# India



# How did we do in 2006?

The major focus of our business in India in 2006 continued to be to:

- optimise the performance of our existing assets at GPEC;
- pursue opportunities for growth; and
- generate improved earnings.

#### **Optimising the Performance at GPEC**

The availability of gas from GPEC's existing suppliers reduced unexpectedly during 2006, due to early depletion of the Lakshmi field from which most gas is sourced. Alternative arrangements for short-term supply were made. New long-term supplies are under discussion. During the year, one of the three gas turbines was overhauled, with new burners being installed to reduce  $NO_x$  emissions. A steam turbine inspection was also undertaken. These works, combined with reduced gas availability, meant that the utilisation factor of this station was lower than in the previous year.

Nevertheless, the station continued to achieve high reliability and extremely low levels of forced outages.

Station	Rating (MW)	Generation (GWh)		Utilisation (%)		Availability (%)		Operating Hours	
		2006	2005	2006	2005	2006	2005	2006	2005
GPEC	655	4,315	4,637	75.2	81.0	87.7	94.5	6,588	7,079

Gujarat Urja Vikas Nigam Ltd. (GUVNL) is the sole off-taker of the electricity generated at GPEC, under a 20-year power purchase agreement (PPA) which runs until December 2018. In 2006, full settlements of sums due under the PPA from GUVNL were made, with neither overdue receivables nor new disputed items arising over this period. However, an order passed by the Gujarat Electricity Regulatory Commission (GERC) in August 2006 raised the possibility that incentives payable to GPEC could be paid on the basis of actual dispatch of electricity, rather than station availability, as provided for in the PPA. The matter is under discussion with both GUVNL and GERC. A suitable clarification is being sought to restore the commercial entitlements of GPEC under the PPA. This illustrates an aspect of the ownership of GPEC, which has been apparent since CLP acquired the station in February 2002, namely the importance of ongoing engagement with the off-taker and the relevant regulatory authorities in order to ensure that GPEC's rights under the PPA are properly implemented.

## **Growth Opportunities**

Although considerable efforts were made to pursue opportunities to grow CLP's presence in the Indian power sector during 2006, we made less progress than we had hoped at the beginning of the year. In large measure, this reflected decisions not to pursue projects or investments whose risk/reward profile fell outside the parameters which CLP would regard as reasonable and, for those projects on which we bid, to maintain a disciplined and realistic approach to our bids, rather than to secure such projects or investments on a basis which, from the outset, would put shareholder value at unacceptable risk.

By way of illustration of this approach, CLP decided not to pursue the Mundra Ultra Mega Power Project (UMPP) nor, in consortium with our Indian partner GMR, to pursue the SasanUMPP (which was combined with a coal mine development). Reasons for doing so included the tight timeline for bidding, the absence of an engineering procurement and construction (EPC) contract, incomplete geological and mining data and the risks associated with commitments on long-term coal pricing. With regard to projects for which bids were made, we were unsuccessful in an offer for two transmission projects in Gujarat and Maharashtra in consortium with Gammon India (our bid was the second lowest). Another bid, for a 1400MW generating opportunity in Gujarat was unsuccessful, largely due to our unwillingness to accept unreasonable levels of long-term coal price risk.

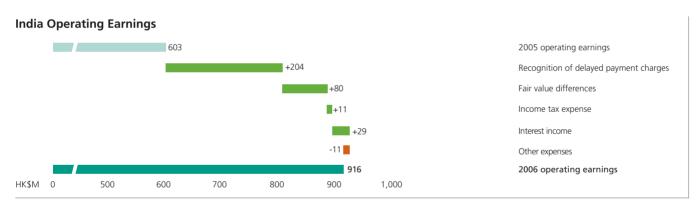
Expansion of the GPEC facility offers a natural opportunity for growth. However, due to the present non-availability of natural gas at affordable prices, CLP has decided to defer a GPEC II project until the longer term development of the gas markets becomes clearer.

#### **Earnings**

Our Indian investment contributed HK\$916 million to group earnings, an increase of HK\$313 million from the previous year.

The earnings performance reflected GUVNL's agreement to settle the delayed payment charges of HK\$204 million related to the years 2000 to 2006, an increase in the fair value of the financial derivatives embedded in the PPA and higher interest income.

The following chart explains the performance of India during 2006, by showing the major variations (plus or minus) as compared with 2005:



- → (Left) GPEC Gas Turbine Rotor being lifted during overhaul
- → (Right) GPEC Power Station, Gujarat





# What are we going to deliver in 2007 and beyond?

## **Business Environment and Challenges**

Per capita consumption of electricity in India, at 606 kWh per year, is significantly lower than other countries (for example, the corresponding figure for the Chinese mainland is around 1,900 kWh per year). Indian GDP growth is expected to remain at 7-8% per annum in the coming years, with a requirement for a significant increase in generating capacity by 2010, possibly in the range of 100,000MW.

The enactment of the Electricity Act in 2003 and reforms in electricity regulation in many states have combined with this underlying economic growth to create opportunities for the private sector in power generation, transmission and trading.

The Indian Government has now issued tariff-based bidding guidelines, as envisaged in the Electricity Act. Several bids have been invited, or are planned to be invited, for coal-fired and hydro generation projects, as well as transmission projects on a build, operate, own and transfer (BOOT) basis. All the projects are proposed to be awarded on the basis of competitively bid tariffs. This, together with the introduction of a merit-order based dispatch system in most states, means that the final tariff is a key risk indicator for developing generating facilities. This is likely to lead to additional generating capacity being largely coal and hydrobased, given the significant cost advantages associated with those fuels (which lead directly into lower tariff levels). Aside from cost disadvantages, fuel availability hinders the development of new gas-fired generating capacity, with no new gas-fired generation bids expected until at least the end of 2007, awaiting the determination of the availability and price of natural gas from the Krishna-Godavari Basin off India's east coast.

Local competition for development opportunities is fierce, with around 10 Indian companies bidding for each opportunity. In the bidding process, these local competitors may have a stronger appetite for risk than CLP including, for generating projects, their willingness to take risk on the long-term prices for imported coal. In the bidding for such assets, CLP may also be handicapped by our corporate commitment to incorporate advanced pollution control equipment such as FGD for any new greenfield coal-fired generating capacity, whereas local competitors are willing to proceed without such emissions reduction equipment. It remains to be seen over time whether CLP's adoption of stricter investment disciplines and environmental standards than our competitors proves to be a competitive advantage or disadvantage - although we believe that this is a correct long-term approach.

India presents opportunities for renewable energy. It has unexploited resources for the major development of hydro, wind and biomass projects, backed by a tariff policy which is largely transparent and favourable to renewable energy. Individual states are also promoting the use of renewable energy. For example, Maharashtra's Renewables Purchase Specifications Framework requires distribution companies to purchase at least 3% of their electricity from co-generation and renewable energy sources in 2006-7 (rising to 6% in 2009-10).

#### **Year 2007**

Our plans and activities for 2007 will include:

- continued successful operation and management of our GPEC asset;
- bidding for selected transmission opportunities;
- pursuing opportunities to bid for generating capacity, including the UMPPs of around 4,000MW each;
- bidding for selected hydro projects and pursuing the acquisition of a 'run of the river' hydro project; and
- commissioning of one large wind farm (in the order of 50MW, through Roaring 40s) and starting to build a meaningful portfolio of renewable energy assets in India.

# Beyond 2007

In future years, we aim to:

- grow beyond a single asset portfolio and become one
  of the leading players in the Indian electricity market,
  including through alliances with suitable partners by
  pursuing new projects in reforming states with strong
  state utilities;
- focus on projects which provide synergy with existing investments. This would include the development of GPEC II, subject to securing a long-term gas supply at prices which would make the electricity produced competitive;
- pursue privatised transmission projects with competitive tariff bidding and to examine selected distribution or retail business opportunities which may arise upon the privatisation of state-owned utilities; and
- expand significantly our renewable energy portfolio, involving wind, hydro and biomass.

What is expected to be the price of natural gas for power generation in India in the near future and what would be the most efficient fuel viz. LNG or natural gas considering Indian/ global conditions?



Mr. Pradip Roy
Executive Director,
Industrial Development Bank of

There is as yet no clarity on where the price of natural gas for power generation in India in the near future will settle. Given the very large gas finds off the East coast of the country recently, we believe that significant amounts of natural gas will be available for the power sector once the transportation arrangements are in place. Problems of both the availability and price of natural gas/LNG in recent years have meant that Government has focused India's generation efforts on coal. However, for reasons of fuel security and diversity, and environmental emissions, we believe natural gas/LNG based generation must increase substantially from the current levels of around 10%. The gas will have to be available at prices substantially lower than the current prices in order to be competitive with coal and hydro plants, though.



**Rajiv Mishra** Managing Director – India