

HUANENG POWER INTERNATIONAL INC  
Form 6-K  
April 24, 2013

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

Report of Foreign Private Issuer  
Pursuant to Rule 13a-16 or 15d-16 of  
The Securities Exchange Act of 1934

For the month of April, 2013

(Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.)

Form 20-F  Form 40-F

(Indicate by check mark whether the registrant by furnishing the information contained in this form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.)

Yes  No

(If "Yes" is marked, indicate below the file number assigned to registrant in connection with Rule 12g3-2(b):

82-\_\_\_\_\_.)

N/A

Huaneng Power International, Inc.  
Huaneng Building,  
6 Fuxingmennei Street,  
Xicheng District,  
Beijing, 100031 PRC

This Form 6-K consists of:

A copy of 2012 annual report of Huaneng Power International, Inc. (the “Registrant”) filed with the Stock Exchange of Hong Kong Limited.

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The Objectives  
Of The Company

As A Power Company, devoted to providing sufficient, reliable and eco-friendly energy to the community; as a listed company, devoted to creating long-term, stable and increasing returns for shareholders; and as a first class power corporation, devoted to having excellency in operation, becoming a leading power enterprise in China and an advanced enterprise internationally.

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## Company Profile

Huaneng Power International, Inc. (“the Company”, “Huaneng Power” or “Huaneng International”) and its subsidiaries are mainly engaged in developing, constructing, operating and managing large-scale power plants throughout China. As at 31 December 2012, the Company is one of China’s largest listed power producers with equity-based generation capacity of 56,572 MW and controlling generation capacity of 62,756 MW, and its domestic power plants are located in 19 provinces, municipalities and autonomous regions. The Company also has a wholly-owned power company in Singapore.

The Company was incorporated on 30 June 1994. It completed its initial global public offering of 1,250,000,000 overseas listed foreign shares (“foreign shares”) in October 1994, which were listed on the New York Stock Exchange (NYSE: HNP) in the United States by issuing 31,250,000 American Depository Shares (“ADS”). In January 1998, the foreign shares of the Company were listed on the Stock Exchange of Hong Kong Limited (the “Hong Kong Stock Exchange”) by way of introduction (Stock Code: 902). Subsequently, in March 1998, the Company successfully completed a global placement of 250,000,000 foreign shares along with a private placement of 400,000,000 domestic shares. In November 2001, the Company successfully completed the issue of 350,000,000 A Shares (Stock code: 600011) in the PRC, of which 250,000,000 shares were domestic public shares. In December 2010, the Company completed the non-public issuance of 1,500,000,000 ordinary shares in RMB (“A Shares”) and 500,000,000 overseas listed ordinary shares (“H Shares”). Currently, the total share capital of the Company amounts to approximately 14.06 billion shares.

The core business of the Company is to develop, construct, and operate large-scale power plants by making use of modern technology and equipment and financial resources available domestically and internationally. As a power generation enterprise, the Company has been insisting on innovations in technologies, structure, management since its incorporation; and on aspects regarding the advancement in power technologies, power plant facilities and mode of management, etc.. The Company has been the pioneer and created various milestones within the domestic industry. The Company was the first to introduce a 600 MW supercritical coal-fired generating unit into China while its Huaneng Dalian Power Plant was the first one to be awarded the honor of “First Class Coal-fired Power Plant” in China. The generating unit 1 at Huaneng Yuhuan Power Plant is the first operating single 1,000 MW ultra-supercritical coal-fired generating unit in China, Huaneng Yuhuan Power Plant was the first domestically built 1,000 MW ultra-supercritical coal-fired power plant in China that was put into commercial operation, Huaneng Jinling Power Plant has constructed the first digitalized 1,000 MW domestic ultra-supercritical coal-fired generating unit, and the generating unit 1 at Huaneng Haimen Power Plant was the first 1,000 MW generating unit in the world using sea water desulphurization facilities. The Company was the first power company in China to get listed in New York, Hong Kong and Shanghai. The overall manpower efficiency of the Company has been remaining at the forefront in China’s power industry. The Company has fastened its pace to transform modes of development and improve quality of the expansion plans. The Company constantly optimizes the power structure and regional distribution, gives priority to thermal power development, and constructs efficient, environmentally friendly units and power base for unification of coal and electricity in developed areas. We also strive to stably develop steam turbine generators, promote development of efficient wind power projects and investment in hydropower and nuclear power projects. Meanwhile, the Company actively promotes the industry synergy, continues to promote the investment in coal, port and sea transportation etc. and upgrades the capability in the self-supply of coal, port storage, trans-shipment and the sea transportation. The combined synergy in power, coal, port and transportation is basically formulated.

Throughout the years, with efforts in seeking expansion and operating the business in a prudent manner, the Company has expanded gradually, with steady profit growth and increasing competitive strengths. The success of the Company is attributable to the following competitive advantages: firstly, advanced equipment, highly efficient generating units and stable operation of power plants; secondly, high-quality staff and experienced management; thirdly, a disciplined corporate governance structure and rationalized decision-making mechanisms; fourthly, geographical strategic

advantages of the locations of the power plants which present promising prospects in the power market; and fifthly, good credit standing and reputation domestically and internationally and rich experience in the capital markets.

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The objectives of the Company are: as a power company, devoted to providing sufficient, reliable and eco-friendly energy to the community; as a listed company, devoted to creating long-term, stable and increasing returns for shareholders; and as a first class power corporation, devoted to having excellency in operation, becoming a leading power enterprise in China and an advanced enterprise internationally.

Huaneng International Power Development Corporation (“HIPDC”), the Company’s parent company and controlling shareholder, was incorporated as a Sino-foreign joint stock company in 1985. The Company was incorporated by way of joint promotion by HIPDC and local government investment companies in the regions where the power plants are located.

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## Major Corporate Events in 2012

### January

- The Company completed the issuance of its first tranche of non-public issuance of debt financing instruments of 2012. The issuance amount for the debt financing instruments was RMB5 billion.
- The Gas Co-generation Expansion Project (with a total capacity of 923 MW) of Huaneng Beijing Co-generation Power Plant, a set of coal-fired generating units with 600 MW generation capacity (Unit 1) of Phase I Project of Shanxi Huaneng Zuoquan Power Plant and a set of generation units with 20 MW generation capacity (Unit 1) of Hunan Yongzhou Xiangqi Hydropower Station have respectively completed the trial run.
- The Company's transaction to acquire 100% interests in Hubei Province Enshi City Maweigou Valley Hydro Power Development Co., Ltd. (with a total capacity of 15 MW) was effective on 30 December 2011.
- The Company announced that its total power generation within China for 2011 recorded a growth of 22.03% year-on-year.

### February

- A set of coal-fired generating units with 600 MW generation capacity (Unit 2) of Shanxi Huaneng Zuoquan Power Plant has completed the trial run; Phase I Project of Huaneng Jiuquan Wind Power (with a total capacity of 501.5 MW) has completed the trial run at the end of 2011.
- The Huaneng Coal Transit Base Project at Haimen Port in Shantou had been approved by National Development and Reform Commission.
- The Huaneng Yunnan Chuxiong Natural Gas Co-generation New Construction Project had been approved by Development and Reform Commission of Yunnan Province.
- On 21 February, Mr. Guo Hongbo was appointed as a director of the seventh session of the board of directors of the Company. Liu Shuyuan (director) officially resigned.

### March

- A set of ultra-supercritical coal-fired generating units with 1,000 MW generation capacity (Unit 5) of Phase III Project of Henan Huaneng Qinbei Power Plant has completed the trial run.
- The Company announced its operating results for the year ended 2011 with RMB1.181 billion of net profit attributable to equity holders of the Company under the International Financial Reporting Standards, representing a decrease of 64.74% year-on-year.

### April

- The Wind Farm Phase I Project of Huaneng Rudong Wind Power Co., Ltd. had been approved by Development and Reform Commission of Jiangsu Province.
- The Company announced that for the first quarter in 2012, its total power generation within China recorded a growth of 0.97% year-on-year.
- The Company completed the issuance of its first tranche of short-term bonds for 2012 and the total issuing amount was RMB5 billion.
- The Company announced that for the first quarter in 2012, net profit attributable to equity holders of the Company was RMB919 million under the PRC accounting standards, representing an increase of 306.33% year-on-year.
- The Company issuance of Renminbi bond in Hong Kong had been approved by National Development and Reform Commission and the total issuing amount was capped at RMB5 billion.





May

- The Company announced that Mr. Du Daming, Vice President, succeeded Mr. Gu Biquan to be the secretary of the Board of Directors of the Company.
- A set of generating units of the Company at Hunan Yongzhou Xiangqi Hydropower Station with 20 MW generation capacity (Unit 2) has completed the trial run.

June

- The Company completed the issuance of its first tranche of ultra-short-term bonds of 2012. The issuance amount for the bonds was RMB5 billion.
- On 12 June, Mr. Xie Rongxing was appointed as a director of the seventh session of the board of directors of the Company. Huang Mingyuan (director) officially resigned.

July

- Huaneng Tongxiang Natural Gas Co-generation Project had been approved.
- The Company completed the issuance of its second tranche of super-short-term debentures of 2012. The issuance amount for the debentures was RMB5 billion.
- The Company announced that for the first half 2012, its total power generation within China decreased by 1.46% year-on-year.
  - The Company announced its interim results in 2012 with RMB2.122 billion of net profit attributable to equity holders of the Company under the IFRS, representing an increase of 87.64% year-on-year.

August

- The Company completed the issuance of its third tranche of super-short-term debentures of 2012. The issuance amount for the debentures was RMB5 billion.

September

- The New Construction Project on Closing Down of Small Generating Units of Henan Huaneng Mianchi Co-generation Plant had been approval.
- The Company completed the issuance of its fourth tranche of super-short-term debentures of 2012. The issuance amount for the debentures was RMB5 billion.

October

- Huaneng Suzhou Combined Cycle Co-generation Project had been approved.
- The Company announced that its power generation within China in the first three quarters of 2012 decreased by 5.40% year-on-year.
- The Company announced that for the first three quarters in 2012, net profit attributable to equity holders of the Company was RMB4.195 billion under the PRC accounting standards, representing an increase of 197.40% year-on-year.

November

- The Company completed the issuance of its second tranche of short-term notes for 2012 and the total issuing amount was RMB5 billion.
- The Company was awarded the “Top Ten Gainer Stocks” among the 2012 “Top 100 Hong Kong Stocks”. The award was jointly organized and published by Finet and QQ.com, with Hong Kong Economic Journal, Chamber of Hong Kong Listed Companies, Hong Kong Institute of Financial Analysts and Professional Commentators, Hong Kong Securities Institute, CBN Institute and College of Business at the City University of Hong Kong.

December

- The Company completed the issuance of its third tranche of short-term notes for 2012 and the total issuing amount was RMB5 billion.
  - The Wind Farm Phase I Project (with a total capacity of 49.5 MW) of Huaneng Changtu Taiping has completed the trial run.
  - Huaneng International was named the “National Demonstration Base for Corporate Culture” at the 2012 National Corporate Culture Conference (at Huaneng International) and the unveiling ceremony of Demonstration Base for Corporate Culture held at Beijing, which was organized by China Enterprise Confederation/China Enterprise Directors Association.
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## Financial Highlights

(Amounts expressed in thousands of RMB, except per share data)

## Consolidated Statements Of Comprehensive Income (Note 1)

	Year ended 31 December				
	2008	2009	2010	2011	2012
Operating revenue	67,835,114	76,862,896	104,318,120	133,420,769	133,966,659
Profit/(Loss) before income tax (expense)/benefit	(4,791,556 )	5,703,976	4,164,090	2,050,367	8,876,785
Income tax (expense)/benefit	239,723	(593,787 )	(842,675 )	(868,927 )	(2,510,370 )
Profit/(Loss) after income tax (expense)/benefit	(4,551,833 )	5,110,189	3,321,415	1,181,440	6,366,415
Attributable to:					
– Equity holders of the Company	(3,937,688 )	4,929,544	3,347,985	1,180,512	5,512,454
– Minority interests	(614,145 )	180,645	(26,570 )	928	853,961
Basic earnings/(loss) per share (RMB/share)	(0.33 )	0.41	0.28	0.08	0.39
Diluted earnings/(loss) per share (RMB/share)	(0.33 )	0.41	0.28	0.08	0.39

## Consolidated Balance Sheets (Note 2)

	As at 31 December				
	2008	2009	2010	2011	2012
Total assets	165,917,758	197,887,179	227,938,213	257,415,874	259,100,372
Total liabilities	(123,357,805)	(147,239,059)	(165,512,741)	(197,858,121)	(193,140,030)
Net assets	42,559,953	50,648,120	62,425,472	59,557,753	65,960,342
Equity holders of the Company	36,829,320	42,124,183	53,789,133	50,882,929	56,130,134
Minority interests	5,730,633	8,523,937	8,636,339	8,674,824	9,830,208

## Notes:

- The results for the years ended 31 December 2008, 2009, 2010 are derived from the historical financial statements of the Company. The results for the years ended 31 December 2011 and 2012 are set out on pages 95 to 96. All such information is extracted from the financial statements prepared under International Financial Reporting Standards (“IFRS”).
- The consolidated balance sheets as at 31 December 2008, 2009, 2010 are derived from the historical financial statements of the Company. The consolidated balance sheets as at 31 December 2011 and 2012 are set out on

pages 97 to 98. All such information is extracted from the financial statements prepared under IFRS.

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Profit attributable to equity holders

5,512 RMB million

Profit/(Loss) attributable to equity holders of the Company under IFRS

For the years ended 31 December

Domestic power generation

302.433 billion kWh

Domestic power generation

For the years ended 31 December

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Generation capacity on an equity basis

56,572 MW

Generation capacity on an equity basis

For the years ended 31 December

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Letter to Shareholders

CAO Peixi  
Chairman

In 2012, the Company exploited the favorable timing of a fall in coal price, overcame difficulties posed by sluggish demand for electricity and intensified market competition, strengthen the management and cost control, grasped every opportunity and tackled every problem in a positive manner, thereby new progress have been achieved in every aspect and recorded its best ever operating results. The Company recorded net profit attributable to equity holders of the Company of RMB5.512 billion for the year, representing a sharp increase of 366.95% year-on-year.

The Board of Directors of the Company has resolved to propose the following profit distribution plan for 2012: a cash dividend of RMB0.21 (inclusive of tax) for each share to all shareholders of the Company. In the future, the Company will continue to follow a proactive, balanced and stable dividend policy, keep increasing its profitability and achieve continuous growth of return on equity.

In 2012, the Company delivered brilliant performance on the capital market. The Company's A Share was successfully incorporated in the CSI 300 Index, SSE 180 Index and CSI 100 Index, while the Company's H Share was awarded the "Top Ten Gainer Stocks" among the 2012 "Top 100 Hong Kong Stocks"; the Company was on the list of "Platts Top 250 Global Energy Listed Companies Award" four years in a row and ranked 143th, at the same time ranked 6th in the category of global independent power producers and energy traders; the Company also made encouraging progress in its corporate culture development and was named the "National Demonstration Base for Corporate Culture".

Looking ahead, the Company will follow its "strategy to build up the world's first-class listed power producer with sustainable development", focus on securing additional economic benefits and enhancing development quality, endeavor to strengthen the Company's ability to sustain development, profitability and long-term competitive edge.

- To strengthen its ability to sustain development and profitability, the Company will expedite its adjustments to the power structure and regional distribution, strive to achieve technology advancement, green development and international development; optimize and adjust the industrial structure, enhance the synergies developed in the industry chain interconnecting power, coal, port and shipping, devise the system for stable and reliable coal supply and secure transportation, control power generation cost effectively, add value to the operation of the industry chain interconnecting power, coal, port and shipping; optimize and adjust asset structure, reinforce investment management, and boost profitability in the overseas market.
- To build up its continuing competitive advantage, the Company will take an active role to pass on and develop its idea concerning management, initiate and adopt its management tactic, explore and fine-tune its operating model, and foster its training and engagement of international talents, in order to accommodate challenges posed by globalization, internetization, informationization, intellectualization and professionalization in the future economic environment; the Company will increase its development effort, expand its economies of scale, strive to upgrade its controlled power generation capacity to 80 million KW by 2015.

In 2013, to cope with the new situation, the Company will accelerate the transformation of its development mode to enhance the quality and efficiency of its development, further consolidate and optimize its geographical coverage, increase effort to modify its structure as well as develop the clean energy, promote industry synergy in an effective mean, so as to facilitate the Company to become the world's first-class listed power producer with leading technology, excellent management, reasonable distribution, optimized structure, industry synergy, remarkable efficiency, which is capable to generate both coal-fired power and clean energy power, along with its excellent corporate governance and market value.



Being a responsible enterprise, we insist on supporting the continued enhancement of our corporate competitive edges through a responsible approach; insist to duly perform our economic responsibilities to provide our shareholders with long-term, stable and growing returns; continue to perform our safety responsibilities with people-oriented and safety development to become the safest enterprise; continue to perform our environmental responsibilities by paying heed to people's livelihood and clean development to ensure utilization of resources in an efficient and energy saving manner, and turn the Company into a "green corporation"; continue to perform our social responsibilities by creating mutual benefits and win-win scenarios that are conducive to the harmonious development of the Company and its stakeholders, so that the Company may serve as an excellent corporate citizen.

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Finally, we would like to extend our sincere gratitude to all our shareholders for their continuous attention and support to the Company's development.

CAO Peixi  
Chairman

Beijing, PRC  
19 March 2013

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Excellence In Energy Conserving And Environmental Protection

Pioneering In Energy Consumption Indicators

Average coal consumption for power supply for domestic coal-fired generating units of 310.71 g/kWh, representing a decrease of 1.39 g/kWh; sulphur dioxide was 0.55 g/kWh, representing a decrease of 0.02 g/kWh. nitrogen oxides was 1.42 g/kWh, representing a decrease of 0.13 g/kWh.

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Take The Social Responsibility  
Initiatively And  
To Achieve Sustainable Development.

The Company capitalized on the leading role in the culture of “three-color” companies, insisted on sustainable development, serving the State, benefitting the community, actively assuming social responsibilities, creating a good internal, external environment, jointly promoting social development with the relevant interested parties and sharing corporate development achievements to build a harmonious society.

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## Managements Discussion And Analysis

Since its incorporation, the Company has continued to expand its operating scale, thus increasing its operating revenue. The Company has also been the industry leader in the level of competitiveness, effectiveness of resources utilization and environmental protection. Currently, the Company is one of the largest listed power producers in China.

## Operating And Financial Reviews And Prospects Management's Discussion And Analysis

(Prepared under International Financial Reporting Standards ("IFRS"))

### Overview

The principal activities of the Company are investment, construction, operation and management of power plants. The Company provides stable and reliable electricity supply to customers through grid operators where the operating plants are located. The Company is committed to scientific development, efficient economic increase, returns for shareholders enhancement, resources conserve and environment protection. The Company also attaches importance to social responsibilities, and makes active efforts to build a harmonious society.

Since its incorporation, the Company has continued to expand its operating scale, thus increasing its operating revenue. The Company has also been the industry leader in the level of competitiveness, effectiveness of resources utilization and environmental protection. Currently, the Company is one of the largest listed power producers in China. Its power generation operations are widely located, covering the Northeast China Grid, the Northern China Grid, the Northwest China Grid, the Eastern China Grid, the Central China Grid, the Southern China Grid, and the overseas market in Singapore.

Facing the complicated and severe market conditions in 2012, the Company actively responded to the changes in power, coal and capital markets with strong support of all shareholders and through concerted efforts of all employees for market expansion and management improvement. The Company correctly analyzed market development, redoubled its efforts towards key operations, implemented thorough planning and sound controls, which contributed to new development of the Company in various aspects. In 2012, the Company maintained safe production and leading position in China's power industry on major technical and economic indicators, realized effective cost controls by exercising strict control measures, and enhanced development quality significantly by proactive refining of power generation structure. The Company also achieved new progress in energy saving, environment protection, technical renovation and other fronts, diligently fulfilled its social responsibilities as a provider of sufficient, reliable and clean power energy.

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## A. Operating Results

## 1. 2012 operating results

The power generation of the Company's domestic power plants for the year ended 31 December 2012 was listed below (in billion kWh):

Domestic Power Plant	Power generation of 2012	Power generation of 2011	Change		Electricity sold for 2012	Electricity sold for 2011	Change	
Liaoning Province								
Dalian	5.980	6.805	-12.12	%	5.691	6.457	-11.86	%
Dandong	3.202	3.204	-0.06	%	3.046	3.049	-0.10	%
Yingkou	7.867	8.678	-9.35	%	7.355	8.120	-9.42	%
Yingkou								
Co-generation	3.337	3.137	6.38	%	3.127	2.929	6.76	%
Wafangdian								
Wind Power	0.102	0.066	54.55	%	0.100	0.065	53.85	%
Suzihe Hydropower	0.013	–	–		0.012	–	–	
Changtu Wind Power	0.006	–	–		0.006	–	–	
Inner Mongolia								
Huade Wind Power	0.203	0.136	49.26	%	0.201	0.134	50.00	%
Hebei Province								
Shang'an	14.265	14.473	-1.44	%	13.346	13.616	-1.98	%
Kangbao Wind Power	0.062	0.0003	–		0.059	–	–	
Gansu Province								
Pingliang	9.214	12.214	-24.56	%	8.740	11.564	-24.42	%
Jiuquan Wind Power	0.756	–	–		0.751	–	–	
Beijing								
Beijing Co-generation	4.636	4.887	-5.14	%	4.085	4.304	-5.09	%
Beijing Co-generation (Combined Cycle)	3.955	0.004	–		3.863	0.004	–	
Tianjin								
Yangliuqing								
Co-generation	6.609	6.956	-4.99	%	6.141	6.510	-5.67	%

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Domestic Power Plant	Power generation of 2012	Power generation of 2011	Change		Electricity sold for 2012	Electricity sold for 2011	Change	
Shanxi Province								
Yushe	3.405	4.180	-18.54	%	3.151	3.861	-18.39	%
Zuoquan	6.358	–	–		5.934	–	–	
Shandong Province								
Dezhou	15.400	14.518	6.08	%	14.462	13.643	6.00	%
Jining	5.097	4.852	5.05	%	4.734	4.512	4.92	%
Xindian	3.256	3.313	-1.72	%	3.043	3.100	-1.84	%
Weihai	11.608	11.128	4.31	%	11.053	10.586	4.41	%
Rizhao Phase II	7.484	8.173	-8.43	%	7.080	7.717	-8.25	%
Zhanhua Co-generation	1.724	1.587	8.63	%	1.587	1.451	9.37	%
Henan Province								
Qinbei	17.764	15.146	17.29	%	16.751	14.289	17.23	%
Jiangsu Province								
Nantong	8.406	9.086	-7.48	%	8.019	8.665	-7.46	%
Nanjing	3.827	3.981	-3.87	%	3.617	3.757	-3.73	%
Taicang	11.672	11.373	2.63	%	11.104	10.790	2.91	%
Huaiyin	7.152	7.370	-2.96	%	6.732	6.933	-2.90	%
Jinling (Combined-cycle)	3.788	3.740	1.28	%	3.703	3.652	1.40	%
Jinling (Coal-fired)	11.538	11.884	-2.91	%	10.993	11.312	-2.82	%
Qidong Wind Power	0.357	0.286	24.83	%	0.350	0.280	25.00	%
Shanghai								
Shidongkou First	7.710	7.681	0.38	%	7.276	7.242	0.47	%
Shidongkou Second	6.472	7.412	-12.68	%	6.213	7.112	-12.64	%
Shanghai Combined-cycle	1.633	1.266	28.99	%	1.593	1.235	28.99	%
Shidongkou Power	7.739	6.862	12.78	%	7.359	6.481	13.55	%
Chongqing								
Luohuang	12.191	15.560	-21.65	%	11.272	14.417	-21.81	%
Zhejiang Province								
Yuhuan	24.116	26.768	-9.91	%	22.939	25.489	-10.00	%
Hubei Province								
Enshi Hydropower	0.050	0.0001	–		0.049	0.0001	–	

Domestic Power Plant	Power generation of 2012	Power generation of 2011	Change		Electricity sold for 2012	Electricity sold for 2011	Change	
Hunan Province								
Yueyang	8.204	10.679	-23.18	%	7.682	10.047	-23.54	%
Xiangqi Hydropower	0.183	–	–		0.180	–	–	
Jiangxi Province								
Jinggangshan	8.842	9.485	-6.78	%	8.424	9.019	-6.60	%
Fujian Province								
Fuzhou	13.800	16.905	-18.37	%	13.104	16.071	-18.46	%
Guangdong Province								
Shantou Coal-fired	6.420	7.085	-9.39	%	6.082	6.647	-8.50	%
Haimen	12.529	15.213	-17.64	%	11.960	14.542	-17.76	%
Yunnan Province								
Diandong Energy	8.509	11.648	-26.95	%	7.857	10.771	-27.05	%
Yuwang Energy	4.992	5.813	-14.12	%	4.629	5.344	-13.38	%
Total	302.433	313.554	-3.55	%	285.455	295.717	-3.47	%

In 2012, the power generated by Tuas Power in Singapore accounted for 25.20% of the total power generated in Singapore, down 1.92 percentage points compared to the same period last year.

In respect of the tariff, the Company's average tariff for the year ended 31 December 2012 was RMB454.19 per MWh, an increase of RMB24.09 per MWh from the year ended 31 December 2011.

In respect of fuel costs, the decrease of coal market price and effective cost controls contributed to reduce fuel costs of the Company. Compared with last year, the Company's fuel cost per unit of power sold decreased by 7.60% to RMB249.82 per MWh.

Combining the forgoing factors, for the year ended 31 December 2012, the operating revenue of the Company remained generally the same with last year at approximately RMB133.967 billion, and recorded profit attributable to equity holders of RMB5.512 billion, representing an increase of 366.95% from the profit of RMB1.181 billion for the year ended 31 December 2011.

For the year ended 31 December 2012, the profit attributable to equity holders of the Company from domestic power plants was RMB4.471 billion, representing an increase of RMB4.572 billion compared to minus RMB101 million for the same period last year. The increase was primarily attributable to the carry-over effect of domestic electricity tariff adjustment in 2011, the decrease of coal market price in 2012, and effective cost controls of the Company. The carry-over effect of domestic tariff adjustment in 2011 resulted from the adjustment of on-grid electricity tariff by the PRC National Development and Reform Commission in the first quarter of 2011. The reduced market price of coal was mainly attributable to the change of coal supply-demand situation within the PRC.

For the year ended 31 December 2012, the profit attributable to equity holders of the Company from Tuas Power in Singapore was RMB1.041 billion, down RMB241 million compared to the same period last year. It was mainly attributable to the increase of newly operated generation units of other power plant companies, which caused a decrease of Tuas Power's shares in the market, resulting a decline in electricity sold. It was also attributable to the drop in the exchange rate of Singaporean dollars against RMB.





## 2. Comparative Analysis of Operating Results

## 2.1 Operating revenue and tax and levies on operations

Operating revenue mainly consists of revenue from power sold. For the year ended 31 December 2012, the consolidated operating revenue of the Company and its subsidiaries amounted to RMB133.967 billion, representing an increase of 0.41% from RMB133.421 billion for the year ended 31 December 2011. The carry-over effect of electricity tariff adjustment in 2011 was offset by reduced power generation in 2012. The operating revenue from domestic power plants increased approximately RMB2.071 billion.

The operating revenue from the operation in Singapore decreased by RMB1.525 billion for the year ended 31 December 2012 from last year. This was mainly attributable to the declined market share in Singapore resulted from the new generation units of other power plant companies, the decreased electricity sold and the reduced average conversion rate between Singaporean dollar and RMB.

Power Plant	Average tariff rate (VAT inclusive) (RMB/MWh)			Change
	2012	2011		
Dalian	409.18	382.84	6.88	%
Fuzhou	445.64	425.38	4.76	%
Nantong	441.25	425.97	3.59	%
Shang'an	434.63	408.20	6.47	%
Dandong	405.73	383.08	5.91	%
Shantou Coal-fired	542.97	522.91	3.84	%
Shidongkou II	442.13	422.25	4.71	%
Nanjing	442.17	442.54	-0.08	%
Dezhou	468.90	443.20	5.80	%
Jining	459.63	422.91	8.68	%
Yuhuan	491.37	462.49	6.24	%
Shidongkou I	457.18	441.11	3.64	%
Yingkou	409.35	394.82	3.68	%
Jinggangshan	483.90	447.05	8.24	%
Rizhao Phase II	446.90	420.06	6.39	%
Haimen	529.06	498.77	6.07	%
Weihai	461.89	435.52	6.05	%
Huaiyin II	458.25	438.72	4.45	%
Taicang I	430.43	424.09	1.49	%
Taicang II	443.88	429.44	3.36	%
Qinbei	441.43	412.75	6.95	%
Yushe	396.56	362.65	9.35	%
Xindian II	453.75	426.77	6.32	%
Yueyang	506.87	465.74	8.83	%

Power Plant	Average tariff rate (VAT inclusive) (RMB/MWh)			Change
	2012	2011		
Luohuang	448.95	410.86	9.27	%
Shanghai Combined-cycle	674.00	665.00	1.35	%
Pingliang	336.12	306.36	9.71	%
Nanjing Jinling Power	466.14	459.37	1.47	%
Shidongkou Power	463.85	457.20	1.45	%
Huade Wind Power	520.00	528.45	-1.60	%
Xiangqi Hydropower	390.00	N/A	N/A	
Yingkou Co-generation	397.59	391.92	1.45	%
Beijing Co-generation	494.00	481.35	2.63	%
Yangliuqing Co-generation	438.03	414.23	5.75	%
Qidong Wind Power	542.65	519.08	4.54	%
Zuoquan	383.25	N/A	N/A	
Kangbao Wind Power	536.72	N/A	N/A	
Jiuquan Wind Power	520.60	N/A	N/A	
Wafangdian Wind Power	610.82	610.00	0.13	%
Changtu Wind Power	610.00	N/A	N/A	
Zhanhua Co-generation	450.55	419.76	7.34	%
Suzihe Hydropower	364.25	N/A	N/A	
Yuwang Energy	361.70	345.31	4.75	%
Diandong Energy	359.58	345.43	4.10	%
Enshi Hydropower	360.00	N/A	N/A	
Tuas Power	1,206.23	1,146.88	5.17	%

Tax and levies on operations mainly consist of taxes associated with value-added tax surcharges. According to relevant administrative regulations, these surcharges include City Construction Tax and Education Surcharges calculated at prescribed percentages on the amounts of the value-added tax paid. For the year ended 31 December 2012, the tax and levies on operations of the Company and its subsidiaries were amounted to RMB672 million.

## 2.2

## Operating expenses

For the year ended 31 December 2012, the total operating expenses of the Company and its subsidiaries was RMB116.338 billion, representing a decrease of 6.32% from RMB124.189 billion for same period last year. The operating expenses in domestic power plants of the Company decreased by RMB6.723 billion, which was primarily attributable to the reduced market price of coal in the PRC and effective cost controls of the Company.

The operating expenses from the operation in Singapore decreased by RMB1.129 billion from last year. This is mainly due to the decreased purchase of electricity as a result of the intense competition, increase of newly operated generation units of other power plant companies and declined retail electricity sold in Singapore.

## 2.2.1

## Fuel costs

Fuel costs represent the majority of the operating expenses for the Company and its subsidiaries. For the year ended 31 December 2012, fuel costs of the Company and its subsidiaries decreased by 9.05% to RMB82.355 billion from RMB90.546 billion for the year ended 31 December 2011. The fuel costs of domestic power plants decreased by RMB8.524 billion from last year, which was primarily attributable to the reduced market price of coal in the PRC and effective cost controls of the Company. Fuel costs in the operations in Singapore remained generally the same with same period last year. For the year ended 31 December 2012, the average price (excluding tax) of natural fuel coal was RMB526.25 per ton, representing a 4.09% decrease from RMB548.72 per ton for the year ended 31 December 2011. The fuel cost per unit of power sold by the Company's domestic coal-fired power plant decreased by 7.60% from RMB270.37/MWh in 2011 to RMB249.82/MWh.

## 2.2.2

## Maintenance

For the year ended 31 December 2012, the maintenance expenses of the Company and its subsidiaries amounted to RMB2.847 billion, up 12.56% from RMB2.529 billion for the year ended 31 December 2011. The operation of new generating units accounted for RMB229 million of the increase. The maintenance expenses of the operations in Singapore decreased by RMB50 million.

## 2.2.3

## Depreciation

For the year ended 31 December 2012, depreciation expenses of the Company and its subsidiaries decreased by 7.03% to RMB11.033 billion from RMB11.867 billion for the year ended 31 December 2011. The decrease of the depreciation expenses within the PRC was primarily attributable to the Company's adjustment of the estimated useful life and estimated residual value of its property, plant and equipment that are not fully depreciated within the PRC since the beginning of 2012. The depreciation expenses of the operations in Singapore remained generally the same from 2011.

## 2.2.4

## Labor

Labor costs consist of salaries to employees and contributions payable to relevant state authorities for employees' housing fund, medical insurance, pension and unemployment insurance, as well as training costs. For the year ended 31 December 2012, the labor costs of the Company and its subsidiaries amounted to RMB5.112 billion, representing a 10.62% increase from RMB4.622 billion for the year ended 31 December 2011. This was mainly attributable to the operation of new generation units of the Company, the higher level of Chinese social insurance standards, and the increase of employees' performance-related salaries.

The labor costs of the operations in Singapore increased by RMB1 million.

2.2.5 Other operating expenses (including purchase of electricity and service fees paid to HIPDC) Other operating expenses include environmental protection expenses, land fee, insurance premiums, office expenses, amortization, and Tuas Power's purchase of electricity. For the year ended 31 December 2012, other operating expenses (including purchase of electricity) of the Company and its subsidiaries was RMB14.990 billion, representing an increase of RMB364 million from RMB14.626 billion for the year ended 31 December 2011. The operation of new generating units contributed RMB219 million to the increase of other operating expenses for the year ended 31 December 2012.



Other operating expenses in the operations in Singapore decreased by RMB1.419 billion, in which purchase of electricity decreased by RMB1.511 billion mainly attributed to the decreased retail electricity cost as a result of the declined retail electricity sold in Singapore.

2.3 Financial expenses

Financial expenses consist of interest expense, bank charges and net exchange differences.

2.3.1 Interest expenses

For the year ended 31 December 2012, the interest expenses of the Company and its subsidiaries were RMB8.897 billion, representing a 15.01% increase from RMB7.736 billion for the year ended 31 December 2011. The increase of interest expenses of domestic power plants was primarily attributable to the carry-over effect of RMB borrowing interest rates adjustment in 2011, and expensing instead of capitalizing interest upon commercial operation of new generating units. The operation of new generation units accounted for RMB0.8 billion of the increase.

The interest expenses of the operations in Singapore were RMB481 million, generally the same from same period last year.

2.3.2 Net exchange differences and bank charges

For the year ended 31 December 2012, the exchange losses plus bank charges of the Company and its subsidiaries amounted to RMB167 million, representing a net loss of RMB243 million compared with the net gains of RMB76 million for the year ended 31 December 2011. For the year ended 31 December 2012, the Company and its subsidiaries incurred exchange losses of RMB102 million, representing a net loss of RMB249 million from the net gains of RMB147 million for the year ended 31 December 2011. The head office of the Company recorded exchange gains of RMB8 million, representing a decrease of RMB221 million from the exchange gains of RMB229 million for 2011. The reasons for the decrease were the declined US loan balance and slower declined conversion rate between US dollars and RMB.

Net exchange differences and bank charges of the operations in Singapore decreased by RMB85 million.

2.4 Share of profit of associates/jointly controlled entities

For the year ended 31 December 2012, the share of profit of associates/jointly controlled entities was RMB622 million, representing a decrease of RMB82 million from RMB704 million for the year ended 31 December 2011. The decrease was primarily attributable to the overall decrease of associates/jointly controlled entities' net profit in 2012.

2.5 Income tax expenses

For the year ended 31 December 2012, the Company and its subsidiaries recorded an income tax expense of RMB2.510 billion, representing an increase of RMB1.641 billion or 188.90% from RMB869 million for the year ended 31 December 2011. The income tax expense for domestic power plants was increased by RMB1.737 billion which was primarily attributable to the increase of profit before income tax expense. The income tax expense of the operations in Singapore decreased RMB96 million which was mainly attributable to the decrease of profit before income tax expense.



2.6 Net profit, profit attributable to the equity holders of the Company and non-controlling interests

For the year ended 31 December 2012, the Company and its subsidiaries achieved a net profit of RMB6.366 billion, representing an increase of 438.87% with RMB5.185 billion compared with RMB1.181 billion for the year ended 31 December 2011. For the year ended 31 December 2012, the profit attributable to equity holders of the Company was RMB5.512 billion, representing an increase of RMB4.331 billion from RMB1.181 billion for the year ended 31 December 2011. The profit attributable to equity holders of the Company from domestic power plants increased by 4.572 billion, mainly attributable to the carry-over effect of domestic electricity tariff adjustment in 2011, the decrease of coal market price in 2012, and effective cost controls of the Company. The profit attributable to equity holders of the Company from the operation in Singapore was RMB1.041 billion, representing a decrease of RMB241 million from same period last year. This was mainly attributable to the decreased market share and electricity sold within Singapore resulted from the new generation units of other power plant companies in Singapore.

The profit attributable to non-controlling interests of the Company increased from RMB1 million for the year ended 31 December 2011 to RMB854 million for the year ended 31 December 2012. This was mainly attributable to the increased profit of the Company.

2.7 Comparison of financial positions

2.7.1 Comparison of asset items

As of 31 December 2012, total assets of the Company and its subsidiaries were RMB259.100 billion, remaining generally the same compared with RMB257.416 billion as of 31 December 2011; total assets of the domestic power plants increased by RMB192 million to RMB226.814 billion.

As of 31 December 2012, total assets of the operations in Singapore were RMB32.287 billion. Non-current assets increased by 11.58% to RMB27.065 billion, primarily attributable to increased investment in construction projects. Current assets decreased by 20.13% to RMB5.221 billion, mainly attributable to decreased bank deposits and accounts receivable as a result of declined profit.

2.7.2 Comparison of liability items

As of 31 December 2012, total liabilities of the Company and its subsidiaries were RMB193.140 billion, representing generally the same level with RMB197.858 billion as of 31 December 2011.

As of 31 December 2012, the total interest-bearing debts of the Company and its subsidiaries were RMB167.398 billion. The interest-bearing debts consist of long-term loans (including those maturing within a year), long-term bonds, short-term borrowings, and short-term bonds. The interest-bearing debts denominated in foreign currencies were RMB4.994 billion.

As of 31 December 2012, total liabilities of the operations in Singapore were RMB19.458 billion, representing generally the same level with RMB19.213 billion as of 31 December 2011.



## 2.7.3

## Comparison of equity items

Excluding the impact of profit and profit appropriations, the equity of the Company and its subsidiaries increased at the end of the year compared to the beginning of the year, resulting from the post-tax impact of increased fair value of tradable stocks held by the Company amounting to RMB99 million, the post-tax impact of decreased fair value for cash flow hedge of the domestic and Singapore operations amounting to RMB325 million, and the increase of RMB535 million in currency translation differences as well as the increase of RMB1,155 million in non-controlling interests.

## 2.7.4

## Major financial position ratios

	2012	2011
Current ratio	0.39	0.38
Quick ratio	0.31	0.30
Ratio of liability and shareholders' equity	3.44	3.89
Multiples of interest earned	1.86	1.14

Formula of the financial ratios:

Current ratio	=	$\frac{\text{balance of current assets as of the year end}}{\text{balance of current liabilities as of the year end}}$
Quick ratio	=	$\frac{(\text{balance of current assets as of the year end} - \text{net inventories as of the year end})}{\text{balance of current liabilities as of the year end}}$
Ratio of liabilities and shareholders' equity	=	$\frac{\text{balance of liabilities as of the year end}}{\text{balance of shareholders' equity (excluding non-controlling interests) as of the year end}}$
Multiples of interest earned	=	$\frac{(\text{profit before income tax expense} + \text{interest expense})}{\text{interest expenditure (inclusive of capitalized interest)}}$

The current ratio and quick ratio remained at relatively low level for the years ended 31 December 2012 and 2011, with slight increase at year-end of 2012 from year-end of 2011. The decrease in the ratio of liabilities and shareholders'

equity at the year end of 2012 from the year end of 2011 was primarily due to the increased owner's equity as a result of profit increase of the Company. The multiples of interest earned increased, primarily attributable to the increase of net profit for the year ended 31 December 2012.

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## B. Liquidity and Cash Resources

## 1. Liquidity

For the year ended 31 December

	2012 RMB billion	2011 RMB billion	Change	
Net cash provided by operating activities	26.928	20.949	28.54	%
Net cash used in investing activities	-15.310	-21.665	-29.33	%
Net cash (used in)/provided by financing activities	-9.817	0.070	-14,195.02	%
Currency exchange gain/(loss)	0.151	-0.227	-166.35	%
Net increase/(decrease) in cash and cash equivalents	1.952	-0.873	-323.50	%
Cash and cash equivalents as of the beginning of the year	8.553	9.426	-9.27	%
Cash and cash equivalents at of the end of the year	10.505	8.553	22.82	%

For the year ended 31 December 2012, net cash provided by operating activities of the Company was RMB26.928 billion, of which RMB2.185 billion was from the operating activities in Singapore. The decrease in cash used in investing activities was mainly attributable to the significant decrease of expenditure on construction projects and acquisitions. The decrease in cash provided by financing activities was largely attributable to the decreased drawdown of loans in 2012, as a result of the increase in cash provided by operating activities. The Company expects to continue its focus on construction projects with large investment amount in 2013. As of 31 December 2012, the cash and cash equivalents of the Company and its subsidiaries denominated in RMB, Singapore dollar, U.S. dollar, Japanese Yen, and HK dollar were RMB7.934 billion, RMB2.143 billion, RMB0.546 billion, RMB0.4 million, and RMB0.5 million, respectively.

As of 31 December 2012, net current liabilities of the Company and its subsidiaries were approximately RMB57.5 billion. Based on the Company's proven financing record, readily available banking facilities and sound credibility, the Company believes it is able to duly repay outstanding debts, obtain long-term financing and secure funding necessary for its operations. The Company has also capitalized on its good credit record to make short-term borrowings at relatively lower interest rates, thus reducing its interest expenses.

## 2. Capital expenditure and cash resources

## 2.1 Capital expenditures on acquisitions

The Company and its subsidiaries made no significant capital expenditure for acquisition in 2012.

## 2.2 Capital expenditure on construction and renovation projects

The capital expenditures for the year ended 31 December 2012 were RMB15.608 billion, mainly for construction and renovation projects, including RMB1.167 billion Qinbei expansion project, RMB0.647 billion for Diandong Energy expansion project, RMB0.576 billion for Zuoquan Power expansion project, RMB0.521 billion for Weihai expansion project, RMB0.470 billion for Jiuquan Wind Power project, RMB0.774 billion for Haimen power project, RMB0.430 billion for Jinling Coal-fired project, RMB0.286 billion for Shanghai Power expansion project, RMB0.397 billion for Beijing Co-generation expansion project, RMB0.360 billion for Taicang Port expansion, RMB0.254 billion for Changxing expansion project, RMB0.233 billion for Dalian Power, RMB0.282 billion for Haimen Port, RMB0.284

billion for Pingliang expansion project, RMB0.200 billion for Shang'an expansion project, RMB0.267 billion for Xiangqi Hydropower expansion project, RMB0.247 billion for Chongqing Luohuang expansion project, and RMB0.254 billion for Jinggangshan expansion project. The expenditures on construction projects in Singapore were RMB2.429 billion. The expenditures on other projects were RMB5.530 billion.

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The above capital expenditures are sourced mainly from internal capital; cash flows provided by operating activities and debt financings.

The Company expects to have significant capital expenditures in the next few years. During the course, the Company will make active efforts to improve project planning process on commercially viable basis. The Company will also actively develop newly planned projects to pave the way for its long-term growth. The Company expects to finance the above capital expenditures through internal funding, cash flows provided by operating activities, and debt financing. The cash requirements, usage plans and cash resources of the Company for next two years are as following:

	Capital expenditure arrangement		Contractual arrangement		Financing methods	Cash resources arrangements	Financing costs and note on use
	2013	2014	2013	2014			
	(unit: RMB billion)						
Thermal power projects	10.558	9.953	10.558	9.953	Debt financing	Internal cash resources and bank loans, etc	Within the floating range of benchmark lending interest rates of PBOC
Hydropower projects	0.317	0.092	0.317	0.092	Debt financing	Internal cash resources and bank loans, etc	Within the floating range of benchmark lending interest rates of PBOC
Wind power projects	1.459	2.096	1.459	2.096	Debt financing	Internal cash resources and bank loans, etc	Within the floating range of benchmark lending interest rates of PBOC
Port projects	2.629	0.900	2.629	0.900	Debt Financing	Internal cash resources and bank loans, etc	Within the floating range of benchmark lending interest rates of PBOC
Coal mining projects	1.842	—	1.842	—	Debt financing	Internal cash resources and bank loans, etc	Within the floating range of benchmark lending interest rates of PBOC
Technical renovation projects	4.300	4.500	4.300	4.500	Debt financing	Internal cash resources and bank loans, etc	Within the floating range of benchmark lending

interest rates  
of PBOC

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2.3 Cash resources and anticipated financing costs

The Company expects to finance its capital expenditure and acquisition costs primarily from internal capital, cash flow from operating activities and debt financing.

Good operating results and sound credit status provide the Company with strong financing capabilities. As of 31 December 2012, the Company and its subsidiaries had an aggregate unused credit facility nearly RMB90 billion, granted by Bank of China, Construction Bank of China and China Development Bank.

The Company completed the issuance of unsecured short-term bonds in three installments on 17 April, 6 November and 7 December 2012, each at principal amount of RMB5 billion and nominal annual interest rate of 4.41%, 4.42% and 4.58%, respectively. All the bonds were denominated in RMB, issued at par value, and would mature in 365 days from issuance.

The Company completed the issuance of unsecured super short-term debentures in four installments on June 5, July 10, August 17 and 13 September 2012, each at principal amount of RMB5 billion and nominal annual interest rate of 3.35%, 3.32%, 3.70% and 3.99%, respectively. All the bonds were denominated in RMB, issued at par value, and would mature in 270 days from issuance.

As of 31 December 2012, short-term borrowings of the Company and its subsidiaries totaled RMB27.442 billion (2011: RMB43.979 billion). Borrowings from banks were charged at interest rates ranging from 5.04% to 6.56% per annum (2011: 4.00% to 8.52%).

As of 31 December 2012, short-term bonds payable by the Company and its subsidiaries totaled RMB35.450 billion (2011: RMB10.262 billion).

As of 31 December 2012, long-term borrowings of the Company and its subsidiaries totaled RMB81.621 billion (2011: RMB93.985 billion), including RMB denominated borrowings of RMB61.713 billion (2011: RMB73.734 billion), US dollar denominated borrowings of approximately US\$0.693 billion (2011: approximately US\$0.779 billion), and Euro denominated borrowings of approximately Euro77 million (2011: approximately Euro86 million). The U.S. dollar denominated borrowings included floating-rate borrowings of approximately US\$678 million (2011: US\$743 million). Singapore dollar denominated borrowings were S\$2.930 billion and all floating-rate borrowings. For the year ended 31 December 2012, long-term bank borrowings of the Company and its subsidiaries bore interest rates from 0.54% to 7.05% (2011: 0.51% to 8.65%) per annum.

As of 31 December 2012, the borrowings for the operations in Singapore were all long-term bank borrowings at total amount of RMB14.929 billion, including borrowings denominated in Singapore dollar of S\$2.930 billion with interest rates from 2.15% to 4.25% per annum, and borrowings denominated in U.S. dollar of US\$3 million with interest rate of 2.74% per annum.

The Company completed the issuance of unsecured long-term bonds on 6 January 2012 at principal amount of RMB5 billion and nominal annual interest rate of 5.24%. The bonds were denominated in RMB, issued at par value, and would mature in three years from issuance.

The Company and its subsidiaries will closely monitor any change in the exchange rate and interest rate markets and cautiously assess the currency rate and interest rate risks.





Combining the current development of the power generation industry and the growth of the Company, the Company will make continuous efforts to not only meet cash requirements of daily operations, constructions and acquisitions, but also establish an optimal capital structure to minimize the cost of capital and manage financial risks through effective financial management activities, thus maintaining sustainable and stable returns to the shareholders.

#### 2.4 Other financing requirements

The objective of the Company is to bring long-term, steadily growing returns to shareholders. In line with this objective, the Company follows a proactive, stable and balanced dividend policy. In accordance with the profit appropriation plan of the board of directors of the Company (subject to the approval of the shareholders' meeting), the Company expects to pay a cash dividend of RMB2,952 million for 2012.

#### 2.5 Maturity profile of loans

Maturity Profile	(RMB billion)				
	2013	2014	2015	2016	2017
Principal proposed to be repaid	71.949	19.591	12.914	10.039	10.431
Interest proposed to be repaid	6.708	4.706	3.387	3.031	2.514
Total	78.657	24.297	16.301	13.070	12.945

Note: The amount of the principal to be repaid in 2013 is relatively large because this includes expected repayment of short-term loans and short-term bonds.

#### C. Company's long-term development strategy and planning

It is set forth in the strategic development plan of the Company that by 2015, it strives to have a controlled generation capacity of 80,000MW. The Company will continue improving the synergies among its controlled power, coal, port and transportation facilities and make efforts to develop into an internationally leading public power generation company with advanced technologies, outstanding management expertise, optimized operating structure and strong profitability focusing on both coal-fired and clean energy based power generation. By 31 December 2012, the Company had controlled installed generation capacity of 62,756MW, of which 8.62% was generated by clean energies. The equity-based generating capacity was 56,572MW of which 10.60% was generated by clean energies. The Company will accelerate its on-going evolution towards refined development pattern, further improve regional distribution, make intensified efforts for structural adjustment, strengthen clean energy investment and presence, effectively promote synergies among industries, and strive to achieve its planned objectives.

D. Trend information

A report released by the China Electricity Council in late February 2013 presents that the GDP in the PRC is expected to increase by 7.5% to 9.0% in 2013. Total power generation capacity is expected to reach 1.23 billion KW while the newly installed generation capacity is expected to reach 87 million KW. The utilization hours of power generation equipment in the PRC is expected to reach 4,700 to 4,800 hours, in which the utilization hours of coal-fired equipment will reach 5,050 to 5,150 hours. The power supply and demand will be generally balanced throughout the country and power supply in northeast and northwest regions is expected to be abundant. Considering the uncertainty caused by high temperature and source of water, a generally tight power supply is expected to occur in some provinces in Eastern and Northern China due to spanned channel capacity constraints, some units' shutting down for the denitration transformation, tight natural gas supply and other factors.

E. Performance of Significant Investments and their Prospects

The Company acquired 25% equity interest in Shenzhen Energy Group for RMB2.39 billion on 22 April 2003. In 2011, Shenzhen Energy Group divided into a remainder company Shenzhen Energy Group and a new company Shenzhen Energy Management Company, and the Company held 25% equity interest in both of these companies. The Company acquired 200 million shares from Shenzhen Energy, a subsidiary of Shenzhen Energy Group, in December 2007. Shenzhen Energy allotted shares with its capital surplus in 2011. As at 31 December 2012, the Company held 240 million shares of Shenzhen Energy. These investments brought a profit of RMB190 million for the Company for the year ended 31 December 2012 under IFRS. This investment is expected to provide steady returns to the Company.

The Company held directly 60% equity interest in Sichuan Hydropower as at 31 December 2006. In January 2007, Huaneng Group increased its capital investment in Sichuan Hydropower by RMB615 million, thus reducing the Company's equity interest in Sichuan Hydropower to 49% and making Huaneng Group the controlling shareholder of Sichuan Hydropower. This investment brought a profit of RMB230 million for the year ended 31 December 2012 under IFRS. This investment is expected to provide steady returns to the Company.

F. Employee Benefits

As of 31 December 2012, the Company and its subsidiaries had 36,326 employees within and outside the PRC. The Company and its subsidiaries provide employees with competitive remuneration and linked such remuneration to operating results as working incentives for the employees. Currently, the Company and its subsidiaries do not have any stock or option based incentive plan.

Based on the development plans of the Company and its subsidiaries and the requirements of individual positions, together with consideration of specific characteristics of individual employees, the Company and its subsidiaries tailored various training programs for their employees on management, technology and skills. These programs enhanced comprehensive skills of the employees.

G. Guarantees and Pledges on Loans and Restricted Assets

As of 31 December 2012, the Company provided guarantee for Tuas Power's long-term bank borrowings of approximately RMB14.896 billion, and provided guarantee for Shanghai Time Shipping Co., Ltd.'s long-term borrowings of approximately RMB6 million.



As of 31 December 2012, the details of secured loans of the Company and its subsidiaries were as follows:

1. The Company pledged certain accounts receivable for certain short-term loans borrowed in 2012. As of 31 December 2012, the balance of the secured loans was RMB6.250 billion, and the pledged account receivables were approximately RMB6.319 billion.
2. As of 31 December 2012, a short-term bank loan of RMB0.27 billion was secured by the electricity tariff collection right of the subsidiaries of the Company.
3. As of 31 December 2012, secured short-term loans of RMB21 million represented the discounted notes receivable with recourse of the Company and its subsidiaries.
4. As of 31 December 2012, a long-term loan of RMB97 million of the Company and its subsidiaries was secured by territorial waters use right with net book value of RMB84.40 million.
5. As of 31 December 2012, a long-term loan of RMB149 million of the Company and its subsidiaries was secured by certain property, plant and equipment of the Company and its subsidiaries.
6. As of 31 December 2012, a long-term loan of RMB12.358 billion of the Company and its subsidiaries was secured by tariff collection right.
7. As of 31 December 2012, a long-term loan of RMB15.48 million of a subsidiary of the Company was secured by the current and future assets of the subsidiary.
8. As of 31 December 2012, notes receivable of the Company and its subsidiaries of approximately RMB3 million was secured to a bank as collateral against notes payable of RMB2 million.

As of 31 December 2012, restricted bank deposits were RMB119 million.

#### H. Provisions

In 2012, a provision of RMB157 million was made due to a legal claim by a vendor of the Company's subsidiary. The outcome of this legal claim is not expected to give rise to any significant loss beyond the amount provided as at 31 December 2012.

#### I. Significant changes in accounting policies and changes in accounting estimate

For the significant changes in accounting policies of the Company for the year ended 31 December 2012, see Note 2 to the Financial Statements prepared in accordance with IFRS.

In order to present a fairer and more appropriate view of the financial position and operating results of the Company and its subsidiaries where the depreciation period of each property, plant and equipment is aligned with its actual useful life, the Company and its subsidiaries revised its accounting estimates on the useful lives and residual values of property, plant and equipment not fully depreciated in the PRC in accordance with IFRS, based on the technical assessment report prepared by the Company's internal engineers and technicians, as well as the accounting estimation adopted by other major Chinese companies in the power industry. The Company obtained the approval in April 2012 in the Company's eighth meeting of the Seventh Session of the Board of Directors, and adopted the change from 1 January 2012. The changes in estimates increased the consolidated profit before income tax expense of the Company and its subsidiaries by approximately RMB1.1 billion for 2012, will increase the consolidated profit before income tax

expense of the Company and its subsidiaries by approximately RMB0.9 billion, RMB0.6 billion, RMB0.5 billion and RMB0.6 billion for 2013, 2014, 2015 and 2016, respectively and will decrease the consolidated profit before income tax expense of the Company and its subsidiaries by approximately RMB6.1 billion for 2017 and the years thereafter.

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J. Impairment Sensitivity Analysis

1. Goodwill impairment

Separately recognized goodwill is tested for impairment by the Company and its subsidiaries at the end of each year. In 2012, based on the impairment tests, except for the goodwill arising from acquisition of Pingliang Power Company of RMB108 million, no goodwill was impaired. Due to the expected continuous lower utilization of Pingliang Power Company, full impairment of related goodwill was provided based on the result of impairment test.

For goodwill allocated to CGUs in PRC, changes of assumptions in tariff and fuel price could have affected the results of goodwill impairment assessment. As of 31 December 2012, if tariff had decreased by 1% or 5% from estimates with other variables constant with the expectations, the Company and its subsidiaries would have to further recognize impairment against goodwill by approximately RMB595 million and RMB1,757 million, respectively. If fuel price had increased by 1% or 5% from the estimates with other variables constant with the expectations, the Company and its subsidiaries would have to further recognize impairment against goodwill by approximately RMB374 million and RMB1,734 million, respectively.

2. Property, plant and equipment impairment

The Company and its subsidiaries test whether property, plant and equipment suffered any impairment whenever any impairment indication exists.

Changes of assumptions in tariff and fuel price will affect the impairment assessments result of property, plant and equipment. As of 31 December 2012, if tariff had decreased by 1% or 5% from estimates with other variables constant with the expectations, the Company and its subsidiaries would have to further recognize impairment against property, plant and equipment by approximately RMB277 million and RMB2,885 million, respectively. If fuel price had increased by 1% or 5% from the estimates with other variables constant with the expectations, the Company and its subsidiaries would have to further recognize impairment against property, plant and equipment by approximately RMB205 million and RMB1,710 million, respectively.

K. Risk Factors

1. Risks relating to power market

The central economic work conference held at the end of 2012 and the national people's congress held in March 2013 set down the target of 7.5% for China's GDP growth in 2013. The macro-economic conditions in 2013 are subject to significant uncertainties, while economic structure and development pattern are under on-going adjustment in China. It is forecast by China Electricity Council that power consumption nationwide will increase by 6.5% to 8.5% and the demand and supply of power will be generally balanced throughout the country. The utilization of power generation equipment in China are expected to reach 4,700 to 4,800 hours in 2013, including 5,050 to 5,150 utilization hours of coal-fired generation equipment.

In 2013, most of the Company's newly installed capacities are located in the coastal and river adjacent provinces and cities in southeast China which had experienced high growth of power consumption in the early stage of economic development in China. With industry transfer and upgrade, the power consumption in these regions may grow at a rate lower than the national rate, which could have adverse impact on the growth of power generation of the Company. The Company is also presented with the arduous task of denitrification upgrade for generation units required under the environment protection responsibility statement, which may bring certain risk to the growth of power generation of

the Company.

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The Company will further its efforts to alert and control market risks, make strengthened analysis and study of the conditions and policies of power market, design flexible marketing strategies to respond effectively to market demand, take initiatives to develop market and implement relevant government policies, and leverage its strengths on energy saving and environment protection to increase equipment utilization hours and mitigate operational risks.

2. Risks relating to coal supply market

In 2013, the coal price is expected to remain generally stable and coal supply will continue to be relatively sufficient. The coal price may experience slight fluctuation in certain regions and during certain period but no significant increase or drop of coal price is expected to occur in 2013. With implementation of a unified coal pricing system, the coal purchase key contracts are cancelled, and the coal purchased by the Company based on water transportation are contractually priced based on Bohai-Rim Steam-Coal Price Index. The Company has maintained high proportion of imported coal in its total coal purchase, the purchase price of which is subject to uncertainty impacted by the coal demand-supply condition at international market and the climate in coal-producing countries. The Company will make continuing adjustment of purchase structure in response to market changes, improve coal import practices, refine pricing strategies promptly, and strive to control fuels costs by thorough and improved fuel management.

3. Risks relating to environment protection requirements

The changes of environment protection policies remain as the major policy related risk of the Company in 2013. The 12th Five-Year Plan of Energy Saving and Emission Reduction issued by the State Council, as well as the complementary policies from the National Development and Reform Commission and the Department of Environment Protection, sets forth higher requirements for emission and generation of green power by coal-fired power plants. The Company is continually reinforcing its efforts as planned to make technical renovation of existing generation units, including denitrification revocation of coal-fired generating units on yearly basis and upgrade of dust removing devices on certain coal-fired generating units. The Company is also moving towards increasing the proportion of clean energy and high-performance, high-capacity and high-efficiency coal-fired generating units in its total generation capacities. The Company is making active efforts to leverage the preferential policies granted to power generators for energy saving and emission reduction renovation, and upgrade and renovation of coal-fired generating units, as well as the policies promoting large and discouraging small generating units, and strives to improve environment protection performance and achieve clean development by way of structural adjustment, upgrade and renovation efforts, and strengthened management.

4. Risks relating to capital market

The interest bearing debts of the Company are mostly denominated in RMB. The interest rates applicable to outstanding RMB loan agreements of the Company are subject to the changes of the benchmark lending interest rates of the PBOC, while the interest rates applicable to the loan agreements newly made by the Company will be determined based on the benchmark lending interest rates of the PBOC, and therefore the changes of the benchmark lending interest rates of PBOC will have direct effect on the Company's borrowing costs. The Company will keep close watch of market changes, make appropriate funding arrangements, explore new funding opportunities, and make efforts to control financing costs while satisfying funding needs.



## Corporate Governance Report

The Company has been consistently stressing the importance of corporate governance through promoting innovation on the Company's system management and strengthening the establishment of the Company's system. It strives to enhance the transparency of the Company's corporate governance standards and to maintain high quality corporate governance on an ongoing basis. The Company insists on adopting the principle of "maximizing the benefits of the Company and all shareholders" as the starting point and treats all shareholders fairly in order to strive for the generation of long-term, stable and growing returns for shareholders.

The Company has complied with the provisions of the Code on Corporate Governance Practices in Appendix 14 to the Listing Rules (for the period from 1 January 2012 to 31 March 2012) and the Corporate Governance Code (for the period from 1 April 2012 to 31 December 2012).

### (a) CODE ON CORPORATE GOVERNANCE PRACTICES

For the years, the Company adopted the following measures in order to strengthen corporate governance and enhance the Company's operation quality:

#### (1) Enhancing and improving corporate governance

Apart from complying with the provisions of the applicable laws, as a public company listed in three markets both domestically and internationally, the Company is subject to the regulations of the securities regulatory authorities of the three listing places and the supervision of investors at large. Accordingly, our fundamental principles are adopting a corporate governance structure that balances and coordinates the decision-making powers, supervisory powers and operating powers, acting with honesty and integrity, complying with the law and operating in accordance with the law.

Over the past years, the Board of the Company has formulated and implemented the Rules of Procedures for General Meetings, Rules of Procedures for the Board Meetings; the Rules of Procedures for the Supervisory Committee Meetings; the Detailed Rules on the Work of the General Manager; the Terms of Reference of the Strategy Committee under the Board of Directors; the Terms of Reference of the Audit Committee under the Board of Directors; the Terms of Reference of the Nomination Committee under the Board of Directors; the Terms of Reference of the Remuneration and Appraisal Committee under the Board of Directors; and the System on Work of Independent Directors, the System on Work of Independent Directors on the Annual Report and the Working Guidelines on Annual Report for the Audit Committee. The Board has proposed certain amendments to the Articles of Association according to the applicable laws and the needs of the Company.

The Board shall be jointly responsible for performing the corporate governance responsibilities. During this reporting period, the Board shall include the following corporate governance responsibilities into the terms of reference of the Board:

- formulate and review the Company's corporate governance policies and practices and make the changes it deemed necessary in order to ensure the validity of such policies and practices;
- review and monitor the training and continued professional development of the directors and senior management;
- review and monitor the Company's policies and practices in relation to compliance with laws and regulatory provisions;



- formulate, review and monitor the conduct standards and compliance handbook (if any) applicable to the directors and employees; and
- review the Company's compliance with the Code and disclosure in the Corporate Governance Report.

(2) Enhancing and improving the information disclosure system

The Company has been stressing the importance of public information disclosure. The Company has established the Information Disclosure Committee comprised of managers of various departments and headed by the Vice President and the Chief Accountant, which is responsible for examining the Company's regular reports. The Company has implemented the system of holding regular information disclosure meetings every Monday, chaired by the Vice President and the Chief Accountant who will report on the Company's important matters of the week, thereby warranting the Company's performance of the relevant information disclosure obligations. The Company has successively formulated and implemented the relevant information disclosure system, and has made timely amendments thereto according to regulatory requirements. The current systems which have been implemented include the Measures on Information Disclosure Management, the Measures on Investor Relations Management, the Detailed Rules on the Work of the Information Disclosure Committee, the Management Measures of Insider Information, Annual Report Information Disclosure Significant Errors Accountability Regulations, and the Rules on the Management of the Shares Held by the Directors, Supervisors and Senior Management of Huaneng Power International, Inc. and other regulations. In 2012, the Company amended the Measures on Information Disclosure Management according to the requirements of the Inter-bank Bond Market Non-financial Corporate Debt Financing Instruments Information Disclosure Rules of the National Association of Financial Market Institutional Investors (2012 version) together with the actual requirements of the Company, mainly enhancing the specific disclosure arrangement including the major duties and powers of the Company's Information Disclosure Committee in relation to information disclosure matters and matters relating to debt financing instruments.

Relevant departments of the Company compiled answers (and subsequent updates) to questions regarding the hot topics of market concerns, the Company's production, operation and operating results in a timely manner, which shall become the basis of external communication of the Company after being approved by the Company's management and the authorized representatives of the Information Disclosure Committee. Also, the Company engages professional personnel to conduct specialized training for the staff of the Company responsible for information disclosure on an irregular basis in order to continuously enhance their level of professionalism.

(3) Regulating financial management system, strengthening internal control

The credibility of a listed company, to a large extent, relates to the quality of the preparation of financial statements and a regulated operation of financial activities. In order to regulate its financial management, the Company has completed a large amount of specific and detailed work, including:

1. In order to strictly implement the accounting rules, accounting standards and accounting systems, to strengthen accounting and accounts supervision, and to truthfully and fairly reflect the financial position, operating results and cash flow, the Company has formulated the Measures on Accounting, the Provisions on Construction Accounting, the Provisions on Fixed Assets Management, Lists of Fixed Assets and the Provisions on Cost Management. The Company's Board, Supervisory Committee and the Audit Committee have examined the Company's financial reports on a regular basis and the Company has fulfilled the requirements of making the Chairman, the President and the Chief Accountant responsible for the authenticity and completeness of the financial reports.



2. In order to safeguard the independence of the listed company, the Company realized the separation of personnel in organizational structure and specifically established the relevant institution responsible for the entrusted business so that the Company may realize the complete separation of the listed company and the controlling shareholder in terms of personnel, assets and finances according to the laws and regulations of the State and the requirements of regulatory rules.
3. In 2003, the Company initiated an all-rounded plan to enhance the internal control, in order to establish a sound internal control system for the Company, to achieve an efficient operating effect for ensuring the reliability of financial reports, and to effectively enhance the capability of risk prevention. For the past ten years, the Company had established an internal control strategic plan and highlighted the targets for internal control. Through the implementation of internal control work in full force, the continuing improvement in the Company's development power, competitive edge and risk resistance power, the Company has visualized the strategic targets, established a system for internal control and reinforced the work required for internal control systems for the Company, branches and the power plants. Based on internal control regulations of China and related countries, the Company had established an internal control procedure that was consistent with the management feature of the Company, designed and promulgated the Internal Control Handbook which was identified as having the highest authority to govern the Company's internal management issues. The Company had kept on various routine self-assessments on internal control, thereby discovering control deficiencies and implementing rectification followed by an all-rounded propaganda and training on the philosophy and knowledge for internal control.

Based on a comprehensive assessment, the management believes that the Company's rectification of internal control and procedures is effective. Such rectification measures have substantially enhanced the validity of internal control of financial statements.

In 2012, as a company listed simultaneously both inside and outside the PRC, the Company successfully passed the internal control audit of both the standards of the Fundamental Regulatory Guidelines on Enterprise Internal Control and Section 404 of the Sarbanes-Oxley Act. In 2006, the Company was among the first batch of the US listed PRC enterprises which had satisfied the requirement on internal control in the financial reports under section 404 of the Sarbanes-Oxley Act. So far, the external auditors had issued the auditor's report on the Company's internal control for seven successive years with unqualified opinion, the Company has been implementing the internal control work standardization for establishing a long-term internal control system.

4. In regard to fund management, the Company has successively formulated a number of management measures including the Measures on Financial Management, the Measures on the Management of Funds Receipts and Expenses, Measures on the appraisal of management of funds receipts and expenses, the Measures on the Management of Bills of Exchange, the Measures on Management of Fund Raising, Measures on the Management of Derivative Financial Product Transactions, Measures on the Management of External Guarantee and Measure on the Management of Regulating Fund Transfers with Related Parties. The Company's Articles of Association also set out provisions relating to loans, guarantees and investment. In the annual reports of the Company over the previous years, the Company has engaged registered accountants to conduct an examination on the use of funds by the controlling shareholders and other related parties and issue individual statements according to the requirements of the China Securities Regulatory Commission ("CSRC") and the Shanghai Stock Exchange, and there has not been any violation of rules relating to the use of funds. Moreover, the Company also conducted quarterly checking and clearing with related parties in relation to the operational fund transfers in order to ensure the safety of funds. At the same time, the Company has reported the fund use position each quarter to the Beijing Securities Regulatory Bureau of CSRC and urged itself to comply with the relevant provisions at any time.



The above systems and measures have formed a sound management framework for our production and operation. The timely formulation and strict implementation of the above regulations ensures the ongoing standardization of operations of the Company and gradual enhancement of corporate management quality.

In 2012, the Company won the Top 10 Gainer Stock Award of Hong Kong Stocks 100 for 2012 jointly organized by Hong Kong Finet and QQ.com and co-organized by Hong Kong Economic Journal and co-sponsored by the Chamber of Hong Kong Listed Companies, Hong Kong Institute of Financial Analysts and Professional Commentators, Hong Kong Securities Professionals Association, CBN Research and the College of Business of the City University of Hong Kong. The company secretary had also been praised by the Shanghai Stock Exchange as the best secretary to the board of directors for the year. The various awards built a good overall image for the Company in domestic and overseas capital markets.

(b) SECURITIES TRANSACTIONS BY DIRECTORS

As the Company is listed in three jurisdictions, the Company has strictly complied with the relevant binding clauses on securities transactions by directors imposed by the regulatory authorities of the US, Hong Kong and China and we insist on the principle of complying with the strictest clause, which is, implementing the strictest clause among three places. We have adopted a set of standards not less exacting than the Model Code for Securities Transactions by Directors of Listed Issuers set out in Appendix 10 to the Listing Rules as the model code for securities dealings by directors of the Company, namely, Management Rules regarding the Company's Securities Information and Trading. The Company has also formulated and implemented the Management Rules in respect of the Shares of the Company Held by the Directors, Supervisors and Senior Management of Huaneng Power International, Inc. The model codes for the trading of securities by the Company's directors include: trading the Company's shares strictly in accordance with the stipulations under the Company Law and relevant regulations, prohibiting those who are in possession of securities transaction insider information using insider information in securities trading; and setting out detailed rules for those who are in possession of insider information. Following a specific enquiry on all the directors and senior management of the Company, all the directors and senior management currently do not hold any shares in the Company and there is no material contract in which the directors and senior management directly or indirectly have material interests.

(c) BOARD OF DIRECTORS

The Company's Board of Directors comprised 15 members. In the seven session of the Board of Directors, Mr. Cao Peixi was the Chairman, and Mr. Huang Long was the Vice Chairman of the Board; the Executive Directors of the Company were Mr. Cao Peixi (Chairman), Mr. Liu Guoyue (President) and Mr. Fan Xiaxia (Vice President); the Non-executive Directors were: Mr. Huang Long, Mr. Li Shiqi, Mr. Huang Jian, Mr. Shan Qunying, Mr. Guo Hongbo (on 21 February 2012, Mr. Guo Hongbo was elected as a director and Mr. Liu Shuyuan officially resigned from the post), Mr. Xu Zujian and Mr. Xie Rongxing (on 12 June 2012, Mr. Xie Rongxing was elected as a director and Ms. Huang Mingyuan officially resigned from the post). The Company had five Independent Non-executive Directors comprising one-third of the members of the Company's Board of Directors, namely, Mr. Shao Shiwei, Mr. Wu Liansheng, Mr. Li Zhensheng, Mr. Qi Yudong and Mr. Zhang Shouwen.

The Board of Directors of the Company has held seven meetings during this reporting period including regular meetings and ad hoc meetings. For details, please see related announcements.

Details of the attendance of directors attending the board meetings are as follows:

Name	Number of meetings to be attended	Number of meetings attended in person	Number of meetings attended by proxy	Attendance rate (%)
<b>Executive Directors</b>				
Cao Peixi	7	7	0	100 %
Liu Guoyue	7	7	0	100 %
Fan Xiaxia	7	7	0	100 %
<b>Non-executive Directors</b>				
Huang Long	7	7	0	100 %
Li Shiqi	7	7	0	100 %
Huang Jian	7	7	0	100 %
Shan Qunying	7	7	0	100 %
Guo Hongbo	6	6	0	100 %
Xu Zujian	7	7	0	100 %
Xie Rongxing	3	3	0	100 %
<b>Independent Non-executive Directors</b>				
Shao Shiwei	7	7	0	100 %
Wu Liansheng	7	7	0	100 %
Li Zhensheng	7	7	0	100 %
Qi Yudong	7	7	0	100 %
Zhang Shouwen	7	6	1	85.71 %
				(Attendance by proxy rate: 14.29%)

Details of the attendance of resigning directors attending the board meetings are as follows:

Name	Number of meetings to be attended	Number of meetings attended in person	Number of meetings attended by proxy	Attendance rate (%)
Liu Shuyuan	1	1	0	100 %
Huang Mingyuan	4	3	1	75 %
				(Attendance by proxy rate: 25%)

As stated in previous Corporate Governance Reports, the Company's Articles of Association set out in detail the duties and operational procedures of the Board (please refer to the Company's Articles of Association for details). The Board



of the Company holds regular meetings to hear the report on the Company's operating results and makes timely decision. Material decisions on operation shall be discussed and approved by the Board. Ad hoc meetings may be held if necessary. Board meetings include regular meetings and ad hoc meetings. Regular meetings of the Board include: annual meeting, first quarterly meeting, half-yearly meeting and third quarterly meetings.

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All arrangements for regular meetings have been notified to all directors at least 14 days in advance and the Company has ensured that each director thoroughly understood the agenda of the meeting and fully expressed his/her opinions, while all Independent Non-executive Directors expressed their independent directors' opinions on their respective duties. Minutes have been taken for all the meetings and filed at the Office of the Board of Directors of the Company.

Moreover, the Independent non-executive Directors of the Company have submitted their annual confirmation letters of 2012 in relation to their independence according to the requirements of the Listing Rules.

The directors of the Company have consciously complied with the laws, administrative regulations and the provisions of the Articles of Association of the Company and actively performed faithful and diligence obligations. Apart from regular and ad hoc meetings, the Board obtained adequate information through the Chairman Office and President Office in a timely manner in order to monitor the objectives and strategies of the management, the Company's financial position and operating results and signing and performance of the clauses of material agreements. The directors of the Company read the Company's briefings and other information on a regular basis in order to understand the Company's production and operation situation. Independent directors solve practical problems for the Company through on-site research. Special committees of the Board have actively commenced work to offer advice and suggestions for the development of the Company which provide a basis for the right decision-making of the Board of Directors.

During the period when the Board was not in session, the Chairman, together with the Vice Chairman, discharged part of the duties of the Board of Directors, including (1) to examine and approve the establishment or cancellation of proposals to develop construction projects; (2) to examine and approve the approved proposals of the President in relation to the appointment, removal and transfer of managers of various departments of the Company and managers of external branches; (3) to examine and approve plans on the use of significant funds; (4) to examine and approve proposals on the establishment or cancellation of branch or branch organs; (5) to examine and approve other major issues.

The Board has summarized the implementation and performance of the work over the past year and has considered the views of the Supervisory Committee and management during the process and considers that it has discharged its duties effectively to safeguard the interests of the shareholders and the Company.

Directors attending the 2011 general meeting of the Company are: Vice President Huang Long (Chief Member of the Strategy Committee) and independent director Shao Shiwei (Chief Member of the Nomination Committee). Directors attending the first 2012 extraordinary general meeting of the Company is: Vice President Huang Long (Chief Member of the Strategy Committee).

(d) CHAIRMAN AND PRESIDENT

The Company shall have a Chairman and a President who shall perform their duties respectively according to the Articles of Association. During the reporting period, Mr. Cao Peixi acts as Chairman of the Board and Mr. Liu Guoyue acts as President of the Company.

The division of duties of the Board and the senior management is the same as what has been disclosed in the previous Corporate Governance Reports.

(e) NON-EXECUTIVE DIRECTORS

According to the provisions of the Articles of Association, the term of office of members of the Board of the Company shall not exceed three years (including three years) and the members are eligible for re-election. However,

the term of office of Independent Non-executive Directors shall not exceed six years (including six years) according to the relevant provisions of the China Securities Regulatory Commission.

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The respective terms of office of the Non-executive Directors are as follows:

Names of Non-executive Directors	Term of office		
Huang Long	17 May 2011	–	17 May 2014
Li Shiqi	17 May 2011	–	17 May 2014
Huang Jian	17 May 2011	–	17 May 2014
Shan Qunying	17 May 2011	–	17 May 2014
Guo Hongbo	21 February 2012	–	17 May 2014
Xu Zujian	17 May 2011	–	17 May 2014
Xie Rongxing	12 June 2012	–	17 May 2014

(f) DIRECTORS' REMUNERATION

According to the relevant laws of the PRC and the relevant provisions of the Articles of Association, the Board of the Company has established the Remuneration and Appraisal Committee. The committee is mainly responsible for studying the appraisal standards of the directors and senior management personnel of the Company, conducting appraisals and making proposals; responsible for studying and examining the remuneration policies and proposals of the directors and senior management personnel of the Company and to be accountable to the Board. As the executive directors of the Company are also the senior management of the Company, their performance appraisals were reflected in the appraisal of the senior management by the Board of Directors. During the reporting period, Mr. Liu Guoyue, Mr. Fan Xiaxia received salary from the Company as executive directors. Their salaries were recorded in the annual total remuneration and determined in accordance with the Company's internal pay scale. The total remuneration, after examined by the Remuneration and Appraisal Committee, was then submitted to the Board of Directors. The Executive Directors have entered into the director service contracts in compliance with the requirements of the Stock Exchange using the template set out by the Stock Exchange.

Members of the Seventh Session of the Remuneration and Appraisal Committee comprised seven directors. Members of the Remuneration and Appraisal Committee were Mr. Qi Yudong, Mr. Liu Guoyue, Mr. Guo Hongbo (elected as a member on 20 March 2012, the post was held by Mr. Liu Shuyuan prior to 21 February 2012), Mr. Xu Zujian, Mr. Shao Shiwei, Mr. Wu Liansheng and Mr. Li Zhensheng, of whom Mr. Qi Yudong, Mr. Shao Shiwei, Mr. Wu Liansheng and Mr. Li Zhensheng were Independent Non-executive Directors. Mr. Qi Yudong acted as Chief Member of the Remuneration and Appraisal Committee.

The operation of the Remuneration and Appraisal Committee under the Board of Directors did properly follow the Detailed Rules on the Work of the Remuneration and Appraisal Committee. The first meeting for 2012 was convened on 19 March 2012, at which the Report of Total Wage Expenses was reviewed and the Company's arrangement for the total wage in 2012 was agreed and the Report on Work Performance of the Remuneration and Appraisal Committee was reviewed and approved. In the new financial year, the Remuneration and Appraisal Committee will carry out its work in a timely manner pursuant to the above rules on work according to the actual situation.

During this reporting period, the attendance of meetings of the Remuneration and Appraisal Committee of the Company's Board was as follows:

Name of meeting	Date of meeting	Members who attended the meeting in person	Members who attended the meeting by proxy
First meeting of the Remuneration and Appraisal Committee of the Seventh Session of the Board of Directors in 2012	19 March 2012	Qi Yudong, Liu Guoyue, Xu Zujian, Shao Shiwei, Wu Liansheng, Li Zhensheng	–

(g)

## NOMINATION OF DIRECTORS

According to the relevant laws of the PRC and the relevant provisions of the Articles of Association, the Board of the Company has established the Nomination Committee. The Committee operates according to the Detailed Rules on the Work of the Nomination Committee of the Company and is mainly responsible for studying the selection standards and procedures for candidates for directors and senior management personnel of the Company according to the directors' qualifications under the Companies Law and Securities Law and the needs of the operational management of the Company, and making proposals thereon to the Board; searching for qualified candidates for directors and suitable persons for senior management personnel on a wide basis; and examining the candidates for directors and suitable persons for senior management personnel and making proposals thereon. Currently, the nomination of the candidates of directors of the Company is made by the major shareholders. The nominations, after examination of the relevant qualification by the Nomination Committee, will be submitted to the Board of Directors. The President of the Company was appointed by the Board and the candidates for the Vice President and management were nominated by the President. Such nominations, after examination of the relevant qualification by the Nomination Committee, will be submitted to the Board of Directors.

Members of the Nomination Committee of the Seventh Session of the Board were Mr. Shao Shiwei, Mr. Fan Xiaxia, Mr. Shan Qunying, Mr. Xie Rongxing (elected as a member on 12 June 2012, the post was previously held by Ms. Huang Mingyuan), Mr. Wu Liansheng, Mr. Qi Yudong and Mr. Zhang Shouwen; of whom Mr. Shao Shiwei, Mr. Wu Liansheng, Mr. Qi Yudong and Mr. Zhang Shouwen were Independent Non-executive Directors. Mr. Shao Shiwei acted as the Chief Member of the Nomination Committee.

During the reporting period, the Nomination Committee had convened a total of three meetings. Pursuant to its responsibilities, the Nomination Committee had respectively reviewed the candidates regarding the Secretary to the Board of Directors of the Company, directors, vice presidents, chief engineers, approved the qualification of the candidates regarding directors and senior management and provided the approval report as the basis of recommendation for determination of the proposals by the Board of Directors.

During the reporting period, the attendance of the Nomination Committee of the Company's Board was as follows:

Name of meeting	Date of meeting	Members who attended the meeting in person	Members who attended the meeting by proxy
First meeting of the Nomination Committee of the Seventh Session of the Board of Directors in 2012	19 March 2012	Shao Shiwei, Fan Xiaxia, Shan Qunying, Wu Liansheng, Qi Yudong, Zhang Shouwen	Huang Mingyuan
Second meeting of the Nomination Committee of the Seventh Session of the Board of Directors in 2012	28 May 2012	Shao Shiwei, Fan Xiaxia, Shan Qunying, Huang Mingyuan, Wu Liansheng, Qi Yudong, Zhang Shouwen	–
Third meeting of the Nomination Committee of the Seventh Session of the Board of Directors in 2012	22 October 2012	Shao Shiwei, Fan Xiaxia, Shan Qunying, Xie Rongxing, Wu Liansheng, Qi Yudong, Zhang Shouwen	–

(h) REMUNERATION OF AUDITORS

KPMG and KPMG Huazhen (Special General Partnership) were appointed as the international and domestic auditors of the Company for 2012, respectively. For the twelve months ended 31 December 2012, the total auditors' remuneration amounted to RMB31.03 million (including remuneration paid to other auditors in addition to that of the principal auditors).

(i) AUDIT COMMITTEE

According to the requirements of the regulatory authorities of the jurisdictions where the Company is listed and the relevant provisions of the Articles of Association, the Board of Directors of the Company has established the Audit Committee which operates according to the Detailed Rules on the Work of the Audit Committee and is mainly responsible for assisting the Board of Directors in supervising:

- (1) the authenticity of the financial statements of the Company;
- (2) the compliance by the Company with laws and regulatory requirements;
- (3) the qualification and independence of the independent auditors of the Company;

- (4) the performance of the independent auditors and the internal audit department of the Company; and
  - (5) the control and management of the related-party transactions of the Company.
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The Company holds four regular meetings of the Audit Committee of the Board of Directors each year. At least two separate meetings with the external auditors of the Company are held to hear the reporting of the audit plan, work arrangements and audit situation. The Board of Directors of the Company has formulated the Measures on the Management of Informants' Hot-line and Mailbox. The Audit Committee is responsible for management of the hotline and mailbox according to the provisions of the Measures.

Members of the Audit Committee of the Board of Directors shall comprise five independent non-executive directors. Members of the Audit Committee of the Seventh Session of the Board of Directors are Mr. Wu Liansheng, Mr. Shao Shiwei, Mr. Li Zhensheng, Mr. Qi Yudong and Mr. Zhang Shouwen, respectively. Mr. Wu Liansheng acts as the Chief Member.

During the reporting period, the Audit Committee has held seven meetings. As per Audit Committee's duties, the Audit Committee interviewed with the Company's legal advisor, external auditors, management and the relevant departments separately and exchanged ideas and communicated with them. With the understandings on the applicable laws and regulations of those jurisdictions in which the shares of the Company are listed, anti-fraud position in the Company, recruitment of staff, implementation and execution of internal control mechanism and audit work carried out by external auditors, the Audit Committee has rendered their views and opinion and made certain proposals. The meetings discussed and examined the audit working report of the Audit Department in 2011, the working plan and budget for auditing in 2012, the 2011 financial statements, the 2012 budget report, the 2011 profit distribution proposal, the proposal on appointment of external auditors, execution of the 2011 auditors' service fees budget and 2012 auditors' service fees budget report, the financial reports for the first quarter, the interim and the third quarter for 2012, the internal control work report and proposals on changes in accounting estimates of fixed assets respectively. The Audit Committee submitted to the Board of Directors the relevant examination reports.

During this reporting period, the attendance of meetings of members of the Audit Committee was as follows:

Name of meeting	Date of meeting	Members who attended the meeting in person	Members who attended the meeting by proxy
First meeting of the Seventh Session of the Audit Committee in 2012	5 January 2012	Wu Liansheng, Shao Shiwei, Li Zhensheng, Qi Yudong, Zhang Shouwen	—
Second meeting of the Seventh Session of the Audit Committee in 2012	21 February 2012	Wu Liansheng, Shao Shiwei, Li Zhensheng	Qi Yudong Zhang Shouwen
Third meeting of the Seventh Session of the Audit Committee in 2012	19 March 2012	Wu Liansheng, Shao Shiwei, Li Zhensheng, Qi Yudong, Zhang Shouwen	—





Name of meeting	Date of meeting	Members who attended the meeting in person	Members who attended the meeting by proxy
Fourth meeting of the Seventh Session of the Audit Committee in 2012	23 April 2012	Wu Liansheng, Shao Shiwei, Li Zhensheng, Qi Yudong, Zhang Shouwen	–
Fifth meeting of the Seventh Session of the Audit Committee in 2012	30 July 2012	Wu Liansheng, Shao Shiwei, Li Zhensheng, Qi Yudong, Zhang Shouwen	–
Sixth meeting of the Seventh Session of the Audit Committee in 2012	22 October 2012	Wu Liansheng, Shao Shiwei, Li Zhensheng, Qi Yudong, Zhang Shouwen	–
Seventh meeting of the Seventh Session of the Audit Committee in 2012	15 November 2012	Wu Liansheng,  Shao Shiwei, Li Zhensheng, Qi Yudong, Zhang Shouwen	–

## (j) RESPONSIBILITY ASSUMED BY THE DIRECTORS IN RELATION TO THE FINANCIAL STATEMENTS

The Directors of the Company confirm that they shall assume the relevant responsibility in relation to the preparation of the financial statements of the Company, ensure that the preparation of the financial statements of the Company complies with the relevant regulations and applicable accounting standards and also warrant that the financial statements of the Company will be published in a timely manner.

The reporting responsibility statements made by the auditors of the Company in relation to the financial statements of the Company are set out in auditor's reports on page 93 to page 94.

## (k) SENIOR MANAGEMENT'S INTEREST IN SHARES

None of the senior management of the Company holds any shares of the Company.

## (l) STRATEGY COMMITTEE

According to the requirements of regulatory authorities where the Company is listed and the requirements of the Company's Articles of Association, the Board of Directors of the Company set up the Strategy Committee. The

Strategy Committee operates according to the Detailed Rules on the Work of the Strategy Committee and its main responsibilities are:

- (1) to study and make suggestions on the Company's long-term development strategies and plans;
  - (2) to study and make suggestions on material investment and financing proposals which require the approval of the Board of Directors;
  - (3) to study and make suggestions on material production and operational projects which require the approval of the Board of Directors;
-

- (4) to study and make suggestions on other material matters that will impact the Company's development;
- (5) to monitor the implementation of the above matters;
- (6) other matters required by the Board of Directors.

Members of the Strategy Committee of the Seventh Session of the Board of Directors comprised seven directors, namely Mr. Huang Long, Mr. Li Shiqi, Mr. Huang Jian, Mr. Liu Guoyue, Mr. Fan Xiaxia, Mr. Shao Shiwei, Mr. Li Zhensheng, of whom Mr. Shao Shiwei and Mr. Li Zhensheng are Independent Non-executive Directors. Mr. Huang Long acted as the Chief Member of the Strategy Committee.

On 28 May 2012, the Strategy Committee considered and approved the Report on Classification, Prevention and Control Measures on Risk of Huaneng Power International, Inc. in 2012 which was submitted to the Audit Committee of the Board of the Company on 30 July 2012 for examination.

On 19 November 2012, the Strategy Committee considered and approved the Risk Analysis Report of Huaneng Power International, Inc. for the first half of 2012.

The risk management work operates effectively and the risks are effectively controlled, thus continuously strengthening and improving the internal control and risk management mechanism of the Company.

(m) TRAINING OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

The Company organized the directors and supervisors to participate in the training organized by regulatory organs each year. During the reporting period, a total of 16 directors and supervisors attended the 2012 directors and supervisors training organized by Beijing Supervision Bureau of China Securities Regulatory Commission and the costs were paid by the Company. The Secretary of the Board of Directors of the Company participated in the continued development training of board secretaries and part of the exchange and discussion meetings organized by the Hong Kong Institute of Chartered Secretaries.

The Company organizes a briefing by the legal advisers of the Company of the three markets for all the independent directors of the Audit Committee of the Company every six months in relation to updates of the regulatory rules of the listing places, applicability of the relevant systems and performance of the regulations of the listing places by the Company.

According to the records provided by the directors and supervisors, summary of the training of the directors and supervisors during the period from 1 January 2012 to 31 December 2012 is as follows:

Name	Type of continued professional development plan
Cao Peixi	A, B
Huang Long	A, B
Li Shiqi	A, B
Huang Jian	A, B
Liu Guoyue	A, B
Fan Xiaxia	A, B
Shan Qunying	A, B
Guo Hongbo	A, B
Xu Zujian	A, B
Xie Rongxing	A, B
Shao Shiwei	A, B
Wu Liansheng	A, B
Li Zhensheng	A, B
Qi Yudong	A, B
Zhang Shouwen	A, B
Guo Junming	A, B
Hao Tingwei	A, B
Zhang Mengjiao	A, B
Gu Jianguo	A, B
Wang Zhaobin	A, B
Zhang Ling	A, B

Notes:

A: Attend the briefings and/or seminars.

B: Read the relevant listing rules and seminar materials and updates of new developments of other applicable regulatory requirements.

From January 2012, all the directors and supervisors have to provide their quarterly training records to the Company and the Company Secretary shall keep the relevant materials for periodic examination. In 2012, each director and supervisor received training of over 15 hours.

The Company stresses the importance of training and continuing professional development of senior management. Except organizing the senior management to participate in the training organised by the relevant State departments, industry management training departments and associations, the Company also organized the senior management to participate in the Executive Master of Business Administration (EMBA) training for senior management at Peking University, Tsinghua University and other colleges and universities.

(n) FORMULATING, REVIEWING AND MONITORING THE CONDUCT STANDARDS AND COMPLIANCE HANDBOOK APPLICABLE TO EMPLOYEES AND DIRECTORS

The Company has formulated the Employee Handbook to highlight the employees' conduct standards and regulate the employees' behavior. The Company's employees conscientiously implement and execute the Employee Handbook to improve the behavior and moral standards and strengthen the correct value orientation.

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(o) SHAREHOLDERS' RIGHTS

- Convening extraordinary general meetings

Upon request by shareholders individually or jointly holding more than ten percent of the Company's shares, the Board of Directors shall convene an extraordinary general meeting within two months.

Shareholders individually or jointly holding more than ten percent of the Company's shares shall issue a written request asking the Board of Directors to convene an extraordinary general meeting and setting out the meeting agenda. The Board of Directors shall convene an extraordinary general meeting as soon as possible after receiving the above written request. If the Board of Directors does not issue a notice convening the meeting within thirty days after receipt of the written request, shareholders putting forward the request may convene a meeting themselves within four months after receipt of such request by the Board of Directors. The convening procedures shall be the same as the procedures of convening general meetings by the Board of Directors as far as possible.

- Putting forward proposals to the general meeting

If the Company convenes a general meeting, shareholders individually or jointly holding more than three percent of the total number of the Company's voting shares may put forward an interim proposal and submit it in writing to the Board of Directors ten days before convening of the general meeting. The Board of Directors may issue a supplementary notice of the general meeting announcing the contents of the interim proposal within two days of receiving the proposal.

Shareholders individually or jointly holding more than one percent of the Company's issued shares may propose candidates for independent directors who shall be elected and decided by the general meeting.

- Convening interim board meetings

After proposing by shareholders representing more than one-tenth of the voting rights, an interim board meeting may be convened. The Chairman shall convene and chair the board meeting within ten days after receiving the proposal by shareholders representing more than one-tenth of the voting rights.

- Making inquiries to the Board of Directors

Shareholders shall have the right to obtain the relevant information of the Company according to the provisions of the Articles, including the Articles of Association, share capital, minutes of general meetings, resolutions of Board meetings and resolutions of Supervisory Committee meetings.

(p) DIRECTORS' INSURANCE

The Company renewed the directors' liability insurance in 2012 and the insured amount is still US\$10 million.

(q) COMPANY SECRETARY

Since 3 May 2012, Mr. Du Daming (the Company's Vice President and Secretary to the Board) has been the Company Secretary of the Company under the Listing Rules. The biography of Mr. Du Daming is set out in the senior management profile. During the reporting period, Mr. Du Daming has complied with the requirements of Rule 3.29 of the Hong Kong Listing Rules and received the relevant professional training of not less than 15 hours.





(r)CHANGE OF PERSONAL INFORMATION OF DIRECTORS AND SUPERVISORS DURING THE REPORTING PERIOD

During the reporting period, Shan Qunying resigned from the post of Vice President of Hebei Construction Investment Group Limited Liability Company; Wu Liansheng was appointed as Independent Director of Xinhua Net Company Limited; Zhang Shouwen was appointed as Independent Director of Joyoung Co., Ltd., Independent Director of Guosen Securities Company Limited and Independent Director of Donghua Software Company Limited; Hao Tingwei was appointed as Director of Liaoning Hongyanhe Nuclear Power Company Limited and Vice Chairman of Dalian Taishan Cogeneration Company Limited; Gu Jianguo was appointed as Vice President of Nantong State-owned Assets Investment Holdings Limited; and Wang Zhaobin was appointed as Chairman of the labour union of Huaneng Power International.

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## Social Responsibility Report

The Board of Directors of the Company together with all the directors thereof guarantees that this Report does not contain any false statements, misleading representations or material omissions and jointly and severally accept responsibility as to the truthfulness, accuracy and completeness of the content of this Report.

This Report systematically summarizes the work of Huaneng Power International, Inc. (hereinafter referred to as the “Company”) in 2012 in fulfilling its social responsibility, which includes economic responsibility, environmental responsibility, safety responsibility, staff responsibility, and so on, with a view to giving a true presentation of the Company’s concrete achievement in its promotion of comprehensive, healthy and continuous development in 2012.

This Report has been prepared in accordance with the Guidelines on Preparation of “Corporate Report on Performance of Social Responsibilities” issued by the Shanghai Stock Exchange, and with reference to the G3 Sustainable Development Reporting Guidelines issued by Global Reporting Initiative (GRI) and in conjunction with the actual performance by the Company. This Report is the Company’s social responsibility report published to the general public and the data and contents contained herein are on the basis of the Company’s domestic business.

### I. CORPORATE OVERVIEW AND CORPORATE GOVERNANCE

#### 1. Corporate Overview

Established on 30 June 1994, the Company is principally engaged in the development, construction and operation of large power plants across the PRC with modern technology and equipment as well as domestic and overseas capital. In October 1994, the Company completed its global initial public offering of 1,250,000,000 overseas listed foreign invested shares (“foreign shares”) and listing of 31,250,000 American Depositary Shares (“ADS”) on the New York Stock Exchange in the United States (ticker symbol: HNP). The Company’s foreign shares were listed on The Stock Exchange of Hong Kong Limited (the “Hong Kong Stock Exchange”) by way of introduction (stock code: 902) in January 1998 and subsequently in March successfully completed its global placement of 250,000,000 foreign shares and its private placement of 400,000,000 domestic shares. The Company successfully issued 350,000,000 A shares (stock code: 600011) on the Shanghai Stock Exchange in November 2001, of which 250,000,000 shares are public shares. In December 2010, the Company completed the non-public issuance of 1,500,000,000 ordinary shares denominated in RMB (A Shares) and 500,000,000 overseas listed foreign shares (H Shares). At present, the Company has a total of approximately 14.06 billion shares in issue.

As at 31 December 2012, the Company’s controlling generation capacity and equity-based generation capacity amounted to 62,756 MW and 56,572 MW respectively. With wide coverage of power plants in 19 provinces, municipalities and autonomous regions in the PRC, the Company is currently one of the country’s largest listed power producers. In addition, the Company has a wholly-owned power company in Singapore.

Since its establishment, the Company, as a power generation enterprise, has been committed to technology, system and management innovations. It has achieved various No.1s among the PRC industry players and completed various milestone projects in areas such as power technology advancement, power plant construction and management approach, which significantly facilitated the great-leap forward development of the power business and technological advancement of the power station equipment manufacturing industry in the PRC, and also significantly contributed to the improvement of technical and management standards of the PRC power generation enterprises. At the same time, the Company actively promoted the investment in coal, port and sea transportation etc. and upgraded the capability in the self-supply of coal, the power in port storage, trans-shipment and the sea transportation. The combined synergy in

power, coal, port and transportation is basically formulated.

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## 2. Corporate Governance

As a public company listed in three places within and outside the PRC, the Company at the same time has been subject to regulation by the securities regulatory authorities in the three places where the Company's shares are listed and the supervision by the Company's shareholders. The Company consistently stressing the importance of corporate governance and has enhanced its corporate governance structure, which comprises the general meetings, the Board of Directors, the Supervisory Committee and senior management leading by the President. It has established an operating mechanism with clear segregation between decision authority, supervisory authority and operation authority to enable each of them to perform their respective responsibilities, implement checks and balances and coordinate with one another, so that the decision-making power of the Board of Directors over important matters and the supervision power of the Supervisory Committee can be effectively exercised to ensure the operation team can effectively deal with operation matters. Through years of researches and implementation, the Company has gradually formulated a regulated and enhanced structure for corporate governance, and established a systematic mechanism that is sound and effective, and suits the own needs of development by the Company.

The Company has been consistently treating all shareholders fairly, and striving for the generation of long-term, stable and growing returns for shareholders. The good image of the Company in its integrity in regulation, professional transparency, respect for shareholders has won high recognition of regulatory authorities and the capital markets. In July 2012, the Company's A Shares were included as SSE 180, CSI 300 Index and CSI 100 Index by the Shanghai Stock Exchange and China Securities Index Co., Ltd.. The Company's H Shares won the "Top 10 Gainer Stocks" by the "Top 100 of the Hong Kong Listed Companies" in 2012.

The Company stresses on the importance of information disclosure. The Company has established the Information Disclosure Committee which comprises the Vice President, the Chief Accountant and managers of all departments, and is responsible for examining the Company's regular reports. The Company has implemented the system of holding weekly information disclosure meetings chaired by the Vice President and the Chief Accountant who will report on the Company's important matters of the week, thereby ensuring the organization that the Company's performance of the relevant information disclosure obligations. In 2012, the Company made 20 overseas press releases and published 181 announcements within and outside the PRC to reinforce effective communications with the investors. Also, The Company was shortlisted in 2012 Information Disclosure Award held by Shanghai Stock Exchange, ranking among Top 20.

## II. ECONOMIC RESPONSIBILITY OF THE COMPANY

The Company has further strengthened control over comprehensive budgetary management, analysis of operating efficiency target, monitor over degree of completion, tracking of significant indicators and administering of strict assessment and reforms. The Company has also stepped up efforts in implementing closed-loop management of budgets and utilizing the guiding function of budgets to operations. Enhancement of delicacy management has been achieved via establishment of an integrated platform of assets and financial affairs, a management system of financing control, as well as application and development of information management tools including a Fully Digitalized Dynamic Management Platform for Fuel Supply Process. In the face of ever-changing operating environment, a special task force has been set up to assist companies struggling to turn around and the strategy has been proved a success.

The marketing campaign of the Company has also achieved rewarding results despite a slowdown in economic growth and setback in growth of power usage. Implementation of marketing sales strategies by subsidiaries, close monitor over power output, utilization of hourly benchmarking and optimization of power consumption structure have contributed to improvement of power generation efficiency. Operating condition has improved thanks to implementation of tariff policy, steady increase in tariff rate and well-adjusted marketing management of wind power

generation and heat supply.

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Assured supply of fuel and accurate prediction of coal market trends have strengthened utilization of regional distribution network, economy of scale and edges of unified management. Administration of measures of “structure adjustment, inventory reduction, cost control”, together with a substantial rise in volume of imported coal, a streamlined supply chain, close cooperation with major miners and suppliers, as well as active exploration of coal resources, purchase price of coal has registered a large decline as a result. Management of fuel indicators have been carried out to raise the standards to meet the strictest benchmark. Standardized management fee of fuel processing plants has also enabled formalized, well-controlled and scientific fuel management.

The Company has endeavored to maximize edges brought by centralized control of capital and ensure secure sources of funding via innovative financing means. To strengthen efficiency of financial management, we strive to implement loans replacement, strengthen centralized management of revenue and expenditure, improve operation efficiency of capital, reduce non-performing capital and impose stringent control over financial cost.

### III. SAFETY RESPONSIBILITY OF THE COMPANY

The Company has adhered to its objective of “Zero Casualty of Human Being and Zero Tolerance for Violation of Regulations”. Safety system construction and standardization of power companies have been fully implemented. The Company has also formulated the “Safety education training plan during 12th Five-Year period” to kick off comprehensive safety training and discourage violation of safety regulations and identify potential risks. We have stressed on safety assessment and provision of assistance to specific parties to strive for steady improvement of production safety. We also stepped up efforts to manage equipment in a bid to improve the reliability of the production facilities.

In 2012, the Company did not incur any serious accidents or any of the above incidents, nor any environmental pollution issues, or accidents which interrupted the safe operation of the power grids. The Company has maintained an overall stable situation of production safety. The Company did not incur any general equipment accidents throughout the year, representing a decrease of 4 cases as compared to the corresponding period of the previous year; 23 breakdowns, representing a decrease of 4 cases as compared to the corresponding period of the previous year. The average unplanned outage times were 0.34 time/unit annum, representing a decrease of 0.07 time/unit annum as compared to the corresponding period of the previous year. 14 power plants including Nantong Power Plant, Dandong Power Plant, Huaiyin Power Plant, Yushe Power Plant and Rizhao Power Plant did not incur any unplanned outages throughout the year.

### IV. ENVIRONMENT RESPONSIBILITY OF THE COMPANY

#### 1. Energy Saving and Environmental Protection Objectives

During its development, the Company has strictly complied with the country’s environmental regulations, actively fulfilled its environmental responsibilities, promoted technological innovations, enhanced resources utilization efficiency and actively established superior energy saving and environmental friendly coal-fired power plants. In 2012, the Company achieved all of its energy saving and environmental protection objectives, 7 power plants completed the standards and innovative work of superior energy saving and environmental friendly coal-fired power plants, maintained its primary technical and economic indicators at the forefront of both domestic and international levels.

#### 2. Energy Saving and Environmental Protection Measures

The Company further unleashed potential on energy saving, increased efforts in technology renovation for energy saving, fully implemented specific projects related to renovation of turbines flow, low NOx combustion facilities, dust

collector, air pre-heater, induced draft fan, turbine steam seal, cooling tower, air-cooling system, cold end optimization, and control of small indicators. Therefore, performance of our energy consumption indicators is amongst the best of the industry of players. Throughout the year, the Company implemented cylinder uncovering transformation for 23 generating units and upgraded the circulation systems for 5 generating units.

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The Company has stepped up its management and renovation efforts in the operation of environmental facilities, including completion of desulphurization and upgrade of capacity for 10 generating units, as well as de-nitrification renovation of 18 generating units. Completion of facilities renovation has surpassed the standards set in the environmental responsibilities plan. We have kicked off promotion of low carbon energy saving actions which involves ten thousand firms and integrated upgrade construction of coal fired power plants and was named as an energy saving pioneer within the country.

To actively promote technology innovation; we have conducted researches and demonstration of new technologies including ultra-supercritical units, double-reheat and super low-temperature dust collecting. These technologies have been applied in the newly construction projects. We also promote use of advanced technologies namely new side coal bunker, gas turbine in open area, low operation layer platform, steam condensation small turbine and pumping-back small turbine-driven draft fan. The Company's "Research and development of higher than 600oC 1200 MW ultra super critical power generation technology" has been included in the National Science and Technology Support Program, while the project of "Research and development of product lifecycle management system of 1000 MW ultra super critical boiler " of Yuhuan Power Plant has been won the first prize in "Safe production technological achievements" organized by State Electricity Regulatory Commission and State Administration of Work Safety in 2012. The information system has been upgraded for better management of technical standards of the Company. With more than 2000 newly added technical standards and composition of 8 standards, the Company is well known as pioneer in standardization in power industry.

### 3. Energy Saving and Environmental Protection Performance Indices

In 2012, the Company has achieved remarkable results in energy saving and environmental protection. It accomplished the annual objectives specified in the Letter of Three Energy Saving and Environmental Protection responsibilities, without violating the environmental laws and regulations of the PRC.

In 2012, the Company consumed 132.7 million tons of natural coal and recorded average coal consumption for power supply within China for coal-fired generating units of 310.71 g/kWh, representing a decrease of 1.39 g/kWh as compared to the same period of the previous year.

In 2012, the coal-fired units of Company consumed 273.75 million tons of water, which was primarily derived from rivers, lakes, seas, groundwater, and so on.

In 2012, the performance values of sulphur dioxide and nitrogen oxides for the year were 0.55 g/kWh and 1.42 g/kWh respectively, representing a decrease of 0.02 g/kWh and 0.13 g/kWh respectively as compared to the same period of the previous year.

## V. STAFF RESPONSIBILITY OF THE COMPANY

### 1. Protection of Staff Benefits

#### (1) Staff overview

With the belief that human resources are the forefront important assets, the Company actively implements the strategy of developing the enterprise by talents, focuses on the tri-tasks of attracting, nurturing and making good use of talents, accelerates the establishment of a team with high-level and highly skilled talents as the core members. As a result, a team of talents which is well structured, professionally equipped, of excellent quality, devoted to careers in Huaneng and in line with the Company's developmental and strategic needs was formed.



As at the end of 2012, the Company had 36,326 employees, 64% of whom had college qualifications and above. Intermediate and higher level professional technicians accounted for 44% of the total staffing with professional and technical qualifications.

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(2) Rights protection

The Company consistently implements a fair, just and open employment policy and endeavors to implement the Labour Law, the Employment Contract Law and the Regulation on the Implementation of the Employment Contract Law, and other laws and regulations, for strengthening the management of employment contracts. The Company signs employment contracts with employees according to related regulations.

The Company focuses on the improvement of the Staff Representative Congress System and the Plant Affairs Publicity System, supports the staff's active participation in democratic management and guarantees the staff's full entitlement to the rights to be informed, participate, express and supervise. The Company improved the responsibility system for complaint handling and formulated the system and standards for staff's benefit claims.

All of the Company's affiliated enterprises have established trade unions in accordance with the Trade Union Law, and the staff's entry rate remained 100%. Trade unions at all levels seriously perform their duties, safeguard the staff's legal interests, encourage the staff to participate in management decision making, jointly accomplish the economic objectives of the enterprises, and assist in mediating disputes between the staff and the enterprises.

The Company attaches great importance to the staff's health and safety. All of its affiliated enterprises have established a protection mechanism for the staff's health and safety. The enterprises organize physical examinations for all staff annually and also special physical examinations for the staff who are exposed to the sources of occupational hazards.

(3) Incentives and protection

The Company further improved its remuneration allocation system, devised a series of remuneration management procedures in line with the overall strategies, standardized the pay system and criteria, and optimized the income allocation structure. The Company fully implemented the annual salary system for responsible person of enterprise and the management of remuneration becomes more regulated. Staff remuneration is determined in accordance with the principles of "determining salaries based on the position, receiving compensation based on performance, giving priority to efficiency and emphasizing fairness" and is linked to individual performance, establishing a scientific and effective incentive mechanism.

In accordance with the law, the Company has established a social security system for payment of the corporate's part of the social insurance costs for social welfare protection like employee pension, health care. In accordance with the national policy, the Company has established a corporate annuities and supplementary medical insurance policy to supplement the basic employee pension and medical treatment. The Company concerns about staff's production and living, actively organized "warmth and care delivery" activities, and provide support and help for staff in need.

2. Support for Staff Development

(1) Staff training

The Company emphasized training for all staff, took full advantage of Huaneng systematic training resources, strengthened the cooperation with external training organizations, developed multi-level, multi-channel and multi-dimensional training, and strived to reinforce general competence of the staff. The major types of training include: orientation training, position training, skill training, continuing education and international cooperation training.

As at the end of 2012, the Company had 8 state-level talents, including 1 member of the “National Hundred, Thousand and Ten Thousand Talent Project” and 7 persons who enjoyed special government allowance. The Company had 9 national technical experts, 33 technical experts of state-owned enterprises, and 23 technical experts of the power industry.

(2) Development opportunities

The Company emphasized the provision of growth opportunities to its staff so as to realize joint development of the staff and the enterprise. The Company accelerated the development of advanced organizations with “Quaternion Excellence”, established the exchange and training system for cadres, reinforced the training of substitute cadres, and well prepared for works that supplement and equip substitute cadres of enterprises. The Company established an employment mechanism of “position competition and talent selection”, and by reinforcing the talent competition assessment actively organized various multi-level skill competitions and achievement evaluation activities so as to provide platform for high caliber talents with opportunities to stand out. The Company promoted the establishment of full range of technical expertise personnel teams and provided opportunities for the talented. 2,352 persons passed the qualification assessment and 108 persons were promoted to occupational qualifications.

## VI. SOCIAL RESPONSIBILITY OF THE COMPANY

The Company has adopted the “three-colour” as the corporate’s mission, i.e. a “red” company that serves the country with socialism Chinese characteristics, a “green” company with focus on scientific and technological advancement and environment protection, and a “blue” company that keeps abreast of the world’s development, progressive and is oriented in innovative learning. The Company capitalized on the leading role in the culture of “three-colour” companies, to pursue insistence on sustainable development, service provided to the State, benefits for the community, fulfillment of social responsibilities, creation of a sound internal and external environment, promotion of economic and social development with relevant interested parties and sharing of corporate development achievements in order to make contribution to a harmonious socialist society.

The Company attaches great importance to ensure supply of power. The power plants have formulated emergency work pre-arranged planning and management measures and implemented corresponding electricity safety security plan in order to ensure safe and stable power generation during important periods. Emphasis has also been put on heat supply management to assure stable functioning of heating system.

The Company has actively participated in social charity activities including new socialist village development, poverty alleviation, education assistance, charitable donations, and positively reciprocated the society and showed our care via means of innovative cooperative services. In 2012, the Company donated a total of 5.35 million under its name to support local social charity work.

In the future, the Company will continue to strive for the generation of long-term, stable and growing returns for shareholders; strive for the provision of adequate, reliable and environmental friendly electricity for the society; strive for developing itself as a first-class listed power producer with leading technology, excellent management, reasonable distribution, optimized structure, industry synergy and remarkable efficiency.

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## Investor Relations

### PHILOSOPHY OF INVESTOR RELATIONS

Huaneng International always highly values the management of investor relations since its listing. The Company communicates with all investors in a wholehearted, equal and respectful manner through timely and diversified two-way channels, enhancing and perfecting the management of investor relations of the Company. In addition, the Company also values the two-way interactive communication of “disclosure” and “adoption”. With its investors “Disclosure” – the Company discloses information including financial position and operating performance to investors accurately, fairly and comprehensively in a responsible manner, which helps investors to understand and recognize the current situation and future development strategy of the Company. “Adoption” – the Company has placed multiple channels to collect opinions of investors to adopt suggestions and ideas related to its operating activities. Such two-way communication effectively improves the operation management ability of the Company and ultimately maximizes the interests of the Company as a whole and all shareholders.

### INVESTOR RELATIONS WORK SYSTEM

- Establishing meticulous organization and enhancing system development

The Company sets up special-purpose information disclosure organizations (Information Disclosure Committee and Information Disclosure Work Team) and holds routine information disclosure meetings every Monday, making clear the work flow for information disclosure of the Company and guaranteeing the compliance and time effectiveness of information disclosure.

In the meantime, the Company has established the Measures on Information Disclosure Management, the Rules on Investor Relations Management, the Detailed Rules on the Work of the Information Disclosure Committees, Measures on Insider Information Management and Annual Report Information Disclosure Significant Errors Accountability Regulations, setting out in detail the basic principle, targets, procedures, contents of disclosure, registration and delivering of insider information and related accountability. The issue and implementation of these regulations further enhanced the information disclosure system of the Company, strengthened the discipline of the Company’s information disclosure, safeguarded and minimized the insider dealing activities, improved the authenticity, accuracy, integrity and timeliness of information disclosure, so as to preserve the legal interests of shareholders.

In 2012, pursuant to the requirement of the information disclosures rules of the non-financial corporate debt financing instruments of inter-bank bond markets (2012 edition) promulgated by China’s inter-bank market dealers association and combined with the Company’s actual circumstances, the Company made corresponding changes to its measure on Information Disclosure Management. The amendments primarily increase the responsibilities of the Company’s Information Disclosure Committee on information disclosure matters and the disclosure arrangements on debt financing instruments related matters.

In addition, the Company has also formulated the Internal Control System according to the relevant requirements of the state and Sections 302 and 404 of Sarbanes-Oxley Act of 2002, as well as prepared the Internal Control Handbook, further enhancing corporate governance and ensuring truthful, timely, accurate and complete information disclosure.

Having established a complete and effective control system targeting the entire process of the Company's information disclosure, the Company has been able to control potential risks in information disclosure effectively and ensure that all information disclosed by the Company is regulated and effective since its listing. With its timely, accurate and sufficient information disclosure, the Company has received recognition by domestic and overseas investors and won various awards granted by domestic and overseas investment institutions and professional institutions.

- Expanding channels and effective communication

In view of the different needs and nature of different investors – existing investors, potential investors, institutional investors and retail investors, the Company actively holds a variety of investor relations activities in various forms including telephone, emails, analyst conference, one-to-one meetings, investment forums, roadshows and reverse roadshows according to the characteristics of different investors, with a view to achieve all-round and effective communication and establish long-term and stable relations of mutual trust.

The Company insists on handling daily calls and visits made by investors properly. By consistently updating and sorting out investor database, expanding the investor communication network of the Company, holding two-way interactive investor relations activities, the Company is able to enhance the understanding and knowledge of investors about the Company, adopt suggestions and ideas put forward by investors, create two-way communication channels and platforms for fluid communication with investors and maximize the interests of the Company and investors.

- Timely disclosure and continuous follow-up

The Company discloses information in a truthful, accurate, complete and timely manner strictly according to the requirements of the regulatory authorities of its listing places, increasing the transparency of and attention to the Company and enhancing the image of the Company in capital markets. In the meantime, the Company follows up feedbacks from investors consistently and ensures effective communication, with a view to establish stable investor relations.

The Company made 20 overseas press releases and issued 181 announcements within and outside of China in 2012.

## NOTICE TO SHAREHOLDERS

- Dividend distribution

The Board resolved to propose for the year 2012 a dividend of RMB0.21 (inclusive of tax) per share. Dividends will be denominated and declared in Renminbi. Dividends on domestic shares will be paid in Renminbi. Save for the dividends on foreign shares traded on the Hong Kong Stock Exchange which will be paid in Hong Kong dollars, dividends on other foreign shares will be paid in US dollars. Exchange rates for dividends paid in US dollars and Hong Kong dollars are USD1 to RMB6.27375 and HKD1 to RMB0.808680 respectively. All the dividends payable to shareholders shall be subject to shareholders' approval at the annual general meeting of the Company.

## DIVIDENDS

- Dividend policy

The Company's articles of association clearly defines the Company's cash dividend policy, i.e. when the Company's earnings and accumulative undistributable profits for the current year are positive, and on condition that the Company's cash flow can satisfy the Company's normal operation and sustainable development, the Company shall adopt a cash dividend appropriation policy on principle that the cash dividend payout will not be less than 50% of the distributable profit realized in the then year's consolidated financial statement.

In the future, the Company will continue to follow a proactive, balanced and stable dividend policy, persistently increases its profitability, striving for realization of increasing returns to shareholders.

- Declaration of dividends

Since listing, Huaneng International has been given tremendous support and concern by shareholders. The Company has also rewarded shareholders with a persistent, stable and increased return over the years. The Company has been declaring dividends every year since 1998. The accumulated dividend paid amounted to RMB29.328 billion.

Dividend Year	Earnings per share (RMB)	Dividend per share (RMB)	Payout Ratio	
1994		0.17		
1995		0.24		
1996		0.27		
1997		0.33		
1998	0.08	0.33	24.24	%
1999	0.09	0.33	27.27	%
2000	0.22	0.44	50.00	%
2001	0.30	0.60	50.00	%
2002	0.34	0.65	52.31	%
2003*	0.50	0.90	55.56	%
2004	0.25	0.44	56.82	%
2005	0.25	0.40	62.50	%
2006	0.28	0.50	56.00	%
2007	0.30	0.51	58.82	%
2008	0.10	-0.33		
2009	0.21	0.41	51.22	%
2010	0.20	0.28	71.43	%
2011	0.05	0.08	62.50	%
2012**	0.21	0.39	53.85	%

\* The Company's dividend plan for 2003 included a cash dividend of RMB5.00 together with bonus issue of 10 shares for every 10 shares.

\*\* The profit distribution plan of the Company for 2012 will be implemented after the shareholders' approval is obtained at the annual general meeting.





## INVESTOR RELATIONS ACTIVITIES HELD BY THE COMPANY

- Investor and Press Conferences

In 2012, the Company has organized one press conference in Hong Kong, one large-group presentation with Hong Kong investment analysts, one large-group presentation with PRC investment analysts and fund managers, two global telephone conferences for the quarterly results and a global telephone conference for the results of the first half of the year.

- Roadshow

Roadshow is a commitment of the Company to the investors and a specific reflection of respect shown to the investors. The Company believed that periodic face-to-face meetings with investors were instrumental in promoting mutual understanding and providing better service to the shareholders. Since its listing, the Company has all along attached importance to communication with the investors and has a good reputation in the investment field.

- Reverse Roadshow

The Company conducted reverse roadshows annually since 1999. The Company organized domestic and overseas analysts and investors to visit its power plants. Through on-the-spot investigations and dialogues with the management of the power plants, the investors had a better understanding of the power generating equipment and the relevant operating conditions. Over the past years, the reverse roadshows of the Company were very effective and were popular and highly commended among the investment field.

In 2012, the Company adopted an innovative model in a reverse roadshow where such reverse roadshow was convened by way of forum. Relevant experts were invited for discussion of the industry's hot topics. More than 80 domestic and overseas investors participated in the activity which was the Company's largest reverse roadshow.

- Visits and general enquiries from investors

The Company has received more than 80 groups of institutional investors for company visits and about 200 telephone enquiries from investors in the year.

- Investors Forum

In 2012, the management of the Company has attended 5 large investment forums in which they met more than 70 institutional investors.

## MAJOR CHANGES TO THE ARTICLES OF ASSOCIATION

In 2012, the Company made amendments to the Articles of Association of the Company, the purpose of which is to further enhance the dividend policy of the Company.

The relevant amendments to the Company's Articles of Association were approved at the 2013 First Extraordinary General Meeting convened by the Company on 12 March 2013.



## Report of the Board of Directors

The Directors hereby submit their annual report together with the audited financial statements for the year ended 31 December 2012.

### RESULTS SUMMARY

The Board of Directors (the “Board”) of Huaneng Power International, Inc. (the “Company” or “Huaneng International”) hereby announces the audited operating results of the Company and its subsidiaries for the year ended 31 December 2012.

For the twelve months ended 31 December 2012, the Company realized operating revenue of RMB133.967 billion, representing an increase of 0.41% compared to the same period last year, and net profit attributable to equity holders of the Company amounted of RMB5.512 billion, representing a growth of 366.95% as compared with the same period last year. Earnings per share amounted to RMB0.39. The Board is satisfied with the Company’s results last year.

The Board of the Company proposed to declare a cash dividend of RMB0.21 (inclusive of tax) for each ordinary share of the Company held by shareholders.

### BUSINESS REVIEW OF YEAR 2012

In 2012, the Company had made new progress on many aspects including power generation, energy saving, environmental protection and project development. The Company exploited the favorable timing of a fall in coal price, overcame difficulties posed by sluggish demand for electricity and intensified market competition, reacted proactively, strengthened the management, thereby recorded remarkable growth in operating results and maintained its leading position in industry with regard to the relevant energy saving indicators. The Company managed to fulfill the duties of providing sufficient, reliable and green energy to the society. The operation of Tuas Power in Singapore was stable. The profitability and ability for sustainable development of the Company have been enhanced.

#### 1. Operating Results

For the twelve months ended 31 December 2012, the Company realized operating revenue of RMB133.967 billion, representing an increase of 0.41% compared to the same period last year. Net profit attributable to equity holders of the Company amounted to RMB5.512 billion, representing an increase of 366.95% as compared with the same period last year. Earnings per share was RMB0.39.

As at the end of 2012, net assets per share of the Company amounted to RMB3.99, representing an increase of 10.22% compared to the same period last year.

The Audit Committee of the Company convened a meeting on 18 March 2013 and reviewed the 2012 annual results of the Company.

#### 2. Power Generation

In 2012, the Company overcame difficulties posed by sluggish demand for electricity and intensified market competition, and explored the market through various channels, thus expanding our market shares. Through optimizing the examination and maintenance work of our generating units, the Company has increased its power generation, achieved outstanding performance with utilization hours of its coal-fired generating units ranking the first

in many provinces. However, because of the sluggish national demand for electricity and the significant growth in hydropower generation seizing the market share of coal-fired power, total power generated by the Company's operating power plants in China amounted to 302.433 billion kWh, representing a decrease of 3.55% year-one-year. The electricity sold aggregated to 285.455 billion kWh, representing a decrease of 3.47% year-on-year.

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In 2012, the annual average utilization hours of the Company's domestic coal-fired generating units reached 5,114 hours, which was 149 hours higher than the average utilization hours of the coal-fired generating units in China.

### 3. Cost Control

Fuel costs represent the major integral part of the operation cost of the Company. In 2012, the Company purchased a total of 133 million tons of natural coal. The Company continued to cultivate cooperation with major contracted suppliers, leverage on it to actively explore new sources and supply channels for coal, increase its purchase of imported coal, take advantage of the favourable opportunity afforded by the significant decreases in market prices of coal, optimise the structure and way of purchasing and have effective control of fuel costs. The fuel costs per unit of power sold of the Company's domestic power plants was RMB249.82 per MWh, representing a decrease of 7.60% compared to last year.

### 4. Energy Saving and Environmental Protection

The Company has always placed energy saving and environmental protection work as its utmost priority. In 2012, the Company led the industry in terms of technical and economic indicators and energy consumption indicator. The average equivalent availability ratio of the Company's domestic power plants was 94.05%, and its weighted average house consumption rate was 4.90%. The Company's average coal consumption rate for the power generated by coal-fired generating units was 295.49 grams/kWh, representing 0.91 grams/kWh lower than that of the same period last year. The Company's average coal consumption rate for power sold was 310.71 grams/kWh, representing a decrease of 1.39 grams/kWh from the same period last year.

In 2012, the Company kept increasing its effort in operating, managing, updating and modifying our environmental friendly equipment, fully attained the reduction goals with regard to total emission of sulphur dioxide and nitrogen oxides.

### 5. Project Development

Construction of power generating projects of the Company progressed smoothly. In 2012, the controlled generating capacity of the newly commissioned coal-fired, wind turbine and hydropower generating units of the Company was 4,663 MW, 93.5 MW and 97.5 MW, respectively. In addition, the 1x1,000 MW coal-fired generating unit at Henan Huaneng Qinbei Power Plant Phase III Project (in which the Company owns 60% equity interest) and Singapore Tuas Power Tembusu Multi-Utility Complex project Phase I (101 MW) (which is wholly-owned by the Company) have recently commenced operation. Apart from these, the installed generating capacity of the Company also changed as a result of the change of installed generating capacity of some power generation companies invested by the Company, the Company's technological improvement to existing generating units and the close-down of generating units. As of 19 March 2013, the Company's controlled and equity-based generating capacity was 63,857 MW and 57,273 MW, respectively.

### 6. Overseas Business

In 2012, Tuas Power Ltd. ("Tuas Power"), a wholly-owned company of the Company in Singapore, maintained safe and stable operation of the generation units throughout the year. In conjunction with the smooth construction of Tembusu Multi-Utility Complex Project and Unit No.5 steam turbine generator set at Tuas Power, Tuas Power captured 25.2% market share (on accumulative basis) in the power generation market for the whole year, thereby realized a net profit attributable to the shareholders of the Company of RMB1.041 billion, which represented a decrease of 18.77% compared to the corresponding period last year. It was mainly attributable to the increase of newly operated generation

units of other power plant companies, which caused a decrease of Tuas Power's shares in the market, resulting a decline in electricity sold. It was also attributable to the drop in the exchange rate of Singaporean dollars against RMB.

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In 2012, the Company delivered brilliant performance on the capital market. The Company's A Share was successfully incorporated in the CSI 300 Index, SSE 180 Index and CSI 100 Index, while the Company's H Share was awarded the "Top Ten Gainer Stocks" among the 2012 "Top 100 Hong Kong Stocks"; the Company was on the list of "Platts Top 250 Global Energy Listed Companies Award" four years in a row and ranked 143th, at the same time ranked 6th in the category of global independent power producers and energy traders; the Company also made encouraging progress in its corporate culture development and was named the "National Demonstration Base for Corporate Culture".

### PROSPECTS FOR 2013

In 2013, the Company continues to face with complicated situation where exists both challenges and opportunities arose from uncertainties.

The global economic environment is complicated with slow growth likely to persist, while imbalance and incoordination remain noticeable problems in the development of the Chinese economy. Uncertainty and instability factors still remain with the economic development. All of these will, to a certain extent, affect the demand for electricity. With regard to the control of fuel costs, cancellation of key coal contracts and dual-pricing system of thermal coal will exert new impact to the coal market, and there is uncertainty for the Company to control its purchase price for coal. Meanwhile, the government will expedite its reform on energy prices, and the adjustment of the price of natural gas will cast an anticipated increase in the operating costs of the Company's combined cycle generating units. Furthermore, the promulgation of more stringent environmental protection policy and standards will also exert certain pressure on the Company's operation.

Wherever there are challenges, there are opportunities. The fundamentals of the Chinese economy have been good for social development, coupled with huge potential in the China market, total demand for electricity will continue to grow. In 2013, total domestic demand for coal will grow at a slower pace where imported coal will help to strike a balance against the price of domestic coal. The overall situation remains lenient, thereby favors the Company to control its purchase price for coal. A more relaxed position in the overall monetary market is conducive to the Company in managing its funding costs.

The main task of the Company in 2013 is to focus on consolidating and enhancing economic efficiency and development quality, fully implement its efficiency improvement project, improve profitability, and accelerate its building up of the world's first-class listed power producer. The Company will strive to attain an annual utilization hour of 5,070 hours with its domestic generating units, and realize an annual power generation of 320 billion kWh at the Company's domestic power plants. The Company will adhere to its objective of safe production with "zero accident", increase effort in marketing, proactively deal with every opportunity and challenge arose from market-oriented reform for fuel, highlight impact of technology innovation on the promotion of energy saving and emission reduction, reinforce operation and fund management by means of complete budget and comprehensive planning, further compress controllable costs, intensify fund management and further cut down funding costs.

To ensure the annual power generation target is reached, the Company will further define duties of the regional marketing personnel, further explore potential of the management, take advantage of the national dual-pricing system of thermal coal, take an active role to encourage tariff increase in regions with lower tariff and recorded persistent loss, further improve work collaboration, strive to increase efficiency power generation during the period with favorable market condition, abundant demand and high margins, continue to optimize the operation of our generating units, endeavor to raise utilization rate and capacity rate of high efficiency and large generating units, boost generation amount by high efficiency generating units. The Company will build up its strength to cope with competition in the fuel market by all means, take advantages of the market-oriented reform for coal, the adjustment of coal supply structure, the synergies developed in the industry chain interconnecting power, coal, port and shipping, improve its procurement of coal and establish linkage and support for coal resources and transportation, manage its costs and

retain its gains, insist on market-oriented operation, carry out procurement based on competitive price comparison, grasp every market opportunity and boost up returns. The Company will also focus on establishing superior energy saving and environmental friendly coal-fired power plants, emphasize to secure and upgrade the energy efficiency of its 1,000 MW and 600 MW ultra-supercritical water-cooled generating units, 600 MW supercritical water-cooled and air-cooled generating units, put forth reform regarding energy saving and emission reduction of the generating units in operation, carry out in denitrification, desulphurization and

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capacity upgrade and electrostatic precipitation for generating units step-by-step, in order to ensure the goals set out in the environmental responsibility statement are being accomplished.

#### SUMMARY OF FINANCIAL INFORMATION AND OPERATING RESULTS

Please refer to the Financial Highlights on page 8 for the summary of the operating results and assets and liabilities of the Company and its subsidiaries as at 31 December 2012 and for the accounting year then ended.

Please refer to pages 95 to 96 of the financial statements for the operating results of the Company and its subsidiaries for the accounting year ended 31 December 2012, which have been reviewed by the Company's Audit Committee.

#### DISTRIBUTABLE RESERVE

Distributable reserve as at 31 December 2012 calculated in accordance with the Company's Articles of Association is set out in Note 20 to the financial statements prepared under the International Financial Reporting Standards ("IFRS").

#### DIVIDENDS

Since the listing of the Company, shareholders have given great support to and cared much for the Company. The Company has also generated returns that have been growing continuously and steadily over the years. The Company has been paying dividends to shareholders every year since 1998, with an accumulated dividend of RMB29.328 billion paid.

The Company's articles of association clearly defines the Company's cash dividend policy, i.e. when the Company's earnings and accumulative undistributable profits for the current year are positive, and on condition that the Company's cash flow can satisfy the Company's normal operation and sustainable development, the Company shall adopt a cash dividend appropriation policy on principle that the cash dividend payout will not be less than 50% of the distributable profit realized in the then year's consolidated financial statement.

In the future, the Company will continue to follow a proactive, balanced and stable dividend policy, keep increasing its profitability and achieve continuous growth of return on equity.

In accordance with the requirements of relevant laws and regulations and the articles of association of the Company, the Company adheres to the profit distribution policy whereby the distributable profits shall be the lower of distributable profits in the financial statements prepared under the PRC Accounting Standards and the International Financial Reporting Standards.

The Company proposed to declare a cash dividend of RMB0.21 (inclusive of tax) for each share to all shareholders for the year 2012. All dividend will be paid after the shareholders' approval is obtained at the annual general meeting of the Company.

In accordance with the Corporate Income Tax Law of the PRC and its implementation regulations which came into effect on 1 January 2008, the Company is required to withhold and pay corporate income tax at the rate of 10% on behalf of the non-resident enterprise shareholders whose names appear on the register of members for H share of the Company when distributing final dividends to them. Any H shares of the Company registered other than in the name(s) of individual(s), including HKSCC Nominees Limited, other nominees, trustees, or other organizations or groups, shall be deemed to be shares held by non-resident enterprise shareholder(s). On the basis, corporate income tax shall be withheld from dividends payable to such shareholder(s).



As the Company has not yet confirmed the date for convening the 2012 annual general meeting, or the record date(s) or the period(s) for closure of register for determining eligibility to attend and vote at the 2012 annual general meeting and for determining the entitlement to the final dividend, the Company will upon confirmation thereof announce such details in the notice of the 2012 annual general meeting, such notice is expected to be issued to shareholders in April 2013.

The Company shall comply with the relevant rules and regulations to withhold and pay corporate income tax on behalf of the relevant shareholders based on the register of members of the Company as of the record date.

#### PRINCIPAL BUSINESS

The domestic power plants of the Company and its subsidiaries are located in 19 provinces, provincial-level municipalities and autonomous regions. The Company also has a wholly-owned power plant in Singapore. The core business of the Company is to develop, construct and operate large scale power plants throughout the country by making use of modern technology and equipment and financial resources available domestically and internationally. The power plant facilities of the Company are technically advanced, highly efficient and stable.

#### SUBSIDIARIES AND ASSOCIATED COMPANIES

Please refer to Notes 9 and 8 to the financial statements prepared under the IFRS for details of the Company's subsidiaries and associated companies respectively.

#### BONDS

During the year, the Company successfully issued RMB40 billion bonds in meeting its operational needs. Please refer to Note 23 and 27 to the financial statements prepared under the IFRS for details.

#### BANK LOANS AND OTHER BORROWINGS

Please refer to Notes 22 and 28 to the financial statements prepared under the IFRS for details of bank loans and other borrowings of the Company and its subsidiaries as at 31 December 2012.

#### CAPITALIZED INTERESTS

Please refer to Note 7 to the financial statements prepared under the IFRS for details of the capitalized interests of the Company and its subsidiaries during the year.

#### PROPERTY, PLANTS AND EQUIPMENT

Please refer to Note 7 to the financial statements prepared under the IFRS for details of properties, plants and equipment of the Company and its subsidiaries during the year.

#### RESERVES

Please refer to the consolidated statement of changes in equity on page 99 to page 100 of the financial statements prepared under the IFRS for details of statutory reserves of the Company and its subsidiaries.

#### PRE-EMPTIVE RIGHTS

According to the articles of association of the Company and the laws of the PRC, there are no provisions for pre-emptive rights requiring the Company to offer new shares to the existing shareholders of the Company in proportion to their shareholdings.

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## MAJOR SUPPLIERS AND CUSTOMERS

The five major suppliers of the Company and its subsidiaries for year 2012 were China Shenhua Energy Company Limited, China Coal Energy Company Limited, Shanxi Yangquan Coal Industry Group Company, Chongqing Energy Investment Group Limited and Gansu Province Huating Coal Co., Ltd. respectively. The total purchase from them amounted to approximately RMB12.3 billion, representing approximately 15% of the total coal purchase of the year.

As a power producer, the Company sells the electricity generated by its power plants through local grid operators only and has no other customers. The five major customers of the Company and its subsidiaries for the year 2012 were Shandong Electric Power Corporation, Jiangsu Electric Power Company, Singapore Energy Market Company Pte. Ltd., Zhejiang Electric Power Corporation and Shanghai Electric Power Corporation. The five customers accounted for approximately 48% of the operating revenue for the year while the largest customer (Shandong Electric Power Corporation) accounted for approximately 12% of the operating revenue.

None of the directors, supervisors and their respective associates (as defined in the Listing Rules) had any interests in the five major suppliers and customers of the Company mentioned above in 2012.

## CONTINUING CONNECTED TRANSACTIONS AND CONNECTED TRANSACTIONS

The following are the major continuing connected transactions and connected transactions of the Company in 2012 according to the requirements of the Listing Rules:

### CONTINUING CONNECTED TRANSACTIONS

#### 1. Continuing Connected Transactions with Huaneng Group and HIPDC

The major continuing connected transactions of the Company are those transactions conducted between the Company and certain subsidiaries and/or associates of China Huaneng Group (“Huaneng Group”). HIPDC, as the controlling shareholder of the Company, holds approximately 36.05% of the total issued share capital of the Company. Huaneng Group is holding a 51.98% direct interest and a 5% indirect interest in HIPDC. Huaneng Group also, directly and indirectly (through its subsidiaries other than HIPDC), holds an aggregate of 15.29% interest in the total issued share capital of the Company. Therefore, Huaneng Group is a connected person to the Company and transactions of the Company with those subsidiaries and/or associates of Huaneng Group constitute connected transactions of the Company under the Listing Rules. The purposes of the Company to enter into such continuing connected transactions with those connected persons were to meet the operational needs of the Company and to get the most favourable terms and conditions from the market from the Company’s perspective. The relevant information regarding the continuing connected transactions was set out in the announcement and circular of the Company dated 6 January 2012 and 20 January 2012, particulars of which are summarized as follows:

(i) Huaneng Group Framework Agreement entered into between the Company and Huaneng Group on 5 January 2012 for a term commencing on 1 January 2012 and expiring on 31 December 2012. Pursuant to the framework agreement, the Company would conduct the following transactions with Huaneng Group and its subsidiaries and associates on an ongoing basis:

- Purchase of ancillary equipment and parts relevant to the production operation for the infrastructure construction work for power plants, at terms and the prices to be negotiated at arm’s length terms, taking into account the then prevailing market conditions; but in any event at the terms and prices no less favourable than those offered to the Company by independent third parties for the same or similar type of ancillary equipment and parts. In addition, the payment of the consideration will be settled in cash in arrears, or in accordance with the payment terms agreed by

the relevant parties in the contracts to be entered into pursuant to the framework agreement.

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For the year ended 31 December 2012, the annual cap of the purchase of ancillary equipment and parts was RMB1.7 billion. The actual transaction amount for the year ended 31 December 2012 was RMB253 million.

- Purchase of coal and transportation services for power generation, at prices and charges calculated by reference to RMB/ton and the actual weight of carriage, with arm's length terms taking into account the then market conditions, and in any event the terms of the purchase of coal and the transportation service shall be no less favourable than those offered by independent third parties to the Company for the same or similar type of coal supply or transportation services. The payment of the consideration will be settled in cash in arrears, or in accordance with the payment terms agreed by the relevant parties in the contracts to be entered into pursuant to the framework agreement.

For the year ended 31 December 2012, the annual cap of the purchase of coal and transportation was RMB13.3 billion. The actual transaction amount for the year ended 31 December 2012 was RMB6.751 billion.

- Sale of products (mainly sale of coal) to be more cost-efficient in management, at the prices and charges of which are calculated by reference to RMB/ton and the actual weight of carriage, with arm's length terms taking into account the then market conditions, and in any event the terms of the purchases of coal and the related products shall be no less favourable than those offered by independent third parties to the Company for the same or similar type of coal supply and the related products services. The payment of the consideration will be settled in cash in arrears, or in accordance with the payment terms agreed by the relevant parties pursuant to the framework agreement.

For the year ended 31 December 2012, the annual cap of the sale of products was RMB5.7 billion. The actual transaction amount for the year ended 31 December 2012 was RMB558 million.

- Leasing of facilities, land and office spaces (mainly power transmission and transformation assets, vessels, power plants land and office spaces) for operational needs, at terms and prices to be negotiated at arm's length terms, taking into account the then prevailing market conditions; but in any event at the leasing terms and prices no less favourable than those offered to the Company by independent third parties for the same or similar type of facilities, land and office spaces. In addition, the payment of the consideration will be settled in cash in arrears, or in accordance with the payment terms agreed by the relevant parties in the contracts to be entered into pursuant to the framework agreement.

For the year ended 31 December 2012, the annual cap of the leasing of facilities, land and office spaces was RMB300 million. The actual transaction amount for the year ended 31 December 2012 was RMB254 million.

- Purchase of technical services, engineering contracting services and other services for the Company's operation and production needs, at terms and prices to be negotiated at arm's length terms, taking into account the then prevailing market conditions; but in any event at the terms and prices no less favourable than those offered to the Company by independent third parties for the same or similar type of technical services, engineering contracting services and other services. In addition, the payment of the consideration will be settled in cash in arrears, or in accordance with the payment terms agreed by the relevant parties in the contracts to be entered into pursuant to the framework agreement.

For the year ended 31 December 2012, the annual cap of the purchase of technical services, engineering contracting services and other services was RMB700 million. The actual transaction amount for the year ended 31 December 2012 was RMB337 million.

- Provision of entrusted sale services (involving mainly the use of power generation quota of Huaneng Group and its subsidiaries and associates for substituted power generation by the Company), at the terms and prices negotiated at arm's length terms, taking into account the then prevailing market conditions; but in any event at the terms and prices no less favorable than those offered to the Company by independent third parties for the same or similar type of services. The payment of the consideration will be settled in cash in arrears, or in accordance with the payment terms agreed by the relevant parties in the contracts to be entered into pursuant to the framework agreement.

For the year ended 31 December 2012, the annual cap of the provision of entrusted sale services was RMB700 million. The actual transaction amount for the year ended 31 December 2012 was RMB491 million.

- (ii) Huaneng Finance Framework Agreement entered into between the Company and China Huaneng Finance Corporation Limited ("Huaneng Finance") on 5 January 2012 for a term of three years commencing on 1 January 2012 and expiring on 31 December 2014. Huaneng Group and the Company hold 51% and 20% equity interests in Huaneng Finance, respectively.

Pursuant to the Huaneng Finance Framework Agreement, the Company would from time to time place deposits with Huaneng Finance at rates which would be no less favourable than those offered by independent third parties for provision of similar services to the Company. As no security over the assets of the Company is granted in respect of the note discounting services and loan advancement services provided by Huaneng Finance, such transactions are exempt from reporting, announcement and independent shareholders' approval requirements under Rule 14A.65(4) of the Listing Rules.

For the period from 1 January 2012 to 31 December 2014, the outstanding balances of the deposits to be placed with Huaneng Finance on a daily basis would not exceed RMB6 billion. For the year ended 31 December 2012, the maximum balances of deposits placed with Huaneng Finance was RMB5,951 million.

## 2. Continuing Connected Transactions with Jiangsu Guoxin

Jiangsu Province Guoxin Asset Management Group Company Limited ("Jiangsu Guoxin") holds a 30%, 26.36%, 30% and 21% interest in the subsidiaries of the Company, being Huaneng Nantong Power Generation Limited Liability Company, Huaneng Huaiyin II Power Limited Company, Huaneng Nanjing Jinling Power Co., Ltd. and Huaneng Jinling Combined Cycle Co-generation Co., Ltd. respectively. Under the Hong Kong Listing Rules, Jiangsu Guoxin is a connected person of the Company.

The Company entered into the Jiangsu Guoxin Framework Agreement with Jiangsu Guoxin on 5 January 2012 for a term of one year from 1 January 2012 to 31 December 2012 to regulate the provision of entrusted sale services between the Company and its subsidiaries and Jiangsu Guoxin and its subsidiaries and associates, mainly substituted power generation. Under the Jiangsu Guoxin Framework Agreement, the prices / fees in relation to the provision of entrusted sale services to Jiangsu Guoxin and its subsidiaries and associates shall be agreed and confirmed by both parties and negotiated and determined at arm's length terms, taking into account the then prevailing market prices and conditions; but in any event at the terms no less favorable than those offered to the Company and its subsidiaries by an independent third party for the provision of entrusted sale services. Payment will be settled in cash, or in accordance with the payment terms agreed by the relevant parties in the contracts to be entered into pursuant to the framework agreement.





For the year ended 31 December 2011, the annual cap of the transaction amount for provision of entrusted sale services was RMB1 billion. The actual transaction amount for the year ended 31 December 2012 was RMB164 million.

3. Continuing Connected Transactions with Temasek and its subsidiaries and associates

Upon the completion of the acquisition of SinoSing Power Pte. Ltd. by the Company, TPGS Green Energy Pte. Ltd. became an indirect non-wholly owned subsidiary of the Company of which 75% is owned by Tuas Power Ltd., an indirect wholly-owned subsidiary of the Company, and the remaining 25% is owned by Gas Supply Pte. Ltd., which is a subsidiary of Temasek Holdings (Private) Limited (“Temasek”).

Temasek therefore became a substantial shareholder of a subsidiary of the Company and a connected person of the Company and certain on-going transactions between subsidiaries of the Company and associates of Temasek (“Ongoing Transactions with associates of Temasek”) became continuing connected transaction of the Company under the Listing Rules.

Having considered Rules 14A.31(10) and 14A.33(5) effective 3 June 2010, the Company considers that Temasek meets the criteria for a passive investor under Rule 14A.31(10)(b) of the Listing Rules. As such, any connected transactions or continuing connected transactions of a revenue nature in the ordinary and usual course of our business and on normal commercial terms with an associate of Temasek will be exempt from reporting, annual review, announcement and independent shareholders’ approval requirement under the Listing Rules. This exemption will be applicable to, amongst other things, the types of Ongoing Transactions with associates of Temasek.

If the exemption is no longer applicable in relation to the Ongoing Transactions with associates of Temasek, the Company will comply with the applicable reporting, annual review, announcement and independent shareholders’ approval requirements.

## CONNECTED TRANSACTIONS

1. Connected Transaction regarding Qinling Company

On 31 July 2012, Huaneng Shanghai Shidongkou Power Company Limited (“Shidongkou Company”), in which the Company holds 50% interest, and Huaneng Shaanxi Qinling Power Co., Ltd. (“Qinling Company”) entered into the Transfer Agreement pursuant to which Shidongkou Company agreed to pay to Qinling Company RMB262.38 million as compensation for the closure of certain small generating units with an aggregate generation capacity of 220 MW of Qinling Power Plant. Qinling Power Plant is owned by Qinling Company, which in turn is a wholly owned subsidiary of Huaneng Group. Huaneng Group and its associates (including Jinling Company) are connected persons to the Company. The transaction contemplated under the agreement constitutes a connected transaction of the Company.

The transaction related to the compensation of RMB262.38 million by Shidongkou Company to Qinling Company as compensation for the closure of certain small generating units with an aggregate generation capacity of 220 MW of Qinling Power Plant for construction of 2 x 660 MW generating units for Phase II of Shidongkou Second Power Plant.

The Independent Directors of the Company confirmed that the continuing connected transactions in items 1 and 2 above to which the Company was a party:

(i) had been entered into by the Company and/or any of its subsidiaries in the ordinary and usual course of its business;



- (ii) had been entered into either (1) on normal commercial terms (which expression will be applied by reference to transactions of a similar nature made by similar entities within the PRC), or (2) where there was no available comparison, on terms that were fair and reasonable so far as the shareholders of the Company were concerned; and
- (iii) had been entered into either (1) in accordance with the terms of the agreements governing such transactions, or (2) where there was no such agreement, on terms no less favorable than terms available from third parties.

Further, the Company has engaged its external auditor to report on the Company's continuing connected transactions in accordance with Hong Kong Standard on Assurance Engagements 3000 "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" and with reference to Practice Note 740 "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the Hong Kong Institute of Certified Public Accountants. The auditor has issued an unqualified letter containing their findings and conclusions in respect of the continuing connected transactions set out in items 1 and 2 above in accordance with Listing Rule 14A.38. A copy of the auditor's letter has been provided by the Company to Hong Kong Stock Exchange.

Several related party transactions as disclosed in Note 34 to the financial statements prepared in accordance with IFRS fall under the definition of "continuing connected transaction" in Chapter 14A of the Hong Kong Listing Rules. The Company has complied with the disclosure requirements in accordance with Chapter 14A of the Hong Kong Listing Rules.

#### BUSINESS COMPETITION WITH CONTROLLING SHAREHOLDERS

The ultimate controlling shareholder of the Company, Huaneng Group, is also engaged in the power industry in China. HIPDC, the direct controlling shareholder of the Company, is also engaged in the power industry in China. The Company, HIPDC (direct controlling shareholder) and Huaneng Group (ultimate controlling shareholder) have power plants located in certain same regions. Huaneng Group and HIPDC have already entrusted the Company to manage certain of their power plants.

On 17 September 2010, the Company received an undertaking from Huaneng Group regarding further avoidance of business competition. On the premises of continuing the undertaking previously provided, Huaneng Group further undertook that: (1) it shall treat the Company as the only platform for integrating the conventional energy business of Huaneng Group; (2) with respect to the conventional energy business assets of Huaneng Group located in Shandong Province, Huaneng group undertakes that it will take approximately 5 years to improve the profitability of such assets and when the terms become appropriate, it will inject those assets into the Company. The Company has a right of first refusal to acquire from Huaneng Group the newly developed, acquired or invested projects which are engaged in the conventional energy business of Huaneng Group located in Shandong Province; (3) with respect to the other non-listed conventional energy business assets of Huaneng Group located in other provincial administrative regions, Huaneng Group undertook that it will take approximately 5 years, and upon such assets meeting the conditions for listing, to inject such assets into the Company, with a view to supporting the Company's continuous and stable development; and (4) Huaneng Group will continue to perform each of its undertakings to support the development of its subordinated listed companies.

Currently, the Company has 15 directors and only four of them have positions in Huaneng Group and/or HIPDC. According to the articles of association of the Company, in case a conflict of interest arises, the relevant directors shall abstain from voting in the relevant resolutions. Therefore, the operation of the Company is independent from Huaneng Group and HIPDC and the operation of the Company is conducted for its own benefit.

#### PURCHASE, SALE OR REDEMPTION OF SHARES OF THE COMPANY

The Company and its subsidiaries did not sell any shares or other securities of the Company and did not purchase or redeem any shares or other securities of the Company in 2012.

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## DIRECTORS OF THE COMPANY

The Directors of the Company in 2012 were:

Cao Peixi	Chairman	Appointed on 17 May 2011
Huang Long	Vice Chairman	Appointed on 17 May 2011
Li Shiqi	Director	Appointed on 17 May 2011
Huang Jian	Director	Appointed on 17 May 2011
Liu Guoyue	Director	Appointed on 17 May 2011
Fan Xiaxia	Director	Appointed on 17 May 2011
Shan Qunying	Director	Appointed on 17 May 2011
Guo Hongbo*	Director	Appointed on 21 February 2012
Xu Zujian	Director	Appointed on 17 May 2011
Xie Rongxing*	Director	Appointed on 12 June 2012
Shao Shiwei	Independent Director	Appointed on 17 May 2011
Wu Liansheng	Independent Director	Appointed on 17 May 2011
Li Zhensheng	Independent Director	Appointed on 17 May 2011
Qi Yudong	Independent Director	Appointed on 17 May 2011
Zhang Shouwen	Independent Director	Appointed on 17 May 2011

\*On 21 February 2012, Mr. Guo Hongbo was appointed a director of the Company on resignation of Mr. Liu Shuyuan. On 12 June 2012, Mr. Xie Rongxing was appointed a director of the Company on resignation of Ms. Huang Mingyuan.

## MODEL CODE FOR SECURITIES TRANSACTIONS BY DIRECTORS AND SUPERVISORS

On 31 March 2009, the Company's Board considered and approved the Amended Management Guidelines Regarding the Holding of the Company's Shares by the Directors, Supervisors and Senior Management of Huaneng Power International, Inc. The standard of such guidelines is no less exacting than those set out in the Model Code for Securities Transactions by Directors of Listed Issuers as set out in Appendix 10 to the Listing Rules. Enquiry has been made with all Directors and Supervisors and all of them confirmed that they have complied with the code throughout 2012.

## DIRECTORS', CHIEF EXECUTIVE'S AND SUPERVISORS' RIGHT TO PURCHASE SHARES IN THE COMPANY

For the year ended 31 December 2012, none of the Directors, Chief Executives, Supervisors of the Company or their respective associates had any interests in the shares of the Company or any associated corporations (within the meaning of the Securities and Futures Ordinance ("SFO")) which are (a) required to be notified to the Company and The Stock Exchange of Hong Kong Limited ("Hong Kong Stock Exchange") pursuant to Divisions 7 and 8 of Part XV of the SFO; or (b) required to be recorded in the register kept by the Company pursuant to Section 352 of the SFO; (c) required to be notified to the Company and the Hong Kong Stock Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers.

For the year ended 31 December 2012, none of the Directors, Chief Executives, Supervisors, senior management of the Company or their spouses and children under the age of 18 was given the right to acquire any shares, underlying shares or debentures of the Company or any associated corporations (within the meaning of the SFO).



## INDEPENDENT DIRECTORS' CONFIRMATION OF INDEPENDENCE

Each of the independent directors of the Company, namely Mr. Shao Shiwei, Mr. Wu Liansheng, Mr. Li Zhensheng, Mr. Qi Yudong and Mr. Zhang Shouwen has signed a confirmation letter by independent non-executive directors for 2012 on 18 March 2013 to confirm his compliance with the relevant requirements regarding independence under the Listing Rules and the Company considers them to be independent.

## EMOLUMENTS OF DIRECTORS AND SUPERVISORS

Details of the emoluments of Directors and Supervisors of the Company are set out in Note 36 to the financial statements prepared under the IFRS.

## THE FIVE HIGHEST PAID STAFF

Details of the five highest paid staff in the Company are set out in Note 36 to the financial statements prepared under the IFRS.

## PUBLIC FLOAT

As at the date of this report, the Company has maintained the prescribed public float under the Listing Rules and as agreed with the Hong Kong Stock Exchange, based on the information that is publicly available to the Company and within the knowledge of the directors.

## STRUCTURE OF SHARE CAPITAL

As at 31 December 2012, the entire issued share capital of the Company amounted to 14,055,383,440 shares, of which 10,500,000,000 shares were domestic shares, representing 74.70% of the total issued share capital, and 3,555,383,440 shares were foreign shares, representing 25.30% of the total issued share capital of the Company. In respect of domestic shares, Huaneng International Power Development Corporation ("HIPDC") owned a total of 5,066,662,118 shares, representing 36.05% of the total issued share capital of the Company while Huaneng Group held 1,561,371,213 shares, representing 11.11% of the total issued share capital of the Company. Other domestic shareholders held a total of 3,871,966,669 shares, representing 27.55% of the total issued share capital.

## MAJOR SHAREHOLDING STRUCTURE OF THE COMPANY

The following table sets out the shareholdings of the top ten shareholders of the Company as at 31 December 2012:

Names of shareholders	No. of Shares held as at the year end	Percentage of Shareholding (%)
Huaneng International Power Development Corporation	5,066,662,118	36.05
HKSCC Nominees Limited	2,784,182,829	19.81
China Huaneng Group	1,561,371,213	11.11
Hebei Construction & Investment Group Co., Ltd.	603,000,000	4.29
China Hua Neng Group Hong Kong Limited	472,000,000	3.36
Liaoning Energy Investment (Group) Limited Liability Company	422,679,939	3.01
Jiangsu Provincial Investment & Management Limited Liability Company	416,500,000	2.96
Fujian Investment Development (Group) Co., Ltd.	369,499,900	2.63



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Dalian Municipal Construction Investment Company Limited	301,500,000	2.15
HSBC Nominees (Hong Kong) Limited	275,267,640	1.96

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**MATERIAL INTERESTS AND SHORT POSITIONS IN SHARES AND UNDERLYING SHARES OF THE COMPANY**

As at 31 December 2012, the interests or short positions of persons who were entitled to exercise or control the exercise of 5% or more of the voting power at any of the Company's general meetings (excluding the Directors, Supervisors and chief executive) in the shares and underlying shares of equity derivatives of the Company as recorded in the register required to be kept under Section 336 of the Securities and Futures Ordinance (Hong Kong Law Cap. 571) (the "SFO") were as follows:

Name of substantial shareholder	Class of shares	Number of shares held (shares)	Capacity	Type of interest	Percentage in the relevant share capital	Percentage in total of share capital
HIPDC(2)	Domestic Shares	5,066,662,118 (L)	Beneficial owner	Corporate	48.25% (L)	36.05% (L)
Huaneng Group(3)	Domestic Shares	1,676,964,842 (L)	Beneficial owner	Corporate	15.97% (L)	11.93% (L)
Huaneng Group(4)	H Shares	472,000,000 (L)	Beneficial owner	Corporate	13.27% (L)	3.36% (L)
Heibei Provincial Construction Investment Company	Domestic Shares	603,000,000 (L)	Beneficial owner	Corporate	5.74% (L)	4.29% (L)
Blackrock, Inc.(5)	H Shares	197,646,811 (L) 32,248,037 (S)	Interest of controlled corporation	Corporate	5.55% (L) 0.90% (S)	1.40% (L) 0.22%(S)

Note:

- The letter "L" denotes a long position. The letter "S" denotes a short position.
- As at 31 December 2012, Huaneng Group holds 51.98% equity interest and an additional 5% indirect interest in HIPDC.
- Huaneng Group through its wholly owned subsidiary, Huaneng Capital Services Company Limited, held 12,876,654 domestic shares. Huaneng Group through its controlling subsidiary, China Huaneng Finance Corporation Limited, held 143,620,000 domestic shares.
- 472,000,000 H Shares were held by Huaneng Group through its wholly owned subsidiary, Hua Neng HK.
- Long position of 560,000 shares and short position of 5,810,000 were held through physical settled derivatives (on exchange).

Save as stated above, as at 31 December 2012, in the register required to be kept under Section 336 of the SFO, no other persons were recorded to hold any interests or short positions in the shares or underlying shares of the equity derivatives of the Company.

**DIRECTORS' AND SUPERVISORS' INTERESTS IN CONTRACTS AND SERVICE CONTRACTS**

Save for the service contracts mentioned below, as at the end of 2012, the directors and supervisors of the Company did not have any material interests in any contracts entered into by the Company.

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No director and supervisor has entered into any service contract which is not terminable by the Company within one year without payment of compensation (other than statutory compensation).

Each and every Director and Supervisor of the Company had entered into a service contract with the Company for a term of three years commencing from the signing of the contract.

#### REMUNERATION POLICY

In accordance with the overall development strategy of the Company, the Company has formulated remuneration management system including the “Provisional Regulations on Remuneration Management”. Employees’ salaries are calculated with reference to the complexity of their jobs, the responsibilities they have to carry and their job performance. The remuneration of the Directors, Supervisors and senior management of the Company mainly consists of the following:

(1) Basic salaries and allowances

The basic salary is mainly set by an evaluation of the job position and a factor analysis, and with reference to the salary level of the relevant position in the labor market. It accounts for about 35% of the total remuneration.

(2) Discretionary bonus

Discretionary bonus is based on the operating results of the Company, the performance of the Directors, Supervisors and senior management. It accounts for about 53% of the total remuneration.

(3) Pension

The Directors, Supervisors and senior management enjoy various social insurances established by the Company, including basic pension insurance, corporate annuity and housing fund. This pension contribution accounts for about 12% of the total remuneration.

According to the resolution at the general meeting, the Company pays each independent Director a subsidy amounted to RMB60,000 (after tax) each year. The Company also reimburses to the independent Directors for the expenses they incur in attending board meetings and general meetings and other reasonable expenses they incur while fulfilling their obligations under the Company Law and the Company’s Articles of Association (including travelling expenses and administrative expenses). Besides these, the Company does not give the independent Directors any other benefit.

#### STAFF HOUSING

The Company made allocation to the housing fund for the employees of the Company and its subsidiaries in accordance with the relevant PRC regulations.

#### STAFF WELFARE QUARTERS

According to the relevant PRC regulations, the Company has not provided welfare quarters to its staff.

#### STAFF MEDICAL INSURANCE SCHEME

According to the requirements as prescribed by the relevant local governments, the Company and its subsidiaries have joined a medical insurance scheme for its staff, and have taken measures for its implementation according to planning.

RETIREMENT SCHEMES

The Company and its subsidiaries have implemented a series of specified retirement contribution schemes based on the local conditions and policies of the places where the Company and its subsidiaries have operations.

Pursuant to the specified retirement contribution schemes, the Company and its subsidiaries have paid contributions

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according to the contracted terms and obligations set out in the publicly administered retirement insurance plans. The Company has no other obligations to pay further contributions after paying the prescribed contributions. The contributions payable from time to time will be regarded as expenses in the period during the year they are made and accounted for as labor cost.

#### GENERAL MEETINGS

During the reporting period, the Company convened one annual general meeting and one extraordinary general meeting

1. The Company's annual general meeting was held on 12 June 2012. The resolutions passed at the meeting were published in China Securities Journal and Shanghai Securities News on 13 June 2012.
2. The Company's first extraordinary general meeting of 2012 was held on 21 February 2012. The resolutions passed at the meeting were published in China Securities Journal and Shanghai Securities News on 22 February 2012.

#### MAJOR EVENTS

1. On 21 November 2012, the Company entered into an Equity Transfer and Capital Increase Agreement with Luoyang Ruiyang Cogeneration Company Limited ("Target Company"), whereby the Company agreed to acquire 60% equity interests in the Target Company at a consideration of RMB180 million and make a capital contribution of RMB300 million to the Target Company. Upon completion of the above transaction, the Company will hold 80% equity interests in the Target Company. The transaction is expected to complete before June 2013.

The Target Company is a project company which plan to set up 2 x 350 MW supercritical cogeneration generating units and will commence operation by the end of 2014. The acquisition of the project company is in line with the cogeneration development of the Company. The project is situated in an area surrounded by excessive demands for heat and warm supply with high electricity consumption, where Luoyang government intends to encourage continuing expansion. The acquisition of the Target Company will facilitate the Company to participate as a forerunner and capture the earliest opportunity in the market. Nevertheless, the project earning is sensitive to coal-fired price and the project may suffer loss if there is a surge in fuel price.

2. Due to work requirement, Mr. Liu Shuyuan (Director) tendered his resignation report to the Board of Director on 13 December 2011. On 21 February 2012, Mr. Guo Hongbo was appointed as a director of the seventh session of the Board of Director and Mr. Liu Shuyuan resigned as a director officially.

Due to work requirement, Ms. Huang Mingyuan (Director) tended her resignation report to the Board of Directors on 18 May 2012. On 12 June 2012, Mr. Xie Rongxing was appointed as a director of the seventh session of the Board of Directors and Ms. Huang Mingyuan resigned as a director officially.

3. Due to work requirement, Mr. Gu Biquan (Secretary to the Board of Directors) tendered his resignation report resigning his duties as Secretary to the Board of Directors on 2 March 2012. On 3 May 2012, Mr. Du Daming acted as the Secretary to the Board of Directors and Mr. Gu Biquan resigned officially.

#### CODE OF CORPORATE GOVERNANCE PRACTICES

During the year, the Company has complied with the Code of Corporate Governance Practices (for period from 1 January 2012 to 31 March 2012) and Corporate Governance Code (for period from 1 April 2012 to 31 December 2012) as set out in Appendix 14 of the Listing Rules.



#### DESIGNATED DEPOSIT

As at 31 December 2012, the Company and its subsidiaries did not have any designated deposit with any financial institutions within the PRC nor any overdue fixed deposit which could not be recovered.

#### DONATIONS

During the reporting year, the Company made a donation of RMB5.35 million.

#### LEGAL PROCEEDINGS

On 31 December 2012, a subsidiary of the Company made a provision of RMB157 million in relation to a legal claim which was instituted by a supplier of such subsidiary. It is anticipated that the outcome of such legal claim will not give rise to any significant loss beyond the amount provided as at 31 December 2012. Save as disclosed herein, as at 31 December 2012, the Company and its subsidiaries were not involved in any material litigation or arbitration and no material litigation or claim was pending or threatened or made against the Company and its subsidiaries.

#### ANNUAL GENERAL MEETING AND CLOSURE OF REGISTER

As the Company has not yet confirmed the date for convening the 2012 annual general meeting, or the record date(s) or the period(s) for closure of register for determining eligibility to attend and vote at the 2012 annual general meeting and for determining the entitlement to the final dividend, the Company will upon confirmation thereof announce such details in the notice of the 2012 annual general meeting, such notice is expected to be issued to shareholders in April 2013.

#### AUDITORS

Upon approval at the 2011 annual general meeting, KPMG and KPMG Huazhen CPAs Co. Ltd. (Special General Partnership) were appointed as the Company's international and PRC auditors respectively for the year 2012.

The Board has resolved to continue to appoint KPMG and KPMG Huazhen CPAs Co. Ltd. (Special General Partnership) as the international and PRC auditors of the Company for the year 2013, respectively, with the proposal of the Audit Committee respectively, where such proposal is subject to the approval by the Shareholders at the 2012 annual general meeting.

By Order of the Board  
CAO Peixi  
Chairman

Beijing, PRC  
19 March 2013



## Report of the Supervisory Committee

To All Shareholders,

In 2012, all members of the Supervisory Committee of the Company strictly complied with the laws and regulations of the places where the Company is listed, as well as the Articles of Association of the Company. They have acted honestly and in good faith, and carried out their work diligently. We hereby report the major work during the reporting period as follows:

### 1. WORK OF THE SUPERVISORY COMMITTEE IN 2012

In accordance with the applicable laws and regulations, the Articles of Association of the Company and the practical needs of the Company's development, the Supervisory Committee of the Company convened four meetings in 2012. The Supervisors of the Company attended all of the aforesaid meetings in person (or attended by other supervisor by proxy) and had carried out review and supervision, diligently performed the duties of supervisors with respect to the Company's regular reports, financial statements in each meetings. The convening of the meetings complied with the requirements of the Company Law of the PRC and the Articles of Association of the Company.

The Supervisors have attended all meetings of the Board held during the reporting period. They have reviewed and examined the performance of the Directors and senior management, as well as the operation and management of the Company in 2012.

### 2. INDEPENDENT OPINIONS EXPRESSED BY THE SUPERVISORY COMMITTEE IN RELATION TO THE RELEVANT MATTERS OF THE COMPANY IN THE YEAR 2012

#### (1) Lawfulness of the Company's operations

The Supervisory Committee performed effective supervision and examination on the procedures for convening general meetings and board meetings and the resolutions thereof, the implementation of the resolutions of the general meetings by the Board of Directors and the senior management, the performance of duties by the Directors and the senior management of the Company and the implementation of internal control system of the Company, and expressed their opinions and views in time according to the applicable laws as well as the Articles of Association of the Company.

The Supervisory Committee is of the view that the Board of Directors and the senior management of the Company are capable of establishing a model and conducting regulated operation in strict compliance with the Articles of Association of the Company and the applicable laws of the jurisdictions in which the Company's shares are listed, and have performed dutifully, diligently and in good faith. During the reporting period, the Supervisory Committee has not found any of their behaviors which contravened any applicable laws or the Articles of Association of the Company or any issues that has caused damage to the interests of the Company.

#### (2) Examining the financial information of the Company

The Supervisory Committee has carefully audited the financial statements of the Company for 2012, the profit distribution plan of the Company for 2012, the annual report of the Company for 2012, and the 2012 auditor's reports issued by the domestic and international auditors.

The Supervisory Committee is of the view that the Company's financial statements of 2012 have accurately reflected the financial conditions and operating results of the Company during the reporting period. The Supervisory Committee agreed to the auditor's report on the Company's financial statements of 2012 issued by the auditors and the profit distribution plan for 2012.

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(3) Fund raising exercise of the Company

The Supervisory Committee reviewed carefully at regular meeting the status regarding the deposit and use of the funds recently raised by the Company, and had examined the designated report of Huaneng Power International, Inc. regarding status on the deposit and use of funds raised by the Company.

The Supervisory Committee is of the view that the Company had strictly complied with the relevant requirements as prescribed by the Management Rules on Fund Raising by Companies Listed in the Shanghai Stock Exchange and the Management Rules on Fund Raising by Huaneng Power International, Inc. for the use of any funds raised. The actual use of the funds is in accordance with the commitment and there had been no change to the project funds.

(4) Major acquisitions and disposals of assets and connected transactions of the Company

During the reporting period, the Supervisory Committee has considered the proposals regarding the major acquisitions and disposals of assets and connected transactions of the Company on the resolution regarding the Company's continuing connected transactions entered with Huaneng Group in 2012, the resolution regarding the Company's continuing connected transactions entered with Huaneng Finance from 2012 to 2014, the resolution regarding the Company's continuing connected transactions entered with Jiangsu Guoxin in 2012, the resolution regarding the provision of financing guarantee for Jinxing Energy by the Company, the resolution regarding the relevant fee payable by Huaneng Shanghai Shidongkon Power Generation Limited Liability Company to Huaneng Shannxi Qinling Power Generation Co., Ltd. on closing down of small generating units, etc..

The Supervisory Committee is of the view that each of the work arrangements involved in the above resolutions did not involve any insider dealings and the Supervisory Committee had not found any issues which were prejudicial to the interest of the shareholders or caused the loss of the Company's assets or damaged the interest of the Company. Through strict management, the Company had ensured the acquisitions and disposals of assets and connected transactions of the Company were fair and the transaction prices thereof were reasonable.

(5) Examining the information disclosure of the Company

During the reporting period, the Supervisory Committee attended all board meetings, participated in the consideration of all resolutions proposed at the meetings and examined resolutions of the Board of Directors and the corresponding announcements.

The Supervisory Committee is of the view that the Company's control over and procedure on the information disclosure was complete and effective. The process of information disclosure had strictly complied with the Administrative Measures for Information Disclosure and Measures on Investor Relations Management and met the requirements of the Company's listing places, which provided the investors with information in a timely, accurate, true, complete and fair manner, thus facilitating the investors to have a more objective and comprehensive understanding of the Company. The information disclosure by the Company is conducive to enhancing the reputation and image of the Company in the capital market.

(6) Review of the Internal Control Self-Assessment Report by the Supervisory Committee

During the reporting period, the Supervisory Committee conscientiously listened to the relevant reports on the Company's internal control and reviewed the Company's Internal Control Self-Assessment Reports by the Board of Directors.



The Supervisory Committee is of the view that during the reporting period, the Board of Directors had conducted an investigation on the relevant internal control of the financial reports in accordance with the Fundamental Regulatory Guidelines on Internal Control by Enterprises, thus guaranteeing the truthfulness, accuracy and completeness of the relevant information in the financial reports and effectively safeguarding the risk against any material errors. The Company's internal control system is sound and has been implemented effectively. The Supervisory Committee agreed to the Company's 2012 Internal Control Self-Assessment Report by the Board of Directors.

### 3. ANNUAL SELF-EXAMINATION AND CORRECTION WORK IN STANDARDIZING OPERATION OF THE COMPANY BY THE SUPERVISORY COMMITTEE

In 2012, in accordance with the requirements of the "Notice of Implementation of Self-examination and Correction in Standardizing Operation of Listed Companies in Beijing Jurisdiction" issued by Beijing Securities Regulatory Bureau, the Supervisory Committee of the Company placed great concern and set up a leading team and a working team responsible for self-examination and correction, prepared the proposal and implementation plan for the task. The Company kept on communicating with Beijing Securities Regulatory Bureau and the Company lawyer to ensure accuracy, authenticity and integrity of its self-examination and the information filled out. With the joint efforts of the Supervisory Committee, the leading team and the working team responsible for self-examination and correction, the Company has completed the working report on self-examination and correction, filled out 4 indicator analyses and 21 major items, and finalized revision of 64 working drafts. The master copy of the working report on self-examination and correction had been delivered to, and reviewed by, Beijing Securities Regulatory Bureau on schedule.

In 2013, the Supervisory Committee will continue to perform its duties assigned by the laws and the Articles of Association of the Company diligently and in good faith, so as to safeguard and protect the legal interest of the Shareholders and the Company.

Supervisory Committee of  
Huaneng Power International, Inc.

Beijing, PRC  
19 March 2013

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Profiles Of Directors, Supervisors And Senior Management

DIRECTORS

CAO Peixi, aged 57, is the Chairman of the Company. He is also the President of Huaneng Group and the Chairman of HIPDC and Huaneng Renewables Co., Ltd. He was the Vice President and President of China Huadian Corporation; and Chairman of Huadian Power International Corporation Limited. He graduated from Shandong University specializing in electrical engineering. He holds a postgraduate degree of master in engineering issued by the Party School of the Central Committee and is a researcher-level senior engineer.

HUANG Long, aged 59, is the Vice Chairman of the Company as well as the Vice President of Huaneng Group and the Director of HIPDC, a Director of SinoSing Power Pte. Ltd., the Chairman of Tuas Power Ltd., the Chairman of Tuas Power Supply Pte Ltd. and Tuas Power Utilities Pte Ltd., and a Director of Shenzhen Energy Group Co., Ltd. He has served as Vice President and Secretary of the Board of Directors of the Company. He graduated with a M.S. Degree from North Carolina State University in the U.S., specializing in communications and auto-control. He is a senior engineer.

LI Shiqi, aged 56, is a Director of the Company and President of HIPDC. He also serves as Chairman and Executive Vice Chairman of Huaneng Capital Services Co., Ltd. Mr. Li graduated from People's University of China majoring in Finance. He is a senior accountant.

HUANG Jian, aged 50, is a Director of the Company, the Assistant to President of Huaneng Group, Executive Vice Chairman of Huaneng Capital Services Co., Ltd., Chairman of Huaneng Hainan Power Ltd and Chairman of Huaneng Carbon Assets Management Company Limited. He was the Deputy Chief Economist and Chief of Financial Planning of Huaneng Group. Mr. Huang graduated from the accounting department of Institute of Fiscal Science of the Ministry of Finance with a postgraduate degree of master in economics. He is a senior accountant.

LIU Guoyue, aged 49, is a Director and President of the Company, the Chairman of Shanghai Times Shipping Limited Company, a director of Xi'an Thermal Research Institute Limited Company, the Chairman of Huaneng International Power Fuel Co., Ltd., director of Tuas Power Ltd., Tuas Power Supply Pte Ltd. and Tuas Power Utilities Pte Ltd.. He served as Vice President of the Company. He graduated from North China Electric Power University, specializing in thermal engineering. He holds a doctor's degree in engineering. He is a senior engineer.

FAN Xiaxia, aged 50, is a Director and Vice President of the Company and Vice Chairman of Huaneng Shidaowan Nuclear Power Co., Ltd.. He served as Assistant to President of the Company and General Manager of the Company's Zhejiang Branch Yuhuan Power Plant Preparatory Office. He graduated from Economic Management School of Tsinghua University with an EMBA degree. He is a senior engineer.

SHAN Qunying, aged 59, is a Director of the Company, Chairman of Hebei Xingtai Power Generation Limited Company, Vice Chairman of Guodian Construction Investment Inner Mongolia Energy Limited Company and Vice Chairman of Hebei Construction Investment Energy Investment Limited Company. He had been the Energy & Communication Division Chief of Hebei Provincial Construction Investment Company and the Vice President of Hebei Construction & Investment Group Co., Ltd.. He graduated from Management Institute of Tianjin University holding an EMBA degree. He is a senior engineer.



GUO Hongbo, aged 44, is a Director of the Company and the President and Vice Chairman of Liaoning Energy Investment (Group) Limited Liability Company. He has been the Deputy Manager, Administrative Deputy General Manager and Director of Liaoning Energy Investment (Group) Limited Liability Company. Mr Guo graduated from Jilin University specializing in administrative management, holding a postgraduate degree of master in management. He is a researcher-level senior engineer.

XU Zujian, aged 58, is a Director of the Company, Vice President of Jiangsu Province Guoxin Asset Management Group Limited Company, Chairman of Jiangsu Investment Management Co. Ltd. and Zking Property & Casualty Insurance Co., Ltd.. He was Vice President of Jiangsu Provincial International Trust & Investment Corporation, and President of Jiangsu Provincial Investment & Management Limited Liability Company. He graduated from Liaoning Finance University majoring in infrastructure finance, holding a bachelor's degree. He is a senior economist.

XIE Rongxing, aged 50, is a director of the Company, vice president of Fujian Provincial Investment and Development Group Co., Ltd., vice Chairman of Fujian Cotton Ertan Hydropower Development Co., Ltd. ( Chairman of Xiamen China International Electric Power Development Co., Ltd., vice Chairman of Zhonghai Fujian Gas Power Co., Ltd., director of Fujian Fuqing Nuclear Power Co., Ltd., director of Fujian Sanming Nuclear Power Co., Ltd. and vice Chairman of Fujian Shuikou Power Group Co., Ltd.. He served as the vice president of Fujian Investment & Development Group Company. He graduated from Hubei Financial College majoring in financial credit for construction projects. He was an MBA from North Virginia University. He is an economist.

#### INDEPENDENT DIRECTORS

SHAO Shiwei, aged 67, is an Independent Director of the Company. He is also an Independent Director of Shanghai Electric Power Co., Ltd., Shanghai Magus Technology Co., Ltd., Shanghai Zhixin Electric Co., Ltd. and Leshan Electric Power Co., Ltd.. He had been the Chairman and President of Huadong Grid Network Company and Chairman of the Supervisory Committee of Shanghai Electric Power Co., Ltd. He graduated from Tianjin University specializing in power plant, power grid and power system. He is a professor-level senior engineer.

WU Liansheng, aged 42, is an Independent Director of the Company, a Professor, and associate Director of the MBA Center of the Guanghua Management Institute of Beijing University, an Independent Director of China National Building Materials Company Limited, an Independent Director of Western Mining Co., Ltd; an Independent Director of Wanda International Cinemas Co., Ltd. and an independent Director of Xinhua Co., Ltd.. He previously served in the Guanghua Management Institute of Beijing University as Lecturer, Associate Professor, Deputy Head and Head of the Department of Accounting. He was an Independent Director of Rongsheng Development Joint Stock Limited Company. He graduated from Zhongnan University of Finance and Economic with a PhD in Management (Accounting).

LI Zhensheng, aged 68, is an Independent Director of the Company. He is an Independent Director of Qingdao TGOOD Electric Co., Ltd. He was the Chief Economist and Consultant of State Grid Corporation. Mr. Li graduated from Hebei University of Technology with a bachelor's degree. He is also a professor-level senior engineer.

QI Yudong, aged 46, is the Independent Director of the Company and the Assistant to Principal of Capital University of Economics and Business. He is also the Director and Professor (Grade II) of China Centre for the Research of Industrial Economics, mentor to PhD and post-doctoral tutor (finance direction). He is the External Supervisor and concurrently Chairman of the Audit Committee of the Supervisory Committee of Hua Xia Bank Co., Ltd., and an Independent Director and concurrently the Chairman of the Remuneration Committee of China Garments Co., Ltd.. He previously served as the Director of School of Business Administration of Capital University of Economics and Business. He graduated from the graduate school of Chinese Academy of Social Sciences, majoring in economic science, with a PhD in Economics.





ZHANG Shouwen, aged 46, is an Independent Director of the Company and the Professor and Doctoral Mentor in the Law School of Peking University, Director of Economic Law Institute of Peking University, Vice President and concurrently Secretary General of the Economic Law Research Society of China Law Society, Vice President of Beijing Law Research Society, Independent Director of Joyoung Company Limited, Independent Director of Guoxin Securities Co., Ltd and Independent Director of Donghua Software AG. He served as lecturer and deputy Professor of Law School of Peking University. He graduated from Peking University Law School with a PhD in Laws.

#### SUPERVISORS

GUO Junming, aged 47, is the Chairman of the Company's Supervisory Committee, the Chief Accountant of Huaneng Group, a Director of HIPDC, Chairman of Huaneng Capital Services Limited Company. He was the Deputy Chief Accountant and Manager of the Finance Department of Huaneng Group. He graduated from Shanxi Finance and Economic Institute specializing in business finance and accounting and holds a bachelor's degree. He is a senior accountant.

HAO Tingwei, aged 50, is the Vice Chairman of the Supervisory Committee of the Company. He is a Director and Vice President of Dalian Construction Investment Corporation, Director of Liaoning Hongyanhe Nuclear Power Co., Ltd., vice chairman of Dalian Taishan Thermal Power Co., Ltd. He previously served as the Vice President of Dalian Municipal Construction Investment Company. He graduated from Dalian Polytechnic University, specialising in Electronics. He holds a post – graduate degree.

ZHANG Mengjiao, aged 48, is the Supervisor of the Company. She is the Manager of the Finance Department of HIPDC, and Supervisor of Huaneng Anyuan Generation Co., Ltd., Huaneng DuanZhai Coal & Electricity Co., Ltd., Huaneng Chaohu Power Generation Co., Ltd., and Shaunxi Coal Industry Co., Ltd.. She is also the Chairman of the Supervisory Committee of Huaneng Shaunxi Power Generation Co., Ltd.. She was the Deputy Manager of the Finance Department of the Company. She graduated from Xiamen University, specializing in accounting. She has a master's degree in economics and is a senior accountant.

GU Jianguo, aged 46, is a Supervisor of the Company, Chairman of Nantong Investment & Management Limited Company and Vice President of Nantong State – owned Assets Investment Holdings Co., Ltd.. Mr. Gu has served as Director and President of Nantong Investment Management Limited Company. He graduated from Nanjing Aviation University holding a master's degree. He is an economist.

WANG Zhaobin, aged 57, is a Supervisor, chairman of the labour union and Manager of the Administration Department of the Company. He previously served as the manager of the Administration Department and the Manager of the Corporate Culture Department of the Company. He graduated from China Beijing Municipal Communist Party School, specializing in economic management, holding a bachelor's degree. He is a corporate culture specialist.

ZHANG Ling, aged 52, is a Supervisor and Manager of the Audit and Supervisory Department of the Company. She had served as Manager of the Equity Management Department of the Company. She graduated from Zhongnan University of Finance and Economics specializing in financial accounting with a bachelor's degree in management. She is a senior accountant.

#### SENIOR MANAGEMENT

LIU Guoyue, aged 49, is a Director and President of the Company, the Chairman of Shanghai Times Shipping Limited Company, a director of Xi'an Thermal Research Institute Limited Company, the Chairman of Huaneng International Power Fuel Co., Ltd., director of Tuas Power Ltd., Tuas Power Supply Pte Ltd. and Tuas Power Utilities Pte Ltd.. He served as Vice President of the Company. He graduated from North China Electric Power University, specializing in

thermal engineering. He holds a doctor's degree in engineering. He is a senior engineer.

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FAN Xiaxia, aged 50, is a Director and Vice President of the Company and Vice Chairman of Huaneng Shidaowan Nuclear Power Co., Ltd.. He served as Assistant to President of the Company and General Manager of the Company's Zhejiang Branch Yuhuan Power Plant Preparatory Office. He graduated from Economic Management School of Tsinghua University with an EMBA degree. He is a senior engineer.

GU Biquan, aged 55, is the Vice President and Chief Legal Adviser of the Company. He was the Secretary to the Board of Directors of the Company. He graduated from Beijing Broadcasting Television University, specializing in electronic engineering. He is an engineer.

ZHOU Hui, aged 49, is the Vice President and Chief Accountant of the Company. She was the Chief Accountant of the Company. She graduated from Renmin University of China with a postgraduate degree of master in economics. She is a senior accountant.

ZHAO Ping, aged 50, is the Vice President of the Company. He was the Chief Engineer of the Company. He graduated from Tsinghua University, specializing in thermal engineering, with a postgraduate degree of master in science and an EMBA degree. He is a researcher-level senior engineer.

DU Daming, aged 46, is the Vice President and Secretary to the Board of Directors of the Company. He was the Chief of the Administration Office of Huaneng Group and Chief of the Office of the Board of Directors of the Company. He graduated from North China Electric Power University, specializing in electric system and its automation, with a postgraduate degree of master in science. He is a senior engineer.

WU Senrong, aged 51, is the Vice President of the Company. He was the Manager of Human Resources Department and Head of Discipline and Inspection Team of the Company. He graduated from the School of Economics and Management of Tsinghua University, specializing in business administration for senior management, with a bachelor's degree and an EMBA degree. He is a researcher-level senior engineer.

LI Shuqing, aged 49, is the Vice President of the Company. He was the General Manager of Huaneng Shanghai Branch. He graduated from Shanghai Electric Power Institute, specializing in thermodynamics, with a bachelor's degree in science. He is a senior engineer.

SONG Zhiyi, aged 52, is the Vice President of the Company. He was the General Manager of Huaneng Northeast Branch and Head of Construction Department of Huaneng Group. He graduated from the Guanghua Management Institute of Beijing University, specializing in business administration, with a bachelor's degree and a MBA degree. He is a senior engineer.

LI Jianmin, aged 51, is the Vice President of the Company. He was the General Manager of Huaneng Zhejiang Branch (Yuhuan Power Plant) and General Manager of Huaneng Hebei Branch. He graduated from Northeast Electricity College, specializing in power plant and electricity system, with a bachelor's degree in science. He is a researcher-level senior engineer.

HE Yong, aged 54, is the Chief Engineer of the Company. He was the Manager of Safety and Production Department and Deputy Chief Engineer of the Company. He graduated from Wuhan University, specializing in corporate management, with a postgraduate degree of master in management. He is a researcher-level senior engineer.

Corporate Information

Legal Address of the Company           Huaneng Building  
6 Fuxingmennei Street  
Xicheng District  
Beijing  
The People's Republic of China

Company Secretary                    Du Daming  
Huaneng Building  
6 Fuxingmennei Street  
Xicheng District  
Beijing  
The People's Republic of China

Authorized Representatives           Liu Guoyue  
Fan Xiaxia

Hong Kong Share Registrar           Hong Kong Registrars Limited  
Shops 1712-1716  
17th Floor, Hopewell Centre  
183 Queen's Road East  
Hong Kong

Depository                            The Bank of New York  
Investor Relations  
P.O. Box 11258  
Church Street Station, New York  
NY 10286-1258 USA

LEGAL ADVISERS TO THE COMPANY

As to Hong Kong law:               Herbert Smith Freehills  
23rd Floor, Gloucester Tower  
15 Queen's Road Central  
Central  
Hong Kong

As to PRC law:                       Haiwen & Partners  
21st Floor, Beijing Silver Tower  
No.2 Dong San Huan North Road  
Chaoyang District  
Beijing  
The People's Republic of China

As to US law:                         Skadden, Arps, Slate, Meagher & Flom  
42/F, Edinburgh Tower  
The Landmark  
15 Queen's Road Central

Central  
Hong Kong

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## AUDITORS OF THE COMPANY

Domestic Auditors	KPMG Huazhen (Special General Partnership) 8/F, E2, Oriental Plaza, 1 East Chang An Avenue Beijing The People's Republic of China
International Auditors	KPMG 8/F Prince's Building, 10 Chater Road Central, Hong Kong

## LISTING INFORMATION

H Shares:	The Stock Exchange of Hong Kong Limited Stock Code: 902
ADSs:	The New York Stock Exchange, Inc. Ticker Symbol: HNP
A Shares:	Shanghai Stock Exchange Stock Code: 600011

## PUBLICATIONS

The Company's interim and annual reports (A share version and H share version) were published in August 2012 and April 2013 respectively. As required by the United States securities laws, the Company will file an annual report in Form 20-F with the Securities and Exchange Commission of the U.S. before 30 April 2013. As the Company's A shares have already been issued and listed, the Company shall, in compliance of the relevant regulations of the China Securities Regulatory Commission and the Shanghai Stock Exchange, prepare quarterly reports. Copies of the interim and annual reports as well as the Form 20-F, once filed, will be available at:

Beijing:	Huaneng Power International, Inc. Huaneng Building 6 Fuxingmennei Street Xicheng District Beijing The People's Republic of China
	Tel: (8610)-6322 6999 Fax: (8610)-6322 6666 Website: <a href="http://www.hpi.com.cn">http://www.hpi.com.cn</a>





Hong Kong:

Wonderful Sky Financial Group Limited  
Unit 3102-05, 31/F., Office Tower,  
Convention Plaza, 1 Harbour Road,  
Wanchai, Hong Kong

Tel: (852) 2851 1038

Fax: (852) 2815 1352

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Glossary

Equivalent Availability Factor (EAF): Percentage on deration of usable hours on generating units in period hour, i.e.

$$\text{EAF} = \frac{\text{Available Hours (AH) - Equivalent Unit Derated Hours (EUNDH)}}{\text{Period Hour (PH)}} \times 100\%$$

Gross Capacity Factor (GCF):

$$\text{GCF} = \frac{\text{Gross Actual Generation (GAAG)}}{\text{Period Hour (PH)} \times \text{Gross Maximum Capacity (GMC)}} \times 100\%$$

Weighted Average Coal Consumption Rate for Power sold: The standard of measurement on average consumption of coal for the production of every one kWh of electricity from a coal-fired generating unit. Unit: gram/kWh.

Weighted Average Coal Consumption Rate for Power Generated: The standard of measurement on average consumption of coal for the generation of every one kWh of electricity from a coal-fired generating unit. Unit: gram/kWh.

Weighted Average House Consumption: The rate of electricity consumption during power production versus power generating unit: %

Average Utilization Hour: The operation hour coefficient converted from actual gross power generation of generating units to maximum gross capacity (or fixed capacity).

Capacity Rate: Ratio between average capacity and maximum capacity which indicates the difference in capacity. The larger the ratio, the more balanced the power production, and the higher the utilization of facilities.

Power Generation: Electricity generated by power plants (generating units) during the reporting period, or “power generation”. It refers to the consumed generated electricity produced by generating units with power energy being processed and transferred, or the product of actual consumed electricity generated by generating units and actual operation hours of generating units.

Electricity Sold:

Electricity for consumption or production sold by  
power producers to customers or  
power-producing counterparts.

GW: Unit of power generation, = 10<sup>9</sup>W, gigawatt  
MW: = 10<sup>6</sup>W, megawatt  
kW: = 10<sup>3</sup>W, kilowatt  
kWh: Unit of power, kilowatt hour

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## Independent Auditor's Report

To the shareholders of Huaneng Power International, Inc.  
(Incorporated in the People's Republic of China with limited liability)

We have audited the consolidated financial statements of Huaneng Power International, Inc. (the "Company") and its subsidiaries set out on pages 95 to 216, which comprise the consolidated and Company balance sheets as at 31 December 2012, the consolidated statement of comprehensive income, the consolidated and Company statements of changes in equity and the consolidated statement of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

### Directors' responsibility for the consolidated financial statements

The directors of the Company are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards issued by the International Accounting Standards Board and the disclosure requirements of the Hong Kong Companies Ordinance, and for such internal control as the directors determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

### Auditors' responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. This report is made solely to you, as a body, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

We conducted our audit in accordance with International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the consolidated financial statements that give a true and fair view in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the directors, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements give a true and fair view of the state of affairs of the Company and of the Company and its subsidiaries as at 31 December 2012 and of the Company and its subsidiaries' profit and cash flows for the year then ended in accordance with International Financial Reporting Standards and have been properly prepared in accordance with the disclosure requirements of the Hong Kong Companies Ordinance.

KPMG  
Certified Public Accountants

8th Floor, Prince's Building  
10 Chater Road  
Central, Hong Kong

19 March 2013

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## Consolidated Statement of Comprehensive Income

FOR THE YEAR ENDED 31 DECEMBER 2012

(Prepared in accordance with International Financial Reporting Standards)

(Amounts expressed in thousands of RMB, except per share data)

		For the year ended 31 December	
	Note	2012	2011
Operating revenue	5	133,966,659	133,420,769
Tax and levies on operations		(672,040 )	(484,019 )
Operating expenses			
Fuel	6	(82,355,449 )	(90,546,192 )
Maintenance		(2,846,521 )	(2,528,850 )
Depreciation		(11,032,748 )	(11,866,705 )
Labor		(5,112,484 )	(4,621,667 )
Service fees on transmission and transformer facilities of HIPDC	34(b)	(140,771 )	(140,771 )
Purchase of electricity		(7,101,878 )	(8,613,264 )
Others	6	(7,747,828 )	(5,871,699 )
Total operating expenses		(116,337,679 )	(124,189,148 )
Profit from operations		16,956,940	8,747,602
Interest income		175,402	166,183
Financial expenses, net			
Interest expense	6	(8,897,097 )	(7,736,186 )
Exchange (loss)/gain and bank charges, net		(166,778 )	76,474
Total financial expenses, net		(9,063,875 )	(7,659,712 )
Share of profits of associates/jointly controlled entities	8	622,358	703,561
Loss on fair value changes of financial assets/liabilities		(1,171 )	(727 )
Other investment income		187,131	93,460
Profit before income tax expense	6	8,876,785	2,050,367
Income tax expense	31	(2,510,370 )	(868,927 )
Net profit		6,366,415	1,181,440

	For the year ended 31 December		
	Note	2012	2011
Other comprehensive income/(loss), net of tax			
Fair value changes of available-for-sale financial asset		98,516	(233,738 )
Share of other comprehensive income/(loss) of investees accounted under the equity method		30,070	(44,928 )
Effective portion of cash flow hedges		(325,375 )	(409,377 )
Translation differences of the financial statements of foreign operations		536,231	(665,745 )
Other comprehensive income/(loss), net of tax		339,442	(1,353,788)
Total comprehensive income/(loss)		6,705,857	(172,348 )
Net profit attributable to:			
– Equity holders of the Company		5,512,454	1,180,512
– Non-controlling interests		853,961	928
		6,366,415	1,181,440
Total comprehensive income/(loss) attributable to:			
– Equity holders of the Company		5,850,701	(171,909 )
– Non-controlling interests		855,156	(439 )
		6,705,857	(172,348 )
Earnings per share attributable to the equity holders of the Company (expressed in RMB per share)			
– Basic and diluted	32	0.39	0.08
Dividends paid	21	702,867	2,807,084
Proposed dividend	21	2,951,631	702,769
Proposed dividend per share (expressed in RMB per share)	21	0.21	0.05

## Balance Sheets

AS AT 31 DECEMBER 2012

(Prepared in accordance with International Financial Reporting Standards)

(Amounts expressed in thousands of RMB)

	Note	The Company and its Subsidiaries As at 31 December		The Company As at 31 December	
		2012	2011	2012	2011
<b>ASSETS</b>					
Non-current assets					
Property, plant and equipment	7	177,013,627	177,968,001	64,815,452	65,881,795
Investments in associates/jointly controlled entities	8	14,596,771	13,588,012	11,915,374	11,455,300
Investments in subsidiaries	9(a)	–	–	39,284,115	39,626,131
Loans to subsidiaries	9(b)	–	–	1,400,000	1,600,000
Available-for-sale financial assets	10	3,052,822	2,301,167	3,040,709	2,289,054
Land use rights	11	4,297,183	4,341,574	1,497,255	1,481,362
Power generation licence	12	4,084,506	3,904,056	–	–
Mining rights	39	1,922,655	1,922,655	–	–
Deferred income tax assets	29	532,387	526,399	860,779	456,322
Derivative financial assets	13	13,723	16,389	–	–
Goodwill	14	14,417,543	13,890,179	108,938	108,938
Other non-current assets	15	3,082,894	2,540,104	219,887	206,654
<b>Total non-current assets</b>		<b>223,014,111</b>	<b>220,998,536</b>	<b>123,142,509</b>	<b>123,105,556</b>
Current assets					
Inventories	16	7,022,384	7,525,621	2,488,249	2,698,251
Other receivables and assets	17	2,990,395	4,600,250	2,405,140	2,402,715
Accounts receivable	18	15,299,964	15,377,843	6,622,889	6,768,208
Trading securities		93,753	96,154	–	–
Loans to subsidiaries	9(b)	–	–	26,141,786	21,414,900
Derivative financial assets	13	55,268	147,455	–	–
Bank balances and cash	33	10,624,497	8,670,015	4,613,008	2,573,365
<b>Total current assets</b>		<b>36,086,261</b>	<b>36,417,338</b>	<b>42,271,072</b>	<b>35,857,439</b>
<b>Total assets</b>		<b>259,100,372</b>	<b>257,415,874</b>	<b>165,413,581</b>	<b>158,962,995</b>



		The Company and its Subsidiaries As at 31 December		The Company As at 31 December	
	Note	2012	2011	2012	2011
<b>EQUITY AND LIABILITIES</b>					
Capital and reserves attributable to equity holders of the Company					
Share capital	19	14,055,383	14,055,383	14,055,383	14,055,383
Capital surplus		17,719,077	17,816,495	18,307,065	18,108,742
Surplus reserves	20	7,085,454	7,013,849	7,085,454	7,013,849
Currency translation differences		(35,937 )	(570,973 )	–	–
Retained earnings					
– Proposed dividend	21	2,951,631	702,769	2,951,631	702,769
– Others		14,354,526	11,865,406	9,170,474	8,559,733
		56,130,134	50,882,929	51,570,007	48,440,476
Non-controlling interests		9,830,208	8,674,824	–	–
Total equity		65,960,342	59,557,753	51,570,007	48,440,476
Non-current liabilities					
Long-term loans	22	72,564,824	79,844,872	22,182,258	28,329,926
Long-term bonds	23	22,884,688	17,854,919	22,884,688	17,854,919
Deferred income tax liabilities	29	2,011,729	1,993,155	–	–
Derivative financial liabilities	13	837,005	578,198	210,137	202,333
Other non-current liabilities	24	1,247,464	989,357	713,694	605,594
Total non-current liabilities		99,545,710	101,260,501	45,990,777	46,992,772
Current liabilities					
Accounts payable and other liabilities	25	19,992,901	25,767,999	8,057,585	9,704,531
Taxes payable	26	1,275,430	1,018,541	562,973	316,179
Dividends payable		70,839	167,643	–	–
Salary and welfare payables		217,967	230,283	64,039	74,683
Derivative financial liabilities	13	88,641	35,549	–	–
Short-term bonds	27	35,449,763	10,262,042	35,449,763	10,262,042
Short-term loans	28	27,442,076	43,979,200	19,633,871	32,490,611
Current portion of long-term loans	22	9,056,703	14,140,270	4,084,566	9,685,608
Current portion of long-term bonds	23	–	996,093	–	996,093
Total current liabilities		93,594,320	96,597,620	67,852,797	63,529,747
Total liabilities		193,140,030	197,858,121	113,843,574	110,522,519
Total equity and liabilities		259,100,372	257,415,874	165,413,581	158,962,995

These financial statements were approved for issue by the Board of Directors on 19 March 2013 and were signed on its behalf.

Liu Guoyue  
Director

Fan Xiaxia  
Director

The notes on pages 105 to 216 are an integral part of these financial statements.



## Consolidated Statement of Changes in Equity

FOR THE YEAR ENDED 31 DECEMBER 2012

(Prepared in accordance with International Financial Reporting Standards)

(Amounts expressed in thousands of RMB)

	Attributable to equity holders of the Company						Subtotal	Currency Surplus translation reserves differences	
	Share capital	Share premium	Hedging reserve	Capital surplus	Available- for-sale financial assets revaluation reserve	Other capital reserve			
Balance as at 1 January 2011	14,055,383	16,780,924	15,667	606,831	1,027,324	18,430,746	6,958,630	93,405	14,055,383
Profit for the year ended 31 December 2011	–	–	–	–	–	–	–	–	1,100,000
Other comprehensive (loss)/income:									
Fair value changes from available-for-sale financial asset – gross	–	–	–	(311,647)	–	(311,647)	–	–	–
Fair value changes from available-for-sale financial asset – tax	–	–	–	77,909	–	77,909	–	–	–
Shares of other comprehensive loss of investees accounted under the equity method – gross	–	–	–	(19,592)	(30,233)	(49,825)	–	–	–
Shares of other comprehensive loss of investees accounted under	–	–	–	4,897	–	4,897	–	–	–

the equity method									
– tax									
Changes in fair value of effective portion of cash flow hedges – gross	–	–	(22,676 )	–	–	(22,676 )	–	–	–
Changes in fair value of effective portion of cash flow hedges – tax	–	–	19,408	–	–	19,408	–	–	–
Cash flow hedges recorded in shareholders’ equity reclassified to inventories – gross	–	–	(822,892)	–	–	(822,892 )	–	–	–
Cash flow hedges recorded in shareholders’ equity reclassified to inventories – tax	–	–	139,892	–	–	139,892	–	–	–
Cash flow hedges recorded in shareholders’ equity reclassified to exchange gain and bank charges, net – gross	–	–	113,663	–	–	113,663	–	–	–
Cash flow hedges recorded in shareholders’ equity reclassified to exchange gain and bank charges, net – tax	–	–	(19,323 )	–	–	(19,323 )	–	–	–
Cash flow hedges recorded in shareholders’ equity reclassified to interest expense – gross	–	–	227,094	–	–	227,094	–	–	–
Cash flow hedges recorded in shareholders’ equity reclassified to interest expense – tax	–	–	(44,543 )	–	–	(44,543 )	–	–	–
Currency translation differences	–	–	–	–	–	–	–	(664,378)	–

Total comprehensive (loss)/income for the year ended 31 December 2011	–	–	(409,377)	(248,433)	(30,233 )	(688,043 )	–	(664,378)	1,1
Capital injection	–	–	–	–	79,163	79,163	–	–	–
Transfer to surplus reserves (Note 20)	–	–	–	–	–	–	55,219	–	(55
Dividends relating to 2010 (Note 21)	–	–	–	–	–	–	–	–	(2,
Net capital injection from non-controlling interests of subsidiaries	–	–	–	–	–	–	–	–	–
Acquisitions of subsidiaries (Note 39)	–	–	–	–	–	–	–	–	–
Changes in ownership interest in subsidiaries without change of control	–	–	–	–	(5,371 )	(5,371 )	–	–	(1,
Balance as at 31 December 2011	14,055,383	16,780,924	(393,710)	358,398	1,070,883	17,816,495	7,013,849	(570,973)	12,

	Attributable to equity holders of the Company						Subtotal	Currency Surplus translation reserves differences	R e
	Share capital	Capital surplus			Other capital reserve	Subtotal			
		Share premium	Hedging reserve	Available- for-sale financial assets revaluation reserve					
Balance as at 1 January 2012	14,055,383	16,780,924	(393,710)	358,398	1,070,883	17,816,495	7,013,849	(570,973)	12,5
Profit for the year ended 31 December 2012	–	–	–	–	–	–	–	–	5,51
Other comprehensive (loss)/income:									
Fair value changes from available-for-sale financial asset – gross	–	–	–	131,355	–	131,355	–	–	–
Fair value changes from available-for-sale financial asset – tax	–	–	–	(32,839)	–	(32,839)	–	–	–
Shares of other comprehensive income/(loss) of investees accounted under the equity method – gross	–	–	–	48,083	(5,992)	42,091	–	–	–
Shares of other comprehensive income/(loss) of investees accounted under the equity method – tax	–	–	–	(12,021)	–	(12,021)	–	–	–
	–	–	(474,555)	–	–	(474,555)	–	–	–

Changes in fair value of effective portion of cash flow hedges – gross									
Changes in fair value of effective portion of cash flow hedges – tax	–	–	86,086	–	–	86,086	–	–	–
Cash flow hedges recorded in shareholders' equity reclassified to inventories – gross	–	–	(243,312)	–	–	(243,312 )	–	–	–
Cash flow hedges recorded in shareholders' equity reclassified to inventories – tax	–	–	41,363	–	–	41,363	–	–	–
Cash flow hedges recorded in shareholders' equity reclassified to exchange gain and bank charges, net – gross	–	–	98,187	–	–	98,187	–	–	–
Cash flow hedges recorded in shareholders' equity reclassified to exchange gain and bank charges, net – tax	–	–	(16,692 )	–	–	(16,692 )	–	–	–
Cash flow hedges recorded in shareholders' equity reclassified to interest expense – gross	–	–	226,910	–	–	226,910	–	–	–
Cash flow hedges recorded in shareholders' equity reclassified to interest expense – tax	–	–	(43,362 )	–	–	(43,362 )	–	–	–
Currency translation differences	–	–	–	–	–	–	–	535,036	–
	–	–	(325,375)	134,578	(5,992 )	(196,789 )	–	535,036	5,511

Total  
comprehensive  
(loss)/income for  
the year ended 31  
December 2012

Capital injection	–	100,840	–	–	–	100,840	–	–	–
Transfer to surplus reserves (Note 20)	–	–	–	–	–	–	71,605	–	(71,605)
Dividends relating to 2011 (Note 21)	–	–	–	–	–	–	–	–	(70,000)
Net capital injection from non-controlling interests of subsidiaries	–	–	–	–	–	–	–	–	–
Other capital transaction with non-controlling interests	–	–	–	–	(1,469 )	(1,469 )	–	–	–
Balance as at 31 December 2012	14,055,383	16,881,764	(719,085)	492,976	1,063,422	17,719,077	7,085,454	(35,937 )	17,300,000

The notes on pages 105 to 216 are an integral part of these financial statements.



## Statement of Changes in Equity

FOR THE YEAR ENDED 31 DECEMBER 2012

(Prepared in accordance with International Financial Reporting Standards)

(Amounts expressed in thousands of RMB)

	Attributable to equity holders of the Company							Surplus reserves	Retained earnings
	Share capital	Capital surplus			Other capital reserve	Subtotal			
		Share premium	Hedging reserve	Available- for-sale financial asset revaluation reserve					
Balance as at 1 January 2011	14,055,383	16,780,924	(61,618 )	619,412	1,014,729	18,353,447	6,958,630	11,467,550	5
Profit for the year ended 31 December 2011	–	–	–	–	–	–	–	657,255	6
Other comprehensive (loss)/income:									
Fair value changes from available-for-sale financial asset – gross	–	–	–	(311,647)	–	(311,647 )	–	–	(
Fair value changes from available-for-sale financial asset – tax	–	–	–	77,909	–	77,909	–	–	7
Changes in fair value of effective portion of cash flow hedges – gross	–	–	(194,390)	–	–	(194,390 )	–	–	(
Changes in fair value of effective portion of cash flow hedges – tax	–	–	48,599	–	–	48,599	–	–	4
Cash flow hedges recorded in shareholders'	–	–	74,215	–	–	74,215	–	–	7

equity reclassified to interest expense – gross									
Cash flow hedges recorded in shareholders' equity reclassified to interest expense – tax	–	–	(18,554 )	–	–	(18,554 )	–	–	(
Total comprehensive (loss)/income for the year ended 31									
December 2011	–	–	(90,130 )	(233,738)	–	(323,868 )	–	657,255	3
Capital injection	–	–	–	–	79,163	79,163	–	–	7
Transfer to surplus reserves (Note 20)	–	–	–	–	–	–	55,219	(55,219 )	–
Dividends relating to 2010 (Note 21)	–	–	–	–	–	–	–	(2,807,084 )	(
Balance as at 31									
December 2011	14,055,383	16,780,924	(151,748)	385,674	1,093,892	18,108,742	7,013,849	9,262,502	4

	Attributable to equity holders of the Company									
	Share capital	Capital surplus					Subtotal	Surplus reserves	Retained earnings	
		Share premium	Hedging reserve	Available- for-sale financial asset revaluation reserve	Other capital reserve					
Balance as at 1 January 2012	14,055,383	16,780,924	(151,748)	385,674	1,093,892	18,108,742	7,013,849	9,262,502	48	
Profit for the year ended 31 December 2012	–	–	–	–	–	–	–	3,634,075	3,	
Other comprehensive income/(loss):										
Fair value changes from available-for-sale financial asset – gross	–	–	–	131,355	–	131,355	–	–	13	
Fair value changes from available-for-sale financial asset – tax	–	–	–	(32,839)	–	(32,839)	–	–	(3)	
Changes in fair value of effective portion of cash flow hedges – gross	–	–	(67,651)	–	–	(67,651)	–	–	(6)	
Changes in fair value of effective portion of cash flow hedges – tax	–	–	16,913	–	–	16,913	–	–	16	
Cash flow hedges recorded in shareholders' equity reclassified to interest expense – gross	–	–	59,847	–	–	59,847	–	–	59	
Cash flow hedges recorded in	–	–	(14,962)	–	–	(14,962)	–	–	(1)	

shareholders'  
equity reclassified  
to interest  
expense – tax

Total  
comprehensive  
(loss)/income for  
the year ended 31

December 2012	–	–	(5,853 )	98,516	–	92,663	–	3,634,075	3,
Capital injection	–	105,660	–	–	–	105,660	–	–	10
Transfer to surplus reserves (Note 20)	–	–	–	–	–	–	71,605	(71,605 )	–
Dividends relating to 2011 (Note 21)	–	–	–	–	–	–	–	(702,867 )	(7
Balance as at 31									
December 2012	14,055,383	16,886,584	(157,601)	484,190	1,093,892	18,307,065	7,085,454	12,122,105	51

The notes on pages 105 to 216 are an integral part of these financial statements.

## Consolidated Statement of Cash Flows

FOR THE YEAR ENDED 31 DECEMBER 2012

(Prepared in accordance with International Financial Reporting Standards)

(Amounts expressed in thousands of RMB)

	Note	For the year ended 31 December	
		2012	2011
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
Profit before income tax expense		8,876,785	2,050,367
Adjustments to reconcile profit before income tax expense to net cash provided by operating activities:			
Depreciation		11,032,748	11,866,705
Provision for impairment loss on property, plant and equipment		903,463	80,828
Provision for impairment loss on intangible assets		–	15,661
Provision for impairment loss on goodwill		107,735	291,734
Amortization of land use rights		135,140	128,465
Amortization of other non-current assets		86,275	81,276
Amortization of employee housing subsidies		2,247	3,104
Reversal of doubtful accounts		(10,310 )	(19,747 )
Provision for/(reversal of) inventory obsolescence		12,155	(3,353 )
Loss on fair value changes of financial assets/liabilities		1,171	727
Other investment income		(187,131 )	(81,298 )
Net loss/(gain) on disposals or write-off of property, plant and equipment		252,741	(7,911 )
Unrealized exchange gain, net		(5,085 )	(349,186 )
Share of profits of associates/jointly controlled entities		(622,358 )	(703,561 )
Interest income		(175,402 )	(166,183 )
Interest expense		8,897,097	7,736,186
Changes in working capital:			
Inventories		479,071	(1,807,503 )
Other receivables and assets		329,263	925,358
Accounts receivable		303,586	(4,194,500 )
Restricted cash		(1,877 )	4,238
Accounts payable and other liabilities		(3,222,999 )	4,155,406
Taxes payable		1,926,801	1,448,802
Salary and welfare payables		(34,835 )	(46,832 )
Others		45,136	48,936
Interest received		109,635	95,951
Income tax expense paid		(2,312,970 )	(604,515 )
<b>Net cash provided by operating activities</b>		<b>26,928,082</b>	<b>20,949,155</b>



		For the year ended 31 December	
	Note	2012	2011
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Purchase of property, plant and equipment		(15,474,614)	(16,673,632)
Proceeds from disposal of property, plant and equipment		949,469	85,601
Prepayments of land use rights		(81,382 )	(68,370 )
Increase in other non-current assets		(51,615 )	(46,657 )
Cash dividends received		728,754	447,654
Capital injections in associates/jointly controlled entities		(947,574 )	(995,805 )
Cash paid for acquiring available-for-sale financial assets		(500,000 )	(310,000 )
Cash consideration paid for acquisitions		(149,048 )	(4,121,280 )
Cash from acquisitions of subsidiaries		–	349,245
Cash paid for acquiring trading securities		–	(101,707 )
Cash paid for acquiring associates		–	(302,250 )
Cash received from disposal of a subsidiary		–	104,258
Short-term loan repayment from an associate		100,000	–
Short-term loan to an associate		–	(100,000 )
Others		116,406	68,112
Net cash used in investing activities		(15,309,604)	(21,664,831)
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
Issuance of short-term bonds		34,930,000	9,959,600
Repayments of short-term bonds		(11,000,000)	(5,000,000 )
Drawdown of short-term loans		48,294,295	63,517,251
Repayments of short-term loans		(64,832,425)	(64,216,571)
Drawdown of long-term loans		19,425,661	22,877,988
Repayments of long-term loans		(32,483,848)	(20,677,814)
Issuance of long-term bonds		4,985,000	4,985,000
Repayment of a loan from former shareholder of a subsidiary		–	(600,000 )
Interest paid		(8,941,814 )	(8,144,957 )
Net capital injection from non-controlling interests of the subsidiaries		665,333	219,215
Government grants		266,949	78,869
Dividends paid to shareholders of the Company		(702,867 )	(2,807,084 )
Dividends paid to non-controlling interests of the subsidiaries		(460,607 )	(120,130 )
Cash paid for acquisition of non-controlling interests of a subsidiary		–	(4,266 )
Others		37,423	2,547
Net cash (used in)/provided by financing activities		(9,816,900 )	69,648
Effect of exchange rate fluctuations on cash held		151,027	(227,627 )
<b>NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS</b>		<b>1,952,605</b>	<b>(873,655 )</b>

Cash and cash equivalents as at beginning of the year		8,552,782	9,426,437
CASH AND CASH EQUIVALENTS AS AT END OF THE YEAR	33	10,505,387	8,552,782

The notes on pages 105 to 216 are an integral part of these financial statements.

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Notes to the Financial Statements

FOR THE YEAR ENDED 31 DECEMBER 2012

(Prepared in accordance with International Financial Reporting Standards)

(Amounts expressed in thousands of RMB unless otherwise stated)

1 COMPANY ORGANIZATION AND PRINCIPAL ACTIVITIES

Huaneng Power International, Inc. (the “Company”) was incorporated in the People’s Republic of China (the “PRC”) as a Sino-foreign joint stock limited company on 30 June 1994. The registered address of the Company is Huaneng Building, 6 Fuxingmennei Street, Xicheng District, Beijing, the PRC. The Company and its subsidiaries are principally engaged in the generation and sale of electric power to the respective regional or provincial grid companies in the PRC and in the Republic of Singapore (“Singapore”). The Company conducts its business in Singapore through SinoSing Power Pte Ltd. (“SinoSing Power”) and its subsidiaries.

The directors consider Huaneng International Power Development Corporation (“HIPDC”) and China Huaneng Group (“Huaneng Group”) as the parent company and ultimate parent company of the Company, respectively. Both HIPDC and Huaneng Group are incorporated in the PRC. Neither Huaneng Group nor HIPDC produced financial statements available for public use.

2 PRINCIPAL ACCOUNTING POLICIES

The principal accounting policies adopted in the preparation of these financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

(a)	Basis of preparation
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These financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (the “IASB”). These financial statements have been prepared under the historical cost convention, as modified by the revaluation of available-for-sale financial assets, trading securities and derivative financial assets and liabilities.

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Company and its subsidiaries’ accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 4.

As at and for the year ended 31 December 2012, a portion of the Company and its subsidiaries’ funding requirements for capital expenditures were partially satisfied by short-term financing. Consequently, as at 31 December 2012, the Company and its subsidiaries have a negative working capital balance of approximately RMB57.5 billion. Taking into consideration of the expected operating cash flows of the Company and its subsidiaries and the undrawn available banking facilities, the Company and its subsidiaries are expected to refinance and/or restructure certain short-term borrowings into long-term borrowings and also consider alternative sources of financing, where applicable and when needed. Therefore, the directors of the Company are of the opinion that the Company and its subsidiaries will be able to meet its liabilities as and when they fall due within the next twelve months and have prepared these consolidated financial statements on a going concern basis.



## 2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

### (a) Basis of preparation (Continued)

The following amendment to standards is adopted for the first time to the financial year beginning 1 January 2012.

Amendments to IFRS 7, 'Financial instruments: disclosures'. The amendment was a result of amendment on disclosure requirements of transfers of financial assets released in October 2010 (effective for financial year beginning 1 July 2011). The amendments clarified and strengthened the disclosure requirements of transfers of financial assets which help users of financial statements evaluating related risk exposures and the effect of those risks on the financial position of the Company and its subsidiaries. The Company and its subsidiaries adopted the amendment from 1 January 2012. The amendment had no material impact on the consolidated financial statements of the Company.

### (b) Consolidation

The consolidated financial statements include the financial statements of the Company and all of its subsidiaries.

Subsidiaries are investees over which the Company and its subsidiaries have the power to exercise control, i.e., the power to govern the financial and operating policies and obtain benefits from the operating activities of the investees. When determining whether the Company and its subsidiaries exercise control over an investee, the impact from potential voting rights of the investee, such as currently convertible bonds and exercisable warrants, etc. is taken into account.

Subsidiaries are fully consolidated from the date when control is transferred to the Company and its subsidiaries. They are de-consolidated from the date when control ceases. Intra-group balances and transactions, and any unrealised income and expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Unrealised gains arising from transactions with equity accounted investees are eliminated against the investment to the extent of the Company and its subsidiaries' interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment. The portion of the shareholders' equity of the subsidiaries, which is not attributable to the parent company, is separately presented as non-controlling interests in the shareholders' equity in the consolidated financial statements.

When there is any inconsistency on the accounting policies or financial period adopted between subsidiaries and the Company, the financial statements of subsidiaries are adjusted according to the accounting policies or financial period adopted by the Company.

## 2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

## (b) Consolidation (Continued)

## (i) Business combinations

The acquisition method is used to account for the business combinations of the Company and its subsidiaries (including business combination under common controls). The consideration transferred for the acquisition of a subsidiary is the fair values of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity interests issued by the Company and its subsidiaries. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. On an acquisition-by-acquisition basis, the Company and its subsidiaries recognise any non-controlling interests in the acquiree either at fair value or at the non-controlling interest's proportionate share of the recognized amounts of acquiree's identifiable net assets. The excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets acquired is recorded as goodwill (Note 2(i)). If this consideration is lower than the fair value of the net assets of the subsidiary acquired, the difference is recognised in profit or loss.

## (ii) Changes in ownership interests in subsidiaries without change of control

Transactions with non-controlling interests that do not result in loss of control are accounted for as equity transactions – that is, as transactions with the equity owners in their capacity as owners. The difference between fair value of any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

## (iii) Associates and jointly controlled entities

Associates are investees over which the Company and its subsidiaries have significant influence on the financial and operating decisions. Jointly controlled entities are investees over which the Company and its subsidiaries have contractual arrangements to jointly share control with one or more parties and none of the participating parties has unilateral control over the investees.

Investments in associates/jointly controlled entities are initially recognized at cost and are subsequently measured using the equity method of accounting. The excess of the initial investment cost over the proportionate share of the fair value of identifiable net assets of investee acquired is included in the initial investment cost (Note 2(i)). Any shortfall of the initial investment cost to the proportionate share of the fair value of identifiable net assets of investee acquired is recognized in current period profit or loss and long-term investment cost is adjusted accordingly.

2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

(b) Consolidation (Continued)

(iii) Associates and jointly controlled entities (Continued)

When applying equity method, the Company and its subsidiaries adjust net profit or loss of the investees, including the fair value adjustments on the net identifiable assets of the associates/jointly controlled entities and the adjustments to align with the accounting policies of the Company and the Company's financial reporting periods. Current period investment income is then recognized based on the proportionate share of the Company and its subsidiaries in the investees' net profit or loss. Net losses of investees are recognized to the extent of book value of long-term equity investments and any other constituting long-term equity investments in investees that in substance form part of the investments in the investees. The Company and its subsidiaries continue to recognize investment losses and provision if they bear additional obligations which meet the recognition criteria.

The Company and its subsidiaries adjust the carrying amount of the investment and directly recognize into related other comprehensive income based on their proportionate share on the movements of the investees' other comprehensive income except net profit or loss, given there is no change in shareholding ratio.

When the investees appropriate profit or declare dividends, the book value of long-term equity investments are reduced correspondingly by the proportionate share of the distribution.

The Company and its subsidiaries determine at each reporting date whether there is any objective evidence that the investment in the associate/jointly controlled entities is impaired. If this is the case, the Company and its subsidiaries calculate the amount of impairment as the difference between the recoverable amount of the associate/jointly controlled entities and its carrying value and recognise the amount in 'share of profit of associates/jointly controlled entities' in the consolidated statement of comprehensive income.

Profits or losses resulting from transactions between the Company and its subsidiaries and the associates/jointly controlled entities are recognised in the Company and its subsidiaries financial statements only to the extent of interest of unrelated investor's interests in the associates and jointly controlled entities. Loss from transactions between the Company and its subsidiaries and the associates/jointly controlled entities is fully recognized and not eliminated when there is evidence for asset impairment.

Gains and losses arising from dilution of investments in associates/jointly controlled entities are recognized in the consolidated statement of comprehensive income.

In balance sheet of the Company, investments in associates/jointly controlled entities are stated at cost less provision for impairment losses (Note 2(j)). Investment income from investments in associates/jointly controlled entities is accounted for by the Company based on dividends received and receivable.

2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

(c) Separate financial statements of the Company

Investments in subsidiaries are accounted for at cost less impairment. Cost also includes direct attributable costs of investment. Investment income is recognized when the subsidiaries declare dividend.

(d) Segment reporting

The Company and its subsidiaries determine the operating segment based on the internal organization structure, management requirement and internal reporting system and thereafter determine the reportable segment and present the segment information.

An operating segment represents a component of the Company and its subsidiaries that meets all the conditions below: (i) the component earns revenue and incurs expenses in its daily operating activities; (ii) chief operating decision maker of the Company and its subsidiaries regularly reviews the operating results of the component in order to make decisions on allocating resources and assessing performance; (iii) the financial position, operating results, cash flows and other related financial information of the component are available. When the two or more operating segments exhibit similar economic characteristics and meet certain conditions, the Company and its subsidiaries combine them as one reportable segment.

(e) Foreign currency translation

(i) Functional and presentation currency

Items included in the financial statements of each of the Company and its subsidiaries are measured using the currency of the primary economic environment in which the entity operates (the “functional currency”). The consolidated financial statements are presented in Renminbi (“RMB”), which is the Company’s functional and presentation currency.

(ii) Transactions and balances

Foreign currency transactions are translated into the functional currency using the spot exchange rate on the transaction dates. On balance sheet date, foreign currency monetary items are translated into functional currency at the spot exchange rate on balance sheet date. Exchange differences are directly expensed in current period profit or loss unless they arise from foreign currency loans borrowed for purchasing or construction of qualifying assets which is eligible for capitalization or they arise from monetary items that qualify as hedging instruments in cash flow hedges which are recorded in other comprehensive income to the extent that the hedge is effective.

2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

(e) Foreign currency translation (Continued)

(iii) Foreign Subsidiaries

The operating results and financial position of the foreign subsidiaries are translated into presentation currency as follows:

Asset and liability items in each balance sheet of foreign operations are translated at the closing rates at the balance sheet date; equity items excluding retained earnings are translated at the spot exchange rates at the date of the transactions. Income and expense items in the statement of comprehensive income of the foreign operations are translated at average exchange rates approximating the rate on transaction dates. All resulting translation differences are recognized in other comprehensive income.

The cash flows denominated in foreign currencies and cash flows of overseas subsidiaries are translated at average exchange rates approximating the rates at the dates when cash flows incurred. The impact of the foreign currency translation on the cash and cash equivalents is presented in the statement of cash flows separately.

On the disposal of a foreign operation (that is, a disposal of the Company and its subsidiaries' entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, a disposal involving loss of joint control over a jointly controlled entity that includes a foreign operation, or a disposal involving loss of significant influence over an associate that includes a foreign operation), all of the exchange differences accumulated in equity in respect of that operation attributable to the equity holders of the company are reclassified to profit or loss.

In the case of a partial disposal that does not result in the Company and its subsidiaries losing control over a subsidiary that includes a foreign operation, the proportionate share of accumulated exchange differences are re-attributed to non-controlling interests and are not recognised in profit or loss. For all other partial disposals (that is, reductions in the Company and its subsidiaries' ownership interest in associates or jointly controlled entities that includes a foreign operation that do not result in the Company and its subsidiaries losing significant influence or joint control), the proportionate share of the accumulated exchange difference is reclassified to profit or loss.

## 2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

## (f) Property, plant and equipment

Property, plant and equipment consists of dam, port facilities, buildings, electric utility plant in service, transportation facilities, others and construction-in-progress (“CIP”). Property, plant and equipment acquired or constructed are initially recognized at cost and carried at the net value of cost less accumulated depreciation and accumulated impairment loss.

Cost of CIP comprises construction expenditures, other expenditures necessary for the purpose of preparing the CIP for its intended use and those borrowing costs incurred before the assets are ready for intended use that are eligible for capitalization. CIP is not depreciated until such time as the relevant asset is completed and ready for its intended use.

Subsequent costs about property, plant and equipment are included in the asset’s carrying amount only when it is probable that future economic benefits associated with the item will flow to the Company and its subsidiaries and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. Other subsequent expenditures not qualifying for capitalization are charged in the current period profit or loss when they are incurred.

Depreciation of property, plant and equipment is provided based on book value less estimated residual value over the estimated useful life using straight-line method. For those impaired property, plant and equipment, depreciation is provided based on book value after deducting impairment provision over the estimated useful life. The estimated useful lives are as follows:

	Estimated useful lives
Dam	8 – 50 years
Port facilities	20 – 40 years
Buildings	8 – 30 years
Electric utility plant in service	5 – 30 years
Transportation facilities	8 – 27 years
Others	5 – 14 years

At the end of each year, the Company and its subsidiaries review the estimated useful lives, residual values and the depreciation method of the property, plant and equipment and make adjustment when necessary. The useful lives and residual values of property, plant and equipment not fully depreciated in the PRC were revised in 2012 (Note 7).

Property, plant and equipment is derecognized when it is disposed of, or is not expected to bring economic benefit through use or disposal. The amount of disposal income arising from sale, transfer, disposal or write-off of the property, plant and equipment less book value and related tax expenses is recorded in ‘operating expenses – others’ in the statement of comprehensive income.

The carrying amount of property, plant and equipment is written down immediately to its recoverable amount when its carrying amount is greater than its recoverable amount (Note 2(j)).



## 2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

## (g) Power generation licence

The Company and its subsidiaries acquired the power generation licence as part of the business combination with Tuas Power Ltd. (“Tuas Power”). The power generation licence is initially recognized at fair value at the acquisition date. The license has an indefinite useful life and is not amortized. The assessment that the license has an indefinite useful life is based on the expected renewal of power generation licence without significant restriction and cost, together with the consideration on related future cash flows generated and the expectation of continuous operations. It is tested annually for impairment and carried at cost less accumulated impairment loss. Useful life of the power generation licence is reviewed by the Company and its subsidiaries each financial period to determine whether events and circumstances continue to support the indefinite useful life assessment.

## (h) Mining rights

Mining rights are stated at cost less accumulated amortisation and impairment losses and are amortised based on the units of production method utilising only recoverable coal reserves as the depletion base.

## (i) Goodwill

Goodwill arising from the acquisitions of subsidiaries, associates and joint ventures represents the excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the Company and its subsidiaries’ share of the net fair value of the net identifiable assets, liabilities and contingent liabilities of the acquiree at the date of acquisition.

## (j) Impairment of non-financial assets

The carrying amounts of property, plant and equipment, intangible assets with definite useful lives, land use rights and long-term equity investments not accounted for as financial assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset’s recoverable amount is estimated. Goodwill and indefinite-lived intangible assets are tested for impairment annually regardless of whether there are indications of impairment or more frequently if events or changes in circumstances indicate a potential impairment. An impairment loss is recognized if the carrying amount of an asset or cash-generating unit (CGU) exceeds its recoverable amount.

The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less cost to sell. For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGUs.

Subject to an operating segment ceiling test, CGUs to which goodwill has been allocated are aggregated so that the level at which impairment testing is performed reflects the lowest level at which goodwill is monitored for internal reporting purposes.

Goodwill acquired in a business combination is allocated to groups of CGUs that are expected to benefit from the synergies of the combination.



## 2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

### (j) Impairment of non-financial assets (Continued)

Impairment losses are recognized in profit or loss. Impairment losses recognised in respect of CGUs are allocated first to reduce the carrying amount of any goodwill allocated to the CGU (group of CGUs), and then to reduce the carrying amounts of the other assets in the CGU (group of CGUs) on a pro rata basis.

An impairment loss in respect of goodwill is not reversed. Except for goodwill, all impaired non-financial assets are subject to review for possible reversal of impairment at each reporting date.

### (k) Financial assets

Financial assets are classified in the following categories at initial recognition: at fair value through profit or loss, loans and receivables and available-for-sale. The classification depends on the intention and ability of the Company and its subsidiaries to hold the financial assets.

#### (i) Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss include financial assets held for trading and designated upon initial recognition as at fair value through profit or loss. A financial asset is classified in this category if acquired principally for the purpose of selling in the short term. Derivatives are classified as held for trading unless they are designated as hedges. Assets in this category are classified as current assets if expected to be settled within 12 months; otherwise, they are classified as non-current.

#### (ii) Loans and receivables

Loans and receivables refer to the non-derivative financial assets for which there is no quotation in the active market with fixed or determinable amount. They are included in current assets, except for maturities greater than 12 months after the balance sheet date which are classified as non-current assets. Loans and receivables are primarily included in as 'accounts receivable', 'other receivables and assets', 'loans to subsidiaries' and 'other non-current assets' in the balance sheets.

#### (iii) Available-for-sale financial assets

Available-for-sale financial assets are non-derivative financial assets that are either designated in this category or not classified in any of the other categories. They are included in current assets when management intends to dispose of the available-for-sale financial assets within 12 months of the balance sheet date.

## 2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

- |      |                              |
|------|------------------------------|
| (k)  | Financial assets (Continued) |
| (iv) | Recognition and measurement  |

Regular purchases and sales of financial assets are recognized at fair value initially on trade-date – the date on which the Company and its subsidiaries commit to purchase or sell the asset. Transaction costs relating to financial assets at fair value through profit or loss are directly expensed in the profit or loss as incurred. Transaction costs for other financial assets are included in the carrying amount of the asset at initial recognition. Financial assets are derecognized when the rights to receive cash flows from the financial assets have expired or have been transferred and all risks and rewards related to the ownership of the financial assets have been transferred to the transferee.

Financial assets at fair value through profit or loss and available-for-sale are subsequently measured at fair value. When an active market exists for a financial instrument, fair value is determined based on quoted prices in the active market. When no active market exists, fair value is determined by using valuation techniques. Valuation techniques includes making reference to the prices used by knowledgeable and willing parties in a recent transaction, the current fair value of other financial assets that are same in substance, discounted cash flow method and option pricing model. When applying valuation techniques, the Company and its subsidiaries use market parameters to the fullest extent possible and use specific parameters of the Company and its subsidiaries as little as possible. Loans and receivables are carried at amortized cost using the effective interest method.

Changes in the fair value of financial assets at fair value through profit or loss are recorded in ‘gain/(loss) on fair value changes of financial assets/liabilities’.

Except for impairment loss and translation differences on monetary financial assets, changes in the fair value of available-for-sale financial assets are recognized in other comprehensive income. When these financial assets are derecognized, the accumulated fair value adjustments recognized in equity are included in the statement of comprehensive income as ‘other investment income’. Dividends on available-for-sale financial assets are recorded in ‘other investment income’ when the right of the Company and its subsidiaries to receive payments is established.

- |     |                                |
|-----|--------------------------------|
| (v) | Impairment of financial assets |
|-----|--------------------------------|

Except for financial assets at fair value through profit or loss, the Company and its subsidiaries perform assessment on the book value of financial assets at the balance sheet date. Provision for impairment is made when there is objective evidence showing that a financial asset is impaired.

For investments in subsidiaries, associates and jointly controlled entities, the impairment loss is measured by comparing the recoverable amount of the investment with its carrying amount. The impairment loss is reversed if there has been a favourable change in the estimates used to determine the recoverable amount.

## 2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

## (k) Financial assets (Continued)

## (v) Impairment of financial assets (Continued)

In the case of equity investments classified as available for sale, a significant or prolonged decline in the fair value of the investment below its cost is evidence that the assets are impaired. If any such evidence exists for available-for-sale financial assets, the cumulative loss, measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognized in profit or loss, is removed from equity and recognized in profit or loss. Impairment losses recognized in the profit or loss on equity instruments are not reversed through the profit or loss.

When financial assets carried at amortized cost are impaired, the carrying amount of the financial assets is reduced to the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. The impaired amount is recognized as assets impairment loss in the current period. If there is objective evidence that the value of the financial assets has recovered as a result of objective changes in circumstances occurring after the impairment loss was originally recognized, the originally recognized impairment loss is reversed through profit or loss. For the impairment test of receivables, please refer to Note 2(l).

## (vi) Derivative financial instruments and hedging activities

Derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently remeasured at their fair value. Gain or loss arising from subsequent change in the fair value of derivative financial instruments is recognized in profit or loss except for the effective portions of gain or loss on the derivative financial instruments designated as cash flow hedges which are recognized directly in other comprehensive income. Cash flow hedge represents a hedge against the exposure to variability in cash flows, which such cash flow is originated from a particular risk associated with highly probable forecast transactions and variable rate borrowings and which could affect the statement of comprehensive income.

The hedged items of cash flow hedge are the designated items with respect to the risks associated with future cash flow change of the Company and its subsidiaries. Hedging instruments are designated derivative for cash flow hedge whose cash flows are expected to offset changes in the cash flows of a hedged item.

The full fair value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedge item is more than 12 months.

The Company and its subsidiaries document their assessments, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in cash flows of hedged items. The Company and its subsidiaries apply ratio analysis method to evaluate the ongoing effectiveness of the cash flow hedge.

## 2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

## (k) Financial assets (Continued)

## (vi) Derivative financial instruments and hedging activities (Continued)

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges are recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in the statement of comprehensive income within 'gain/(loss) on fair value changes of financial assets/liabilities'.

Amounts accumulated in equity are reclassified to the profit or loss in the periods when the hedged item affects profit or loss. The gain or loss relating to the effective portion of interest rate swaps hedging variable rate borrowings is recognized in the statement of comprehensive income within 'interest expense'. The gain or loss relating to the effective portion of exchange forward hedging foreign currency denominated payables is recognized in the statement of comprehensive income within 'exchange gain and bank charges, net'. However, when the forecast transaction that is hedged results in the recognition of a non-financial asset, the gains and losses previously deferred in equity are transferred from equity and included in the initial measurement of the cost of the asset. In case the Company and its subsidiaries expect all or a portion of net loss previously recognized directly in other comprehensive income will not be recovered in future financial periods, the irrecoverable portion will be reclassified into profit or loss. When a hedging instrument expires or is sold, terminated or exercised or when a hedge no longer meets the criteria for hedge accounting, the Company and its subsidiaries will discontinue hedge accounting. Any cumulative gain or loss existing in equity at that time remains in equity and is subsequently recognized when the forecast transaction is ultimately recognized in the profit or loss. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to the statement of comprehensive income within 'gain/(loss) on fair value changes of financial assets/liabilities'.

## (l) Loans and receivables

Loans and receivables, which primarily include accounts receivable, notes receivable, other receivables, loan to subsidiaries and other non-current assets, are recognized initially at fair value. Loans and receivables are subsequently measured at amortized cost less provision for doubtful debts using the effective interest method.

The Company and its subsidiaries establish an allowance for impairment that represents its estimate of incurred losses in respect of receivables. The main components of this allowance are a specific loss component that relates to individually significant exposures, and a collective loss component established for groups of similar assets in respect of losses that have been incurred but not yet identified. The collective loss allowance is determined based on historical data of payment statistics for similar financial assets.

When there is objective evidence that the Company and its subsidiaries will not be able to collect all amounts due according to the original terms of the receivables, impairment test is performed and related provision for doubtful accounts is made based on the shortfall between carrying amounts and respective present value of estimated future cash flows. The carrying amounts of the receivables are reduced through the use of allowance accounts, and the amount of the provision is recognized in the statement of comprehensive income within 'operating expenses – others'. When a receivable is uncollectible, it is written off against the allowance account for the receivable. Subsequent recoveries of amounts previously written off are credited against 'operating expenses – others' in the statement of comprehensive income.



## 2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

### (m) Inventories

Inventories include fuel for power generation, materials for repairs and maintenance and spare parts, and are stated at lower of cost and net realizable values.

Inventories are initially recorded at cost and are charged to fuel costs or repairs and maintenance, respectively when used, or capitalized to property, plant and equipment when installed, as appropriate, using weighted average cost basis. Cost of inventories includes costs of purchase and transportation costs.

When the forecast transaction that is hedged results in the recognition of the inventory, the gains and losses previously deferred in equity are transferred from equity and included in the initial measurement of the cost of the inventory.

Provision for inventory obsolescence is determined by the excess of cost over net realizable value. Net realizable values are determined based on the estimated selling price less estimated conversion costs during power generation, selling expenses and related taxes in the ordinary course of business.

### (n) Related parties

Parties are considered to be related if one party has the ability, directly or indirectly, to control the other party or exercise significant influence over the other party in making financial and operating decisions. Parties are also considered to be related if they are subject to common control or jointly control of the same third party; one party is controlled or jointly controlled by a third party and the other party is a associate or a joint venture of the same third party.

### (o) Cash and cash equivalents

Cash and cash equivalents listed in the statement of cash flows represents cash in hand, deposits held at call with banks, and other short-term (3 months or less), highly-liquid investments that are readily convertible to known amounts of cash and are subject to an insignificant risk of changes in value.

### (p) Borrowings

Borrowings are recognized initially at fair value less transaction costs and subsequently measured at amortized cost using the effective interest method. Borrowings are classified as current liabilities unless the Company and its subsidiaries have an unconditional right to defer settlement of the liability for at least 12 months after the balance sheet date.

### (q) Borrowing costs

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time the assets are substantially ready for their intended use or sale.

The amount of specific borrowing costs capitalised is net of the investment income on any temporary investment of the funds pending expenditure on the asset.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.





2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

(r) Payables

Payables primarily include accounts payable and other liabilities, and are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method.

(s) Taxation

(i) Value-added tax (“VAT”)

The domestic power, heat and coal sales of the Company and its subsidiaries are subjected to VAT. VAT payable is determined by applying 17% (or 13% on heat) on the taxable revenue after offsetting deductible input VAT of the period.

According to the relevant regulations of Ministry of Finance of PRC and State Administration of Taxation, pilot regions including Shanghai, Beijing, and Tianjin are now under the Pilot Program for the transformation from Business Tax to VAT. The tax rate of VAT applied in the lease of tangible movable properties, transportation industry and other modern services industry for the Company and its subsidiaries in the pilot regions are 17%, 11% and 6% respectively.

(ii) Business Tax (“BT”)

Port and transportation service of the Company and its subsidiaries, except the industries under the Pilot Program as stated in 2(s)(i) are subjected to BT at the applicable tax rate of 3%.

(iii) Goods and service tax (“GST”)

The overseas power sales of the Company and its subsidiaries are subjected to goods and service tax of the country where they operate. GST payable is determined by applying 7% on the taxable revenue after offsetting deductible GST of the period.

## 2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

(s) Taxation (Continued)

(iv) Current and deferred income tax

The income tax expense for the period comprises current and deferred income tax. Income tax expense is recognized in profit or loss, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively.

Deferred income tax assets and liabilities are recognized based on the differences between tax bases of assets and liabilities and respective book values (temporary differences). For deductible tax losses or tax credit that can be brought forward in accordance with tax law requirements for deduction of taxable income in subsequent years, it is considered as temporary differences and related deferred income tax assets are recognized. No deferred income tax liability is recognized for temporary difference arising from initial recognition of goodwill. For those temporary differences arising from initial recognition of an asset or liability in a non-business combination transaction that affects neither accounting profit nor taxable profit (or deductible loss) at the time of the transaction, no deferred income tax asset and liability is recognized.

The Company and its subsidiaries recognize deferred income tax assets to the extent that it is probable that taxable profit will be available to offset the deductible temporary difference, deductible tax loss and tax credit.

On the balance sheet date, deferred income tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or liability is settled.

Deferred income tax assets and deferred income tax liabilities are offset when meeting all the conditions below:

- (1) The Company and its subsidiaries have the legal enforceable right to offset current income tax assets and current income tax liabilities;
- (2) Deferred income tax assets and deferred income tax liabilities are related to the income tax levied by the same tax authority of the Company and its subsidiaries.

(t) Employee benefits

Employee benefits include all expenditures relating to the employees for their services. The Company and its subsidiaries recognize employee benefits as liabilities during the accounting period when employees render services and allocates to related cost of assets and expenses based on different beneficiaries.

In connection with pension obligations, the Company and its subsidiaries operate various defined contribution plans in accordance with the local conditions and practices in the countries and provinces in which they operate. A defined contribution plan is a pension plan under which the Company and its subsidiaries pay fixed contributions into a separate publicly administered pension insurance plan on mandatory and voluntary bases. The Company and its subsidiaries have no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. The contributions are recognized as employee benefit expenses when incurred. Prepaid contributions are recognized as assets to the extent that a cash refund or a reduction in the future payment is available.



2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

(u) Government grants

Government grants are recognized when the Company and its subsidiaries fulfill the conditions attaching to them and are able to receive them. When government grants are received in the form of monetary assets, they are measured at the amount received or receivable. When the grant is in the form of non-monetary assets, it is measured at fair value. When fair value cannot be measured reliably, nominal amount is assigned.

Asset-related government grant is recognized as deferred income and is amortized evenly in profit or loss over the useful lives of related assets.

Income-related government grant that is used to compensate subsequent related expenses or losses of the Company and its subsidiaries are recognized as deferred income and recorded in the profit or loss when related expenses or losses incurred. When the grant is used to compensate expenses or losses that were already incurred, they are directly recognized in current period profit or loss.

(v) Revenue and income recognition

Revenue is recognized based the following methods:

Revenue and income are recognized when it is probable that the economic benefits associated with the transaction will flow to the Company and its subsidiaries and the amount of the revenue and income can be measured reliably.

(i) Electricity sales revenue

Electricity sales revenue represents the fair value of the consideration received or receivable for electricity sold in the ordinary course of the activities of the Company and its subsidiaries (net of VAT or GST and after taking into account amounts received in advance). Revenue is earned and recognized upon transmission of electricity to the customers and the power grid controlled and owned by the respective regional or provincial grid companies.

(ii) Coal sales revenue

Coal sales revenue represents the fair value of the consideration received or receivable for the sale of the coal in the ordinary course of the activities of the Company and its subsidiaries. Coal sales revenue is recognized when the coal is delivered to the customers and there is no unfulfilled obligation that could affect the customer's acceptance of the coal.

(iii) Service revenue

Service revenue refers to amounts received from service of port loading and conveying. The Company and its subsidiaries recognize revenue when the relevant service is provided.

(iv) Interest income

Interest income from deposits is recognized on a time proportion basis using effective interest method. Interest income from the finance lease is recognized on a basis that reflects a constant periodic rate of return on the net investment in the finance lease.



2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

(w) Leases

Leases where all the risks and rewards incidental to ownership of the assets are in substance transferred to the lessees are classified as finance leases. All other leases are operating leases.

(i) Operating leases (lessee)

Operating lease expenses are capitalized or expensed on a straight-line basis over the lease term.

(ii) Finance lease (lessor)

The Company and its subsidiaries recognize the aggregate of the minimum lease receipts and the initial direct costs on the lease inception date as the receivable. The difference between the aggregate of the minimum lease receipts and the initial direct costs and sum of their respective present values is recognized as unrealized finance income. The Company and its subsidiaries adopt the effective interest method to allocate such unrealized finance income over the lease term. On balance sheet date, the Company and its subsidiaries present the net amount of finance lease receivable after deducting any unrealized finance income in non-current assets and current assets, respectively.

Please refer to Note 2(k)(v) for impairment test on finance lease receivables.

(x) Purchase of electricity

The overseas subsidiary of the Company recognized electricity purchase cost when it purchases the electricity and transmits to its customers.

(y) Financial guarantee contracts

The Company issues financial guarantee contracts that transfer significant insurance risk.

Financial guarantee contracts are those contracts that require the issuer to make specified payments to reimburse the holders for losses they incur because specified debtors fail to make payments when due in accordance with the original or modified terms of debt instruments.

(z) Dividend distribution

Dividend distribution to the shareholders of the Company and its subsidiaries is recognized as a liability in the period when the dividend is approved in the shareholders' meeting.

## 2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

(aa)

Contingencies

Contingent liabilities are not recognized in the financial statements. They are disclosed unless the possibility of an outflow of resources embodying economic benefits is remote. Contingent assets are not recognized in the financial statements but disclosed when an inflow of economic benefit is probable.

(ab) Standards and amendments to published standards that are not yet effective but relevant to the Company and its subsidiaries

The following standards and amendments to existing standards have been published that are mandatory for the accounting periods of the Company and its subsidiaries beginning on or after 1 July 2012 or later, but the Company and its subsidiaries have not early adopted:

- Amendments to IAS 1, 'Presentation of Financial Statements' require entities to present separately the items of other comprehensive income that would be reclassified to profit or loss in the future if certain conditions are met from those that would never be reclassified to profit or loss. The Company and its subsidiaries' presentation of other comprehensive income will be modified accordingly when the amendments are adopted for the first time. The Company and its subsidiaries intend to adopt IAS 1 no later than the accounting period beginning on or after 1 July 2012.
- IFRS 9, 'Financial instruments' addresses the classification, measurement and recognition of financial assets and financial liabilities. IFRS 9 was issued in November 2009. It replaces the parts of IAS 39 that relate to the classification and measurement of financial instruments. IFRS 9 requires financial assets to be classified into two measurement categories: those measured as at fair value and those measured at amortised cost. The determination is made at initial recognition. The classification depends on the entity's business model for managing its financial instruments and the contractual cash flow characteristics of the instrument. For financial liabilities, the standard retains most of the IAS 39 requirements. The main change is that, in cases where the fair value option is taken for financial liabilities, the part of a fair value change due to an entity's own credit risk is recorded in other comprehensive income rather than current period profit or loss, unless this creates an accounting mismatch. The Company and its subsidiaries have not assessed full impact of IFRS 9 and intend to adopt IFRS 9 upon its effective date, which is for the accounting period beginning on or after 1 January 2015.
- IFRS 10, 'Consolidated financial statements' builds on existing principles by identifying the concept of control as the determining factor in whether an entity should be included within the consolidated financial statements of the parent company. The standard provides additional guidance to assist in the determination of control where this is difficult to assess. The Company and its subsidiaries have not assessed full impact of IFRS 10 and intend to adopt IFRS 10 no later than the accounting period beginning on or after 1 January 2013.



## 2 PRINCIPAL ACCOUNTING POLICIES (CONTINUED)

(ab) Standards and amendments to published standards that are not yet effective but relevant to the Company and its subsidiaries (Continued)

- IFRS 11, “Joint arrangements” is a more realistic reflection of joint arrangements by focusing on the rights and obligations of the arrangement rather than its legal form. There are two types of joint arrangement: joint operations and joint ventures. Joint operations arise where a joint operator has rights to the assets and obligations relating to the arrangement and hence accounts for its interest in assets, liabilities, revenue and expenses. Joint ventures arise where the joint operator has rights to the net assets of the arrangement and hence equity accounts for its interest. Proportionate consolidation of the joint ventures is no longer allowed. The Company and its subsidiaries have not assessed the full impact of IFRS 11 and intend to adopt IFRS 11 no later than the accounting period beginning on or after 1 January 2013.
- IFRS 12 ‘Disclosures of interests in other entities’ includes the disclosure requirements for all forms of interests in other entities, including joint arrangements, associates, special purpose vehicles and other off-balance sheet vehicles. The Company and its subsidiaries have not assessed full impact of IFRS 12 and intend to adopt IFRS 12 no later than the accounting period beginning on or after 1 January 2013.
- IFRS 13 ‘Fair value measurement’ aims to improve consistency and reduce complexity by providing a precise definition of fair value and a single source of fair value measurement and disclosure requirements for use across IFRSs. The requirements do not extend the use of fair value accounting but provide guidance on how it should be applied where its use is already required or permitted by other standards within IFRSs. The Company and its subsidiaries have not assessed full impact of IFRS 13 and intend to adopt IFRS 13 no later than the accounting period beginning on or after 1 January 2013.
- Revised IAS 19 ‘Employee benefits’ changes the definition of short-term and long-term employee benefits to clarify the distinction between the two. For defined benefit plans, removal of the accounting policy choice for recognition of actuarial gains and losses is not expected to have material impact on the Company and its subsidiaries. The Company and its subsidiaries intend to adopt IAS 19 no later than the accounting period beginning on or after 1 January 2013.
- Amendments to IAS 28, “Investments in associates and joint ventures” expanded guidance on the application of IFRS 5 “Non-current assets held for sale and discontinued operations”, to an investment in an associate or joint venture and the treatment for the change in status of an associate to/from a joint venture. The Company and its subsidiaries have not assessed full impact of the amendments to IAS 28 and intend to adopt IAS 28 no later than the accounting period beginning on or after 1 January 2013.
  - Amendments to IFRS 7 “Financial Instruments: Disclosures” and IAS 32 “Financial Instruments: Disclosure and Presentation” concerning offsetting financial assets and financial liabilities. The amendments to IFRS 7 introduce new disclosure requirements for recognised financial instruments that are set off under IAS 32 and for those subject to a master netting or similar agreement, irrespective of whether set off. The amendments to IAS 32 clarify the off-setting requirements and provide extra guidance to help interpret the requirements. The Company and its subsidiaries have not assessed full impact of the amendments to IFRS 7 and IAS 32 and intend to adopt IFRS 7 and IAS 32 no later than the accounting period beginning on or after 1 January 2013 and 1 January 2014 respectively.



## 3 FINANCIAL, CAPITAL AND INSURANCE RISKS MANAGEMENT

## (a) Financial risk management

Risk management, including the management on the financial risks, is carried out under the instructions of the Strategic Committee of Board of Directors and the Risk Management Team. The Company works out general principles for overall management as well as management policies covering specific areas. In considering the importance of risks, the Company identifies and evaluates risks at head office and individual power plant level, and requires analysis and proper communication for the information collected periodically.

SinoSing Power and its subsidiaries are subject to financial risks that are different from the entities operating within the PRC. They have a series of controls in place to maintain the cost of risks occurring and the cost of managing the risks at an acceptable level. Management continually monitors the risk management process to ensure that an appropriate balance between risk and control is achieved. SinoSing Power and its subsidiaries have their written policies and financial authorization limits in place which are reviewed periodically. These financial authorization limits seek to mitigate and eliminate operational risks by setting approval thresholds required for entering into contractual obligations and investments.

## (i) Market risk

## (1) Foreign exchange risk

Foreign exchange risk of the entities operating within the PRC primarily arises from loans denominated in foreign currencies of the Company and its subsidiaries. SinoSing Power and its subsidiaries are exposed to foreign exchange risk on accounts payable and other payables that are denominated primarily in US\$, a currency other than Singapore dollar (“S\$”), their functional currency. Please refer to Notes 22 and 25 for details. The Company and its subsidiaries manage exchange risk through closely monitoring interest and exchange market.

As at 31 December 2012, if RMB had weakened/strengthened by 5% (2011: 5%) against US\$ and 3% (2011: 3%) against EUR (“€”) with all other variables constant, exchange gain of the Company and its subsidiaries would have been RMB217 million (2011: RMB243 million) and RMB19 million (2011: RMB21 million) lower/higher, respectively. The ranges of such sensitivity disclosed above were based on the observation on the historical trend of related exchange rates during the previous year under analysis.

As at 31 December 2012, if S\$ had weakened/strengthened by 10% (2011: 10%) against US\$ with all other variables constant, exchange gain of the Company and its subsidiaries would have been RMB25 million (2011: RMB44 million) lower/higher, respectively. The ranges of such sensitivity disclosed above were based on the management’s experience and forecast.

SinoSing Power and its subsidiaries also are exposed to foreign exchange risk on fuel purchases that are denominated primarily in US\$. They substantially hedge their estimated foreign currency exposure in respect of forecast fuel purchases over the following three months. They primarily use foreign currency contracts to hedge its foreign currency risk. As at the balance sheet date, they entered into foreign currency contracts with notional amounts of RMB nil (2011: RMB191.04 million) to hedge its financial liabilities exposure in US Dollar.

## 3 FINANCIAL, CAPITAL AND INSURANCE RISKS MANAGEMENT (CONTINUED)

## (a) Financial risk management (Continued)

## (i) Market risk (Continued)

## (2) Price risk

The available-for-sale financial assets and trading securities of the Company and its subsidiaries are exposed to equity security price risk.

Detailed information relating to the available-for-sale financial assets is disclosed in Note 10. Being a strategic investment in nature, the Company has a supervisor in the supervisory committee of the investee and exercises influence in safeguarding the interest. The Company also closely monitors the pricing trends in the open market in determining its long-term strategic stakeholding decisions.

As at 31 December 2012, the Company and its subsidiaries are exposed to equity security price risk arising from the investments classified as financial assets at fair value through profit or loss. These securities are listed in Hong Kong. To manage the risk, the Company and its subsidiaries closely monitor the market prices of these securities. If prices of the trading securities had increased/decreased by 10% (2011: 10%) with all other variables constant, the gain on fair value changes of financial assets/liabilities would have been higher/lower by RMB9.38 million (2011: RMB9.62 million) respectively.

The Company and its subsidiaries are exposed to fuel price risk on fuel purchases. In particular, SinoSing Power and its subsidiaries use fuel oil swap to hedge against such a risk and designate them as cash flow hedges. Please refer to Note 13 for details.

## (3) Cash flow interest rate risk

The interest rate risk of the Company and its subsidiaries primarily arises from long-term loans. Loans borrowed at variable rates expose the Company and its subsidiaries to cash flow interest rate risk. The exposures of these risks are disclosed in Note 22 to the financial statements. The Company and its subsidiaries have entered into interest rate swap agreements with banks to hedge against a portion of cash flow interest rate risk.

As at 31 December 2012, if interest rates on RMB-denominated borrowings had been 50 basis points (2011: 50 basis points) higher/lower with all other variables held constant, interest expense for the year would have been RMB432 million (2011: RMB500 million) higher/lower. If interest rates on US\$-denominated borrowings had been 50 basis points (2011: 50 basis points) higher/lower with all other variables held constant, interest expense for the year would have been RMB11 million (2011: RMB11 million) higher/lower. If interest rates on S\$-denominated borrowings had been 100 basis points (2011: 100 basis points) higher/lower with all other variables held constant, interest expense for the year would have been RMB72 million (2011: RMB73 million) higher/lower. The ranges of such sensitivity disclosed above were based on the observation on the historical trend of related interest rates during the previous year under analysis.

## 3 FINANCIAL, CAPITAL AND INSURANCE RISKS MANAGEMENT (CONTINUED)

(a) Financial risk management (Continued)

(i) Market risk (Continued)

(3) Cash flow interest rate risk (Continued)

The Company has entered into a floating-to-fixed interest rate swap agreement to hedge against cash flow interest rate risk of a loan. According to the interest rate swap agreement, the Company agrees with the counterparty to settle the difference between fixed contract rates and floating-rate interest amounts calculated by reference to the agreed notional amounts quarterly until 2019. Tuas Power Generation Pte Ltd. (“TPG”) also entered into a number of floating-to-fixed interest rate swap agreements to hedge against cash flow interest rate risk of a loan. According to the interest rate swap agreements, TPG agrees with the counterparty to settle the difference between fixed contract rates and floating-rate interest amounts calculated by reference to the agreed notional amount semi-annually until 2020. Please refer to Note 13 for details.

(ii) Credit risk

Credit risk arises from bank deposits, accounts receivable, other receivables, other non-current assets and loans to subsidiaries. The maximum exposures of bank deposits, accounts and other receivables are disclosed in Notes 33, 18, 17 and 15 to the financial statements, respectively, while maximum exposures of loans to subsidiaries are presented on the balance sheets.

Bank deposits are placed with reputable banks and financial institutions, including which a significant portion is deposited with a non-bank financial institution which is a related party of the Company. The Company has a director on the Board of this non-bank financial institution and exercises influence. Corresponding maximum exposures of these bank deposits are disclosed in Note 34(a)(i) to the financial statements.

Most of the power plants of the Company and its subsidiaries operating within the PRC sell electricity generated to their sole customers, the power grid companies of their respective provinces or regions where the power plants operate. These power plants communicate with their individual grid companies periodically and believe that adequate provision for doubtful accounts have been made in the financial statements.

Singapore subsidiaries derive revenue mainly from sale of electricity to the National Electricity Market of Singapore operated by Energy Market Company Pte Ltd., which is not expected to have high credit risk. They also derive revenue mainly from retailing electricity to consumers with monthly consumption of more than 10,000kWh. These customers engage in a wide spectrum of manufacturing and commercial activities in a variety of industries. They hold cash deposits RMB200.31 million (2011: RMB164.56 million) and guarantees from creditworthy financial institutions to secure substantial obligations of the customers.

3 FINANCIAL, CAPITAL AND INSURANCE RISKS MANAGEMENT (CONTINUED)

(a) Financial risk management (Continued)

(ii) Credit risk (Continued)

Regarding balances with subsidiaries, the Company and its subsidiaries obtain the financial statements of all subsidiaries and assess the financial performance and cash flows of those subsidiaries periodically to manage the credit risk of loans.

(iii) Liquidity risk

Liquidity risk management is to primarily ensure the ability of the Company and its subsidiaries to meet its liabilities as and when they are fall due. The liquidity reserve comprises the undrawn borrowing facility and cash and cash equivalents available as at each month end in meeting its liabilities.

The Company and its subsidiaries maintained flexibility in funding by cash generated by their operating activities and availability of committed credit facilities.

Financial liabilities due within 12 months are presented as the current liabilities in the balance sheets. The repayment schedules of the long-term loans and long-term bonds and cash flows of derivative financial liabilities are disclosed in Notes 22, 23 and 13, respectively.

(b) Fair value estimation

(i) Fair value measurements

The table below analyses financial instruments carried at fair value, by valuation method. The different levels have been defined as follows:

- Level 1– Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2– Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).
- Level 3– Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs).

## 3 FINANCIAL, CAPITAL AND INSURANCE RISKS MANAGEMENT (CONTINUED)

(b) Fair value estimation (Continued)

(i) Fair value measurements (Continued)

The following table presents the assets and liabilities of the Company and its subsidiaries that are measured at fair value at 31 December 2012.

	The Company and its subsidiaries				The Company			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
<b>Assets</b>								
Financial assets at fair value through profit or loss								
– Trading derivatives (Note 13)	–	1,286	–	1,286	–	–	–	–
– Trading securities*	93,753	–	–	93,753	–	–	–	–
Derivatives used for hedging (Note 13)	–	67,705	–	67,705	–	–	–	–
Available-for-sale financial assets								
– Equity securities (Note 10)	1,769,435	–	–	1,769,435	1,769,435	–	–	1,769,435
<b>Total assets</b>	<b>1,863,188</b>	<b>68,991</b>	<b>–</b>	<b>1,932,179</b>	<b>1,769,435</b>	<b>–</b>	<b>–</b>	<b>1,769,435</b>
<b>Liabilities</b>								
Financial liabilities at fair value through profit or loss								
– Trading derivatives (Note 13)	–	1,214	–	1,214	–	–	–	–
Derivatives used for hedging (Note 13)	–	924,432	–	924,432	–	210,137	–	210,137
<b>Total liabilities</b>	<b>–</b>	<b>925,646</b>	<b>–</b>	<b>925,646</b>	<b>–</b>	<b>210,137</b>	<b>–</b>	<b>210,137</b>

## 3 FINANCIAL, CAPITAL AND INSURANCE RISKS MANAGEMENT (CONTINUED)

(b) Fair value estimation (Continued)

(i) Fair value measurements (Continued)

The following table presents the assets and liabilities of the Company and its subsidiaries that are measured at fair value at 31 December 2011.

	The Company and its subsidiaries				The Company			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
<b>Assets</b>								
Financial assets at fair value through profit or loss								
– Trading derivatives (Note 13)	–	226	–	226	–	–	–	–
– Trading securities*	96,154	–	–	96,154	–	–	–	–
Derivatives used for hedging (Note 13)								
Available-for-sale financial assets	–	163,618	–	163,618	–	–	–	–
– Equity securities (Note 10)	1,638,080	–	–	1,638,080	1,638,080	–	–	1,638,080
<b>Total assets</b>	<b>1,734,234</b>	<b>163,844</b>	<b>–</b>	<b>1,898,078</b>	<b>1,638,080</b>	<b>–</b>	<b>–</b>	<b>1,638,080</b>
<b>Liabilities</b>								
Financial liabilities at fair value through profit or loss								
– Trading derivatives (Note 13)	–	142	–	142	–	–	–	–
Derivatives used for hedging (Note 13)								
<b>Total liabilities</b>	<b>–</b>	<b>613,747</b>	<b>–</b>	<b>613,747</b>	<b>–</b>	<b>202,333</b>	<b>–</b>	<b>202,333</b>

\* In December 2011, SinoSing Power acquired 70,320,000 shares of Beijing Jingneng Clean Energy Co., Ltd. (“Beijing Jingneng”), a listed entity in Hong Kong. The fair value of such trading securities was determined based on quoted market price of HKD 1.66 per share as at 31 December 2012 (HKD 1.68 per share as at 31 December 2011).

The fair value of financial instruments traded in active markets is based on quoted market prices at the balance sheet date. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer,



broker, industry group, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the Company and its subsidiaries is the current bid price. These instruments are included in level 1. Instruments included in level 1 comprise equity investments in Beijing Jingneng and Yangtze Power classified as trading securities and available for sale, respectively.

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## 3 FINANCIAL, CAPITAL AND INSURANCE RISKS MANAGEMENT (CONTINUED)

(b) Fair value estimation (Continued)

(i) Fair value measurements (Continued)

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. These valuation techniques maximise the use of observable market data where it is available and rely as little as possible on entity specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2.

If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3.

Specific valuation techniques used to value financial instruments include:

- The forward exchange contracts and fuel oil swaps are both valued using quoted market prices or dealer quotes for similar instruments.
- The fair value of interest rate swaps is calculated as the present value of the estimated future cash flows based on observable yield curves.

Instruments included in level 2 comprise forward exchange contracts, fuel oil swaps and interest rate swaps.

There were no significant transfers of financial assets between level 1 and level 2 fair value hierarchy classifications in 2012.

(ii) Fair value disclosures

The carrying value less provision for doubtful accounts of accounts receivable, other receivables and assets, accounts payable and other liabilities, short-term bonds and short-term loans are assumed to approximate their fair values. The fair value of financial liabilities for disclosure purposes is estimated by discounting the future contractual cash flows at the current market interest rate that is available to the Company and its subsidiaries for similar financial instruments.

The estimated fair value of long-term loans and long-term bonds (both including current maturities) was approximately RMB81.32 billion and RMB23.11 billion as at 31 December 2012 (2011: RMB93.67 billion and RMB18.95 billion), respectively. The aggregate book value of these liabilities was approximately RMB81.62 billion and RMB22.88 billion as at 31 December 2012 (2011: RMB93.99 billion and RMB18.85 billion), respectively.

3 FINANCIAL, CAPITAL AND INSURANCE RISKS MANAGEMENT (CONTINUED)

(c) Capital risk management

The objectives of the Company and its subsidiaries when managing capital are to safeguard the ability of the Company and its subsidiaries in continuing as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

The Company and its subsidiaries monitor capital by using debt ratio analysis. This ratio is calculated as total liabilities (sum of current liabilities and non-current liabilities) divided by total assets as shown in the consolidated balance sheet. During 2012, the strategy of the Company and its subsidiaries remained unchanged from 2011. The debt ratio of the Company and its subsidiaries as at 31 December 2012 was 74.54% (2011: 76.86%).

(d) Insurance risk management

The Company and its subsidiaries issue contracts that transfer significant insurance risk.

The risk relates to the financial guarantees provided to banks by the Company on the borrowings of a subsidiary. The risk under this financial guarantee contract is the possibility that the insured event (default of a specified debtor) occurs and the uncertainty of the amount of the resulting claims. By the nature of a financial guarantee contract, this risk is predictable.

Experience shows credit risks from the specified debtors are relatively remote. The Company maintains a close watch on the financial position and liquidity of the subsidiary for which financial guarantee has been granted in order to mitigate such risks. The Company takes all reasonable steps to ensure that they have appropriate information regarding any claim exposures.

4 CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Company and its subsidiaries make estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

(a) Accounting estimates on impairment of goodwill and power generation licence

The Company and its subsidiaries perform test annually whether goodwill and power generation licence have suffered any impairment in accordance with the accounting policies stated in Notes 2(j) and 2(g), respectively. The recoverable amounts of CGU or CGUs to which goodwill and the power generation licence have been allocated are determined based on value-in-use calculations. These calculations require the use of estimates (Notes 14 and 12). It is reasonably possible, based on existing knowledge, that outcomes within the next financial period that are different from assumptions could require a material adjustment to the carrying amounts of goodwill and power generation licence.



## 4 CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS (CONTINUED)

## (a) Accounting estimates on impairment of goodwill and power generation licence (Continued)

For goodwill allocated to CGUs in the PRC, changes of assumptions in tariff and fuel price could have affected the results of goodwill impairment assessment. As at 31 December 2012, if tariff had decreased by 1% or 5% from management's estimates with other variables constant with the expectations, the Company and its subsidiaries would have to further recognize impairment against goodwill by approximately RMB595 million and RMB1,757 million, respectively. If fuel price had increased by 1% or 5% from the management's estimates with other variables constant with the expectations, the Company and its subsidiaries would have to further recognize impairment against goodwill by approximately RMB374 million and RMB1,734 million, respectively.

For sensitivity analysis of goodwill and power generation licence of Tuas Power, please refer to Note 14 and 12.

## (b) Useful life of power generation licence

As at year end, management of the Company and its subsidiaries assessed that the estimated useful life for its power generation licence is indefinite. This assessment is based on the expected renewal of power generation licence without significant restriction and cost, together with the consideration on related future cash flows generated and the expectation of continuous operations. Based on existing knowledge, outcomes within the next financial period that are different from assumptions could require a change to the carrying amount of power generation licence.

## (c) Useful lives of property, plant and equipment

Management of the Company determined the estimated useful lives of property, plant and equipment and respective depreciation. The accounting estimate is based on the expected wears and tears incurred during power generation. Wears and tears can be significantly different following renovation each time. When the useful lives differ from the original estimated useful lives, management will adjust the estimated useful lives accordingly. It is possible that the estimates made based on existing experience are different to the actual outcomes within the next financial period and could cause a material adjustment to the depreciation and carrying amount of property, plant and equipment. The estimated useful lives and residual values of property, plant and equipment in the PRC were revised in 2012 (Note 7).

## (d) Estimated impairment of property, plant and equipment

The Company and its subsidiaries test whether property, plant and equipment suffered any impairment whenever any impairment indication exists. In accordance with Note 2(j), an impairment loss is recognized for the amount by which the carrying amount of the asset exceeds its recoverable amount. It is reasonably possible, based on existing knowledge, that outcomes within the next financial period that are different from assumptions could require a material adjustment to the carrying amount of property, plant and equipment.

Changes of assumptions in tariff and fuel price will affect the result of property, plant and equipment impairment assessment. As at 31 December 2012, if tariff had decreased by 1% or 5% from management's estimates with other variables constant with the expectations, the Company and its subsidiaries would have to further recognize impairment against property, plant and equipment by approximately RMB277 million and RMB2,885 million, respectively. If fuel price had increased by 1% or 5% from the management's estimates with other variables constant with the expectations, the Company and its subsidiaries would have to further recognize impairment against property, plant and equipment by approximately RMB205 million and RMB1,710 million, respectively.



## 4 CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS (CONTINUED)

## (e) Approval of construction of new power plants

The receiving of the ultimate approvals from National Development and Reform Commission (“NDRC”) on certain power plant construction projects of the Company and its subsidiaries is a critical estimate and judgment of the directors. Such estimates and judgments are based on initial approval documents received as well as their understanding of the projects. Based on historical experience, the directors believe that the Company and its subsidiaries will receive final approvals from NDRC on the related power plant projects. Deviation from the estimate and judgment could result in significant adjustment to the carrying amount of property, plant and equipment.

## 5 REVENUE AND SEGMENT INFORMATION

Revenues recognized during the year are as follows:

	For the year ended 31 December	
	2012	2011
Sales of power and heat	131,936,955	131,225,050
Sales of coal	651,551	972,317
Port service	330,518	319,388
Transportation service	101,205	104,253
Others	946,430	799,761
<b>Total</b>	<b>133,966,659</b>	<b>133,420,769</b>

Directors and certain senior management of the Company perform the function as chief operating decision maker (collectively referred to as the “senior management”). The senior management reviews the internal reporting of the Company and its subsidiaries in order to assess performance and allocate resources. The Company has determined the operating segments based on these reports. The reportable segments of the Company are the PRC power segment, Singapore segment and all other segments (mainly including port and transportation operations). No operating segments have been aggregated to form a reportable segment.

Senior management assesses the performance of the operating segments based on a measure of profit before income tax expense under China Accounting Standard for Business Enterprises (“PRC GAAP”) in related periods excluding dividend income received from available-for-sale financial assets and operating results of the centrally managed and resource allocation functions of headquarters. Other information provided, except as noted below, to the senior management of the Company is measured under PRC GAAP.

## 5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

Segment assets exclude prepaid income tax, deferred income tax assets, available-for-sale financial assets and assets related to the centrally managed and resource allocation functions of headquarters that are not attributable to any operating segment (“corporate assets”). Segment liabilities exclude current income tax liabilities, deferred income tax liabilities and liabilities related to the centrally managed and resource allocation functions of headquarters that are not attributable to any operating segment (“corporate liabilities”). These are part of the reconciliation to total balance sheet assets and liabilities.

All sales among the operating segments were performed at market price or close to market price, and have been eliminated as internal transactions when preparing consolidated financial statements.

	(Under PRC GAAP)			
	PRC power segment	Singapore segment	All other segments	Total
For the year ended 31 December 2012				
Total revenue	113,685,824	19,841,166	614,688	134,141,678
Inter-segment revenue	–	–	(175,019 )	(175,019 )
Revenue from external customers	113,685,824	19,841,166	439,669	133,966,659
Segment results	8,391,022	1,242,808	(51,308 )	9,582,522
Interest income	104,777	70,047	578	175,402
Interest expense	(8,006,824 )	(481,124 )	(126,882 )	(8,614,830 )
Depreciation and amortization	(10,280,131 )	(619,823 )	(147,239 )	(11,047,193 )
Net (loss)/gain on disposal of property, plant and equipment	(261,564 )	46	8,777	(252,741 )
Share of profits of associates/jointly controlled entities	608,958	–	(102,887 )	506,071
Income tax expense	(2,350,097 )	(212,188 )	(12,525 )	(2,574,810 )
For the year ended 31 December 2011				
Total revenue	111,618,962	21,366,067	691,110	133,676,139
Inter-segment revenue	–	–	(255,370 )	(255,370 )
Revenue from external customers	111,618,962	21,366,067	435,740	133,420,769
Segment results	622,256	1,579,205	29,544	2,231,005
Interest income	88,498	77,043	642	166,183
Interest expense	(6,852,893 )	(475,848 )	(100,489 )	(7,429,230 )
Depreciation and amortization	(11,114,793 )	(611,041 )	(141,242 )	(11,867,076 )
Net (loss)/gain on disposal of property, plant and equipment	(3,380 )	8,531	937	6,088
Share of profits of associates/jointly controlled entities	552,225	–	26,298	578,523
Income tax expense	(666,424 )	(308,254 )	(9,206 )	(983,884 )



## 5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

	(Under PRC GAAP)			
	PRC power segment	Singapore segment	All other segments	Total
31 December 2012				
Segment assets	210,014,318	32,283,757	9,225,290	251,523,365
Including:				
Additions to non-current assets (excluding financial assets and deferred income tax assets)	30,557,482	2,396,858	1,261,944	34,216,284
Investments in associates	10,449,684	–	914,600	11,364,284
Investments in jointly controlled entities	640,000	–	1,056,637	1,696,637
Segment liabilities	(160,960,185)	(17,872,738)	(4,060,893)	(182,893,816)
31 December 2011				
Segment assets	210,274,298	30,791,094	8,707,163	249,772,555
Including:				
Additions to non-current assets (excluding financial assets and deferred income tax assets)	33,535,107	3,449,725	3,865,074	40,849,906
Investments in associates	9,851,537	–	1,018,397	10,869,934
Investments in jointly controlled entities	160,000	–	1,084,073	1,244,073
Segment liabilities	(166,068,006)	(17,526,440)	(3,332,315)	(186,926,761)

A reconciliation of revenue from external customers to operating revenue is provided as follows:

	For the year ended 31 December	
	2012	2011
Revenue from external customers (PRC GAAP)	133,966,659	133,420,769
Reconciling item:		
Impact of IFRS adjustment*	–	–
Operating revenue per consolidated statement of comprehensive income	133,966,659	133,420,769

## 5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

A reconciliation of segment result to profit before income tax expense is provided as follows:

	For the year ended 31 December	
	2012	2011
Segment results (PRC GAAP)	9,582,522	2,231,005
Reconciling items:		
Loss related to the headquarters	(466,430 )	(129,683 )
Investment income from China Huaneng Finance Co., Ltd. (“Huaneng Finance”)	124,092	81,939
Dividend income of available-for-sale financial assets	187,080	164,881
Impact of IFRS adjustments*	(550,479 )	(297,775 )
Profit before income tax expense per consolidated statement of comprehensive income	8,876,785	2,050,367

Reportable segments’ assets are reconciled to total assets as follows:

	As at 31 December	
	2012	2011
Total segment assets (PRC GAAP)	251,523,365	249,772,555
Reconciling items:		
Investment in Huaneng Finance	1,257,181	1,178,633
Deferred income tax assets	672,840	710,571
Prepaid income tax	14,850	101,959
Available-for-sale financial assets	3,102,822	2,351,167
Corporate assets	290,811	250,509
Impact of IFRS adjustments*	2,238,503	3,050,480
Total assets per consolidated balance sheet	259,100,372	257,415,874

## 5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

Reportable segments' liabilities are reconciled to total liabilities as follows:

	As at 31 December 2012	As at 31 December 2011
Total segment liabilities (PRC GAAP)	(182,893,816)	(186,926,761)
Reconciling items:		
Current income tax liabilities	(788,624 )	(503,252 )
Deferred income tax liabilities	(1,776,203 )	(1,736,907 )
Corporate liabilities	(6,484,987 )	(7,038,611 )
Impact of IFRS adjustments*	(1,196,400 )	(1,652,590 )
Total liabilities per consolidated balance sheet	(193,140,030)	(197,858,121)

Other material items:

	Reportable segment total	Headquarters	Investment income from Huaneng Finance	Impact of IFRS adjustments*	Total
For the year ended 31 December 2012					
Interest expense	(8,614,830 )	(282,267 )	–	–	(8,897,097 )
Depreciation and amortization	(11,047,193)	(42,749 )	–	(166,468 )	(11,256,410)
Share of profits of associates/ jointly controlled entities	506,071	–	124,092	(7,805 )	622,358
Income tax expense	(2,574,810 )	–	–	64,440	(2,510,370 )
For the year ended 31 December 2011					
Interest expense	(7,429,230 )	(306,956 )	–	–	(7,736,186 )
Depreciation and amortization	(11,867,076)	(33,017 )	–	(179,457 )	(12,079,550)
Share of profits of associates/ jointly controlled entities	578,523	–	81,939	43,099	703,561
Income tax expense	(983,884 )	–	–	114,957	(868,927 )

\* The GAAP adjustments above primarily represented the classification adjustments and other adjustments. The GAAP adjustments other than classification adjustments were primarily brought forward from prior years. Such differences will be gradually eliminated following subsequent depreciation and amortization of related assets or the extinguishment of liabilities.

## 5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

Geographical information (Under IFRS):

(i) External revenue generated from the following countries:

	For the year ended 31 December	
	2012	2011
PRC	114,125,493	112,054,702
Singapore	19,841,166	21,366,067
Total	133,966,659	133,420,769

(ii) Non-current assets (excluding financial assets and deferred income tax assets) are located in the following countries:

	As at 31 December	
	2012	2011
PRC	192,281,707	193,794,549
Singapore	26,459,701	23,618,372
Total	218,741,408	217,412,921

The information on the portion of external revenue of the Company and its subsidiaries which is generated from sales to major customers of the Company and its subsidiaries at amount equal to or more than 10% of external revenue is as follows:

	For the year ended 31 December			
	2012		2011	
	Amount	Proportion	Amount	Proportion
Shandong Electric Power Corporation ("Shandong Power")	16,492,367	12 %	15,151,313	11 %
Jiangsu Electric Power Company	16,289,628	12 %	16,121,843	12 %

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## PROFIT BEFORE INCOME TAX EXPENSE

Profit before income tax expense was determined after charging/(crediting) the following:

	For the year ended 31 December	
	2012	2011
Interest expense on bank loans	7,213,544	7,049,379
Interest expense on long-term loans from Huaneng Group	39,301	36,220
Interest expense on other long-term loans	169,892	355,347
Interest expense on long-term bonds	1,316,637	783,156
Interest expense on short-term bonds	806,990	386,408
Total interest expense	9,546,364	8,610,510
Less: amounts capitalized in property, plant and equipment	(649,267 )	(874,324 )
	8,897,097	7,736,186
Auditors' remuneration	31,030	33,935
Loss/(gain) on disposals/write-off of property, plant and equipment, net	252,741	(7,911 )
Operating leases	269,833	299,574
Depreciation of property, plant and equipment	11,032,748	11,866,705
Impairment loss of intangible assets	–	15,661
Impairment loss of property, plant and equipment (Note 7)	903,463	80,828
Impairment loss of goodwill (Note 14)	107,735	291,734
Amortization of other non-current assets	86,275	81,276
Fuel	82,355,449	90,546,192
Reversal of doubtful accounts	(10,310 )	(19,747 )
Provision for/(reversal of) inventory obsolescence	12,155	(3,353 )

Other operating expenses consist of impairment loss of property, plant and equipment and goodwill, environmental protection expenses, substituted power arrangement expenses, insurance, cost of coal sales and other miscellaneous expenses, etc.

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## PROPERTY, PLANT AND EQUIPMENT

The Company and its subsidiaries

	Dam	Port facilities	Buildings	Electric utility plants in service	Transportation facilities	Others	CIP	T
As at 1 January 2011								
Cost	–	1,315,393	3,743,183	197,907,242	631,198	3,692,177	32,258,041	239,547,2
Accumulated depreciation	–	(74,822 )	(1,344,449)	(76,030,260 )	(272,322)	(1,994,276)	–	(79,716,1
Accumulated impairment loss	–	–	–	(4,606,508 )	–	–	–	(4,606,50
Net book value	–	1,240,571	2,398,734	117,270,474	358,876	1,697,901	32,258,041	155,224,5
Year ended 31 December 2011								
Beginning of the year								
	–	1,240,571	2,398,734	117,270,474	358,876	1,697,901	32,258,041	155,224,5
Reclassification	–	–	(159,059 )	(61,661 )	(4,569 )	225,289	–	–
Acquisitions	105,030	1,019,572	577,354	11,905,540	–	224,649	4,819,652	18,651,79
Additions	–	2,430	59,681	279,368	111,729	141,552	16,287,011	16,881,77
Transfer from CIP	–	452	303,481	28,473,739	52,650	83,214	(28,913,536)	–
Disposals/Write-off	–	–	(1,667 )	(55,120 )	–	(19,905 )	–	(76,692
Disposal of a subsidiary	–	–	–	–	–	(4,731 )	(308,130 )	(312,861
Depreciation charge	–	(67,030 )	(152,936 )	(11,335,566 )	(37,179 )	(288,646 )	–	(11,881,3
Impairment charge	–	–	–	(50,854 )	–	(20,423 )	(9,551 )	(80,828
Currency translation differences	–	–	–	(233,140 )	–	(3,178 )	(202,108 )	(438,426
End of the year	105,030	2,195,995	3,025,588	146,192,780	481,507	2,035,722	23,931,379	177,968,0
As at 31 December 2011								
Cost	110,802	2,407,271	4,470,124	239,281,405	793,339	4,235,895	23,940,930	275,239,7
Accumulated depreciation	(5,772 )	(211,276 )	(1,444,536)	(88,717,256 )	(311,832)	(2,156,766)	–	(92,847,4
Accumulated impairment loss	–	–	–	(4,371,369 )	–	(43,407 )	(9,551 )	(4,424,32
Net book value	105,030	2,195,995	3,025,588	146,192,780	481,507	2,035,722	23,931,379	177,968,0
Year ended 31 December 2012								
Beginning of the year								
	105,030	2,195,995	3,025,588	146,192,780	481,507	2,035,722	23,931,379	177,968,0

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Reclassification	23,718	–	574,015	(593,933 )	–	(3,800 )	–	–
Additions	–	–	8,011	353,466	69,000	203,682	12,335,900	12,970,05
Transfer from CIP	471,622	72,358	145,306	15,675,975	42	129,018	(16,494,321)	–
Disposals/Write-off*	–	–	(9,139 )	(979,652 )	(8,064 )	(67,155 )	(1,263,081 )	(2,327,09
Depreciation charge	(8,881 )	(73,121 )	(173,926 )	(10,360,352 )	(38,336 )	(429,140 )	–	(11,083,7
Impairment charge	–	–	–	(866,666 )	–	(1,798 )	(34,999 )	(903,463
Currency translation differences	–	–	–	207,282	–	1,226	181,369	389,877
End of the year	591,489	2,195,232	3,569,855	149,628,900	504,149	1,867,755	18,656,247	177,013,6
As at 31 December 2012								
Cost	606,141	2,479,629	5,297,159	251,732,881	723,816	4,327,587	18,724,052	283,891,2
Accumulated depreciation	(14,652 )	(284,397 )	(1,727,304)	(97,189,822 )	(219,667)	(2,413,135)	–	(101,848,
Accumulated impairment loss	–	–	–	(4,914,159 )	–	(46,697 )	(67,805 )	(5,028,66
Net book value	591,489	2,195,232	3,569,855	149,628,900	504,149	1,867,755	18,656,247	177,013,6

\* In 2012, a subsidiary of the Company transferred the Nantong power generation construction project related assets (recorded in CIP) with carrying amount of RMB1,035 million to Jiangsu Nantong Power Generation Co., Ltd., a jointly controlled entity of the subsidiary. The transfer price received equals to the carrying amount.

## 7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

## The Company

	Buildings	Electric utility plant in service	Transportation facilities	Others	CIP	Total
As at 1 January 2011						
Cost	1,572,301	102,110,874	183,643	2,062,814	8,277,101	114,206,733
Accumulated depreciation	(619,218 )	(44,750,135 )	(128,465 )	(1,267,060)	–	(46,764,878 )
Accumulated impairment loss	–	(550,090 )	–	–	–	(550,090 )
Net book value	953,083	56,810,649	55,178	795,754	8,277,101	66,891,765
Year ended 31 December 2011						
Beginning of the year	953,083	56,810,649	55,178	795,754	8,277,101	66,891,765
Reclassification	(22,733 )	35,018	(2,426 )	(9,859 )	–	–
Acquisitions	–	–	–	363	110,858	111,221
Additions	44,393	48,731	–	64,227	3,809,775	3,967,126
Transfer from CIP	273,317	7,147,208	–	61,208	(7,481,733)	–
Disposals/Write-off	(1,379 )	(7,396 )	–	(418 )	–	(9,193 )
Depreciation charge	(58,376 )	(4,865,772 )	(10,409 )	(144,567 )	–	(5,079,124 )
End of the year	1,188,305	59,168,438	42,343	766,708	4,716,001	65,881,795
As at 31 December 2011						
Cost	1,867,485	109,453,980	181,217	2,139,809	4,716,001	118,358,492
Accumulated depreciation	(679,180 )	(49,735,485 )	(138,874 )	(1,373,101)	–	(51,926,640 )
Accumulated impairment loss	–	(550,057 )	–	–	–	(550,057 )
Net book value	1,188,305	59,168,438	42,343	766,708	4,716,001	65,881,795
Year ended 31 December 2012						
Beginning of the year	1,188,305	59,168,438	42,343	766,708	4,716,001	65,881,795
Reclassification	284,607	(312,473 )	–	27,866	–	–
Additions	4,513	39,303	–	95,759	3,541,872	3,681,447
Transfer from CIP	7,986	5,028,693	–	36,194	(5,072,873)	–
Disposals/Write-off	(313 )	(413,530 )	(4,772 )	(6,633 )	–	(425,248 )
Depreciation charge	(57,131 )	(3,929,282 )	(9,591 )	(207,654 )	–	(4,203,658 )
Impairment charge	–	(117,799 )	–	(1,085 )	–	(118,884 )
End of the year	1,427,967	59,463,350	27,980	711,155	3,185,000	64,815,452



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As at 31 December 2012

Cost	2,262,527	111,965,559	78,701	2,214,959	3,185,000	119,706,746
Accumulated depreciation	(834,560 )	(52,315,014 )	(50,721 )	(1,503,804)	–	(54,704,099 )
Accumulated impairment loss	–	(187,195 )	–	–	–	(187,195 )
Net book value	1,427,967	59,463,350	27,980	711,155	3,185,000	64,815,452

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7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

Interest capitalization

Interest expense of approximately RMB649 million (2011: RMB874 million) arising on borrowings for the construction of property, plant and equipment were capitalized during the year and were included in 'Additions' in property, plant and equipment. A capitalization rate of approximately 6.40% (2011: 5.86%) per annum was used.

Impairment

In 2012, impairment losses for certain property, plant and equipment of approximately RMB903 million have been recognized. The factors leading to the impairment were the continuous deterioration in utilization and the competition from non-coal fired power generation plants. A discount rate of 7.24% was adopted in the value in use model in the determination of the recoverable amounts for some power generation units, which is a CGU.

In 2011, impairment losses of RMB80.83 million were recognized for certain property, plant and equipment.

Security

As at 31 December 2012, property, plant and equipment with net book value amounting to RMB225.46 million was secured to a bank as collateral against a long-term loan of RMB149 million (2011: net book value RMB561.46 million, long-term loans RMB403.65 million) (Note 22).

Change in estimates

In order to present a fairer and more appropriate view of the financial position and operating results of the Company and its subsidiaries where the depreciation period of each property, plant and equipment is aligned with its actual useful lives, the Company and its subsidiaries revised its accounting estimates on the useful lives and residual values of property, plant and equipment not fully depreciated in the PRC in accordance with IFRS, based on the technical assessment report prepared by the Company's internal engineers and technicians, as well as the accounting estimation adopted by other major Chinese companies in the power industry. The Company obtained the approval in April 2012 in the Company's eighth meeting of the Seventh Session of the Board of Directors, and adopted the change from 1 January 2012.

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## 7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

## Change in estimates (Continued)

The table below shows the details of estimated useful lives and net residual values of property, plant and equipment before and after 1 January 2012:

Category of property, plant and equipment	Before 1 January 2012			After 1 January 2012		
	Estimated useful lives (years)	Estimated residual value(%)	Annual depreciation rate(%)	Estimated useful lives (years)	Estimated residual value(%)	Annual depreciation rate(%)
Dam	8-40	3	2.43-12.13	8-50	0-3	2.00-12.13
Port facilities	20-40	5	2.38-4.75	20-40	5	2.38-4.75
Buildings	6-45	0-11	2.11-16.67	8-30	3-5	2.23-12.13
Electric utility plant in service	5-35	0-11	2.71-20.00	5-30	0-5	3.17-20.00
Transportation facilities	6-20	0-11	4.75-16.67	8-27	3-5	3.52-12.13
Others	3-18	0-11	5.56-33.33	5-14	0-5	6.79-20.00

The approximate effect of the change in estimates on profit before income tax expense in current and future years is as follows:

	2012	2013	2014	2015	2016	Later
Increase/(Decrease) in profit before income tax expense	1.1 billion	0.9 billion	0.6 billion	0.5 billion	0.6 billion	(6.1 billion)

8

## INVESTMENTS IN ASSOCIATES/JOINTLY CONTROLLED ENTITIES

	The Company and its subsidiaries		The Company	
	2012	2011	2012	2011
Beginning of the year	13,588,012	11,973,216	11,455,300	10,157,246
Additional capital injections in associates	467,574	995,805	460,074	995,804
Additional capital injections in jointly controlled entities	480,000	–	–	–
Establishments of associates	–	38,250	–	38,250
Acquisitions of associates	–	264,000	–	264,000
Establishment of a jointly controlled entity	–	160,000	–	–
Share of other comprehensive income/(loss)	30,070	(44,928 )	–	–
Share of profits before income tax expense	809,509	957,843	–	–
Share of income tax expense	(187,151 )	(254,282 )	–	–
Dividends	(591,243 )	(501,892 )	–	–
End of the year	14,596,771	13,588,012	11,915,374	11,455,300

As at 31 December 2012, investments in associates/jointly controlled entities of the Company and its subsidiaries, all of which are unlisted except for Shenzhen Energy Corporation (“SEC”) which is listed on the Shenzhen Stock Exchange, were as follows:

Name	Country of incorporation	Registered capital	Business nature and scope of operation	Percentage of equity interest held	
				Direct	Indirect <sup>1</sup>
Associates:					
Shandong Rizhao Power Company Ltd. (“Rizhao Power Company”)	PRC	RMB1,245,587,900	Power generation	44 %	–
Shenzhen Energy Group Co., Ltd. (“SEG”)	PRC	RMB230,971,224	Development, production and sale of regular energy, new energy and energy construction project, etc.	25 %	–
SEC*	PRC	RMB2,202,495,332	Energy and investment in related industries	9.08 %	–
Shenzhen Energy Management Corporation**	PRC	RMB724,584,330	Management of energy projects	25 %	–



## 8 INVESTMENTS IN ASSOCIATES/JOINTLY CONTROLLED ENTITIES (CONTINUED)

Name	Country of incorporation	Registered capital	Business nature and scope of operation	Percentage of equity interest held		
				Direct	Indirect	1
Associates: (Continued)						
Hebei Hanfeng Power Generation Limited Liability Company	PRC	RMB1,975,000,000	Power generation	40	%	–
Chongqing Huaneng Lime Company Limited (“Lime Company”)	PRC	RMB50,000,000	Lime production and sale, construction materials, chemical engineering product	–		15 %
Huaneng Finance	PRC	RMB5,000,000,000	Provision for financial service including fund deposit services, lending, finance lease arrangements, notes discounting and entrusted loans and investment arrangement within Huaneng Group	20	%	–
Huaneng Sichuan Hydropower Co., Ltd.	PRC	RMB1,469,800,000	Development, investment, construction, operation and management of hydropower	49	%	–
Yangquan Coal Industry Group Huaneng Coal-fired Power Investment Co., Ltd.	PRC	RMB1,000,000,000	Investment, development, consulting and management services of coal and power generation projects	49	%	–
Huaneng Shidaowan Nuclear Power Development Co., Ltd.	PRC	RMB1,000,000,000	Preparation for construction of pressurized water reactor power plant project	30	%	–

Bianhai Railway Co., Ltd.	PRC	RMB389,000,000	Railway construction, freight transportation, materials supplies, agency service, logistics and storage at coastal industrial base in Yingkou, Liaoning	37	%	—
Huaneng Shenbei Co-generation Limited Liability Company	PRC	RMB70,000,000	Production and sales of electricity and heat, construction and operation of power plants	40	%	—
Hainan Nuclear Power Co., Ltd. (“Hainan Nuclear Power”)	PRC	RMB1,265,756,000	Construction and operation of nuclear power plants, production and sales of electricity	30	%	—

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## 8 INVESTMENTS IN ASSOCIATES/JOINTLY CONTROLLED ENTITIES (CONTINUED)

Name	Country of incorporation	Registered capital	Business nature and scope of operation	Percentage of equity interest held		
				Direct	Indirect <sup>1</sup>	
Associates: (Continued)						
Shanxi Luan Group Zuoquan Wulihou Coal Co., Ltd.	PRC	RMB206,452,910	Coal production and sales	34	%	–
Huaneng (Tianjin) Coal Gasification Power Generation Co., Ltd. (“Coal Gasification Co.”)	PRC	RMB734,000,000	Power generation, facilities installation, heat supply	35.97	%	–
Huaneng Jinling Combined Cycle Co-generation Co., Ltd. (“Jinling CCGT”)**	PRC	RMB375,000,000	Construction, operation and management of power generation and related projects	51	%	–
Jointly controlled entities:						
Shanghai Time Shipping Co., Ltd. (“Shanghai Time Shipping”)	PRC	RMB1,200,000,000	International and domestic sea transportation	50	%	–
Jiangsu Nantong Power Generation Co., Ltd.	PRC	RMB1,596,000,000	Operation and Management of power generation plants and related projects	–		35 %

1 The indirect percentage of equity interest held represents the effective ownership interest of the Company and its subsidiaries.

\* The Company holds 240 million shares, representing 9.08% shareholding of SEC, which is a subsidiary of Shenzhen Energy Management Corporation, one of the Company’s associates. Considering the equity interest effectively held by the Company directly and indirectly through Shenzhen Energy Management Corporation, and directors as well as supervisors appointed by the Company in SEC, the Company exercises significant influence on the operations of SEC and has classified it as an associate. As at 31 December 2012, the fair value of the Company’s shares in SEC was RMB1,435 million (2011: RMB1,464 million).

\*\* In February 2013, SEC merged Shenzhen Energy Management Corporation through the combination of directional seasoned offering and cash payment to the shareholders of Shenzhen Energy Management Corporation, Shenzhen State-owned Assets Supervision and Administration Commission and the Company.



After the merger, Shenzhen Energy Management Corporation was revoked. Before the merger, the Company held 25.02% shares in SEC, including 15.94% shares indirectly held through Shenzhen Energy Management Corporation. After the merger, the Company directly holds 661,161,106 shares, representing 25.02% shares in SEC. The merger does not have material impact to the Company's financial statements.

\*\*\* In accordance with relevant terms stipulated in the memorandum and articles of association of Jinling CCGT, all resolutions of the shareholders' meetings need at least 2/3 of the voting rights to pass and the resolutions of board of directors also need at least 2/3 of the board of directors members to agree whilst the Company possesses 5 out of the 11 board of directors seats according to the articles of association. Therefore the Company does not have the power to control and only exercises significant influence on the operating and financial decisions of Jinling CCGT. Consequently, the Company accounts for its investment in Jinling CCGT as an associate.

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## 8 INVESTMENTS IN ASSOCIATES/JOINTLY CONTROLLED ENTITIES (CONTINUED)

The gross amounts of operating results, assets and liabilities (excluding goodwill) of the associates of the Company and its subsidiaries were as follows:

	2012	2011
Assets	106,103,616	99,389,071
Liabilities	(66,107,245 )	(59,605,330)
Operating revenue	24,910,011	26,291,581
Profit attributable to equity holders of associates	1,773,519	1,662,704

The following amounts represent the 50% share of the assets, liabilities (excluding goodwill) and operating results of the jointly controlled entities of the Company and its subsidiaries.

	2012	2011
Assets		
Non-current assets	4,598,639	2,868,179
Current assets	662,671	442,772
	5,261,310	3,310,951
Liabilities		
Non-current liabilities	(1,820,998)	(1,178,902)
Current liabilities	(1,761,999)	(906,300 )
	(3,582,997)	(2,085,202)
Net assets	1,678,313	1,225,749
Income	1,048,933	1,162,160
Less: expense	(1,026,369)	(1,086,124)
Net income	22,564	76,036

## 9 INVESTMENTS IN SUBSIDIARIES AND LOANS TO SUBSIDIARIES

## (a) Investments in subsidiaries

As at 31 December 2012, the investments in subsidiaries of the Company and its subsidiaries, all of which are unlisted, were as follows:

## (i) Subsidiaries acquired from business combinations under common control

Name of subsidiary	Country of incorporation	Type of legal entity	Registered capital	Business nature and scope of operations	Percentage of equity interest held		
					Direct	Indirect	1
Huaneng (Suzhou Industrial Park) Power Generation Co., Ltd.	PRC	Limited liability company	RMB632,840,000	Power generation	75 %	–	
Huaneng Qinbei Power Co., Ltd.	PRC	Limited liability company	RMB810,000,000	Power generation	60 %	–	
Huaneng Yushe Power Generation Co., Ltd. (“Yushe Power Company”)	PRC	Limited liability company	RMB615,760,000	Power generation	60 %	–	
Huaneng Hunan Yueyang Power Generation Limited Liability Company (“Yueyang Power Company”)	PRC	Limited liability company	RMB1,935,000,000	Power generation	55 %	–	
Huaneng Chongqing Luohuang Power Generation Limited Liability Company	PRC	Limited liability company	RMB1,748,310,000	Power generation	60 %	–	
Huaneng Pingliang Power Generation Co., Ltd. (“Pingliang Power Company”)	PRC	Limited liability company	RMB924,050,000	Power generation	65 %	–	
Huaneng Nanjing Jinling Power Co.,	PRC	Limited liability	RMB2,095,136,000	Power generation	60 %	–	

Ltd.		company					
Huaneng Qidong Wind Power Generation Co., Ltd.	PRC	Limited liability company	RMB269,600,000	Development of wind power project, production and sales of electricity	65	%	–

## 9 INVESTMENTS IN SUBSIDIARIES AND LOANS TO SUBSIDIARIES (CONTINUED)

## (a) Investments in subsidiaries (Continued)

## (i) Subsidiaries acquired from business combinations under common control (Continued)

Name of subsidiary	Country of incorporation	Type of legal entity	Registered capital	Business nature and scope of operations	Percentage of equity interest held	
					Direct	Indirect <sup>1</sup>
Tianjin Huaneng Yangliuqing Co-generation Limited Liability Company (“Yangliuqing Cogeneration”)	PRC	Limited liability company	RMB1,537,130,909	Power generation, heat supply, facilities installation, maintenance and related services	55 %	–
Huaneng Beijing Co-generation Limited Liability Company (“Beijing Cogeneration”) (i)	PRC	Limited liability company	RMB1,600,000,000	Construction and operation of power plants and related construction projects	41 %	–

<sup>1</sup> The indirect percentage of equity interest held represents the effective ownership interest of the Company and its subsidiaries.

The subsidiaries above and the Company are all controlled by Huaneng Group before and after the acquisitions.

## 9 INVESTMENTS IN SUBSIDIARIES AND LOANS TO SUBSIDIARIES (CONTINUED)

## (a) Investments in subsidiaries (Continued)

## (ii) Subsidiaries acquired from business combinations not under common control or acquired through other ways

Name of subsidiary	Country of incorporation	Type of legal entity	Registered capital	Business nature and scope of operations	Percentage of equity interest held		
					Direct	Indirect	1
Huaneng Weihai Power Limited Liability Company	PRC	Limited liability company	RMB761,838,300	Power generation	60 %	–	–
Huaneng Taicang Power Co., Ltd.	PRC	Limited liability company	RMB804,146,700	Power generation	75 %	–	–
Huaiyin Power Company	PRC	Limited liability company	RMB265,000,000	Power generation	100 %	–	–
Huaneng Huaiyin II Power Limited Company	PRC	Limited liability company	RMB930,870,000	Power generation	63.64 %	–	–
Huaneng Xindian Power Co., Ltd.	PRC	Limited liability company	RMB465,600,000	Power generation	95 %	–	–
Huaneng Shanghai Combined Cycle Power Limited Liability Company	PRC	Limited liability company	RMB699,700,000	Power generation	70 %	–	–
Huaneng International Power Fuel Limited Liability Company	PRC	Limited liability company	RMB200,000,000	Wholesale of coal	100 %	–	–
Huaneng Shanghai Shidongkou Power Generation Limited (“Shidongkou Power Company”) (ii)	PRC	Limited liability company	RMB990,000,000	Power generation	50 %	–	–

Huade County Daditaihong Wind Power Utilization Limited Liability Company	PRC	Limited liability company	RMB5,000,000	Wind power development and utilization	100	%	-
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## 9 INVESTMENTS IN SUBSIDIARIES AND LOANS TO SUBSIDIARIES (CONTINUED)

## (a) Investments in subsidiaries (Continued)

(ii) Subsidiaries acquired from business combinations not under common control or acquired through other ways  
(Continued)

Name of subsidiary	Country of incorporation	Type of legal entity	Registered capital	Business nature and scope of operations	Percentage of equity interest held	
					Direct	Indirect
Huaneng Nantong Power Generation Limited Liability Company	PRC	Limited liability company	RMB798,000,000	Power generation	70 %	–
Huaneng Yingkou Port Limited Liability Company (“Yingkou Port”) (iii)	PRC	Limited liability company	RMB720,235,000	Loading and conveying service	50 %	–
Huaneng Hunan Xiangqi Hydropower Co., Ltd. and related projects	PRC	Limited liability company	RMB180,000,000	Construction, operation and management of hydropower	100 %	–
Huaneng Yingkou Power Generation Limited Liability Company	PRC	Limited liability company	RMB830,000,000	Production and sales of electricity and heat	100 %	–
Zhuozhou Liyuan Cogeneration Co., Ltd.	PRC	Limited liability company	RMB5,000,000	Construction, operation and management of cogeneration power plants and related projects	100 %	–
Huaneng Zuoquan Coal-fired Power Generation Limited Liability Company	PRC	Limited liability company	RMB960,000,000	Construction, operation and management of power plants and related projects	80 %	–
Huaneng Kangbao Wind Power	PRC	Limited liability	RMB5,000,000	Construction, operation and	100 %	–



Utilization Limited Liability Company		company		management of wind power generation and related projects			
Huaneng Jiuquan Wind Power Generation Co., Ltd.*	PRC	Limited liability company	RMB1,667,000,000	Construction, operation and management of wind power generation and related projects	100	%	–

## 9 INVESTMENTS IN SUBSIDIARIES AND LOANS TO SUBSIDIARIES (CONTINUED)

## (a) Investments in subsidiaries (Continued)

## (ii) Subsidiaries acquired from business combinations not under common control or acquired through other ways (Continued)

Name of subsidiary	Country of incorporation	Type of legal entity	Registered capital	Business nature and scope of operations	Percentage of equity interest held	
					Direct	Indirect <sup>1</sup>
Huaneng Yumen Wind Power Generation Co., Ltd.*	PRC	Limited liability company	RMB349,580,000	Construction, operation and management of wind power generation and related projects	100 %	–
Huaneng Wafangdian Wind Power Generation Co., Ltd.	PRC	Limited liability company	RMB50,000,000	Construction, operation and management of wind power generation and related projects	100 %	–
Huaneng Changtu Wind Power Generation Co., Ltd.	PRC	Limited liability company	RMB50,000,000	Construction, operation and management of wind power generation and related projects	100 %	–
Huaneng Rudong Wind Power Generation Co., Ltd.	PRC	Limited liability company	RMB127,500,000	Construction and management of wind power generation projects	90 %	–
Huaneng Guangdong Haimen Port Limited Liability Company	PRC	Limited liability company	RMB93,000,000	Loading warehousing and conveying services, providing facilities services	100 %	–
	PRC		RMB97,650,000		85 %	–

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Huaneng Taicang Port Limited Liability Company		Limited liability company		Port development and construction, coal mixture, machinery leasing and repair			
Kaifeng Xinli Power Generation Co., Ltd.	PRC	Limited liability company	RMB146,920,000	Power generation	–	60	%
Huangeng Zhanhua Cogeneration Limited Liability Company (“Zhanhua Cogeneration”)	PRC	Limited liability company	RMB190,000,000	Production and sales of electricity and steam	100	%	–
Shandong Hualu Sea Transportation Limited Company (“Hualu Sea Transportation”)	PRC	Limited liability company	RMB100,000,000	Cargo transportation along domestic coastal areas	53	%	–

## 9 INVESTMENTS IN SUBSIDIARIES AND LOANS TO SUBSIDIARIES (CONTINUED)

## (a) Investments in subsidiaries (Continued)

## (ii) Subsidiaries acquired from business combinations not under common control or acquired through other ways (Continued)

Name of subsidiary	Country of incorporation	Type of legal entity	Registered capital	Business nature and scope of operations	Percentage of equity interest held	
					Direct	Indirect
Huaneng Qingdao Port Limited Company (“Qingdao Port”)**	PRC	Limited liability company	RMB112,121,000	Loading and conveying warehousing (excluding dangerous goods), conveying, supply of water carriage materials	100 %	–
Huaneng Qingdao Co-generation Limited Liability Company**	PRC	Limited liability company	RMB187,879,000	Construction, operation and management of cogeneration Power plants and related projects, production and sale of electricity and heat	100 %	–
Yunnan Diandong Energy Limited Company (“Diandong Energy”) (Note 39)	PRC	Limited liability company	RMB1,800,000,000	Power generation and coal exploitation	100 %	–
Yunnan Diandong Yuwang Energy Limited Company (“Diandong Yuwang”) (Note 39)	PRC	Limited liability company	RMB1,236,320,000	Power generation and coal exploitation	100 %	–
Huaneng Luoyuan Ludao Pier Limited Company (“Ludao Pier”) (Note 39)	PRC	Limited liability company	RMB70,000,000	Port water supply, cargo loading, warehousing and shipping agent	100 %	–

Huaneng (Fuzhou) Luoyuanwan Pier Limited Company (“Luoyuanwan Pier”) (Note 39)	PRC	Limited liability company	RMB85,000,000	Port management, cargo loading, information advisory; transporting and warehousing in the port, cargo transport and transfer centre operation; port investment and development	58.3 %	–
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## 9 INVESTMENTS IN SUBSIDIARIES AND LOANS TO SUBSIDIARIES (CONTINUED)

## (a) Investments in subsidiaries (Continued)

(ii) Subsidiaries acquired from business combinations not under common control or acquired through other ways  
(Continued)

Name of subsidiary	Country of incorporation	Type of legal entity	Registered capital	Business nature and scope of operations	Percentage of equity interest held	
					Direct	Indirect <sup>1</sup>
Huaneng (Fujian) Harbour Limited Company (“Luoyuanwan Harbour”) (Note 39)	PRC	Limited liability company	RMB652,200,000	Port management, cargo loading, water transport material supply; port investment and development	100 %	–
Huaneng Suzihe Hydropower Development Limited Company	PRC	Limited liability company	RMB50,000,000	Hydropower, aquaculture, agriculture irrigation	100 %	–
Fujian Yingda Property Development Limited Company	PRC	Limited liability company	RMB50,000,000	Real estate development, leasing, real estate agency services, warehousing, loading and conveying	–	100 %
Fujian Xinquanyuan Industrial Limited Company	PRC	Limited liability company	RMB93,200,000	Mineral water production and sale	–	100 %
Enshi City Mawei Valley Hydropower Development Co., Ltd. (“Enshi Hydropower”) (Note 39)	PRC	Limited liability company	RMB101,080,000	Hydroresource development, hydropower, aquaculture	100 %	–
Huaneng Tongxiang Combined Cycle Cogeneration Co., Ltd.***	PRC	Limited liability company	RMB300,000,000	Investment in related industries	95 %	–

Huaneng Eastern Yunnan Energy Mine Construction Co., Ltd. (“Mine Construction Company”)****	PRC	Limited liability company	RMB10,000,000	Constructing and operating of mine and related construction projects	–	100 %	–
SinoSing Power	Singapore	Limited liability company	US\$1,400,020,585	Investment holding	100 %	–	–

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## 9 INVESTMENTS IN SUBSIDIARIES AND LOANS TO SUBSIDIARIES (CONTINUED)

## (a) Investments in subsidiaries (Continued)

(ii) Subsidiaries acquired from business combinations not under common control or acquired through other ways  
(Continued)

Name of subsidiary	Country of incorporation	Type of legal entity	Registered capital	Business nature and scope of operations	Percentage of equity interest held		
					Direct	Indirect	
Tuas Power	Singapore	Limited liability company	\$ S1,338,050,000	Electricity and gas supply and investment holding	–	100	%
Tuas Power Supply Pte Ltd.	Singapore	Limited liability company	\$ S500,000	Power sales	–	100	%
TPG	Singapore	Limited liability company	\$ S1,183,000,001	Power generation and related by products, derivatives; developing power supply resources, operating electricity and power sales	–	100	%
TP Asset Management Pte Ltd.	Singapore	Limited liability company	\$ S2	Render of environment engineering services	–	100	%
TPGS Green Energy Pte Ltd.	Singapore	Limited liability company	\$ S1,000,000	Provision of utility services	–	75	%
New Earth Pte Ltd.	Singapore	Limited liability company	\$ S10,111,841	Consultancy in waste recycling	–	60	%
New Earth Singapore Pte Ltd.	Singapore	Limited liability	\$ S17,816,050	Industrial waste management and	–	63.47	%



		company			recycling		
TP Utilities Pte Ltd.	Singapore	Limited liability company	\$	S160,000,001	Provision of utility services	–	100 %

1 The indirect percentage of equity interest held represents the effective ownership interest of the Company and its subsidiaries.

\* In 2012, Huaneng Jiuquan Wind Power Generation Co., Ltd. was restructured into two entities, namely, Huaneng Jiuquan Wind Power Generation Co., Ltd. and Huaneng Yumen Wind Power Generation Co., Ltd..

\*\* In 2012, Qingdao Port was restructured into two entities, namely, Qingdao Port and Huaneng Qingdao Co-generation Limited Liability Company.

\*\*\* Huaneng Tongxiang Combined Cycle Cogeneration Co., Ltd. was newly established in 2012.

\*\*\*\* Mine Construction Company was newly established in 2012 by Diandong Energy.

9 INVESTMENTS IN SUBSIDIARIES AND LOANS TO SUBSIDIARIES (CONTINUED)

(a) Investments in subsidiaries (Continued)

(ii) Subsidiaries acquired from business combinations not under common control or acquired through other ways  
(Continued)

Note:

(i) Pursuant to an agreement entered into between the Company and another shareholder, the Company is entrusted to vote the 25% voting rights held by the other shareholder as long as the Company remains as the largest shareholder of Beijing Cogeneration. Thus the Company has majority voting rights required by the article of association to control the operation and financial policies of Beijing Cogeneration. Accordingly, the Company has control over Beijing Cogeneration.

(ii) According to its article of association, the other shareholder who holds the remaining equity interests of Shidongkou Power Company entrusts the Company to exercise all its voting rights in relation to the operation and financial policies of Shidongkou Power Company. Accordingly, the Company has control over Shidongkou Power Company.

(iii) Pursuant to the shareholders' agreement, the other shareholder who holds the remaining shares of Yingkou Port entrusts the Company to exercise all its voting rights at shareholders' meetings in relation to the operation and financial policies. Accordingly, the Company has control over Yingkou Port.

In 2012, due to the continuous losses in a number of subsidiaries, impairment loss of RMB1.98 billion was recorded for the investment in the subsidiaries at company level. In 2011, impairment loss of RMB408 million was recorded for the investment in a subsidiary at company level.

(b) Loans to subsidiaries

As at 31 December 2012, the unsecured current portion of loans to subsidiaries amounted to approximately RMB26.14 billion (2011: RMB21.41 billion) with annual interest rates ranging from 5.60% to 7.22% (2011: from 4.20% to 7.22%). The unsecured non-current portion loans to subsidiaries amounted to approximately RMB1.40 billion (2011: RMB1.60 billion) with annual interest rates ranging from 3.72% to 5.20% (2011: 3.72% to 7.32%). Since all interest rates were similar to the interest rates offered by the market, the carrying value of the loans to subsidiaries approximated their fair value.

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## AVAILABLE-FOR-SALE FINANCIAL ASSETS

	The Company and its subsidiaries		The Company	
	2012	2011	2012	2011
Beginning of the year	2,301,167	2,223,814	2,289,054	2,211,701
Investment in Shanxi Xishan Jinxing Energy Co., Ltd. ("Jinxing Energy")	120,300	49,000	120,300	49,000
Investment in Taiyuan Coal Trading Center	–	40,000	–	40,000
Investment in Ganlong Double-track Railway Co., Ltd.	500,000	300,000	500,000	300,000
Fair value change gain/(loss)	131,355	(311,647 )	131,355	(311,647 )
End of the year	3,052,822	2,301,167	3,040,709	2,289,054

Available-for-sale financial assets include the following:

	The Company and its subsidiaries		The Company	
	2012	2011	2012	2011
<b>Listed securities</b>				
257.56 million shares (representing 1.56% shareholding) of Yangtze Power	1,769,435	1,638,080	1,769,435	1,638,080
<b>Unlisted securities</b>				
10% of Jinxing Energy	431,274	310,974	431,274	310,974
9.09% of Ganlong Double-track Railway Co., Ltd.	800,000	300,000	800,000	300,000
Others	52,113	52,113	40,000	40,000
	1,283,387	663,087	1,271,274	650,974
<b>Total</b>	<b>3,052,822</b>	<b>2,301,167</b>	<b>3,040,709</b>	<b>2,289,054</b>

There were no impairment provisions on available-for-sale financial assets in 2012 and 2011.

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## LAND USE RIGHTS

Details of land use rights are as follows:

	The Company and its subsidiaries		The Company	
	2012	2011	2012	2011
Outside Hong Kong, held on:				
Leases of between 10 to 50 years	4,250,317	4,293,876	1,480,257	1,464,088
Leases of over 50 years	46,866	47,698	16,998	17,274
<b>Total</b>	<b>4,297,183</b>	<b>4,341,574</b>	<b>1,497,255</b>	<b>1,481,362</b>

All the lands located in the PRC and Singapore are leased from respective governments according to corresponding regulations applied across the countries. The Company and its subsidiaries will renew the leases according to the operation requirements of the Company and its subsidiaries and the related regulations of respective countries.

As at 31 December 2012, no land use right was secured to any bank loan (2011: nil).

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## POWER GENERATION LICENCE

The movements in the carrying amount of power generation licence during the years are as follows:

	2012	2011
Beginning of the year	3,904,056	4,105,518
Movement:		
Opening net book value	3,904,056	4,105,518
Currency translation differences	180,450	(201,462 )
Closing net book value	4,084,506	3,904,056
End of the year	4,084,506	3,904,056

The Company and its subsidiaries acquired the power generation licence in connection with the acquisition of Tuas Power. The power generation licence was initially recognized at fair value at the acquisition date. Tuas Power operates power plants in Singapore pursuant to the licence granted by the Energy Market Authority for a period of 30 years from 2003 until 2032. The licence was extended to 2044 during 2011 with minimal costs and is subject to further renewal. The Company and its subsidiaries expect that the applicable rules and regulations surrounding the renewal can be complied with based on the current market framework. The Company and its subsidiaries assessed the useful life of the power generation licence at 31 December 2012 as indefinite and therefore the license is not amortized.

## Impairment test of power generation licence

Power generation licence belongs to and has been assigned to Tuas Power, a CGU. The recoverable amount of the CGU is determined based on value-in-use calculation. Management prepared the impairment model based on budget approved by the Board and various factors, such as inflation, power demand and other factors as well as the terminal value.

## Key assumptions used for value-in-use calculation:

Management has assessed that, amongst all assumptions used in the value-in-use calculations, the most sensitive key assumption is the discount rate which was arrived at based on weighted average cost of capital. The discount rate applied in determining the recoverable amounts of the CGU was 6.72% (2011: 7.42%). An absolute change in the discount rate of 0.5% (2011: 0.5%) would result in approximately RMB1,767 million (2011: RMB1,689 million) change in the recoverable amount of the CGU.

Other key assumptions include projection of its business performance based on estimation of future electricity tariffs, volume of electricity sold, fuel prices and other operating expenses, which are largely with reference to advices from the financial advisor engaged and an external study conducted by industry specialist to project the market demand and supply situation, as well as forward trend of electricity prices. On average, the growth and inflation rates of 6% and 2.1% (2011: 3.8% and 2.1%) were used in consideration of future expansion plans and new development projects as part of the long-term strategy.

Based on the assessments, no impairment was provided for the power generation licence.

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## DERIVATIVE FINANCIAL INSTRUMENTS

Details of derivative financial instruments are as follows:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
<b>Derivative financial assets</b>				
– Hedging instruments for cash flow hedge (fuel swap contracts)	66,599	98,976	–	–
– Hedging instruments for cash flow hedge (exchange forward contracts)	1,106	64,642	–	–
– Financial instruments at fair value through profit or loss (fuel swap contracts)	1,286	226	–	–
<b>Total</b>	<b>68,991</b>	<b>163,844</b>	<b>–</b>	<b>–</b>
<b>Less: non-current portion</b>				
– Hedging instruments for cash flow hedge (fuel swap contracts)	13,532	3,756	–	–
– Hedging instruments for cash flow hedge (exchange forward contracts)	191	12,633	–	–
<b>Total non-current portion</b>	<b>13,723</b>	<b>16,389</b>	<b>–</b>	<b>–</b>
<b>Current portion</b>	<b>55,268</b>	<b>147,455</b>	<b>–</b>	<b>–</b>
<b>Derivative financial liabilities</b>				
– Hedging instruments for cash flow hedge (fuel swap contracts)	47,033	35,118	–	–
– Hedging instruments for cash flow hedge (exchange forward contracts)	56,576	10,800	–	–
– Hedging instruments for cash flow hedge (interest rate swap contract)	820,823	567,687	210,137	202,333
– Financial instruments at fair value through profit or loss (fuel swap contracts)	1,214	142	–	–
<b>Total</b>	<b>925,646</b>	<b>613,747</b>	<b>210,137</b>	<b>202,333</b>
<b>Less: non-current portion</b>				
– Hedging instruments for cash flow hedge (fuel swap contracts)	6,979	10,055	–	–
– Hedging instruments for cash flow hedge (exchange forward contracts)	9,203	456	–	–
– Hedging instruments for cash flow hedge (interest rate swap contract)	820,823	567,687	210,137	202,333

Total non-current portion	837,005	578,198	210,137	202,333
Current portion	88,641	35,549	–	–

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## DERIVATIVE FINANCIAL INSTRUMENTS (CONTINUED)

For the years ended 31 December 2011 and 2012, no material ineffective portion was recognized in the profit or loss arising from cash flow hedges.

The Company uses an interest rate swap contract to hedge its interest rate risk against one of its variable rate loans. The notional principal amount of the outstanding interest rate swap contract at 31 December 2012 was US\$336 million (RMB equivalents of RMB2,111.93 million) (2011: US\$368 million (RMB equivalents of RMB2,318.73 million)). Through this arrangement, the Company pays an annual fixed interest of 4.40% while the original annual floating interest expense (6-month LIBOR+1%) attached in the loan is offset by the receivable leg of the interest rate swap. Such a swap is settled on a quarterly basis from September 2009 to September 2019.

TPG uses exchange forward contracts to hedge its foreign exchange risk arising from highly probable forecast purchase transactions. It also uses fuel oil swap contracts to hedge its fuel price risk arising from highly probable forecast purchases of fuel purchases.

TPG also uses various interest rate swap contracts to hedge floating semi-annual interest payments on borrowings with maturity dates up to 2020. The notional principal amount of these outstanding interest rate swap contracts at 31 December 2012 was S\$1,564 million (RMB equivalents of RMB7,965.30 million) (2011: S\$1,564 million (RMB equivalents of RMB7,613.76 million)). Through these arrangements, TPG swaps original floating interest (6-month SOR) to annual fixed interest determined by individual swap contracts. Such swap contracts are settled semi-annually from September 2011 to March 2020. As at 31 December 2012, these interest rate swap contracts are carried on the balance sheet as financial liability of RMB610.69 million (2011: financial liability of RMB365.36 million).

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## DERIVATIVE FINANCIAL INSTRUMENTS (CONTINUED)

The analysis of contractual cash inflows/(outflows) of major derivative financial instruments are as follows:

	Carrying amounts	Contractual cash flows	Cash flows Within 1 year	Between 1 and 5 years	After 5 years
As at 31 December 2012					
Derivative financial assets					
Fuel derivatives used for hedging (net settlement)	66,599	66,599	53,067	13,532	–
Forward exchange contracts used for hedging					
– inflows		157,613	103,183	54,430	–
– outflows		(156,386 )	(102,220 )	(54,166 )	–
	1,106	1,227	963	264	–
Fuel derivatives that do not qualify as hedges (net settlement)	1,286	1,286	1,286	–	–
Derivative financial liabilities					
Fuel derivatives used for hedging (net settlement)	47,033	(47,033 )	(40,053 )	(6,980 )	–
Forward exchange contracts used for hedging					
– inflows		3,867,604	3,452,919	414,685	–
– outflows		(3,922,039)	(3,498,963)	(423,076 )	–
	56,576	(54,435 )	(46,044 )	(8,391 )	–
Net-settled interest rate swaps used for hedging					
– net cash inflows/(outflows)	820,823	(1,054,458)	(209,866 )	(666,008 )	(178,584 )
Fuel derivatives that do not qualify as hedges (net settlement)	1,214	(1,214 )	(1,214 )	–	–

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## DERIVATIVE FINANCIAL INSTRUMENTS (CONTINUED)

	Cash flows Carrying amounts	Contractual cash flows	Within 1 year	Between 1 and 5 years	After 5 years
As at 31 December 2011					
Derivative financial assets					
Fuel derivatives used for hedging (net settlement)	98,976	98,976	95,220	3,756	–
Forward exchange contracts used for hedging					
– inflows		2,993,086	2,589,057	404,029	–
– outflows		(2,926,888)	(2,537,998)	(388,890 )	–
	64,642	66,198	51,059	15,139	–
Fuel derivatives that do not qualify as hedges (net settlement)	226	226	226	–	–
Derivative financial liabilities					
Fuel derivatives used for hedging (net settlement)	35,118	(35,118 )	(25,063 )	(10,055 )	–
Forward exchange contracts used for hedging					
– inflows		1,503,309	1,457,508	45,801	–
– outflows		(1,513,664)	(1,467,733)	(45,931 )	–
	10,800	(10,355 )	(10,225 )	(130 )	–
Net-settled interest rate swaps used for hedging					
– net cash inflows/(outflows)	567,687	(591,912 )	(216,818 )	(444,208 )	69,114
Fuel derivatives that do not qualify as hedges (net settlement)	142	(142 )	(142 )	–	–

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## GOODWILL

The movements in the carrying amount of goodwill during the years are as follows:

	The Company and its subsidiaries	The Company
As at 31 December 2010		
Cost	12,776,404	108,938
Accumulated impairment loss	(135,500 )	–
Net book value	12,640,904	108,938
Movement in 2011:		
Opening net book value	12,640,904	108,938
Acquisitions (Note 39)	2,134,275	–
Disposal	(34,331 )	–
Impairment charge	(291,734 )	–
Currency translation differences	(558,935 )	–
Closing net book value	13,890,179	108,938
As at 31 December 2011		
Cost	14,317,413	108,938
Accumulated impairment loss	(427,234 )	–
Net book value	13,890,179	108,938
Movement in 2012:		
Opening net book value	13,890,179	108,938
Impairment charge	(107,735 )	–
Currency translation differences	500,639	–
Adjustment on 2011 acquisitions*	134,460	–
Closing net book value	14,417,543	108,938
As at 31 December 2012		
Cost	14,952,512	108,938
Accumulated impairment loss	(534,969 )	–
Net book value	14,417,543	108,938

\* Adjustment on 2011 acquisitions represents the adjustment on purchase price allocation in connection with the acquisition of Diandong Yuwang and Diandong Energy.



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## GOODWILL (CONTINUED)

## Impairment tests for goodwill

Goodwill is allocated to the CGUs of the Company and its subsidiaries.

The carrying amounts of major goodwill allocated to individual CGUs are as follows:

	2012	2011
PRC Power segment:		
Yueyang Power Company	100,907	100,907
Pingliang Power Company	–	107,735
Beijing Cogeneration	95,088	95,088
Yangliuqing Cogeneration	151,459	151,459
Diandong Energy	1,307,558	1,197,574
Diandong Yuwang	438,883	414,407
Singapore segment:		
Tuas Power	11,420,177	10,919,538
All other segments:		
Qingdao Port	107,002	107,002
Luoyuanwan Harbour	309,270	309,270

The recoverable amount of a CGU is determined based on value-in-use calculations. For domestic CGUs, these calculations use cash flow projections based on management's financial budgets covering periods of no more than five years. The Company expects cash flows beyond such periods will be similar to that of the respective final forecast years on existing production capacity. In connection to the goodwill attached to Tuas Power, management has based their assessment of recoverable amount on value-in-use calculations. Management prepared the impairment model based on budget approved by the Board and various factors, such as inflation, power demand and other factors as well as the terminal value. On average, the growth and inflation rates of 6.0% and 2.1%, were used in consideration of future expansion plans and new development projects as part of the long-term strategy.

Discount rates used for value-in-use calculations:

Yueyang Power Company	8.14%
Pingliang Power Company	8.14%
Beijing Cogeneration	8.14%
Yangliuqing Cogeneration	8.14%
Diandong Energy	8.14%
Diandong Yuwang	8.14%
Tuas Power	6.72%
Qingdao Port	8.84%
Luoyuanwan Harbor	8.84%

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## GOODWILL (CONTINUED)

Impairment tests for goodwill (Continued)

Key assumptions used for value-in-use calculations:

Key assumptions applied in the impairment tests include the expected tariff rates, demands of electricity in specific regions where these power plants are located, fuel cost and the expected throughput and price of the related port. Management determined these key assumptions based on past performance and its expectations on market development. The discount rates used reflect specific risks relating to individual CGUs. Management believes that any reasonably possible change in any of these key assumptions on which recoverable amounts of individual CGUs are based may cause carrying amounts of individual CGUs to exceed their recoverable amounts. Please refer to Notes 4 and 12 for details of respective sensitivity analysis on domestic and oversea CGU impairment testing.

In 2012, no goodwill was impaired except for the goodwill arising from acquisition of Pingliang Power Company. The factors leading to the goodwill impairment were the continuous deterioration in utilization and the competition from non-coal fired power generation plants. As a result, management expects ongoing loss of Pingliang Power Company will be incurred in the future. A full impairment loss of the CGU's goodwill was provided based on the result of impairment assessment.

In 2011, based on the assessments, except for the goodwill arising from acquisition of Zhanhua Cogeneration, no goodwill was impaired.

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## OTHER NON-CURRENT ASSETS

Details of other non-current assets are as follows:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
Intangible assets*	415,524	376,859	68,315	49,094
Deferred employee housing subsidies	6,728	8,975	–	–
Prepayments for switchhouse and metering station	13,760	14,408	–	–
Prepaid connection fees	115,284	135,101	–	–
Prepaid territorial waters use right**	814,813	828,918	136,409	139,457
Finance lease receivables	589,136	619,528	–	–
VAT recoverable	540,505	250,041	–	–
Others	587,144	306,274	15,163	18,103
Total	3,082,894	2,540,104	219,887	206,654

\* The intangible assets consist of software, patented technologies and land use rights granted by government. In 2012, there is no impairment provided on patented technology (2011: RMB15.66 million).

\*\* The prepaid territorial waters use right mainly consists of territorial waters use right of Luoyuanwan Pier, Luoyuanwan Harbour and Ludao Pier. The prepaid territorial waters use right are amortized over the contractual

period of 50 years.

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## OTHER NON-CURRENT ASSETS (CONTINUED)

As at 31 December 2012, territorial waters use right with net book value amounting to RMB84.40 million (2011: RMB86.37 million) was secured to a bank as collateral against a long-term loan of RMB97 million (2011: RMB78 million) (Note 22).

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## INVENTORIES

Inventories comprised:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
Fuel (coal and oil) for power generation	5,648,973	6,312,592	1,856,867	2,065,167
Material and supplies	1,555,763	1,392,753	656,886	668,718
	7,204,736	7,705,345	2,513,753	2,733,885
Less: provision for inventory obsolescence	(182,352 )	(179,724 )	(25,504 )	(35,634 )
	7,022,384	7,525,621	2,488,249	2,698,251

Movements of provision for inventory obsolescence during the years are analyzed as follows:

	The Company and its subsidiaries		The Company	
	2012	2011	2012	2011
Beginning of the year	(179,724 )	(191,352 )	(35,634 )	(38,004 )
Provision	(14,612 )	(1 )	(791 )	–
Reversal	2,457	3,354	–	–
Write-offs	14,625	2,408	10,921	2,370
Currency translation differences	(5,098 )	5,867	–	–
End of the year	(182,352 )	(179,724 )	(25,504 )	(35,634 )



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## OTHER RECEIVABLES AND ASSETS

Other receivables and assets comprised the following:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
Prepayments for inventories	780,042	901,560	433,874	401,126
Prepayments for pre-construction cost	415,621	243,853	2,693	22,195
Prepaid income tax	14,850	101,959	–	78,867
Others	127,705	106,536	22,859	13,707
<b>Total prepayments</b>	<b>1,338,218</b>	<b>1,353,908</b>	<b>459,426</b>	<b>515,895</b>
Staff advances	14,153	17,877	6,106	7,539
Dividends receivable	50,000	120,118	277,908	270,470
Financial lease receivables	13,746	22,061	–	–
Fuel receivables	211,987	208,051	198,453	–
Interest receivables	65	17	115,690	59,076
Others	448,755	891,432	1,048,655	1,086,955
<b>Subtotal other receivables</b>	<b>738,706</b>	<b>1,259,556</b>	<b>1,646,812</b>	<b>1,424,040</b>
Less: provision for doubtful accounts	(28,641 )	(26,505 )	(19,916 )	(17,780 )
<b>Total other receivables, net</b>	<b>710,065</b>	<b>1,233,051</b>	<b>1,626,896</b>	<b>1,406,260</b>
VAT recoverable	942,112	2,013,291	318,818	480,560
<b>Gross total</b>	<b>3,019,036</b>	<b>4,626,755</b>	<b>2,425,056</b>	<b>2,420,495</b>
<b>Net total</b>	<b>2,990,395</b>	<b>4,600,250</b>	<b>2,405,140</b>	<b>2,402,715</b>

Please refer to Note 34 for details of other receivables and assets due from the related parties.

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## OTHER RECEIVABLES AND ASSETS (CONTINUED)

The gross amounts of other receivables of the Company and its subsidiaries are denominated in the following currencies:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
RMB	667,151	1,161,340	1,646,812	1,424,040
S\$ (RMB equivalent)	68,956	59,966	–	–
US\$ (RMB equivalent)	2,599	38,250	–	–
<b>Total</b>	<b>738,706</b>	<b>1,259,556</b>	<b>1,646,812</b>	<b>1,424,040</b>

Other receivables and assets do not contain significant impaired assets. Movements of provision for doubtful accounts during the years are analyzed as follows:

	The Company and its subsidiaries		The Company	
	2012	2011	2012	2011
Beginning of the year	(26,505 )	(42,045 )	(17,780 )	(17,781 )
Acquisitions	–	(1,355 )	–	–
Provision	(2,774 )	–	(2,774 )	–
Reversal	638	16,895	638	1
<b>End of the year</b>	<b>(28,641 )</b>	<b>(26,505 )</b>	<b>(19,916 )</b>	<b>(17,780 )</b>

As at 31 December 2012, there was no indication of impairment relating to other receivables which were not past due and no provision was made (2011: nil). Other receivables of RMB105 million (2011: RMB91 million) were past due but not impaired. These amounts mainly represent funds deposited in a government agency and are fully recoverable. The ageing analysis of these other receivables was as follows:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
Within 1 year	13,381	–	5,199	–
Between 1 to 2 years	21,026	7,434	6	–
Between 2 to 3 years	202	10,374	6	5,892
Over 3 years	70,483	72,703	20,700	3,324
	<b>105,092</b>	<b>90,511</b>	<b>25,911</b>	<b>9,216</b>



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## OTHER RECEIVABLES AND ASSETS (CONTINUED)

As at 31 December 2012, other receivables of RMB34 million which were past due (2011: RMB33 million) were impaired and a provision of RMB29 million (2011: RMB20 million) has been provided against the receivables. The individually impaired receivables have been long outstanding without any repayment agreements in place or possibility of renegotiation. It was assessed that a substantial portion of the receivables is not expected to be recovered. The ageing of these other receivables was as follows:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
Within 1 year	807	–	751	–
Between 1 to 2 years	94	–	–	–
Between 2 to 3 years	233	–	–	–
Over 3 years	32,501	32,591	22,730	24,170
	33,635	32,591	23,481	24,170

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## ACCOUNTS RECEIVABLE

Accounts receivable comprised the following:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
Accounts receivable	14,953,794	14,838,513	6,581,604	6,542,467
Notes receivable	357,589	563,363	41,285	225,741
	15,311,383	15,401,876	6,622,889	6,768,208
Less: provision for doubtful accounts	(11,419 )	(24,033 )	–	–
	15,299,964	15,377,843	6,622,889	6,768,208

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## ACCOUNTS RECEIVABLE (CONTINUED)

The gross amounts of account receivables of the Company and its subsidiaries are denominated in the following currencies:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
RMB	14,111,899	13,885,301	6,622,889	6,768,208
S\$ (RMB equivalent)	1,188,323	1,493,043	–	–
US\$ (RMB equivalent)	11,161	23,532	–	–
<b>Total</b>	<b>15,311,383</b>	<b>15,401,876</b>	<b>6,622,889</b>	<b>6,768,208</b>

The Company and its subsidiaries usually grant about one month's credit period to local power grid customers from the end of the month in which the sales are made, except for SinoSing Power which provides credit period that ranged from 5 to 60 days from the dates of billings. Certain accounts receivables of Singapore subsidiaries are backed by bankers' guarantees and/or deposit from customers. It is not practicable to determine the fair value of the collaterals that correspond to these accounts receivables.

As at 31 December 2012, accounts receivable of the Company and its subsidiaries of approximately RMB6,319 million (2011: RMB2,771 million) was secured to a bank as collateral against short-term loans of RMB6,250 million (2011: RMB2,490 million) (Note 28).

As at 31 December 2012, notes receivable of the Company and its subsidiaries of approximately RMB3 million (2011: RMB15 million) was secured to a bank as collateral against notes payable of RMB2 million (2011: RMB11 million) (Note 25).

Movements of provision for doubtful accounts during the years are analyzed as follows:

	The Company and its subsidiaries		The Company	
	2012	2011	2012	2011
Beginning of the year	(24,033 )	(25,008 )	–	–
Acquisition	–	(3,237 )	–	–
Provision	(62 )	(79 )	–	–
Reversal	12,508	2,931	–	–
Write-off	28	393	–	–
Currency translation differences	140	967	–	–
<b>End of the year</b>	<b>(11,419 )</b>	<b>(24,033 )</b>	<b>–</b>	<b>–</b>



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## ACCOUNTS RECEIVABLE (CONTINUED)

Ageing analysis of accounts receivable was as follows:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
Within 1 year	15,236,883	15,335,719	6,622,882	6,728,201
Between 1 to 2 years	49,693	40,158	2	40,007
Between 2 to 3 years	12,951	219	5	–
Over 3 years	11,856	25,780	–	–
	15,311,383	15,401,876	6,622,889	6,768,208

As at 31 December 2012, the maturity period of the notes receivable ranged from 1 to 6 months (2011: from 1 to 6 months).

As at 31 December 2012, there was no indication of impairment relating to accounts receivable which were not past due and no provision was made. As at 31 December 2012, there is no past due but not impaired accounts receivable (2011: RMB14 million).

As at 31 December 2012, accounts receivable of RMB11 million (2011: RMB24 million) were impaired. The amount of the provision was RMB11 million as at 31 December 2012 (2011: RMB24 million). The ageing of these accounts receivable was as follows:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
Less than 1 year	27	31	–	–
Between 1 to 2 years	–	170	–	–
Between 2 to 3 years	7	50	–	–
Over 3 years	11,385	23,782	–	–
	11,419	24,033	–	–

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## SHARE CAPITAL

	2012		The Company 2011	
	Number of shares	Share capital RMB'000	Number of shares	Share capital RMB'000
As at 1 January and 31 December				
A shares	10,500,000,000	10,500,000	10,500,000,000	10,500,000
Overseas listed foreign shares	3,555,383,440	3,555,383	3,555,383,440	3,555,383
<b>Total</b>	<b>14,055,383,440</b>	<b>14,055,383</b>	<b>14,055,383,440</b>	<b>14,055,383</b>

All shares issued by the Company were fully paid. The holders of domestic shares and overseas listed foreign shares, with minor exceptions, are entitled to the same economic and voting rights. Of the issued A shares 500,000,000 shares (2011: 7,298,283,321 shares) are still within the lock-up period.

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## SURPLUS RESERVES

According to the Company Law of the PRC, the Company's articles of association and board resolutions, the Company appropriates 10% of each year's net profit under PRC GAAP to the statutory surplus reserve. The Company has the option to cease provision for such reserve when it reaches 50% of the registered share capital. Upon the approval from relevant authorities, this reserve can be used to make up any losses incurred or to increase share capital. Except for offsetting against losses, this reserve cannot fall below 25% of the share capital after being used to increase share capital.

As the statutory surplus reserve has exceeded 50% of the registered share capital, there is no appropriation of statutory surplus reserve in 2012 (2011: RMB127 million).

According to the Company's articles of association and board resolutions on 20 March 2012, the Company intends to appropriate 10% of net profit for the year ended 31 December 2011 attributable the Company's shareholders under PRC GAAP to the statutory surplus reserve, amounting to RMB127 million, of which RMB72 million is subject to the approval of the shareholders at the annual general meeting. Therefore, only RMB55 million of the aforementioned appropriation of statutory surplus reserve is recorded for the year ended 31 December 2011.

On 12 June 2012, upon the approval from the annual general meeting of the shareholders, the Company appropriated RMB72 million to the statutory surplus reserve. Such appropriation was recorded in the consolidated financial statements for the year ended 31 December 2012.

Appropriation of discretionary surplus reserve is proposed by the Board of Directors, and approved by the general meeting of shareholders. This reserve can be used to make up any losses incurred in prior years or to increase the share capital after obtaining relevant approvals. For the years ended 31 December 2011 and 2012, no provision was made to the discretionary surplus reserve.



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## SURPLUS RESERVES (CONTINUED)

According to the articles of association, distributable profit of the Company is derived based on the lower of amounts determined in accordance with (a) PRC GAAP and (b) IFRS. The amount of distributable profit resulting from the current year operation for the year ended 31 December 2012 was approximately RMB5.51 billion (2011: RMB1.13 billion). The cumulative balance of distributable profit as at 31 December 2012 was approximately RMB17.306 billion (2011: RMB12.372 billion).

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## DIVIDENDS

On 19 March 2013, the Board of Directors proposed a cash dividend of RMB0.21 per share, totaling approximately RMB2,952 million. This proposal is subject to the approval of the shareholders at the annual general meeting.

On 12 June 2012, upon the approval from the annual general meeting of the shareholders, the Company declared 2011 final dividend of RMB0.05 (2010 final: RMB0.20) per ordinary share, which totaled approximately RMB703 million (2010 final: RMB2,807 million).

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## LONG-TERM LOANS

Long-term loans comprised the following:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
Loans from Huaneng Group (a)	800,000	800,000	–	–
Bank loans (b)	80,386,702	86,952,527	25,999,824	32,215,534
Other loans (c)	434,825	6,232,615	267,000	5,800,000
	81,621,527	93,985,142	26,266,824	38,015,534
Less: Current portion of long-term loans	(9,056,703 )	(14,140,270)	(4,084,566 )	(9,685,608 )
Total	72,564,824	79,844,872	22,182,258	28,329,926

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## LONG-TERM LOANS (CONTINUED)

## (a) Loans from Huaneng Group

Details of loans from Huaneng Group of the Company and its subsidiaries are as follows:

	The Company and its subsidiaries As at 31 December 2012				
	Original currency '000	RMB equivalent	Less:		Annual interest rate
			Current portion	Non-current portion	
Loans from Huaneng Group					
Unsecured					
RMB					
– Fixed rate	800,000	800,000	800,000	–	4.05%-4.60%

	The Company and its subsidiaries As at 31 December 2011				
	Original currency '000	RMB equivalent	Less:		Annual interest rate
			Current portion	Non-current portion	
Loans from Huaneng Group					
Unsecured					
RMB					
– Fixed rate	800,000	800,000	–	800,000	4.05%-4.60%

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## LONG-TERM LOANS (CONTINUED)

(b) Bank loans

Details of bank loans of the Company and its subsidiaries are as follows:

	The Company and its subsidiaries As at 31 December 2012					Annual interest rate
	Original currency '000	RMB equivalent	Less: Current portion	Non-current portion		
Bank loans						
Secured						
US\$						
– Variable rate	2,462	15,478	–	15,478	2.74	%
RMB						
– Fixed rate	12,603,780	12,603,780	(1,057,020)	11,546,760	5.90%-6.55	%
Unsecured						
RMB						
– Fixed rate	47,892,706	47,892,706	(6,266,734)	41,625,972	4.51%-7.05	%
US\$						
– Fixed rate	13,026	81,875	(32,558 )	49,317	6.36	%
– Variable rate	677,738	4,259,924	(436,008 )	3,823,916	0.54%-1.79	%
S\$						
– Variable rate	2,924,883	14,896,139	(386,668 )	14,509,471	2.15	%
€						
– Fixed rate	76,560	636,800	(77,715 )	559,085	2.00%-2.15	%
Total		80,386,702	(8,256,703)	72,129,999		

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## LONG-TERM LOANS (CONTINUED)

(b)	Bank loans (Continued)					Annual interest rate
	The Company and its subsidiaries As at 31 December 2011					
	Original currency '000	RMB equivalent	Less: Current portion	Non-current portion		
Bank loans						
Secured						
US\$						
– Variable rate	746	4,700	–	4,700	2.74	%
RMB						
– Fixed rate	13,603,650	13,603,650	(826,000 )	12,777,650	5.35%-8.65	%
Unsecured						
RMB						
– Fixed rate	53,130,490	53,130,490	(6,918,810)	46,211,680	3.51%-7.40	%
US\$						
– Fixed rate	36,176	227,941	(145,865 )	82,076	5.95%-6.60	%
– Variable rate	741,893	4,674,593	(437,077 )	4,237,516	0.51%-1.79	%
S\$						
– Variable rate	3,001,286	14,609,962	(369,585 )	14,240,377	1.94%-2.15	%
€						
– Fixed rate	85,904	701,191	(76,267 )	624,924	2.00%-2.15	%
Total		86,952,527	(8,773,604)	78,178,923		

As at 31 December 2012, a long-term loan of RMB97 million is secured by territorial waters use right with net book value amounting to RMB84.40 million (2011: a long-term loan of RMB78 million is secured by territorial waters use right with net book value amounting to RMB86.37 million) (Note 15).

As at 31 December 2012, a long-term loan of RMB149 million is secured by certain property, plant and equipment (2011: RMB169 million) (Note 7).

As at 31 December 2012, long-term loans of RMB12,358 million are secured by future electricity revenue (2011: RMB13,094 million).

As at 31 December 2011, long-term loans of a subsidiary of the Company of RMB234.65 million are secured by property, plant and equipment with net book value amounting to RMB332.43 million (Note 7) and future electricity revenue of the subsidiary of the Company. These loans are also guaranteed by former shareholders of the subsidiary of the Company. These loans were repaid in 2012.

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## LONG-TERM LOANS (CONTINUED)

## (b) Bank loans (Continued)

As at 31 December 2011, a long-term loan of a subsidiary of the Company of RMB27.50 million is secured by listed shares held by a former shareholder of the subsidiary of the Company. This loan was repaid in September 2012.

As at 31 December 2012, a long-term loan of a subsidiary of the Company of RMB15.48 million is secured by all assets of the subsidiary. (2011: RMB4.70 million).

Details of bank loans of the Company are as follows:

	Original currency '000	RMB equivalent	The Company As at 31 December 2012		Annual interest rate
			Less: Current portion	Non-current portion	
Bank loans					
Unsecured					
RMB					
– Fixed rate	21,658,025	21,658,025	(3,616,000)	18,042,025	4.51%-6.35%
US\$					
– Fixed rate	13,026	81,875	(32,558 )	49,317	6.36 %
– Variable rate	677,738	4,259,924	(436,008 )	3,823,916	0.54%-1.79%
Total		25,999,824	(4,084,566)	21,915,258	

	Original currency '000	RMB equivalent	The Company As at 31 December 2011		Annual interest rate
			Less: Current portion	Non-current portion	
Bank loans					
Unsecured					
RMB					
– Fixed rate	27,313,000	27,313,000	(3,836,000)	23,477,000	3.51%-7.05%
US\$					
– Fixed rate	36,176	227,941	(145,865 )	82,076	5.95%-6.60%
– Variable rate	741,893	4,674,593	(437,077 )	4,237,516	0.51%-1.79%
Total		32,215,534	(4,418,942)	27,796,592	



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## LONG-TERM LOANS (CONTINUED)

(c) Other loans

Details of other loans of the Company and its subsidiaries are as follows:

	The Company and its subsidiaries As at 31 December 2012				
	Original currency '000	RMB equivalent	Less:		Annual interest rate
			Current portion	Non-current portion	
Other loans					
Unsecured					
RMB					
– Fixed rate	417,000	417,000	–	417,000	5.54%-5.84%
S\$					
– Variable rate	3,500	17,825	–	17,825	4.25%
Total		434,825	–	434,825	

	The Company and its subsidiaries As at 31 December 2011				
	Original currency '000	RMB equivalent	Less:		Annual interest rate
			Current portion	Non-current portion	
Other loans					
Secured					
RMB					
– Fixed rate	800,000	800,000	(266,666)	533,334	6.65%
Unsecured					
RMB					
– Fixed rate	5,400,000	5,400,000	(5,100,000)	300,000	4.20%-6.65%
S\$					
– Variable rate	6,700	32,615	–	32,615	4.25%
Total		6,232,615	(5,366,666)	865,949	

As at 31 December 2012, the balance of other long-term loans drawn from Huaneng Finance amounted to approximately RMB417 million (2011: RMB100 million) with annual interest rate of 5.54%-5.84% (2011: 4.86%-6.10%).

As at 31 December 2011, one of the long-term loans of RMB800 million is secured by right of income derived from four power generation units of the Company. This loan was repaid in July 2012.





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## LONG-TERM LOANS (CONTINUED)

## (c) Other loans (Continued)

Details of other loans of the Company are as follows:

	Original currency '000	RMB equivalent	The Company As at 31 December 2012		Annual interest rate
			Less: Current portion	Non-current portion	
Other loans					
Unsecured					
RMB					
– Fixed rate	267,000	267,000	–	267,000	5.54 %

	Original currency '000	RMB equivalent	The Company As at 31 December 2011		Annual interest rate
			Less: Current portion	Non-current portion	
Other loans					
Unsecured					
RMB					
– Fixed rate	5,800,000	5,800,000	(5,266,666)	533,334	4.20%-6.65 %

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## LONG-TERM LOANS (CONTINUED)

The maturity of long-term loans is as follows:

	The Company and its subsidiaries					
	Loans from Huaneng Group As at 31 December		Bank loans As at 31 December		Other loans As at 31 December	
	2012	2011	2012	2011	2012	2011
1 year or less	800,000	–	8,256,703	8,773,604	–	5,366,666
More than 1 year but not more than 2 years	–	800,000	13,918,824	9,334,161	–	566,667
More than 2 years but no more than 3 years	–	–	7,496,615	15,290,895	417,000	266,667
More than 3 years but no more than 4 years	–	–	5,052,298	4,388,884	–	–
More than 4 years but not more than 5 years	–	–	7,166,031	5,452,849	–	–
More than 5 years	–	–	38,496,231	43,712,134	17,825	32,615
	800,000	800,000	80,386,702	86,952,527	434,825	6,232,615
Less: amount due within 1 year included under current liabilities	(800,000 )	–	(8,256,703 )	(8,773,604 )	–	(5,366,666)
Total	–	800,000	72,129,999	78,178,923	434,825	865,949

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## LONG-TERM LOANS (CONTINUED)

	The Company			
	Bank loans		Other loans	
	As at 31 December		As at 31 December	
	2012	2011	2012	2011
1 year or less	4,084,566	4,418,942	–	5,266,666
More than 1 year but not more than 2 years	9,204,091	3,857,714	–	266,667
More than 2 years but not more than 3 years	2,981,883	10,882,714	267,000	266,667
More than 3 years but not more than 4 years	967,238	1,234,943	–	–
More than 4 years but not more than 5 years	3,108,546	1,898,209	–	–
More than 5 years	5,653,500	9,923,012	–	–
	25,999,824	32,215,534	267,000	5,800,000
Less: amount due within 1 year included under current liabilities	(4,084,566)	(4,418,942)	–	(5,266,666)
Total	21,915,258	27,796,592	267,000	533,334

The analysis of the above is as follows:

	The Company and its subsidiaries		The Company	
	As at 31 December		As at 31 December	
	2012	2011	2012	2011
<b>Loans from Huaneng Group</b>				
– Wholly repayable within five years	800,000	800,000	–	–
<b>Bank loans</b>				
– Wholly repayable within five years	20,775,428	27,610,488	14,118,071	17,501,478
– Not wholly repayable within five years	59,611,274	59,342,039	11,881,753	14,714,056
	80,386,702	86,952,527	25,999,824	32,215,534
<b>Other loans</b>				
– Wholly repayable within five years	417,000	6,200,000	267,000	5,800,000
– Not wholly repayable within five years	17,825	32,615	–	–
Total	434,825	6,232,615	267,000	5,800,000

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## LONG-TERM LOANS (CONTINUED)

The interest payment schedule of long-term loans in the future years are summarized as follows:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
1 year or less	3,954,794	4,538,592	1,223,159	1,857,772
More than 1 year but not more than 2 years	3,588,277	3,902,337	1,092,217	1,507,408
More than 2 years but not more than 5 years	7,190,622	7,849,009	1,315,144	2,260,078
More than 5 years	7,597,486	9,147,103	948,432	1,586,887
Total	22,331,179	25,437,041	4,578,952	7,212,145

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## LONG-TERM BONDS

The Company issued bonds with maturity of 5 years, 7 years and 10 years in December 2007 with face values of RMB1 billion, RMB1.7 billion and RMB3.3 billion bearing annual interest rates of 5.67%, 5.75% and 5.90%, respectively. The total actual proceeds received by the Company were approximately RMB5.885 billion. These bonds are denominated in RMB and issued at par. Interest is payable annually while principal will be paid when the bonds fall due. The annual effective interest rates of those bonds are 6.13%, 6.10% and 6.17%, respectively. Interest paid per annum during the tenure of the bonds are RMB57 million, RMB98 million and RMB195 million, respectively. As at 31 December 2012, the bond with original maturity of 5 years had matured and the Company repaid the principal of RMB1 billion. As at 31 December 2012, interest payable for these bonds amounted to approximately RMB5.61 million (2011: RMB6.79 million).

The Company also issued bonds with maturity of 10 years in May 2008 with face value of RMB4 billion bearing annual interest rate of 5.20%. The actual proceeds received by the Company were approximately RMB3.933 billion. These bonds are denominated in RMB and issued at par. Interest is payable annually while principal will be paid when the bonds fall due. The annual effective interest rate of bond is 5.42%. Interest paid per annum during the tenure of the bonds is RMB208 million. As at 31 December 2012, interest payable for these bonds above amounted to approximately RMB135.06 million (2011: RMB134.19 million).

Please refer to Note 34(c) for details of long-term bonds of the Company guaranteed by HIPDC and government-related banks.

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## LONG-TERM BONDS (CONTINUED)

The Company issued medium-term notes with maturity of 5 years in May 2009 with face value of RMB4 billion bearing annual interest rate of 3.72%. The actual proceeds received by the Company were approximately RMB3.940 billion. These notes are denominated in RMB and issued at par. Interest is payable annually while principal will be paid when the notes fall due. The annual effective interest rate of these notes is 4.06%. Interest paid per annum during the tenure of the notes is RMB149 million. As at 31 December 2012, interest payable for these notes above amounted to approximately RMB94.17 million (2011: RMB94.17 million).

The Company issued non-public debt financing instrument with maturity of 5 years in November 2011 with face value of RMB5 billion bearing an annual interest rate of 5.74%. The actual proceeds received by the Company were approximately RMB4.985 billion. These bonds are denominated in RMB and issued at par. Interest is payable annually while principal will be paid when the bonds fall due. The annual effective interest rate of bond is 6.04%. Interest paid per annum during the tenure of the bonds is RMB302 million. As at 31 December 2012, interest payable for these bonds above amounted to approximately RMB45.61 million (2011: RMB42.34 million).

The Company issued non-public debt financing instrument with maturity of 3 years in January 2012 with face value of RMB5 billion bearing an annual interest rate of 5.24%. The actual proceeds received by the Company were approximately RMB4.985 billion. These bonds are denominated in RMB and issued at par. Interest is payable annually while principal will be paid when the bonds fall due. The annual effective interest rate of bond is 5.54%. Interest paid per annum during the tenure of the bonds is RMB277 million. As at 31 December 2012, interest payable for these bonds above amounted to approximately RMB259.14 million.

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## OTHER NON-CURRENT LIABILITIES

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
Environmental subsidies (a)	673,686	691,253	463,450	500,880
Security deposits	129,928	111,117	–	–
Finance lease payables	95,886	–	–	–
Government grants and others	347,964	186,987	250,244	104,714
Total	1,247,464	989,357	713,694	605,594

(a) Such grants represented primarily subsidies for the construction of desulphurization equipment and other environmental protection projects.

In 2012, the government grants and environmental subsidies which were credited to the statement of comprehensive income amounted to RMB101.89 million (2011: RMB81.91 million).

## ACCOUNTS PAYABLE AND OTHER LIABILITIES

Accounts payable and other liabilities comprised:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
Accounts and notes payable	7,354,260	9,122,537	2,979,284	3,718,398
Amounts received in advance	990,355	950,321	906,334	896,358
Payables to contractors for construction	7,692,036	10,669,533	2,396,375	2,951,509
Other payables to contractors	832,889	1,615,101	187,177	658,207
Consideration payables for acquisitions	11,136	155,903	11,136	155,903
Accrued interests	897,839	687,427	674,303	466,054
Accrued pollutants discharge fees	87,071	94,705	31,139	42,031
Accrued water-resources fees	17,299	18,950	7,517	3,655
Accrued service fee of intermediaries	33,992	49,014	33,905	48,812
Capacity quota payables	39,935	361,440	–	–
Security deposits	94,611	72,020	–	–
Provisions (a)	157,263	–	–	–
Others	1,784,215	1,971,048	830,415	763,604
<b>Total</b>	<b>19,992,901</b>	<b>25,767,999</b>	<b>8,057,585</b>	<b>9,704,531</b>

Please refer to Note 34 for details of accounts payable and other liabilities due to the related parties.

As at 31 December 2012, notes payable of RMB2 million (2011: RMB11 million) were secured by notes receivable of the Company and its subsidiaries with net book value amounting to RMB3 million (2011: RMB15 million) (Note 18).

(a) In 2012, a provision of RMB157 million was made, due to a legal claim by a vendor of the Company's subsidiary. The outcome of this legal claim is not expected to give rise to any significant loss beyond the amount provided as at 31 December 2012.

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## ACCOUNTS PAYABLE AND OTHER LIABILITIES (CONTINUED)

The carrying amounts of financial liabilities included in accounts payable and other liabilities of the Company and its subsidiaries are denominated in the following currencies:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
RMB	17,113,815	22,716,685	7,151,251	8,808,173
S\$ (RMB equivalent)	1,086,111	886,056	–	–
US\$ (RMB equivalent)	744,619	1,137,516	–	–
JPY (RMB equivalent)	58,001	77,412	–	–
EUR (RMB equivalent)	–	9	–	–
<b>Total</b>	<b>19,002,546</b>	<b>24,817,678</b>	<b>7,151,251</b>	<b>8,808,173</b>

The ageing analysis of accounts and notes payable was as follows:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
<b>Accounts and notes payable</b>				
Within 1 year	7,287,106	9,018,743	2,962,215	3,703,216
Between 1 to 2 years	51,847	83,275	15,355	13,478
Over 2 years	15,307	20,519	1,714	1,704
<b>Total</b>	<b>7,354,260</b>	<b>9,122,537</b>	<b>2,979,284</b>	<b>3,718,398</b>

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## TAXES PAYABLE

Taxes payable comprises:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
VAT payable	337,649	304,600	227,592	223,392
Income tax payable	788,623	503,252	248,933	–
Others	149,158	210,689	86,448	92,787
<b>Total</b>	<b>1,275,430</b>	<b>1,018,541</b>	<b>562,973</b>	<b>316,179</b>





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## SHORT-TERM BONDS

The Company issued unsecured short-term bonds with face values of RMB5 billion, RMB5 billion and RMB5 billion bearing annual interest rates of 4.41%, 4.42% and 4.58% in April 2012, November 2012 and December 2012, respectively. Such bonds are denominated in RMB, issued at face value and mature in 365 days from the issuance dates. The annual effective interest rates of these bonds are 4.83%, 4.84% and 5.00%, respectively. As at 31 December 2012, interest payables for these bonds above amounted to approximately RMB155.86 million, RMB33.30 million and RMB13.80 million, respectively.

The Company issued unsecured super short-term debentures with face values of RMB5 billion, RMB5 billion, RMB5 billion and RMB5 billion bearing annual interest rates of 3.35%, 3.32%, 3.70% and 3.99% in June 2012, July 2012, August 2012 and September 2012, respectively. Such bonds are denominated in RMB, issued at face value and mature in 270 days from the issuance dates. The annual effective interest rates of these bonds are 3.76%, 3.73%, 4.11% and 4.40%, respectively. As at 31 December 2012, interest payables for these bonds above amounted to approximately RMB95.91 million, RMB79.13 million, RMB75.26 million and RMB63.75 million, respectively.

The Company issued unsecured short-term bonds with face values of RMB5 billion and RMB5 billion bearing annual interest rates of 3.95% and 6.04% in January 2011 and September 2011, respectively. Such bonds are denominated in RMB, issued at face value and mature in 365 days and 366 days from the issuance dates, respectively. The annual effective interest rates of these bonds are 4.37% and 6.47%, respectively. These short-term bonds were fully repaid in January 2012 and September 2012, respectively.

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## SHORT-TERM LOANS

Short-term loans are as follows:

## The Company and its subsidiaries

	As at 31 December 2012			As at 31 December 2011		
	Original currency '000	RMB equivalent	Annual interest rate	Original currency '000	RMB equivalent	Annual interest rate
<b>Secured</b>						
<b>RMB</b>						
– Fixed rate	6,520,000	6,520,000	5.04%-5.40%	2,490,401	2,490,401	4.13%-7.13%
– Fixed rate-discounted notes receivable	21,250	21,250	6.08%-6.30%	59,757	59,757	4.32%-8.52%
		6,541,250			2,550,158	
<b>Unsecured</b>						
<b>RMB</b>						
– Fixed rate	20,900,826	20,900,826	5.04%-6.56%	41,429,042	41,429,042	4.00%-7.22%
<b>Total</b>		27,442,076			43,979,200	



## SHORT-TERM LOANS (CONTINUED)

As at 31 December 2012, short-term loans of RMB6,250 million (2011: RMB2,490 million) were secured by accounts receivable of the Company and its subsidiaries with net book value amounting to RMB6,319 million (2011: RMB2,771 million).

As at 31 December 2012, short-term loans of a subsidiary of the Company of RMB270 million are secured by future electricity revenue of the subsidiary of the Company (2011: nil).

As at 31 December 2012, short-term loans of RMB21.25 million (2011: RMB59.76 million) represented the notes receivable that were discounted with recourse. As these notes receivable have not yet matured, the proceeds received were recorded as short-term loans.

As at 31 December 2012, short-term loans from Huaneng Finance amounted to RMB1,315 million (2011: RMB1,465 million). For the year ended 31 December 2012, the annual interest rates for these loans ranged from 5.40% to 6.00% (2011: 4.78% to 6.56%).

As at 31 December 2011, short-term loans from Xi'an Thermal Power Research Institute Co., Ltd. ("Xi'an Thermal") amounted to RMB70 million with an annual interest of 6.89%. These loans were repaid in 2012.

As at 31 December 2012, a short-term loan from China Huaneng Group Clean Energy Technology Research Institute Co., Ltd. ("Huaneng Clean Energy") amounted to RMB120 million (2011: RMB100 million). For the 12 months ended 31 December 2012, the annual interest rate for this loan is 5.40% (2011: 6.56%).

As at 31 December 2011, short-term loans from Huaneng Guicheng Trust Co., Ltd. ("Huaneng Guicheng Trust") amounted to RMB4,500 million. For the year ended 31 December 2011, the annual interest rates for these loans ranged from 4.56% to 7.22%. These loans were repaid in 2012.

As at 31 December 2012, a short-term loan from Huaneng Shandong Power Limited Company ("Shandong Power Limited") amounted to RMB50 million with annual interest rate of 6.00% (2011: nil).

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## SHORT-TERM LOANS (CONTINUED)

## The Company

	As at 31 December 2012			As at 31 December 2011		
	Original currency '000	RMB equivalent	Annual interest rate	Original currency '000	RMB equivalent	Annual interest rate
<b>Secured</b>						
<b>RMB</b>						
- Fixed rate	5,850,000	5,850,000	5.04%-5.40%	1,840,611	1,840,611	4.13%-6.10%
-Fixed rate-discounted notes receivable	12,800	12,800	6.30 %	-	-	
<b>Unsecured</b>						
<b>RMB</b>						
- Fixed rate	13,771,071	13,771,071	5.40%-6.56%	30,650,000	30,650,000	4.00%-7.22%
<b>Total</b>		<b>19,633,871</b>			<b>32,490,611</b>	

As at 31 December 2012, secured short-term loans of RMB5,850 million (2011: RMB1,841 million) is secured by accounts receivable of the Company with net book value amounting to RMB5,918 million (2011: RMB2,009 million).

As at 31 December 2011, short-term loans from Huaneng Guicheng Trust amounted to RMB4,500 million. For the year ended 31 December 2011, the annual interest rates for these loans ranged from 4.56% to 7.22%. These loans were repaid in 2012.

As at 31 December 2011, a short-term loan of RMB500 million is guaranteed by a subsidiary of the Company. This loan was repaid in April 2012.

As at 31 December 2012, secured short-term loans of RMB12.80 million (2011: nil) represented the notes receivable that were discounted with recourse. As these notes receivable have not yet matured, the proceeds received were recorded as short-term loans.

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## DEFERRED INCOME TAX ASSETS AND LIABILITIES

Periods which deferred income tax assets and liabilities are expected to recover and realize are as follows:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
<b>Deferred income tax assets:</b>				
– Deferred income tax assets to be recovered after more than 12 months	1,084,890	899,439	956,489	497,338
– Deferred income tax assets to be recovered within 12 months	222,012	309,893	211,654	261,112
	1,306,902	1,209,332	1,168,143	758,450
<b>Deferred income tax liabilities:</b>				
– Deferred income tax liabilities to be settled after more than 12 months	(2,719,101)	(2,563,755)	(301,592 )	(294,535 )
– Deferred income tax liabilities to be settled within 12 months	(67,143 )	(112,333 )	(5,772 )	(7,593 )
	(2,786,244)	(2,676,088)	(307,364 )	(302,128 )
	(1,479,342)	(1,466,756)	860,779	456,322

The offset amounts of deferred income tax assets and liabilities are as follows:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
Deferred income tax assets	532,387	526,399	860,779	456,322
Deferred income tax liabilities	(2,011,729)	(1,993,155)	–	–
	(1,479,342)	(1,466,756)	860,779	456,322

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## DEFERRED INCOME TAX ASSETS AND LIABILITIES (CONTINUED)

The gross movement on the deferred income tax accounts is as follows:

	The Company and its subsidiaries		The Company	
	2012	2011	2012	2011
Beginning of the year	(1,466,756)	(1,293,912)	456,322	494,118
Acquisitions	–	(379,084 )	–	–
Adjustment on 2011 acquisitions (Note 14)	(134,460 )	–	–	–
Credited/(charged) to profit or loss (Note 31)	148,668	(39,469 )	435,345	(145,750 )
Credited/(charged) to other comprehensive income/(loss)	34,556	173,343	(30,888 )	107,954
Currency translation differences	(61,350 )	69,197	–	–
Disposal of a subsidiary	–	3,169	–	–
End of the year	(1,479,342)	(1,466,756)	860,779	456,322

The movements in deferred income tax assets and liabilities during the year, without taking into consideration the offsetting of balances within the same tax jurisdictions, are as follows:

Deferred income tax assets:

	The Company and its subsidiaries								
	Hedging reserve	Amortization of land rights	Provision for impairment loss	Depreciation	Accrued expenses	VAT refunds on purchases of domestically manufactured equipment	Unused tax losses	Others	Total
As at 1 January 2011	20,540	15,798	210,994	74,506	158,590	352,475	167,304	202,290	1,202,497
Acquisitions	–	–	538	68,453	–	–	9,525	1,787	80,303
(Charged)/credited to profit or loss	(229 )	(351 )	10,427	14,076	(110,648)	(21,550 )	(37,043 )	106	(145,212 )
Credited to other comprehensive income	74,859	–	–	–	–	–	–	–	74,859
Currency translation differences	(2,512 )	–	(3 )	(145 )	–	–	–	(455 )	(3,115 )
	92,658	15,447	221,956	156,890	47,942	330,925	139,786	203,728	1,209,332

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As at 31										
December 2011										
(Charged)/credited										
to profit or loss	(4 )	(368 )	(34,344 )	(21,309 )	(1,894 )	(24,056 )	(6,796 )	115,811	27,040	
Credited to other										
comprehensive										
income	67,395	–	–	–	–	–	–	–	67,395	
Currency										
translation										
differences	2,405	–	15	125	–	–	–	590	3,135	
As at 31										
December 2012	162,454	15,079	187,627	135,706	46,048	306,869	132,990	320,129	1,306,902	

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## DEFERRED INCOME TAX ASSETS AND LIABILITIES (CONTINUED)

## The Company

	Hedging reserve	Amortization of land use rights	Provision for impairment loss	Depreciation	Accrued expenses	VAT refunds on purchases of domestically manufactured equipment	Others	Total
As at 1 January 2011	20,540	15,798	146,188	27,401	143,498	350,588	152,363	856,376
(Charged)/credited to profit or loss	–	(353 )	14,927	(1,151 )	(124,732)	(21,441 )	4,779	(127,971 )
Credited to other comprehensive income	30,045	–	–	–	–	–	–	30,045
As at 31 December 2011	50,585	15,445	161,115	26,250	18,766	329,147	157,142	758,450
(Charged)/credited to profit or loss	–	(368 )	393,936	(904 )	6,941	(23,869 )	32,006	407,742
Credited to other comprehensive income	1,951	–	–	–	–	–	–	1,951
As at 31 December 2012	52,536	15,077	555,051	25,346	25,707	305,278	189,148	1,168,143

Deferred income tax liabilities:

## The Company and its subsidiaries

	Hedging reserve	Fair value gains	Amortization of land use rights	Depreciation	Power generation licence	Mining rights	Territorial waters use right	Others	Total
As at 1 January 2011	(20,575)	(259,543)	(429,326)	(1,057,195)	(693,694)	–	–	(36,076 )	(2,496,409)
Acquisitions	–	–	(39,102 )	(171,880 )	–	(162,400)	(86,005)	–	(459,387 )
Credited/(charged) to profit or loss	–	–	27,511	124,668	–	–	519	(46,955 )	105,743
Credited to other comprehensive income	20,575	77,909	–	–	–	–	–	–	98,484
Currency translation	–	–	3,067	35,207	34,038	–	–	–	72,312



## differences

Disposal of a subsidiary

-	-	2,619	550	-	-	-	-	3,169
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As at 31

December 2011	-	(181,634)	(435,231)	(1,068,650)	(659,656)	(162,400)	(85,486)	(83,031 )	(2,676,088)
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Adjustment on

2011 acquisitions

-	-	(8,303 )	(17,890 )	-	(108,267)	-	-	(134,460 )
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(Charged)/credited

to profit or loss

-	-	22,582	120,146	-	-	519	(21,619 )	121,628
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Charged to other

comprehensive

income

-	(32,839 )	-	-	-	-	-	-	(32,839 )
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Currency

translation

differences

-	-	(2,747 )	(31,220 )	(30,518 )	-	-	-	(64,485 )
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As at 31

December 2012	-	(214,473)	(423,699)	(997,614 )	(690,174)	(270,667)	(84,967)	(104,650)	(2,786,244)
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## DEFERRED INCOME TAX ASSETS AND LIABILITIES (CONTINUED)

	Fair value gains	The Company		Total
		Depreciation	Others	
As at 1 January 2011	(259,543 )	(67,735 )	(34,980 )	(362,258 )
Credited/(charged) to profit or loss	–	4,699	(22,478 )	(17,779 )
Credited to other comprehensive income	77,909	–	–	77,909
As at 31 December 2011	(181,634 )	(63,036 )	(57,458 )	(302,128 )
(Charged)/credited to profit or loss	–	5,077	22,526	27,603
Charged to other comprehensive income	(32,839 )	–	–	(32,839 )
As at 31 December 2012	(214,473 )	(57,959 )	(34,932 )	(307,364 )

As at 31 December 2012 and 2011, taxable temporary differences relating to interest in equity method investees amounted to RMB2.03 billion and RMB1.96 billion respectively. No deferred tax liabilities were recognized as at 31 December 2012 and 2011 as dividends from these investees to the Company is exempted from the PRC income tax and the Company has no plan to dispose any of these investees in the foreseeable future.

In accordance with the accounting policy set out in Note 2(s), the Company and its subsidiaries did not recognize deferred income tax assets in respect of accumulated tax losses that can be carried forward against future taxable income. The expiry dates of such tax losses for which no deferred income tax assets were recognized are summarized as follows:

Year of expiry	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
2012	–	2,432	–	–
2013	837,456	1,185,791	–	–
2014	581,380	581,380	–	–
2015	938,601	938,601	–	–
2016	1,703,980	1,578,516	–	–
2017	1,934,582	–	–	–
	5,995,999	4,286,720	–	–

## 30 ADDITIONAL FINANCIAL INFORMATION ON BALANCE SHEETS

As at 31 December 2012, the net current liabilities of the Company and its subsidiaries amounted to approximately RMB57,508 million (2011: RMB60,180 million) and total assets less current liabilities were approximately RMB165,506 million (2011: RMB160,818 million).

## 31 INCOME TAX EXPENSE

	For the year ended 31 December	
	2012	2011
Current income tax expense	2,659,038	829,458
Deferred income tax (Note 29)	(148,668 )	39,469
	2,510,370	868,927

No Hong Kong profits tax has been provided as there were no estimated assessable profits in Hong Kong for the year (2011: nil). The reconciliation of the effective income tax rate from the notional income tax rate is as follows:

	For the year ended 31 December			
	2012		2011	
Notional tax on profit before income tax expense, calculated at the applicable income tax rates in the countries concerned	24.28	%	18.43	%
Effect of tax losses not recognized	3.28	%	22.67	%
Effect of the tax rate differential on deferred income tax balance	–		0.41	%
Effect of non-taxable income	(1.95	%)	(9.78	%)
Effect of non-deductible expenses	2.67	%	10.70	%
Others	–		(0.05	%)
Effective tax rate	28.28	%	42.38	%

Effective from 1 January 2008, under the Corporate Income Tax Law of PRC which was passed by the National People's Congress on 16 March 2007, the PRC's statutory income tax rate is 25%. The Company and its PRC branches and subsidiaries are subject to income tax at 25%, except for certain PRC branches and subsidiaries that are taxed at preferential tax rates ranging from 0% to 15%.

Pursuant to Guo Shui Han [2009] No. 33, starting from 1 January 2008, the Company and its PRC branches calculate and pay income tax on a consolidated basis according to relevant tax laws and regulations. The original regulation specifying locations for power plants and branches of the Company to make enterprise income tax payments was abolished. The income tax of subsidiaries remains to be calculated individually based on their individual operating results.

The income tax rate applicable to Singapore subsidiaries is 17% (2011: 17%).



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## EARNINGS PER SHARE

The basic earnings per share is calculated by dividing the consolidated net profit attributable to the equity holders of the Company by the weighted average number of the Company's outstanding ordinary shares during the year:

	2012	2011
Consolidated net profit attributable to equity holders of the Company	5,512,454	1,180,512
Weighted average number of the Company's outstanding ordinary shares	14,055,383	14,055,383
Basic and diluted earnings per share (RMB)	0.39	0.08

There was no dilutive effect on earnings per share since the Company had no dilutive potential ordinary shares for the years ended 31 December 2012 and 2011.

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## NOTES TO CONSOLIDATED STATEMENT OF CASH FLOWS

Bank balances and cash comprised the following:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
Restricted cash	119,110	117,233	71,773	70,182
Cash and cash equivalents	10,505,387	8,552,782	4,541,235	2,503,183
Total	10,624,497	8,670,015	4,613,008	2,573,365

The bank balances and cash of the Company and its subsidiaries are denominated in the following currencies:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
RMB	7,935,202	5,040,151	4,611,527	2,521,750
S\$ (RMB equivalent)	2,142,873	2,935,792	-	-
US\$ (RMB equivalent)	545,514	693,823	1,481	51,615
JPY (RMB equivalent)	404	248	-	-
HK\$ (RMB equivalent)	504	1	-	-
Total	10,624,497	8,670,015	4,613,008	2,573,365

## 33 NOTES TO CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)

There is no material non-cash investing and financing transaction for the year ended 31 December 2012 and 2011.

## Undrawn borrowing facilities

As at December 2012, the Company and its subsidiaries had undrawn borrowing facilities amounting to approximately RMB89.81 billion (2011: RMB90.96 billion). Management drawdowns the available facilities in accordance with the level of working capital and/or planned capital expenditures of the Company and its subsidiaries.

## 34 RELATED PARTY BALANCES AND TRANSACTIONS

The related parties of the Company and its subsidiaries that had transactions with the Company and its subsidiaries are as follows:

Names of related parties	Nature of relationship
Huaneng Group	Ultimate parent company
HIPDC	Parent company
Huaneng Property Co., Ltd.	A Subsidiary of Huaneng Group
Xi'an Thermal and its subsidiaries	Subsidiaries of Huaneng Group
Huaneng Energy & Communications Holdings Co., Ltd. and its subsidiaries ("HEC and its subsidiaries")	Subsidiaries of Huaneng Group
Shandong Power Limited and its subsidiaries	Subsidiaries of Huaneng Group
Huaneng Renewables Corporation Limited ("Huaneng Renewables")	A subsidiary of Huaneng Group
Huaneng Guicheng Trust	A subsidiary of Huaneng Group
Huaneng Hulunbeier Energy Development Company Ltd. ("Hulunbeier Energy")	A subsidiary of Huaneng Group
Huaneng Suzhou Thermoelectric Power Company Ltd.	A subsidiary of Huaneng Group
Alltrust Insurance Company of China Limited	A subsidiary of Huaneng Group
Huaneng Tibet Power Generation Co., Ltd.	A subsidiary of Huaneng Group
Huaneng Wuhan Power Co., Ltd.	A subsidiary of Huaneng Group
North United Power Coal Transportation and Marketing Co., Ltd. ("North United Power")	A subsidiary of Huaneng Group
Huaneng Group Technology Innovation Center	A subsidiary of Huaneng Group
Huaneng Chaohu Power Generation Co., Ltd.	A subsidiary of HIPDC
Gansu Huating Coal and Power Co., Ltd. ("Huating Coal and Power")	A subsidiary of Huaneng Group
Huaneng Shanxi Qinling Power Co., Ltd.	A subsidiary of Huaneng Group
Huaneng Clean Energy	A subsidiary of Huaneng Group
	A subsidiary of Huaneng Group

Huaneng Jilin Power Generation Co., Ltd.  
("Huaneng Jilin Company")

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## 34 RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

Names of related parties	Nature of relationship
China Huaneng Group Hongkong Company Limited	A subsidiary of Huaneng Group
Huaneng Anyuan Power Generation Co., Ltd.	A subsidiary of HIPDC
Huaneng Xinjiang Energy Development Co., Ltd.	A subsidiary of Huaneng Group
Huaneng Henan Zhongyuan Gas Power Generation Co., Ltd.	A subsidiary of Huaneng Group
Zhejiang Southeast Electric Power Co., Ltd.	A subsidiary of Huaneng Group
Qinhuangdao Ruigang Coal Logistics Co., Ltd. (“Ruigang Coal”)	A subsidiary of Huaneng Group
China Huaneng Group Fuel Co., Ltd. (“Fuel Company”)	A subsidiary of Huaneng Group
Huaneng Ruijin Power Generation Co., Ltd.	A subsidiary of HIPDC
Rizhao Power Company	An associate of the Company and also a subsidiary of Huaneng Group
Huaneng Finance	An associate of the Company and also a subsidiary of Huaneng Group
Jinling CCGT	An associate of the Company
Coal Gasification Co.	An associate of the Company and also a subsidiary of Huaneng Group
Huaneng Sichuan Hydropower Co., Ltd.	An associate of the Company and also a subsidiary of Huaneng Group
Lime Company	An associate of a subsidiary and also a subsidiary of Huaneng Group
Shanghai Time Shipping	A jointly controlled entity of the Company
Jiangsu Nantong Power Generation Co., Ltd.	A jointly controlled entity of the Company
Subsidiaries of Jiangsu Province Guoxin Asset Management Group Limited Company (“Jiangsu Guoxin”)*	A minority shareholder of the Company’s subsidiaries
Government-related enterprises**	Related parties of the Company

\* The director of the Company, Mr. Xu Zujian also serves as the Vice President of Jiangsu Guoxin. Meanwhile, Jiangsu Guoxin holds 30%, 26.36%, 30% and 21% equity interest of Huaneng Nantong Power Generation Limited Liability Company, Huaneng Huaiyin II Power Limited Company, Huaneng Nanjing Jinling Power Co., Ltd. and Jinling CCGT, respectively.

\*\* Huaneng Group is a state-owned enterprise. In accordance with the revised IAS 24, ‘Related Party Disclosures’, government-related enterprises, other than entities under Huaneng Group, which the PRC government has control, joint control or significant influence over are also considered as related parties of the Company and its subsidiaries (“other government enterprises”).



## RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

The majority of the business activities of the Company and its subsidiaries are conducted with other government-related enterprises. For the purpose of the related party balances and transactions disclosure, the Company and its subsidiaries have established procedures to determine, to the extent possible, the identification of the ownership structure of its customers and suppliers as to whether they are government-related enterprises. However, many government-related enterprises have a multi-layered corporate structure and the ownership structures change over time as a result of transfers and privatization programs. Nevertheless, management believes that all material related party balances and transactions have been adequately disclosed.

In addition to the related party information shown elsewhere in these financial statements, the following is a summary of significant related party transactions entered into in the ordinary course of business between the Company and its subsidiaries and their related parties during the year and significant balances arising from related party transactions as at year end.

(a)	Related party balances			
	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
(i) Cash deposits in a related party	2012	2011	2012	2011
<b>Deposits in Huaneng Finance</b>				
– Savings deposit	3,662,365	2,272,799	802,555	723,227

For the year ended 31 December 2012, the annual interest rates for these savings deposits placed with Huaneng Finance ranged from 0.35% to 1.49% (2011: from 0.36% to 1.49%).

(ii) As described in Note 22 and 28, certain loans of the Company and its subsidiaries were borrowed from Huaneng Group, Huaneng Finance, Xi'an Thermal, Huaneng Clean Energy and Huaneng Guicheng Trust.

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## RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

## (a) Related party balances (Continued)

(iii) All balances with Huaneng Group, HIPDC, subsidiaries, associates, jointly controlled entities and other related parties are unsecured, non-interest bearing and receivable/repayable within one year. As at and for the years ended 31 December 2012 and 2011, no provision is made on receivable balances from these parties

Other receivables and assets comprised the following balances due from related parties:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
Accounts receivable from other related parties	44,998	–	12,498	–
Prepayments to associates	152,891	321,678	138,389	156,037
Prepayments to a joint controlled entity	50,000	–	50,000	–
Prepayments to other related parties	9,759	3,266	–	–
Other receivables from subsidiaries	–	–	1,031,018	931,247
Other receivables from other related parties	205,269	143,402	5,003	900
Other receivables from Huaneng Group	38	37	38	37
<b>Total</b>	<b>462,955</b>	<b>468,383</b>	<b>1,236,946</b>	<b>1,088,221</b>

(iv) Accounts payable and other liabilities comprised the following balances due to related parties:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
Due to Huaneng Group	10,685	1,445	9,160	–
Due to HIPDC	28,052	27,425	25,335	24,568
Due to subsidiaries	–	–	1,094,615	1,716,737
Due to associates	13,414	43,271	452	2,567
Due to a joint controlled entity	272,684	209,983	1,885	89,253
Due to other related parties	827,157	658,477	165,501	145,589
<b>Total</b>	<b>1,151,992</b>	<b>940,601</b>	<b>1,296,948</b>	<b>1,978,714</b>

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## RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

## (a) Related party balances (Continued)

(v) As at 31 December 2012, included in long-term loans (including current portion) and short-term loans are loans payable to other government-related enterprises amounting to RMB106 billion (2011: RMB129 billion).

The balances with government-related enterprises also included substantially all the accounts receivable of domestic power plants from government-related power grid companies, most of the bank deposits which are placed in government-related financial institutions as well as accounts payables and other payables arising from the purchases of coal and property, plant and equipment construction and related labor employed with other government-related enterprises. Except for bank deposits, these balances are unsecured, non-interest bearing and the majority of receivable/repayable is within one year.

## (b) Related party transactions

	For the year ended 31 December	
	2012	2011
<b>Huaneng Group</b>		
Interest expense on long-term loans	(23,955 )	(36,220 )
Training fees	(22 )	(37 )
<b>HIPDC</b>		
Service fees expenses on transmission and transformer facilities	(140,771 )	(140,771 )
Rental charge on land use rights of Huaneng Nanjing Power Plant	(1,657 )	(1,334 )
Rental charge on office building	–	(450 )
<b>Huaneng Finance</b>		
Drawdown of short-term loans	3,555,000	4,115,000
Drawdown of long-term loans	417,000	–
Interest expense on short-term loans	(174,930 )	(51,668 )
Interest expense on long-term loans	(12,338 )	(11,235 )
<b>Huaneng Renewables</b>		
Agency fee on CDM projects	(1,200 )	(200 )
<b>HEC and its subsidiaries</b>		
Purchase of coal and service fee occurred for transportation	(611,474 )	(404,257 )
Purchase of equipment	(82,685 )	(204,207 )
Purchase of materials	(3,994 )	–

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## RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

## (b) Related party transactions (Continued)

	For the year ended 31 December	
	2012	2011
<b>Lime Company</b>		
Purchase of lime	(116,741 )	(112,157 )
<b>Xi'an Thermal and its subsidiaries</b>		
Technical services and industry-specific technological project contracting services obtained	(166,520 )	(156,997 )
Purchase of equipment	(170,741 )	(47,499 )
Drawdown of short-term loans	100,000	70,000
Interest expense on short-term loans	(4,347 )	(2,197 )
<b>Hulunbeier Energy</b>		
Purchase of coal	(970,328 )	(676,184 )
<b>Rizhao Power Company</b>		
Purchase of coal	(1,795,217)	(2,119,430)
Sales of electricity	2,372	2,743
Purchase of materials	(47,235 )	(44,084 )
Purchase of electricity	(6,160 )	(4,822 )
Sales of coal	202,819	524,979
Rental charge on lease of certain property, plant and equipment	(16,228 )	(13,337 )
Purchase of power generation quota	(30,396 )	–
<b>Huaneng Suzhou Thermoelectric Power Company Ltd.</b>		
Sales of coal	31,682	70,338
<b>Huaneng Wuhan Power Co., Ltd.</b>		
Sales of coal	88,694	144,844
<b>Huaneng Ruijin Power Generation Co., Ltd.</b>		
Sales of coal	206,731	238,297
<b>Huaneng Property Co., Ltd.</b>		
Rental charge on office building	(95,595 )	(96,485 )
<b>North United Power</b>		
Purchase of coal	(100,364 )	(196,430 )

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## RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

## (b) Related party transactions (Continued)

	For the year ended 31 December	
	2012	2011
<b>Huating Coal and Power</b>		
Purchase of coal	(1,658,401)	(2,364,518)
<b>Huaneng Guicheng Trust</b>		
Drawdown of short-term loans	–	4,500,000
Interest expense on short-term loans	(157,610 )	(246,747 )
<b>Alltrust Insurance Company of China Limited</b>		
Premiums for property insurance	(148,525 )	(158,937 )
<b>Huaneng Tibet Power Generation Co., Ltd.</b>		
Labor service	–	190
<b>Huaneng Group Technology Innovation Center</b>		
Technical services and industry-specific technological project contracting services obtained	(21,480 )	(27,750 )
<b>Shanghai Time Shipping</b>		
Purchase of coal	(717,159 )	(93,290 )
Service fee paid for transportation	(715,460 )	(1,618,548)
Purchase of assets	(88,889 )	–
<b>Huaneng Chaohu Power Generation Co., Ltd.</b>		
Sales of coal	–	24,675
<b>Fuel Company</b>		
Purchase of coal	(658,317 )	(497,806 )
Sales of coal	27,593	–
Service fee	8,971	–
<b>Huaneng Shanxi Qinling Power Co., Ltd.</b>		
Purchase of capacity quota	–	(244,000 )
<b>Huaneng Clean Energy</b>		
Drawdown of short-term loans	120,000	100,000
Interest expense on short-term loans	(5,784 )	(1,257 )
Service fee	(540 )	–



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## RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

## (b) Related party transactions (Continued)

	For the year ended 31 December	
	2012	2011
<b>Huaneng Jilin Company</b>		
Transfer of 100% equity interest in Huaneng Jilin Biological Power Generation Limited company	–	106,303
<b>Jinling CCGT</b>		
Lending of short-term loans	–	(100,000 )
Interest income on short-term loans	2,849	–
Entrusted management fee	38,810	–
<b>Coal Gasification Co.</b>		
Advance from Coal Gasification Co.	–	1,310
<b>Huaneng Henan Zhongyuan Gas Power Generation Co., Ltd.</b>		
Purchase of power generation quota	(49,500 )	–
<b>Huaneng Xinjiang Energy Development Co., Ltd.</b>		
Sales of assets	8,900	–
<b>Zhejiang Southeast Electric Power Co., Ltd.</b>		
Purchase of power generation quota	(37,744 )	–
<b>Huaneng Anyuan Power Generation Co., Ltd.</b>		
Training Fee	(319 )	–
Provision of entrusted power generation	235,195	–
<b>Shandong Power Limited and its subsidiaries</b>		
Purchase of power generation quota	(138,484 )	–
Purchase of materials	(159 )	–
Purchase of coal	(957,275 )	–
Drawdown of short-term loans	50,000	–
Interest expense on short-term loans	(867 )	–
Sales of coal	–	29,892
Sales of fuel	–	127
Advance from Dongying New Energy	–	2,942

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## RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

## (b) Related party transactions (Continued)

	For the year ended 31 December	
	2012	2011
<b>Jiangsu Nantong Power Generation Co., Ltd.</b>		
Transfer of assets (Note 7)	1,034,777	–
<b>Ruigang Coal</b>		
Rental Revenue	4,539	–
<b>Subsidiaries of Jiangsu Guoxin</b>		
Provision of entrusted power generation	163,512	–

For the years ended 31 December 2012 and 2011, the Company provided management service to certain power plants owned by Huaneng Group and HIPDC. The Company did not receive any management fee. At the same time, Shandong Power Limited provided management services to certain branches and subsidiaries of the Company which are located in Shandong Province. The Company did not pay any management fee for such arrangements.

## Transactions with government-related enterprises

For the years ended 31 December 2012 and 2011, the Company and its domestic power subsidiaries sold substantially all their products to local government-related power grid companies. Please refer to Note 5 for details of sales information to major power grid companies. The Company and its domestic subsidiaries maintained most of its bank deposits in government-related financial institutions while lenders of most of the Company and its subsidiaries' loans are also government-related financial institutions.

For the years ended 31 December 2012 and 2011, other collectively-significant transactions with government-related enterprises also included a large portion of fuel purchases, property, plant and equipment construction and related labor employed.



## 34 RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

## (c) Guarantees

	As at 31 December	
	2012	2011
(i) Long-term loans guaranteed by		
– Huaneng Group	532,508	631,733
– HIPDC	2,000,000	2,113,228
(ii) Long-term bonds guaranteed by		
– HIPDC	4,000,000	4,000,000
– Government-related banks	5,000,000	6,000,000

## (d) Pre-tax benefits and social insurance of key management personnel

	For the year ended 31 December	
	2012	2011
Salaries	7,572	7,272
Pension	1,043	1,033
Total	8,615	8,305

## (e) Related party commitments

Related party commitments which were contracted but not recognized in balance sheet as at balance sheet dates are as follows:

## (i) Capital commitments

	As at 31 December	
	2012	2011
Xi'an Thermal and its subsidiaries	213,444	91,906
HEC and its subsidiaries	14,679	159,168
	228,123	251,074

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## RELATED PARTY BALANCES AND TRANSACTIONS (CONTINUED)

(e) Related party commitments (Continued)

(ii) Fuel purchase and transportation commitments

	As at 31 December	
	2012	2011
Shanghai Time Shipping	181,544	15,040
Fuel Company	24,986	5,777
HEC and its subsidiaries	113,463	50,519
Huating Coal and Power	409,680	618,572
North United Power	11,276	5,959
Hulunbeier Energy	4,849	1,545,872
Shandong Power Limited and its subsidiaries	62,310	–
	808,108	2,241,739

(iii) Operating lease commitments

	As at 31 December	
	2012	2011
HIPDC	59,647	49,365
Huaneng Property Co., Ltd.	125,439	61,251
	185,086	110,616

## LABOR COST

Other than the salaries and staff welfare, the labor cost of the Company and its subsidiaries mainly comprises the following:

All PRC employees of the Company and its subsidiaries are entitled to a monthly pension upon their retirements. The PRC government is responsible for the pension liability to these employees on retirement. The Company and its subsidiaries are required to make contributions to the publicly administered retirement plan for their PRC employees at a specified rate, currently set at 14% to 22% (2011: 14% to 22%) of the basic salary of the PRC employees. The retirement plan contributions paid by the Company and its subsidiaries for the year ended 31 December 2012 were approximately RMB487 million (2011: RMB466 million), including approximately RMB474 million (2011: RMB448 million) charged to profit or loss.

In addition, the Company and its subsidiaries have also implemented a supplementary defined contribution retirement scheme for PRC employees. Under this scheme, the employees are required to make a specified contribution based on the number of years of service with the Company and its subsidiaries, and the Company and its subsidiaries are required to make a contribution equal to two to four times the employees' contributions. The employees will receive the total contributions upon their retirement. For the year ended 31 December 2012, the contributions to supplementary defined contribution retirement scheme paid by the Company and its subsidiaries amounted to approximately RMB138 million (2011: RMB135 million), including approximately RMB134 million (2011: RMB130 million) charged to profit or loss.

SinoSing Power and its subsidiaries in Singapore appropriate a specified rate, currently set at 6.5% to 16% (2011: 5% to 16%) of the basic salary to central provident funds in accordance with the local government regulations. The contributions paid by SinoSing Power and its subsidiaries for the year ended 31 December 2012 were approximately RMB17.10 million (2011: RMB18.91 million), all of which were charged to profit or loss.

The Company and its subsidiaries have no further obligation for post-retirement benefits beyond the annual contributions made above.

In addition, the Company and its subsidiaries also make contributions of housing funds and social insurance to the social security institutions at specified rates of the basic salary and no more than the upper limit. The housing funds and social insurance contributions paid by the Company and its subsidiaries were charged to the costs or expenses, the amounts of which for the year ended 31 December 2012 were approximately RMB377 million (2011: RMB332 million) and RMB397 million (2011: RMB355 million), respectively.

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## 36 DIRECTORS', SUPERVISORS' AND SENIOR MANAGEMENT' EMOLUMENTS

## (a) Pre-tax benefits and social insurance of directors and supervisors

The remuneration of every director and supervisor of the Company for the year ended 31 December 2012 is set out below:

	Fees	Basic salaries	Performance salaries	Pension	Total
Name of director					
Mr. Cao Peixi	–	–	–	–	–
Mr. Huang Long	–	–	–	–	–
Mr. Li Shiqi	–	–	–	–	–
Mr. Huang Jian	–	–	–	–	–
Mr. Liu Guoyue	–	347	485	108	940
Mr. Fan Xiaxia	–	347	485	108	940
Mr. Shan Qunying	48	–	–	–	48
Mr. Guo Hongbo 1	48	–	–	–	48
Mr. Xu Zujian	48	–	–	–	48
Mr. Xie Rongxing 2	24	–	–	–	24
Ms. Huang Mingyuan 2	24	–	–	–	24
Mr. Liu Shuyuan 1	–	–	–	–	–
Mr. Shao Shiwei	74	–	–	–	74
Mr. Wu Liansheng	74	–	–	–	74
Mr. Li Zhensheng	74	–	–	–	74
Mr. Qi Yudong	74	–	–	–	74
Mr. Zhang Shouwen	74	–	–	–	74
Sub-total	562	694	970	216	2,442
Name of supervisor					
Mr. Guo Junming	–	–	–	–	–
Mr. Hao Tingwei	48	–	–	–	48
Ms. Zhang Mengjiao	–	–	–	–	–
Mr. Gu Jianguo	48	–	–	–	48
Mr. Wang Zhaobin	–	250	376	89	715
Ms. Zhang Ling	–	113	447	88	648
Sub-total	96	363	823	177	1,459
Total	658	1,057	1,793	393	3,901

## 36 DIRECTORS', SUPERVISORS' AND SENIOR MANAGEMENT' EMOLUMENTS (CONTINUED)

## (a) Pre-tax benefits and social insurance of directors and supervisors (Continued)

The remuneration of every director and supervisor of the Company for the year ended 31 December 2011 is set out below:

	Fees	Basic salaries	Performance salaries	Pension	Total
Name of director					
Mr. Cao Peixi	–	–	–	–	–
Mr. Huang Long	–	–	–	–	–
Mr. Wu Dawei	–	–	–	–	–
Mr. Li Shiqi	–	–	–	–	–
Mr. Huang Jian	–	–	–	–	–
Mr. Liu Guoyue	–	331	463	101	895
Mr. Fan Xiaxia	–	331	463	101	895
Mr. Shan Qunying	48	–	–	–	48
Mr. Xu Zujian	48	–	–	–	48
Ms. Huang Mingyuan	48	–	–	–	48
Mr. Liu Shuyuan	48	–	–	–	48
Mr. Liu Jipeng	40	–	–	–	40
Mr. Yu Ning	40	–	–	–	40
Mr. Shao Shiwei	74	–	–	–	74
Mr. Zheng Jianchao	40	–	–	–	40
Mr. Wu Liansheng	74	–	–	–	74
Mr. Li Zhensheng	40	–	–	–	40
Mr. Qi Yudong	40	–	–	–	40
Mr. Zhang Shouwen	40	–	–	–	40
Sub-total	580	662	926	202	2,370
Name of supervisor					
Mr. Guo Junming	–	–	–	–	–
Mr. Hao Tingwei	24	–	–	–	24
Ms. Zhang Mengjiao	–	–	–	–	–
Ms. Yu Ying	24	–	–	–	24
Ms. Wu Lihua	–	–	–	–	–
Mr. Gu Jianguo	48	–	–	–	48
Mr. Wang Zhaobin	–	109	330	84	523
Ms. Zhang Ling	–	45	136	35	216
Mr. Dai Xinmin	–	54	166	58	278
Sub-total	96	208	632	177	1,113
Total	676	870	1,558	379	3,483



## 36 DIRECTORS', SUPERVISORS' AND SENIOR MANAGEMENT' EMOLUMENTS (CONTINUED)

## (a) Pre-tax benefits and social insurance of directors and supervisors (Continued)

1 On 21 February 2012, Mr. Guo Hongbo was appointed as director of the Company on resignation of Mr. Liu Shuyuan.

2 On 12 June 2012, Mr. Xie Rongxing was appointed as director of the Company on resignation of Ms. Huang Mingyuan.

During the year, no option was granted to the directors or the supervisors (2011: nil).

During the year, no emolument was paid to the directors or the supervisors (including the five highest paid employees) as an inducement to join or upon joining the Company or as compensation for loss of office (2011: nil).

No director or supervisor had waived or agreed to waive any emoluments during the years 2012 and 2011.

## (b) Five highest paid individuals

The five individuals whose emoluments were the highest in the Company and its subsidiaries for the year include two (2011: two) directors whose emoluments are reflected in the analysis presented above. The emoluments payable to the remaining three (2011: three) individuals during the year (within the range of nil to RMB1 million) are as follows:

	For the year ended 31 December	
	2012	2011
Basic salaries	888	844
Performance salaries	1,236	1,181
Pension	298	279
	2,422	2,304

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## COMMITMENTS

## (a) Capital and operational commitments

(i) Commitments mainly relate to the construction of new power projects, certain ancillary facilities and renovation projects for existing power plants and the purchases of coal. Details of such commitments are as follows:

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
<b>Contracted but not provided for</b>				
– purchase of inventories	6,284,455	16,105,660	1,248,355	7,090,991
– construction	10,463,817	18,355,294	3,312,165	2,160,554
<b>Sub-total</b>	<b>16,748,272</b>	<b>34,460,954</b>	<b>4,560,520</b>	<b>9,251,545</b>
<b>Authorized but not contracted for</b>				
– construction	1,062,672	196,394	996,796	168,310
<b>Total</b>	<b>17,810,944</b>	<b>34,657,348</b>	<b>5,557,316</b>	<b>9,419,855</b>

(ii) The Company and its subsidiaries have entered into various long-term fuel supply agreements with various suppliers in securing fuel supply for various periods up to 2028. All the agreements require minimum volume purchases and subject to certain termination provisions. Related purchase commitments are as follows:

	The Company and its subsidiaries				
	2012 Periods	Purchase quantities	2011 Estimated unit costs (RMB)	Purchase quantities	Estimated unit costs (RMB)
A government – related enterprise	2012 – 2023	486.9 million m3/year	1.63/m3	486.9 million m3/year	1.63/m3
Other suppliers	2012 – 2013	175.1 BBtu/day	100,000/BBtu	175.1 BBtu/day	100,000/BBtu
	2014	90.0 BBtu/day	100,000/BBtu*	90.0 BBtu/day	100,000/BBtu*
	2015 – 2023	72.4 BBtu/day	*	72.4 BBtu/day	*
	2024 – 2028	49.9 BBtu/day	*	49.9 BBtu/day	*

BBtu: Billion British Thermal Unit



\* As the Company and its subsidiaries are not required to commit purchases of one of the contracts until 2014, no unit cost information available for daily purchase quantities of 72.4 BBtu and 72.4 BBtu and 49.9 BBtu during respective period categories of 2014, 2015 – 2023 and 2024 – 2028.

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## COMMITMENTS (CONTINUED)

(a) Capital and operational commitments (Continued)

(ii) (Continued)

For the year ended 31 December 2012, annual purchases from the government-related enterprise and other suppliers above amounted to RMB1,158 million (2011: RMB1,150 million) and RMB7,975 million (2011: RMB7,600 million), respectively.

As at 31 December 2012 and 2011, there is no long-term commitment at Company level.

(b) Operating lease commitments

The Company has various operating lease arrangements for land and buildings. Some of the leases contain renewal options and most of the leases contain escalation clauses. Lease terms do not contain restrictions on the Company's activities concerning dividends, additional debts or further leasing.

Total future minimum lease payments under non-cancelable operating leases are as follows:

	As at 31 December	
	2012	2011
Land and buildings		
– not later than 1 year	127,219	72,874
– later than 1 year and not later than 2 years	59,172	32,099
– later than 2 year and not later than 5 years	81,822	78,555
– later than 5 years	1,180,415	1,091,400
	1,448,628	1,274,928

In addition, in accordance with a 30-year operating lease agreement signed by Huaneng Dezhou Power Plant (“Dezhou Power Plant”) and Shandong Land Bureau for the land occupied by Dezhou Power Plant Phases I and II in June 1994, annual rental amounted to approximately RMB30 million effective from June 1994 and is subject to revision at the end of the fifth year from the contract date. Thereafter, the annual rental is subject to revision once every three years. The increment for each rental revision is restricted to no more than 30% of the previous annual rental amount. For the years ended 31 December 2012 and 2011, the annual rentals both were approximately RMB34 million.

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## FINANCIAL GUARANTEES

	The Company and its subsidiaries As at 31 December		The Company As at 31 December	
	2012	2011	2012	2011
<b>Financial guarantees</b>				
– granted to subsidiaries	–	–	14,896,139	14,609,962
– granted to jointly controlled entities	5,566	–	5,566	–
<b>Total</b>	<b>5,566</b>	<b>–</b>	<b>14,901,705</b>	<b>14,609,962</b>

Based on historical experience, no claims have been made against the Company since the dates of granting the financial guarantees described above.

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## MATERIAL BUSINESS COMBINATIONS

## 2012 Business Combinations

There was no material business combination in 2012.

## 2011 Business Combinations

In January 2011, the Company acquired 100% equity interest of Diandong Energy, 100% equity interest of Diandong Yuwang, 58.30% equity interest of Luoyuanwan Pier, 60.25% equity interest of Luoyuanwan Harbour and 73.46% equity interest of Ludao Pier from Shandong Power, and 39.75% equity interest of Luoyuanwan Harbour from Shandong Luneng Development Group Company Limited (“Luneng Development”). Both Shandong Power and Luneng Development are government-related enterprises.

The aggregate cash considerations of the above acquisitions amounted to RMB7,465.13 million.

In addition, the Company also acquired the remaining 26.54% equity interest of Ludao Pier from the non-controlling shareholders at a consideration of RMB65 million in January 2011.

The acquisition reflects the Company’s implementation of its development strategy which focuses on both green-field development and acquisition. Upon completion of the acquisitions above, the Company also further strengthened its coastal port operations and expanded the geographical coverage to Yunnan Province.

Fair value of total consideration transferred is as follows:

## Purchase consideration:

– Cash consideration	7,530,127
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## MATERIAL BUSINESS COMBINATIONS (CONTINUED)

## 2011 Business Combinations (Continued)

Acquisition-related costs of RMB5.71 million have been charged to the profit or loss for the year ended 31 December 2010.

In December 2011, the Company acquired 100% equity interest of Enshi Hydropower from Beijing Ance Hengxing Investment Limited Company, Zhuhai Jingyang Investment Limited Company, Wu Songling and Fang Xiaogui.

Fair value of total consideration transferred is as follows:

Purchase consideration:

– Cash consideration	227,000
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Acquisition-related cost of RMB0.32 million has been charged to the profit or loss for the year ended 31 December 2011.

Upon completion of the acquisition, the Company further expanded the geographical coverage of hydropower to Hubei Province.

The fair values of assets and liabilities arising from the acquisitions of Diandong Yuwang, Diandong Energy, Luoyuanwan Pier, Luoyuanwan Harbour, Ludao Pier and Enshi Hydropower and proportionate share of acquiree's net assets attributable to non-controlling interests on respective acquisition dates are as follows:

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## MATERIAL BUSINESS COMBINATIONS (CONTINUED)

## 2011 Business Combinations (Continued)

	Diandong Yuwang	Diandong Energy	Luoyuanwan Pier	Luoyuanwan Harbour	Ludao Pier	Enshi Hydropower	Total
Cash and cash equivalents	69,313	186,480	1,724	38,021	880	52,113	348,531
Property, plant and equipment	5,523,233	10,649,705	193,513	1,462,089	161,932	332,433	18,322,905
Land use rights	–	246,333	54,341	68,007	28,501	–	397,182
Mining rights*	278,318	1,644,337	–	–	–	–	1,922,655
Other non-current assets	312	141	332	690,081	12,007	–	702,873
Inventories	168,729	401,523	321	10,570	78	–	581,221
Receivables and other assets	329,426	587,284	35,639	137,402	54,595	14,608	1,158,954
Payables and other liabilities	(604,743 )	(1,020,057 )	(18,397 )	(815,517 )	(7,095 )	(42,763 )	(2,508,572 )
Salary and welfare payables	(2,761 )	(5,516 )	(24 )	(547 )	(738 )	–	(9,586 )
Borrowings	(4,546,000)	(9,225,000)	(100,798)	(713,721)	(2,200)	(262,150)	(14,849,869)
Deferred income tax liabilities	(29,571 )	(260,728 )	(12,961 )	(61,175 )	(12,655 )	(1,994 )	(379,084 )
Total identifiable net assets	1,186,256	3,204,502	153,690	815,210	235,305	92,247	5,687,210
Non-controlling interests	–	–	(64,089 )	–	–	–	(64,089 )
Goodwill	414,407	1,197,574	28,693	309,270	49,309	134,753	2,134,006
Consideration	1,600,663	4,402,076	118,294	1,124,480	284,614	227,000	7,757,127

\* The mining rights are related to coal mining operations of Diandong Yuwang and Diandong Energy. As the coal mines are still under construction, no amortization was provided for the years ended 31 December 2011 and 2012.

Goodwill arising from the acquisitions is attributable to the economies of scale and significant synergies expected to arise after the acquisitions of the Company on the equity interests in the subsidiaries stated above. None of the goodwill recognised is expected to be deductible for income tax purposes.

The fair value of receivables and other assets includes accounts receivables and other receivables of RMB669 million and RMB459 million, respectively. The gross contractual amounts of accounts receivables and other receivables are RMB672 million and RMB461 million, respectively. Management estimated accounts receivables of RMB669 million

and other receivables of RMB459 million to be collectible.

The revenue included in the consolidated statement of comprehensive income since acquisition dates contributed by acquisitions above was RMB5,006.86 million. These acquisitions above also contributed a net loss of RMB681.75 million over the same periods.

Had the acquisitions above been consolidated from 1 January 2011, the consolidated statement of comprehensive income would show unaudited revenue of RMB133,432.97 million and unaudited net profit of RMB1,177.85 million.

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SUBSEQUENT EVENT

(a) As of 11 January 2013, the Company entered into the Equity Transfer Agreement with Huaneng Group, pursuant to which the Company agreed to acquire a 50% interest in Fuel Company, a wholly owned subsidiary of Huaneng Group, from Huaneng Group for a consideration of approximately RMB108.32 million. On the same day, the Company entered into the Capital Injection Agreement with Huaneng Group and Fuel Company, pursuant to which the Company and Huaneng Group agreed to make a capital injection of RMB1.4 billion respectively into Fuel Company after the completion of the Acquisition.

The closing date is the day on which the Company is registered at the competent administration for Industry and Commerce as the holder of 50% interest in Fuel Company. The Company shall pay to Huaneng Group the consideration in cash by one-off payment within 15 working days from the closing date. The business registration has not been completed as at the approval date of the financial report.

(b) As of 5 February 2013, the Company issued unsecured public bond amounting to RMB1.5 billion bearing annual interest rate of 3.85%. The bond is denominated in RMB and issued at face value with maturity period of 3 years. The listing of the RMB bonds on Hong Kong Stock Exchange became effective on 6 February 2013.

As of 27 February 2013, the Company issued the first tranche of the super short-term debentures amounting to RMB5 billion bearing annual interest rate of 3.80%. The bond is denominated in RMB and issued at face value with maturity period of 270 days.

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## Financial Statements Reconciliation Between PRC GAAP and IFRS

The financial statements, which are prepared by the Company and its subsidiaries in conformity with the Accounting Standards for Business Enterprises (“PRC GAAP”), differ in certain respects from that of IFRS. Major impact of adjustments for IFRS, on the net consolidated profit and equity attributable to equity holders of the Company, are summarized as follows:

	Net profit		Total equity	
	For the year ended		As at 31 December	
	2012	2011	2012	2011
Consolidated net profit/equity attributable to shareholders of the Company under PRC GAAP	5,868,651	1,268,245	55,580,790	50,075,264
Impact of IFRS adjustments: Effect of reversal of the recorded the amounts received in advance of previous years (a)	–	–	(819,478 )	(819,478 )
Amortization of the difference in the recognition of housing benefits of previous years (b)	(2,247 )	(3,104 )	(135,702 )	(133,455 )
Difference on depreciation related to borrowing costs capitalized in previous years (c)	(26,369 )	(30,139 )	317,901	344,270
Differences in accounting treatment on business combinations under common control (d)	(107,735 )	–	3,466,949	3,574,684
Difference in depreciation and amortization of assets acquired in business combinations under common control (d)	(312,034 )	(297,589 )	(1,964,520 )	(1,652,486 )
Applicable deferred income tax impact of the GAAP differences above (e)	69,180	133,505	257,307	188,127
Others	(106,834 )	14,506	(80,353 )	(103,771 )
Profit/Equity attributable to minority interests on the adjustments above	129,841	95,087	(492,760 )	(590,226 )
Profit/Equity attributable to equity holders of the Company under IFRS	5,512,453	1,180,511	56,130,134	50,882,929



(a) Effect of recording the amounts received in advance of previous years

In accordance with the tariff setting mechanism applicable to certain power plants of the Company in previous years, certain power plants of the Company receive payments in advance in the previous years (calculated at 1% of the original cost of fixed assets) as the major repair and maintenance cost of these power plants. Such receipts in advance are recognized as liabilities under IFRS and are recognized as revenue when the repairs and maintenance is performed and the liabilities are extinguished. In accordance with PRC GAAP, when preparing the financial statements, revenue is computed based on actual power sold and the tariff currently set by the State, no such amounts are recorded.

(b) Difference in the recognition of housing benefits to the employees of the Company and its subsidiaries in previous years

The Company and its subsidiaries once provided staff quarters to the employees of the Company and its subsidiaries and sold such staff quarters to the employees of the Company and its subsidiaries at preferential prices set by the local housing reform office. Difference between cost of the staff quarters and proceeds from the employees represented the housing losses, and was borne by the Company and its subsidiaries.

Under Previous Accounting Standards and Accounting System (“Previous PRC GAAP”), in accordance with the relevant regulations issued by the Ministry of Finance, such housing losses incurred by the Company and its subsidiaries are fully charged to non-operating expenses in previous years. Under IFRS, such housing losses incurred by the Company and its subsidiaries are recognized on a straight-line basis over the estimated remaining average service lives of the employees.

(c) Effect of depreciation on the capitalization of borrowing costs in previous years

In previous years, under Previous PRC GAAP, the scope of capitalization of borrowing costs was limited to specific borrowings, and thus, borrowing costs arising from general borrowings were not capitalized. In accordance with IFRS, the Company and its subsidiaries capitalized borrowing on general borrowing used for the purpose of obtaining qualifying assets in addition to the capitalization of borrowing costs on specific borrowings. From 1 January 2007 onwards, the Company and its subsidiaries adopted PRC GAAP No. 17 prospectively, the current adjustments represent the related depreciation on capitalized borrowing costs included in the cost of related assets under IFRS in previous years.

(d) Differences in accounting treatment on business combinations under common control

Huaneng Group is the parent company of HIPDC, which in turn is also the ultimate parent of the Company. The Company carried out a series of acquisitions from Huaneng Group and HIPDC in previous years. As the acquired power companies and plants and the Company were under common control of Huaneng Group before and after the acquisitions, such acquisitions are regarded as business combinations under common control.

In accordance with PRC GAAP, under common control business combination, the assets and liabilities acquired in business combinations are measured at the carrying amounts of the acquirees on the acquisition date. The difference between carrying amounts of the net assets acquired and the consideration paid is adjusted to equity account of the acquirer. The operating results for all periods presented are retrospectively restated as if the current structure and operations resulting from the acquisition had been in existence since the beginning of the earliest year presented, with financial data of previously separate entities consolidated. The cash consideration paid by the Company is treated as an equity transaction in the year of acquisition.



For the business combination occurred prior to 1 January 2007, in accordance with Previous PRC GAAP, when equity interests acquired is less than 100%, the assets and liabilities of the acquirees are measured at their carrying amounts. The excess of consideration over the proportionate share of the carrying amounts of the net assets acquired was recorded as equity investment difference and amortized on a straight-line basis for not more than 10 years. When acquiring the entire equity, the entire assets and liabilities are accounted for in a method similar to purchase accounting. Goodwill arising from such transactions is amortized over the estimated useful lives on a straight-line basis. On 1 January 2007, in accordance with PRC GAAP, the unamortized equity investment differences and goodwill arising from business combinations under common control were written off against undistributed profits.

Under IFRS, the Company and its subsidiaries adopted the purchase method to account for the acquisitions above. The assets and liabilities acquired in acquisitions were recorded at fair value by the acquirer. The excess of acquisition cost over the proportionate share of fair value of net identifiable assets acquired was recorded as goodwill. Goodwill is not amortized but is tested annually for impairment and carried at cost less accumulated impairment losses. The operating results of the acquirees are consolidated in the operating results of the Company and its subsidiaries from the acquisition dates onwards.

As mentioned above, the differences in accounting treatment under PRC GAAP and IFRS on business combinations under common control affect both equity and profit. Meanwhile, due to different measurement basis of the assets acquired, depreciation and amortization in the period subsequent to the acquisition will be affected which will also affect the equity and profit or loss upon subsequent disposals of such investments. Such differences will be gradually eliminated following subsequent depreciation, amortization and disposal of related assets.

(e) Deferred income tax impact on GAAP differences

This represents related deferred income tax impact on the GAAP differences above where applicable.

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SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the under-signed, thereunto duly authorized.

HUANENG POWER INTERNATIONAL, INC.

By: /s/ Du Daming

Name: Du Daming

Title: Company  
Secretary

Date: April 23, 2013