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Batteries in China

Industry Study with Forecasts to **2010 & 2015**

Study #2151 | February 2007 | $4900 | 255 pages

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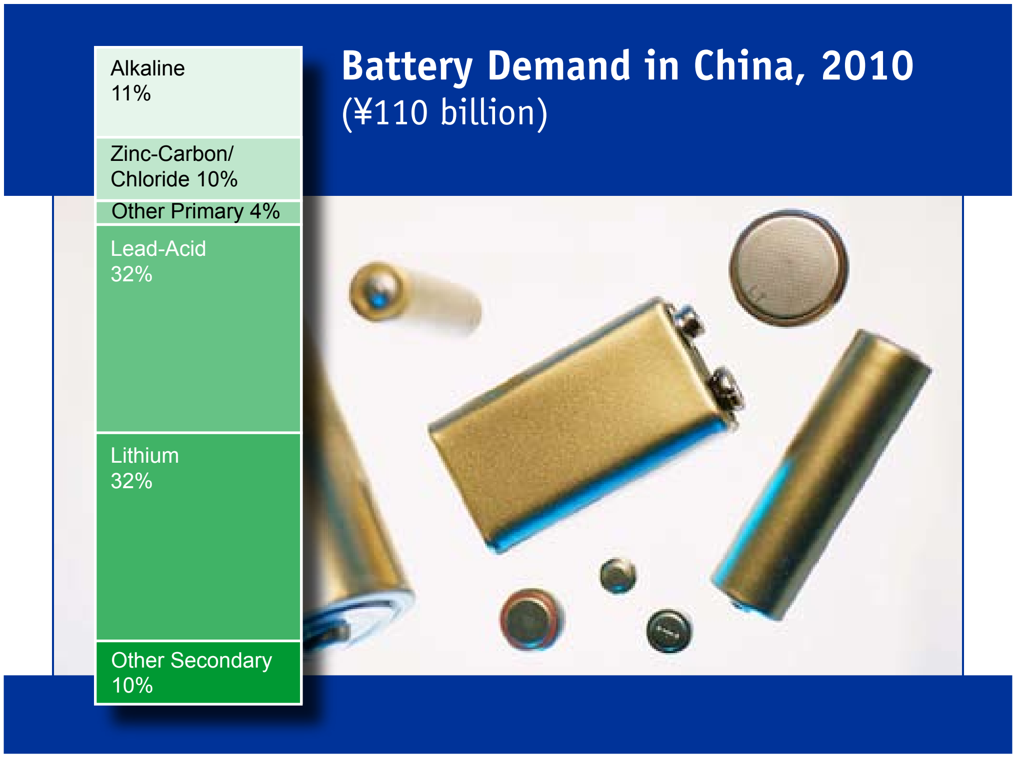
Growth stimulants include the emergence of electric bicycles as an important means of transportation and strong domestic demand for consumer battery-powered products such as cellular phones.

Demand in China to grow 13.2% annually to 2010

Demand for batteries in China is forecast to increase 13.2 percent annually to ¥110 billion in 2010. Growth stimulants include the emergence of electric bicycles as an important means of transportation and strong domestic demand for consumer battery-powered products such as cellular phones. Market gains will be also attributable to an ongoing shift in the product mix, trending toward high-performance, costly batteries (such as rechargeable lithium batteries) for use in high-drain electronic equipment.



Battery Demand in China, 2010
(¥110 billion)

Secondary batteries to outpace primary types

Sales of secondary batteries are forecast to rise 14.3 percent annually through 2010 to ¥82.1 billion. Although lead-acid batteries will account for more than 43 percent of all secondary battery sales in 2010, rechargeable lithium and nickel-metal hydride batteries will experience stronger growth. Demand for these types of advanced batteries will be heavily influenced by their high-performance attributes -- such as higher power density and longer product lifecycle than traditional lead-acid and nickel-cadmium batteries -- as well as by continuing technical innovation and decreasing prices.

While zinc-carbon/chloride batteries will continue to dominate the primary battery market in unit terms, alkaline batteries will surpass zinc-carbon/chloride cells in market value, and comprise the largest share of demand in 2010. Alkaline and more advanced primary batteries -- such as lithium and silver oxide -- are projected to grow at higher rates than other primary batteries. Alkaline batteries are favored for their greater power and longer life than zinc-carbon/chloride cells.

Consumer, transportation uses to stay key markets

Consumer applications will comprise two-thirds of primary battery sales in 2010, continuing the historical trend. Demand for primary batteries will be fueled by an ever-increasing number of battery-powered portable devices introduced into the growing Chinese market -- such as MP3 players and digital cameras. In China these devices are commonly powered by primary batteries rather than more expensive secondary batteries.

The domestic market for secondary batteries used in transportation equipment is forecast to increase more than 18 percent annually through 2010 to ¥32.7 billion, registering the fastest growth among secondary battery markets. Market gains will be driven by the meteoric rise of electric bicycles, as well as strong growth in the production of motor vehicles. Demand for secondary batteries in portable devices will also experience fast growth through 2010, driven by the increasing use of high-drain portable electronics such as laptop computers

Batteries in China

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Sample Text, Table & Chart

TABLE VI-3

INDUSTRIAL PRIMARY BATTERY MARKET IN CHINA
(million Chinese yuan)

Item	1995	2000	2005	2010	2015
Electrical & Electronic Eqp (bil ¥)	650	1498	4812	8250	13300
¥ batteries/000¥ shipments	1.5	1.4	1.0	0.9	0.9
Industrial Primary Battery Demand					
By Application:					
OEM					
Replacement/MRO					
By Chemistry:					
Zinc-Carbon/Chloride					
Alkaline					
Other Primary					
% industrial					
Primary Battery Demand					

SAMPLE TABLE

PRIMARY BATTERY PRODUCTS

Primary Lithium

Demand for primary lithium batteries is forecast to rise nearl percent a ... terms, d for prim ... percen year to 1 ... impro ments in ... produ in many a ... be the p tion of primary lithium batteries in formats once the domain of m conventional battery chemistries such as zinc-carbon/chloride and line. For instance, in January 2004 Energizer (US) launched the A lithium battery as part of its E2 product line. However, competitio secondary batteries in some markets will dampen demand somew

SAMPLE TEXT

The construction of primary lithium batteries involves a lithium metal anode and an electrolyte of either organic solvent, inorganic liquid or solid material. Among the common primary lithium battery chemistries are thionyl chloride, sulfur dioxide, manganese dioxide and solid-state iodine. Primary lithium cells have a nominal voltage of three, twice that of zinc-based cells, and a total energy output as much as three times higher. Other benefits of primary lithium cells include their compact construction and extremely long lives, which make them particularly suited to applications like pacemakers and electronic meters. Lithium's high responsiveness to light frequencies makes batteries made from this element well-suited for photography and other optical applications.

Among the consumer market uses for primary lithium batteries are cameras, calculators, watches, remote controls and thermometers. In addition, the batteries can be used in implantable medical devices, computer backup systems, portable instrumentation and military-related applications, including wireless security systems, emergency location signals, jamming devices, mines, and missile and torpedo propulsion systems.

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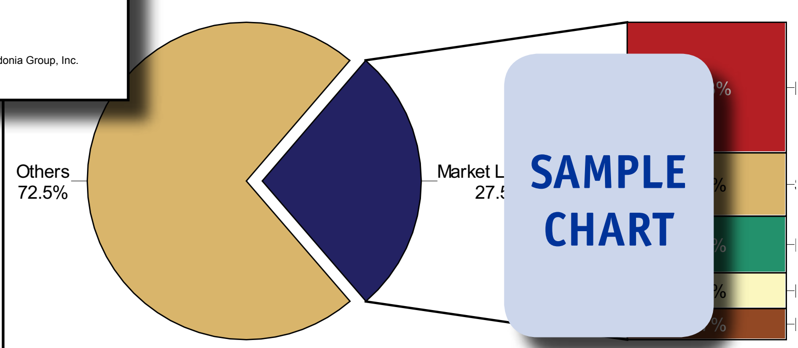
CHART IX-4

NON-LEAD-ACID SECONDARY BATTERY MARKET SHARE IN CHINA BY COMPANY, 2005
(¥24.0 billion)



SAMPLE CHART

Batteries in China

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Sample Profile, Table & Forecast

TABLE VII-7

NICKEL-METAL HYDRIDE BATTERY SUPPLY & DEMAND IN CHINA (million Chinese yuan)

Item	1995	2000	2005	2010	2015
Consumer Durables Expend (bil 2000¥)	387	627	920	1190	1520
batteries/mil ¥ expenditures	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ni-MH Battery Demand (million units)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
¥/unit	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nickel-Metal Hydride Battery Demand	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
net exports	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nickel-Metal Hydride Battery Shpts	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
% Ni-MH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Secondary Battery Demand	4590	12000	42150	82100	132500

SAMPLE TABLE

COMPANY PROFILES

Guangzhou Tiger Head Battery Group Company Lin
568 Huangpu Road
Guangzhou 510655
China
86-20-8552-5623
http://www.555bf.com.cn

Annual Sales: [illegible]
Employment: [illegible]

Key Products: [illegible] etal hydride, lithium-mang[illegible] anese and alkaline-mang[illegible]

International ([illegible] ger)

SAMPLE PROFILE

Guangzhou Tiger Head Battery is a state-owned manufacturer of primary and secondary batteries. The Company operates a 170,000-square-meter production facility in Guangzhou, China.

The Company's batteries, produced and marketed under such brand names as 555 and TIGER HEAD, encompass alkaline, zinc-carbon, lead-acid, nickel-metal hydride (Ni-MH), lithium-manganese dioxide (Li-MnO_2) and lithium polymer (Li-Pol) types. For example, the Company's TIGER HEAD alkaline batteries are mercury-free products that can be used in such applications as MP3 players, electronic toys and cameras. Zinc-carbon batteries from Guangzhou Tiger Head Battery include 555 and TIGER HEAD metal- and paper-jacketed types. The Company's 555 lead-acid batteries comprise motorcycle; valve-regulated sealed lead-acid; and MF, DIN and N series automotive varieties.

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"The Chinese market for secondary batteries used in transportation equipment is forecast to increase more than 18 percent per year through 2010 to ¥32.7 billion, outperforming the overall secondary battery market. Demand will be fueled by dramatic increases in electric bicycle production, as well as growth in motor vehicle production. In addition, sales are expected to continue to benefit from ..."
--Section VIII, pg. 130

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Other Studies

Battery & Fuel Cell Materials

US demand for battery and fuel cell materials will rise 4.4% per year through 2011. Growth will be driven by rising production of high-performance batteries (e.g., lithium, Ni-MH) and a nearly fivefold jump in fuel cell demand. Metals will stay the leading material while polymers and carbon/graphite lead gains. This study analyzes the US battery and fuel cell material industry, with forecasts for 2011 and 2016 by type, function and application. It also details company market share and profiles major players.

#2244 .... 10/2007..................... $4400

World Fuel Cells

Global fuel cell spending (R&D, investment, sales) will grow 15% yearly through 2011. Portable electronics will be the fastest growing commercial use while electric power generation will stay the largest. Proton-exchange membrane fuel cells will remain dominant over other chemistries. This study analyzes the $5.2 billion world fuel cell industry to 2011 and 2016 by product, chemistry, application, world region and for 14 countries. It also reviews technology, evaluates market share and profiles major players.

#2194 .... 05/2007..................... $5500

Batteries

US demand for primary and secondary batteries will grow 4.3% annually through 2011. Growth will be driven by strong demand for battery-powered products and motor vehicles, and by an ongoing shift toward more expensive, better-performing batteries. Primary batteries will outpace secondary/rechargeable types, led by primary lithium batteries. This study analyzes the $12.1 billion US batteries industry to 2011 and 2016 by product and market. It also evaluates market share and profiles major producers.

#2178 .... 03/2007..................... $4500

Diesel Engines

US demand for diesel engines will grow 3.8% annually through 2011. Best opportunities in the dominant motor vehicle market will be found in light-duty trucks, with the much smaller passenger car segment also faring very well. Off-highway diesel engines will experience slowing but still robust demand as new emissions regulations phase in. This study analyzes the $16.6 billion US diesel engine industry to 2011 and 2016 by product, material and market. It also details market share and profiles major firms.

#2171 .... 03/2007..................... $4400

Solar Energy Products

US demand for photovoltaic modules will more than triple by 2010, driven by innovations, economies of scale and government subsidies. Crystalline silicon cells will remain dominant while thin films will post stronger growth. Thin films use little or no silicon and can integrate photovoltaics within roofing shingles and other building materials. This study forecasts US solar energy product demand to 2010 and 2015 by product, market and region. It also evaluates market share and profiles major producers.

#2126 .... 12/2006..................... $4300

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