

The Grid Scale Battery Storage Market 2013-2023

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Abstracts

Report Details

The rising demand for electricity has led to an increasing demand for more flexible and efficient grid systems that can handle intermittent power generated by renewable sources such as solar and wind. This has given rise to governments and private companies investing in battery and other types of energy storage systems to provide backup sources which can time shift or provide energy arbitrage at times of low and high demand. The grid scale battery storage market is a fledging and vibrant market with vast potential for future growth. Visiongain has determined that the value of the global grid scale battery storage market in 2013 will reach \$1.17bn.

What makes this report unique?

Visiongain consulted with industry experts and full transcripts from these exclusive interviews are included in the report. As such, our reports have a unique blend of primary and secondary sources providing informed opinion. The report provides insight into key drivers and restraints behind contract and programme developments, as well as identifying leading companies. The report also provides a unique blend of qualitative analysis combined with extensive quantitative data including global, submarket and national markets forecasts from 2013-2023 - all highlighting key business opportunities.

Why you should buy The Grid Scale Battery Storage Market 2013-2023

191 pages of comprehensive analysis

4 Exclusive Visiongain interviews with experts from-
General Electric (GE)

EOS Energy Storage

Aquion Energy Inc.

Ecoult

138 tables, charts, and graphs

Global grid scale battery storage market forecasts between 2013-2023

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Advanced lead acid

Flow type batteries

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Sodium sulphur

Miscellaneous battery chemistries

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Germany

Italy

Japan

South Korea

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US

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A PEST analysis

27 leading companies identified and profiled

A123 Systems

Advanced Battery Systems Inc. (ABS Inc.)

AES Energy Storage

Altair Nanotechnologies Inc.

Ambri

Aquion Energy

Axion Power International Inc.

Boston Power

Build Your Dreams (BYD) Limited

Dow Kokam

Ecoult

EnerVault Corporation

Epsilor

GE Energy Storage

GS Yuasa

LG Chem Ltd.

M+W Group

Mitsubishi Heavy Industries (MHI) Ltd.

Nexeon

NGK Insulators Ltd.

Prudent Energy

RedFlow Limited

REDT (Renewable Energy Dynamics Technology Ltd.)

Saft

Toshiba Corporation

Valence Technology Inc.

ZBB Energy Corporation

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COMPANIES LISTED

1Energy Systems

24M

3M Company

a+f GmBH

A123 Systems

Abatel

ABB

Acea

Advanced Battery Systems Inc. (ABS Inc.)

Advanced Power and Energy Sources Transportation (APET)

AES Corporation

AES Energy Storage

AES Gener

AES Wind Generation Inc.

Alstom

Alstom Grid

Altair Nanotechnology Inc.

Ambri

American Electric Power (AEP)

American Municipal Power Inc.

American Vanadium Company

Amperex Technology Limited (ATL)

Appalachian Power Company

Applied Materials Inc.

Applied Power

Aquion Energy Inc.
Arotech Corporation
Arothron Ltd.
Ashlawn Energy LLC
Ausgrid
Axion Power International Inc.
Beacon Power
Beta-R&D
Boston Consulting Group (BCG)
Boston Power
BP
BYD Company
C&D Technologies
Camco Clean Energy
Castle & Cooke
Catalyst Energy Technologies Inc.
CEL Partners
Cellenium Company Limited
Cellstrom GmbH
China Aviation Lithium Battery Co. Ltd.
China BAK Battery Inc.
Citi Bank
Clean Energy Trust
Cobasys
Commercial Energy of California
Deeya Energy
Detroit Edison
Dong Energy
Dongfang Electric Corp.
Dow Chemical Company
Dow Kokam
Draper Fisher Jurvetson
DT Capital Partners
Duke Energy
E.ON
East Japan Railway Company
East Penn Manufacturing Co.
Ecoult
Edison Electric Institute

Electrical Fuel Corporation
Electrovaya Inc.
Endesa
Enel
Enel Distribuzione
EnerDel
EnerG2
EnerSys
EnerVault Corporation
EOS Energy Storage
Epsilon
Ernst & Young
Excell Battery
Exide Technologies
Falbygdens Energi AB
FIAMM Energy Solutions
Firefly Energy
First Wind
Ford Motor Company
Foundation Asset Management (FAM)
Foundation Capital
Furukawa Battery
GE Energy Storage
GE Transportation
GemCap Lending I LLC
General Electric (GE)
General Motors
GeoBattery Corporation
Golden Valley Electricity Association
Göteborg Energi AB
GP Batteries
Green Charge Networks
Greensmith Energy Management Systems
Groupe Industriel Marcel Dassault
GS Energy
GS Yuasa Corporation
GS Yuasa International Ltd.
GSR Ventures
Guodian (GD) Power Development Co. Ltd.

Highpower International Inc.
Hitachi Auto Systems Ltd.
Hitachi Maxell
Howard Ransdell
Hydro One
Idinvest Partners
International Battery
International Power Supply
Invenergy LLC
Iron Edison Battery Company
Jafco Ventures
Japan Freight Railway Company
Johnson Controls
Johnson Matthey Group
Kaua'i Island Utility Cooperative
KEPCO
KfW Bank
Kleiner Perkins Caufield Byers
Kodiak Electric Association
Kyocera Corporation
Kyushu Electric Power
LG Chem Ltd.
Liotech
Liquid Metal Battery Corporation
Liquid Metal Battery Corporation (Now Ambri)
Lithium Energy Japan (LEJ)
Lotte Chemical (Honam Petrochemical)
M+W Group
Magnam Technologies Pty Ltd.
Maui Electric
Metlakatla Light & Power
Microsoft Corporation
Mitsubishi Corporation
Mitsubishi Heavy Industries Ltd. (MHI)
Mitsubishi Motors
Mitsui Global Investment
Modec
Modesto Irrigation District
NASDAQ

National Grid
Navitas Systems
NEC Corporation
New Energy Systems Group
Nexeon
NGK Insulators Ltd.
NiceGrid
Nichicon Corporation
Northern Light Venture Capital
Northern Powergrid
Oak Investment Partners
Oceanshore Ventures
Painesville Municipal Power
Palladium Energy
Panasonic Corporation
Parker Hannifin Corporation
Pellion Technologies
Portland General Electric
PowerGenix
Power-One Inc.
Premium Power Corporation
Primus Power
Prudent Energy
Public Service Company of New Mexico
QuantumScape Corporation
RedFlow Limited
Regenesys
Renewable Energy Dynamics Technology Ltd. (REDT)
Revolt
Rsnano Corporation
S&C Electric Company
SAFT Groupe SA
Sakti3
Samsung SDI
Santa Rita Jail (Alameda County)
Sanyo
Schneider Electric
Scottish and Southern Energy Plc.
Scottish and Southern Energy plc. (Scottish Hydro Electric Power Distribution Plc.)

Seeo
Sempra Energy
Sequoia Capital LLP
Shimizu Corporation
Shimizu Institute of Technology
Siemens
Sinopoly Battery Limited
Snohomish Public Utility District (PUD)
Solarpro
Sol-ion
Sony Corporation
South Plains Electric Cooperative (SPEC)
Southern California Edison
State Grid Corporation of China (SGCC)
State Power Group Co. Ltd.
Statkraft
Sumitomo Energy Industries Ltd.
TEL Venture Capital Inc.
Tenesol
Terna SpA
TK Advanced Battery LLC
Tobu Railway Co. Ltd.
Tokyo Electric Power Company (TEPCO)
Tokyo Electron Ltd.
Toshiba Corporation
Total Energy Ventures
Toyota
Tres Amigas LLC
UK Power Networks
Ultralife Corporation
US Invest LLC.
Valence Technology Inc.
Vestas
V-Fuel Pty Ltd.
Voltwerk Electronics GmbH
Wanxiang Group
Xcel Energy
Xtreme Power Inc.
ZBB Energy Corporation

ZEN Home Energy Systems

GOVERNMENT AGENCIES AND OTHER ORGANISATIONS MENTIONED IN THIS REPORT

Advanced Lead Acid Battery Consortium (ALABC)
Argonne National Laboratory
ARPA-E (Advanced Research Projects Agency-Energy)
Bank of Japan
Centre for the Commercialization of Electric Technologies (CCET)
China's Centre for Renewable Energy Development (CRED)
Chinese Electric Power Research Institute (CEPRI)
City University of New York's (CUNY) Energy Institute
Commonwealth Scientific and Industrial Research Organisation (CSIRO)
Department of Energy and Climate Change (DECC)
Electric Power Research Institute (EPRI)
Electricity Storage Association
Energy Information Administration (EIA)
EU REF
European Commission
European Parliament
European Photovoltaic Industry Association (EPIA)
European Union (EU)
Eurostat
Federal Energy Regulatory Commission (FERC)
Fraunhofer Institute for Solar Energy Systems ISE
Fujian Electric Power Research Institute
German Association of Energy and Water Industries (BDEW)
Global Wind Energy Council (GWEC)
Illinois Institute of Technology (IIT)
Imperial College London
Innovation Centre for Mobility and Social Change (InnoZ)
International Atomic Energy Agency (IAEA)
International Energy Agency (IEA)
International Organization for Standards (ISO)
Joint Centre for Energy Storage Research
Lawrence Berkeley National Laboratory
Massachusetts Institute of Technology (MIT)
National Research Foundation of Singapore

New York State Energy Research and Development Authority (NYSERDA)
North American Electric Reliability Corporation (NERC)
Northwestern University
Office of Gas and Electricity Markets (Ofgem)
Organisation of Economic Cooperation & Development (OECD)
Pacific Northwest National Laboratory (PNNL)
Renewable Energy Policy Network for the 21st Century (REN21)
Sandia National Laboratories
Shimizu Institute of Technology
SLAC National Accelerator Laboratory
The New York State Energy Research and Development Authority (NYSERDA)
Ulsan National Institute of Science and Technology
United Nations Framework Convention on Climate Change (UNFCCC)
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