



Global and China Lead-acid Battery Industry Report, 2015-2018

Jan. 2016

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.

Abstract

Lead-acid battery industry is a typical one of high energy consumption and heavy pollution. A large amount of electricity is consumed and pollutants such as lead dust/fume, acidic leaded wastewater, acid fog, and waste residues are discharged during the process of production. The center of global lead-acid battery production continues to transfer from developed countries to developing nations. As China's share of global lead-acid battery output has risen from 35% in 2010 to 42% in 2014, the country's development of lead-acid battery industry is of great significance to the world. Americas, primarily United States, made up 27% of global lead-acid battery output in 2014.

Global lead-acid battery demand amounted to 478.09 million KVAh in 2014, up 5.7% from a year ago, with China contributing a good portion of increase and the rest of the world maintaining average growth rate of around 2%. With enhanced efforts by the Chinese government to regulate lead-acid battery industry in the aspect of environmental protection since 2015 and the effect of lithium battery replacing lead-acid battery, global lead-acid battery demand growth is expected to fall along with that in China in the future, stabilizing at 2%-3%.

China's demand for lead-acid battery grew by 12.4% to 213.50 million KVAh and lead-acid battery revenue went up 11.2% to RMB129 billion in 2014. The demand for the lead-acid battery for electric bicycle increased by -0.8%, the lead-acid battery for automotive starting 12.8%, the lead-acid battery for electric tricycle and low-speed electric vehicle both over 40%, and the lead-acid battery for communications around 14%.

Since 2015, affected by the effect of lithium battery substitution, the demand for the lead-acid battery for electric bicycle has dropped quickly; sluggish demand from upstream sectors resulted in significantly slower growth in demand for the lead-acid battery for automotive starting and electric tricycle. In addition, as the year 2015 is the deadline for cleaning up excess capacity and the capacity causing severe pollution, a large number of small lead-acid battery producers can't get access permits, and have to stop production for rectification or produce secretly, leading to further slower apparent growth rate.

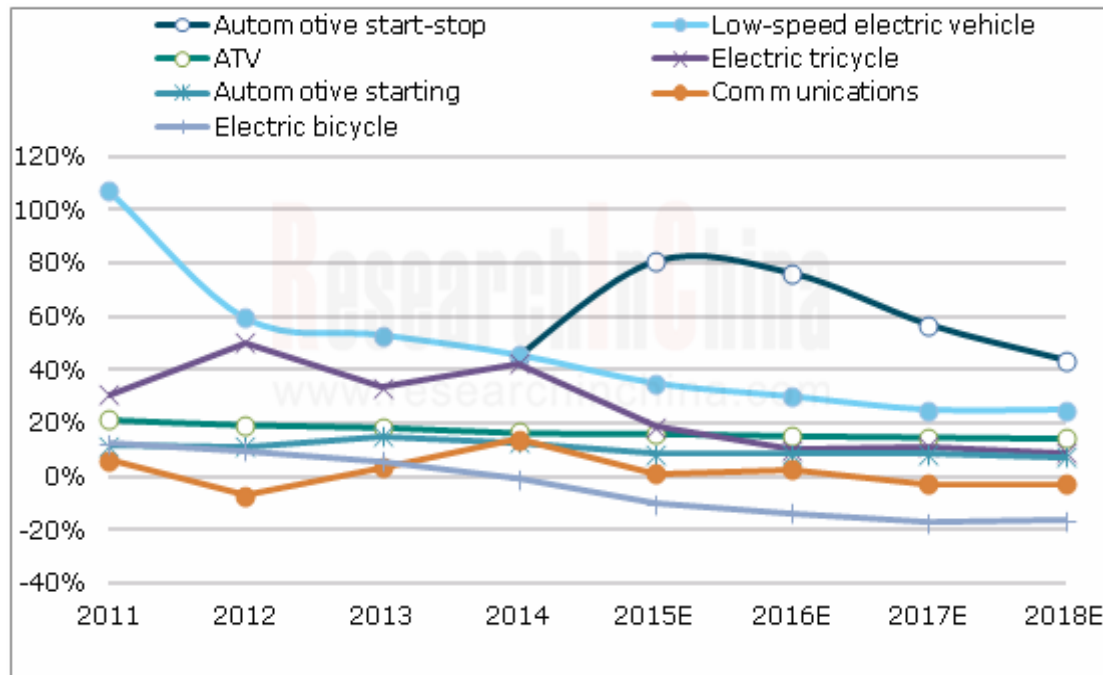
Johnson Controls is the world's largest lead-acid battery producer with a 15.7% market share in 2014. In spite of this, the company is suffering a sustained decline in market share from as high as 26% in 2010. As companies continue to expand capacity, the advantage of market leader is waning. Meanwhile, as China pursues the elimination of outdated capacity, the market space for small companies keeps narrowing. Attracted by emerging markets (lithium battery and PV), some companies (like Panasonic) reduces investment in lead-acid battery.

Lead-acid battery finds wide applications in transportation, communications, power, and railway industries. Starting battery (automobile, motorcycle), power battery (electric bicycle, electric tricycle, low-speed electric vehicle, ATV/special-purpose electric vehicle), and communications back-up power hold a combined 90% share of total lead-acid battery consumption. Copyright 2012ResearchInChina

Over the next couple years, the demand for the automotive start-stop battery and Pb-C energy storage battery is expected to present a CAGR of 30%-40%, the battery for low-speed electric vehicle 25%-30%, the battery for electric tricycle and ATV/special-purpose electric vehicle around 10%-15%, and automotive starting battery within 9%.

For now, the lead-acid battery for communications back-up power, energy storage, and electric bicycle will be hardest hit by lithium battery in the short term. It is expected the application of lead-acid battery in communications back-up power will shrink slightly and the demand for the lead-acid battery for electric bicycle will see a negative annual growth of above 15% over the next few years.

Growth Rates of Demand for Lead-acid Battery from Downstream Industry Segments, 2011-2018E



Global and China Lead-acid Battery Industry Report, 2015-2018 by ResearchInChina focuses on the followings:

- Global and China's lead-acid battery industry (status quo of development, industrial policies, orientation of technological development);
- Global and China's lead-acid battery industry (industry size, demand, import & export, competition pattern, demand forecast for the next few years);
- Competitive products (lithium battery, NI-MH battery, Pb-C battery) faced by lead-acid battery (comparison of technologies, applications, costs, shipments & trends, and major market participants);
- Application industries of lead-acid battery, covering automobile, back-up power & energy storage, electric bicycle, electric tricycle, low-speed electric vehicle, and ATV/special-purpose electric vehicle (status quo of development, demand for lead-acid battery, and market share of major lead-acid battery participants in the segments);
- 5 global lead-acid battery players (operation, technologies, customers, development planning, and output & sales);
- 10 Chinese lead-acid battery companies (operation, technologies, customers, development planning, and output & sales).

1 Overview of Lead-acid Battery Industry

- 1.1 Definition and Classification
 - 1.1.1 Definition
 - 1.1.2 Classification
 - 1.1.3 Purpose
- 1.2 Industry Chain
- 1.3 Development Characteristics of Industry
 - 1.3.1 Status Quo of Technological Development
 - 1.3.2 Trend of Technological Development

2 Development of Global Lead-acid Battery Industry

- 2.1 Demand and Market Size
- 2.2 Regional Competition Pattern
- 2.3 Pattern of Competition among Enterprises

3 Development of Lead-acid Battery Industry in China

- 3.1 Policy Environment
- 3.2 Demand and Market Size
- 3.3 Regional Competition Pattern
- 3.4 Pattern of Competition among Enterprises
- 3.5 Demand Forecast

4 Substitute Products Market

- 4.1 Lithium Battery
 - 4.1.1 Technology
 - 4.1.2 Price
 - 4.1.3 Applications
 - 4.1.4 Global and China's Shipments and Demand
 - 4.1.5 Major Global and Chinese Participants
- 4.2 Ni-MH Battery
 - 4.2.1 Applications
 - 4.2.2 Global and Chinese Market Size

- 4.2.3 Major Global Participants
- 4.3 Pb-C Battery
 - 4.3.1 Technology
 - 4.3.2 Applications
 - 4.3.3 Price
- 4.4 Comprehensive Comparison

5 Development of Downstream Industries

- 5.1 Automobile Industry
 - 5.1.1 Automotive Output & Sales and Demand for Lead-acid Battery
 - 5.1.2 Pattern of Competition among Automotive Start-Stop Lead-acid Battery Companies
- 5.2 Back-up and Energy Storage (Fixed)
 - 5.2.1 Power Energy Storage Technology and Application
 - 5.2.2 Power Chemical Energy Storage Industry Size and Demand for Lead-acid Battery
 - 5.2.3 Communications Back-up Battery Industry and Demand for Lead-acid Battery
 - 5.2.4 Competition Pattern of Market for Back-up and Energy Storage Lead-acid Battery
- 5.4 Electric Bicycle and Tricycle Industry
 - 5.4.1 Electric Bicycle Output and Market Size
 - 5.4.2 Demand for Lead-acid Battery from Electric Bicycle in China
 - 5.4.3 Competition Pattern of Lead-acid Battery for Electric Bicycle
 - 5.4.4 Electric Tricycle Output and Market Size
 - 5.4.5 Demand for Lead-acid Battery from Electric Tricycle in China
 - 5.4.6 Competitive Pattern of Lead-acid Battery for Electric Tricycle
- 5.5 Low-speed Electric Vehicle Industry

- 5.5.1 Low-speed Electric Vehicle Output and Market Size
- 5.5.2 Demand for Lead-acid Battery from Low-speed Electric Vehicle in China
- 5.5.3 Competition Pattern of Lead-acid Battery for Low-speed Electric Vehicle
- 5.6 ATV/Special-purpose Vehicle
 - 5.6.1 ATV/Special-purpose Vehicle Output in China
 - 5.6.2 Demand for Lead-acid Battery from ATV/Special-purpose Vehicle in China

6 Major Players in China

- 6.1 Johnson Controls
 - 6.1.1 Profile
 - 6.1.2 Operation
 - 6.1.3 Project and Capacity
 - 6.1.4 Main Products and Customers
 - 6.1.5 Core Competitiveness
- 6.2 Exide Technologies
 - 6.2.1 Profile
 - 6.2.2 Operation
 - 6.2.3 Production Bases
 - 6.2.4 Main Products and Customers
- 6.3 GS Yuasa
- 6.4 C&D
- 6.5 HOPPECK
- 6.6 Tianneng Power
- 6.7 Chaowei Power Co., Ltd.
- 6.8 Camel Group
- 6.9 Fengfan Co., Ltd.
- 6.10 Shandong Sacred Sun Power Sources Co., Ltd.
- 6.11 Zhejiang Narada Power Source Co., Ltd.
- 6.12 Vision Group
- 6.13 Guangdong Dynavolt Power Technology Co., Ltd.
- 6.14 Shuangdeng Group
- 6.15 Leoch International Technology Ltd.

- Classification of Batteries
- Classification of Lead-acid Battery by Usage
- Market Share of Different Applications of Lead-acid Battery Industry in China by Demand, 2014
- Cost Structure of Internal Materials of Lead-acid Battery
- Global Lead-acid Battery Demand, 2010-2018E
- Global Lead-acid Battery Market Size, 2010-2018E
- Global Battery Market Size
- Competitive Landscape of Global Lead-acid Battery Regions, 2014
- Global Top 10 Lead-acid Battery Manufacturers, 2014
- Policies on China's Lead-acid Battery Industry, 2013-2015
- Lead-acid Battery Market Demand in China, 2010-2015H1
- Lead-acid Battery Market Size in China, 2010-2015H1
- Lead-acid Battery Output in China by Province, 2012-2015H1
- Statistics of Eliminated Backward Lead-acid Battery Capacity in China, 201
- Revenue of Major Lead-acid Battery Manufacturers in China, 2014
- Top 10 Vehicle Starter Lead-acid Battery Export Enterprises, 2014
- Top 10 Vehicle Starter Lead-acid Battery Export Destinations, 2014
- Top 10 Sealed Lead Acid Battery Export Enterprises, 2014
- Top 10 Sealed Lead Acid Battery Export Countries and Regions, 2014
- Demand of Lead-acid Battery Industry in China, 2010-2018E
- Demand Estimation of Lead-acid Battery Industry in China by Application, 2010-2018E
- Market Share of Different Applications of Lead-acid Battery Industry in China by Demand, 2014
- Lead-acid Battery Industry Scale in China, 2010-2018E
- Lead-acid Battery Industry Scale by Application Field in China, 2010-2018E
- Cost Structure of Lithium Battery

- Price Trend of Lithium Iron Phosphate Batteries in China, 2011-2018E
- Price Trend of Global Power Lithium Batteries for Electric Vehicles
- Price Table of Major Batteries for Electric Bicycles, 2015
- Market Share of Lithium Batteries in China by Application, 2014
- Shipments of Global Lithium Batteries by Demand, 2010-2018E
- Market Share of Global Small Lithium Battery Companies, 2014
- Market Share of Global Battery Manufacturers Supporting New Energy Passenger Vehicles, 2014
- Output of Various Vehicle Models and Batteries, 2015
- Market Share of Major Battery Manufacturers, 2015H1
- Shipments of Major Battery Manufacturers, 2015H1 (MWh)
- Market Share of Global NiMH Batteries by Application, 2014
- Shipments and Market Size of Global Compact NiMH Battery, 2010-2015
- Shipments and Market Size of Global Large-sized NiMH Battery, 2010-2015
- NiMH Battery Market Size in China, 2011-2015
- Market Share of Global Compact NiMH Battery Manufacturers, 2014
- Sales Volume of Global New Energy Vehicles (EV/PHEV/HEV), 2009-2015
- Technical Performance Comparison between Lead-carbon Battery and Lead-Acid Battery
- Economical Comparison between Lead-carbon and Lead-Acid Battery Energy Storage Technology
- Characteristic Comparison of Energy Storage Systems of Three Technologies
- Technical Comparison between Lead-acid Battery and Other Batteries
- Performance Comparison between Lead-acid Battery and Other Batteries
- Output & Sales Volume and Ownership of Vehicles and Demand for Starter Lead-acid Batteries, 2010-2018E
- Vehicle Starter Lead-acid Battery Industry Scale, 2010-2018E
- Schematic Diagram of Vehicle Start-stop System
- Shipments and Permeability of Vehicle Start-stop Battery System in China, 2013-2018E

- Proportion of Vehicle Brands Loading Start-stop Batteries in China
- Vehicle Start-stop Lead-acid Battery Market Size in China, 2013-2018E
- Competitive Landscape of Vehicle Starter Lead-acid Battery Manufacturers in China, 2014
- Market Layout of Major Start-stop Battery Manufacturers in China
- Classification of Common Energy Storage Methods
- Corresponding Energy Storage Capacity and Discharging Time of Different Energy Storage Technologies
- Installed Capacity of Various Electrochemical Energy Storage Technologies Worldwide
- Application Proportion of Different Electrochemical Energy Storage Technologies in Different Countries
- Usages of Electronic Energy Storage
- Cost of Different Energy Storage Technologies in China Market
- Cost of Different Energy Storage Technologies in U.S. Market
- Accumulative Installed Capacity of Global Electrochemical Energy Storage, 2009-2015
- Market Share of Main Technical Routes of Global Energy Storage Systems, 2014
- Accumulative Installed Capacity of Electrochemical Energy Storage in China, 2010-2015
- Electrochemical Energy Storage Industry Scale in China, 2011-2018E
- Performance and Cost Comparison of Three Mainstream Electrochemical Energy Storage Technologies, 2015
- Electrochemical Energy Storage Lead-acid/Lead-carbon Battery Industry Scale in China, 2011-2018E
- Fixed Asset Investments of Telecommunication Industry in China, 2010-2015
- Construction of Mobile Phone Base Stations in China, 2010-2015H1
- Lead-acid Battery Demand from Communication Backup Power Industry in China, 2010-2018E
- Lead-acid Battery Demand Scale of Communication Backup Power Industry in China, 2010-2018E
- Competitive Landscape of Communication Backup Lead-acid Battery Manufacturers in China, 2014
- Competitive Landscape of Power Energy Storage Lead-acid Battery Manufacturers in China, 2014
- Output of Electric Bicycles in China by Lead-acid Battery and Lithium Battery, 2010-2015
- Permeability of Lead-acid and Lithium Battery Bicycles in China, 2010-2015

- Ownership of Electric Bicycles in China, 2010-2015
- Electric Bicycle Industry Scale in China, 2010-2015
- Price Table of Major Batteries for Electric Bicycles, 2015
- Electric Bicycle Lead-acid Battery Demand
- Electric Bicycle Lead-acid Battery Industry Scale
- Market Share of Electric Bicycle Lead-acid Battery Manufacturers, 2013-2014
- Output of Electric Tricycles in China, 2010-2018E
- Ownership of Electric Tricycles in China, 2010-2018E
- Electric Tricycle Lead-acid Battery Demand, 2010-2018E
- Electric Tricycle Lead-acid Battery Industry Scale, 2010-2018E
- Market Share of Electric Tricycle Lead-acid Battery Manufacturers in China, 2014
- Main Technical Requirements of Low-speed Electric Vehicles (Shandong Province)
- Main Specifications of Low-speed Electric Vehicles in China
- Output of Low-speed Electric Vehicles in China, 2010-2018E
- Ownership of Low-speed Electric Vehicles in China, 2009-2018E
- Output of Low-speed Electric Vehicles in Shandong Province, 2010-2015H1
- Rankings of Major Low-speed Electric Vehicle Manufacturers in China by Sales Volume, 2014-2015
- Low-speed Electric Vehicle Market Size in China, 2010-2018E
- Advantages of Low-speed Electric Vehicles
- Low-speed Electric Vehicle Lead-acid Battery Demand, 2010-2018E
- Low-speed Electric Vehicle Lead-acid Battery Industry Scale, 2010-2018E
- Market Share of Low-speed Electric Vehicle Lead-acid Battery Manufacturers in China, 2014
- Output of ATV in China, 2010-2015
- Output of Forklift Market Segments in China, 2013-2015H1
- Top 5 Electric Sightseeing Tourist Vehicle Manufacturers in China by Sales Volume, 2014

- Top 10 Forklift Manufacturers in China by Sales Volume, 2014
- ATV/Special Vehicle Lead-acid Battery Demand, 2010-2018E
- ATV/Special Vehicle Lead-acid Battery Industry Scale, 2010-2018E
- Key Financial Indicators of Johnson Controls, 2011-2015
- Revenue of Johnson Controls by Segment, FY2013-FY2015
- Distribution and Capacity of Johnson Controls' Business in China
- Battery Brands of Johnson Controls
- Key Financial Indicators of Exide Technologies, FY2010-FY2013
- Applications and Main Brands of Exide Technologies' Batteries
- Sales and Operating Income of GS Yuasa, FY2012-FY2016
- Revenue Structure of GS Yuasa by Product, FY2015
- Revenue Structure of GS Yuasa by Region, FY2014-FY2015
- Subsidiaries of GS Yuasa in China
- Shanghai Production Base of C&D
- Main Products of C&D
- Sales and Employees of HOPPECKE, 1998-2015
- Main Products of HOPPECKE
- Key Financial Indicators of Tianneng Power, 2009-2015H1
- Revenue Structure of Tianneng Power by Product, 2014-2015
- Distribution of Tianneng Power's Production Bases
- Capacity of Tianneng Power's Production Bases
- Product Layout of Tianneng Power
- Revenue of Tianneng Power by Product, 2013-2015
- Customer Group of Tianneng Power
- Revenue and Operating Income of Chaowei Power, 2011-2015

- Gross Margin and Net Margin of Chaowei Power, 2011-2015
- Distribution of Chaowei Power's Production Bases
- Lead-acid Battery Capacity of Chaowei Power, 2011-2015
- Revenue of Chaowei Power by Product, 2013-2015
- Major Customers of Chaowei Power
- Number of Changwell Power's Independent Dealers, 2011-2015
- Revenue and Net Income of Camel Group, 2010-2015
- Revenue of Camel Group by Region, 2013-2015
- Capacity of Camel Group, 2013-2014
- Revenue of Camel Group by Product, 2013-2015
- Gross Margin of Camel Group by Product, 2013-2015
- Business Planning of Camel Group
- Major Customers of Camel Group
- Revenue and Net Income of Fengfan, 2010-2015
- Revenue of Fengfan by Region, 2013-2015
- Revenue Structure of Fengfan by Region, 2013-2015
- Main Projects of Fengfan under Construction, 2015H1
- Revenue of Fengfan by Product, 2013-2015
- Revenue Structure of Fengfan by Product, 2013-2015
- Gross Margin of Fengfan by Product, 2013-2015
- Top 5 Customers of Fengfan, 2014
- Revenue and Net Income of Shandong Sacred Sun Power Sources, 2009-2015
- Revenue of Shandong Sacred Sun Power Sources by Region, 2013-2015
- Revenue Structure of Shandong Sacred Sun Power Sources by Region, 2013-2015
- Battery Sales Volume of Shandong Sacred Sun Power Sources, 2013-2014

- Revenue of Shandong Sacred Sun Power Sources by Product, 2013-2015
- Revenue Structure of Shandong Sacred Sun Power Sources by Product, 2013-2015
- Gross Margin of Shandong Sacred Sun Power Sources by Product, 2013-2015
- Major Customers of Shandong Sacred Sun Power Sources
- Revenue and Net Income of Narada Power Source, 2010-2015
- Revenue of Narada Power Source by Region, 2012-2014
- Revenue Structure of Narada Power Source by Region, 2012-2014
- Capacity of Narada Power Source
- Part of Bid-winning Energy Storage Projects on Lead-carbon Battery Technical Route of Narada Power Source
- Revenue of Narada Power Source by Industry, 2013-2015
- Revenue Structure of Narada Power Source by Industry, 2013-2015
- Revenue of Narada Power Source by Product, 2013-2014
- Revenue Structure of Narada Power Source by Product, 2013-2014
- Gross Margin of Narada Power Source by Industry, 2013-2015
- Gross Margin of Narada Power Source by Product, 2013-2014
- Revenue and Net Income of Vision Group, 2009-2015
- Revenue and Gross Margin of Vision Group by Region, 2014-2015
- Capacity of Vision Group, 2011-2014
- Output and Sales Volume of Vision Group, 2013-2014
- Revenue and Gross Margin of Vision Group by Product, 2014-2015
- Major Customers of Vision Group
- Top 5 Customers of Vision Group (External Sales), 2011-2014
- Revenue and Net Income of Dynavolt Tech, 2009-2015
- Operating Revenue of Dynavolt Tech by Region, 2013-2015
- Gross Margin of Dynavolt Tech by Region, 2013-2015

- Output and Sales Volume of Dynavolt Tech, 2013-2014
- Operating Revenue of Dynavolt Tech by Product, 2013-2015
- Gross Margin of Dynavolt Tech by Product, 2013-2015
- Major Customers of Dynavolt Tech
- Revenue of Shuangdeng Group, 2012-2014
- Key Financial Indicators of Leoch International, 2009-2015
- Revenue of Leoch International by Region, 2013-2015
- Capacity of Leoch International, 2011-2015
- Revenue of Leoch International by Product, 2013-2015
- Major Customers of Leoch International

You can place your order in the following alternative ways:

1. Order online at www.researchinchina.com
2. Fax order sheet to us at fax number: +86 10 82601570
3. Email your order to: report@researchinchina.com
4. Phone us at +86 10 82600828/ 82601561

Party A:			
Name:			
Address:			
Contact Person:		Tel	
E-mail:		Fax	

Party B:			
Name:	Beijing Waterwood Technologies Co., Ltd (ResearchInChina)		
Address:	Room 502, Block 3, Tower C, Changyuan Tiandi Building, No. 18, Suzhou Street, Haidian District, Beijing, China 100080		
Contact Person:	Liao Yan	Phone:	86-10-82600828
E-mail:	report@researchinchina.com	Fax:	86-10-82601570
Bank details:	Beneficial Name: Beijing Waterwood Technologies Co., Ltd Bank Name: Bank of Communications, Beijing Branch Bank Address: NO.1 jinxiyuan shijicheng, Landianchang, Haidian District, Beijing Bank Account No #: 110060668012015061217 Routing No #: 332906 Bank SWIFT Code: COMMCNSHBJG		

Title	Format	Cost
<i>Total</i>		

Choose type of format

- PDF (Single user license)2,400 USD
- Hard copy 2,600 USD
- PDF (Enterprisewide license)..... 3,700 USD

※ Reports will be dispatched immediately once full payment has been received.
Payment may be made by wire transfer or credit card via PayPal.

About ResearchInChina

ResearchInChina (www.researchinchina.com) is a leading independent provider of China business intelligence. Our research is designed to meet the diverse planning and information needs of businesses, institutions, and professional investors worldwide. Our services are used in a variety of ways, including strategic planning, product and sales forecasting, risk and sensitivity management, and as investment research.

Our Major Activities

- *Multi-users market reports*
- *Database-RICDB*
- *Custom Research*
- *Company Search*

RICDB (<http://www.researchinchina.com/data/database.html>), is a visible financial data base presented by map and graph covering global and China macroeconomic data, industry data, and company data. It has included nearly 500,000 indices (based on time series), and is continuing to update and increase. The most significant feature of this base is that the vast majority of indices (about 400,000) can be displayed in map.

After purchase of our report, you will be automatically granted to enjoy 2 weeks trial service of RICDB for free.

After trial, you can decide to become our formal member or not. We will try our best to meet your demand. For more information, please find at www.researchinchina.com

For any problems, please contact our service team at: