

Overseas Market Information



A Brief Report on Electricity in China

Market Overview

Market Definition

The electricity market consists of the sale of electricity to industrial, commercial, household and other end-users, including agricultural and transport users. The volume of the market is calculated as the total volume of electricity consumed (in billions of kilowatt hours), and the market value has been calculated according to average annual electricity prices. Any currency conversions used in the creation of this report have been calculated using constant 2005 annual average exchange rates.

For the purposes of this report, Asia-Pacific is deemed to be Japan, China, Australia, India, South Korea, Singapore and Taiwan.

Research Highlights

The Chinese electricity market generated total revenues of \$ 129.7 billion in 2005, this representing a Compound Annual Growth Rate (CAGR) of 15.1% for the five-year period spanning 2001-2005.

Industrial sales proved the most lucrative for the Chinese electricity market in 2005, generating total revenues of \$ 86.1 billion, equivalent to 66.4% of the market's overall value.

Looking forward, the performance of the market is forecast to decelerate, with an anticipated CAGR of 13.2% for the five-year period 2005-2010 expected to drive the market to a value of \$ 241.3 billion by the end of 2010.

Market Analysis

The demand for electricity in China displayed double-digit annual growth for the entire 2001-2005 period, while average prices showed only slight overall increases during these years. The result was strong increases in market value, which are set to continue going forward. The Chinese electricity market was the fastest growing in the Asia-Pacific region.

The Chinese electricity market generated total revenues of \$ 129.7 billion in 2005, this representing a Compound Annual Growth Rate (CAGR) of 15.1% for the five-year period spanning 2001-2005. In comparison, the Singaporean and Taiwanese markets grew with CAGRs of 4.7% and 5.4% during this period, to reach respective values of \$ 2.8 billion and \$ 10.3 billion in 2005.

Market consumption volumes increased with a CAGR of 13.8% between 2001-2005, to reach a total of 2,184.1 billion kWh in 2005. The market's volume is expected to rise to 3,605.4 billion kWh by the end of 2010, this representing a CAGR of 10.5% for the 2005-2010 period.

Industrial sales proved the most lucrative for the Chinese electricity market in 2005, generating total revenues of \$ 86.1 billion, equivalent to 66.4% of the market's overall value. Sales of electricity to households also generated substantial revenues for the market in 2005. The segment's sales of \$ 26.7 billion in 2005 equated to 20.5% of the market's aggregate revenues.

Looking forward, the performance of the market is forecast to decelerate, with an anticipated CAGR of 13.2% for the five-year period 2005-2010 expected to drive the market to a value of \$ 241.3 billion by the end of 2010. Comparatively, the Singaporean and Taiwanese markets will grow with CAGRs of 3.5% and 5% respectively, to reach values of \$ 3.3 billion and \$ 13.2 billion in 2010.

Market Value

The Chinese electricity market grew by 12.6% in 2005 to reach a value of \$ 129.7 billion.

The compound annual growth rate of the market in the period 2001-2005 was 15.1%.

China Electricity Market Value : \$\$ billion, 2001-2005

Year	\$ billion	RMB yuan billion	% Growth
2001	74.0	607.1	
2002	86.4	708.4	16.70%
2003	99.1	812.9	14.70%
2004	115.2	945.4	16.30%
2005	129.7	1,064.3	12.60%
<b>CAGR, 2001-2005 :</b>			<b>15.1%</b>

Market Volume

The Chinese electricity market grew by 13.5% in 2005 to reach a volume of 2,184.1 billion kWh.

The Compound Annual Growth Rate of the market in the period 2001-2005 was 13.8%.

China Electricity Market Volume : kWh billion, 2001-2005

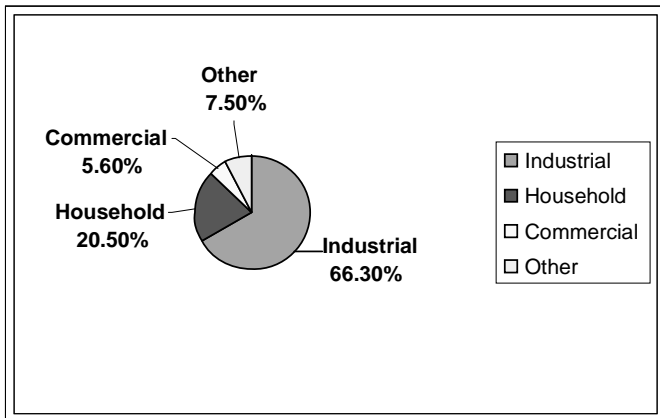
Year	kWh billion	blank	% Growth
2001	1,302.3		
2002	1,452.0		11.50%
2003	1,671.2		15.10%
2004	1,925.1		15.20%
2005	2,184.1		13.50%
<b>CAGR, 2001-2005 :</b>			<b>13.8%</b>

### Market Segmentation I

Revenues from the industrial sector generated 66.3% of the market. The household sector accounts for a further 20.5% of the market's value.

**China Electricity Market Segment 2005**

Category	% Share
Industrial	66.30
Household	20.50
Commercial	5.60
Other	7.50

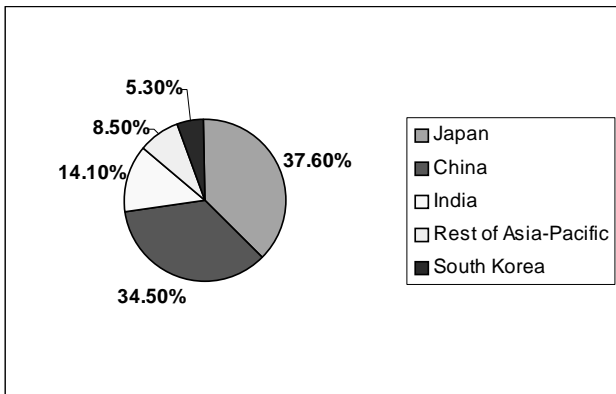


### Market Segmentation II

China accounts for 34.5% of the Asia-Pacific electricity market's value. In comparison, the Japanese market generates 37.6% of the regional market.

**China Electricity Market Segmentation 2005**

Geography	% Share
Japan	37.60%
China	34.50%
India	14.10%
Rest of the Asia-Pacific	8.50%
South Korea	5.30%

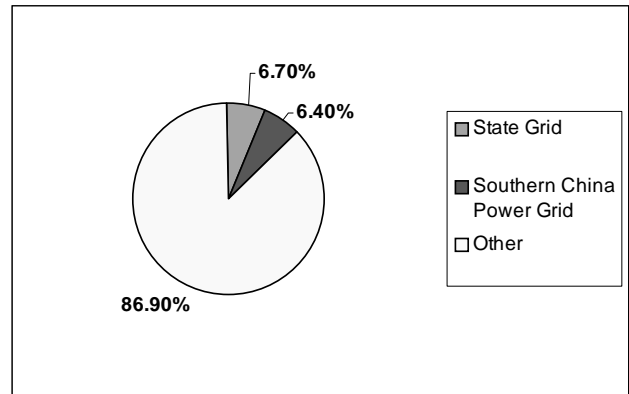


### Market Share

Market leader by volume is State Grid with a 6.7% market share. In comparison, Southern China Power Grid accounts for 6.4% of the Chinese market's volume :

**China Electricity Market Share 2005**

Company	% Share
State Grid	6.70%
Southern China Power Grid	6.40%
Other	86.90%



### Competitive Landscape

The State Grid Corporation which runs the electricity transmission service in China in all areas not covered by the Southern China Power Grid, and sells electricity to the various regional municipalities, is the largest electricity provider in China. Though its regional generation facilities have been transferred to five specialist generation companies, the company will retain its monopoly over supply and distribution in its area of operation.

The company sold 147 twh of energy in 2005, up from 129 twh in 2004. The company reported revenues of \$ 87.9 billion in 2005 up from \$ 59.01 in 2004. The company returned net income of \$1.76 billion in 2005, compared with \$ 1.02 in 2004. The company retains jurisdiction over electricity supply in 88% of Chinese territory.

With demand for electricity in China skyrocketing, the company has been forced into widescale development of the country's largely-obsolete electricity infrastructure. Despite ongoing reform to the structure of the electricity network as a whole after the dissolution of the Chinese state power company, State Grid does not yet operate within a competitive environment. But with foreign investment across the board in the Chinese electricity sector, there remains the potential for increased competition in the future.

## Leading Companies

### State Grid

State Grid Corporation is the largest electric power provider in China, formerly known as State Power Corporation which include both the electric grid and power plants all over mainland China. Their headquarters are in Beijing and have 729,327 employees.

In 2004, the company generated revenues of \$ 71.3 billion, an increase of 22.2% from 2003. These are the most recent figures available for SGCC.

### Southern China Power Grid

Founded with the approval of the state Council in 1988, China Electricity Council (CEC) is a consolidated organization of all China's Power enterprises and institutions, which is also a non-profit social and economic organization. Coming through four terms of Boards since its founding, China Electricity Council now operates under the supervision of the State Electricity Regulatory Commission. Their Headquarters are in Guangzhou and have 134,805 employees.

In 2004, the company generated revenues of \$ 18.9 billion, a 24.4% increase from 2003. In 2004, the company generated revenues of \$ 18.9 billion, a 24.4% change from 2003.

## Market Forecasts

### Market Value Forecast

In 2010, the Chinese electricity market is forecast to have a value of \$241.3 billion, an increase of 86% since 2005.

The compound annual growth rate of the market in the period 2005-2010 is predicted to be 13.2%.

### China Electricity Market Value Forecast : \$\$ billion, 2005-2010

Year	RMB yuan		% Growth
	\$ billion	billion	
2005	129.7	1,064.3	12.60%
2006	150.4	1,234.2	16.00%
2007	172.9	1,418.0	14.90%
2008	194.0	1,591.2	12.20%
2009	218.0	1,788.0	12.40%
2010	241.3	1,979.5	10.70%
<b>CAGR, 2005-2010 :</b>			<b>13.2%</b>

### Market Volume Forecast

In 2010, the Chinese electricity market is forecast to have a volume of 3,605.4 billion kWh, and increase of 65.1% since 2005.

The compound annual growth rate of the market volume in the period 2005-2010 is predicted to be 10.5%.

### China Electricity Market Volume Forecast : kWh billion, 2005-2010

Year	kWh billion	blank	% Growth
2005	2,184.1		13.50%
2006	2,464.8		12.90%
2007	2,741.4		11.20%
2008	3,025.4		10.40%
2009	3,310.5		9.40%
2010	3,605.4		8.90%
<b>CAGR, 2001-2005 :</b>			<b>10.5%</b>

## Macroeconomic Indicators

### China Size of Population (million), 2001-2005

Year	Population (million)	% Growth
2001	1,271.1	
2002	1,279.2	0.60%
2003	1,287.0	0.60%
2004	1,294.6	0.60%
2005	1,302.2	0.60%

### China GDP (1995 = 100), 2001-2005

Year	1995 = 100	% Growth
2001	159.9	
2002	172.3	7.70%
2003	186.6	8.30%
2004	201.9	8.20%
2005	218.1	8.00%

### China Inflation, 2001-2005

Year	Inflation Rate (%)	% Growth
2001	0.7	
2002	-0.8	-205.50%
2003	1.2	
2004	3.1	161.10%
2005	2.6	-16.00%

### China Exchange Rate, 2001-2005

Year	Exchange Rate (\$/RMB yuan)
2001	0.12077
2002	0.12067
2003	0.12068
2004	0.12067
2005	0.1219

(Source : EEPC Singapore Office)