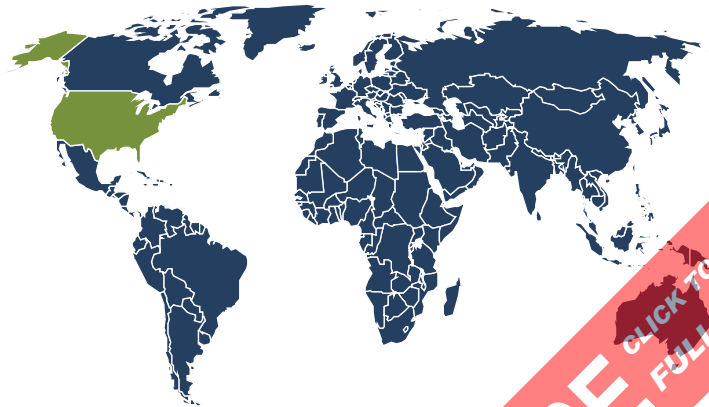




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# Rechargeable (Secondary) Batteries: United States

September 2016



## Highlights

### Market Environment

Historical Trends | Key Economic Indicators | Trade | Legal and Regulatory Factors  
Technology

### Segmentation and Forecasts

Products | Markets | Shipments

### Industry Structure

Industry Composition and Characteristics | Companies Cited

### Resources

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## ABOUT THIS REPORT

### Scope & Method

This report forecasts US rechargeable (secondary) battery demand and shipments in US dollars at the manufacturers' level to 2020. Total demand and shipments are segmented by battery product in terms of:

- lead-acid
- rechargeable lithium
- nickel-metal hydride
- nickel-cadmium
- other products such as nickel-hydrogen, rechargeable zinc-air, and sodium-metal halide.

In this report, the terms “rechargeable” and “secondary” are used synonymously. The terms “battery” and “cell” are used interchangeably, each denoting both single-cell (eg, AAA batteries) and multi-cell (eg, nine-volt batteries) devices.

Total demand is also segmented by market as follows:

- motor vehicles
- portable devices
- motive power
- backup power supplies
- other markets such as mowers, marine equipment, and motorcycles.

To illustrate historical trends, total demand is provided in an annual series from 2005 to 2015; shipments and the various segments are reported at five-year intervals for 2010 and 2015.

This report quantifies trends in various measures of growth. Growth (or decline) expressed as an average annual growth rate (AAGR) is the least squares growth rate, which takes into account all available datapoints over a period. Growth calculated as a compound annual growth rate (CAGR) employs, by definition, only the first and last datapoints over a period. The CAGR is used to describe forecast growth, defined as the expected trend beginning in the base year and ending in the forecast year. Readers are encouraged to consider historical volatility when assessing particular annual values along the forecast trend, including in the forecast year.

Key macroeconomic indicators are also provided at five-year intervals with CAGRs for the years corresponding to other reported figures. Other various topics, including profiles of pertinent leading suppliers, are covered in this report. A full outline of report items by page is available in the [Table of Contents](#).

## Sources

*Rechargeable (Secondary) Batteries: United States (FF45050)* is based on [Rechargeable \(Secondary\) Batteries](#), a comprehensive industry study published by The Freedonia Group in September 2016. Reported findings represent the synthesis and analysis of data from various primary, secondary, macroeconomic, and demographic sources including:

- firms participating in the industry, and their suppliers and customers
- government/public agencies
- national, regional, and international non-governmental organizations
- trade associations and their publications
- the business and trade press
- indicator forecasts by The Freedonia Group
- the findings of other industry studies by The Freedonia Group.

Specific sources and additional resources are listed in the [Resources](#) section of this publication for reference and to facilitate further research.

## Industry Codes

The topic of this report is related to the following industry codes:

| NAICS/SCIAN 2007                              |                               | SIC                     |                   |
|---|-------------------------------|-------------------------|-------------------|
| North American Industry Classification System |                               | Standard Industry Codes |                   |
| 335911  | Storage Battery Manufacturing | 3691                    | Storage Batteries |

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## RESOURCES

### The Freedonia Group

[www.freedoniagroup.com](http://www.freedoniagroup.com)

|   |                                     |
|---|-------------------------------------|
| <i>3458 Rechargeable (Secondary) Batteries</i> , September 2016 | <a href="#">see study contents</a>  |
| Related Industry Studies  |                                     |
| <i>3454 World Motorcycles</i> , October 2016                    | <a href="#">see study contents</a>  |
| <i>3380 Power Tools</i> , June 2016                             | <a href="#">see study contents</a>  |
| <i>3350 World Battery Materials</i> , December 2015             | <a href="#">see study contents</a>  |
| <i>3340 Power Lawn &amp; Garden Equipment</i> , December 2015   | <a href="#">see study contents</a>  |
| <i>3309 World Batteries</i> , July 2015                         | <a href="#">see study contents</a>  |
| <i>3232 World Buses</i> , March 2015                            | <a href="#">see study contents</a>  |
| <i>3241 World Power Tools</i> , January 2015                    | <a href="#">see study contents</a>  |
| Related Focus Reports   |                                     |
| <i>Batteries: United States</i>                                 | <a href="#">see report contents</a> |
| <i>Battery Materials: United States</i>                         | <a href="#">see report contents</a> |
| <i>Computers &amp; Peripherals: United States</i>               | <a href="#">see report contents</a> |
| <i>Electric Motors: United States</i>                           | <a href="#">see report contents</a> |
| <i>Motor Vehicles: United States</i>                            | <a href="#">see report contents</a> |
| <i>Power Tools: United States</i>                               | <a href="#">see report contents</a> |
| <i>World Batteries</i>  | <a href="#">see report contents</a> |
| <i>World Battery Materials</i>                                  | <a href="#">see report contents</a> |
| Freedonia Custom Research                                       | <a href="#">see capabilities</a>    |

### Trade Publications

|  |  |
|--|--|
| <i>Appliance Design</i>                        | <a href="http://www.appliancedesign.com">www.appliancedesign.com</a>   |
| <i>Automotive News</i>                         | <a href="http://www.autonews.com">www.autonews.com</a>   |
| <i>Batteries and Energy Storage Technology</i> | <a href="http://www.bestmag.co.uk">www.bestmag.co.uk</a>   |
| <i>Batteries International</i>                 | <a href="http://www.batteriesinternational.com">www.batteriesinternational.com</a>   |
| <i>Battery Power</i>                           | <a href="http://www.batterypoweronline.com">www.batterypoweronline.com</a>   |
| <i>Business Energy</i>                         | <a href="http://www.foresternetwork.com/category/weekly/business-energy-weekly">www.foresternetwork.com/category/weekly/business-energy-weekly</a> |
| <i>Wireless Week</i>                           | <a href="http://www.wirelessweek.com">www.wirelessweek.com</a>   |

### Agencies & Associations

|  |  |
|--|--|
| Battery and Electrical Specialists Association | <a href="http://www.besabattery.com">www.besabattery.com</a>       |
| Battery Council International                  | <a href="http://www.batterycouncil.org">www.batterycouncil.org</a> |
| Federal Communications Commission              | <a href="http://www.fcc.gov">www.fcc.gov</a>                       |
| NAATBatt International                         | <a href="http://www.naatbatt.org">www.naatbatt.org</a>             |
| National Highway Traffic Safety Administration | <a href="http://www.nhtsa.gov">www.nhtsa.gov</a>                   |
| United States Census Bureau                    | <a href="http://www.census.gov">www.census.gov</a>                 |
| United States Environmental Protection Agency  | <a href="http://www.epa.gov">www.epa.gov</a>                       |
| United States International Trade Commission   | <a href="http://www.usitc.gov">www.usitc.gov</a>                   |

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