

China's Electric Power Demand and Supply in 2005¹

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According to China Electricity Council (CEC), despite China's continuous high rate of increase of generation capacity in 2003 and 2004, severe electricity shortages have forced the country to impose usage restrictions. Power shortage was continued in 2005, but power-rolling level was slightly mitigated compared to the last two years.

By the end of 2005, total installed capacity reached to 508 GW, an average annual growth rate of 14.9 per cent, of which, hydropower amounted to 117 GW, accounting for 22.9 per cent, whilst thermal power amounted to 384 GW, accounting for 75.6 per cent. Regions with higher capacity growth rate (above the national average level 14.9 per cent) were: Jiangsu, Shanxi, Zhejiang, Henan and Yunnan. Among them, Jiangsu province itself increased more than 14 GW in 2005.

The total length of 200 kV and above transmission line expanded to 251,900 kilometers, an annual growth rate of 9.6 per cent, whereas, the total capacity of 220 kV and above transformers increased to 866,800 MVA, an growth rate of 15.9 per cent.

By the end of 2005, total power generation increased 280 TWh to 2,475 TWh, an increase of 12.8 per cent compared to the previous year. Hydropower increased by 19.4 per cent to 395 TWh, accounting for 16.0 per cent, thermal power increased by 11.5 per cent to 2,018 TWh, accounting for 81.5 per cent of the total. Meanwhile, nuclear power upped from 50 TWh to 52 TWh, an increase rate of 3.7 per cent from the previous year. Areas with higher growth level (above the national average level 12.8 per cent) were: Jiangsu, Hainan, Qinghai, Shanxi, Guangxi, Henan, Fujian, Xinjiang, Shandong, Yunnan, Neimenggu, Hubei, Zhejiang, Xizang and Beijing.

Average yearly hours of operation per power plant decreased by 44 hours to 5,411 hours in 2005, due to operation of newly constructed power plants. Coal consumed by per kilowatt-hour was reduced to 374gram from 376 gram, equivalent to saving more than three million tons of standard coal. Transmission loss rate also downed to 7.18 per cent.

¹ Figures are quoted from source.

Meanwhile, total power consumption increased by 13.45 per cent to 2,469 TWh, of which, 74 TWh was consumed by preliminary industry, increased by 7.64 per cent; 1,848 TWh was consumed by secondary industry, increased by 13.37 per cent; 263 TWh was consumed by tertiary industry, increased by 12.90 per cent; and 284 TWh was consumed by residential sector, increased by 16.19 per cent from the previous year. Industrial consumption growth rate has been noticeably slow down from 16.75 per cent to 12.48 per cent due to China's macro-control policy, of which, light industry down 5.87 points to 7.93 per cent and heavy industry down 3.48 points to 13.85 per cent, respectively.

Source: China Electricity Council

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