

This Form 6-K consists of:

An announcement on power generation in the first quarter of 2010 of Huaneng Power International, Inc. (the “Registrant”), made by the Registrant on April 15, 2010.

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POWER GENERATION INCREASES 40.06%
IN THE FIRST QUARTER OF 2010

This announcement is made pursuant to Rules 13.09(1) and (2) of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited.

Huaneng Power International, Inc. (the "Company") announces its power generation in the first quarter of 2010.

According to the Company's preliminary statistics, as of 31 March 2010, the Company's total domestic power generation within China on consolidated basis amounted to 58.578 billion kWh, representing an increase of 40.06% over the same period last year. The increase in power generation of the Company was mainly attributable to the following reasons:

1. The general economy in China has improved, resulting in a relatively greater increase in the national electricity utilization in the first quarter. Likewise, the base number of the power generation was relatively lower because there had been a low demand for electricity under the impact of the global financial crisis during the same period of last year;
 2. The newly operating generating units contributed to the growth of the power generation; and
 3. The Company has increased its sales efforts and expanded various marketing channels, thus facilitating a growth in the Company's power generation.
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The power generation of each of the Company's domestic power plants in the first quarter of 2010 is listed below (in billion kWh):

Domestic Power Plant	Power generation in the first quarter of 2010	Power generation in the first quarter of 2009	Change
Liaoning Province			
Dalian	1.923	1.817	5.83%
Dandong	1.011	0.848	19.22%
Yingkou	2.381	2.045	16.43%
Yingkou Co-generation	0.996	—	—
Hebei Province			
Shang'an	2.776	2.345	18.38%
Gansu Province			
Pingliang	1.897	1.406	34.92%
Beijing			
Beijing Co-generation	1.399	1.358*	3.02%
Tianjin			
Yangliuqing Co-generation	1.848	1.853*	-0.27%
Shanxi Province			
Yushe	1.191	0.939	26.84%
Shandong Province			
Dezhou	3.399	3.183	6.79%
Jining	1.141	0.632	80.54%
Xindian	0.879	0.815	7.85%
Weihai	0.951	0.893	6.49%
Rizhao Phase II	1.667	1.318	26.48%
Henan Province			
Qinbei	3.273	2.994	9.32%

Jiangsu Province			
Nantong	2.116	1.632	29.66%
Nanjing	1.028	0.906	13.47%
Taicang	2.514	2.518	-0.16%
Huaiyin	2.066	1.583	30.51%
Jinling (Combined-cycle)	0.293	0.522	-43.87%
Jinling (Coal-fired)	1.363	—	—
Qidong Wind Power	0.069	—	—
Shanghai			
Shidongkou First	1.870	1.710	9.36%
Shidongkou Second	1.813	1.838	-1.36%
Shanghai Combined-cycle	0.173	0.032	440.63%
Chongqing			
Luohuang	3.801	2.487	52.83%
Zhejiang Province			
Changxing	0.434	0.348	24.71%
Yuhuan	4.899	3.905	25.45%
Hunan province			
Yueyang	1.896	1.125	68.53%
Jiangxi Province			
Jinggangshan	1.886	0.675	179.41%
Fujian Province			
Fuzhou	1.587	1.921	-17.39%
Guangdong Province			
Shantou Coal-fired	1.741	1.387	25.52%
Haimen	2.297	—	—
Total	58.578	41.824	40.06%

* The figures relating to the power generation of Beijing Co-generation Power Plant and Yangliuqing Co-generation Power Plant for the first quarter of 2009 are included for reference only and were not accounted for in the Company's total power generation in the first quarter of 2009.

The accumulated power generation of Tuas Power Limited in Singapore in the first quarter of 2010 accounted for 24.5% of the market share, representing an increase of 2.1 percentage points as compared to 22.4% of the same period last year.

By Order of the Board
Gu Biquan
Company Secretary

As at the date of this announcement, the directors of the Company are:

Cao Peixi
(Executive Director)
Huang Long
(Non-executive Director)
Wu Dawei
(Non-executive Director)
Huang Jian
(Non-executive Director)
Liu Guoyue
(Executive Director)
Fan Xiaxia
(Executive Director)
Shan Qunying
(Non-executive Director)
Xu Zujian
(Non-executive Director)
Huang Mingyuan
(Non-executive Director)
Liu Shuyuan
(Non-executive Director)

Liu Jipeng
(Independent Non-executive Director)
Yu Ning
(Independent Non-executive Director)
Shao Shiwei
(Independent Non-executive Director)
Zheng Jianchao
(Independent Non-executive Director)
Wu Liansheng
(Independent Non-executive Director)

Beijing, the PRC
15 April 2010

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/ Gu Biquan	
	Name:	Gu Biquan
	Title:	Company Secretary

Date: April 15, 2010