

Battery Markets in the US

Industry Study with Forecasts for 2020 & 2025

Study #3483 | December 2016 | \$4900



US demand for batteries is forecast to expand 4.4 percent per year to \$17.7 billion in 2020, on par with the advances of the 2010-2015 period. Rechargeable batteries will post larger and faster market gains as the mainstream advent of more expensive, higher energy density rechargeable lithium products takes place.

Motor vehicle batteries to exhibit largest dollar gains

Motor vehicle batteries will register the largest demand increases in dollar terms, accounting for nearly half of the growth through 2020. A strong outlook for hydrogen/electric vehicle (H/EV) production will support overall value gains due to a greater preference among automakers for lighter, higher energy density lithium-ion (Li-Ion) batteries over lower-cost nickel-metal hydride (Ni-MH) types. The large existing stock of motor vehicles in the country will also support aftermarket replacement battery demand.

Strong market gains expected for primary, rechargeable lithium types

In a continuation of past trends, portable device battery demand will advance at a below-average rate through 2020, with strong market gains for primary and rechargeable lithium products offset by stagnant or falling demand for lower-value chemistries like alkaline, lead-acid, and Ni-MH. While sales of alkaline cells will edge up based on the large base of portable devices in use that utilize these

batteries, the rising complexity and higher energy requirements of many portable devices will support an ongoing trend toward use of higher-value lithium chemistries.

Rising OEM motor vehicle battery demand to boost industrial market

Among end users, the industrial market offers the greatest growth potential in both dollar terms and in average annual advances. Industrial demand will be buoyed by rising original equipment manufacturing (OEM) motor vehicle battery demand, particularly for high-value lithium-ion products. Strong advances in nonresidential fixed investment spending will also support market gains for industrial motive power batteries, which find usage in electric lift trucks and underground mining equipment, as well as in electric wheelchairs and personal mobility devices, among others.

Study coverage

This study analyzes the US battery markets. It presents historical data (2005, 2010 and 2015) plus forecasts (2020 and 2025) in current dollars by application (e.g., motor vehicles, portable devices, others) and by end user (e.g., consumer, industrial, government, others). The study also considers key market environment factors, assesses the industry structure, evaluates company market share and identifies US industry competitors.

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APPLICATIONS

Demand by Chemistry

In 2015, single-use batteries comprised the largest share of portable device battery demand, accounting for 62 percent of total US portable device battery sales. Of these, alkaline batteries comprised the vast majority of that year. Nevertheless, rechargeable lithium chemistries have emerged as the fastest rate of increase among batteries used in portable devices. Rechargeable lithium will register the largest gains in this application through 2020 in absolute terms. A wide array of portable devices -- including high-end products like tablet computers and relatively lower-end products such as cordless power tools -- can be powered by secondary batteries. While nickel-cadmium (Ni-Cad) was once the chemistry of choice in portable applications, demand for Ni-Cad batteries has declined substantially in recent years as better-performing Ni-MH and, more recently, rechargeable lithium chemistries have emerged. An ongoing shift in the product mix toward more sophisticated, high-drain devices such as smartphones and tablets favors rechargeable lithium batteries, which have a higher energy density, lower weight, and can yield thin or flexible batteries, thereby allowing the fabrication of very thin, lightweight devices that can be used for extended periods before needing to be recharged. Lead-acid batteries account for a small share of portable device demand, in large part due to the heavy weight of these batteries.

SAMPLE
TEXT

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TABLE V-2

CONSUMER BATTERY DEMAND BY CHEMISTRY (million dollars)

Item	2005	2010	2015	2020	2025
Personal Consumption Expenditures (bil \$) \$ batteries/mil \$ PCE					
Consumer Battery Demand					
Single-Use:					
Alkaline					
Other Single-Use					
Rechargeable:					
Lead-Acid					
Rechargeable Lithium					
Other Rechargeable					
% consumer Battery Demand					

SAMPLE
TABLE

Source: The Freedonia Group

TABLE III-1

BATTERY SUPPLY & DEMAND (million dollars)

Item	2005	2010	2015	2020	2025
Gross Domestic Product (bil \$) \$ batteries/000\$ GDP					
Battery Demand					
Single-Use					
Rechargeable					
- net imports					
Battery Shipments					
price deflator (2009=100)					
Battery Shipments (mil 2009\$)					

SAMPLE
TABLE

Source: The Freedonia Group

This study can help you:

- Determine your market & sales potential
- Learn more about industry competitors
- Assess new products & technologies
- Identify firms to merge with or acquire
- Complement your research & planning
- Gather data for presentations
- Confirm your own internal data
- Make better business decisions

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Related Studies

Single-Use (Primary) Batteries in the US

Through 2020, US demand for single-use batteries will grow 1.5 percent per year to \$3.5 billion in 2020. Zinc air batteries will remain the fastest growing type, buoyed by heightened demand for hearing aids by an aging population. Alkaline batteries will continue their market dominance, though unit sales will continue to fall. This study details the \$3.3 billion US single-use battery market, with forecasts for 2020 and 2025 by product and market. The study also examines the industry structure and analyzes company market share.

#3468..... November 2016 \$4900

Rechargeable (Secondary) Batteries

US demand for rechargeable batteries is forecast to expand 5.3 percent annually through 2020 to \$14.2 billion. Gains will be fueled by continued strong growth in hybrid and electric vehicle production. Rechargeable lithium batteries will see the fastest overall demand gains through 2020 with product sales expanding at double-digit rates. This study presents forecasts (2020, 2025) for demand by product and market. The study also reviews key market environment factors, assesses the industry structure and evaluates company market share.

#3458..... September 2016 \$4900

World Battery Materials

Global demand for battery materials will rise 8.3 percent annually to \$46.8 billion in 2019. Chemicals will be the fastest growing materials, led by lithium and nickel used in Li-Ion and Ni-MH batteries. China will remain the fastest growing market. This study analyzes the \$31.4 billion world market for battery materials, with forecasts for 2019 and 2024 by product and application for six world regions and 16 major countries. Total demand is given for an additional six countries. The study also evaluates company market share and profiles industry participants.

#3350..... December 2015 \$6200

World Batteries

Global battery demand is forecast to rise 7.8 percent per year to \$120 billion in 2019. China will remain the largest national market as well as one of the fastest growing. Secondary batteries will outpace primary types. Rechargeable lithium-ion batteries will be the fastest growing products. This study analyzes the \$83 billion world battery industry, with forecasts for 2019 and 2024 by type and market for six world regions and 16 countries. The study also reviews battery technology, evaluates company market share and profiles industry participants.

#3309..... July 2015 \$6700

Contact Freedonia

1.800.927.5900 (US & Canada)

+1 440.684.9600 (Int'l)

email: info@freedoniagroup.com

website: freedoniagroup.com

Freedonia's methods

- Establishing consistent economic & market forecasts
- Using input/output ratios, flow charts & other economic methods to quantify data
- Employing in-house analysts who meet stringent quality standards
- Interviewing key industry participants, experts & end users
- Researching a proprietary database that includes trade publications, government reports & corporate literature

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