

## Hong Kong



The quality of the electricity supply offered to the community in 2005 demonstrated the merits of a sound regulatory framework, responsibly operated by CLP.

The merits of the current regulatory regime for our Hong Kong electricity business are most clearly demonstrated by the quality of the operation of that business and by continued excellence in the delivery to our customers and the community of an electricity supply which meets their current needs and enables the investment to be made now to meet future needs.

During 2005, we strove for outstanding performance in all dimensions of this electricity business, with emphasis on:

- meeting the demand for electricity from all customer sectors;

- investment in further improving the environmental performance of our business;
- effective management and operation of our generating assets;
- timely and effective investments in our supply network and customer service facilities;
- ongoing cost management and discipline; and
- maintaining steady earnings growth.



**Q:** **Mr. Stephen Oldfield** *Executive Director, Asia-Pacific Investment Research, Goldman Sachs (Asia) L.L.C.* (left)

Recent media reports have suggested that the current SoC may stay in place after 2008, with some improvements and a lower permitted return. Can the Government force CLP to accept a lower return?



**A:** **Betty Yuen** *Group Director – Managing Director Hong Kong* (right)

As you know, CLP is an investor-owned company. The electricity system is funded by the Company and its investors. With ExxonMobil, our partner in electricity generation, we own the entirety of the assets deployed in the electricity business in Kowloon and the New Territories. We have no subsidy, indirect or direct, from Government and receive no privileges nor concessions from Government to carry on that business. The SoC is a contract which CLP has entered into with Government on its own volition. The SoC expires in 2008 and, in recognition of the importance to Government, the community and CLP itself of maintaining the high quality, reliability and cost-effectiveness of a major public service, we are prepared to enter into a new agreement – provided this properly reflects the interests of all concerned, including the need for reasonable and durable returns for our investors who make available the funds, take the risks and support the commitments necessary to provide Hong Kong's electricity infrastructure. Government cannot, and we do not believe they will, force CLP to enter into an agreement that we find unacceptable.



**left** CLP's press conference in February 2005 explaining our views on the future of Hong Kong's electricity market

**right** Investing for the future – CLP's energy efficient substation at Sham Mong Road



### Meeting the Demand for Electricity

The demand for CLP's services continues to grow. Our total electricity unit sales in 2005, including those to the Chinese mainland, grew by 6.8% to 33,879GWh. Revenue registered a 5.9% increase to HK\$28,303 million (2004: HK\$26,733 million). This was mainly attributable to higher unit sales and a fuel clause adjustment as a result of the higher composite fuel price.

The following table is a breakdown of unit sales growth by sector in Hong Kong during 2005.

| Sector                             | Number of customers '000 | 2005 Electricity sales GWh | Sales Increase/ (Decrease) over 2004 % | Average annual sales change over 2001-2005 % | Notes on 2005 performance   |
|------------------------------------|--------------------------|----------------------------|--|--|---|
| Residential                        | 1,909                    | 7,525                      | 5.3                                    | 2.6  | Largely attributable to warmer weather  |
| Commercial                         | 182                      | 11,428                     | 3.1                                    | 2.7  | Reflecting the overall rebound in Hong Kong's economy   |
| Infrastructure and Public Services | 80                       | 7,695                      | 1.7                                    | 4.4  | Attributable in part to new railway infrastructure, but offset by energy conservation measures  |
| Manufacturing                      | 34                       | 2,734                      | (3.5)                                  | (4.8)  | The number of manufacturing customers continued to decline  |
| Total local sales                  | 2,205                    | 29,382                     | 2.6                                    | 2.2  |   |
| Export sales                       | –                        | 4,497                      | 45.7                                   | 30.7   | Assisting Guangdong to meet electricity demand and providing additional revenue for our Hong Kong customers. These sales also contribute to shareholder earnings, because the profits from such sales are allocated on a 80/20 basis between customers and shareholders |
| Total sales                        | 2,205                    | 33,879                     | 6.8                                    | 4.3  |   |

## Environmental Improvement

In 2005 we made good progress in our planned investments to further improve the environmental performance of our business.

Following Government's approval in June 2005 of our Financial Plan for the period 2005 to 2008, work has commenced on an emissions reduction project for Castle Peak B Power Station. An Environmental Impact Assessment (EIA) project profile was submitted to Government in September. Front-end engineering work, including plant relocation works and marine infrastructure has been progressing on a fast track basis.

The largest component of this package of emissions reduction measures is the retrofit of Flue Gas Desulphurisation (FGD) and Selective Catalytic Reduction (SCR) equipment that will reduce emissions of SO<sub>2</sub> by 90% and NO<sub>x</sub> by 80%. This

represents a major investment, involving substantial expenditure over several years. On completion, these emissions reduction measures will bring Castle Peak in line with the best international environmental standards and keep this important facility operating as part of our diversified mix of electricity generating plant.

We have also moved ahead with steps necessary to develop the infrastructure to secure a replacement supply of natural gas for our Black Point Power Station. This involves building an LNG receiving and storage terminal for our use by early next decade, so that LNG can be imported to Hong Kong. Work has progressed on selecting a suitable site, and following consultation with Government, NGOs and the community, an EIA study was launched in May on two preferred sites, one adjacent to Black Point Power Station and the other on South Soko Island.

## Effective Operation of Generating Assets

Our generating plant continued to operate reliably, with high availability levels being maintained in order to meet system demand.

| Station                    | Rating (MW) | Generation** (GWh) |          | Availability (%) |      | Operating Hours |          |
|----------------------------|-------------|--------------------|----------|------------------|------|-----------------|----------|
|                            |             | 2005               | 2004     | 2005             | 2004 | 2005            | 2004     |
| Black Point Power Station  | 2,188       | 11,270.0           | 11,304.1 | 89.0             | 88.6 | 36,850.0        | 37,249.8 |
| Castle Peak Power Station  | 4,108       | 14,976.9           | 13,801.8 | 89.1             | 87.8 | 34,685.0        | 32,732.5 |
| Penny's Bay Power Station* | 300         | 0.2                | 3.5      | 97.3             | 95.9 | 11.2            | 117.2    |

\* Penny's Bay Power Station is used for peaking capacity and black start capability.

\*\* Purchase of nuclear electricity from Daya Bay is not reflected in these figures.

The importance of reliable operation of our generating fleet was underlined by the fact that local demand reached a historical peak of 6,475MW in July and system demand also achieved a high demand of 7,817MW in 2005. Our reserve margin of generating capacity (that is to say the relationship between the total installed capacity available to serve our Hong Kong customers and the highest past demand for electricity from those customers) fell from 30.6% to 27.6%.

As part of our drive for ongoing improvement in the performance of our generating plant we :

- improved boiler efficiency and NO<sub>x</sub> emissions through the installation of a boiler optimisation system on all units at Castle Peak B station;

- applied improved maintenance practices, such as the application of Six Sigma Methodology to optimise coal pulverizer maintenance works at Castle Peak; and
- broadened the application of information technology, including a Plant Information (PI) system to enhance maintenance decision-making through a Real Time Performance Management Platform and Maintenance Order Automation.

A new 312.5MW generating unit at Black Point (Unit 7) was declared available for commercial operation in August 2005. This adds an additional combined cycle generating unit to our generating portfolio, using environmentally friendly natural gas as primary fuel.

**left** Heat Recovery Steam Generators  
at Black Point Units 7 & 8

**right** Pui O to Chi Ma Wan cable tunnel



## Capital Investment

We continued our ongoing programme of capital investments in the transmission and distribution networks, customer services and other supporting facilities. The objectives behind this investment programme are to:

- ensure timely investment to meet future increases in demand, as the number of customers and overall electricity demand continue to increase;
- maintain, and where practical, improve the quality and reliability of our transmission and distribution network; and
- enhance the efficiency of our supply network and customer services through prudent and targeted investment, with a view to improving supply quality, whilst controlling the cost to our customers.

In line with these objectives, we invested HK\$6 billion (2004: HK\$7 billion) during the year, with the principal capital investments including:

- the implementation of a new Interactive Voice Response and Work Force Management System at the Customer Interaction Centre, to improve the user-friendliness of the Customer Call Centre;

- the installation of automatic meter reading equipment for 90% of Bulk Tariff and Large Power Tariff customers, which has improved the timeliness and accuracy of meter reading;
- the roll out of Plant Optimisation Systems to support the Strategic Asset Management initiatives;
- the roll out of the new Energy Management System at the System Control Centre to provide enhanced capacity and functionality for the real-time supervisory control of the power system;
- providing the infrastructure to ensure an adequate and secure electricity supply to Disneyland, a regional tourist attraction, and the Disneyland MTR extension line; and
- commissioning major 132kV primary substations at Beacon Hill, Discovery Bay, Ping Che, San Shek Wan, Sham Mong Road and Tsing Yi Road, to meet electricity demand.

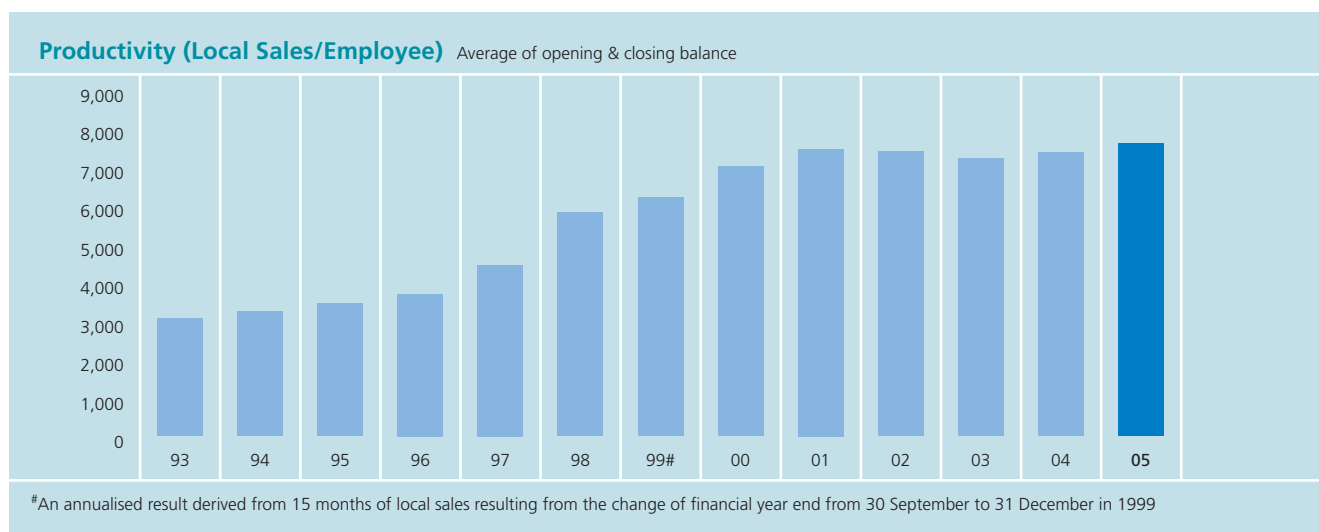
## Cost Management

Our objective is to provide our customers with an electricity supply which is not only of the highest quality in terms of reliability and customer services, but also delivers those attributes on a cost-effective basis. To this end, we have monitored closely the operating expenditure incurred in our Hong Kong electricity business. Details of our 2005 performance are summarised below:

| Operating Expenditure            | 2005<br>HK\$M | 2004<br>HK\$M |
|----------------------------------|---------------|---------------|
| Operating costs                  | 3,106         | 3,166         |
| Fuel                             | 4,153         | 3,482         |
| Purchases of nuclear electricity | 5,029         | 4,763         |
| Depreciation                     | 3,746         | 3,452         |
| Operating interest               | 543           | 415           |
|                                  | <b>16,577</b> | <b>15,278</b> |
| Deferral premium payment         | –             | 176           |
|                                  | <b>16,577</b> | <b>15,454</b> |

Our cost control initiatives enabled us to maintain operating expenditure at about same level as 2004. Even though our fuel procurement strategy has mitigated the extent of the impact from fuel price volatility, our composite fuel cost increased by about 14% over last year as a result of surging coal and gas prices in the international market.

One of the standard measures of cost efficiency is productivity in terms of electricity sales per employee. The following chart shows our performance from the start of the current SoC to 2005. Between 1993 and 2005, CLP's productivity has increased by 148%.



All of the savings which CLP makes in its operating costs are passed directly to customers. The announcement in December 2005 that CLP would continue its longstanding tariff freeze into 2006 speaks strongly for the effectiveness of the Company's efforts in controlling operating costs.

## Earnings

Earnings from the electricity business in Hong Kong are determined in accordance with the requirements of the SoC and amounted to HK\$7,047 million, an increase of 3.8% over last year. This increase resulted from the ongoing capital investments to meet new demand and to enhance services to customers, but was partly offset by the higher interest cost borne by shareholders. Profit from China sales was HK\$120 million (2004: HK\$90 million).

**Q:** **Mr. Chan Kung Leung** *Shareholder* (left)

What is your bottom line on the return of the new regulatory regime?

**A:** **Betty Yuen** *Group Director – Managing Director Hong Kong* (right)

I don't want to talk in terms of a 'bottom line' on returns. As we said in our public document 'A World Class Electricity Supply for a World Class City – Powering Hong Kong's Future', returns must not be judged in isolation. They are only one component, albeit an important one, of a fair and sustainable regulatory regime. The acid test is whether that regime as a whole will continue to deliver an electricity supply system which is privately funded, reliable, cost-competitive and environmentally sound. An essential element of this will be levels of return, and prospects of earning those returns, which support the substantial, timely and long-term investment which Hong Kong's electricity industry will need for the foreseeable future. I believe the levels of return, including different rates of returns within a vertically integrated business, as proposed in Government's Stage II consultation paper, would fail to meet this test – particularly in light of the uncertainties faced by the power companies as a result of Government's unclear energy policy and inconsistent environmental regulations.

