

**INTRODUCTION**

The Group is principally engaged in the research, development, manufacture and sale of rechargeable batteries for electronic devices, including mobile phones, cordless phones and power tools. The Group currently produces various models of Li-ion, NiCd and NiMH batteries. The Group also designs and manufactures most of the equipment and machinery used in its own production and testing processes.

The Group's business is principally carried on by BYD Industries and BYD Li-ion, both privately-owned enterprises established in the PRC with limited liabilities. BYD Li-ion is principally engaged in the research, development, manufacture and sale of Li-ion batteries. BYD Industries, which is the name previously adopted by the Company prior to the completion of Reorganisation, is principally engaged in the research, development, manufacture and sale of NiCd and NiMH batteries.

To prepare for the listing of H Shares on the Stock Exchange, the Group underwent the Reorganisation, pursuant to which BYD Li-ion became a 90% owned subsidiary of BYD Industries. On 4th June, 2002, the Promoters Agreement was entered into by the Promoters for the purpose of, among other matters, converting BYD Industries to a joint stock limited company. On 11th June, 2002, pursuant to the approval granted by SETC and the business licence issued by SMAIC, BYD Industries was approved to be converted to and registered as a joint stock limited company and hence became the ultimate holding company of the Group and changed its name from BYD Industries to its present name.

The Group is a leading rechargeable battery producer worldwide. The table below indicates the dominant ranking of the Group in the rechargeable battery industry in terms of shipment volume worldwide and in the PRC in 2000 and 2001 respectively:

**Ranking of the Group in the rechargeable battery industry in terms of shipment volume in 2000 and 2001**

		Li-ion	NiCd	NiMH
Worldwide	— 2001	4th	2nd	3rd
	— 2000	8th	3rd	5th
PRC	— 2001 and 2000	1st	1st	1st

*Source: IIT Reports 2000 and 2001*

The Group recorded a turnover of about RMB415.3 million, RMB872.6 million, RMB1,305.3 million and RMB571.8 million for each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002 respectively. The Group's customers include international and the PRC market leaders in the mobile phone or consumer electronic device markets, such as Motorola, Matsushita, Ericsson, Kyocera, UTStarcom, Philips, Techtronic, VTech, Bird, TCL, Zhongxing Telecom and Eastcom.

The Directors consider that the Group's achievements are principally attributable to its research and development capabilities for its products, design and production capabilities for the equipment and machinery used in its own production and testing processes, flexible and cost-efficient production process and advanced and stringent quality control system.

As at 30th April, 2002, the Group had a total workforce of about 15,400, together with the existing production equipment, rendered a daily production capacity of about 0.3 million units of Li-ion batteries and 2.0 million units of NiCd and NiMH batteries in aggregate. By combining its labour intensive production process and the capabilities to design and manufacture production and testing equipment and machinery, the Group is able to achieve a flexible production process at a low cost structure.

The flexibility in its production process allows the Group to offer a wide range of products to fulfill customers' different requirements within a short period of time.

The Directors believe that the lower production cost structure enables the Group to pursue a more competitive pricing policy compared to that of its foreign competitors.

The Group has also implemented advanced and stringent quality control measures to ensure its product quality. The Directors believe that its proven product quality and comprehensive product range, together with its flexible production process and competitive pricing policy, have enabled the Group to capture a significant market share within its seven years' operating history.

As a result of the Group's continuing commitment to maintain high product quality, various national and international certifications have been granted to the Group including 採用國際標準產品標誌證書 (Adopting International Standard Product Marking Certification), the UL Certification and CE marking certification.

To attain its commitment of "Customers' Full Satisfaction", the Group continues to improve its product quality. The Group's quality control system was accredited with the international authoritative certification of ISO9001 by DNV in 1998. In order to obtain orders from certain large and reputable customers, the Group further enhanced and upgraded its quality control system by implementing the QS9000-based management guidelines in 2001, and was accredited with the QS9000 certification by DNV in 2002. The Group also places a strong emphasis on environmental issues. The Group adopted a strict environmental protection policy and was accredited with the ISO14001 certification by DNV in 2000.

**HISTORY AND DEVELOPMENT****Production and product development**

The Group was initially engaged in the development and production of NiCd batteries. Through its research and development capabilities, the Group was able to replicate the technology and adopted a labour intensive production process for the manufacture of NiCd batteries. The Group commenced mass production of such product in 1995. The Group's NiCd batteries were well received by its customers with its first direct export sales being made in 1997. The Group's total sales of NiCd batteries for each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002 was about RMB351.4 million, RMB559.8 million, RMB605.6 million and RMB223.8 million respectively.

In order to expand its product range and satisfy customers' demand, the Group began the research, development, manufacture and sale of NiMH batteries in 1997. The Group's total sales of NiMH batteries for each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002 was RMB15.9 million, RMB90.0 million, RMB121.6 million and RMB51.4 million respectively.

In anticipation of a strong demand for Li-ion batteries in the global market, the Group entered the market of Li-ion batteries in 1998. The Group's total sales of Li-ion batteries for each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002 was about RMB48.0 million, RMB219.5 million, RMB562.3 million and RMB296.5 million respectively.

Over the years, the Group has continued to increase its production capacity and expanded its product range. The Directors believe that the Group has become one of the largest producers rechargeable batteries in the PRC. In 1997, the Group's research and development division was officially designated as 深圳市電池及電池材料工程技術研究開發中心 (Shenzhen Battery and Battery Raw Materials Technological Research and Development Centre) by 深圳市計劃局 (Shenzhen Planning Committee) and 深圳市科技局 (Shenzhen Municipal Science and Technology Bureau). The Directors believe that such accreditation represents a recognition of the technological development capabilities of the Group and they believe that the Group is one of the first few enterprises in Shenzhen to have achieved this recognition.

**Achievements**

The Group has obtained various certifications in connection with its management methodology, product quality, environmental compliance as well as its strong technological development capabilities. Certifications obtained by the Group are set out in the table below:

<b>Certification</b>	<b>Product</b>	<b>Issuing organisation</b>	<b>Subject of certification</b>	<b>Issue date of certificate</b>	<b>Renewal date of certificate</b>
QS 9000: 1998 standard*	Rechargeable batteries	DNV	Management and quality	17th May, 2002	17th May, 2005
ISO 9001: 1994 standard*	NiCd batteries NiMH batteries	DNV	Management and quality	3rd December, 1998 and 22nd September, 1999	5th July, 2002
ISO 9001: 1994 standard	Li-ion batteries	DNV	Management and quality	21st February, 2000	14th January, 2003
ISO 9001: 2000 standard	Energy saving lighting, battery performance analysing equipment, Li-ion battery protectors	DNV	Management and quality	17th May, 2001	11th April, 2004
ISO 14001: 1996 standard	Li-ion batteries NiCd batteries NiMH batteries	DNV	Environmental protection	26th January, 2000	26th January, 2003
UL Certification	Fuses, special purpose	Underwriters Laboratories Inc.	Quality and technological development	2nd May, 2000	N/A
UL Certification	Li-ion batteries	Underwriters Laboratories Inc.	Quality and technological development	12th December, 2000	N/A
CE marking	NiCd batteries NiMH batteries Li-ion batteries	Electronic Technology Systems	Quality and technological development	9th September, 1997 and 10th May, 2002	N/A
採用國際標準產品 標誌證書 (Adopting international standard product marking certification)	NiCd batteries NiMH batteries	國家質量技術監督局 (State Bureau of Quality and Technical Supervision)	Quality and technological development	26th May, 1999	26th May, 2004

\* QS9000: 1998 certificate also certifies that the management and quality system of the Company is in conformity with the management and quality system standard of ISO 9001: 1994(E); as a result, the Company did not apply for a renewal for the relevant ISO 9001 certificate.

**Corporate development**

*BYD Industries (the name adopted by the Company prior to the completion of the Reorganisation)*

BYD Industries is principally engaged in the research, development, manufacture and sale of the Group's NiCd and NiMH batteries. It was founded by Shenzhen Metallurgy, Guangzhou Tianxin and Shenzhen Lidasi on 10th February, 1995 as a privately-owned enterprise with limited liability established in the PRC under the leadership of Mr. Wang. BYD Industries' initial registered capital was RMB4.5 million, which had been fully paid up, with Shenzhen Metallurgy, Guangzhou Tianxin and Shenzhen Lidasi contributing about 64.40%, 31.10% and 4.50% respectively thereto.

In October 1997, Shenzhen Metallurgy sold and transferred its entire interests in the then registered capital of BYD Industries to Guangzhou Rongjie, Mr. Wang and Mr. Xia. Following the transfer, BYD Industries was held by Guangzhou Rongjie as to 34.40%, Guangzhou Tianxin as to 31.10%, Mr. Wang as to 20.00%, Mr. Xia as to 10.00% and Shenzhen Lidasi as to 4.50% respectively. In January 1998, the then registered capital of BYD Industries was increased to RMB30 million. The additional capital was contributed by Guangzhou Rongjie as to RMB16.55 million, Mr. Wang as to RMB6.40 million and Mr. Xia as to RMB2.55 million. Following such increase, BYD Industries was owned by Guangzhou Rongjie as to 60.33%, Mr. Wang as to 24.33%, Mr. Xia as to 10.00%, Guangzhou Tianxin as to 4.67% and Shenzhen Lidasi as to 0.67% respectively.

In January 2000, Guangzhou Tianxin sold and transferred its entire interest in the then registered capital of BYD Industries to Mr. Wang, whereby Guangzhou Rongjie sold and transferred about 10.33% of its interest in the then registered capital of BYD Industries to Mr. Wang. In 2001, Shenzhen Lidasi sold and transferred its entire interest in the then registered capital of BYD Industries to Mr. Wang. As a result of the above transfers, BYD Industries was owned by Guangzhou Rongjie as to 50.00%, Mr. Wang as to 40.00% and Mr. Xia as to 10.00% respectively. In January 2002, the then registered capital of BYD Industries was increased to RMB100 million. The additional RMB70 million had been fully paid up and was contributed by Guangzhou Rongjie, Mr. Wang and Mr. Xia in proportion to their respective interests in BYD Industries.

On 6th March, 2002, Guangzhou Rongjie and Mr. Xia transferred their respective equity interests of 23.55% and 1.40% in the then registered capital of BYD Industries as to 0.97% to Mr. Wang, as to 8.72% to Mr. Lu, as to 13.76% to the Management Shareholders and as to 1.50% to the three other individual investors. Pursuant to various equity transfer agreements executed on the same day, Guangzhou Rongjie, Mr. Wang and Mr. Xia transferred their respective equity interests of 5.00%, 4.00% and 1.00% in BYD Industries to Ms. Zhang Chang-hong, Ms. Li and Ms. Yang Zhi-lian.

After the above-mentioned transfers, BYD Industries was owned by Mr. Wang as to 36.97%, Guangzhou Rongjie as to 21.45%, Mr. Lu as to 8.72%, Mr. Xia as to 7.60%, Ms. Zhang Chang-hong as to 5.00%, Ms. Li as to 4.00%, Ms. Yang Zhi-lian as to 1.00%, the Management Shareholders as to 13.76%, Ms. Dai Chang, Ms. Ku Wei-ni and Ms. Jia Yan-xiu as to the aggregate interests of 1.50%.

The above-mentioned transfers and the changes in the registered capital of BYD Industries have been completed and registered with the relevant PRC government authority.

#### *BYD Li-ion*

BYD Li-ion, previously known as 深圳市里比電池有限公司 (Shenzhen LB Battery Company Limited), is principally engaged in the research, development, manufacture and sale of the Group's Li-ion batteries. It was established on 9th June, 1998 by BYD Industries and 20 other individual shareholders (the majority of which are senior management employees of BYD Industries) as a privately-owned enterprise with limited liability established in the PRC with a registered capital of RMB3 million, all of which had been fully paid up. The two major shareholders were BYD Industries and Ms. Li, holding 40.00% and 29.50% of the then registered capital of BYD Li-ion respectively, whilst the remaining 19 shareholders held between 0.50% to 5.00% each with an aggregate of 30.50% of its then registered capital. BYD Li-ion adopted its present name on 6th June, 2001.

On 9th and 30th December, 1998, two of the individual shareholders sold their respective entire equity interests in the then registered capital of BYD Li-ion to BYD Industries and some other shareholders, representing an aggregate of 2.00% of the then registered capital of BYD Li-ion, and on 3rd March, 1999, BYD Industries sold and transferred 5.00% of its equity interest in BYD Li-ion to other shareholders. Following the above equity transfers, the then registered capital of BYD Li-ion was owned by BYD Industries as to 36.00%, Ms. Li as to 29.50% and 17 other shareholders as to the remaining 34.50%. On 15th September, 1999, the then registered capital of BYD Li-ion was increased to RMB3.279 million. Following such increase, BYD Li-ion was owned by BYD Industries as to 35.68%, Ms. Li as to 26.99% and 25 other individual shareholders as to the remaining 37.33%.

During the period from January to July in 2000, BYD Industries and two individual shareholders of BYD Li-ion sold their respective entire equity interests in BYD Li-ion, representing an aggregate of 36.86% of the then registered capital of BYD Li-ion to other shareholders of BYD Li-ion. Following the equity transfers, BYD Li-ion was owned by Ms. Li as to 33.21%, Mr. Lu as to 20.22%, Mr. Wang as to 0.91% and 25 other individual shareholders as to the remaining 45.66%.

In December 2000, the then registered capital of BYD Li-ion was increased to RMB30 million through the contribution of its then existing shareholders and six new shareholders. Following such increase, BYD Li-ion was owned by Ms. Li as to 32.55%, Mr. Lu as to 19.82%, Mr. Wang as to 1.18% and 31 other individual shareholders as to the remaining 46.45%.

In February 2001, Ms. Zhou Dong-Mei, sold and transferred 0.90% of her equity interest in BYD Li-ion to Mr. Wang. In September 2001, Ms. Li sold and transferred her entire equity interests in BYD Li-ion to Mr. Wang and nine other shareholders, representing an aggregate of 32.55% of the issued share capital of BYD Li-ion. Following such transfers, BYD Li-ion was owned by Mr. Wang as to 32.91%, Mr. Lu as to 19.82% and 37 other individual shareholders as to the remaining 47.27%.

On 6th March, 2002, pursuant to various equity transfer agreements, Ms. Dai Chang, Ms. Ku Wei-ni and Ms. Jia Yan-xiu respectively transferred 3.04%, 3.48% and 3.48% equity interests in BYD Li-ion to Ms. Dai Jing, Mr. Zhou Zi-liang and Mr. Shen Pei-sen.

The above-mentioned transfers and the changes in the registered capital of BYD Li-ion have been completed and registered with the relevant PRC government authority.

#### *BYD Electronics*

BYD Electronics is principally engaged in the design and manufacture of production and testing equipment and machinery for the Group's own use and the development, manufacture and sale of rechargeable battery related products. To cater for the growth of the Group, BYD Industries and BYD Li-ion established BYD Electronics (formerly known as 深圳市比創達電子有限公司 (Shenzhen Bi Chuang Da Electronics Limited)) on 3rd August, 2000 as a privately-owned enterprise with limited liability in the PRC. The registered capital of BYD Electronics is RMB2.5 million, with BYD Industries and BYD Li-ion contributing 40.00% and 60.00% of such investment respectively. The current name of BYD Electronics was adopted on 21st May, 2001.

#### *BYD Europe, BYD America and BYD (HK)*

BYD Europe, BYD America and BYD (HK) are principally engaged in the sale of rechargeable batteries and related products in Europe, the United States and Hong Kong respectively, which, together with the Group's overseas representative offices in Japan and Korea, form an international network to facilitate the sale of the Group's rechargeable batteries. BYD Europe was incorporated on 21st January, 1999 in the Netherlands. Its authorised share capital is NLG200,000 and its issued share capital is NLG40,000. BYD America was incorporated on 22nd November, 1999, its authorised share capital is US\$10,000 and its issued share capital is US\$300. BYD (HK) was incorporated in Hong Kong on 19th February, 1999. Its authorised share capital is HK\$10,000 and its issued share capital is HK\$100. BYD Europe and BYD America are subsidiaries of the Company whilst BYD (HK) is owned by BYD Europe as to 60.00% and BYD America as to 40.00%.

#### **Reorganisation and conversion to a joint stock limited company**

In preparation for the listing of the H Shares on the Stock Exchange, the Group underwent the Reorganisation, pursuant to which, on 30th April, 2002, the shareholders of BYD Li-ion (other than Mr. Zhou Zi-liang, Mr. Shen Pei-shen and Ms. Dai Jing) transferred an aggregate of 90% equity interest in BYD Li-ion to BYD Industries for a total consideration of RMB39.

As part of the Reorganisation, the shareholders of BYD Industries transferred their equity interests among themselves at a nominal consideration for the purpose of adjusting the shareholding structure of BYD Industries as agreed among all the shareholders of BYD Industries. On 30th April, 2002, Ms. Zhang Chang-hong, Ms. Li and Ms. Yang Zhi-lian transferred their respective equity interests of 5.00%, 4.00% and 1.00% in BYD Industries to Guangzhou Rongjie in a total consideration of RMB3. On the same day, Guangzhou Rongjie transferred its equity interest of about 19.97% in BYD Industries to all other shareholders of BYD Industries in a consideration of RMB39. The shareholders of BYD Industries and their respective shareholdings immediately prior to the Share Offer are set out in the paragraph “Group structure” to this prospectus.

On 4th June, 2002, the Promoters entered into the Promoters Agreement for the purpose of, among other matters, regulating the rights and obligations of the Promoters in connection with capital injection and the conversion of BYD Industries to a joint stock limited company by way of subscription of the Promoters Shares. Upon its incorporation, the net assets of BYD Industries were injected into the joint stock limited company.

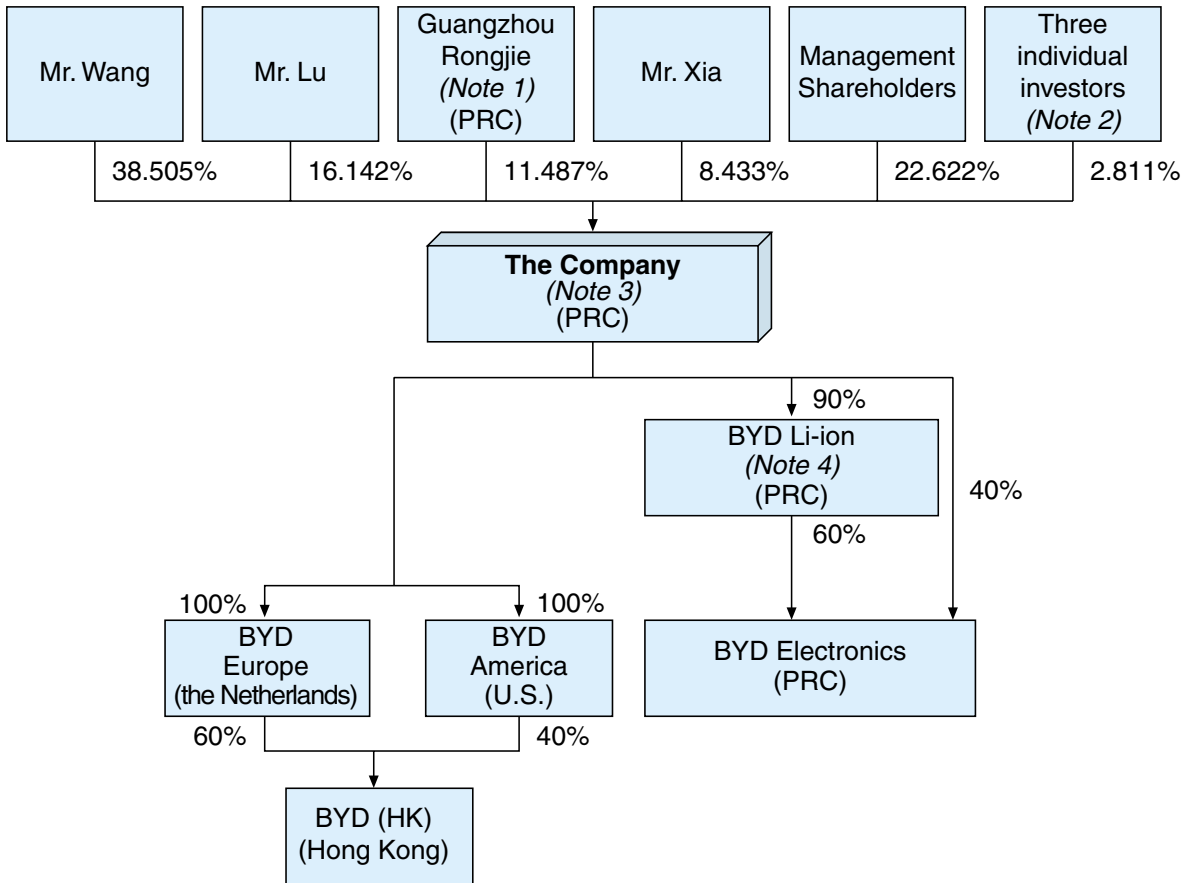
Pursuant to the approval granted by SETC and the business licence issued by SMAIC dated 11th June, 2002, BYD Industries was approved to convert to and registered as a joint stock limited company. Accordingly, the Company became the ultimate holding company of the Group.



# BUSINESS

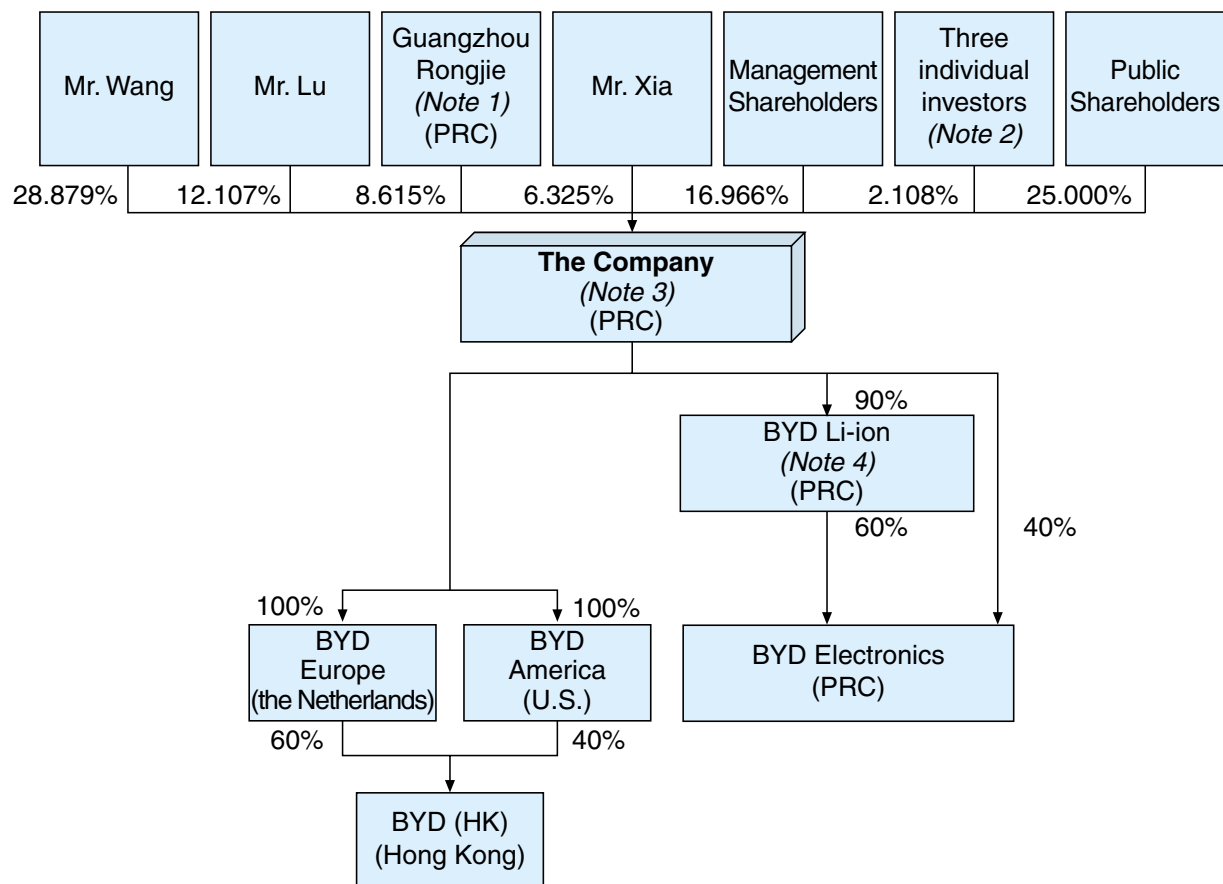
## GROUP STRUCTURE

On 11th June, 2002, the Company completed the Reorganisation in preparation for the listing of the H Shares on the Stock Exchange, as a result of which the Company became the holding company of the Group. The Company has also adopted its present name, BYD Company Limited, on the same day. Details of the Reorganisation are set out in the paragraph headed “Corporate reorganisation” in appendix VI to this prospectus. The corporate structure of the Group immediately prior to the Share Offer is set out below:



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The corporate structure of the Group immediately following completion of the Share Offer (assuming no H Shares are issued pursuant to the Over-allotment Option) is set out below:



Notes:

(1) Guangzhou Rongjie is a company established in the PRC on 18th April, 1995, the issued share capital of which is owned by Mr. Lu as to 84% and other investors as to the remaining interest of 16%.

(2) The 3 individual investors and their respective shareholdings are as follows:

Name of the investors	Shareholding percentages	
	immediately prior to the Share Offer	immediately after the Share Offer
Ms. Dai Chang	1.1758	0.8819
Ms. Ku Wei-ni	0.8174	0.6131
Ms. Jia Yan-xiu	0.8174	0.6131

(3) The Company was previously known as BYD Industries prior to completion of the Reorganisation.

(4) The remaining interests in BYD Li-ion are held as to 3.48% by Mr. Zhou Zi-liang (the spouse of Ms. Ku Wei-ni), as to 3.48% by Mr. Shen Pei-sen (the spouse of Ms. Jia Yan-xiu) and as to 3.04% by Ms. Dai Jing (the sister of Ms. Dai Chang) respectively.

## **PRINCIPAL STRENGTHS**

The Directors believe that the principal strengths of the Group are as follows:

### **Strong research and development capabilities**

The Group has established a strong research and development team, responsible for the research and development of new products and new production technologies, as well as continuous improvement on product quality and production process to enhance product quality and lower production cost. The Group's strengths in research and development have been demonstrated by its ability to meet a wide range of different customers' requirements on product specification, and to apply for and obtain patents for its products. The research team of the Group is currently engaged in about 20 research topics including batteries for notebook computers and PDA, batteries for electric motor vehicles and electric bicycles, fuel cells, solar cells and STN-LCD products.

### **Unique production process and methodologies**

The Group takes advantage of the abundant human resources in the PRC and adopts a labour intensive production process, which, together with its self-developed production methodologies and its capabilities to design and manufacture production and testing equipment, allow it to maintain flexibility in its production process and control the production cost effectively, and have provided a competitive edge for the Group in the rechargeable battery industry.

### **Solid customer foundation**

Within its seven years' operating history, the Group has built up a solid customer base comprising leading international players from a wide spectrum of industries. The Group's ability to improve and diversify products has helped it to maintain these large and reputable international customers. Its solid customer base and good customer relationship provided a concrete foundation for the Group to expand its existing business and develop rechargeable battery related products.

### **Advanced and stringent quality control system**

The Group has received international recognition for its product quality. Various certifications have been issued in favour of the Group. The Directors believe that the Group's highly regarded reputation among its customers could be maintained from its continuous adherence to its strict internal quality control policies.

### **Market leader in the industry**

The Directors believe that the Group's strong commitment to continuous improvement on production technologies and development of new products, its proven product quality and the close relationship with its customers will add up to enable the Group to maintain its leadership position in the industry.

## **Highly effective management team**

The Company is a privately-owned enterprise. Mr. Wang, president of the Company, has extensive experience in the battery industry. Personal interests of the executive Directors and the Management Shareholders are in line with the Group since they will together be interested in about 52.17% of the equity interest of the Company immediately after completion of the Share Offer assuming no H Shares are issued pursuant to the Over-allotment Option. In addition, the flat organisation structure of the Group speeds up the decision making process and allows the Company to be responsive to the market changes.

## **Price and product range**

The Directors believe that the Group's competitive pricing policy enables its products to reach a wider spectrum of customers, both in the PRC and worldwide. The Directors also believe that the Group's wide range of product offering allows it to become a one-stop supplier of rechargeable batteries for the customers, which help the customers reducing their supplier base and in turn help the Group maintaining a stronger relationship with its customers and gaining a larger market share.

## **The PRC becoming the world's manufacturing hub**

Owing to the open door policy adopted by the PRC government and the increasing demand for electronic consumer products by the most populous country, many international enterprises set up their production facilities in the PRC. The PRC is gradually becoming the manufacturing hub for international enterprises of various industries. The Directors believe that those international enterprises will gradually increase their sourcing from the PRC. As an enterprise in the PRC, the Group benefits from the proximity to the production facilities of such international enterprises.

Upon PRC's accession to the WTO, business opportunities for foreign investors to invest and enter into the PRC market are expected to increase, and taking into account that the penetration rate for mobile phones in the PRC was only about 11% in 2001, international mobile phone producers may set up or expand the production facilities in the PRC to take advantage of the lower production cost and the huge domestic market. As mobile phones currently account for the largest application of rechargeable batteries, the Directors believe that the demand for rechargeable batteries from these international mobile phones producers will increase over time and the PRC market will become increasingly important for the production and sale of rechargeable batteries.

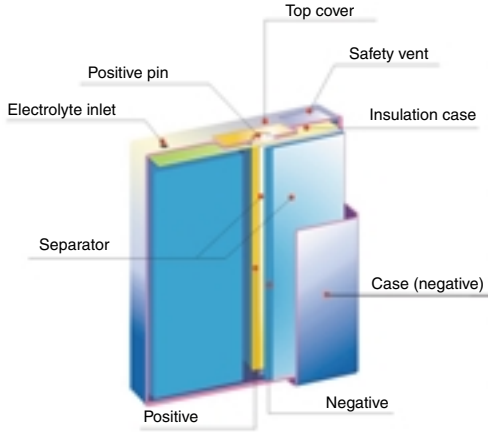
## PRODUCTS

### Product designs

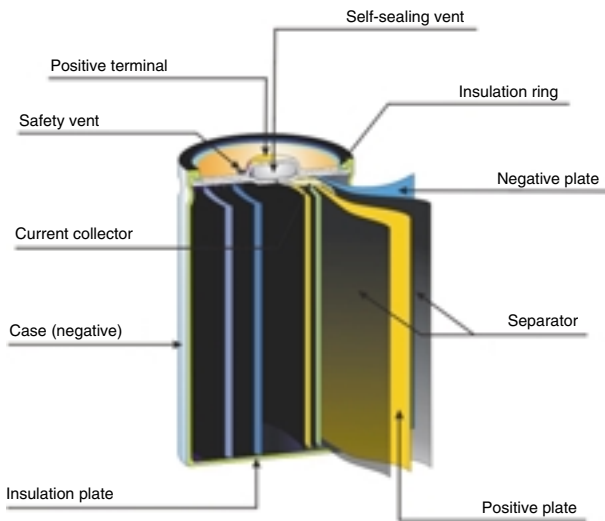
The Group's principal products are Li-ion, NiCd and NiMH batteries. Most of these products are designed to meet the specifications of its customers. The Directors believe that with the Group's strong research and development capabilities for new product and production technologies and its ability to design and manufacture production equipment and machinery used in its production and testing processes, the Group is able to meet the continuously changing requirements of its customers. The Directors believe that this flexibility of the Group has allowed it to attract and maintain leading industry players as its customers who are in turn required to adapt to the changing needs of their customers in the markets.

The basic interior structures of the Group's Li-ion, NiCd and NiMH batteries are set out in the diagrams below:

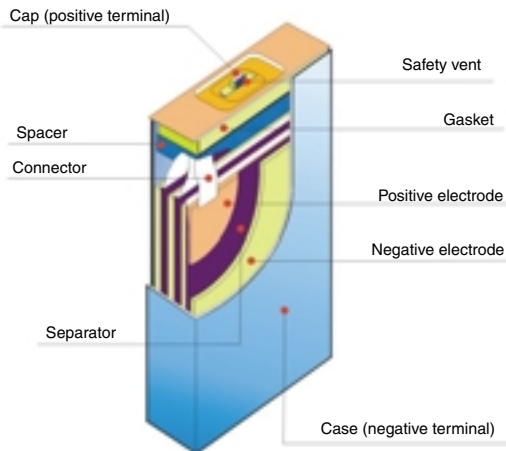
## Prismatic Li-ion battery



## Cylindrical NiCd and NiMH batteries



## Prismatic NiMH battery



**Product range**

The Directors believe that the Group's comprehensive product range has enabled it to attract a wide spectrum of customers which allows it to gain a larger market share. As a result of the Group's strong research and development capabilities and its production process which enable it to have lower production cost and higher flexibility, the Group has been able to design, research, develop and produce a comprehensive range of batteries in response to the changing market environment and different customer needs. The Group currently supplies a range of about 150 different models of Li-ion, NiCd and NiMH batteries.

The principal battery models currently manufactured by the Group are set out below:



**A**



**AA**



**AAA**



**C**



**D**



**LC**



**LP**



**PA**



**PB**



**PC**



**PD**



**SC**

## BUSINESS

The following table sets out the turnover for certain major models of the Group's battery products:

Batteries	Product description	Series	Main applications	Year ended 31st December,			Four-month period ended
				1999	2000	2001	2002
				RMB'M	RMB'M	RMB'M	RMB'M
Li-ion battery	Prismatic cells and power packs	LP	Mobile phones, notebook computers* and camcorders*	48.0	219.5	562.3	296.5
NiCd battery	Cylindrical cells and power packs	AA	Electrical toys and cordless phones	142.5	214.9	242.1	59.6
		SC	Power tools and emergency lights	101.8	239.3	272.3	107.6
		AAA	Cordless phones	11.5	24.9	18.9	2.5
		A, C/D	Portable VCD players, game players and emergency lights	36.9	39.1	38.5	11.9
NiMH battery	Cylindrical, prismatic cells and power packs	AA	Cordless phones and electrical toys	6.6	13.6	67.7	23.1
		AAA	Mobile phones and cordless phones	2.6	4.8	24.5	15.4
		SC	Power tools	2.3	5.1	1.5	0.8
		A, C/D, PA, PB, PC, PD	Two-way radio, camcorders, portable VCD players, CD players, cordless phones, power tools, and mobile phones	1.4	60.5	10.6	1.7
			Total turnover of major models		<u>353.6</u>	<u>821.7</u>	<u>1,238.4</u>

\* *under development*



## **TRADEMARKS AND PATENTS**

The Directors believe that it is important to have its newly invented solutions to be registered as patents to protect its technological know-how and production methodologies from imitation. Over the years, the Group has obtained 18 patents in the PRC and is in the process of applying for registration of another 17 patents in the PRC and two international patent applications.

The Group owns registered patents in respect of some of its designs and production methodologies and is in the process of applying for registration of certain production methodologies in the PRC. Details of each of the patents are set out in the paragraph headed “Intellectual property rights” under the section headed “Further information about the business” in appendix VI to this prospectus.

Some of the Group’s products are marketed under the “BYD” and “比亞迪” trademarks, which, together with the related logo, have been registered by the Group in the PRC, Hong Kong and other countries. Details of the registered trademarks and those under applications are set out in the paragraph headed “Intellectual property rights” under the section headed “Further information about the business” in appendix VI to this prospectus.

### **Product recognition**

The Directors believe that the Group’s products are widely recognised for their proven quality, both domestically and internationally.

The Group’s Li-ion batteries were given international recognition by Underwriters Laboratories Inc. in 2000, which certified that the Group’s Li-ion batteries had reached the safety standard of the United States.

The Group’s NiCd and NiMH batteries were awarded CE marking certification in 1997. The Group has also obtained the CE marking certificate for its Li-ion batteries in 2002. The marking indicates that the Group’s products comply with the essential requirements of the relevant EU’s health, safety and environmental protection legislation.

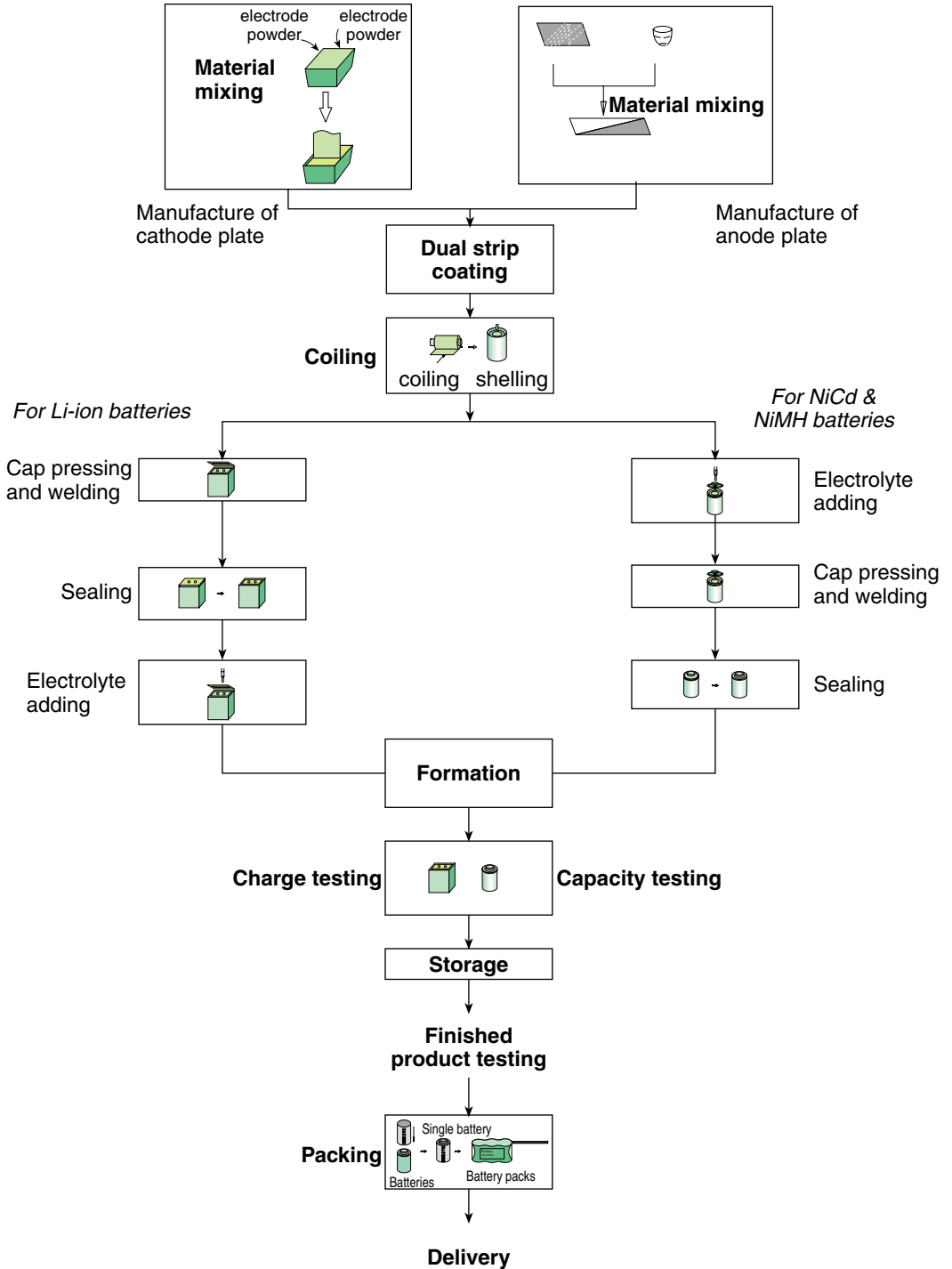
Domestically, the Group was given national recognition as 廣東省民營企業質量工作先進單位, (Guangdong Province Privately-owned Quality Work Enterprise) in 1997. The Group’s NiCd and NiMH batteries were also qualified by 國家質量技術監督局 (State Bureau of Quality and Technical Supervision) to adopt international standard product marking since 1999. The Directors believe that the above accreditation indicates the general recognition of the quality of the Group’s products both worldwide and in the PRC.

# BUSINESS

## PRODUCTION

### Production Process

The following diagram illustrates the major steps involved in the production of the Group's batteries:



## *Material mixing*

Different chemicals and solvents will be mixed together in specified proportion in preparation for the formation of the positive and negative electrode plates in the dual strip coating process.

## *Dual strip coating*

The positive mixing materials and the negative mixing materials will be processed to form positive electrode plates and negative electrode plates respectively.

## *Coiling*

This involves the coiling of the positive and the negative electrode plates and inserting into the battery case. With the filling of electrolyte and the welding and sealing of the cap, a bare cell is formed.

Different batteries have different coiling orders. In respect of NiCd and NiMH batteries, electrolyte is filled first, followed by the welding and sealing of the cap. For Li-ion battery, the cap is pressed first, followed by welding and sealing, and lastly adding of electrolyte.

## *Formation*

At this stage, the batteries will be activated by being charged and discharged according to some specified algorithm.

## *Charge/Capacity testing*

All the batteries will be charged and discharged for its functions, and to be classified according to its capacity.

## *Storage*

Batteries will be kept in a warehouse for about 30 days depending on the type of the products to stabilise the chemicals and to minimise short-circuit problem.

## *Packing*

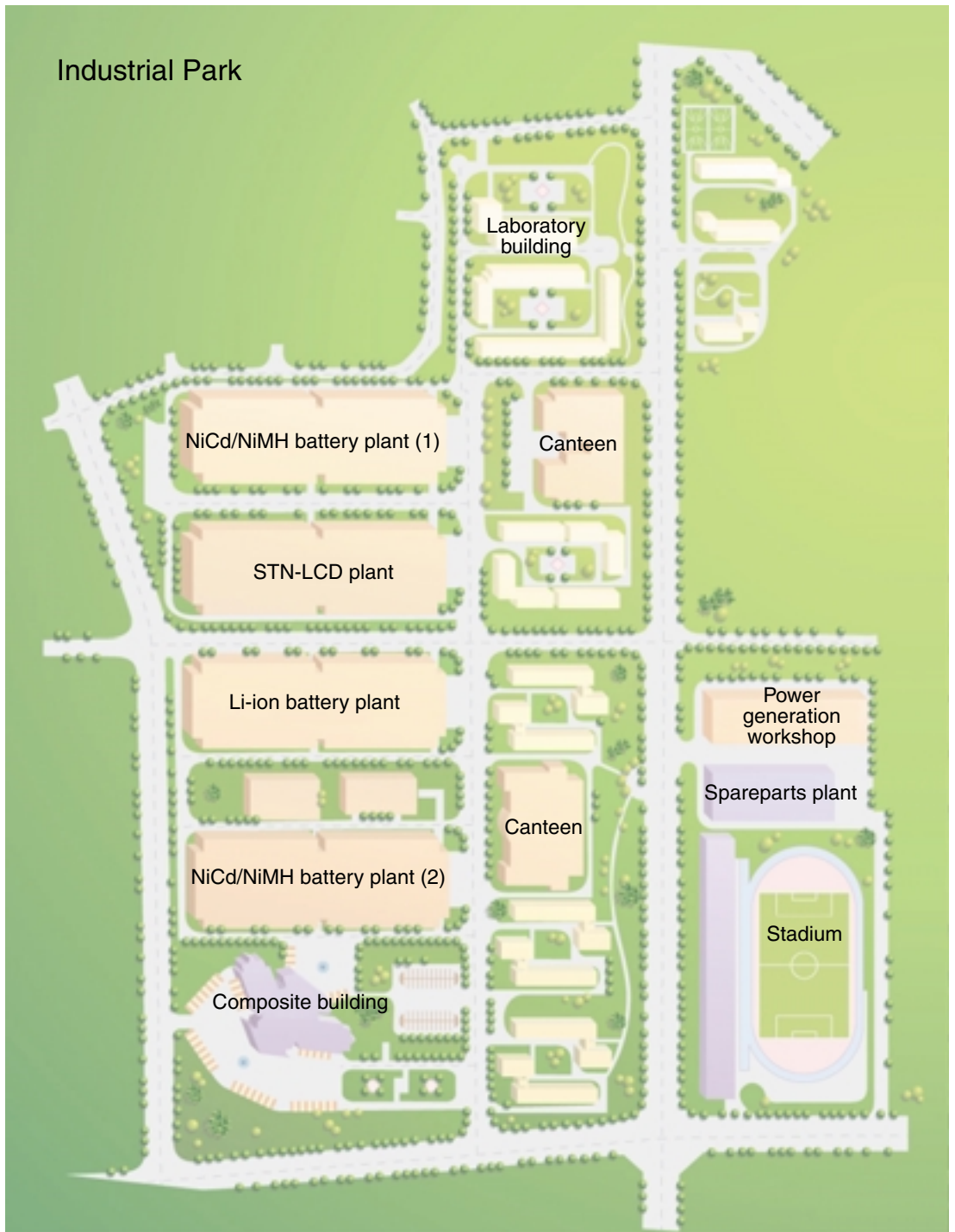
After thorough inspection of the voltage of each battery, it will be packed in accordance with the clients' request.

**Unique production process**

The Group adopts a labour intensive production process which takes advantages of low labour cost in the PRC by adopting manual labour for procedures requiring less accurate techniques. The Directors believe that by appropriate combination of human resources as well as machinery rather than adopting expensive highly automated production lines will lower production costs and enhance flexibility in production. The Directors believe that such production methodologies place the Group in a more competitive position relative to the other competitors. As at 30th April, 2002, the Group has a workforce of about 13,600 staff performing the production function.

The Group's engineers are responsible for the design and manufacture of most of the production and testing machinery and equipment of the Group. The Directors believe that by producing these mechanical equipment in-house to meet the Group's production needs, the Group's production costs could further be reduced, hence its competitiveness and profitability could be improved.

Production facilities



The production facilities of the Group are principally located at the Group's headquarters in Kuichong, Longgang District, Shenzhen, Guangdong Province, the PRC. The development of the production facilities of the Group was carried out in two phases. Phase one, which includes the NiCd/NiMH battery plants (1) and (2), was completed between August 2000 and January 2001. Phase two, which includes the Li-ion battery plant, STN-LCD plant, spareparts plant and the power generation workshop was completed between January 2001 and December 2001.

As at 30th April, 2002, the production capacity of the Group's Li-ion batteries and NiCd/NiMH batteries was 0.3 million units per day and 2 million units per day respectively. The average utilisation rate of the Group's Li-ion batteries and NiCd/NiMH batteries in 2001 was 64% and 71% respectively.

### **QUALITY CONTROL**

The Directors recognise the importance of quality control for the Group's products. The Group has established and implemented a quality management assurance system in strict compliance with ISO9001 guidelines and was awarded certifications by DNV in 1998. The Group imposes advanced and stringent quality control standards on each of the production stages from product development and design, production, sale to servicing. The Group has also been implementing new additional management guidelines in 2001 that based on the QS9000 quality standards and the Group was accredited with the QS9000 certification by DNV in 2002.

The Group has a quality assurance team to maintain the daily operation of the quality system of the Group. It works with different divisions and sets out the targets, policies and plans for quality management which comply with the quality assurance model and the requirements specified by each customer. Comprehensive testing and control procedures have been adopted throughout the production process as well as the provision of customer services.

As at 30th April, 2002, the Group has over 500 staff performing quality control function who will carry out inspections at various stages of the production process to ensure that the Group's products adhere to customers' specifications.

### **Customers' requirements**

In addition, the Group has adopted advanced and stringent quality control standards which also meet the requirements of its international customers. On 20th March, 2001, Motorola, one of the leading providers of complete energy system solutions for portable electronics announced that it qualified the Li-ion batteries from the Company. Experts from the Motorola Energy Systems Group manage the rigorous battery qualification process. Their procedure contains a safety evaluation for batteries of two levels of tests: (1) inherent safety-related testing and (2) cell-level product design testing. Having the batteries qualified by such reputable company, the Directors believe that the Group's batteries quality has reached a standard being recognised by the customers internationally.

## BUSINESS

By adopting stringent quality control standards and procedures, the Group has not experienced any significant amount of returned goods. For each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002, the value of returned goods accounted for about 3.98%, 1.56%, 1.19% and 1.55% of the Group's turnover respectively.

### SALES AND MARKETING

#### Markets and customers

The Group has built up a broad and geographically diversified customer base for its battery products, comprising mainly mobile phones, telecommunication and electronic devices producers.

The following table sets out the breakdown of the Group's domestic and export sales during each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002:

	For the year ended 31st December,						For the four-month period ended 30th April, 2002	
	1999		2000		2001		RMB'M	%
Type of sales	<i>RMB'M</i>	%	<i>RMB'M</i>	%	<i>RMB'M</i>	%	<i>RMB'M</i>	%
Export	273.3	65.8	577.3	66.2	781.7	59.9	357.2	62.5
Domestics	<u>142.0</u>	<u>34.2</u>	<u>295.3</u>	<u>33.8</u>	<u>523.6</u>	<u>40.1</u>	<u>214.6</u>	<u>37.5</u>
Total	<u>415.3</u>	<u>100.0</u>	<u>872.6</u>	<u>100.0</u>	<u>1,305.3</u>	<u>100.0</u>	<u>571.8</u>	<u>100.0</u>

The Directors believe that the Group's quality product, its competitive pricing policy and efficient production process have enabled it to successfully capture a significant market share and establish a closer relationship with its customers in a relatively short operating history.

## BUSINESS

The following table sets out the Group's principal customers and major brands by each application:

### Principal customers and major brands by applications

Applications	Customers	Major brands
Mobile phones	Motorola	Motorola
	Kyocera	Kyocera
	Philips	Philips
	Bird	Bird
	Konka	Konka
	惠州 TCL 移动通信 (Hui Zhou TCL Mobile Communication)	TCL
	Zhongxing Telecom	ZTE
	東方通信 (Eastcom)	Eastcom
	Beijing Capitel	Capitel
	UTStarcom	UTStarcom
Cordless Phones	VTech	VTech, Lucent, AT&T
	Matsushita	Panasonic
	Unisonic	Bellsouth
	Thomson	GE Thomson
	Sony	Sony
	Uniden	Uniden
	Philips	Philips
	BBK	BBK (步步高)
Power Tools	Techtronic	Ryobi, Craftsman
	Makita	Makita
	Bosch	Skil, Bosch
Electrical Toys	NICS	Nikko

For each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002, the Group's five largest customers accounted for about 33.9%, 26.6%, 38.7% and 50.7% of the Group's turnover respectively. For each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002 the Group's largest customer accounted for about 14.1%, 7.9%, 12.1% and 17.9% respectively of the Group's total turnover during that period.

For each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002, the Group's five largest customers for Li-ion batteries accounted for about 8.0%, 8.6%, 28.7% and 37.7% respectively of the Group's total turnover. The Group's largest customer for Li-ion batteries accounted for about 2.2%, 3.0%, 12.1% and 14.7% respectively of the Group's total turnover during that period.



For each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002, the Group's five largest customers for NiCd batteries accounted for about 33.3%, 25.6%, 21.7% and 19.4% respectively of the Group's total turnover. The Group's largest customer for NiCd batteries accounted for about 14.1%, 7.9%, 8.8% and 11.3% respectively of the Group's total turnover during that period.

For each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002, the Group's five largest customers for NiMH batteries accounted for about 1.4%, 5.4%, 4.8% and 4.4% respectively of the Group's turnover. Sales of NiMH batteries to the Group's largest customer accounted for about 0.5%, 3.5%, 1.5% and 1.2% respectively of the Group's total turnover during that period.

Other than described above, no customer constituted over 10% of the Group's sales in each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002. None of the Directors, the Supervisors, their respective associates nor any shareholders of the Company (who or which to the knowledge of the Directors owns more than 5% of the issued share capital of the Company) has any interest in any of the Group's five largest customers.

### **Marketing**

The primary objective of marketing activities is to promote the Group and its products. The Group's sales team is responsible for gathering market information and coordinating marketing and advertising activities. Marketing activities include participation in local and overseas exhibitions. Exhibitions in which the Group has participated include the famous Cebit in Germany and Comdex in the United States.

The Group emphasizes a customer-oriented principle to satisfy customers' requirements. The Group's sales team maintain close contacts with its customers to explore their dynamic needs. The Group's customers are invited for factory visits to have a better understanding of the Group's research capabilities, production process and scale of operation.

The Group advertises through various local and international renowned magazines of the industry to increase customers' awareness of its products. The sales personnel also issue advertising information for distribution to customers from time to time.

### **Sales team**

The sales team of the Group is responsible for developing and maintaining relationships with customers in order to ensure the steady growth of the orders, and for the smooth flow of the sales process. The Group has sales offices in the United States, Holland and Hong Kong and representative offices in Japan and Korea, to promote overseas sales and provide services to the customers. Sales personnel of the Group are located both in the PRC and overseas to co-ordinate the marketing activities of the Group and the distribution of the Group's products. The sales personnel work closely with the technical supporting staff, and maintain the smooth flow of communication between the Group and the customers in order to keep the customers' abreast of the Group's products.

**Sales policy, payment terms and pricing policy**

The Group made assessment against the credit rating of each customer, and extends credit of up to 90 days to customers with a high credit rating and with whom the Group has established business relationship. Customers are classified according to their size and relationship with the Group. For new customers or customers with a purchase of less than US\$5,000, sales personnel adopt cash on delivery method. To encourage early payment, the remuneration of each of the Group's sales personnel is directly linked with collection of accounts receivable under his supervision, and rewards or penalties will be made to those sales personnel whose responsible accounts receivable is collected before or after the due date respectively.

The Group's sales are mostly settled in RMB and US\$. Set out below are the percentages of sales of the Group settled in RMB, US\$ and other currencies during the Track Record Period:

	<b>For the year ended 31st December,</b>			<b>For the four-month period ended</b>
	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>30th April, 2002</b>
	%	%	%	%
RMB	32.13	34.74	39.52	41.20
US\$	63.45	62.03	58.93	58.62
Other currencies	4.42	3.23	1.55	0.18

Prices on products of the Group are determined together by various departments of the Group. Factors taken into account when determining prices include cost of production, size of the orders, price of the products offered by its competitors, the Group's marketing strategy and the relationship with the relevant customer.

The management of the Group monitors the amount due from its customers and will adjust the credit terms granted to its customers if necessary. The senior management of the Group will assess the recoverability of trade receivables on a regular basis, and will provide specific allowance on those balances with recoverability issues and provide general allowance on the remaining balance according to the age of the receivables. The management assesses the reasonableness of the provision annually. The Group has maintained a stringent credit control policy and has not experienced any significant bad debt losses in the past few years. The allowance on doubtful receivables in each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002 was about RMB8.8 million, RMB2.4 million, RMB7.9 million and RMB0.4 million respectively.

**Customer services**

The Group has a specialised customer service division to provide comprehensive, efficient and technical services to its customers. From production to after-sale, the personnel of the customer service division always take into account customers' need to ensure the long-term mutual benefits with its customers. The Group arranges personnel of its customer service division to visit its key customers from time to time, which enable its customers to have a more in-depth understanding of its batteries and allow the Group to keep abreast of the technical requirements of the customers' products. The Group has a technical support team with domestic and overseas coverage. Such team consists of trained technical support engineers providing technical support to customers.

Technical support personnel provides customers with advice, assistance and perform testing of various functional parameters of battery using devices of its customers. The technical support personnel also assists customers' selection of suitable battery model and specification.

In order to comply with various requirements of packaging methods of customers, the Group has special packaging designers to design packaging plans for each customer.

**PROCUREMENT**

**Raw materials**

Raw materials purchased by the Group mainly consist of blowing nickel-nets, steel shell, spherical nickel hydride and Cadmium Oxide to be used for nickel-based batteries and Lithium Cobalt Dioxide (LiCoO<sub>2</sub>) and electrolyte to be used in Li-ion batteries. The average lead time for the supply of raw materials from the Group's PRC suppliers and overseas suppliers was about 10 days and one month respectively. The percentage of raw materials in value sourced from the PRC and overseas suppliers for each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002 are set out in the table below:

**Percentage of raw materials sourced from the PRC and overseas suppliers**

	For the year ended 31st December,			For the
	1999	2000	2001	four-month period ended 30th April, 2002
	%	%	%	%
<b>Li-ion batteries</b>				
PRC	57.6	27.2	28.9	38.4
Overseas	42.4	72.8	71.1	61.6
<b>NiCd/NiMH batteries</b>				
PRC	93.4	91.9	82.0	74.8
Overseas	6.6	8.1	18.0	25.2

**Suppliers**

Purchases from the five largest suppliers of the Group for each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002 represented about 43.6%, 34.3%, 25.4% and 32.2% of the Group's total purchases respectively. Purchases from the largest supplier of the Group represented about 13.7%, 12.1%, 8.4% and 15.9% of the Group's total purchases during each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002 respectively. None of the Directors, the Supervisors, their respective associates nor any shareholders of the Company (who or which to the knowledge of the Directors owns more than 5% of the issued share capital of the Company) has any interest in any of these suppliers.

The Group has maintained well-established business relationships with its suppliers. The Directors believe that, as a result of such well-established business relationships, the Group will be able to secure substantial benefits such as assured quality, lower purchase prices and in-time deliveries from its suppliers. The Group enjoys credit periods of about one to four months from its major suppliers for the three years ended 31st December, 2001 and the four months ended 30th April, 2002 and has kept its payments within such credit periods during that time.

The Group has not experienced any significant difficulties in sourcing raw materials during the three years ended 31st December, 2001 and the four months ended 30th April, 2002. The Group's purchasing division will continue to secure new suppliers aiming at obtaining quality raw materials at competitive prices, hence minimising production costs. The Directors do not anticipate that the Group will face any material difficulties in sourcing raw materials.

**Stock control**

The Group maintains control over purchase of raw materials and components in order to reduce the risk of over-stocking due to changes in economic conditions and obsolescence. The Group follows the QS9000-based management guideline to select the potential suppliers. The Group's purchasing team work closely with the production and the sales and marketing divisions to maintain control over purchase of raw materials.

In order to maintain the quality of the Group's products and to minimise the risks of short-circuit problem, charged batteries will go through the Group's routine manufacturing process and most of the batteries produced by the Group are kept for storage for about 30 days, depending on the types of batteries, for the chemicals to become stable before packaging.

Specific and general provision on inventory will be provided by the management of the Group on a regular basis based on the aging of the inventory balance. The provision on inventory for the three years ended 31st December, 2001 was RMB4.0 million, RMB24.1 million and RMB13.0 million respectively.

To be responsive to the market and meet customers production requirement instantly, the Group would stock up a slightly higher level of raw material as buffer. The Directors are planning to further strengthen the communication between the Group and its customers in order to obtain a more accurate forecast, and correspondingly to optimise the level of inventory.

The management of the Group assesses the reasonableness of the provision and provides general stock provision by reference to the aging of each category of stocks.

### LICENSING ARRANGEMENT

BYD Industries and Ovonic Battery Company Inc. (“Ovonic”) have entered into a consumer battery licence agreement (the “Licence Agreement”) in 2000. Ovonic is a company incorporated in the U.S.A. in 1982 principally engaged in the business of the development and commercialisation of NiMH battery technology. Ovonic is a subsidiary of Energy Conversion Devices, Inc. listed on the Frankfurt Stock Exchange. Under the Licence Agreement, Ovonic has agreed to grant to BYD Industries a licence to apply certain patents to make, use, sell or otherwise dispose of NiMH batteries. The licence excludes the application of the relevant patents or the technologies in such patents to the production, sale or otherwise of all types of electric propulsion vehicles (including two and three wheeled vehicles and hybrid electric vehicles). The licence is a non-exclusive worldwide (exclusive of the countries of the former USSR) licence.

In consideration of the grant of the licence, BYD Industries has agreed to pay to Ovonic up-front fees and royalty. The amount of up-front fees payable is determined with reference to the gross sales price of the NiMH batteries to which the relevant patents/technologies are applied in accordance with the payment schedule set out in the Licence Agreement. The total amount of up-front fees payable under the Licence Agreement is capped at US\$5 million.

In addition to the up-front fees, BYD Industries is required to pay royalty during the term of the Licence Agreement. Such royalty is calculated at the rate of 0.5% of the net selling price of the hydride batteries to which the relevant patents/technologies are applied.

The Group has applied the relevant patent/technology under the Licence Agreement to its NiMH battery products in 2000. The sales amount of the relevant products for the two years ended 31st December, 2001 and the four months ended 30th April, 2002 amounted to RMB56.2 million, RMB51.4 million and RMB24.3 million respectively representing about 6.4%, 3.9% and 4.2% of the Group’s total sales for the relevant periods respectively. As the sales of products to which relevant patent/technology licensed by Ovonic under the Licence Agreement have been applied only represented a small percentage of the Group’s sales in the relevant period, the Directors consider that termination of the Licence Agreement would not have a material impact on the Group’s operation.

The Licence Agreement came into effect on 1st July, 2000. It remains in effect until the date of expiration, lapse or termination of the last to expire, lapse or terminate of the patents concerned.

BYD Industries may terminate the Licence Agreement by the service of a 30-day prior written notice to Ovonic. Either party to the Licence Agreement is entitled to terminate the agreement in the event of any material default if such default is not remedied within 90 days after written notice is served.

As advised by the PRC legal adviser, the change of the name of the Company from BYD Industries to BYD Company Limited and its conversion from a limited liability company to a joint stock limited liability company should not affect the rights and obligations of the Company under the existing contracts entered into by BYD Industries. In light of the above and in the absence of (i) any express provisions in the Licence Agreement for termination of or alteration to the terms of the agreement in the event of a change of name of BYD Industries and (ii) any legal requirements as such, the Licence Agreement remains valid and the Company continues to enjoy and bear the rights and liabilities under the Licence Agreement.

## **RESEARCH AND DEVELOPMENT**

In order to keep pace with the rapid technological developments in the rechargeable batteries industry and continuously enhance the Group's competitive advantages, the Directors believe that it is essential for the Group to improve the performance of its existing products and to continuously develop new products. The Group has therefore placed substantial emphasis on, and maintains a commitment to, research and development. The Group's research and development functions are currently carried out by the research and development division, the technology division and the engineering division.

The Group's research and development division was formally set up in 1997. In the same year, the Group's firm commitment to research and development was recognised by 深圳市計劃局 (Shenzhen Planning Committee) and 深圳市科技局 (Shenzhen Municipal Science and Technology Bureau) by way of the official designation of the Group's research and development division as 深圳市電池及電池材料研究開發中心 (Shenzhen Battery and Battery Raw Materials Research and Development Centre), being responsible for the research and development of battery related products. The Directors believe that the Group is one of the first few enterprises in Shenzhen to have achieved this recognition.

The Group's research and development division is responsible for each of the development of medium to long term products and the research of applicable mechanism to the existing products. The Group's technology division is responsible for the development of new products and new production methodologies. The technical staff of the engineering division work with the technology division and engage in the design and the development of equipment and machinery to accommodate special production methods and specifications.

The Group's research and development expenses for each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002 were about RMB10.2 million, RMB21.5 million RMB32.5 million and RMB14.1 million respectively, representing about 2.5% of the total sales for each of the period respectively.

No research and development expenses have been capitalised during the Track Record Period.

## **Government subsidies**

To encourage the development of high technological products, the PRC government subsidises the research and development programmes upon application submitted by the manufacturers. In December 1998 and August 1999, the PRC government paid direct subsidies to the Group in a total sum of about RMB3.6 million for the research and development of battery related products on a non-recurring basis upon receiving the Group's application for certain battery-related research projects.

## **Professional staff**

As at 30th April, 2002, the Group had a team of about 200 staff in the research and development division and about 150 staff in the technology and engineering divisions, including doctorate, master degree holders and technicians. The Group's research team concentrated its efforts on the development of rechargeable batteries to suit customers' specifications. Over the years, the Group's research team assisted the Group to obtain 18 patents in the PRC for its products. The Group is also in the process of applying for registration of another 17 patents in the PRC and two international patent applications. The Group had obtained preliminary approval for most of its applications from 國家知識產權局 (the State Intellectual Property Rights Bureau). These patent applications cover not only product designs but also production methodologies.

## **Research teams**

The Group's research division comprises about 20 subject teams, researching on topics including batteries for notebooks and PDA, batteries for electric motor vehicles and electric bicycles, fuel cells, solar cells and STN-LCD products.

In order to keep abreast of the latest market trends, the Group's researchers collaborate with members of the Group's sales and marketing division to obtain updated market information. They would also maintain direct contact with the Group's customers in order to ascertain their requirements and the preferences of the general public.

## **Equipment**

The Group has the capabilities to design and manufacture most of the equipment and machinery for its testing and production process. In order to further enhance its technical strength and competitive advantages, the Group has equipped itself with high-technology equipment imported from countries such as the United States, France and Japan.

## BUSINESS

Details of the Group's principal equipment used in its research and development division are set out below:

<b>Details of equipment</b>		
<b>Machinery</b>	<b>Usage</b>	<b>Country of origin</b>
X-ray Photoelectron Spectroscopy	Electrode plate analysis	U.S.A.
Ultrace ICP-AES	Chemical compositions analysis	France
Gas Chromatograph-Mass Spectrograph	Electrolyte analysis	U.S.A.
Scanning Electron Microscope and X-ray Energy Dispersive Spectroscopy	Electrode plate analysis	PRC/U.S.A.
X-ray Diffractometer	Components structure analysis	Japan
Simultaneous Thermal Analysis	Simultaneous thermal analysis	Germany
Particle Size Analyser	Particle analysis	U.S.A.
Electrochemical Workstation	Electrode processing	U.S.A.

The Directors believe that such research equipment would enable the Group's researchers to develop new technologies and methodologies on a more efficient level.

As technological changes may render the Group's equipment and machinery obsolete, the Company will upgrade its equipment and machinery to meet the technological changes.

### **COMPETITION**

Based on the Directors' knowledge and experience relating to the rechargeable battery industry, the Directors estimate that most of the major producers of rechargeable battery and battery-related products for consumers electronic products are based in Japan. The Directors, therefore, consider that the Group faces competition mainly from Japanese producers.

The Directors believe that the majority of the PRC competitors are smaller in terms of operating scales and the Directors are of the view that the Group's technological know-how and its research capabilities place the Group in a more competitive position relative to other producers in the PRC. Moreover, the Group has established an extensive sales network for its



customers. The Directors believe that the established position of the Group in the rechargeable battery industry together with its long standing relationships with its customer poses an entry barrier to the other competitors in the PRC.

The Group's strategic location in the PRC has allowed it to access to one of the largest and fastest growing markets in the world and tap into an abundant supply of labour at relatively low cost. Together with the Group's research and development capabilities for its products and the ability to design and manufacture most of its testing and production equipment to suit its production needs and firm commitment to quality control on its products, it places the Group in an advantageous position to offer products in a flexible manner and at more competitive prices.

Recently, apart from the continuous production of rechargeable batteries, the Group started to engage in the research, development and manufacture of related products such as STN-LCD for mobile phones. The Directors are of the view that the Group can make use of the synergy between its customer base and its manufacturing process to develop battery-related products which will enable the Group to follow closely the latest market trends in respect of technological and product development. The Group's research and development team will continuously launch new products and reduce the production costs of existing products. With such competitive edge and its commitment to research and development, the Directors believe that the Group will continue to capture a large market share.

### PRODUCT DEVELOPMENT

The Directors believe that the future success and profitability of the Group rely not only on its vertical growth within the rechargeable battery industry, but also on its horizontal development across the broad spectrum of related products.

The Group's research and development division is currently involved in in-depth research on a range of new technologies. A brief description of the main research projects currently undertaken by the Group is set out in the section headed "Future plans and use of proceeds" to this prospectus.

Within the next five years, the Group's product mix is expected to be diversified such that its current reliance on rechargeable batteries for mobile phones will be reduced. The Directors believe that the newly developed products such as Li-ion batteries for notebook computers, PDA, digital cameras and camcorders, batteries for electric motor vehicles and electric bicycles, fuel cells, solar cells and STN-LCD products will account for a larger proportion of the Group's total production and profits.

#### (1) **Battery for notebook computer, PDA, digital camera and camcorders**

Owing to light weight and high capacity of Li-ion batteries, the Directors are confident that there will be a continued increase in demand for Li-ion batteries, particularly the cylindrical type of Li-ion batteries for use in notebook computers, PDA, digital cameras and camcorders.

To date, the Group has developed about 150 different models of rechargeable batteries. The Group has successfully developed a 3mm-thick aluminium-cased prismatic Li-ion battery which the Directors believe is an indication that the Group's research and development division has sufficient technique and know-how in the development of Li-ion batteries. The Directors further believe that such achievement supports the Group's continuous development of cylindrical batteries in the coming years.

The Group has already successfully developed a prototype cylindrical Li-ion battery for notebook computers. Mass production of cylindrical Li-ion batteries is expected to commence shortly.

**(2) Battery for electric motor vehicles and electric bicycles**

Since its establishment, the Group has focused the development of rechargeable batteries for the portable electronic equipment market. In order to expand its revenue bases, the Directors have made several plans to develop new production lines for new products. One of these plans is to develop battery for electric motor vehicles and electric bicycles.

Owing to the limited oil resources and increasing environmental protection consciousness, the Directors believe that there will be a growing need for alternative energy powered vehicles. As electric motor vehicles effectively reduce fuel consumption, motor vehicle manufacturers have started to develop and produce electric motor vehicles.

Electric bicycles are emerging as a preferred means of transportation, as electric bicycles have become more affordable.

The Directors believe that the Group's strong research and development team with its successful experience in the development of small-celled rechargeable batteries will be able to develop larger-celled rechargeable batteries for electric motor vehicles and electric bicycle. The Group's research and development division is now working on the development of batteries for electric motor vehicles and electric bicycle.

**(3) Fuel cells and solar cells**

To prepare for the change in technologies and tap into the markets for new products, the Group has devoted resources on research and development of new technologies for new products such as fuel cells and solar cells.

**(4) STN-LCD**

Production of LCDs is mainly concentrated in Asian countries, with Japan playing a leading role. In view of the growing market for the value-added LCDs, the Group has commenced its research and development of STN-LCD of mobile phones utilising a labour intensive production process similar to that of its rechargeable battery production process. By adopting a labour intensive production process, lower production costs can be achieved and hence resulting in higher profit margins for the Group. It is expected that this new product would be ready for mass production in 2003.

## **ENVIRONMENTAL MATTERS**

The Group has adopted an environmental protection policy including the installation of waste water treatment facilities. In recognition of its commitment to implement environmental protection policies, the Group was accredited with the ISO14001 certification by DNV in 2000.

The Group's production facilities discharge waste water and solid waste materials. In view of this, the Group has made certain arrangements for the collection of industrial waste in compliance with the relevant PRC environmental laws and regulations, both at national level and at municipal level. Although these mechanisms have been checked and approved by the PRC government authorities upon installation, they are subject to continuous monitoring by the PRC government authorities to ensure compliance with the PRC pollution emission standards.

The Group has its own facilities to treat waste water and solid waste. Waste water first goes through preliminary treatment at waste water treatment facilities. Thereafter, the water is recycled for other uses in the production process. The Group invested a total sum of about RMB3,000,000 in the purchase and installation of the waste water equipment. The construction and installation of the treatment facilities commenced from 30th October, 2000 and the Directors believe that they will be completed progressively.

深圳市環境保護局 (Shenzhen Environmental Protection Bureau) issued an inspection approval in 2002 and confirmed that the Group's treatment facilities have fulfilled the completion checking requirements and the recycled water has reached the standard to be reused. The Group was granted a sewage permit on 13th March, 2002. When the waste discharged exceeds the amount or breaches the standards imposed by the permit, the polluting entity may be required to pay a fine and to comply with waste discharge standards within a short period of time, or in serious cases, the permit may be revoked. The Directors believe that the environmental protection systems and facilities of the Group are adequate for the Group to comply with current applicable national and municipal environmental protection regulations. The Group has not committed any material breach of environmental rules and regulations and no fine and penalties have been imposed on the Group as a result of any breach of the environmental rules and regulation.

## **MANAGEMENT**

As at 30th April, 2002, the Group has over 15,400 staff, the Directors fully understand that the Group's success would largely depend on a modern and effective management system. The Group's management system is therefore aimed to achieve focused control and development in all areas of the Group's business.

### **Shared divisions**

The Directors believe that modern management would necessarily involve the optimum utilisation of resources, hence reducing unnecessary administration and costs. Several common internal divisions among the Company's subsidiaries have therefore been able to ensure focused management and provision of services to the Group as a whole. These divisions are managed by the Company which include the research and development division,

the sales and marketing division, the financial division, the personnel division, the cost accounting division, the financial clearing division, the supervisory division, the logistics division, the computer centre, the administration office and the quality system office.

## **Recruitment**

The Group typically recruits its employees from the human resources market, universities and/or through employment advertisements. All newly recruited employees are required to undergo particular training programmes before they are allowed to assume their respective duties within the Group.

Upon satisfied performance during the probation period, the new recruits will enter into an employment contract with the Group. The Group's employees have employment terms of one to three years, which is renewable subject to their respective performance.

## **Employee**

The Group's production workers basically work for 8 hours a day, and they are required to work overtime when necessary. The total amount of employee remuneration paid by the Group (including basic salaries, overtime payments, housing and full board expenses) represented about 12.88%, 11.61%, 11.68%, and 9.58% of total turnover for each of the three years ended 31st December, 2001 and the four months ended 30th April, 2002 respectively.

## **Training**

The Group places a heavy emphasis on the quality of its employees and offers them both in-house and external training. A detailed and structured training policy is adopted by the Group for this purpose.

### *Entry level*

Newly recruited production workers and junior office staff are enrolled in a 7-day orientation training programme before they commence their duties within the Group. The training offers these new recruits an insight to the Group's history, its management and internal organisational structure, the employees' code of conduct and awarding and penalization system. The production workers are also required to undergo a strict training programme for the production lines, and would need to pass the required tests before they are allowed to officially join the production lines.

### *Continuous training*

Prospective applicants for promotion to team leaders amongst the production workers are required to undergo training on the Group's quality control systems, the Group's corporate culture, confidentiality requirements, and cost control. Production workers eligible for promotion to junior office staff are required to undergo training on computer knowledge, documentation, professional ethics, communication skills and basic use of English.

Prospective applicants for promotion to divisional heads are required to undergo training on market analysis, management communications, decision-making skills and human resource management. Those applicants who would like to be considered for promotion to managerial grade are required to undergo training on modern management accounting, management information system, leadership skills, sales and marketing skills, management economics, public relations, management skills and more advanced use of English.

The Group has also adopted an advanced training programme for its administrative and management staff in 2000, whereby staff were selected to take up a half-year course at 深圳大學成人教育學院 (Postgraduate Education College of the Shenzhen University), and are provided with subsidies.

The Directors believe that the Group's ongoing training programmes would enable the Group to maintain its high quality modern management system.

### **Employee incentive schemes**

As part of the Group's modern management approach, the Directors believe that the Group's employees should be given the opportunity to develop hidden talents to the benefit of the Group as a whole. Therefore, through various incentive schemes, employees will offer innovative ideas and suggestions as to ways of improving the Group's products, technological capabilities and training programmes. Through these incentive schemes, talented employees, particularly those involved in the management of the Group, are encouraged to remain in the Group. During the Track Record Period, the Group has been able to maintain a stable management team.

Under these incentive schemes, monetary rewards and/or commendations are given to those employees who are able to contribute towards the Group's continuous strive for improvement in all areas of its operations and businesses. The amount of such monetary rewards will depend on the level of the employee's contribution and the effect that such contribution has on the Group's operations and/or businesses.