



Ash lagoon near Castle Peak Power Station

100%
compliance with
environmental regulations
in Hong Kong

The nature of CLP's business is such that we must operate with integrity in order to preserve the quality of our environment. Our policy is clear. CLP is committed to the responsible use of resources and environmental stewardship.

It is essential that this policy does not represent merely "greenwash", that is to say environmental statements and promises without substance and effect. There is a strong focus on environmental performance at all levels within the CLP Group. At Board level, close attention is given to the Group's environmental performance. The Group Director for Environment reports to the Group Managing Director, who, in turn, reports to the Board on a quarterly basis on environmental matters. Dedicated briefings are also given to the Board each year on both the Group's overall environmental performance and individual issues.

Management of our environmental performance relies on motivated staff, whose remuneration is based in part on achieving, or doing better than, our environmental targets.

In this section, we summarise some of our environmental initiatives in key areas. For a fuller description, please refer to the CLP Group's [Social and Environmental Report 2003](#) issued concurrently with this Annual Report.

Conservation of Resources

Conservation and careful use of resources contributes to environmental improvement and sustainable development.

Since 1993, pulverized fuel ash (PFA), a term used to describe the ash arising from burning coal at our power stations, has been extensively used in concrete production in Hong Kong. CLP's efforts to promote the wide acceptance of PFA concrete have maximised the reuse of PFA in the local construction industry.

A range of initiatives at our power plants in Hong Kong led to energy savings of 29.67GWh in 2003, equivalent to a reduction of about 17,000 tonnes of CO₂ emissions, or the average annual power consumption of 5,800 customers.

Conservation and reuse of water has received particular attention by CLP over the past year. For example:

- CLP Guohua reused 3,000 million litres of waste water in its circulating water system at the Panshan Power Station. More than 300 million litres of water containing coal and boiler bottom ash was recycled at Beijing Yire Power Station.
- Our joint venture in Shandong made significant efforts in reducing waste water discharges – over the past 12 months, Shiheng and Heze Power Stations achieved waste water recycling of 70% and 80% respectively.

CLP-sponsored Eco Tour in Hong Kong



Working on our renewable energy radio repeaters

- By increased recycling through the cooling towers at Yalourn Energy, significant reductions in water usage per unit of energy generated have been made since 1999. These savings now amount to an equivalent of 6,900 million litres of water from the Latrobe River each year – maintaining environmental flows and beneficial uses in the downstream rivers and lake systems.
- Since 1999, GPEC has achieved a 20% reduction in total water consumption per unit of electricity produced.

Renewable Energy

CLP believes that renewable energy is part of our business future. We regard this not as a threat, but as a new way to provide value to our shareholders, customers and other stakeholders. In doing so, we can enhance our contribution to the environment through avoiding emissions or pollutants and greenhouse gases and saving fossil fuel resources for future generations.

We have a significant interest in a project comprising nine small-scale hydro power stations in Huaiji county, northwestern Guangdong province. Eight of these stations are already in operation. This project provides a valuable contribution to the development of an economically disadvantaged area, while making available renewable energy resources to help replace the coal-fired generation. We are also actively pursuing larger-scale hydro projects in western China.

In September 2003, we launched wind resource assessments at two wind farm sites along the coast of Guangdong province. Closer to home, we are actively exploring wind power possibilities in the New Territories.

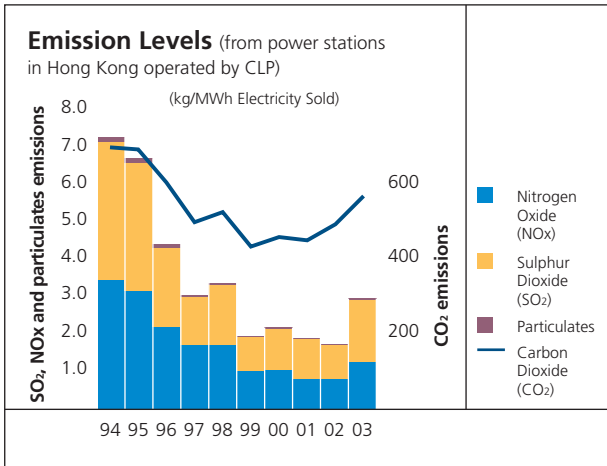
In August 2003, CLP launched its Renewable Energy Fund in Hong Kong. This is a two-year programme to engage the community in education, raising awareness and promoting the application of renewable energy. Sponsorship was provided for nine projects to be conducted in 2004. In Autumn 2004, the Fund will open for another round of sponsorship for projects to be undertaken during 2005.

Atmospheric Emissions

Emission control has been a major environmental issue and a longstanding focus of management attention. In Hong Kong, CLP has achieved significant reductions in atmospheric emissions since the early 1990s through fuel diversification, improvements in the generating plants and process enhancement.

While our individual plants performed similarly or better than in earlier years, the use of more coal resulted in an increase in our emissions per kilowatt-hour. Our increased use of coal was due to market factors affecting the cost and availability of fuel, and the high demand for power in Guangdong province. We experienced a similar variation in emissions levels in the mid 1990's, for like reasons. CLP is working hard to find new ways to reduce our emissions in Hong Kong. We

will continue with our plans to install new gas generation capacity, and we are developing plans to reduce emissions from our coal-fired plants.



The power stations in the Chinese mainland and elsewhere in the Asia-Pacific region, in which CLP holds an interest, took steps during 2003 to reduce emission levels. For example:

- Yallourn Energy has continued its efforts, as a voluntary member of the Australian Government Greenhouse Challenge programme, to improve thermal efficiency through plant improvements. This has reduced

greenhouse gas emission intensity. Since 1996, sustainable efficiency savings of over 200 kilotonnes per annum of carbon dioxide have been achieved.

- The Beijing Yire Power Station, which is part of the CLP Guohua joint venture, has become one of the first stations in the Mainland to have all generating units retrofitted with Flue Gas Desulphurisation (FGD). The FGD plant has reduced sulphur dioxide emissions by over 95%.
- The Anshun II Power Station, which is currently being commissioned, will have FGD facilities – the first station in Guizhou province to be so equipped.
- The replacement of naphtha by natural gas as fuel at GPEC, has reduced atmospheric emissions per unit generated by almost half.
- BLCP will have FGD and a low-NOx combustion system to minimise atmospheric emissions.
- Ho-Ping has FGD and catalytic NOx reduction systems that have been demonstrated to achieve some of the lowest atmospheric emission levels currently available in coal-fired generating units.



“Greening” at Yallourn Energy



FGD plant at Beijing Yire Power Station