

Grid Scale Energy Storage Systems Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, 2018-2028 Segmented By Battery Type (Lithium-Ion, Lead Acid, Flow Battery, Sodium-Based Battery and Others), By Ownership Model (Third Party-Owned and Utility-Owned), By Application (Renewable Integration, Peak Shifting, Backup Power, Ancillary Services and Others), By Region, and By Competition

<https://marketpublishers.com/r/G23DDC2FDF2AEN.html>

Date: November 2023

Pages: 190

Price: US\$ 4,900.00 (Single User License)

ID: G23DDC2FDF2AEN

Abstracts

Global Grid Scale Energy Storage Systems Market was valued at USD 1.57 billion in 2022 and is anticipated to project robust growth in the forecast period with a CAGR of 11.73% through 2028. Numerous countries and regions are currently engaged in grid modernization initiatives aimed at upgrading aging grid infrastructure, enhancing grid reliability, and integrating advanced technologies. Grid modernization often involves the incorporation of energy storage systems, such as lithium-ion batteries, pumped hydro storage, and advanced flow batteries. These systems play a vital role in stabilizing grids, improving load management, and facilitating more efficient utilization of renewable energy resources.

Key Market Drivers

Increasing Renewable Energy Integration

One of the key drivers of the global market for grid-scale energy storage systems is the rising integration of renewable energy sources into the grid. As the world moves towards a more sustainable and environmentally friendly energy mix, there is an

increasing reliance on intermittent renewable energy sources like solar and wind power. While these sources offer numerous environmental benefits, they also present a significant challenge due to their variability and unpredictability. Grid-scale energy storage systems effectively address this challenge by providing a means to store surplus energy generated during periods of high renewable energy production and release it when demand is high or renewable generation is low.

With governments and utilities worldwide setting ambitious targets for renewable energy deployment, the demand for effective energy storage solutions becomes even more crucial. Grid-scale energy storage systems, including lithium-ion batteries, pumped hydro storage, and advanced flow batteries, play a pivotal role in stabilizing grids, ensuring a consistent power supply, and optimizing the utilization of renewable energy resources. These systems help mitigate fluctuations in renewable energy generation, reduce curtailment, and enhance grid reliability. Consequently, the increasing integration of renewable energy sources serves as a significant driver behind the growing demand for grid-scale energy storage systems.

Evolving Energy Market Dynamics & Grid Modernization

One of the primary drivers of the global grid-scale energy storage systems market is the evolving dynamics of the energy market and the modernization of grid infrastructure. The traditional energy markets, which were predominantly based on fossil fuel generation and centralized power plants, are currently undergoing a significant transformation. The energy landscape is being reshaped by decentralization, distributed energy resources (DERs), and the emergence of prosumers (consumers who also produce energy).

To accommodate these changes and create more flexible, resilient, and efficient energy grids, grid modernization initiatives are being implemented worldwide. Grid-scale energy storage systems play a vital role in these modernization efforts. They serve as a crucial tool for managing the integration of DERs, ensuring grid stability, and enabling demand response programs. Energy storage systems can rapidly respond to fluctuations in demand and supply, helping utilities maintain grid balance and prevent blackouts.

Additionally, the evolving market dynamics, such as the increasing adoption of electric vehicles (EVs) and the electrification of various sectors, are driving the demand for energy storage systems to support the growth of EV charging infrastructure and provide grid support services. As electric mobility becomes more prevalent, the need for reliable and fast-charging solutions, supported by energy storage, becomes increasingly

evident. These factors collectively contribute to the growth of the global grid-scale energy storage systems market.

Government Policies & Incentives

Government policies and incentives play a pivotal role in driving the expansion of the global grid-scale energy storage systems market. Governments at various levels acknowledge the significance of energy storage in attaining sustainability, security, and reliability objectives. As a result, they are implementing a range of policies, regulations, and financial incentives to promote the adoption of energy storage technologies.

For instance, subsidies, tax credits, and grants are frequently offered to incentivize investments in grid-scale energy storage projects. These financial incentives enhance the economic viability and attractiveness of energy storage projects for investors and utilities alike. Moreover, numerous countries are setting energy storage targets and mandates, compelling utilities to integrate a specific amount of energy storage capacity into their grids.

Furthermore, policies concerning grid resilience and reliability are driving the adoption of energy storage systems as a means to bolster power system resilience against natural disasters and cyberattacks. Government-funded grid modernization initiatives often include provisions for the integration of energy storage.

In conclusion, government policies and incentives are a critical driver that accelerates the growth of the global grid-scale energy storage systems market. They establish a favorable investment environment, foster innovation, and facilitate the achievement of energy-related goals, positioning energy storage as a vital component of the future energy landscape.

Key Market Challenges

High Initial Costs & Capital Intensity

One of the key challenges confronting the global market for grid-scale energy storage systems is the substantial upfront costs and capital intensity associated with their development and deployment. Grid-scale energy storage projects often necessitate significant initial investments in infrastructure, technology, and installation. These costs can vary significantly depending on the chosen energy storage technology, project scale, and location.

For instance, lithium-ion battery-based energy storage systems, one of the most commonly employed technologies, entail relatively high upfront expenses due to the cost of battery cells and associated components. Similarly, pumped hydro storage projects require substantial capital investment for the construction of reservoirs and related infrastructure. These costs can act as a barrier to entry for utilities and independent power producers alike, impeding the widespread adoption of grid-scale energy storage.

Furthermore, the capital intensity of energy storage projects can pose challenges in terms of financing and attracting investments, particularly for smaller players in the energy market. While certain government incentives and subsidies exist to alleviate these financial burdens, they may not always suffice to offset the initial capital requirements.

Technological Limitations & Performance Degradation

One of the key challenges in the global market for grid-scale energy storage systems is the presence of technological limitations and the issue of performance degradation over time. Although energy storage technologies have made significant advancements in recent years, they are not exempt from limitations.

For instance, commonly used lithium-ion batteries in grid-scale applications are prone to degradation over time. Each charge-discharge cycle can result in a decrease in battery capacity and performance, ultimately impacting the lifespan and efficiency of the energy storage system. Addressing this degradation necessitates continuous monitoring and maintenance, which introduces operational costs and complexity to energy storage projects.

Furthermore, different energy storage technologies exhibit varying characteristics in terms of energy density, efficiency, and cycle life. Selecting the most suitable technology for a specific application and optimizing its performance can be a complex undertaking. Ensuring that energy storage systems meet the required performance standards and reliability levels presents an ongoing challenge that necessitates continuous research and development efforts.

Regulatory & Policy Hurdles

Regulatory and policy obstacles pose a significant challenge to the global market for

grid-scale energy storage systems. The regulatory landscape for energy storage varies greatly across regions and countries, hindering the development of a consistent and streamlined approach to its deployment.

One notable regulatory challenge is the absence of clear and standardized rules regarding the assessment of energy storage services. Grid-scale energy storage systems offer various services, including grid stabilization, peak shaving, and renewable energy integration. Determining how these services are valued and integrated into existing energy market structures can be intricate and contentious.

Moreover, the permitting and siting processes for grid-scale energy storage projects can be time-consuming and uncertain. Navigating the regulatory landscape, obtaining necessary approvals, and addressing potential environmental concerns can result in project delays and increased costs.

To tackle these challenges, governments and regulatory bodies need to collaborate closely with industry stakeholders to establish clear and consistent regulatory frameworks that facilitate the efficient deployment of grid-scale energy storage systems. Standardized approaches to valuation, permitting, and interconnection can foster a more conducive environment for the growth of the energy storage market.

Key Market Trends

Increasing Deployment of Long-Duration Energy Storage Systems

One noteworthy trend in the global market for grid-scale energy storage systems is the increasing adoption of long-duration energy storage solutions. While short-duration storage systems like lithium-ion batteries have dominated the market for applications such as frequency regulation and peak shaving, there is a growing recognition of the importance of longer-duration storage to address the challenges posed by renewable energy integration and grid reliability.

Long-duration energy storage systems, such as advanced flow batteries, compressed air energy storage (CAES), and molten salt thermal storage, are gaining traction. These technologies are capable of storing energy for extended periods, ranging from several hours to days or even weeks. They are well-suited for applications such as shifting renewable energy generation from daytime to nighttime or providing grid stability during extended periods of low renewable energy output.

The increasing deployment of long-duration energy storage systems is driven by several factors. Firstly, it helps utilities and grid operators manage the variability of renewable energy sources, thereby enhancing grid stability and reducing the reliance on fossil fuel backup generation. Secondly, it facilitates the growth of renewable energy by enabling the integration of excess energy into the grid during periods of high generation, which can then be released when needed. Lastly, long-duration storage contributes to grid resilience by providing backup power during extended grid outages, natural disasters, or extreme weather events.

Emergence of Hybrid Energy Storage Systems

Another noteworthy trend in the global market for grid-scale energy storage systems is the emergence of hybrid energy storage systems. These systems combine two or more energy storage technologies to capitalize on their respective strengths and simultaneously address multiple grid services and applications.

For example, a hybrid energy storage system could integrate lithium-ion batteries with flywheel energy storage or supercapacitors. This integration enables the system to deliver rapid response times and short-duration energy storage services, while also offering long-duration energy storage capabilities. Hybrid systems can be optimized to provide essential grid balancing, frequency regulation, backup power, and other critical services.

Hybrid energy storage systems are gaining popularity due to their exceptional flexibility and versatility. These systems can be tailored to meet specific grid requirements and adapt to evolving grid conditions. As grid operators increasingly seek dynamic solutions to tackle the ever-changing energy landscape, hybrid systems present a compelling option to enhance grid stability, efficiency, and resilience.

Segmental Insights

Battery Type Insights

The Lithium-Ion segment emerged as the dominant player in 2022. Lithium-ion batteries have gained significant prominence in the market for grid-scale energy storage systems due to their high energy density, efficiency, and versatility. They are utilized for a wide range of grid applications, including the integration of renewable energy, peak shaving, and grid stabilization.

Lithium-ion batteries offer a remarkable energy density, enabling them to store a substantial amount of energy in a relatively compact and lightweight package, making them well-suited for grid-scale applications.

The variability of renewable energy sources such as solar and wind necessitates energy storage solutions like lithium-ion batteries to mitigate fluctuations in power generation. Lithium-ion batteries contribute to grid stabilization by providing ancillary services such as frequency regulation and voltage support.

Ongoing research and development efforts strive to enhance the performance and longevity of lithium-ion batteries, potentially addressing limitations in cycle life. Used electric vehicle batteries can be repurposed for grid-scale applications, offering a cost-effective and sustainable solution.

The lithium-ion segment is projected to continue growing, driven by its proven technology, high energy density, and ongoing cost reductions. As the transition to renewable energy accelerates, lithium-ion batteries will play a vital role in ensuring grid stability and enabling the efficient use of renewable energy sources.

Application Insights

The Renewable Integration segment is projected to experience rapid growth during the forecast period. The renewable integration sector within the global market for grid-scale energy storage systems plays a crucial role in addressing the challenges presented by the growing penetration of intermittent renewable energy sources like solar and wind. This sector serves as a key driver for the grid-scale energy storage systems market, as it effectively tackles the issue of intermittency and variability in renewable energy generation. It encompasses a range of energy storage technologies and solutions that are specifically designed to store excess renewable energy during periods of availability and release it during times of high demand or when renewable generation is low.

The increasing deployment of solar and wind energy sources necessitates the implementation of efficient energy storage solutions to effectively manage the variability and intermittency associated with these resources. By combining different energy storage technologies, such as lithium-ion batteries and advanced flow batteries, hybrid systems can be created, providing both short-duration and long-duration storage capabilities that optimize renewable integration. Additionally, the utilization of advanced energy management systems and predictive analytics can enhance the efficient use of energy storage for renewable integration by optimizing charge and discharge cycles.

In conclusion, the renewable integration sector of the global market for grid-scale energy storage systems is driven by the imperative to balance and optimize renewable energy generation, thus paving the way for a more sustainable and resilient energy future.

Regional Insights

North America emerged as the dominant player in 2022, holding the largest market share. North America plays a significant role in the global market for grid-scale energy storage systems, characterized by a dynamic and evolving landscape. The region encompasses the United States, Canada, and Mexico, each with its own distinct energy policies, grid infrastructure, and market dynamics.

In the United States, a highly diverse regulatory landscape exists, with each state having its own energy policies and incentives. Federal investment tax credits (ITC) and production tax credits (PTC) have been instrumental in promoting the adoption of energy storage. In Canada, provinces and territories have varying policies and regulations related to energy storage. Provinces like Ontario and British Columbia have shown interest in integrating energy storage into their electricity grids to enhance reliability and support renewable energy. Mexico is increasingly prioritizing grid modernization and the integration of renewable energy. The country's energy reforms and the growth of its renewable energy sector present opportunities for energy storage projects, particularly in regions with intermittent energy sources.

The ongoing electrification of various sectors, including transportation, is driving additional demand for energy storage. The increasing adoption of electric vehicles (EVs) necessitates the deployment of energy storage infrastructure for fast-charging stations and grid support. Investments in grid resilience have been driven by extreme weather events and grid vulnerabilities. Energy storage systems provide backup power during outages and can help stabilize the grid in emergencies.

The North American market for grid-scale energy storage systems is poised for continued growth. Future developments are expected to include greater grid integration, increased utilization of long-duration energy storage, and enhanced collaboration between governments, utilities, and the private sector to foster a more resilient and sustainable energy infrastructure.

Key Market Players

Tesla, Inc.

AES Energy Storage

Siemens Energy

Schneider Electric

Samsung SDI

LG Energy Solution

BYD Company Limited

GE Renewable Energy

Eos Energy Storage

NEC Energy Solutions

Report Scope:

In this report, the Global Grid Scale Energy Storage Systems Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Grid Scale Energy Storage Systems Market, By Battery Type:

Lithium-Ion

Lead Acid

Flow Battery

Sodium-Based Battery

Others

Grid Scale Energy Storage Systems Market, By Ownership Model:

Third Party-Owned

Utility-Owned

Grid Scale Energy Storage Systems Market, By Application:

Renewable Integration

Peak Shifting

Backup Power

Ancillary Services

Others

Grid Scale Energy Storage Systems Market, By Region:

North America

United States

Canada

Mexico

Europe

France

United Kingdom

Italy

Germany

Spain

Netherlands

Belgium

Asia-Pacific

China

India

Japan

Australia

South Korea

Thailand

Malaysia

South America

Brazil

Argentina

Colombia

Chile

Middle East & Africa

South Africa

Saudi Arabia

UAE

Turkey

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Global Grid Scale Energy Storage Systems Market.

Available Customizations:

Global Grid Scale Energy Storage Systems Market report with the given market data, Tech Sci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

Contents

1. PRODUCT OVERVIEW

- 1.1. Market Definition
- 1.2. Scope of the Market
 - 1.2.1. Markets Covered
 - 1.2.2. Years Considered for Study
 - 1.2.3. Key Market Segmentations

2. RESEARCH METHODOLOGY

- 2.1. Objective of the Study
- 2.2. Baseline Methodology
- 2.3. Formulation of the Scope
- 2.4. Assumptions and Limitations
- 2.5. Sources of Research
 - 2.5.1. Secondary Research
 - 2.5.2. Primary Research
- 2.6. Approach for the Market Study
 - 2.6.1. The Bottom-Up Approach
 - 2.6.2. The Top-Down Approach
- 2.7. Methodology Followed for Calculation of Market Size & Market Shares
- 2.8. Forecasting Methodology
 - 2.8.1. Data Triangulation & Validation

3. EXECUTIVE SUMMARY

4. IMPACT OF COVID-19 ON GLOBAL GRID SCALE ENERGY STORAGE SYSTEMS MARKET

5. VOICE OF CUSTOMER

6. GLOBAL GRID SCALE ENERGY STORAGE SYSTEMS MARKET OVERVIEW

7. GLOBAL GRID SCALE ENERGY STORAGE SYSTEMS MARKET OUTLOOK

7.1. Market Size & Forecast

7.1.1. By Value

7.2. Market Share & Forecast

7.2.1. By Battery Type (Lithium-Ion, Lead Acid, Flow Battery, Sodium-Based Battery and Others)

7.2.2. By Ownership Model (Third Party-Owned and Utility-Owned)

7.2.3. By Application (Renewable Integration, Peak Shifting, Backup Power, Ancillary Services and Others)

7.2.4. By Region (North America, Europe, South America, Middle East & Africa, Asia Pacific)

7.3. By Company (2022)

7.4. Market Map

8. NORTH AMERICA GRID SCALE ENERGY STORAGE SYSTEMS MARKET OUTLOOK

8.1. Market Size & Forecast

8.1.1. By Value

8.2. Market Share & Forecast

8.2.1. By Battery Type

8.2.2. By Ownership Model

8.2.3. By Application

8.2.4. By Country

8.3. North America: Country Analysis

8.3.1. United States Grid Scale Energy Storage Systems Market Outlook

8.3.1.1. Market Size & Forecast

8.3.1.1.1. By Value

8.3.1.2. Market Share & Forecast

8.3.1.2.1. By Battery Type

8.3.1.2.2. By Ownership Model

8.3.1.2.3. By Application

8.3.2. Canada Grid Scale Energy Storage Systems Market Outlook

8.3.2.1. Market Size & Forecast

8.3.2.1.1. By Value

8.3.2.2. Market Share & Forecast

8.3.2.2.1. By Battery Type

8.3.2.2.2. By Ownership Model

- 8.3.2.2.3. By Application
- 8.3.3. Mexico Grid Scale Energy Storage Systems Market Outlook
 - 8.3.3.1. Market Size & Forecast
 - 8.3.3.1.1. By Value
 - 8.3.3.2. Market Share & Forecast
 - 8.3.3.2.1. By Battery Type
 - 8.3.3.2.2. By Ownership Model
 - 8.3.3.2.3. By Application

9. EUROPE GRID SCALE ENERGY STORAGE SYSTEMS MARKET OUTLOOK

- 9.1. Market Size & Forecast
 - 9.1.1. By Value
- 9.2. Market Share & Forecast
 - 9.2.1. By Battery Type
 - 9.2.2. By Ownership Model
 - 9.2.3. By Application
 - 9.2.4. By Country
- 9.3. Europe: Country Analysis
 - 9.3.1. Germany Grid Scale Energy Storage Systems Market Outlook
 - 9.3.1.1. Market Size & Forecast
 - 9.3.1.1.1. By Value
 - 9.3.1.2. Market Share & Forecast
 - 9.3.1.2.1. By Battery Type
 - 9.3.1.2.2. By Ownership Model
 - 9.3.1.2.3. By Application
 - 9.3.2. France Grid Scale Energy Storage Systems Market Outlook
 - 9.3.2.1. Market Size & Forecast
 - 9.3.2.1.1. By Value
 - 9.3.2.2. Market Share & Forecast
 - 9.3.2.2.1. By Battery Type
 - 9.3.2.2.2. By Ownership Model
 - 9.3.2.2.3. By Application
 - 9.3.3. United Kingdom Grid Scale Energy Storage Systems Market Outlook
 - 9.3.3.1. Market Size & Forecast
 - 9.3.3.1.1. By Value
 - 9.3.3.2. Market Share & Forecast
 - 9.3.3.2.1. By Battery Type
 - 9.3.3.2.2. By Ownership Model

- 9.3.3.2.3. By Application
- 9.3.4. Italy Grid Scale Energy Storage Systems Market Outlook
 - 9.3.4.1. Market Size & Forecast
 - 9.3.4.1.1. By Value
 - 9.3.4.2. Market Share & Forecast
 - 9.3.4.2.1. By Battery Type
 - 9.3.4.2.2. By Ownership Model
 - 9.3.4.2.3. By Application
- 9.3.5. Spain Grid Scale Energy Storage Systems Market Outlook
 - 9.3.5.1. Market Size & Forecast
 - 9.3.5.1.1. By Value
 - 9.3.5.2. Market Share & Forecast
 - 9.3.5.2.1. By Battery Type
 - 9.3.5.2.2. By Ownership Model
 - 9.3.5.2.3. By Application
- 9.3.6. Netherlands Grid Scale Energy Storage Systems Market Outlook
 - 9.3.6.1. Market Size & Forecast
 - 9.3.6.1.1. By Value
 - 9.3.6.2. Market Share & Forecast
 - 9.3.6.2.1. By Battery Type
 - 9.3.6.2.2. By Ownership Model
 - 9.3.6.2.3. By Application
- 9.3.7. Belgium Grid Scale Energy Storage Systems Market Outlook
 - 9.3.7.1. Market Size & Forecast
 - 9.3.7.1.1. By Value
 - 9.3.7.2. Market Share & Forecast
 - 9.3.7.2.1. By Battery Type
 - 9.3.7.2.2. By Ownership Model
 - 9.3.7.2.3. By Application

10. SOUTH AMERICA GRID SCALE ENERGY STORAGE SYSTEMS MARKET OUTLOOK

- 10.1. Market Size & Forecast
 - 10.1.1. By Value
- 10.2. Market Share & Forecast
 - 10.2.1. By Battery Type
 - 10.2.2. By Ownership Model
 - 10.2.3. By Application

10.2.4. By Country

10.3. South America: Country Analysis

10.3.1. Brazil Grid Scale Energy Storage Systems Market Outlook

10.3.1.1. Market Size & Forecast

10.3.1.1.1. By Value

10.3.1.2. Market Share & Forecast

10.3.1.2.1. By Battery Type

10.3.1.2.2. By Ownership Model

10.3.1.2.3. By Application

10.3.2. Colombia Grid Scale Energy Storage Systems Market Outlook

10.3.2.1. Market Size & Forecast

10.3.2.1.1. By Value

10.3.2.2. Market Share & Forecast

10.3.2.2.1. By Battery Type

10.3.2.2.2. By Ownership Model

10.3.2.2.3. By Application

10.3.3. Argentina Grid Scale Energy Storage Systems Market Outlook

10.3.3.1. Market Size & Forecast

10.3.3.1.1. By Value

10.3.3.2. Market Share & Forecast

10.3.3.2.1. By Battery Type

10.3.3.2.2. By Ownership Model

10.3.3.2.3. By Application

10.3.4. Chile Grid Scale Energy Storage Systems Market Outlook

10.3.4.1. Market Size & Forecast

10.3.4.1.1. By Value

10.3.4.2. Market Share & Forecast

10.3.4.2.1. By Battery Type

10.3.4.2.2. By Ownership Model

10.3.4.2.3. By Application

11. MIDDLE EAST & AFRICA GRID SCALE ENERGY STORAGE SYSTEMS MARKET OUTLOOK

11.1. Market Size & Forecast

11.1.1. By Value

11.2. Market Share & Forecast

11.2.1. By Battery Type

11.2.2. By Ownership Model

- 11.2.3. By Application
- 11.2.4. By Country
- 11.3. Middle East & Africa: Country Analysis
 - 11.3.1. Saudi Arabia Grid Scale Energy Storage Systems Market Outlook
 - 11.3.1.1. Market Size & Forecast
 - 11.3.1.1.1. By Value
 - 11.3.1.2. Market Share & Forecast
 - 11.3.1.2.1. By Battery Type
 - 11.3.1.2.2. By Ownership Model
 - 11.3.1.2.3. By Application
 - 11.3.2. UAE Grid Scale Energy Storage Systems Market Outlook
 - 11.3.2.1. Market Size & Forecast
 - 11.3.2.1.1. By Value
 - 11.3.2.2. Market Share & Forecast
 - 11.3.2.2.1. By Battery Type
 - 11.3.2.2.2. By Ownership Model
 - 11.3.2.2.3. By Application
 - 11.3.3. South Africa Grid Scale Energy Storage Systems Market Outlook
 - 11.3.3.1. Market Size & Forecast
 - 11.3.3.1.1. By Value
 - 11.3.3.2. Market Share & Forecast
 - 11.3.3.2.1. By Battery Type
 - 11.3.3.2.2. By Ownership Model
 - 11.3.3.2.3. By Application
 - 11.3.4. Turkey Grid Scale Energy Storage Systems Market Outlook
 - 11.3.4.1. Market Size & Forecast
 - 11.3.4.1.1. By Value
 - 11.3.4.2. Market Share & Forecast
 - 11.3.4.2.1. By Battery Type
 - 11.3.4.2.2. By Ownership Model
 - 11.3.4.2.3. By Application

12. ASIA PACIFIC GRID SCALE ENERGY STORAGE SYSTEMS MARKET OUTLOOK

- 12.1. Market Size & Forecast
 - 12.1.1. By Battery Type
 - 12.1.2. By Ownership Model
 - 12.1.3. By Application

12.1.4. By Country

12.2. Asia-Pacific: Country Analysis

12.2.1. China Grid Scale Energy Storage Systems Market Outlook

12.2.1.1. Market Size & Forecast

12.2.1.1.1. By Value

12.2.1.2. Market Share & Forecast

12.2.1.2.1. By Battery Type

12.2.1.2.2. By Ownership Model

12.2.1.2.3. By Application

12.2.2. India Grid Scale Energy Storage Systems Market Outlook

12.2.2.1. Market Size & Forecast

12.2.2.1.1. By Value

12.2.2.2. Market Share & Forecast

12.2.2.2.1. By Battery Type

12.2.2.2.2. By Ownership Model

12.2.2.2.3. By Application

12.2.3. Japan Grid Scale Energy Storage Systems Market Outlook

12.2.3.1. Market Size & Forecast

12.2.3.1.1. By Value

12.2.3.2. Market Share & Forecast

12.2.3.2.1. By Battery Type

12.2.3.2.2. By Ownership Model

12.2.3.2.3. By Application

12.2.4. South Korea Grid Scale Energy Storage Systems Market Outlook

12.2.4.1. Market Size & Forecast

12.2.4.1.1. By Value

12.2.4.2. Market Share & Forecast

12.2.4.2.1. By Battery Type

12.2.4.2.2. By Ownership Model

12.2.4.2.3. By Application

12.2.5. Australia Grid Scale Energy Storage Systems Market Outlook

12.2.5.1. Market Size & Forecast

12.2.5.1.1. By Value

12.2.5.2. Market Share & Forecast

12.2.5.2.1. By Battery Type

12.2.5.2.2. By Ownership Model

12.2.5.2.3. By Application

12.2.6. Thailand Grid Scale Energy Storage Systems Market Outlook

12.2.6.1. Market Size & Forecast

- 12.2.6.1.1. By Value
- 12.2.6.2. Market Share & Forecast
 - 12.2.6.2.1. By Battery Type
 - 12.2.6.2.2. By Ownership Model
 - 12.2.6.2.3. By Application
- 12.2.7. Malaysia Grid Scale Energy Storage Systems Market Outlook
 - 12.2.7.1. Market Size & Forecast
 - 12.2.7.1.1. By Value
 - 12.2.7.2. Market Share & Forecast
 - 12.2.7.2.1. By Battery Type
 - 12.2.7.2.2. By Ownership Model
 - 12.2.7.2.3. By Application

13. MARKET DYNAMICS

- 13.1. Drivers
- 13.2. Challenges

14. MARKET TRENDS AND DEVELOPMENTS

15. COMPANY PROFILES

- 15.1. Tesla, Inc.
 - 15.1.1. Business Overview
 - 15.1.2. Key Revenue and Financials
 - 15.1.3. Recent Developments
 - 15.1.4. Key Personnel/Key Contact Person
 - 15.1.5. Key Product/Services Offered
- 15.2. AES Energy Storage
 - 15.2.1. Business Overview
 - 15.2.2. Key Revenue and Financials
 - 15.2.3. Recent Developments
 - 15.2.4. Key Personnel/Key Contact Person
 - 15.2.5. Key Product/Services Offered
- 15.3. Siemens Energy
 - 15.3.1. Business Overview
 - 15.3.2. Key Revenue and Financials
 - 15.3.3. Recent Developments

- 15.3.4. Key Personnel/Key Contact Person
- 15.3.5. Key Product/Services Offered
- 15.4. Schneider Electric
 - 15.4.1. Business Overview
 - 15.4.2. Key Revenue and Financials
 - 15.4.3. Recent Developments
 - 15.4.4. Key Personnel/Key Contact Person
 - 15.4.5. Key Product/Services Offered
- 15.5. Samsung SDI
 - 15.5.1. Business Overview
 - 15.5.2. Key Revenue and Financials
 - 15.5.3. Recent Developments
 - 15.5.4. Key Personnel/Key Contact Person
 - 15.5.5. Key Product/Services Offered
- 15.6. LG Energy Solution
 - 15.6.1. Business Overview
 - 15.6.2. Key Revenue and Financials
 - 15.6.3. Recent Developments
 - 15.6.4. Key Personnel/Key Contact Person
 - 15.6.5. Key Product/Services Offered
- 15.7. BYD Company Limited
 - 15.7.1. Business Overview
 - 15.7.2. Key Revenue and Financials
 - 15.7.3. Recent Developments
 - 15.7.4. Key Personnel/Key Contact Person
 - 15.7.5. Key Product/Services Offered
- 15.8. GE Renewable Energy
 - 15.8.1. Business Overview
 - 15.8.2. Key Revenue and Financials
 - 15.8.3. Recent Developments
 - 15.8.4. Key Personnel/Key Contact Person
 - 15.8.5. Key Product/Services Offered
- 15.9. Eos Energy Storage
 - 15.9.1. Business Overview
 - 15.9.2. Key Revenue and Financials
 - 15.9.3. Recent Developments
 - 15.9.4. Key Personnel/Key Contact Person
 - 15.9.5. Key Product/Services Offered
- 15.10. NEC Energy Solutions

- 15.10.1. Business Overview
- 15.10.2. Key Revenue and Financials
- 15.10.3. Recent Developments
- 15.10.4. Key Personnel/Key Contact Person
- 15.10.5. Key Product/Services Offered

16. STRATEGIC RECOMMENDATIONS

17. ABOUT US & DISCLAIMER

I would like to order

Product name: Grid Scale Energy Storage Systems Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, 2018-2028 Segmented By Battery Type (Lithium-Ion, Lead Acid, Flow Battery, Sodium-Based Battery and Others), By Ownership Model (Third Party-Owned and Utility-Owned), By Application (Renewable Integration, Peak Shifting, Backup Power, Ancillary Services and Others), By Region, and By Competition

Product link: <https://marketpublishers.com/r/G23DDC2FDF2AEN.html>

Price: US\$ 4,900.00 (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/G23DDC2FDF2AEN.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