



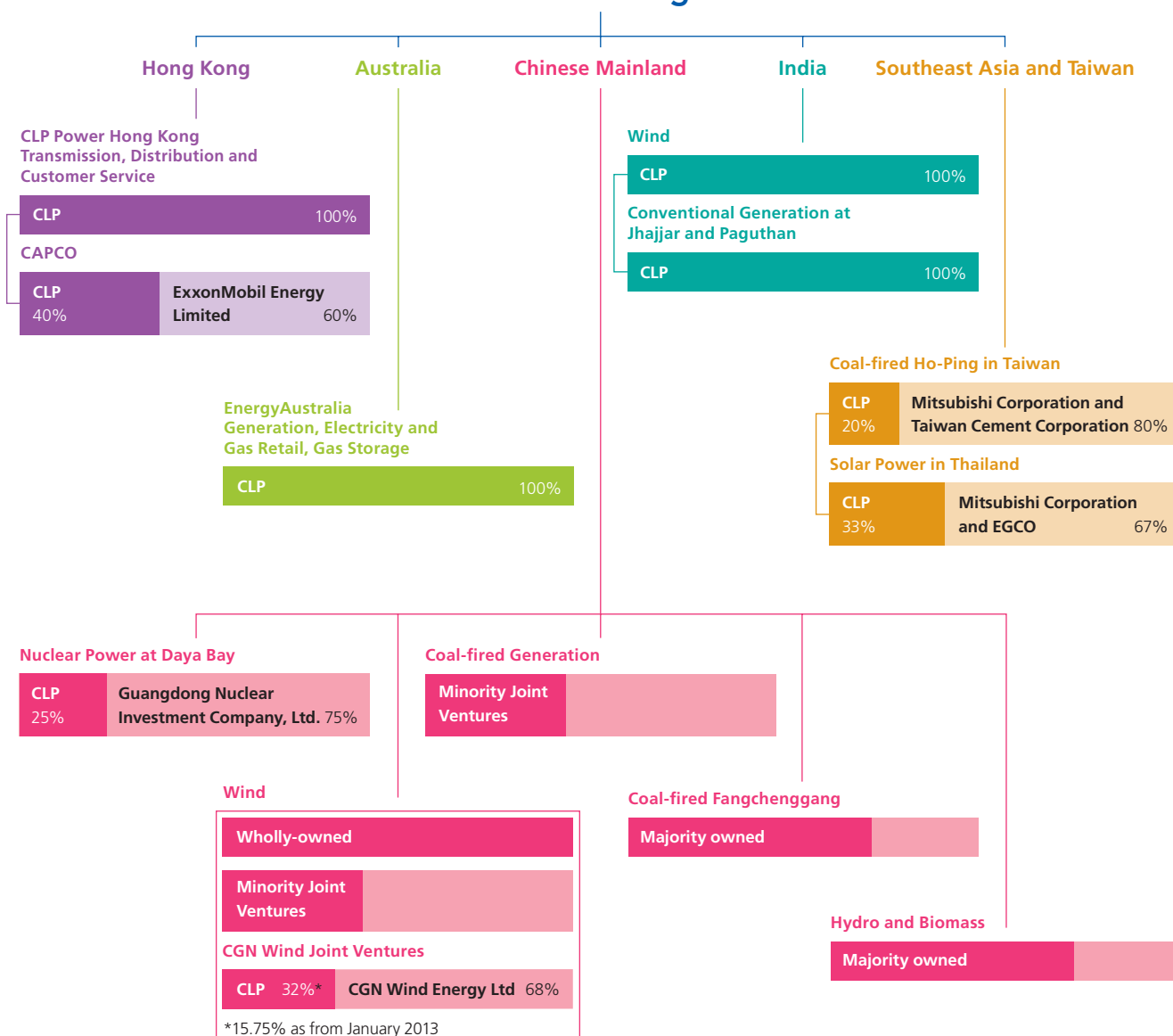
Capitals

What are the "capitals"
which sustain our
business?

Manufactured Capital — our assets and investments

















CLP's manufactured capital comprises the generating plant and transmission network in which we have invested and which is available to produce and carry electricity to our off-takers and customers. These assets, owned entirely by CLP or in joint venture, are held through the Group structure outlined below. In the following pages we describe the physical assets themselves.

CLP Holdings



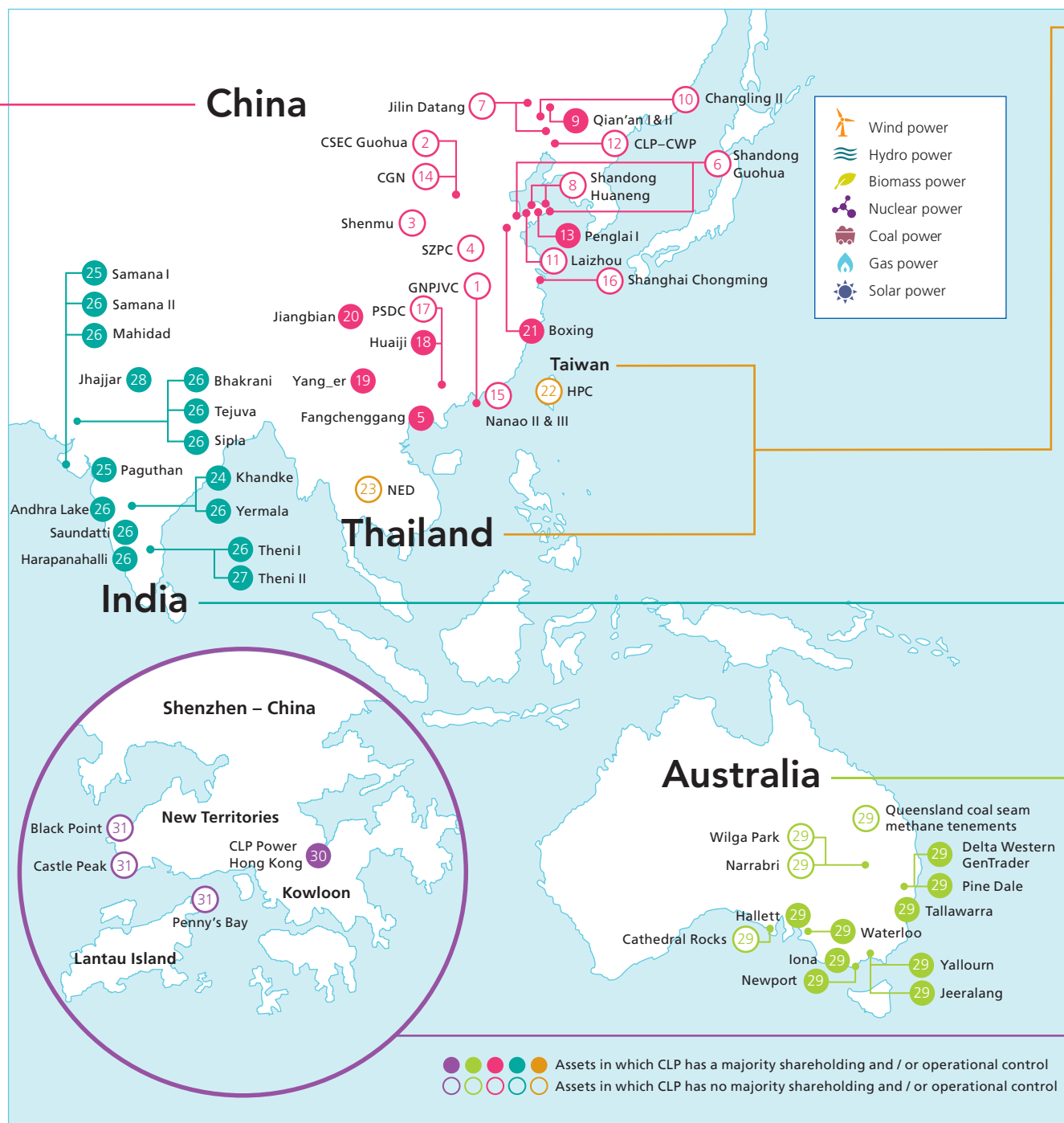
On 31 December 2012 CLP comprised over 70 assets,...

Chinese Mainland Investments Gross / Equity MW

①	Equity Interest 25%		Guangdong Nuclear Power Joint Venture Company, Limited (GNPJVC) 1,968 / 492MW GNPJVC constructed the Guangdong Daya Bay Nuclear Power Station (GNPS) at Daya Bay. GNPS is equipped with two 984MW Pressurised Water Reactors incorporating equipment from France and the United Kingdom. 70% of electricity generated is supplied to Hong Kong, with the remaining 30% sold to Guangdong Province (廣東省)
②	30%		CSEC Guohua International Power Company Limited (CSEC Guohua) 7,650 / 1,333MW⁽¹⁾ Ownership interests in five coal-fired power stations with China Shenhua Energy: <ul style="list-style-type: none"> • 100% of Beijing Yire (400MW) • 65% of Panshan in Tianjin (天津) (1,030MW) • 55% of Sanhe I and II in Hebei (河北) (1,300MW) • 50% of Suizhong I and Suizhong II in Liaoning (遼寧) (3,600MW) • 65% of Zhungeer II and III in Inner Mongolia Autonomous Region (內蒙古自治區) (1,320MW)
③	49%		CLP Guohua Shenmu Power Company Limited (Shenmu) 220 / 108MW Owns and operates Shenmu Power Station in Shaanxi (陝西) (220MW) in joint venture with China Shenhua Energy
④	29.4%		Shandong Zhonghua Power Company, Ltd. (SZPC) 3,060 / 900MW Owns four coal-fired power stations in Shandong (山東) with China Guodian Corporation and EDF International: <ul style="list-style-type: none"> • Shiheng I and II (1,260MW) • Liaocheng I (1,200MW) • Heze II (600MW)
⑤	70%		CLP Guangxi Fangchenggang Power Company Limited (Fangchenggang) 1,260 / 882MW Owns and operates two 630MW supercritical coal-fired units at Fangchenggang (防城港), Guangxi (廣西) with Guangxi Water & Power Engineering (Group) Co., Ltd.
⑥	49%		Shandong Guohua Wind Joint Ventures (Shandong Guohua Wind) 445 / 218MW Owns nine wind farms in Shandong: <ul style="list-style-type: none"> • Rongcheng I (48.8MW) • Rongcheng II (49.5MW) • Rongcheng III (49.5MW) • Dongying Hekou (49.5MW) • Lijin I (49.5MW) • Lijin II (49.5MW) • Zhanhua I (49.5MW) • Zhanhua II (49.5MW) • Haifang (49.5MW), under development
⑦	49%		Jilin Datang Wind Joint Ventures (Jilin Datang Wind) 148 / 73MW Owns three wind farms in Jilin (吉林): Datong (49.5MW), Shuangliao I (49.3MW) and Shuangliao II (49.5MW)
⑧	45%		Shandong Huaneng Wind Joint Ventures (Shandong Huaneng Wind) 96 / 43MW Owns three wind farms in Shandong: Changdao (27.2MW), Weihai I (19.5MW) and Weihai II (49.5MW)
⑨	100%		Qian'an IW Power Company Limited (Qian'an I Wind) 50 / 50MW (Qian'an II Wind) 50 / 50MW Owns and operates Qian'an I (49.5MW) and Qian'an II (49.5MW) wind farms in Jilin
⑩	45%		Sinohydro CLP Wind Power Company Limited (Changling II Wind) 50 / 22MW Owns Changling II wind farm (49.5MW) in Jilin
⑪	45%		Huadian Laizhou Wind Power Company Limited (Laizhou Wind) 41 / 18MW Owns Laizhou wind farm (40.5MW) in Shandong
⑫	50%		CLP-CWP Wind Power Investment Limited (CLP-CWP Wind) 99 / 24MW⁽²⁾ Owns two wind farms in Liaoning: 49% of Qujiagou (49.5MW) and 49% of Mazongshan (49.5MW)
⑬	100%		CLP (Penglai) Wind Power Ltd. (Penglai I Wind) 48 / 48MW Owns and operates Penglai I wind farm (48MW) in Shandong
⑭	32%		CGN Wind Power Company Limited (CGN Wind) 2,001 / 524MW⁽³⁾ Owns and operates 1,878MW of wind projects in various parts of China
⑮	25%		Huaneng Shantou Wind Power Company Limited (Nanao II Wind) 45 / 11MW (Nanao III Wind) 15 / 4MW Owns two wind farms in Guangdong: Nanao II (45MW) and Nanao III (15MW)
⑯	29%		Shanghai Chongming Beiyuan Wind Power Generation Company Limited (Shanghai Chongming Wind) 48 / 14MW Owns Chongming wind farm (48MW) in Shanghai (上海)

Notes: (1) The 1,333 equity MW attributed to CLP, through its 30% equity interest in CSEC Guohua, takes into account that CSEC Guohua holds varying equity interests in the generating assets included in the 7,650 gross MW.
(2) The 24 equity MW attributed to CLP, through its 50% equity interest in CLP-CWP Wind, takes into account that CLP-CWP Wind holds varying equity interests in the generating assets included in the 99 gross MW.
(3) The 524 equity MW attributed to CLP, through its 32% equity interest in CGN Wind, takes into account that CGN Wind holds varying equity interests in the generating assets included in the 2,001 gross MW. CGN Wind completed its restructuring in January 2013 whereby its gross capacity under operation and construction was reduced to 1,794MW, and CLP's equity stake was diluted to about 15.75%, with corresponding equity capacity reduced to 232 equity MW.

...more than 21,000MW, 7 different energy sources,



17

49%

Hong Kong Pumped Storage Development Company, Limited (PSDC) 1,200 / 600MW

PSDC (of which ExxonMobil Energy Limited holds 51%) may use half of the 1,200MW pumped storage capacity of Phase 1 of the Guangzhou Pumped Storage Power Station until 2034

18

84.9%

Huaiji Hydropower Stations (Huaiji Hydro) 125 / 106MW

Owens and operates 12 small hydro power stations (125MW) in Guangdong

19

100%

Dali Yang_er Hydropower Development Co., Ltd. (Yang_er Hydro) 50 / 50MW

Owens and operates Yang_er hydro power station (50MW) in Yunnan (雲南)

20

100%

CLP Sichuan (Jiangbian) Power Company Limited (Jiangbian Hydro) 330 / 330MW

Owens and operates Jiangbian hydro power station (330MW) in Sichuan (四川)

21





79%

CLP Huanyu (Shandong) Biomass Heat and Power Company Limited (Boxing Biomass) Equivalent of 15 / 12MW





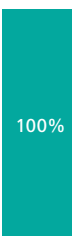





Owens and operates Boxing biomass combined heat and power plant (15MW + 75 tonnes / hour steam) in Shandong

...over 5 million customer accounts





Southeast Asia and Taiwan Investments Gross / Equity MW

- Equity Interest**
- 22   **Ho-Ping Power Company (HPC) 1,320 / 264MW**
HPC owns the 1,320MW coal-fired Ho-Ping Power Station in Taiwan. CLP's 20% interest is held through OneEnergy Taiwan Ltd, a 50:50 project vehicle with Mitsubishi Corporation. Taiwan Cement Corporation owns the other 60% interest in HPC
- 23   **Natural Energy Development Co., Ltd. (NED) 63 / 21MW**
NED owns a solar farm in Lopburi Province in Central Thailand with 55MW in operation and 8MW under construction. NED is a joint venture company with equal shareholding by CLP, Mitsubishi Corporation and Electricity Generating Public Company Limited






India Investments Gross / Equity MW

- Equity Interest**
- 24   **CLP Wind Farms (Khandke) Private Limited (Khandke Wind) 50 / 50MW**
Khandke Wind – 50.4MW project in Maharashtra. The project is fully commissioned
- 25   **CLP India Private Limited (CLP India) 705 / 705MW**
 - **Paguthan Plant (formerly known as GPEC Gas Plant)** – 655MW combined-cycle gas-fired power plant in Gujarat. The plant is designed to run on natural gas and naphtha (backup) as fuel
 - **Samana Phase I Project** – 50.4MW project in Gujarat. The project is fully commissioned
- 26   **CLP Wind Farms (India) Private Limited (CLP Wind Farms) 822 / 822MW**
 - **Samana Phase II** (50.4MW) in Gujarat
 - **Saundatti** project (72MW) and **Harapanahalli** project (39.6MW) in Karnataka
 - **Andhra Lake** project (106.4MW) in Maharashtra
 - **Theni Phase I** project (49.5MW) in Tamil Nadu
 - **Sipla** project (50.4MW), 31.2 MW commissioned and remainder under construction, in Rajasthan
 - **Bhakrani** project (102.4MW), 21.6MW commissioned and remainder under construction, in Rajasthan
 - **Tejuva** project (100.8MW) under construction in Rajasthan
 - **Yermala** 200MW under construction in Maharashtra
 - **Mahidad** 50.4MW under construction in Gujarat
- 27   **CLP Wind Farms (Theni - Project II) Private Limited (Theni Phase II Project) 50 / 50MW**
Theni Phase II Project – 49.5MW project in Tamil Nadu. The project is fully commissioned
- 28   **Jhajjar Power Limited (Jhajjar Power) 1,320 / 1,320MW**
 - **Jhajjar Power** - 1,320MW (2 x 660MW) supercritical coal-fired project at Jhajjar, Haryana. Unit 1 and Unit 2 achieved commercial operation on 29 March 2012 and 19 July 2012 respectively

Australia Investments Gross / Equity MW

- Equity Interest**
- 29     **EnergyAustralia (formerly known as TRUenergy) 5,662 / 5,616MW**
EnergyAustralia is an integrated generation and retail electricity and gas business in Victoria, South Australia, NSW, Queensland and the Australian Capital Territory, comprising:
 - **Yallourn** coal-fired power station 1,480MW
 - **Tallawarra** gas-fired power station 420MW
 - **Hallett** gas-fired power station 203MW
 - **Delta Western GenTrader** (Mount Piper and Wallerawang) off-take from coal-fired power stations 2,400MW
 - **Ecogen** (Newport and Jeeralang) off-take from gas-fired plant 966MW
 - **Waterloo** wind farm 111MW
 - **Cathedral Rocks** (50% JV) wind farm 66MW
 - **Iona** Gas Storage facility and processing plant 22PJ
 - **Narrabri** (20%) >500PJ of equity coal seam gas 3P
 - **Wilga Park** (20%) gas-fired power station 16MW
 - Equity in **Queensland coal seam methane tenements**
 - **Pine Dale** – black coal mine

Hong Kong Investments

- Equity Interest**
- 30   **CLP Power Hong Kong Limited (CLP Power Hong Kong)⁽⁴⁾**
CLP Power Hong Kong owns and operates the transmission and distribution system which includes:
 - 555 km of 400kV lines, 1,581 km of 132kV lines, 27 km of 33kV lines and 12,074 km of 11kV lines
 - 60,136 MVA transformers and 216 primary and 13,536 secondary substations in operation
- 31    **Castle Peak Power Company Limited (CAPCO)⁽⁴⁾, 6,908MW of installed generating capacity**
CAPCO owns and CLP Power Hong Kong operates:
 - **Black Point Power Station (2,500MW)**
One of the world's largest gas-fired power stations comprising eight combined-cycle turbines of 312.5MW each
 - **Castle Peak Power Station (4,108MW)**
Comprising four coal-fired units of 350MW each and another four units of 677MW each. Two of the 677MW units can use gas as backup fuel. All units can use oil as a backup fuel
 - **Penny's Bay Power Station (300MW)**
Three diesel-fired gas turbine units of 100MW each

Note : (4) CLP Power Hong Kong purchases its power from CAPCO, PSDC and Guangdong Daya Bay Nuclear Power Station. These sources of power amount to a total capacity of 8,888MW available to serve the Hong Kong electricity business.



Financial Capital

our funding resources and capability

2012 saw unprecedented low levels of yields in the financial markets. The modest economic recovery in the United States and the bleak economic outlook in the Euro-zone countries prompted major central banks to use aggressive monetary policy to safeguard employment and ward off deflation. As a result, interest rates remained low across North America, Europe and Asia. They have been low for a number of years, and may remain “lower-for-longer”.

The search for yield became more intensive towards the second half of the year. With interest rates and bond yields at painfully low levels (or negative in real terms after taxes and inflation), investors resorted to a variety of ways to enhance investment returns. Some opted to extend the tenor of their holdings. Others chose more aggressive strategies, including lowering their credit rating thresholds or including more structured products (e.g. hybrids, linked products) in their portfolio.

The low interest rate environment and investors’ action to push out maturity and be more tolerant to higher risk, significantly impacted the markets, and at the same time provided opportunities to CLP. On the one hand, the cost of borrowing in the bond markets, notably for debt maturities of ten years or longer, fell to historically low levels. On the other hand, yield-seeking investors pursued high quality utility shares for certainty of return. This financial market backdrop enabled CLP to take two strategic actions in the second half of 2012 – a 5% share placement by CLP Holdings to enhance firepower for forthcoming investments in Hong Kong and overseas; and US\$600 million 10.5 and 15-year public bond issues by CLP Power Hong Kong to meet funding needs in 2013.

These and other major financing activities in the CLP Group are discussed in the following sections with a view to providing an insight into the quality of the financial capital which the Group possesses.

Enhancing Financial Strength and Flexibility

In the “Financing” section of last year’s Annual Report, we outlined our funding model and major financing and risk management philosophies. These guide CLP to raise timely, cost effective external finance to expand in the extremely capital intensive power industry. Our adherence to prudent, effective financial policies is not confined to a short-term horizon. We look well ahead in our plans to optimise our capital structure and debt portfolio.

These plans included two steps, the share placing and CLP Power Hong Kong bond issues, which were implemented in supportive market conditions.

First, whilst the Group’s debt gearing ratio (net debt to total capital) remained at a relatively low level (31 December 2011: 43.1%, 31 December 2012: 36.8%) vis-a-vis other leading power companies, Management was aware that future investment opportunities would require a sizeable equity commitment. Instead of raising third party debt to fund this capital expenditure, which could further increase the Group’s gearing ratio and tighten our credit metrics, we believed a 5% share placement was the most beneficial course for shareholders. An additional point of context is that, in recent years, CLP Holdings has largely funded its business expansion through debt and internal cash flow, and effected on-market share repurchases representing 5.45% of its pre-placement share capital between 1998 and 2008 at an average price of HK\$30.92. This share placement not only allowed CLP Holdings to raise HK\$7.56 billion cash with tightly-monitored execution risk, but also enabled the company to broaden its investor base and strengthen its balance sheet to

Financial Capital

support future growth. The share placement was completed at a price of HK\$63.25 per share, a tight discount of 5.88% to the 12 December closing price. The subsequent trading of CLP Holdings shares above that level demonstrated the share placement was well received by the market. This share placement enhanced CLP's balance sheet strength and reduced the gearing ratio by approximately 5%.

Secondly, CLP Power Hong Kong issued US\$300 million 10.5-year and US\$300 million 15-year Regulation S public bonds in October 2012. The proceeds will pre-fund prospective expenditure of the Company in 2013. This step was possible due to issuer-friendly market sentiment and the significant reduction of "negative carry" that sometimes challenges the concept of pre-funding. The bonds received an overwhelming response of 10 times subscription and were issued at 2.88% coupon (U.S. Treasury plus 1.2%) and 3.38% coupon (U.S. Treasury plus 1.65%) respectively. We understand this was the first time a company in the Asia-Pacific region ex-Japan was able to issue such a dual tranche and that these are the lowest coupon public U.S. dollar bonds ever issued by a private Hong Kong company in their respective tenors. Together with other debt tranches which the company raised in the third quarter, CLP Power Hong Kong has already completed the majority of its funding requirements for 2013.

In Australia, EnergyAustralia issued US\$400 million 5 to 15 years Regulation D private bonds in March 2012 to lengthen the maturity profile and reduce reliance on the bank market. EnergyAustralia also completed A\$750 million 4 and 5-year syndicated bank facilities with 15 banks in December 2012 to retire a A\$350 million bank loan originally maturing in 2013 and to procure additional liquidity.

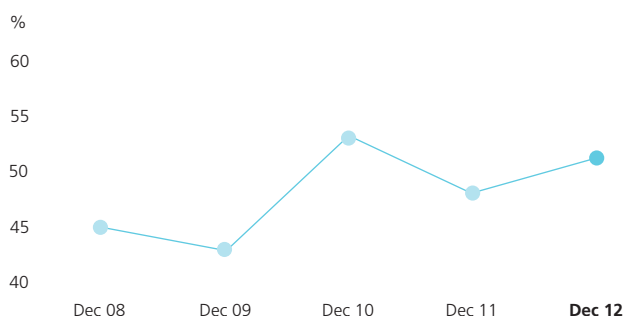
Our Funding Model



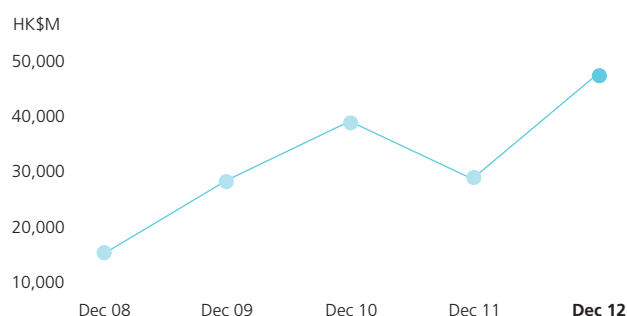
A More Diversified Funding Base

We retain strong relationships with long-term financing partners. At the same time, we cultivate new business opportunities with quality, financially strong debt providers. For instance, CLP Power Hong Kong and EnergyAustralia have expanded their debt portfolio to cover bond investors and lending banks based in different parts of the world. Currently CLP Power Hong Kong has an outstanding 42 tranches of bonds (denominated in U.S. dollar, H.K. dollar, Japanese yen and Australian dollar) while EnergyAustralia has 11 tranches (in Australian dollar and U.S. dollar) placed with bond investors. As at 31 December 2012, the Group had relationships with 56 financial institutions (2011: 59, the refinancing of Jhajar's Indian rupee loan reduced the number of Indian lenders). About 80% of financial institutions we had business with a decade ago are still working in partnership with us. We have also further spread out our debt funding to bond investors from commercial banks since the global financial crisis first arrived in 2008/2009. Nowadays, about 43% and 42% of debt funding at CLP Power Hong Kong and EnergyAustralia comes from bond investors based outside Hong Kong or Australia respectively.

Ratio of Bond Funding to Total Debt

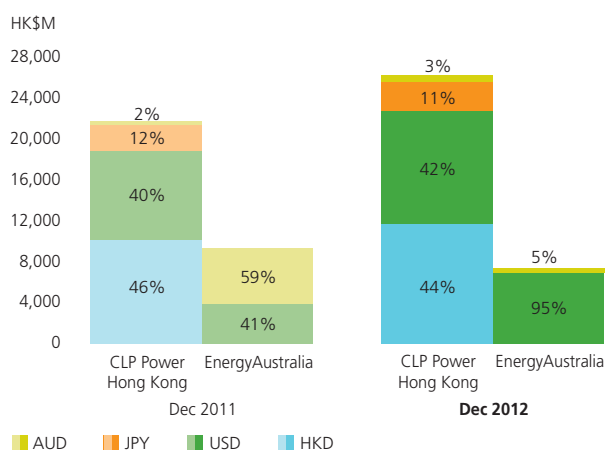


Firepower

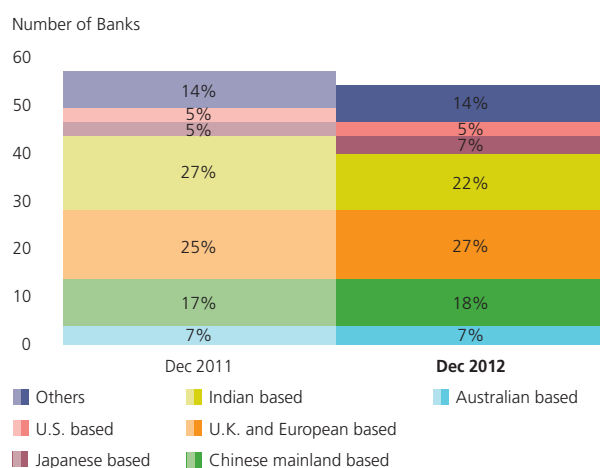


Note: Firepower comprises undrawn facilities plus bank balances, cash and other liquid funds.

Currency of Bond Funding



CLP Banking Relationships – A Balanced Mix of Lending Financial Institutions



These diversified funding sources can help CLP manage geo-political market risks and minimise the impact of Basel III and other banking regulations that might cause a spike in funding costs.

Implementation of Funding Exercise

In view of the uncertainties in global financial markets and for the strategic reasons described above, CLP started the funding exercise for 2013 much earlier than usual. The outcome of these activities delivered CLP financial headroom for growth at attractive commercial terms.

Major Achievements in Financing Activities	
CLP Holdings	<p>HK\$7.56 billion share placement</p> <ul style="list-style-type: none"> – 5% share placement completed at a tight discount of 5.88% to 12 December 2012 closing price <p>HK\$1.95 billion bank facilities</p> <ul style="list-style-type: none"> – Short to medium term bank facilities arranged at attractive rates
CLP Power Hong Kong	<p>US\$600 million (HK\$4.65 billion) 10.5 and 15-year bonds</p> <ul style="list-style-type: none"> – 13.3 times over-subscription for 10.5-year bond and 7.5 times over-subscription for 15-year bond – Low coupon rates of 2.88% and 3.38% respectively – U.S. dollar proceeds were swapped back to Hong Kong dollars to mitigate foreign exchange risk <p>JPY6 billion (HK\$587 million) 10 and 11-year bonds</p> <ul style="list-style-type: none"> – New investor for CLP Power Hong Kong bonds – Japanese yen proceeds were swapped back to Hong Kong dollars to mitigate foreign exchange risk <p>A\$35 million (HK\$282 million) 10-year bond</p> <ul style="list-style-type: none"> – Australian dollar proceeds were swapped back to Hong Kong dollars to mitigate foreign exchange risk <p>HK\$2.63 billion 5, 7, 10 and 15-year bonds</p> <ul style="list-style-type: none"> – Medium to long-dated Hong Kong dollar bonds at favourable interest rates <p>HK\$1.8 billion 3 and 5-year bank loan facilities</p> <ul style="list-style-type: none"> – Medium term bank loans at favourable interest rates and terms
EnergyAustralia	<p>US\$400 million (HK\$3.1 billion) 5 to 15-year bonds</p> <ul style="list-style-type: none"> – Private placement of medium to long-term bonds issued at attractive fixed interest rates – U.S. dollar proceeds were swapped back to Australian dollars to mitigate foreign exchange risk <p>A\$750 million (HK\$6 billion) 4 and 5-year bank loan facilities</p> <ul style="list-style-type: none"> – Financed by a consortium of 15 international and regional banks on competitive terms
CLP India	<p>US\$62 million (HK\$467 million) and Rs.1 billion (HK\$142 million) 11-year project loans</p> <ul style="list-style-type: none"> – Refinanced Rs.4.3 billion (HK\$609 million) Rupee loans for Jhajjar with improved funding cost – U.S. dollar proceeds were swapped back to Indian rupees to mitigate foreign exchange risk <p>US\$78 million (HK\$605 million) 12.5-year project loans</p> <ul style="list-style-type: none"> – Long-term project loans to fund the construction of Bhakrani wind project in Rajasthan – U.S. dollar proceeds were swapped back to Indian rupees to mitigate foreign exchange risk <p>Rs.4 billion (HK\$567 million) bank facilities</p> <ul style="list-style-type: none"> – Working capital facilities for Jhajjar

CLP Power Hong Kong and EnergyAustralia can tap into debt capital markets to issue their functional currencies and foreign currencies bonds under their Medium Term Note (MTN) Programmes for an aggregated amount of up to US\$3.5 billion and A\$2 billion respectively. As at 31 December 2012, bonds totalling about HK\$26.1 billion and A\$50 million were issued by CLP Power Hong Kong and EnergyAustralia respectively under their MTN Programmes. In 2012, interest cover (which equals profit before income tax and interest divided by the sum of interest charges and capitalised interest) was 4 times (2011: 4 times). The financial obligations of the Group, CAPCO and PSDC, and the Group's share of the financial obligations of jointly controlled entities and associated companies as at 31 December 2012 are shown on page 36.

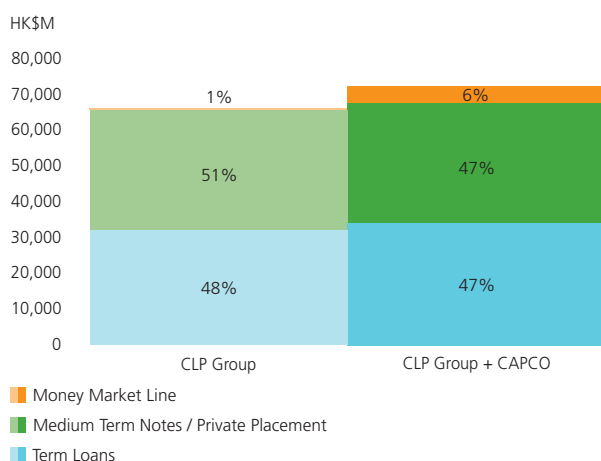
Debt Profile as at 31 December 2012

	CLP Holdings HK\$M	CLP Power Hong Kong HK\$M	Other Subsidiaries ¹ HK\$M	Group HK\$M	Group + CAPCO HK\$M
Available Facility ²	16,600	38,974	43,697	99,271	106,400
Loan Balance	2,900	33,435	29,863	66,198	72,377
Undrawn Facility	13,700	5,539	13,834	33,073	34,023

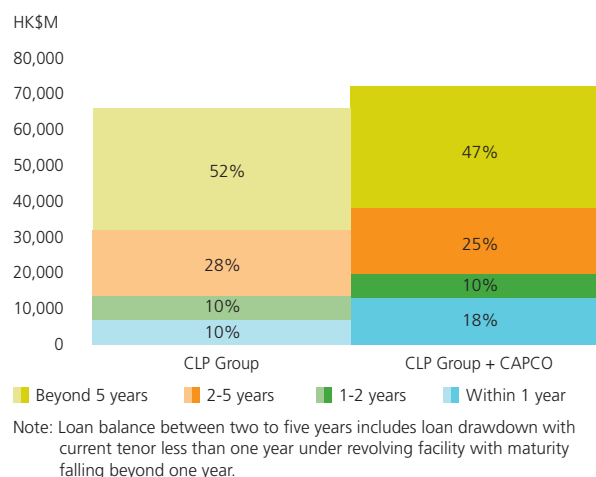
Notes:

1. Mainly relates to EnergyAustralia and subsidiaries in India.
2. For the MTN Programmes, only the amounts of the bonds issued as at 31 December 2012 were included in the total amount of Available Facility. The Available Facility in EnergyAustralia excludes a facility set aside for guarantees.

Loan Balance – Type

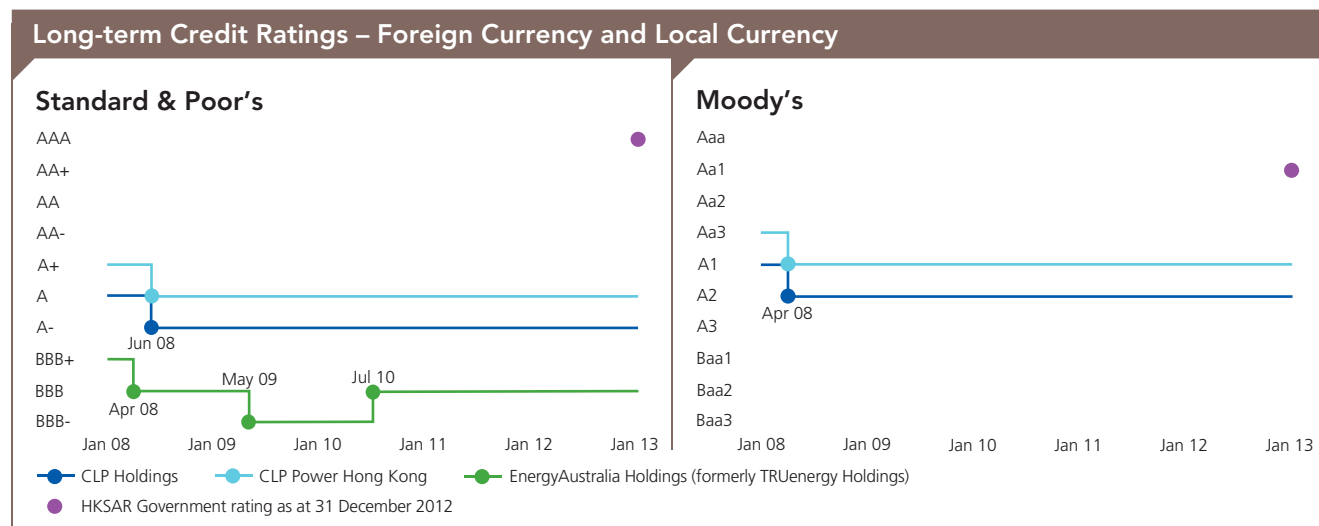


Loan Balance – Maturity



Credit Ratings

CLP's commitment to prudent financial and risk management, along with disciplined investment strategy, have enabled the Group to maintain good investment grade credit ratings throughout the previous decades. CLP's ability to maintain a good credit standing and access the financial markets at cost-effective terms is crucial to meeting our business needs and objectives.



CLP Holdings

Moody's: Re-affirmed the A2 credit rating with stable outlook in March 2012

Positives	Negatives
<ul style="list-style-type: none"> • Sound liquidity profile and good operating track record • Prudent and gradual approach in pursuing overseas expansion • Strong and predictable cash flows from CLP Power Hong Kong, which operates in a stable regulatory environment • Ability to access the domestic and international bank and capital markets • Availability of sizeable committed bank facilities • Well managed debt maturity profile 	<ul style="list-style-type: none"> • Weakened financial profile due to debt-funded overseas expansion, albeit still appropriate for the rating • Expansion in riskier, non-regulated merchant energy and retail businesses • NSW acquisition put pressure on the Group's financials with a temporary weakening in 2011, but expected to improve in 2012 and then onwards as a result of increased earnings from NSW business and Jhajjar project in India

Standard & Poor's (S&P): Re-affirmed the A- credit rating with stable outlook in March and September 2012

Positives	Negatives
<ul style="list-style-type: none"> • Expect financial strength to improve meaningfully from 2013 due to: (1) higher returns from Hong Kong operations due to the tariff increase, further capital expenditure and stable local electricity demand; (2) higher earnings from Australia operations with Yallourn power station expected to revert to full capacity and after integration of the NSW assets in 2013; (3) fuel supply problems at the Jhajjar project to be resolved; and (4) growing earnings from renewable energy investments • Adequate liquidity supported by strong operating cash flow from Hong Kong operations and its strong financial flexibility • Strong commitment to deleveraging and its record of disposing assets to optimise the portfolio 	<ul style="list-style-type: none"> • Expansion into unregulated power generation assets in the Asia-Pacific could weaken its strong business profile • Higher leverage has weakened the Group's financial health and put pressure on its modest financial risk profile • New generation facilities under construction in Australia, India and China carry higher operating risks and are potentially subject to increasing supervision and costs relating to carbon emission and environmental issues

CLP Power Hong Kong

Moody's: Re-affirmed the A1 credit rating with stable outlook in March 2012

Positives	Negatives
<ul style="list-style-type: none"> Strong and highly predictable cash flow generated from SoC operations Regulatory framework, transparent tariff system and 100% cost pass-through Good track record in accessing domestic and international bank and capital markets Well managed debt maturity profile 	<ul style="list-style-type: none"> Liquidity profile may be pressured by its dividend payments to CLP Holdings and its long-term capital expenditure plan Rating constrained by CLP Holdings' continuous expansion into the more risky non-regulated energy and retail businesses in the region

S&P: Re-affirmed the A credit rating with stable outlook in March and September 2012

Positives	Negatives
<ul style="list-style-type: none"> Excellent business risk profile, favourable regulatory regime protects CLP Power Hong Kong from rising fuel costs and ensures stable operating cash flows Sound bank relationships and good reputation in the capital market Good liability management with diversified debt sources and tenors Liquidity remains adequate SoC Agreement allows a permitted rate of return and an operating costs pass-through mechanism until 2018 	<ul style="list-style-type: none"> Uncertainty surrounding the expansion of CLP Holdings in unregulated businesses outside Hong Kong partly offset the strengths of CLP Power Hong Kong The Government's environment regulations could result in some uncertainty in mid to long-term operations and financing needs Securing long-term replacement natural gas supply and constructing related pipeline infrastructure could be an operational challenge although CLP Power Hong Kong has made progress in securing a new gas supply

EnergyAustralia

S&P: Re-affirmed the BBB credit rating with stable outlook in May and November 2012

Positives	Negatives
<ul style="list-style-type: none"> Benefit from a higher rated owner, CLP Holdings Strong liquidity profile and continued prudent risk management practices Vertically integrated electricity generation and retailing components of the business Operational flexibility derived from the plant portfolio by fuel and dispatch merit order Expect the integration process of NSW assets and associated costs will be managed without significant impact on the business risk profile 	<ul style="list-style-type: none"> Risk of integrating the retail business and Delta Western GenTrader assets Challenges to manage potential portfolio changes to mitigate its exposure to the government's carbon abatement scheme Exposure to the competitive electricity wholesale and retail market Risks associated with the introduction of the new billing system

Financial Risk Management

The objectives of our financial risk management are simple and straightforward. From a shareholder's perspective, we maintain a healthy capital structure and protect our earnings / cash flows so that we can create value to shareholders. From a customer's perspective, we avoid undue volatility of tariffs. We achieve these objectives by applying risk management policies and guidelines which are easy to understand, comprehensive and can apply throughout our subsidiaries and majority-owned entities.

We look for cost-efficient, plain vanilla and HKAS 39 hedge-effective derivative instruments when we enter into hedging. The reason is simple – at CLP we transact financial derivatives only for hedging economic exposures. We expect such hedging to cover our genuine economic obligations, without undue profit and loss impact.

From time to time we review our risk management policies and guidelines to ensure they meet financial market challenges and our latest business requirements. These risk management policies and guidelines play a key role in delivering shareholder value, through the monitoring of capital reserve level, retained earnings, debt gearing level and risk and return thresholds as a key discipline in CLP's investment and financing decisions.

Liquidity

CLP is risk averse. We are careful in using new debt to fund business expansion and set rigid debt limits to guard against over-expansion. We practice just-in-time financing to minimise financing costs. However, we will act promptly to secure financing on favourable terms when there are requirements or benefits to doing so. In that regard CLP Holdings' share placement and CLP Power Hong Kong's strategic bond issues have strengthened our liquidity position for 2013 and beyond.

Foreign Exchange and Interest Rate

CLP hedges a high percentage of committed exposure and a reasonable portion of high probability exposure. All hedging is carried out with pre-approved financial institutions with strong financial standing (credit rating, balance sheet) and capability in managing such risks on our behalf so that we have confidence that these financial institutions will be able to perform their obligations throughout the entire tenor of our economic exposure. Each of the financial risks and the associated mitigation measures are discussed in detail under "Financial Risk Management" in the Financial Statements at page 211.

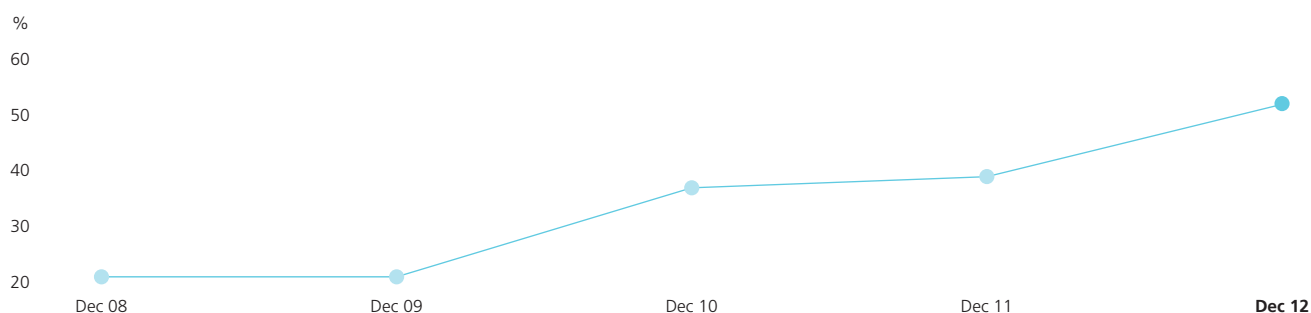


A capital intensive business – the capital cost of a 50MW wind farm in the Chinese mainland can exceed HK\$480 million, of which about two-thirds will be funded by project finance

Mitigating Refinancing Risk in the Longer Term

While we exercise prudence in maintaining liquidity, we continue to monitor our debt gearing ratio, diversify funding, manage financial risks (foreign exchange, interest rate, refinancing, counterparty) and maintain long-term relationships with lenders and investors. We also remain vigilant in spreading out debt tenors to the fullest extent possible to reduce refinancing risk. This is particularly important for the power industry, as the payback period for investments is exceptionally long. The extremely low level of interest rates in these years, the good investment grade credit rating of CLP's subsidiaries and the pursuit of yield by investors have enabled us to significantly extend debt maturities to five years and longer, occasionally up to 30 years, without compromising on the major terms of borrowing.

Ratio of Debt with Maturity Beyond Five Years to Total Debt



How does CLP evaluate the use of different types of debt financing and how does the financing decision affect investment return and overall cost of debt to the Group?

We take a holistic, long-term and pragmatic view when we plan for and execute financing. We keep track of global financial market developments and maintain a dialogue with global/regional financial institutions and investors to identify financing opportunities. We compare various financing options with regard to regulation, documentation, commercial terms and execution risk. We will convert non-functional currency financing proposals into functional currencies (e.g. H.K. dollar for CLP Holdings and CLP Power Hong Kong, Australian dollar for EnergyAustralia) to mitigate foreign currency risk. When it comes to debt portfolio management, we prefer to use long tenured financing (notably public and private bonds) to match long-term capital spending; and apply short to medium-term financing (mostly revolving and money market loans) to pay for working capital and fuel cost. We also diversify to avoid concentration risk (investor base, tenor, currency) so long as it is commercially viable to do so.

In Hong Kong and Australia, our investment grade credit ratings, integrated business model and good asset size have enabled us to borrow in the most cost effective corporate finance segment (both in form of bank loans and bonds). For projects outside Hong Kong (Chinese mainland, Taiwan, India, Southeast Asia) we follow a more prudent approach to raise non-recourse, long-term project level debt based on the project structure and financials. This requires lenders to critically review the business/ financial integrity of those investments but the due diligence process can ensure those projects can stand on their own feet without CLP Holdings' financial support or guarantee.



Mr. Hidekazu Horikoshi
Executive Officer
Regional Head for Hong Kong
General Manager
The Bank of Tokyo-Mitsubishi UFJ, Ltd.
Hong Kong Branch



Mark Takahashi
Group Director & Chief Financial Officer

Intellectual Capital — our expertise

In last year's Annual Report we set out the range of technology choices available for power generation in CLP's markets. Our expertise and experience in developing and operating projects forms part of the "intellectual capital" of CLP's business. This year we have taken our previous table of technology choices and used examples from the past year which demonstrate our expertise in action.

1 China Wind

CLP commissioned its wholly-owned Penglai Phase I wind project (48MW) in February 2012. We obtained approval for Laiwu Phase I, which will be a new wholly-owned project (49.5MW) and construction has started.

The minority-owned Laizhou Phase II wind power (49.5MW) project is expected to obtain final approval in 2013.

2 India Wind

The Andhra Lake wind project (106MW) entered service in 2012 and construction started on the Sipla project (50MW) and Bhakrani project (102MW). All these projects are wholly-owned.

3 Fangchenggang II (1,320MW)

We are developing a second stage to the Fangchenggang project that will use ultra-critical technology.

The project will be majority owned by CLP and we will act as the project manager and operator. We will be working to a rapid construction programme that will have the first unit commissioned after 23 months.

4 Lopburi Solar (63MW)

The Lopburi solar photovoltaic project entered full service in 2012 and we have started an 8MW extension. CLP has a one-third equity share and acts as the construction manager.

5 Jinchang Solar (100MW)

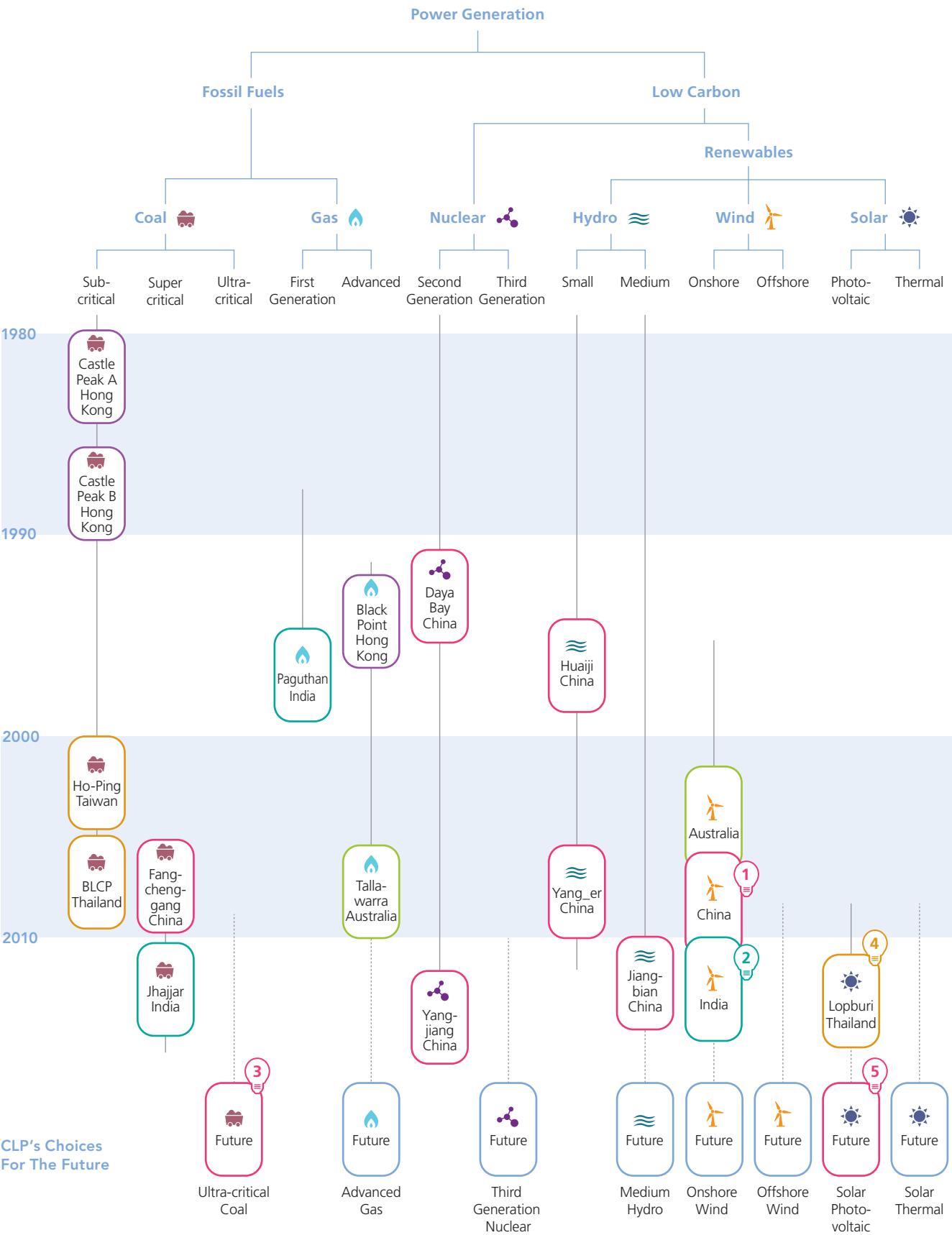
We have acquired a controlling interest in a solar photovoltaic project in Gansu Province that is under construction. There will be a tracking system to align the solar panels to the changing angle of the sun and thereby increase output.



CLP
Technology
Roadmap



CLP's Choices of Technology – Past, Present and Future





Relationship Capital — our values, reputation and community involvement

Strong values and high standards contribute to building and protecting CLP's reputation, supporting key relationships and earning the trust and loyalty of our stakeholders. Our reputation and the quality of the relationships we have with government, regulators, decision-makers, customers and communities help establish and safeguard our "social franchise" – the acceptance by society of CLP as a provider of an essential public service.

CLP's values are expressed in a formal "Value Framework" which we first published in 2003 and have periodically updated to reflect the developments in our business and feedback from stakeholders. This Value Framework expresses our vision, mission, core values, commitments, policies and our Code of Conduct. It covers all areas of our operation and applies to everyone in the CLP Group. It is a continuing statement of where and what CLP wants to be, the standards which we expect of ourselves and which stakeholders can expect from us.

Vision

CLP's vision is to be the leading responsible energy provider in the Asia-Pacific region, from one generation to the next.

Mission

In a changing world, our mission is to produce and supply energy with minimal environmental impact to create value for shareholders, employees and the wider community.

Values

Our values guide us in fulfilling our mission and turning CLP's vision into reality.

Commitments

Our commitments are the promises that we make to our stakeholders about the way in which we will uphold our values.

Policies & Codes

CLP's policy statements aid in the articulation and incorporation of our values and commitments into our everyday operations and practices.



Throughout this Annual Report we describe the different ways in which these values are brought to all of our activities in all of the markets in which we operate. In this section of the Annual Report we briefly explain how our community investment activities also serve as an opportunity to put our values into action and the contribution this can make to our reputation and the quality of our relationships with local communities.

Through the provision of electricity, CLP's business powers the social and economic development of the communities we serve. Our community investment activities complement the way in which our core business contributes to society, by improving the quality of life for communities through donation of our skills, expertise and resources and through working in partnerships with local, regional and international organisations. The four focus areas of our community investment initiatives are: climate change and the environment; youth education and development; community health and wellness; and arts and culture. These initiatives are more extensively described in our Sustainability Report. In this Annual Report, we give an outline of these activities by taking an example of one initiative which is pursued at a Group level and then a selected example from each of our major business streams. Together, these illustrate the range and variety of such initiatives and the way they are built around the four focus areas.

2012 marks the final year of the CLP Group's 5-Year Regional Tree-Planting Programme. Launched in 2008, this Group programme was intended to enhance awareness of CLP's Climate Vision 2050, address local environmental challenges, and create platforms for stakeholder engagement. At all sites we have used a science-based approach to design and implement the tree-planting programme. For example, subject to approval of local forestry or agricultural departments, a majority of trees planted were native species, with non-natives planted to serve as fire barriers. In addition to the planting, CLP assumed responsibility for the maintenance of the site for two years, and engaged horticultural experts to monitor the growth of the seedlings and track changes in soil quality. Each project was designed to address a local environmental challenge:

- 250,010 trees were planted at a site near Tuen Mun in the New Territories which had been damaged by hill fires, with the goal to improve soil quality and reforest the area.
- 593,060 trees were planted at three sites in the Mainland. This included 503,100 trees to preserve the water quality of the Dongjiang (East River), a major source of water for Hong Kong, as well as 59,960 trees to reduce soil erosion in Sichuan. In Jilin Province over 30,000 Russian Olives were planted to mitigate the effects of desertification near our Qian'an Wind Farm and to yield fruit which could generate additional income for the local community.
- In Australia we have supported the restoration of a nature reserve at the ecologically sensitive Werribee Gorge through the planting of 68,310 trees and shrubs. Restoring the site through the planting programme will protect native vegetation, including four endangered plant species, and support native animals such as eastern grey kangaroos and swamp wallabies to continue to live and breed in the area.
- 63,467 trees were planted in Gujarat, including 50,031 trees and plants with commercial value to provide an additional source of livelihood to residents of 70 villages in a semi-arid fragile area.
- 55,420 mangroves were planted at Phetchaburi Province in Thailand with the intention of creating a natural protective barrier for marine life. Due to the low plant survival rate, we decided to replace this programme with that at Qian'an in China. We are realistic and recognise that not all our community activities are wholly successful. In those cases, we need to reallocate our resources to reinforce success rather than continue with failure.

In addition to replacing trees that are affected by the CLP Group's operations, we will continue to plant trees to support communities' needs. Through our 5-Year Programme, we have learned the importance of matters such as partner selection, the need for regular audits and monitoring survival rates. We will apply this experience as we continue to engage in environmental programmes across the Group.

In Hong Kong, with the Savannah College of Arts and Design Hong Kong (SCAD) and with support from Swire Properties, CLP staged an exhibit "The Power of Transformation – Machine Becomes Art" at the Pacific Place Mall. This was the culmination of a year-long collaboration between CLP and SCAD. Instead of selling the retired switchgears for scrap, seven students gave 28 retired switchgears a second life by transforming them into art pieces. The students' talent exceeded our expectations. As one CLP colleague observed "As an engineer, I cannot imagine a piece of cold metal can be turned into such amazing artwork". The ten-day exhibit was visited by 2,815 individuals, with tens of thousands viewing it every day as they walked pass the exhibit. Public feedback was highly positive. One visitor noted that the exhibit "brings awareness of how art can be combined with corporate objectives to promote sustainability".

Relationship Capital

In the Chinese mainland we continue our "Support-a-Student" Programme. School children around our assets in Sichuan, Guangdong and Guangxi receive sponsorship donated by CLP employees, which is then matched by the Company on a 1:1 basis. The schools are selected on the recommendation of local governments and the beneficiaries are students from rural areas or those whose family income is around or below the local poverty line. In 2012, 354 students benefited from the programme with much of the support being used to pay dormitory fees so that students need not spend hours walking to school. Whilst CLP's support might be small, the improvement to the students' learning environment is quite visible. As one student noted "this is really a tremendous help to us". Others indicated that, with CLP's support, they would study hard as they recognised that "studying can help to improve my parents' quality of life, it can also change my destiny". Given the positive response to this programme from our employees and the recipients, CLP will expand the programme to include schools near our operations in Yunnan Province in the 2012-2013 academic year. We will also strengthen the governance of this programme to ensure that students receive the assistance in a manner which addresses their learning needs.

In India much of our work is focused on community health, youth education and development. Our initiatives are based on the "Extension Volunteers" concept. These volunteers from local villages help identify social needs and liaise between CLP and the villages neighbouring our assets to choose and develop programmes that are relevant and meaningful to their communities. For example, one problem in rural areas is a high school drop-out rate as children are expected by their families to work on the land or at home, and neither parents nor children may appreciate the value of formal education. Our colleagues and extension volunteers monitor school attendance registers. They visit homes, often in the evenings, to encourage parents to support their child's return to regular education. Currently 250 children participate in this programme which also educates children on matters such as health and hygiene.

Given the geographical diversity of our assets in Australia, we take a site-specific or tailored approach to engagements. Most sites run regular community liaison and environmental review committee meetings. Members of the groups consist of local EnergyAustralia employees, council representatives, community groups, contractors and residents. These groups decide and discuss issues of mutual importance, including construction, operation, environmental and social matters. They also provide a channel through which EnergyAustralia can provide financial and in-kind support for issues important to local communities. For example, the Yallourn Power Station supported the Moe Dance Eisteddfod, the EnergyAustralia and Rotary Club of Moe Fun Run/Walk along the Moe-Yallourn Rail Trail to raise funds for the Rotary Club and the 2012 Baw Baw Local Learning and Employment Network jobs expo, which attracts secondary school students from across the wider Gippsland area.

EnergyAustralia also initiated a number of new engagement activities focusing on education and charitable / non-profit support in 2012, including:

- The "Inspired by Business" pilot project with Schools Connect and Alkira Secondary College where EnergyAustralia partnered with a teacher to co-design a more engaging and relevant curriculum unit for students by integrating industry-based experiences into the teaching of science and mathematics. The project aims to strengthen the real world relevance of the science and mathematics curriculum in schools.
- A\$150,000 donation to St Vincent de Paul Society so that the Society can purchase two new soup vans for their Melbourne and Moe (Latrobe Valley) nightly provision of food to the homeless.
- The EnergyAustralia charity one-on-one Basketball Challenge and Regatta. For both events, staff were able to take part as participants or spectators and make a donation to one of the following charities, the Starlight Foundation, Melbourne City Mission or Smith Family.

As with any investment that CLP makes, we need to be careful that our resources are allocated to community initiatives in a disciplined and systematic way and that this leads to positive, sustainable outcomes as opposed to having a disruptive effect on a community or the local environment. In addition, we are aware that we do not hold a licence to be charitable with other people's money – namely that of our customers and shareholders. It is in this spirit that we decided to review and update our Community Investment, Sponsorship and Donation Policy in 2012 to strengthen the design, implementation and measurement of programmes across the CLP Group to be more accountable to our shareholders and stakeholders. The updated policy is scheduled to be introduced in early 2013. We are confident that selected community initiatives, carefully chosen, thoroughly implemented and carefully monitored, do enhance CLP's reputation and relationships and do enjoy the support of our shareholders and other stakeholders.

Human Capital – our people

The CLP Group employs over 6,500 people in Hong Kong and across the Asia-Pacific region. Safety is an absolute priority – year in, year out, day in, day out. Nothing we can do for our colleagues compares with the importance of our duty to do our utmost to ensure that they go home safely from work every day. This responsibility extends not only to our employees, but also to the staff of our contractors and to everyone who legitimately comes into our facilities. Our business demands the highest attention to safety – electricity takes no prisoners. Our business would not survive if we fail to protect our people. The Group's safety performance in 2012 is summarised in the following table. This shows the number of incidents involving disabling injury and the rate of such incidents in those assets, under construction or in operation, where CLP has operational control or majority ownership. DIIR, or disabling injury incidence rate, is the number of reportable disabling injuries for every 200,000 employee hours of exposure. It is roughly equivalent to the number of disabling injuries per 100 employees for a year.

Safety Performance – DIIR

Location	Employees				Combined Employees and Contractors			
	2012		2011		2012		2011	
	No.	DIIR	No.	DIIR	No.	DIIR	No.	DIIR
CLP Holdings	1	0.48	0	0.00	1	0.45	0	0.00
Hong Kong	4	0.09	4	0.09	23	0.22	13	0.14
Australia	3	0.23	6	0.34	9	0.48	11	0.45
India	0	0.00	0	0.00	21	0.42	36	0.44
Chinese Mainland	0	0.00	1	0.09	0	0.00	1	0.03
Southeast Asia and Taiwan	0	0.00	0	0.00	0	0.00	0	0.00
Total:	8	0.11	11	0.14	54	0.26	61	0.23

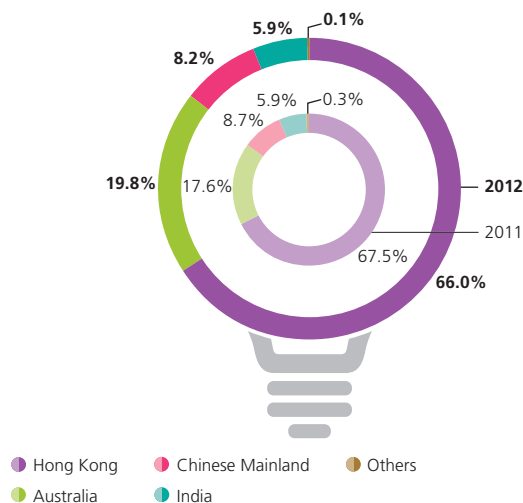
Overall, our safety performance was better than that in 2011. No fatal accident was reported at any of our operationally-controlled or majority-owned assets. There was however a traffic accident leading to one fatality reported from an asset in the Chinese mainland, the Zhangjiakou Wind Farm, in which CLP has indirect, minority ownership and no operating control. In addition, 2012 saw only 29 Lost Time Injuries (LTI) compared to 54 LTIs recorded in 2011. Despite this improvement in safety performance we are not satisfied. Our goal is zero incidents. Accordingly, throughout 2012 and going forwards we continue to exercise safety disciplines and procedures on a Group-wide basis. We make no concessions on safety standards for different countries or assets. We encourage the constant application of detailed safety processes and procedures at each of our assets and in all aspects of our operations. However, we work hard to ensure that all these initiatives are aligned with Group-level standards and practices. For example, in 2012 we worked on a Group Health, Safety, Security and Environmental Management standard to promote a more integrated approach to the management of these issues, based on widely recognised international standards. This is expected to be fully available in 2013. In addition, the Group Safety Information System (GSIS) is being rolled out across the Group. This allows the reporting of incidents more quickly, and in a pre-determined and standardised way, to a single IT platform. Our online Sustainability Report sets out the safety performance of our business in a greater detail. [SR](#)

A Skilled and Experienced Team

The creation of value in CLP's business is derived from a workforce which is

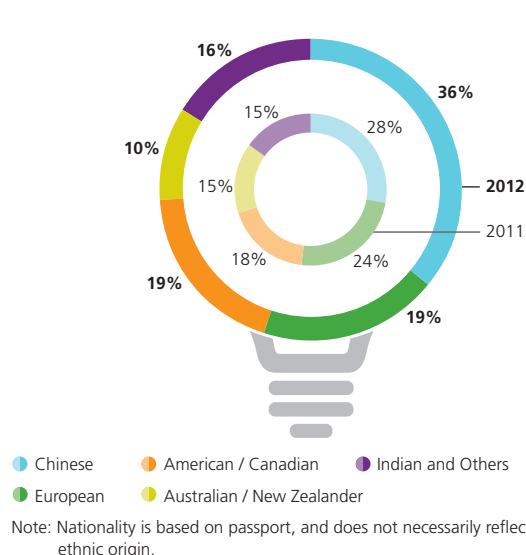
Distributed across the region in line with the demands of our activities

Staff Distribution by Geographical Location as at 31 December 2011 and 2012



Led by a diverse management team

Breakdown of Senior Executives by Nationality as at 31 December 2011 and 2012



Experienced and highly educated

	2012	2011
Average Age	42.6	42.6
Average Years of Service	15.0	15.4
Percentage of Staff Holding a University Degree or Above	54.8%	41.2%*

* Information on EnergyAustralia employees was not available as it was not collected when employees joined the Company.

People Development

The experience of our colleagues is, at least in part, reflected in considerable length of service within the CLP Group. The consequence of this is a significant, largely constant, percentage of staff approaching retirement within the next five years:

Staff due to retire within the next five years

	2012	2011
Hong Kong	14.0%	13.4%
Australia	11.9%	9.6%
India	0.8%	1.1%
Chinese Mainland	11.9%	9.6%

In response to this, as part of our wider goal of people development, we undertake numerous initiatives to ensure management succession, enhance the capability of all staff and introduce new talent to CLP.

Many of the initiatives are organised on a Group-wide basis such as:

- the Accelerated Leadership Assessment and Development Programme, whereby nine colleagues with high leadership potential undertook a comprehensive process of individual assessment, career discussion and personal development planning.
- 20 high potential staff completed the Richard Ivey Business School Consortium Management Programme in Hong Kong.
- 11 CLP colleagues joined the Executive Consortium Programme run in conjunction with Tsinghua University's School of Economics and Management.

The Group-wide initiatives are supported by particular programmes and actions in each of our business units, of which only a few examples are given below:

- In Hong Kong, 87% of the staff movement we had planned as part of our Management Development and Succession Planning cycle were achieved. In addition, four development centres were organised to assess the leadership capability and future potential of 31 of our younger managers.
- 40 Craft Apprentices, Technician Trainees and Graduate Trainees joined CLP Power in August 2012 as one of our measures to ensure the ongoing supply of technical talent.
- Our PRC Human Resources Forum allowed participants from across our facilities in both Hong Kong and the Mainland to share best HR practices, as well as incorporating a learning programme to help colleagues to enhance personal and team effectiveness.
- 95 managers attended Focused Energy Leadership Programmes in Australia. Towards the end of 2012 the HR function in EnergyAustralia was redesigned and renamed "People and Culture". This sharpened our focus on talent management and organisational effectiveness to build our capability in support of the organisation's strategy, strengthen our employee engagement and improve the overall effectiveness of the organisation.
- In India, our people practices were aimed at retaining our best talent and contributing to their professional and personal growth. For example, a "Competency Framework" detailing five behavioural competencies expected of employees was rolled out. This was integrated with the Performance Management System.
- We continued with the development of home-grown technical talent in India through the hiring and training of engineers under the Graduate Engineer Trainee (GET) Programme. As part of this programme, 19 engineers took up assignments at Jhajjar and Paguthan in 2012 on completion of their classroom and on-the-job training. Nine engineers are currently undergoing classroom training at the National Power Training Institute under this programme.

Total formal training man-days across the CLP Group amounted to an average of 5.6 training days per employee in 2012 (compared to 5.4 training days in 2011). All of this training is intended to enhance CLP's "Human Capital" for the benefit of the business, and the individuals concerned, by enhancing their performance in their current roles or preparing them for further career advancement.



Mr. Chiu Ka Wai
Senior Tradesman (Special) –
Engineering Assistant, CLP Power

The current SoC Agreement is due to expire in 2018 if Government decides not to exercise the option to extend it for another five years. Do you think there will be big impact to the staff, either in terms of changes in the remuneration and benefits, or the manpower level?

Whatever the regulatory arrangements in place after 2018, it is always our fundamental aim to ensure that we have the right number and mix of staff and skills for the business and market environment in which we are operating. Given the need to rejuvenate our workforce in the next few years, the Company will continue to offer market competitive remuneration and benefits so that we can attract, retain and motivate high performing employees.



Richard Lancaster
Group Director –
Managing Director Hong Kong



Environmental Capital – our contribution to the environment

At first glance it might seem odd for a power company to speak of “environmental capital” rather than to consider environmental issues more as costs, liabilities or risks. However, we regard the efficient and reliable delivery of electricity within our region as a positive contribution to the environment, especially since electricity is clean at the point of use. We also think that conducting our business in an environmentally responsible way creates value for CLP – we can distinguish ourselves from our competitors, manage our liabilities to environmental penalties, mitigate the future impact of tightened environmental regulation on the assets we build, own or operate, and earn greater acceptance from governments and communities.

In this section we highlight core aspects of our environmental performance. These are described in much greater detail in our online Sustainability Report. [SR](#)

Climate Vision 2050

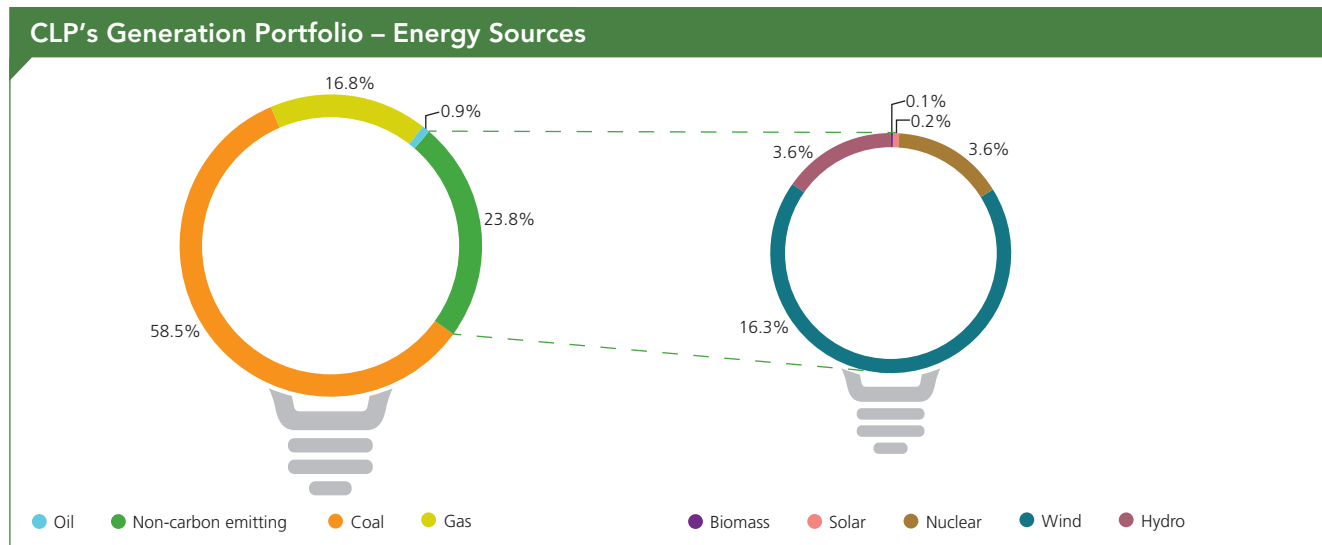
In 2007 we announced CLP’s Climate Vision 2050. We committed ourselves to playing our role in the collective response to the threat of global warming by setting specific targets and commitments to reduce the CO₂ intensity of our generating portfolio. Our Climate Vision 2050 started a journey towards reducing CO₂ emissions by expressing our commitment to decarbonise our generation portfolio by 75% (from 0.84 kg to 0.2 kg CO₂ / kWh) by 2050 and setting targets for increasing the percentage of non-carbon emitting generation in our portfolio. This decision to reduce the carbon intensity of our generation portfolio involved a fundamental change in the way we do business and measure our performance. In 2010, we revised our Group’s intermediate target for carbon intensity by 2020 from 0.7 kg CO₂ / kWh to 0.6 kg CO₂ / kWh. This was because the progress we had already made and the commercial and technological environment allowed CLP to move more quickly on its journey to a low-carbon future.

Our Climate Vision 2050, including the targets we have set, is based on reducing the proportion of coal in our generation portfolio while increasing the use of natural gas, nuclear power and renewable energy. We will continue to push for energy efficiency within our operations, and to support our customers to increase their own energy efficiency. As of 31 December 2012:

- The total CO₂e emissions from CLP operationally controlled facilities in 2012 was 38,464 kilotonnes (kT), a decrease of 13.5% compared to 44,450kT in 2011.
- The carbon intensity of our generation portfolio (equity based) was 0.77 kg CO₂ / kWh, a decrease of 3.8% compared to 0.8 kg CO₂ / kWh in 2011.

Since 2007, we have invested close to US\$3 billion in renewable energy assets, aligning our investments with the emergence of policies and incentives across our regional portfolio which have supported zero and low-emissions generation. Our target to have 20% of our generating capacity in non-carbon emitting sources by 2020 was met on 31 December 2010, 10 years ahead of schedule. We have, therefore, raised our non-carbon emitting target to 30% by 2020. At the start of 2012, renewable energy accounted for 18.3% (equity based) of CLP Group’s generation portfolio. To give an idea of the pace of our efforts, in 2004 renewable energy accounted for less than 1% of CLP’s generation portfolio.

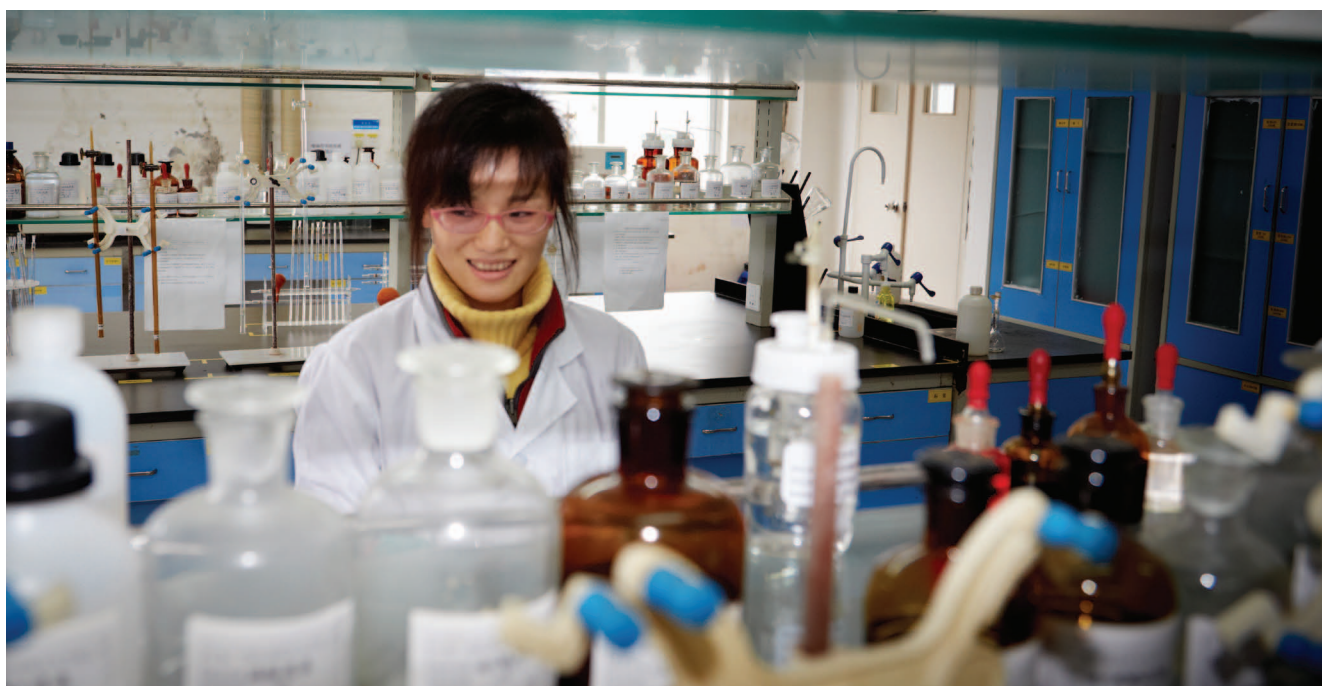
As of 31 December 2012, CLP's progress towards our Climate Vision 2050 targets (equity based) was 20.2% renewable energy (2020 Target: 20%) and 23.8% non-carbon emitting generation (2020 Target: 30%).



In 2012, we undertook Climate Change Adaptation Assessments for three power plants (Fangchenggang, Jhajjar and Tallawarra) to judge their readiness to adapt to the consequences of climate change. This is a continuation of the pilot study completed in 2010 for Paguthan and Ho-Ping Power Stations.

Air Quality

CLP measures air emissions at our facilities. We maintain operations within regulatory and permit limits and track emissions across the Group through an online data management system. Where regulations are lacking, we apply the best available technologies and follow international best practices, wherever possible. We also try to use lower emitting types of fuels and to diversify our fuel mix towards cleaner fuel and renewable energy sources. In 2012, we continued our efforts to reduce our emissions across our generation assets. By the end of the year, we had achieved reductions of emissions of sulphur dioxide (SO₂), nitrogen oxides (NO_x) and total suspended particulates (TSP) by 2%, 11% and 24% respectively, compared to 2011.



Verifying our environmental data – our laboratory at Fangchenggang

Water Use

Conventional power plants require a substantial amount of cooling and process water. And, of course, water availability directly affects the performance of our hydroelectric power stations.

In 2012, facilities under CLP's operational control used a total of about 4,690Mm³ (2011: 4,732Mm³) of water, mainly for cooling purposes at our thermal power facilities. About 99% of the water came from sea water sources. Less than 1% was withdrawn from freshwater sources (municipal and groundwater). The total water discharged in 2012 from these facilities was 4,666Mm³ (2011: 4,710Mm³) with the majority of the discharge returned to the sea.

In light of the importance of water resources to electricity generation, we initiated a Group-wide Water Use Study in 2012 to map the water use at our facilities and to compare this against industry benchmarks. The study, when completed, will provide the basis on which we will pursue future water efficiency and water saving measures.

Waste

We work hard both to reduce the amount of waste produced from the construction, demolition and operation of our power generation facilities and to increase the amount recycled. While following local regulations on treatment and disposal of waste as a minimum standard, we work with qualified parties and partners to reuse and recycle waste and by-products, whenever opportunities to do so are available.

In 2012, facilities under our operational control generated a total of 11,092 tonnes and 1,521 kilolitres of solid and liquid waste respectively (excluding ash and gypsum by-products). This compared to 7,100 tonnes and 912 kilolitres respectively in 2011.

Total ash and gypsum produced and recycled was 777 kT and 214 kT respectively, while 495 kT of ash and 210 kT of gypsum produced was recycled or sold. At Castle Peak Power Station, most of the ash is sold as a direct replacement for cement in concrete production. Lower quality ash, such as furnace bottom ash, raw pulverised fuel ash (PFA) and reject PFA is sold to a local cement plant.

Biodiversity

Biodiversity and the healthy functioning of eco-systems are important for our business. This is particularly so for renewable projects as these tend to be located in relatively undeveloped locations. The design of CLP facilities takes into account the avoidance, minimisation and mitigation of potential biodiversity impacts of our facilities from construction and operation through to the decommissioning stages.

In 2012, we developed a new Group-level Biodiversity Policy Statement and Guidelines, as well as a tool to incorporate the assessment of biodiversity risks into our internal Pre-Investment Environmental Risk Assessment process. The aim of this tool is to help evaluate and address significant biodiversity impacts of new projects and major retrofits. This initiative has been developed according to the principles laid out in the latest International Finance Corporation Performance Standard 6.

Environmental Regulation: Compliance and Beyond

As of 31 December 2012, we had no environmental regulatory non-compliance incidents that resulted in fines or prosecutions. However, compliance is only the minimum standard – we treat it as the floor to our environmental performance. We are committed to the responsible management of both the short and long-term impacts of our business on the environment. This commitment goes beyond compliance and applies to all stages of our business – from planning, building, operation, maintenance to the decommissioning of our facilities and equipment.