Global and China Electrical Energy Storage (EES) Industry Report, 2016-2020

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STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

REPORT OBJECTIVES

- To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- To help company to succeed in a competitive market, and

METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

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Abstract

Energy storage finds widespread application in power system, involving power generation, transmission, distribution, and end users. Global cumulative installed capacity of electrical energy storage (EES) (excluding pumped hydro storage, compressed air energy storage and thermal storage) has grown at a CAGR of 18% over the past five years, hitting 946.8MW in 2015. The United States and Japan are leaders by installed capacity of EES, together holding 78% shares.

In 2015, lithium-ion battery and sodium-sulfur battery dominate the world's installed capacity of EES, making up 38% and 36%, respectively; renewable energy grid integration and frequency regulation auxiliary services are two main applications, accounting for 43% and 22%, respectively.

Asia, particularly South Korea and Japan, is the home to the enterprises with larger installed capacity of EES. In 2015, the world's top5 enterprises (by installed capacity of EES) were LG Chem, NEC, NGK, Toshiba, and Samsung SDI.

Global Top10 EES Enterprises (by Installed Capacity), 2015

Source: ResearchInChina

In 2015, China's installed capacity of EES (excluding pumped hydro storage, compressed air energy storage, and thermal storage) accounted for about 11% of the world's total, at a CAGR of 110% over the past five years. Unlike foreign countries, China attaches great importance to lithium-ion battery technology which shares 66% of China's total installed capacity of EES. Two major applications are distributed generation &microgrid (56%) and renewable energy grid integration (35%).

In 2015, most of top10 Chinese enterprises with the largest installed capacity of EES employed lithium-ion battery technology. The first five enterprises were BYD, Dalian Rongke Power, Wanxiang, Zhejiang Narada Power Source, and China Aviation Lithium Battery, seizing a combined 63% share.

BYD: No.1 in China and No. 6 in the world by installed capacity of EES and a representative of lithium-ion battery roadmap. LiFePo4 battery technology for energy storage stations presents clear cost and service life advantages. Customers in energy storage field include State Grid Corporation of China, China Southern Power Grid Co., Ltd, China General Nuclear Power Group, etc.

Dalian Rongke Power: a world-leading supplier of vanadium redox batty (VRB) energy storage system and has the largest installed capacity among Chinese flow battery companies.

Zhejiang Narada Power Source: the largest installed capacity among lead storage battery companies; industry-leading lead-carbon battery storage technology already applied to renewable energy storage, distributed generation &microgrid, residential energy storage, etc.

Global and China Electrical Energy Storage(EES) Industry Report, 2016-2020 highlights the followings:

- Global installed capacity of EES (scale and forecast, technology roadmap, application, competitive landscape, etc.);
- China's installed capacity of EES (scale and forecast, technology roadmap, application, competitive landscape, etc.);
- Global and Chinese market segments (pumped storage, lithium battery, flywheel energy storage, flow battery, supercapacitor, etc.);
- Global and Chinese application markets (wind power, PV, distributed generation, microgrid, etc.) and demand for energy storage;
- 21 major global and Chinese companies (operation, EES business, etc.)

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