

Grid Energy Storage: Market Research Report

<https://marketpublishers.com/r/G814E4684D8EN.html>

Date: January 2015

Pages: 411

Price: US\$ 4,500.00 (Single User License)

ID: G814E4684D8EN

Abstracts

This report analyzes the worldwide markets for Grid Energy Storage in terms of Capacity Installations in Megawatts by the following Technologies: Pumped Hydro, and Others. The report provides separate comprehensive analytics for the US, Japan, Europe, Asia-Pacific, and Rest of World. Annual estimates and forecasts are provided for the period 2014 through 2020. Also, a seven-year historic analysis is provided for these markets. Market data and analytics are derived from primary and secondary research. Company profiles are primarily based on public domain information including company URLs. The report profiles 157 companies including many key and niche players such as -

ABB Ltd.

AES Corporation

Alevo Group SA

Aquion Energy

Beacon Power, LLC

Contents

I. INTRODUCTION, METHODOLOGY & PRODUCT DEFINITIONS

Study Reliability and Reporting Limitations
Disclaimers
Data Interpretation & Reporting Level
Quantitative Techniques & Analytics
Product Definitions and Scope of Study

II. EXECUTIVE SUMMARY

1. INDUSTRY OVERVIEW

Grid Energy Storage: Enabling Predictable, Reliable and Stable Power Supply

Table 1. Number of Energy Storage Projects by Country: 2014 (includes corresponding Graph/Chart)

Table 2. Various Energy Storage Technologies Ranked on the Basis of Cost (\$/KW) (includes corresponding Graph/Chart)

Growth Drivers in a Nutshell

Grid Energy Storage: A Game Changer for Renewable Energy?

Myriad Benefits of Grid Energy Storage to Drive Market Adoption

Key Advantages of Different Large Scale Energy Storage Technologies

Energy Storage Technologies: Key Features Comparison for PHS, CAES, Flywheel, NaS Battery, Li-ion Battery, Flow Battery, Supercapacitor, SMES, Molten Salt, Hydrogen, and SNG Technology

Major Application Areas and Services for Energy Storage on the Grid

Large Scale Grid Energy Storage: More Economical in Base Load Power Plants

Global Market Outlook

Competitive Landscape

Major Companies and their Technologies in Use for Large Scale Grid Energy Storage

Leading Energy Storage Companies Worldwide: Snapshot Profiles

ABB

AES Energy Storage

Alevo
Aquion Energy
BYD
CODA Energy
Electrovaya
EnerVault
Eos Energy Storage
General Electric
Green Charge Networks
Greensmith
LG Chem
NEC Corporation
NRG Energy
Primus Power
Princeton Power
S&C Electric Company
Seeo
Siemens
Solar Grid Storage
SolarCity and Tesla
Sonnenbatterie
Yunicos
Li-ion Battery Manufacturers Offer Varied Solutions for Grid Applications
Large Corporations to Acquire Smaller Start-Ups
Start-Ups Grow Attractive
Battery Market Becoming Increasingly Attractive for New Entrants
Battery Storage Systems Integrators: A Vital Part of the Supply Chain

2. MARKET TRENDS, ISSUES AND DRIVERS

The Imminent Shift towards Renewable Energy & the Resulting Need for Efficient Storage: A Strong Growth Driver
Rising Prominence of the Renewable Energy Sector Benefits Market Expansion
Leading Wind Power Countries Worldwide (2013): Ranking Based on Key Wind Power Facts
Important Opportunity Indicators

Table 3. Global Investments (US\$ Billion) in Renewable Energy by Source: 2013

(includes corresponding Graph/Chart)

Table 4. Global PV Installations by Applications (2014E & 2016F): Percentage Share Breakdown of Capacity Installations for Commercial, Off-Grid, Residential, and Utility-Scale (includes corresponding Graph/Chart)

Table 5. International Targets for Solar Photovoltaics for Select Countries

Table 6. World Installed Base of Wind Energy (in Megawatts) by Geographic Region: 2013, 2015E & 2017F (includes corresponding Graph/Chart)

Pumped Hydro Storage: Dominant Energy Storage Technology for Grid Applications

Table 7. Global Energy Storage Market by Technology (2014): Percentage Share Breakdown of Installed Capacity for Traditional Pumped Storage and Other Technologies (includes corresponding Graph/Chart)

Table 8. Global Energy Storage Market by Technology Other than Pumped Storage (2014): Percentage Share Breakdown of Installed Capacity for Capacitor, Compressed Air, Flow Battery, Flywheel, Gravitational Storage, Lead Acid Battery, Li-ion, Molten Salt Energy and Others (includes corresponding Graph/Chart)

Falling Prices of PV and Li-ion Batteries Bodes Well for Market Penetration
Plunging Battery Costs Improve Prospects for Energy Storage
Battery Storage Offers Tremendous Potential for Renewables Integration
Characteristics of Select Battery Technology Types

Table 9. Leading Energy Storage Technologies by Type (2013): Percentage Share Breakdown of Volume Usage for Battery, Compressed Air, Flywheel, Pumped Hydro, Thermal Storage, and Others (includes corresponding Graph/Chart)

Superior Attributes over Conventional Storage Technologies to Drive Adoption
Lithium ion (Li-ion) Dominates the Battery Grid Energy Storage Market

Table 10. Global Market for Li-ion Battery by End-Use (2014E & 2019F): Percentage Share Breakdown of Volume Usage for Automotive, Consumer, Grid/ Renewable Energy Storage, and Industrial Sectors (includes corresponding Graph/Chart)

Increasing Demand for Electric/Hybrid Cars Boosts Demand for Li-ion Batteries for Onboard Energy Storage

Table 11. World Market for Electric Vehicles (2013): Percentage Breakdown of Unit Sales by Product Type (includes corresponding Graph/Chart)

Despite Competition from Li-ion Batteries, NaS (Sodium Sulfur) Batteries Continue to Sustain Growth

Table 12. Production Cost Breakdown (%) of a Typical NaS Battery Storage Plant (includes corresponding Graph/Chart)

Favorable Regulatory Environment Bodes Well for Battery Storage Systems
Frequency Regulation Service
Microgrids Offers a Strong Business Case for Energy Storage

Table 13. Few of the Largest Power Blackouts/ Outages Worldwide: 1965-2015

Increasing Deployments of Solar Microgrids to Spur Growth
Ultracapacitor-Based Grid Storage to Replace Battery Technology in the Long Run

Table 14. World Market for Ultracapacitors (2015F): Breakdown of Revenues in US\$ Million by Geographic Region (includes corresponding Graph/Chart)

Hydrogen Energy Storage Systems to Witness Extended Opportunities in Grid Energy

Storage

Molten Salt Energy Storage Systems Witness Increasing Adoption in CSP Plants

Growing Investments in CSP Projects Bodes Well for Molten Salt Storage Systems

Table 15. Top Ten Countries Worldwide with the Highest Concentrated Solar Power Plant Capacities: 2013 (includes corresponding Graph/Chart)

Table 16. Cumulative Capacity Installations of Concentrated Solar Power over the Period 2005- 2013 (includes corresponding Graph/Chart)

EU's Desertec to Offer Major Boost to Concentrated Solar Power

The Smart Grid Standard: Opportunities Galore for Storage Technologies Adoption

Key Factors Driving Transition towards a Smarter Grid

Robust Electric Power Consumption Drives the Need for Alternative Energy Sources and Storage

Table 17. Global Electricity Consumption in TWh for Years 2000, 2015 & 2030 (includes corresponding Graph/Chart)

Table 18. Global Electricity Production by Country (2013): Percentage Breakdown of Electricity Production Volume for China, United States, India, Russia, Japan, Canada, Germany, Brazil, France, South Korea, and Others (includes corresponding Graph/Chart)

Table 19. Global Electricity Consumption by Country (2013): Percentage Breakdown of Electricity Consumption Volume for China, United States, Japan, Russia, India, Germany, Canada, Brazil, South Korea, France, and Others (includes corresponding Graph/Chart)

Table 20. Projected Global Demand for Primary Energy (Mtoe) and Electricity (MWh): 2015, 2020, 2025, 2030 & 2035 (includes corresponding Graph/Chart)

Table 21. Estimated Global Power Generation Infrastructure Requirement (in US\$ Billion) for China, India, Latin America, and North America over the Period 2010-2030 (includes corresponding Graph/Chart)

Burgeoning Global Population Propels Demand for Electric Power and Energy Storage

Table 22. Global Population Estimates (2000-2050) (includes corresponding Graph/Chart)

Key Barriers to Widespread Deployment of Grid Energy Storage

3. ENERGY STORAGE INNOVATIONS & ADVANCEMENTS

Innovative Battery Storage Systems

Low-Cost Batteries for Micro-and Off-Grid Applications

Advanced Battery Systems

Electrochemical Flow Capacitor

Molybdenum Disulfide Breakthrough in Energy Storage

Uber: A UltraBattery Developed for Microgrids

Liquid Battery System Upgrades

Turnkey DC-Battery Based Energy Storage Systems

Innovative High-Efficiency Energy Storage System

Nanotechnology: The Future of Energy Storage

Nanotubular Bulk Material with Ultra-Low Density

Compressed Air Energy Storage Systems that Eliminate/Reduce Use of Fossil Fuels

Affordable Batteries with High Durability and Advanced Chemical Compositions

Hydrogen Electrolysis: A Potential Laden Energy Storage Solution

4. PRODUCT OVERVIEW

Grid Energy Storage – An Introduction

Energy Storage Technologies: Classification

Various Energy Storage Technologies: Key Advantages & Disadvantages

Different Forms of Grid Storage

Air

Liquid Air

Compressed Air

Batteries

Technical Characteristics of Different Battery Types Used for Energy Storage

Lead-Acid Batteries

Advanced Lead-Acid Batteries

Molten Salt Batteries
Lithium-Ion Batteries
Flow Batteries
Other Battery Technologies
Flywheel
Pumped-Hydro Storage
Superconducting Magnetic Energy Storage
Thermal
Commercially Available Grid Energy Storage Technologies
VRLA Batteries
Lithium-Ion/Lithium-Ion Polymer Batteries
Nickel-Based Batteries
Flow Batteries
Molten-Salt Batteries
Flywheels
Hydrogen Fuel Cells
Pumped hydro
Compressed air
Grid Energy Storage Applications
Grid Forming
Grid Support
Load Shifting and Peak-Demand Management
Self-Consumption

5. GRID ENERGY STORAGE INNOVATIONS/ INTRODUCTIONS

NEC Energy Launches the New SLD Technology for Grid Energy Storage
Johnson Controls Introduces New Storage Solutions for Stationary Grid Energy Storage Market in North America
Moixa Introduces the Maslow GridShare Platform for Residential Energy Storage
Greensmith Adds the Functionality of Energy Storage Aggregation to the Company's GEMS Software Platform
NEC Energy Adds New Product to the Company's GSS grid energy storage platform
BYD and ABB to Jointly Develop Novel Energy Storage Systems
A123 Systems Launches A123 Energy Solutions

6. RECENT INDUSTRY ACTIVITY

GE Takes Over Energy Operations of Alstom

Enel to Acquire Enel Green Power

SunEdison Acquires Solar Grid Storage's Storage Projects

A Group of Six Companies to Come together to Introduce and Commercialize Storage Technologies for Modern Grids

Alevo Group Collaborates with Systems Control for Developing GridBank Energy Storage Enclosures

Alevo Group Collaborates with China-ZK International Energy for Promotion and Commercialization of Storage Technologies in China

NEC Energy Collaborates with Amergin for Deploying Integrated Battery Storage for Grid Scale Storage

NEC Energy Completes Installation of 3.9 MWh Grid Energy Storage System in California

GE to Supply 7 MW Hour Battery Storage to Convergent Energy

SunEdison Takes Over Solar Grid Storage, Marks its Entry in the Energy Storage Market

KEPCO of Korea Inks MoU with the Maryland State for Offering Co-operation in Energy Storage and Smart Grid Projects

S&C Bags Contract to Build a Large Energy Storage System in the State of Ohio

NEC Installs a 5.7 MWh Grid Scale Energy Storage Project in the United Kingdom

DNV GL Sets Up GRIDSTOR, a Joint Industry Project for Developing Grid Energy Storage Systems

NEC and Wanxiang to Set a Joint Venture for Grid Energy Storage Development

Primus and Sanmina Corporation Enter into a Deal for Manufacturing Grid Scale Electrical Energy Storage System

A123 Energy Installs 500 KW Grids Scale Storage Solution in China

NEC Takes Over Commercial Systems and Grid Energy Storage Business of A123 Energy

Saft Bags Order for Supplying Li-ion Battery Storage Systems to Kauai Island Electrical Grid

A123 Energy Commissions Long Duration Grid Storage Solution for Maui Electric Company in Hawaii

Aquion Inks an MoU with Siemens for Testing Aquion's Batteries with Sinamics S120 Drive Technology of Siemens

Moixa Technology Bags DECC Contract for Energy Storage Innovation

Hydrostor Bags Order to Supply Underwater- Compressed Air Energy Storage System to a Commercial Utility in Aruba

NEC and Acea Collaborate to Install Energy Storage Systems for a Roman Smart Grid Project

Electricity Storage Association and the Solar Energy Industries Association Partner to

Promote Deployment of Grid-Scale Energy Storage Systems

7. FOCUS ON SELECT GLOBAL PLAYERS

ABB Ltd. (Switzerland)
AES Corporation (US)
Alevo Group SA (Switzerland)
Aquion Energy (US)
Beacon Power, LLC (US)
BYD Co. Ltd. (China)
East Penn Manufacturing Company, Inc. (US)
Electrovaya Inc. (Canada)
EnSync Inc. (US)
GE Energy (US)
Green Charge Networks (US)
LG Chem Ltd. (South Korea)
LightSail Energy (US)
NEC Energy Solutions (Japan)
NGK Insulators, Ltd. (Japan)
Primus Power (US)
Redflow Limited (Australia)
S&C Electric Company (US)
Saft Groupe S. A. (France)
Samsung SDI Co., Ltd. (South Korea)
SustainX Inc. (US)

8. GLOBAL MARKET PERSPECTIVE

Table 23. World Recent Past, Current & Future Analysis for Grid Energy Storage by Geographic Region/Country - US, Japan, Europe, Asia-Pacific (excluding Japan) and Rest of World Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 24. World 6-Year Perspective for Grid Energy Storage by Geographic Region/Country - Percentage Breakdown of Capacity Installations for US, Japan, Europe, Asia-Pacific (excluding Japan) and Rest of World Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

Analysis by Technology

Table 25. World Recent Past, Current & Future Analysis for Pumped Hydro Energy Storage Technology by Geographic Region/Country - US, Japan, Europe, Asia-Pacific (excluding Japan) and Rest of World Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 26. World 6-Year Perspective for Pumped Hydro Energy Storage Technology by Geographic Region/ Country - Percentage Breakdown of Capacity Installations for US, Japan, Europe, Asia-Pacific (excluding Japan) and Rest of World Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

Table 27. World Recent Past, Current & Future Analysis for Other Grid Energy Storage Technologies by Geographic Region/Country - US, Japan, Europe, Asia-Pacific (excluding Japan) and Rest of World Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 28. World 6-Year Perspective for Other Grid Energy Storage Technologies by Geographic Region/Country - Percentage Breakdown of Capacity Installations for US, Japan, Europe, Asia-Pacific (excluding Japan) and Rest of World Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

III. MARKET

1. THE UNITED STATES

A. Market Analysis

The US to Lead Future Market Growth

Aging Grid Infrastructure and a Techno-Centric Economy: Key Growth Drivers

Select Energy Storage Deployments in the US: Brief Details of Technology, Potential/Actual Applications, Commercial Availability, Company, and Estimated Cost
Manufacturers Gear Up to Promote Grid Scale Energy Storage

Noteworthy Startups in the US Energy Storage Market: Snapshot Profiles

Aquion Energy

Ambri

Advanced Microgrid Solutions

Coda Energy
EnerVault
Growing Energy Labs, Inc.
Ice Energy
Imergy Power Systems
Stem
Solar Grid Storage
Sunverge Energy
Rising Number of Energy Storage Projects offer Significant Growth Opportunities
Governmental Investments in New Energy Storage Solutions
Major Energy Storage Related Initiatives in 2014
Key Trends Shaping the US Energy Storage Market
Closures of Coal Fired Plants to Benefit Growth in Energy Storage Market
Bright Outlook for Solar Energy to Drive Market Demand

Table 29. Major Solar Projects in Development Phase/Operational in the US (2014): Brief Details of Project Name, Capacity in MW, and Location (State) (includes corresponding Graph/Chart)

Table 30. Power Plant Capacity Additions in the US by Type of Power (2013): Capacity Additions (in MW) for Biomass, Coal, Hydroelectric, Natural Gas, Solar, Wind, and Others (includes corresponding Graph/Chart)

Steady Decline in Grid-Scale LCOE to Expand Scope

Table 31. Utility-Scale Solar PV Costs by Segment: 2011 & 2013 (includes corresponding Graph/Chart)

NYC Utility's Ambitious Plans for Energy Efficiency to Drive ESS Growth

Table 32. Incentives under ConEd's Demand Management Program by Storage Technology

Small-Scale Renewable Energy Projects: A Threat to Grid-Scale Energy Storage?

Favorable Regulations/Legislations Benefit Market Prospects

New Emission Regulations

Product Launches

Recent Industry Activity

Select Key Players

B. Market Analytics

Table 33. US Recent Past, Current & Future Analysis for Grid Energy Storage by Technology - Pumped Hydro and Others Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 34. US Historic Review for Grid Energy Storage by Technology - Pumped Hydro and Others Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2010 through 2013 (includes corresponding Graph/Chart)

Table 35. US 6-Year Perspective for Grid Energy Storage by Technology - Percentage Breakdown of Capacity Installations for Pumped Hydro and Others Markets for Years 2010, 2015 & 2020 (includes corresponding Graph/Chart)

2. JAPAN

A. Market Analysis

Japan's Focus on Renewable Energy Augurs Well for the Market

Japan: An Attractive Market for Grid Energy Storage Startups

Japanese Energy Storage Market: A Macro Perspective

Product Launch

Recent Industry Activity

Select Key Players

B. Market Analytics

Table 36. Japanese Recent Past, Current & Future Analysis for Grid Energy Storage by Technology - Pumped Hydro and Others Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 37. Japanese 6-Year Perspective for Grid Energy Storage by Technology - Percentage Breakdown of Capacity Installations for Pumped Hydro and Others Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

3. EUROPE

A. Market Analysis

Europe: Leading Grid Energy Storage Market Worldwide

Rising Contribution of Renewable Energy Generation Spurs the Need for Grid Energy Storage

Grid Scale Energy Storage Gain Momentum in Western Europe

Battery Energy Storage Technologies to Play Vital Role in Smart Grid Applications in Europe

Declining LCOE Set to Benefit Grid Scale Wind and Solar Power Storage

Energy Associations Draw Up Roadmap for Developing Energy Storage Technologies

B. Market Analytics

Table 38. European Recent Past, Current & Future Analysis for Grid Energy Storage by Geographic Region/Country - France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 39. European 6-Year Perspective for Grid Energy Storage by Geographic Region/ Country - Percentage Breakdown of Capacity Installations for France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

Table 40. European Recent Past, Current & Future Analysis for Grid Energy Storage by Technology - Pumped Hydro and Others Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 41. European 6-Year Perspective for Grid Energy Storage by Technology - Percentage Breakdown of Capacity Installations for Pumped Hydro and Others Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

3A. FRANCE

A. Market Analysis

Alstom and Saft Announce Commencement of BESS at EDF's Concept Grid Lab

Select Key Player

B. Market Analytics

Table 42. French Recent Past, Current & Future Analysis for Grid Energy Storage by Technology - Pumped Hydro and Others Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 43. French 6-Year Perspective for Grid Energy Storage by Technology - Percentage Breakdown of Capacity Installations for Pumped Hydro and Others Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

3B. GERMANY

A. Market Analysis

Rising Demand for Electricity Creates Need for Alternative Storage Technologies

Increasing Focus on Renewable Generation to Boost Market Demand

Rising Wind-Hydrogen Energy Storage Projects in Germany

Use of Large-Scale Battery Storage Systems to Control Grid Frequency Surges

Power-to-Gas Storage Projects Aids in Cutting Demand for Power by the Transportation Sector

New Reforms to Provide Lucrative Opportunities for Market Participants

Energy Storage Solutions Essential for Expansion of Solar Capacity Installations

B. Market Analytics

Table 44. German Recent Past, Current & Future Analysis for Grid Energy Storage by Technology - Pumped Hydro and Others Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 45. German 6-Year Perspective for Grid Energy Storage by Technology - Percentage Breakdown of Capacity Installations for Pumped Hydro and Others Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

3C. ITALY

A. Market Analysis

Italy Leads Battery Technology Deployment in Europe for Grid Energy Storage

Siemens and Enel Deploy Energy Storage System in Italy

Use of Siestorage for Black Start

Recent Industry Activity

B. Market Analytics

Table 46. Italian Recent Past, Current & Future Analysis for Grid Energy Storage by Technology - Pumped Hydro and Others Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 47. Italian 6-Year Perspective for Grid Energy Storage by Technology - Percentage Breakdown of Capacity Installations for Pumped Hydro and Others Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

3D. THE UNITED KINGDOM

A. Market Analysis

Evolving Role of Storage Technologies in the Energy Grid System

Strategic Blueprint and Efforts by Participants: Need of the Hour for the Energy Storage Market

Product Launch

Recent Industry Activity

B. Market Analytics

Table 48. UK Recent Past, Current & Future Analysis for Grid Energy Storage by Technology - Pumped Hydro and Others Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 49. UK 6-Year Perspective for Grid Energy Storage by Technology - Percentage Breakdown of Capacity Installations for Pumped Hydro and Others Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

3E. SPAIN

Market Analysis

Table 50. Spanish Recent Past, Current & Future Analysis for Grid Energy Storage by Technology - Pumped Hydro and Others Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 51. Spanish 6-Year Perspective for Grid Energy Storage by Technology - Percentage Breakdown of Capacity Installations for Pumped Hydro and Others Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

3F. RUSSIA

Market Analysis

Table 52. Russian Recent Past, Current & Future Analysis for Grid Energy Storage by Technology - Pumped Hydro and Others Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 53. Russian 6-Year Perspective for Grid Energy Storage by Technology - Percentage Breakdown of Capacity Installations for Pumped Hydro and Others Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

3G. REST OF EUROPE

A. Market Analysis

Recent Industry Activity

Select Key Players

B. Market Analytics

Table 54. Rest of Europe Recent Past, Current & Future Analysis for Grid Energy Storage by Technology - Pumped Hydro and Others Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 55. Rest of Europe 6-Year Perspective for Grid Energy Storage by Technology - Percentage Breakdown of Capacity Installations for Pumped Hydro and Others Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

4. ASIA-PACIFIC

A. Market Analysis

Asia: A Potential Laden Market for All Types of Energy Storage Technologies

Major Growth Drivers of Energy Storage Technologies in Asia

Asia: A Leading Battery Systems Manufacturer Presents Huge Potential for Battery-Based Grid Energy Storage

Table 56. Asian Market for Battery Energy Storage Systems by Type (2014 & 2016F): Percentage Share Breakdown of Value Sales for Lead Acid, Lithium ion, Molten Salt, and Others (includes corresponding Graph/Chart)

Need for Technological Improvements for Realizing Cost Reductions

Flourishing Solar Power Market Offers Growth Opportunities

B. Market Analytics

Table 57. Asia-Pacific Recent Past, Current & Future Analysis for Grid Energy Storage by Geographic Region/Country - China and Rest of Asia-Pacific Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 58. Asia-Pacific 6-Year Perspective for Grid Energy Storage by Geographic Region/ Country - Percentage Breakdown of Capacity Installations for China and Rest of Asia-Pacific Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

Table 59. Asia-Pacific Recent Past, Current & Future Analysis for Grid Energy Storage by Technology - Pumped Hydro and Others Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 60. Asia-Pacific 6-Year Perspective for Grid Energy Storage by Technology - Percentage Breakdown of Capacity Installations for Pumped Hydro and Others Markets

for Years 2015 & 2020 (includes corresponding Graph/Chart)

4A. CHINA

A. Market Analysis

China: Booming Solar Industry to Drive Grid Scale Advanced Energy Storage

Energy Storage Market in China: An Overview

Policies and Regulatory Framework for Energy Storage in the Country

Product Launch

Recent Industry Activity

BYD Co. Ltd. – a Key China-Based Company

B. Market Analytics

Table 61. Chinese Recent Past, Current & Future Analysis for Grid Energy Storage by Technology - Pumped Hydro and Others Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 62. Chinese 6-Year Perspective for Grid Energy Storage by Technology - Percentage Breakdown of Capacity Installations for Pumped Hydro and Others Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

4B. REST OF ASIA-PACIFIC

A. Market Analysis

Australia: Solar Thermal Energy Represent an Affordable Source for the Grid

India: Increasing Adoption of Renewable Energy Augurs Well for Grid Level Advanced Energy Storage

India Set to Emerge as a Major Hub for Energy Storage Technologies

South Korea: Shift to Renewables to Meet Rising Power Demands Creates Demand for Storage

Recent Industry Activity

Select Key Players

B. Market Analytics

Table 63. Rest of Asia-Pacific Recent Past, Current & Future Analysis for Grid Energy Storage by Technology - Pumped Hydro and Others Markets Independently Analyzed

with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 64. Rest of Asia-Pacific 6-Year Perspective for Grid Energy Storage by Technology - Percentage Breakdown of Capacity Installations for Pumped Hydro and Others Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

5. REST OF WORLD

A. Market Analysis

Recent Industry Activity

Electrovaya Inc. – A Key Canada-Based Company

B. Market Analytics

Table 65. Rest of World Recent Past, Current & Future Analysis for Grid Energy Storage by Technology - Pumped Hydro and Others Markets Independently Analyzed with Capacity Installations in Megawatts for Years 2014 through 2020 (includes corresponding Graph/Chart)

Table 66. Rest of World 6-Year Perspective for Grid Energy Storage by Technology - Percentage Breakdown of Capacity Installations for Pumped Hydro and Others Markets for Years 2015 & 2020 (includes corresponding Graph/Chart)

IV. COMPETITIVE LANDSCAPE

Total Companies Profiled: 157 (including Divisions/Subsidiaries - 162)

The United States (94)

Canada (9)

Japan (5)

Europe (37)

France (5)

Germany (8)

The United Kingdom (9)

Italy (2)

Spain (3)

Rest of Europe (10)

Asia-Pacific (Excluding Japan) (16)

Middle-East (1)

I would like to order

Product name: Grid Energy Storage: Market Research Report

Product link: <https://marketpublishers.com/r/G814E4684D8EN.html>

Price: US\$ 4,500.00 (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/G814E4684D8EN.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