

# Electricity Business in the Chinese Mainland

## Business Environment and Challenges

The tremendous increase in the economic development of the Mainland in recent years has been an event of global dimensions, whose wider and longer-term implications for the Mainland, our region and the world economy cannot yet be fully or accurately foreseen. One particular consequence has already been an unprecedented growth in demand for electricity to power the Mainland's growth. CLP has been an active participant in the Mainland's power sector since 1984 and we remain the largest external investor in the industry. We thought it appropriate, in this year's Annual Report, to provide shareholders with a fuller account of our views on the business environment and challenges in the Mainland's electricity industry and the strategy which CLP has adopted in response.

In the short to medium-term, we see that business environment as being characterised by the major factors summarised in the following paragraphs.

### High Demand Growth

Growth in electricity demand during the three years from 2002 to 2004 has averaged 13.9% across the whole country, and higher in certain regions. Growth of this magnitude is likely to be unsustainable. Through macro-economic controls, including restrictions on energy-intensive industries, this growth will be moderated. In consequence, the forecast growth in electricity demand for 2005 is in the region of 10% to 11%, with an average growth forecast for the five years from 2006 at around 6% to 7% per annum.

### Cyclical Supply and Demand Imbalance

The effective ban on power plant construction for three years between 1998 and 2000 contributed to acute shortages of power to the point that, in 2004, some 24 provinces or municipalities were experiencing supply shortages totalling 30,000MW. Electricity supply is expected to remain tight in 2005.

In response to the power shortages, power plant construction is underway on a massive scale. It is estimated that about 280,000MW of plant is under construction (the equivalent of 3.5 times the total installed generating capacity in the U.K.). Of this, reports suggest that approximately 120,000MW represents power projects which have not yet been approved by the Beijing authorities. If all these plants were commissioned over the next three to four years, there would be the potential for serious over-capacity in electricity supply.

In order to control the situation, "Document 32" was promulgated by the State Council in November 2004 to crack down on unauthorised projects. The application in practice of Document 32 is not yet clear, although it appears that a majority of new projects will be delayed and some may even be stopped so as to moderate the potential over-capacity situation. Overall, it would be reasonable to expect the supply and demand balance to be restored in 2006/7, followed by a period of over-capacity.

### Regulatory Environment

The regulatory environment is opaque, but may evolve towards higher transparency and clarity. The existing tariff approval process lacks objectivity and transparency. However, the "marketisation" of the power sector will result in tariffs being increasingly determined by market forces.

In July 2004, the State Council issued "Document 20" which modifies the approval process for power projects, making it better defined and more transparent. The new process is simpler and focuses on considerations such as environment, land use and utilisation of natural resources, whilst leaving commercial risk to be borne by the investors (as opposed to being shared with the off-taker under long-term power purchase agreements).

## What are we going to deliver in 2005 and beyond?

The mechanism for allocation of greenfield power projects still remains a matter of competition and relationships.

### "Marketisation"

The "marketising" of the power sector includes the establishment of regional power markets within which generating companies will have to compete in order for their power to be dispatched to the grid. This will contribute to an increasing emphasis on careful management of capital and production costs by power generators.

After "marketisation" of the generation business, the authorities are looking towards separating distribution from transmission and opening up the distribution and supply businesses to other investors (which could include external investors such as CLP). The timing of such a step is uncertain.

### Capital Investment

The eleventh five-year plan, covering the period 2006-2010, calls for the development of approximately 220,000MW of generating plant, requiring a total investment in the region of RMB1,000 billion. In addition, a further investment of RMB750 billion is envisaged for the transmission and distribution systems during the same period. According to State Regulations, 20% of all of these investments must be funded by equity.

Although the private sector generating companies do have access to considerable funds through access to equity and financial markets, investment on such a massive scale will pose considerable challenges in terms of the availability of sufficient private sector funds.

### Coal Prices

The price of coal in the Mainland has been deregulated, save in respect of coal supply for power generation. Measures are being taken to control these coal prices and to protect generators against the consequences of price increases.

At the "Coal Production, Transportation and Demand Coordination Conference" held in December 2004, the National Development and Reform Commission

confirmed that the price of coal for electricity generation in 2005 will be capped at 8% above the price in place at the end of September 2004. It is, however, uncertain whether the cap will actually be applied effectively in the market. We expect the linkage of electricity tariff with coal prices to be implemented. We also expect the railway transportation system will remain a bottleneck in the efficient and cost-effective internal transport of coal from mines to power stations. The challenges are not only of capacity, but also the fragmented manner in which the railway industry is organised and operated.

### Environmental Issues

The Mainland authorities recognise the growing importance of environmental issues. Pollution has become a serious problem in recent years. According to the World Bank, 16 of the world's 20 most polluted cities are in the Mainland. Acid rain affects one-quarter of the Mainland's land area and one-third of all land used for agriculture. The Central Government is taking steps to tackle these environmental issues, including by:

- reducing the percentage of coal-fired generation from 83% (2003) to 75% in 2010 and increasing the proportion of gas-fired and hydro electric generation;
- increasing energy efficiency by closing down small thermal generating units;
- promoting the installation of FGD in coal-fired plants;
- setting stringent emission standards and imposing emission charges; and
- promoting the development of renewable energy with a view to such facilities representing about 9% of total generating capacity by 2010.

In view of the evolutionary nature of the Mainland's power sector, with ongoing uncertainty in key aspects, CLP has decided to adopt a prudent interim strategy for the next one to two years, until we have a clearer picture of the direction of the Mainland electricity industry and the opportunities for CLP to position itself successfully within that industry.

## 2005

This interim strategy and its implementation during 2005 and, most likely, continuing into 2006 will involve:

- the development of a business platform in Southern China to complement our Hong Kong business, including developing our links with the major players in South China;
- the consolidation and effective management of our existing investments;
- the cost-effective and timely completion of existing projects – progress on obtaining the regulatory approvals to allow work to commence on the greenfield project at Fangchenggang will be a priority task;
- consideration of new investments only when these have strong project fundamentals, such as with respect to fuel procurement, strategic location or market demand. The priority focus will be on Southern China;
- optimisation of financing and tax structures, with the objective of enhancing CLP's competitiveness vis-a-vis domestic generating companies;
- the continued move towards a locally-based development, construction and operations management team, with a view to reducing corporate overheads and improving CLP's competitive position;
- continued pursuit of renewable energy opportunities, together with progress towards completion on time and within budget of the existing Changdao Wind Power Project; and
- maintaining CLP's market position and relationships – promoting CLP as an investor operator and allowing us to exploit competitive advantages as the industry structure and market develop.

For individual projects, a number of specific steps are envisaged to improve performance.

- CLP Guohua – further coal price increases need to be managed by continuing to leverage on stable and competitive supply from Shenhua and seeking an appropriate tariff increase to partially recover the increase in coal cost. Steps will be taken to lower operating and maintenance expenditure and overheads through continued benchmarking against, and implementing, industry best practices.
- SZPC – steps will be taken to reduce coal costs, including through exploring alternative coal supplies. SZPC will also seek to recover such outgoings through an appropriate increase in tariff. As part of the overall efforts to improve the performance of SZPC, we will be looking to reductions in ongoing operating and maintenance costs.
- Guizhou CLP Power – we will seek to avoid or reduce any further coal price increases. We will also aim to finalise the operating and maintenance arrangements with Anshun I, which shares the same site as Anshun II. Failing this, we will pursue alternative arrangements.
- Huaiji Power Project – our aim is to place this project on a more sustainable economic footing. To do so, CLP intends to take a controlling interest in the project, with a corresponding decrease in the interest held on behalf of the Huaiji County authorities. The proposed transfer of the off-take obligations from Huaiji County to South China Grid should also improve the position with regard to reliable and regular payment for the electricity generated at Huaiji.

### Beyond 2005

CLP's long-term strategy for its engagement in the Mainland power sector will be reviewed in the next two years or so, as increasing clarity emerges as to the direction which the industry will take. However, CLP is committed to a long-term, sustainable and meaningful presence in the Mainland power industry. Whilst the details and timing of the implementation of our strategy are likely to be redefined after 2005, we envisage that the overall orientation of that strategy would include:

- finding and occupying a defensible "niche" in the Mainland electricity industry – commensurate with CLP's size, competitive advantages and appetite for risk;
- developing CLP's competitive advantages, most notably through focusing on the linkages between our electricity business in Hong Kong and the adjacent areas of Southern China;
- expanding our presence in gas-fired generation, wind and hydro projects, where we have existing experience and which may increasingly be favoured by the authorities as massive amounts of new coal-fired generation come on line in China;
- focus on low cost expansion of our existing power facilities and selective greenfield development, primarily in the Southern Grid region (Guangdong, Guangxi, Guizhou, Yunnan and Hainan Island);
- accessing domestic equity capital markets in order to mimic our competitors' cost of capital and thereby compete more effectively for greenfield projects and acquisitions of existing assets;

- building CLP-controlled and Mainland-based integrated operating businesses with self-financing capability; and
- building local construction and operating capability, such that we can tap into the growing pool of human resources talent and experience in the Mainland, rather than rely on Hong Kong based staff with attendant challenges in terms of mobility and cost.

The combined effect of lower tariffs, higher coal costs and significant new capacity coming into service may put pressure on the profitability of Mainland generating companies. This may contribute to a restructuring of generation portfolios which are currently widely spread, with few operational synergies. CLP has the resources to participate in any future consolidation of asset ownership, especially in our core target market of the Southern Grid.

We are confident that CLP's reputation in the Mainland, our skills in project management, operations and maintenance, combined with corporate strengths in financial management, internal controls and credible corporate governance, will allow us to add value to joint venture partners, build on our existing Group portfolio of assets and take forward our Mainland power business successfully.