

# **North America Batteries for Solar Energy Storage Market Segmented by Battery Type (Lead acid, Lithium-Ion, Nickel Cadmium, and Others), By Application (Residential, Commercial, and Industrial), By Connectivity (Off-Grid and On-Grid), By Country, Competition Forecast and Opportunities, 2028F**

<https://marketpublishers.com/r/ND127723A61EEN.html>

Date: October 2023

Pages: 140

Price: US\$ 4,400.00 (Single User License)

ID: ND127723A61EEN

## **Abstracts**

North America Batteries for Solar Energy Storage market is anticipated to grow robustly in the forecast period, 2024-2028. The main driver of the demand for batteries for solar energy storage is the rise in the number of renewable and solar energy projects. According to statistics from the US Energy Information Administration (EIA), power plant operators and developers aim to add 51 GW worth of new solar and battery storage projects to the US power grid by the end of 2023, accounting for up to 60% of the country's additional producing capacity.

Batteries made specifically for solar energy storage can be used to store energy from solar PV panels in a variety of applications. The batteries can be used in solar panel-powered renewable energy projects in home, office, and manufacturing facilities. The batteries improve the systems' self-reliance, enabling their integration with the grid systems and providing power back-ups among other advantages.

### **Boosting Number of Renewable and Solar Energy Project**

The primary driver of the demand for batteries for solar energy storage is the rising interest rate of solar and renewable energy projects. The US Energy Information Administration (EIA) predicts that 21.5 GW of solar power producing capacity will be added to the nation's power system by the end of 2023. Additionally, as of April 2022,

The US Bureau of Land Management (BLM) built 39 utility-scale solar projects, totalling more than 29 GW of plant capacity, on federal lands in six western states by the third quarter of 2025.

Additionally, IRENA (International Renewable Energy Agency) predicts a 40% annual growth in energy storage through 2025. Furthermore, New York State had objectives of 70% renewable energy under the Climate Leadership and Community Protection Act. 3,000 MW of storage will be available by 2030, with 1,500 MW by 2025. Thus, defining goals to generate renewable energy through solar, storage, and battery system are the factors propelling the market growth in the forecast period.

Nowadays, Mexican government is promoting renewable and Solar Energy Project, due to which the market of Batteries for Solar Energy Storage is further expected to grow in the forecast period. Also, the main causes of the rising demand for batteries in Mexico and the expansion of the clean energy industry are the country's rising solar energy investment and public knowledge of the benefits of using these sources of energy. According to the PV solar group AMIF, the second half of 2022 saw investments in solar power of up to USD 500 million. Furthermore, the Mexican government built Latin America's biggest PV plant in June 2021, which costed around USD 2 billion. The renewable city movement is being led by Mexico City and planning to install 350 MW of distributed solar power by 2024 and allocate USD17.1 million annually.

### Decline in Prices of Lithium-Ion Batteries

The market has a good opportunity for growth as a result of the drop in lithium-ion battery prices. According to studies by the Massachusetts Institute of Technology, further steep price declines could be possible, which would be advantageous for products like laptops, cell phones, stationary storage, battery storage, and electric vehicles, all of which need to be more affordable if the technology is to be adopted widely. Lithium-ion battery prices have decreased mostly as a result of publicly supported research, particularly in the fields of chemistry and materials science, which has made a significant impact on battery costs. Thus, declining prices of lithium-ion batteries hold lucrative opportunities for the battery manufacturers, augmenting their production capabilities and helping the market grow faster.

### Rising Awareness of Renewable Energy and Favourable Government Regulatory Policies

In order to secure sustainable energy with reduced carbon dioxide emissions, renewable energy sources are required. People have been encouraged to utilize more solar, wind, biomass, trash, and hydroelectric energy, in response to the increasing awareness of the desire to save energy. Systems for storing solar energy are used to store energy to be utilized at night or when energy demand is at the highest level. Therefore, as an alternative to traditional energy sources, both developed and emerging countries are vigorously supporting and implementing solar energy. Solar energy consumption has increased as a result of consumers' increasing awareness of renewable energy sources. According to information provided by the International Renewable Energy Agency (IRENA), the installed capacity of solar energy produced by PV modules is expected to continue to rise in the years to come, which will boost the demand for storage options.

Due to the expansion of supportive government policies, tax breaks for the production of solar energy, and large investments from major companies, the North America batteries for solar energy storage market is anticipated to grow. One of the most important federal policy tools for promoting the expansion of solar energy in the US is the solar Investment Tax Credit (ITC). The ITC offers a tax credit of 26% in 2021.

### High Initial Investment in Battery Manufacturing Process

One of the most popular forms of energy storage in the solar business is the battery, which includes lithium-ion, flow, and lead-acid batteries. Due to a rise in the viability of electric vehicles and commercial energy storage capacity, the boom in battery production has resulted in an 85% drop in the price of batteries. Preparing the electrodes, assembling the cells, and activating the battery electrochemistry, are the main steps in the manufacture of batteries. 48% of the total cost of production was accounted for by electrode coating, drying, cell formation, and aging. The most important aspects that must be considered during the production process are those large capital investments and costly processes. Due to this large investment in the process, the market players will face problems. Due to its desirable characteristics, such as their light weight, high energy density, and efficiency, up to ten times longer life, and the ability to offer 80% of rated capacity after 2,000 cycles, batteries used in solar energy storage are often more expensive than other battery types. These elements make the initial investment in battery manufacture pricey, which restrains market expansion.

### Market Segmentation

The North America Batteries for Solar Energy Storage Market is divided into Battery Type

Application, Connectivity, and Country. Based on Battery Type, the market is divided into Lead acid, Lithium-Ion, Nickel Cadmium, and Others. Based on Application, the market is divided into Residential, Commercial, and Industrial. Based on Connectivity, the market is divided into Off-Grid and On-Grid.

Market player

Major players operating in the North America Batteries for Solar Energy Storage Market are BYD Co. Ltd., EnerSys, Leclanch? SA, LG Electronics Inc, Samsung SDI Co., Ltd, E3/DC GmbH, SimpliPhi Power, Alpha ESS Co., Ltd.

Report Scope:

In this report, North America Batteries for Solar Energy Storage Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

North America Batteries for Solar Energy Storage Market, By Battery Type:

Lead acid

Lithium-Ion

Nickel Cadmium

Others

North America Batteries for Solar Energy Storage Market, By Application:

Residential

Commercial

Industrial

North America Batteries for Solar Energy Storage Market, By Connectivity:

Off -Grid

On-Grid

North America Batteries for Solar Energy Storage Market, By Country:

United States

Canada

Mexico

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the North America Batteries for Solar Energy Storage Market.

Available Customizations:

North America Batteries for Solar Energy Storage 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
- 1.3. Markets Covered
- 1.4. Years Considered for Study
- 1.5. Key Market Segmentations

### **2. RESEARCH METHODOLOGY**

- 2.1. Baseline Methodology
- 2.2. Key Industry Partners
- 2.3. Major Association and Secondary Sources
- 2.4. Forecasting Methodology
- 2.5. Data Triangulation & Validation
- 2.6. Assumptions and Limitations

### **3. EXECUTIVE SUMMARY**

### **4. VOICE OF CUSTOMERS**

### **5. NORTH AMERICA BATTERIES FOR SOLAR ENERGY STORAGE MARKET OUTLOOK**

- 5.1. Market Size & Forecast
  - 5.1.1. By Value
- 5.2. Market Share & Forecast
  - 5.2.1. By Battery Type (Lead acid, Lithium-Ion, Nickel Cadmium, and Others),
  - 5.2.2. By Application (Residential, Commercial, and Industrial)
  - 5.2.3. By Connectivity (Off-Grid and On-Grid)
  - 5.2.4. By Country (United States, Canada, Mexico)
- 5.3. By Company (2022)
- 5.4. Market Map

### **6. UNITED STATES BATTERIES FOR SOLAR ENERGY STORAGE MARKET**

*North America Batteries for Solar Energy Storage Market Segmented by Battery Type (Lead acid, Lithium-Ion, Nic...*

## **OUTLOOK**

### 6.1. United States Economic Profile

### 6.2. Market Size & Forecast

#### 6.2.1. By Value

### 6.3. Market Share & Forecast

#### 6.3.1. By Battery Type

#### 6.3.2. By Application

#### 6.3.3. By Connectivity

## **7. CANADA BATTERIES FOR SOLAR ENERGY STORAGE MARKET OUTLOOK**

### 7.1. Canada Economic Profile

### 7.2. Market Size & Forecast

#### 7.2.1. By Value

### 7.3. Market Share & Forecast

#### 7.3.1. By Battery Type

#### 7.3.2. By Application

#### 7.3.3. By Connectivity

## **8. MEXICO BATTERIES FOR SOLAR ENERGY STORAGE MARKET OUTLOOK**

### 8.1. Mexico Economic Profile

### 8.2. Market Size & Forecast

#### 8.2.1. By Value

### 8.3. Market Share & Forecast

#### 8.3.1. By Battery Type

#### 8.3.2. By Application

#### 8.3.3. By Connectivity

## **9. MARKET DYNAMICS**

### 9.1. Drivers

### 9.2. Challenges

## **10. MARKET TRENDS & DEVELOPMENTS**

## **11. POLICY & REGULATORY LANDSCAPE**

## 12. COMPANY PROFILES

### 12.1. BYD Co. Ltd.

- 12.1.1. Business Overview
- 12.1.2. Key Revenue and Financials (If Available)
- 12.1.3. Recent Developments
- 12.1.4. Key Personnel
- 12.1.5. Key Product/Services

### 12.2. EnerSys

- 12.2.1. Business Overview
- 12.2.2. Key Revenue and Financials (If Available)
- 12.2.3. Recent Developments
- 12.2.4. Key Personnel
- 12.2.5. Key Product/Services

### 12.3. Leclanch? SA

- 12.3.1. Business Overview
- 12.3.2. Key Revenue and Financials (If Available)
- 12.3.3. Recent Developments
- 12.3.4. Key Personnel
- 12.3.5. Key Product/Services

### 12.4. LG Electronics Inc.

- 12.4.1. Business Overview
- 12.4.2. Key Revenue and Financials (If Available)
- 12.4.3. Recent Developments
- 12.4.4. Key Personnel
- 12.4.5. Key Product/Services

### 12.5. Samsung SDI Co., Ltd.

- 12.5.1. Business Overview
- 12.5.2. Key Revenue and Financials (If Available)
- 12.5.3. Recent Developments
- 12.5.4. Key Personnel
- 12.5.5. Key Product/Services

### 12.6. E3/DC GmbH

- 12.6.1. Business Overview
- 12.6.2. Key Revenue and Financials (If Available)
- 12.6.3. Recent Developments
- 12.6.4. Key Personnel



12.6.5. Key Product/Services

12.7. SimpliPhi Power

12.7.1. Business Overview

12.7.2. Key Revenue and Financials (If Available)

12.7.3. Recent Developments

12.7.4. Key Personnel

12.7.5. Key Product/Services

12.8. Alpha ESS Co., Ltd

12.8.1. Business Overview

12.8.2. Key Revenue and Financials (If Available)

12.8.3. Recent Developments

12.8.4. Key Personnel

12.8.5. Key Product/Services

## **13. STRATEGIC RECOMMENDATIONS**

About Us & Disclaimer

## I would like to order

Product name: North America Batteries for Solar Energy Storage Market Segmented by Battery Type (Lead acid, Lithium-Ion, Nickel Cadmium, and Others), By Application (Residential, Commercial, and Industrial), By Connectivity (Off-Grid and On-Grid), By Country, Competition Forecast and Opportunities, 2028F

Product link: <https://marketpublishers.com/r/ND127723A61EEN.html>

Price: US\$ 4,400.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/ND127723A61EEN.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