 TELECOMMUNICATIONS: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION) 123 11.6 MILLITARY & DEFENSE 124

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```
11.6.1 NEED FOR RELIABLE AND UNINTERRUPTED POWER 124
```

TABLE 70[MILITARY & DEFENSE: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2019-2022 (USD MILLION)[124 TABLE 71 MILITARY & DEFENSE: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2023-2028 (USD MILLION) 124 TABLE 72∏MILITARY & DEFENSE: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION)∏125 TABLE 73∏MILITARY & DEFENSE: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION)∏125 11.7∏OTHER APPLICATIONS∏125

TABLE 74 OTHER APPLICATIONS: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2019-2022 (USD MILLION) 126 TABLE 75 OTHER APPLICATIONS: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2023-2028 (USD MILLION) 126 TABLE 76 OTHER APPLICATIONS: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION) 127 TABLE 77∏OTHER APPLICATIONS: BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION)∏127 12 BATTERY MANAGEMENT SYSTEM MARKET, BY REGION 128

12.1∏INTRODUCTION∏129

FIGURE 54 BATTERY MANAGEMENT SYSTEM MARKET, BY REGION 129

FIGURE 55 | GERMANY AND CHINA TO BE HIGHEST-GROWING MARKETS FOR BATTERY MANAGEMENT SYSTEMS BY 2028 | 129 TABLE 78∏BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2019-2022 (USD MILLION)∏130 TABLE 79∏BATTERY MANAGEMENT SYSTEM MARKET, BY REGION, 2023-2028 (USD MILLION)∏130

12.2 NORTH AMERICA 130

FIGURE 56∏NORTH AMERICA: BATTERY MANAGEMENT SYSTEM MARKET SNAPSHOT∏131 FIGURE 57 US TO ACQUIRE LARGEST MARKET SHARE IN NORTH AMERICA BY 2028 132

TABLE 80∏NORTH AMERICA: BATTERY MANAGEMENT SYSTEM MARKET, BY COUNTRY, 2019-2022 (USD MILLION)∏132 TABLE 81 NORTH AMERICA: BATTERY MANAGEMENT SYSTEM MARKET, BY COUNTRY, 2023-2028 (USD MILLION) 132 TABLE 82 NORTH AMERICA: BATTERY MANAGEMENT SYSTEM MARKET, BY TYPE, 2019-2022 (USD MILLION) 133 TABLE 83∏NORTH AMERICA: BATTERY MANAGEMENT SYSTEM MARKET, BY TYPE, 2023-2028 (USD MILLION)∏133 TABLE 84 NORTH AMERICA: BATTERY MANAGEMENT SYSTEM MARKET, BY BATTERY TYPE, 2019-2022 (USD MILLION) 133

TABLE 85 NORTH AMERICA: BATTERY MANAGEMENT SYSTEM MARKET, BY BATTERY TYPE, 2023-2028 (USD MILLION) 133 TABLE 86∏NORTH AMERICA: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2019-2022 (USD MILLION)∏134 TABLE 87□NORTH AMERICA: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2023-2028 (USD MILLION)□134 TABLE 88 NORTH AMERICA: BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2019-2022 (USD MILLION) 134 TABLE 89 NORTH AMERICA: BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 135 12.2.1⊓US⊓135

12.2.1.1 □Increased investments in battery manufacturing □135

12.2.2 CANADA □ 136

12.2.2.1 Focus on strengthening battery supply chain 136

12.2.3 | MEXICO | 136

12.2.3.1 Growth in manufacturing industry 136

12.3□EUROPE□137

FIGURE 58 EUROPE: BATTERY MANAGEMENT SYSTEM MARKET SNAPSHOT 138

FIGURE 59∏GERMANY TO SURPASS OTHER EUROPEAN REGIONS IN BATTERY MANAGEMENT SYSTEM MARKET∏139

TABLE 90∏EUROPE: BATTERY MANAGEMENT SYSTEM MARKET, BY COUNTRY, 2019-2022 (USD MILLION)∏139 TABLE 91 EUROPE: BATTERY MANAGEMENT SYSTEM MARKET, BY COUNTRY, 2023-2028 (USD MILLION) 139 TABLE 92∏EUROPE: BATTERY MANAGEMENT SYSTEM MARKET, BY TYPE, 2019-2022 (USD MILLION)∏140

TABLE 93 EUROPE: BATTERY MANAGEMENT SYSTEM MARKET, BY TYPE, 2023-2028 (USD MILLION) 140

TABLE 94∏EUROPE: BATTERY MANAGEMENT SYSTEM MARKET, BY BATTERY TYPE, 2019-2022 (USD MILLION)∏140 TABLE 95∏EUROPE: BATTERY MANAGEMENT SYSTEM MARKET, BY BATTERY TYPE, 2023-2028 (USD MILLION)∏140 TABLE 96∏EUROPE: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2019-2022 (USD MILLION)∏141 TABLE 97∏EUROPE: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2023-2028 (USD MILLION)∏141 TABLE 98∏EUROPE: BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2019-2022 (USD MILLION)∏141

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```
TABLE 99∏EUROPE: BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2023-2028 (USD MILLION)∏142
12.3.1 | GERMANY | 142
12.3.1.1 Presence of prominent automakers 142
12.3.2 FRANCE 142
12.3.2.1 Favorable government initiatives and investments 142
12.3.3∏UK∏143
12.3.3.1 Focus on transportation electrification 143
12.3.4 REST OF EUROPE 143
12.4∏ASIA PACIFIC∏144
FIGURE 60 ASIA PACIFIC: BATTERY MANAGEMENT SYSTEM MARKET SNAPSHOT 145
FIGURE 61∏CHINA TO OWN LEADING MARKET POSITION DURING FORECAST PERIOD∏146
TABLE 100∏ASIA PACIFIC: BATTERY MANAGEMENT SYSTEM MARKET, BY COUNTRY, 2019-2022 (USD MILLION)∏146
TABLE 101∏ASIA PACIFIC: BATTERY MANAGEMENT SYSTEM MARKET, BY COUNTRY, 2023-2028 (USD MILLION)∏146
TABLE 102∏ASIA PACIFIC: BATTERY MANAGEMENT SYSTEM MARKET, BY TYPE, 2019-2022 (USD MILLION)∏147
TABLE 103∏ASIA PACIFIC: BATTERY MANAGEMENT SYSTEM MARKET, BY TYPE, 2023-2028 (USD MILLION)∏147
TABLE 104∏ASIA PACIFIC: BATTERY MANAGEMENT SYSTEM MARKET, BY BATTERY TYPE, 2019-2022 (USD MILLION)∏147
TABLE 105□ASIA PACIFIC: BATTERY MANAGEMENT SYSTEM MARKET, BY BATTERY TYPE, 2023-2028 (USD MILLION)□147
TABLE 106∏ASIA PACIFIC: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2019-2022 (USD MILLION)∏148
TABLE 107 ASIA PACIFIC: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2023-2028 (USD MILLION) 148
TABLE 108∏ASIA PACIFIC: BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2019-2022 (USD MILLION)∏148
TABLE 109∏ASIA PACIFIC: BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2023-2028 (USD MILLION)∏149
12.4.1 | CHINA | 149
12.4.1.1 High demand for electric vehicles 149
12.4.2∏APAN∏150
12.4.2.1 Largescale domestic battery production 150
12.4.3 | INDIA | 150
12.4.3.1 Advances in electric vehicle market 150
```

- 12.4.4 SOUTH KOREA 151
- 12.4.4.1 Government subsidies for EV and battery manufacturers 151
- 12.4.5 REST OF ASIA PACIFIC 151
- 12.5 | ROW | 152

FIGURE 62∏SOUTH AMERICA TO COMMAND MAXIMUM SHARE OF ROW DURING FORECAST PERIOD∏152 TABLE 110 TROW: BATTERY MANAGEMENT SYSTEM MARKET. BY COUNTRY. 2019-2022 (USD MILLION) T153 TABLE 111 ⊓ROW: BATTERY MANAGEMENT SYSTEM MARKET, BY COUNTRY, 2023-2028 (USD MILLION) □153 TABLE 112 ROW: BATTERY MANAGEMENT SYSTEM MARKET, BY TYPE, 2019-2022 (USD MILLION) 153 TABLE 113 | ROW: BATTERY MANAGEMENT SYSTEM MARKET, BY TYPE, 2023-2028 (USD MILLION) | 153 TABLE 114 ⊓ROW: BATTERY MANAGEMENT SYSTEM MARKET, BY BATTERY TYPE, 2019-2022 (USD MILLION) □154 TABLE 115 TROW: BATTERY MANAGEMENT SYSTEM MARKET, BY BATTERY TYPE, 2023-2028 (USD MILLION) ☐ 154 TABLE 116 TROW: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2019-2022 (USD MILLION) 154 TABLE 117 ROW: BATTERY MANAGEMENT SYSTEM MARKET, BY TOPOLOGY, 2023-2028 (USD MILLION) 155 TABLE 118 TROW: BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2019-2022 (USD MILLION) T155 TABLE 119 TROW: BATTERY MANAGEMENT SYSTEM MARKET, BY APPLICATION, 2023-2028 (USD MILLION) 155 12.5.1 MIDDLE EAST 156 12.5.1.1 □Increased funding in renewable energy sources □156

- 12.5.2∏AFRICA∏156
- 12.5.2.1 Largescale lithium reserves 156
- 12.5.3 SOUTH AMERICA 157

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```
12.5.3.1 Presence of developing economies 157
13 COMPETITIVE LANDSCAPE 158
13.1□INTRODUCTION□158
13.2 KEY PLAYER STRATEGIES 158
TABLE 120∏STRATEGIES ADOPTED BY KEY PLAYERS IN BATTERY MANAGEMENT SYSTEM MARKET∏158
13.3 TOP FIVE COMPANY REVENUE ANALYSIS 160
FIGURE 63 BATTERY MANAGEMENT SYSTEM MARKET: REVENUE ANALYSIS OF FIVE KEY PLAYERS, 2017-2021 160
13.4 MARKET SHARE ANALYSIS, 2022 161
TABLE 121 BATTERY MANAGEMENT SYSTEM MARKET SHARE ANALYSIS (2022) □161
13.5 COMPANY EVALUATION QUADRANT, 2022 162
13.5.1 | STARS | 162
13.5.2□EMERGING LEADERS□162
13.5.3 PERVASIVE PLAYERS 162
13.5.4 PARTICIPANTS 162
FIGURE 64 BATTERY MANAGEMENT SYSTEM MARKET: COMPANY EVALUATION QUADRANT, 2022 163
13.6 SMALL AND MEDIUM ENTERPRISES EVALUATION QUADRANT, 2022 164
13.6.1 PROGRESSIVE COMPANIES 164
13.6.2 RESPONSIVE COMPANIES 164
13.6.3 DYNAMIC COMPANIES 164
13.6.4 STARTING BLOCKS 164
FIGURE 65 BATTERY MANAGEMENT SYSTEM MARKET, SME EVALUATION QUADRANT, 2022 165
13.7 BATTERY MANAGEMENT SYSTEM MARKET: COMPANY FOOTPRINT 166
TABLE 122 BATTERY MANAGEMENT SYSTEM MARKET: COMPANY FOOTPRINT, 2022 166
TABLE 123 BATTERY MANAGEMENT SYSTEM MARKET: APPLICATION FOOTPRINT, 2022 167
TABLE 124 BATTERY MANAGEMENT SYSTEM MARKET: REGIONAL FOOTPRINT, 2022 168
13.8 COMPETITIVE BENCHMARKING 169
TABLE 125 BATTERY MANAGEMENT SYSTEM MARKET: KEY STARTUPS/SMES 169
TABLE 126 BATTERY MANAGEMENT SYSTEM MARKET: COMPETITIVE BENCHMARKING OF KEY STARTUPS/SMES 170
13.9 COMPETITIVE SCENARIO 170
13.9.1 PRODUCT LAUNCHES 170
13.9.2 DEALS 172
14□COMPANY PROFILES□174
14.1 KEY PLAYERS 174
(Business Overview, Products/Services/Solutions Offered, MnM View, Key Strengths and Right to Win, Strategic Choices Made,
Weaknesses and Competitive Threats, Recent Developments)*
14.1.1□EBERSPACHER□174
TABLE 127 EBERSPACHER: BUSINESS OVERVIEW 174
FIGURE 66 EBERSPACHER: COMPANY SNAPSHOT 175
TABLE 128 EBERSPACHER: PRODUCTS OFFERED 175
14.1.2 PANASONIC HOLDINGS CORPORATION 177
TABLE 129 PANASONIC HOLDINGS CORPORATION: BUSINESS OVERVIEW 177
```

FIGURE 67 PANASONIC HOLDINGS CORPORATION: COMPANY SNAPSHOT 178 TABLE 130 PANASONIC HOLDINGS CORPORATION: PRODUCTS OFFERED 178 TABLE 131 PANASONIC HOLDINGS CORPORATION: PRODUCT LAUNCHES 179 14.1.3 RENESAS ELECTRONICS CORPORATION 180

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TABLE 132 RENESAS ELECTRONICS CORPORATION: BUSINESS OVERVIEW 180 FIGURE 68 RENESAS ELECTRONICS CORPORATION: COMPANY SNAPSHOT 181 TABLE 133 RENESAS ELECTRONICS CORPORATION: PRODUCTS OFFERED 181 TABLE 134 RENESAS ELECTRONICS CORPORATION: PRODUCT LAUNCHES 182

14.1.4 \square SENSATA TECHNOLOGIES, INC. \square 183

TABLE 135 SENSATA TECHNOLOGIES, INC.: BUSINESS OVERVIEW 183 FIGURE 69 SENSATA TECHNOLOGIES, INC.: COMPANY SNAPSHOT 184 TABLE 136 SENSATA TECHNOLOGIES, INC.: PRODUCTS OFFERED 184 TABLE 137 SENSATA TECHNOLOGIES, INC.: PRODUCT LAUNCHES 185

TABLE 138 SENSATA TECHNOLOGIES, INC.: DEALS 185

14.1.5 TEXAS INSTRUMENTS 187

TABLE 139 TEXAS INSTRUMENTS: BUSINESS OVERVIEW 187 FIGURE 70 TEXAS INSTRUMENTS: COMPANY SNAPSHOT 188 TABLE 140 TEXAS INSTRUMENTS: PRODUCTS OFFERED 188 TABLE 141 TEXAS INSTRUMENTS: PRODUCT LAUNCHES 189

14.1.6 □ ANALOG DEVICES, INC. □ 190

TABLE 142

ANALOG DEVICES, INC.: BUSINESS OVERVIEW

FIGURE 71

ANALOG DEVICES, INC.: COMPANY SNAPSHOT

191

TABLE 143

ANALOG DEVICES, INC.: PRODUCTS OFFERED

192

TABLE 144

ANALOG DEVICES, INC.: PRODUCT LAUNCHES

192

14.1.7 INFINEON TECHNOLOGIES AG 193

TABLE 145 INFINEON TECHNOLOGIES AG: BUSINESS OVERVIEW 193 FIGURE 72 INFINEON TECHNOLOGIES AG: COMPANY SNAPSHOT 194 TABLE 146 INFINEON TECHNOLOGIES AG: PRODUCTS OFFERED 194 TABLE 147 INFINEON TECHNOLOGIES AG: PRODUCT LAUNCHES 195

TABLE 148 INFINEON TECHNOLOGIES AG: DEALS I 195

14.1.8⊓LG ENERGY SOLUTION, LTD. □196

TABLE 149 LG ENERGY SOLUTION, LTD.: BUSINESS OVERVIEW 196 FIGURE 73 LG ENERGY SOLUTION, LTD.: COMPANY SNAPSHOT 196 TABLE 150 LG ENERGY SOLUTION, LTD.: PRODUCTS OFFERED 197

TABLE 151 LG ENERGY SOLUTION, LTD.: DEALS 197

14.1.9 NXP SEMICONDUCTORS N.V. 198

TABLE 152 NXP SEMICONDUCTORS N.V.: BUSINESS OVERVIEW 198
FIGURE 74 NXP SEMICONDUCTORS N.V.: COMPANY SNAPSHOT 199
TABLE 153 NXP SEMICONDUCTORS N.V.: PRODUCTS OFFERED 199
TABLE 154 NXP SEMICONDUCTORS N.V.: PRODUCT LAUNCHES 200

TABLE 155 NXP SEMICONDUCTORS N.V.: DEALS 201

14.1.10 STMICROELECTRONICS 202

TABLE 156[STMICROELECTRONICS: BUSINESS OVERVIEW[]202 FIGURE 75[STMICROELECTRONICS: COMPANY SNAPSHOT[]203 TABLE 157[STMICROELECTRONICS: PRODUCTS OFFERED[]204

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

14.2 OTHER IMPORTANT PLAYERS 205

14.2.1 CONTEMPORARY AMPEREX TECHNOLOGY CO., LIMITED 205

14.2.2 BYD COMPANY LIMITED 206

14.2.3 SK INNOVATION CO., LTD. 207

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- 14.3 OTHER PLAYERS 208
- 14.3.1 AMP 208
- 14.3.2 AVL LIST GMBH 209
- 14.3.3 BMS POWERSAFE 210
- 14.3.4 ELITHION, INC. 211
- 14.3.5 EWERT ENERGY SYSTEMS, INC. 212
- 14.3.6 EXPONENTIAL POWER, INC. 212
- 14.3.7 FICOSA GROUP 213
- 14.3.8 FUTAVIS GMBH 213
- 14.3.9 HANGZHOU XIENENG TECHNOLOGY CO., LTD. 214
- 14.3.10 LECLANCHE SA □ 215
- 14.3.11 NUVATION ENGINEERING 216
- 14.3.12 POWERTECH SYSTEMS □ 217
- 14.3.13 RICARDO 217
- 14.3.14 ROBOTE Q 218
- 14.3.15 TRONICO 219
- 14.3.16 XING MOBILITY 220
- 15 ADJACENT AND RELATED MARKETS 221
- 15.1 INTRODUCTION 221
- 15.2 BATTERY ENERGY STORAGE SYSTEM MARKET, BY REGION ☐ 221

TABLE 158 \square BATTERY ENERGY STORAGE SYSTEM MARKET, BY REGION, 2018-2021 (USD MILLION) \square 221 TABLE 159 \square BATTERY ENERGY STORAGE SYSTEM MARKET, BY REGION, 2022-2027 (USD MILLION) \square 222

- 15.3 NORTH AMERICA 223
- 15.3.1∏US∏223
- 15.3.1.1 ☐Increasing adoption of large-scale battery storage systems in power grids ☐223
- 15.3.2 CANADA 224
- 15.3.2.1 Growing focus on advancements in battery energy storage technology 224
- 15.3.3 MEXICO 224
- 15.3.3.1 Rising demand for electricity 224
- 16∏APPENDIX∏226
- 16.1 INSIGHTS FROM INDUSTRY EXPERTS 226
- 16.2□DISCUSSION GUIDE□227
- 16.3 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL 231
- 16.4 CUSTOMIZATION OPTIONS 233
- 16.5 RELATED REPORTS 233
- 16.6 AUTHOR DETAILS 234

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