



CLP 中電

2017 Annual Report

Stock Code: 00002



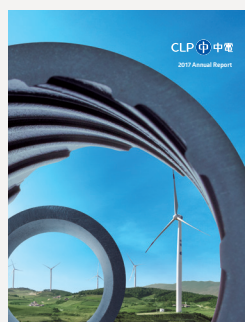


Welcome to CLP's 2017 Annual Report.

Since we started our integrated reporting journey in 2011, our annual report has been the primary channel for us to provide a connected view of our strategy and performance with respect to major financial, economic, environmental, social and governance developments to our stakeholders. This year, we continue this approach, but with a sharper focus on the future.

As we present our 2017 Annual Report to you, the cover shows how we look out to the future through a lens, or a boiler tube, with intrigue. What we see are brighter tomorrows powered by cleaner energy. This is not only the theme of the Annual Report, but also what we aim to bring to the communities we serve.

Our 2017 Annual Report is structured around the reporting guidelines developed by the International Integrated Reporting Council. It also serves as a compliance report for the purposes of applicable statutory and regulatory (Hong Kong Listing Rules) requirements and accounting standards. In addition, our online [Sustainability Report](#), which has been prepared according to GRI Standards, provides a comprehensive review of CLP's sustainability goals, efforts and performance. More information can also be found on our [website](#).



A Snapshot of  
2017 Annual Report

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# A Snapshot of CLP in 2017

## About CLP Group

We are an investor and operator in the energy sector of the Asia-Pacific region. For over 100 years, we have powered Hong Kong's dynamic and spectacular growth and we continue to deliver a highly reliable supply of electricity to over 80% of the city's population. Today, our business has expanded to Mainland China, India, Australia, Southeast Asia and Taiwan. Where we operate, we become part of the social and economic fabric of the local communities, working together with them to achieve sustainable growth.

HONG KONG

CLP runs a vertically-integrated regulated business in Hong Kong, which is the core of our operations. We generate, distribute and provide a world-class electricity supply with a reliability rate of over 99.999% to 2.56 million customers.



MAINLAND CHINA

CLP has been in Mainland China's power industry since 1979. We are one of the largest external independent power producers with a focus on clean and low carbon energy including nuclear and renewables.



INDIA

We have a broad generation portfolio in India covering coal, gas and renewables. We are one of the largest foreign players in the Indian power industry and a leading wind project developer.



SOUTHEAST ASIA AND TAIWAN

We entered the Southeast Asia power market in 1994. Currently, we have interests in a solar project in Thailand and a coal-based generation plant in Taiwan. We are also co-developing two coal-fired projects in Vietnam.



AUSTRALIA

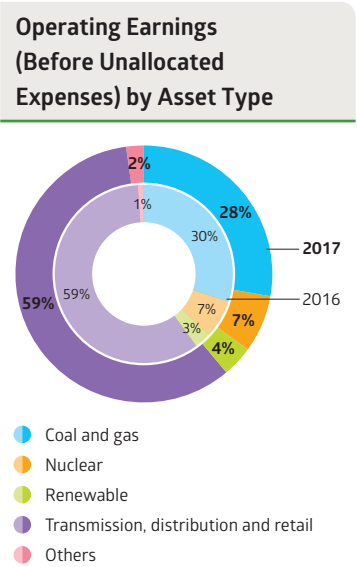
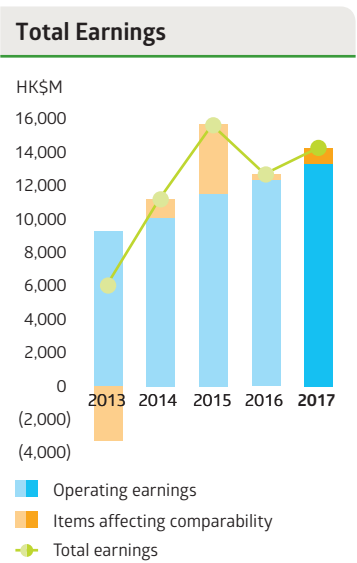
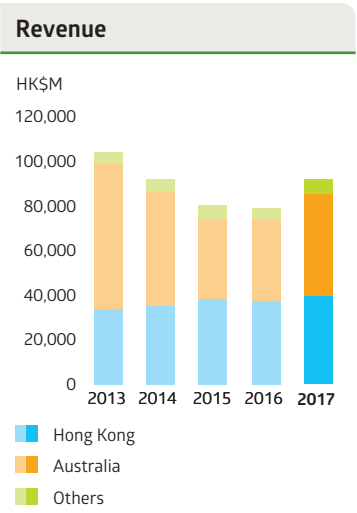
EnergyAustralia operates a customer-focused energy business serving 2.62 million accounts across southeast Australia, supported by competitively-priced energy from its generation portfolio.



## Financial Highlights

Group operating earnings increased 7.9% to HK\$13,307 million, mainly driven by a 16.3% increase in the contribution from businesses outside Hong Kong; total earnings increased 12.1% to HK\$14,249 million.

	2017	2016	Increase / (Decrease) %
<b>For the year (in HK\$ million)</b>			
Revenue			
Hong Kong electricity business	39,485	37,615	5.0
Energy businesses outside Hong Kong	52,101	41,459	25.7
Others	487	360	
Total	92,073	79,434	15.9
Earnings			
Hong Kong electricity business	8,863	8,640	2.6
Hong Kong electricity business related <sup>1</sup>	335	203	
Mainland China	1,238	1,521	(18.6)
India	647	469	38.0
Southeast Asia and Taiwan	160	274	(41.6)
Australia	2,738	1,849	48.1
Other earnings in Hong Kong	(65)	62	
Unallocated net finance (costs) / income	(2)	33	
Unallocated Group expenses	(607)	(717)	
Operating earnings	13,307	12,334	7.9
Items affecting comparability			
Property revaluation and transaction	369	497	
Reversal of tax provision	573	83	
Impairment and provision reversal	-	(203)	
Total earnings	14,249	12,711	12.1
Net cash inflow from operating activities	24,417	23,676	3.1
<b>At 31 December (in HK\$ million)</b>			
Total assets <sup>2</sup>	228,151	206,233	10.6
Total borrowings	57,341	51,646	11.0
Shareholders' funds	108,697	98,010	10.9
<b>Per share (in HK\$)</b>			
Earnings per share	5.64	5.03	12.1
Dividends per share	2.91	2.80	3.9
Shareholders' funds per share	43.02	38.79	10.9
<b>Ratios</b>			
Return on equity <sup>3</sup> (%)	13.8	13.3	
Net debt to total capital <sup>4</sup> (%)	27.8	29.5	
EBIT interest cover <sup>5</sup> (times)	11	10	
Price / Earnings <sup>6</sup> (times)	14	14	
Dividend yield <sup>7</sup> (%)	3.6	3.9	



Notes:

1 Hong Kong electricity business related includes PSDC, Hong Kong Branch Line and sales to Guangdong from Hong Kong

2 Comparative figure has been reclassified to conform with current year's presentation. Details are set out in Note 1 of the Significant Accounting Policies to the Financial Statements.

3 Return on equity = Total earnings / Average shareholders' funds

4 Net debt to total capital = Net debt / (Equity + advances from non-controlling interests + net debt). Debt = Bank loans and other borrowings. Net debt = Debt - bank balances, cash and other liquid funds.

5 Earnings before interest and taxes (EBIT) interest cover = Profit before income tax and interest / (Interest charges + capitalised interest)

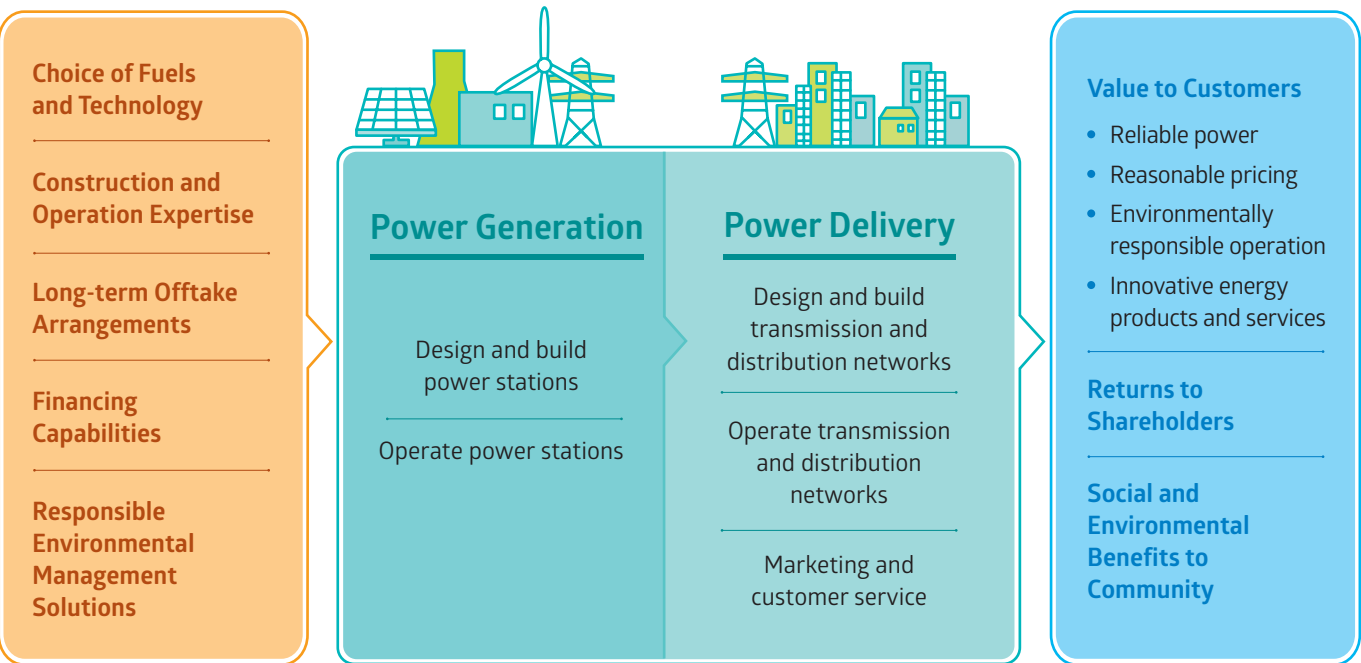
6 Price / Earnings = Closing share price on the last trading day of the year / Earnings per share

7 Dividend yield = Dividends per share / Closing share price on the last trading day of the year



## Our Business Model

CLP aims to power the sustainable development of communities in which we operate by providing reliable and safe electricity to our customers at a reasonable price with minimum impact to the environment. In transition to a smarter and greener future, we recognise the rising importance of helping our customers manage their electricity use more efficiently. To deliver these promises, we draw on our resources, experience and talent while utilising the latest technologies and adhering to the highest standard of governance. The results are not only better choices and quality services for our customers, but also values for all our stakeholders. The following diagram depicts how our business model works.



## Innovation and Technology

Technology advances are changing the way we do business. We are committed to applying the latest, proven technology and innovation to our operations to enhance our performance. At the same time, by developing new products and services, the door will be open for us to tap into new markets and areas.

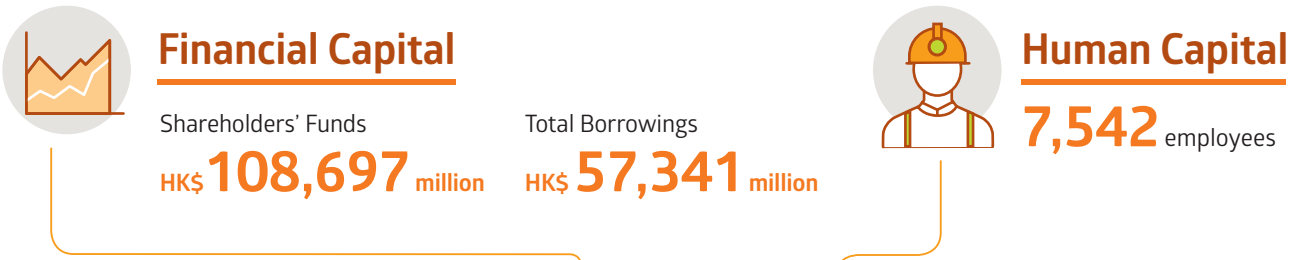
## Corporate Governance

We conduct our affairs in an ethical, transparent and accountable manner. This is because we recognise good corporate governance does not only promote the interests of our stakeholders but also sustainability of our business. CLP's "Do the Right Thing" culture helps us uphold our credibility and reputation. Under the oversight of our Board, our Corporate Governance Framework guides us in applying effective governance policies and ensuring transparent shareholder communications.



2017 In Figures

At CLP, we utilise a range of capitals, which represent stores of value that can be built up, transformed or depleted in the production of goods or services, to create value for our stakeholders over time. The following diagram shows the key capitals we used and the value we created for different parties, society and the environment in 2017.



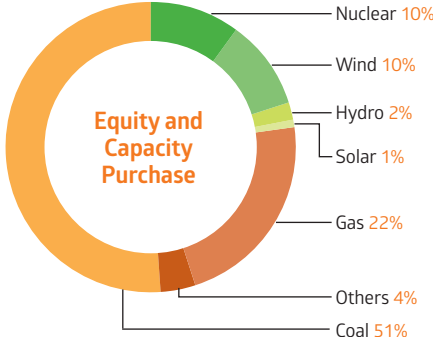
CLP's Inputs



Manufactured Capital

**19,395** equity MW of generation capacity

**5,159** MW of capacity purchase



**15,678** km of transmission and high voltage distribution lines, and

**14,715** primary and secondary substations in Hong Kong



Natural Capital

Fuel Use

Coal  
**471,976** TJ

Gas  
**91,426** TJ



Intellectual Capital

- Research and development
- Improvement of processes and platforms
- Innovation and technology



Social and Relationship Capital

Volunteering  
**19,945** hours by CLP staff and family members

Donations  
**HK\$ 14 million**



Economic Value Generated

**HK\$ 92,682 million**  
including revenue of HK\$92,073 million



Operating Earnings

**HK\$ 13,307 million**



Economic Value Retained<sup>1</sup>

**HK\$ 14,951 million**

Value Created

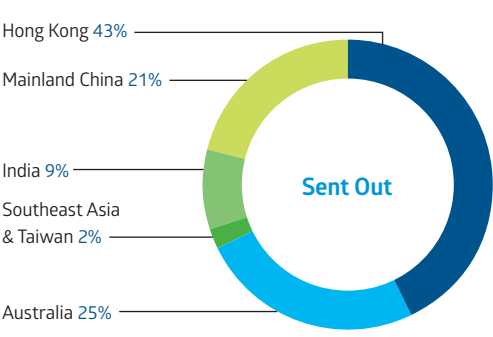


Customers

About **5.2** million customer accounts including 2.56 million in Hong Kong and 2.62 million in Australia

Electricity Sent Out

**83,897** million kWh  
On equity and capacity purchase basis



Over **99.9999%** supply reliability in Hong Kong

**1.57** minutes unplanned customer minutes lost in Hong Kong (average of the past 3 years)



Community

**647** programmes implemented

Directly benefitted over **439,000** people and **451** organisations



Employees

Staff Expenses  
**HK\$ 4,195 million**



Environment

On equity and capacity purchase basis

Carbon Intensity	Non-carbon Emitting Energy	Renewable Energy
<b>0.69</b> kg CO <sub>2</sub> /kWh	<b>5,699</b> MW 23.2% of CLP's portfolio	<b>3,211</b> MW 13.1% of CLP's portfolio



Government and Regulators

Current Income Tax  
**HK\$ 2,094 million**



Suppliers and Contractors

Fuel and Other Operating Costs  
**HK\$ 61,798 million**



Capital Providers

Shareholders: Total Dividends  
**HK\$ 7,352 million** **HK\$ 2.91** per share

Debt Holders: Finance Costs<sup>2</sup>  
**HK\$ 2,278 million**

Notes:

1 Represents earnings attributable to shareholders (before depreciation, amortisation and deferred tax) for the year retained.

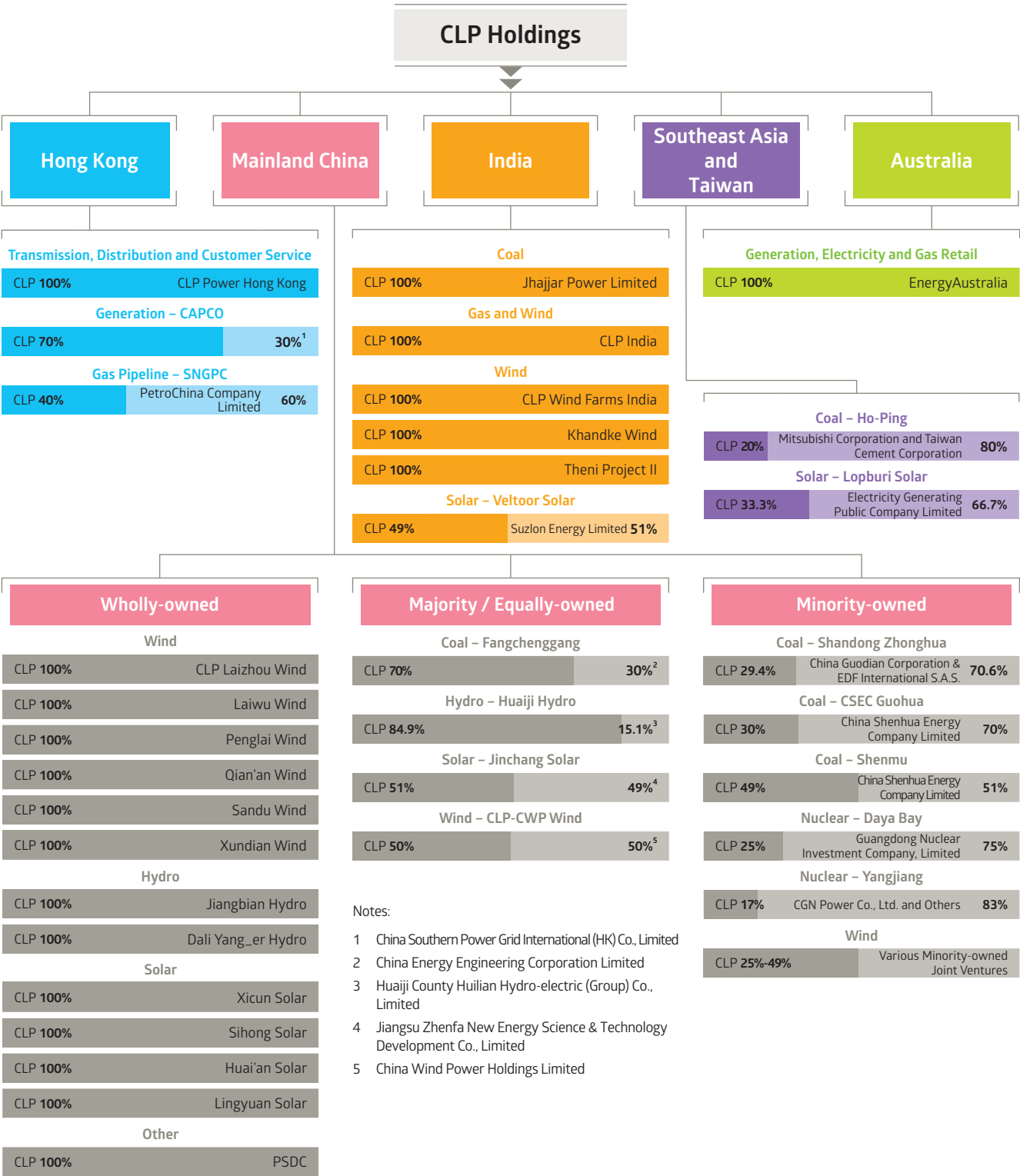
2 Netted with finance income and include payments made to perpetual capital securities holders.



Our Portfolio

as at 31 December 2017






We operate a diversified portfolio of generation assets across five Asia-Pacific markets, using coal, gas, nuclear, wind, hydro and solar. In addition to generation facilities where we hold equity interests, our portfolio includes long-term offtake arrangements. As at 31 December 2017, our equity generation capacity that was in operation and under construction stood at **19,395MW**, while our long-term capacity purchase amounted to **5,159MW**. Among them, renewable energy accounted for **2,751MW** and **461MW** respectively. Our business also includes over 15,600 kilometres of transmission and distribution lines, and energy retail activities that serve about 5.2 million electricity and gas customer accounts.




















Generation capacity by market (equity basis and capacity purchase arrangements)	
Hong Kong	7,483MW
Mainland China	8,872MW
India	2,948MW
Southeast Asia and Taiwan	285MW
Australia	4,966MW
Total	24,554MW



A Snapshot of CLP in 2017





























 Coal	 Gas	 Nuclear	 Wind	 Solar	 Hydro	 Other
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Hong Kong			Gross MW / CLP Equity MW
Equity	Fuel type	Investments	
100%		<b>CLP Power Hong Kong Limited (CLP Power Hong Kong)</b> Owns and operates a transmission and distribution system which includes: <ul style="list-style-type: none"><li>· 555 km of 400kV lines, 1,646 km of 132kV lines, 22 km of 33kV lines and 13,455 km of 11kV lines</li><li>· 66,938 MVA transformers, 232 primary and 14,483 secondary substations in operation and provides electricity and customer service</li></ul>	
70%	  	<b>Castle Peak Power Company Limited (CAPCO) 7,483 / 5,238MW</b> CAPCO owns and CLP Power Hong Kong operates: <ul style="list-style-type: none"><li>· <b>Black Point Power Station</b> (3,075MW), one of the world's largest gas-fired combined-cycle power stations comprising seven 312.5MW units and one 337.5MW unit, with another new 550MW unit under construction and expected to commence operation before 2020</li><li>· <b>Castle Peak Power Station</b> (4,108MW), comprising four 350MW coal-fired units and another four 677MW units. Two of the 677MW units can use gas as a backup fuel. All units can use oil as a backup fuel</li><li>· <b>Penny's Bay Power Station</b> (300MW), comprising three 100MW diesel-fired gas turbine units mainly for backup purpose</li></ul> CAPCO is a joint venture between CLP Power Hong Kong and China Southern Power Grid International (HK) Co., Limited	
40%		<b>ShenGang Natural Gas Pipeline Company Limited (SNGPC)</b> Owns and operates the Hong Kong Branch Line, comprising a 20-km pipeline and the associated gas launching and end stations, which transports natural gas from PetroChina's Second West-East Gas Pipeline in Shenzhen Dachan Island to Black Point	
Capacity Purchase <sup>1</sup>			CLP Power Hong Kong purchases its power from CAPCO, Hong Kong Pumped Storage Development Company, Limited (PSDC) and Guangdong Daya Bay Nuclear Power Station (GNPS). These sources of power (including projects under construction) amount to 9,463MW (CAPCO: 7,483MW, PSDC: 600MW, GNPS: about 1,380MW) for serving our Hong Kong business

Mainland China			Gross MW / CLP Equity MW
Equity	Fuel type	Investments	
25%	 	<b>Guangdong Nuclear Power Joint Venture Company, Limited (GNPJVC) 1,968 / 492MW</b> Owns <b>Guangdong Daya Bay Nuclear Power Station</b> (GNPS) with Guangdong Nuclear Investment Co., Ltd. GNPS is equipped with two 984MW Pressurised Water Reactors. 70% of electricity generated is supplied to Hong Kong, with the remaining 30% sold to Guangdong <sup>2</sup> .	
17% <sup>3</sup>	 	<b>Yangjiang Nuclear Power Co., Ltd. (Yangjiang Nuclear) 6,516 / 1,108MW</b> Owns <b>Yangjiang Nuclear Power Station</b> with CGN Power Co., Ltd. and Guangdong Yudean Group Co., Ltd. The power station comprises six 1,086MW generating units, of which four units are in commercial operation and the other two units are currently under construction with targeted commissioning in 2018 and 2019 respectively.	
70%	 	<b>CLP Guangxi Fangchenggang Power Company Limited (Fangchenggang) 2,580 / 1,806MW</b> Owns and operates a two-phased project at Fangchenggang in Guangxi with China Energy Engineering Corporation Limited. Phase I includes two 630MW supercritical coal-fired units. Phase II includes two 660MW ultra-supercritical coal-fired units	
49%	 	<b>CLP Guohua Shenmu Power Company Limited (Shenmu) 220 / 108MW</b> Owns <b>Shenmu Power Station</b> (220MW) in Shaanxi with China Shenhua Energy Company Limited	
30%	 	<b>CSEC Guohua International Power Company Limited (CSEC Guohua) 7,470 / 1,248MW <sup>4</sup></b> Owns interests in five coal-fired power stations with China Shenhua Energy Company Limited: <ul style="list-style-type: none"><li>· 100% of <b>Beijing Yire</b> <sup>5</sup></li><li>· 50% of <b>Suizhong I and II</b> (3,760MW) in Liaoning</li><li>· 65% of <b>Panshan</b> (1,060MW) in Tianjin</li><li>· 65% of <b>Zhungeer II and III</b> (1,320MW) in Inner Mongolia</li><li>· 55% of <b>Sanhe I and II</b> (1,330MW) in Hebei, a 30MW retrofit expansion was completed in 2017</li></ul>	
29.4%	 	<b>Shandong Zhonghua Power Company, Ltd. (SZPC) 3,060 / 900MW</b> Owns four coal-fired power stations in Shandong with China Guodian Corporation and EDF International S.A.S.: <ul style="list-style-type: none"><li>· <b>Heze II</b> (600MW)</li><li>· <b>Liaocheng I</b> (1,200MW)</li><li>· <b>Shiheng I and II</b> (1,260MW)</li></ul>	

Notes:










- <sup>1</sup> Relates to power purchase from these power stations in which CLP has equity or operational control.
- <sup>2</sup> Agreement has been reached to increase the proportion of supply to Hong Kong to slightly above 70% in 2014 and to about 80% from 2015 to 2018, with the remainder continuing to be sold to Guangdong.
- <sup>3</sup> 17% equity interest in Yangjiang Nuclear was acquired from CGN Power Co., Ltd. on 12 December 2017.
- <sup>4</sup> The 1,248 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 7,470 gross MW.
- <sup>5</sup> The Beijing Yire power station ceased operation on 20 March 2015.




Mainland China (cont'd)			Gross MW / CLP Equity MW
Equity	Fuel type	Investments	
50%	 	<b>CLP-CWP Wind Power Investment Limited (CLP-CWP Wind) 99 / 24MW <sup>6</sup></b> Owns two wind farms in Liaoning in a joint venture with China Wind Power Holdings Limited: <ul style="list-style-type: none"><li>· 49% of <b>Qujiagou Wind Farm</b> (49.5MW)</li><li>· 49% of <b>Mazongshan Wind Farm</b> (49.5MW)</li></ul>	
100%	 	<b>CLP (Kunming) Renewable Energy Co., Ltd. (Xundian Wind) 50 / 50MW</b> Owns and operates <b>Xundian I Wind Farm</b> (49.5MW) in Yunnan	
100%	 	<b>CLP (Laiwu) Renewable Energy Limited (Laiwu Wind) 99 / 99MW</b> Owns and operates two wind farms in Shandong: <ul style="list-style-type: none"><li>· <b>Laiwu I Wind Farm</b> (49.5MW)</li><li>· <b>Laiwu II Wind Farm</b> (49.5MW) <sup>7</sup></li></ul>	
100%	 	<b>CLP (Laizhou) Renewable Energy Limited (CLP Laizhou Wind) 99 / 99MW</b> Owns and operates two wind farms in Shandong: <ul style="list-style-type: none"><li>· <b>CLP Laizhou I Wind Farm</b> (49.5MW)</li><li>· <b>CLP Laizhou II Wind Farm</b> (49.5MW), which is under construction <sup>8</sup></li></ul>	
100%	 	<b>CLP (Penglai) Wind Power Ltd. (Penglai Wind) 48 / 48MW</b> Owns and operates <b>Penglai I Wind Farm</b> (48MW) in Shandong	
100%	 	<b>CLP (Sandu) Renewable Energy Limited (Sandu Wind) 198 / 198MW</b> Owns and operates two wind farms in Guizhou: <ul style="list-style-type: none"><li>· <b>Sandu I Wind Farm</b> (99MW)</li><li>· <b>Sandu II Wind Farm</b> (99MW), which is expected to commence construction in 2018 <sup>8</sup></li></ul>	
45%	 	<b>Huadian Laizhou Wind Power Company Limited (Huadian Laizhou Wind) 41 / 18MW</b> Owns <b>Huadian Laizhou I Wind Farm</b> (40.5MW) in Shandong in a joint venture with Huadian Power International Corporation Limited	
25%	 	<b>Huaneng Shantou Wind Power Company Limited (Nanao Wind) 60 / 15MW</b> Owns two wind farms in Guangdong in a joint venture with Guangdong Wind Power Company Limited and Huaneng Renewables Corporation Limited: <ul style="list-style-type: none"><li>· <b>Nanao II Wind Farm</b> (45MW)</li><li>· <b>Nanao III Wind Farm</b> (15MW)</li></ul>	
49%	 	<b>Jilin Datang Wind Joint Ventures (Jilin Datang Wind) 148 / 73MW</b> Owns three wind farms in Jilin together with China Datang Corporation Renewable Power Company Limited: <ul style="list-style-type: none"><li>· <b>Datong Wind Farm</b> (49.5MW)</li><li>· <b>Shuangliao I Wind Farm</b> (49.3MW)</li><li>· <b>Shuangliao II Wind Farm</b> (49.5MW)</li></ul>	
100%	 	<b>Qian'an IW Power Company Limited (Qian'an Wind) 99 / 99MW</b> Owns and operates two wind farms in Jilin: <ul style="list-style-type: none"><li>· <b>Qian'an I Wind Farm</b> (49.5MW)</li><li>· <b>Qian'an II Wind Farm</b> (49.5MW)</li></ul>	
49%	 	<b>Shandong Guohua Wind Joint Ventures (Shandong Guohua Wind) 395 / 194MW</b> Owns eight wind farms in Shandong together with Shenhua Renewable Company Limited: <ul style="list-style-type: none"><li>· <b>Dongying Hekou Wind Farm</b> (49.5MW)</li><li>· <b>Lijin I Wind Farm</b> (49.5MW)</li><li>· <b>Lijin II Wind Farm</b> (49.5MW)</li><li>· <b>Rongcheng I Wind Farm</b> (48.8MW)</li><li>· <b>Rongcheng II Wind Farm</b> (49.5MW)</li><li>· <b>Rongcheng III Wind Farm</b> (49.5MW)</li><li>· <b>Zhanhua I Wind Farm</b> (49.5MW)</li><li>· <b>Zhanhua II Wind Farm</b> (49.5MW)</li></ul>	
45%	 	<b>Shandong Huaneng Wind Joint Venture (Shandong Huaneng Wind) 69 / 31MW <sup>9</sup></b> Owns two wind farms in Shandong in a joint venture with Huaneng Renewables Corporation Limited: <ul style="list-style-type: none"><li>· <b>Weihai I Wind Farm</b> (19.5MW)</li><li>· <b>Weihai II Wind Farm</b> (49.5MW)</li></ul>	
29%	 	<b>Shanghai Chongming Beiyuan Wind Power Generation Company Limited (Shanghai Chongming Wind) 48 / 14MW</b> Owns <b>Chongming Wind Farm</b> (48MW) in Shanghai in a joint venture with Shanghai Green Environmental Protection Energy Co., Ltd. and CPI New Energy Holding Company Limited	
45%	 	<b>Sinohydro CLP Wind Power Company Limited (Changling Wind) 50 / 22MW</b> Owns <b>Changling II Wind Farm</b> (49.5MW) in Jilin in a joint venture with Sinohydro Renewable Energy Company Limited	

Notes:

- <sup>6</sup> 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.
- <sup>7</sup> Commenced commercial operation in October 2017.
- <sup>8</sup> It will be operated by CLP upon completion.
- <sup>9</sup> Changdao Wind Farm ceased operation in 2017.

A Snapshot of CLP in 2017

Mainland China (cont'd)			Gross MW / CLP Equity MW
Equity	Fuel type	Investments	
100%		<b>CLP Sichuan (Jiangbian) Power Company Limited (Jiangbian Hydro) 330 / 330MW</b> Owns and operates <b>Jiangbian Hydropower Station</b> (330MW) in Sichuan	
100%		<b>Dali Yang_er Hydropower Development Co., Ltd. (Dali Yang_er Hydro) 50 / 50MW</b> Owns and operates <b>Dali Yang_er Hydropower Station</b> (49.8MW) in Yunnan	
84.9%		<b>Huaiji Hydropower Joint Ventures (Huaiji Hydro) 129 / 110MW</b> Owns and operates 12 small hydropower stations in Guangdong with Huaiji County Huilian Hydro-electric (Group) Co., Ltd.	
100%		<b>CLP Dali (Xicun) Solar Power Co., Ltd. (Xicun Solar) 84 / 84MW</b> <sup>10</sup> Owns and operates two solar power stations in Yunnan: · <b>Xicun I Solar Power Station</b> (42MW) · <b>Xicun II Solar Power Station</b> (42MW)	
100%		<b>Huai'an Gangfa PV Power Company Limited (Huai'an Solar) 13 / 13MW</b> <sup>11</sup> Owns and operates <b>Huai'an Solar Power Station</b> (12.8MW), which commenced operation in June 2017	
51%		<b>Jinchang Zhenxin PV Power Company Limited (Jinchang Solar) 85 / 43MW</b> <sup>12</sup> Owns and operates <b>Jinchang Solar Power Station</b> (85MW) in Gansu with Jiangsu Zhenfa New Energy Science & Technology Development Co., Ltd.	
100%		<b>Sihong Tianganghu PV Power Co., Ltd. (Sihong Solar) 93 / 93MW</b> <sup>13</sup> Owns and operates <b>Sihong Solar Power Station</b> (93.4MW) in Jiangsu	
100%		<b>CLP (Lingyuan) Hejiagou New Energy Company Limited (Lingyuan Solar) 17 / 17MW</b> <sup>14</sup> Owns <b>Lingyuan Solar Power Station</b> (17MW), which commenced construction in July 2017 <sup>8</sup>	
100%		<b>Hong Kong Pumped Storage Development Company, Limited (PSDC) 1,200 / 600MW</b> Holds the right to use half of the 1,200MW pumped storage capacity of Phase I of the <b>Guangzhou Pumped Storage Power Station</b> until 2034; PSDC has no equity interest in the power station	

India			Gross MW / CLP Equity MW
Equity	Fuel type	Investments	
100%	 	<b>CLP India Private Limited (CLP India) 705 / 705MW</b> Owns and operates two projects in Gujarat: · <b>Paguthan Power Station</b> , a 655MW combined-cycle gas-fired power plant designed to run on natural gas with naphtha as alternate fuel · <b>Samana I Wind Farm</b> (50.4MW)	
100%		<b>CLP Wind Farms (India) Private Limited (CLP Wind Farms India) 774 / 774MW</b> Owns and operates the following wind projects: · <b>Andhra Lake Wind Farm</b> (106.4MW) in Maharashtra · <b>Bhokrani Wind Farm</b> (102.4MW) in Rajasthan · <b>Chandgarh Wind Farm</b> (92MW) in Madhya Pradesh · <b>Harapanahalli Wind Farm</b> (39.6MW) in Karnataka · <b>Jath Wind Farm</b> (60MW) in Maharashtra · <b>Mahidad Wind Farm</b> (50.4MW) in Gujarat · <b>Samana II Wind Farm</b> (50.4MW) in Gujarat · <b>Saundatti Wind Farm</b> (72MW) in Karnataka · <b>Sipla Wind Farm</b> (50.4MW) in Rajasthan · <b>Tejuva Wind Farm</b> (100.8MW) in Rajasthan · <b>Theni I Wind Farm</b> (49.5MW) in Tamil Nadu	

Notes:





10 Gross / CLP Equity MW are expressed on an alternating current (AC) basis. If converted to direct current (DC), they are equivalent to 100 / 100MW.



11 Gross / CLP Equity MW are expressed on an AC basis. If converted to DC, they are equivalent to 15 / 15MW.




12 Gross / CLP Equity MW are expressed on an AC basis. If converted to DC, they are equivalent to 100 / 51MW.

13 Gross / CLP Equity MW are expressed on an AC basis. If converted to DC, they are equivalent to 110 / 110MW.

14 Gross / CLP Equity MW are expressed on an AC basis. If converted to DC, they are equivalent to 20 / 20MW.

India (cont'd)			Gross MW / CLP Equity MW
Equity	Fuel type	Investments	
100%		<b>CLP Wind Farms (Khandke) Private Limited (Khandke Wind) 50 / 50MW</b> Owns and operates <b>Khandke Wind Farm</b> (50.4MW) in Maharashtra	
100%		<b>CLP Wind Farms (Theni – Project II) Private Limited (Theni II) 50 / 50MW</b> Owns and operates <b>Theni II Wind Farm</b> (49.5MW) in Tamil Nadu	
100%		<b>Jhajjar Power Limited (JPL) 1,320 / 1,320MW</b> Owns and operates <b>Jhajjar Power Station</b> (1,320MW) in Haryana, which comprises two 660MW supercritical coal-fired units	
49% <sup>15</sup>		<b>SE Solar Limited (SE Solar) 100 / 49MW</b> <sup>16</sup> Owns and operates <b>Vellore Solar</b> (100MW) in Telangana with Suzlon Energy Limited <sup>17</sup>	

Southeast Asia and Taiwan			Gross MW / CLP Equity MW
Equity	Fuel type	Investments	
20%		<b>Ho-Ping Power Company (HPC) 1,320 / 264MW</b> Owns the 1,320MW coal-fired <b>Ho-Ping Power Station</b> 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 remaining 60% interest in HPC	
33.3%		<b>Natural Energy Development Co., Ltd. (NED) 63 / 21MW</b> Owns a 63MW solar farm in Lopburi Province in Central Thailand. NED is a joint venture company in which CLP has 33.3% shareholding. Electricity Generating Public Company Limited has the remaining 66.7%	

Australia			Gross MW / CLP Equity MW
Equity	Fuel type	Investments	
100% <sup>18</sup>	  	<b>EnergyAustralia 5,087 / 4,505MW</b> Owns and operates a retail-focused energy business, supported by its generation portfolio in Victoria, South Australia and New South Wales, comprising the following facilities <sup>19</sup> : · <b>Cathedral Rocks Wind Farm</b> (66MW) (50% equity) · <b>Hallett Gas-fired Power Station</b> (203MW) · <b>Mount Piper Coal-fired Power Station</b> (1,400MW) · <b>Narrabri</b> (20% equity) (2C contingent resource of up to 1,797PJ) · <b>Pine Dale Black Coal Mine</b> · <b>Tallawarra Gas-fired Power Station</b> (420MW) · <b>Wilga Park Gas-fired Power Station</b> (16MW) (20% equity) · <b>Yallourn Coal-fired Power Station</b> (1,480MW) and <b>Brown Coal Open-cut Mine</b> · <b>Ecogen</b> (966MW) offtake from Newport and Jeeralang Gas-fired Power Stations <sup>20</sup>	
<b>Long-term Offtake</b> <sup>21</sup>		· <b>Boco Rock Wind Farm</b> (113MW) 100% offtake · <b>Gullen Range Wind Farm</b> (165.5MW) 100% offtake · <b>Mortons Lane Wind Farm</b> (19.5MW) 100% offtake · <b>Taralga Wind Farm</b> (107MW) 100% offtake · <b>Waterloo Wind Farm Stage 1</b> (111MW) 50% offtake	

Notes:

15 CLP India has an option to acquire Suzlon Group's remaining 51% stake one year after the commissioning of the project.

16 Gross / CLP Equity MW are expressed on an AC basis. If converted to DC, they are equivalent to 120 / 58.8MW.

17 94MW of the project were commissioned as at 31 December 2017.

18 Except those specified without 100% equity interest.

19 The Cathedral Rocks Wind Farm, Narrabri and Wilga Park Gas-fired Power Station are not operated by EnergyAustralia.

20 EnergyAustralia makes fixed payments to cover operating and capital expenditure and is liable for fuel costs in exchange for dispatch rights and the economic benefit of electricity sales from the Newport and Jeeralang Power Stations.

21 Long-term offtake relates to power purchase from power stations in which CLP has neither equity nor operational control.



# Chairman's Statement

“

It is the diverse elements of our portfolio that enable us to achieve a balance across the range of our businesses while charting a steady course. This business model has worked for us over a long period of time and I have no doubt it will continue to do so. ”

**The Honourable Sir Michael Kadoorie**  
Chairman





*Alex Shueh*

I am pleased to report that the CLP Group has continued to perform well in 2017. We recorded steady growth and our financial results exceeded those of the year before.

During the year, Group operating earnings increased 7.9% to HK\$13,307 million from 2016. Total earnings were up 12.1% to HK\$14,249 million. These earnings have enabled the Board to approve a fourth interim dividend of HK\$1.14 per share for 2017. Together with the three interim dividends already paid, our total dividends this year are HK\$2.91 per share, a 3.9% increase from HK\$2.80 in the previous year.

These results reflect the strength of our Group that comes from the diversity of our business. The nature of our industry along with the fluctuations in economic activity around the world introduce a certain level of volatility from time to time. It is the diverse elements of our portfolio that enable us to achieve a balance across the range of our businesses while charting a steady course. This business model has worked for us over a long period of time and I have no doubt it will continue to do so. Hong Kong will remain our core market for the foreseeable future while the dynamic markets of Mainland China, India and Australia continue to provide the prospect for long-term growth.

In Mainland China, where we have been investing for nearly four decades, our recent acquisition of a 17% interest in Yangjiang Nuclear Power Co., Ltd. will deliver significant additional earnings and boost our presence in the country's low carbon future. The Yangjiang investment further strengthens our position in sharing the growing prosperity of our neighbouring Pearl River Delta.

In India, where an estimated 300 million people still live without electricity, long-term and capital-intensive investment is required to expand and enhance its power infrastructure. We hope to continue to contribute to that need by broadening our activities and participating in other parts of the energy supply chain such as transmission, distribution and decentralised generation.

In Australia, our emphasis has been on restoring value to our existing investments. This endeavour has been progressing ahead of plan and has strong momentum. We are now increasingly focused on long-term value creation. As in many markets, Australia is challenged by the need for an energy transition while maintaining affordability and reliability of energy. This provides potential opportunities for new investments.



Chairman Sir Michael Kadoorie welcomes the Hon Mrs Carrie Lam Cheng Yuet-ngor, GBM, GBS, the Chief Executive of the Hong Kong Special Administrative Region, to the premiere of *A Century of Power*

## Chairman's Statement

In my Statement last year, I paid particular attention to the adoption and ratification of the Paris Climate Change Agreement. We welcomed this accord and committed our Group to playing our part in achieving its goals. Over a decade ago, CLP voluntarily introduced our Climate Vision 2050 where we committed to lower the carbon intensity of our generating portfolio by approximately 75% of our 2007 position by 2050. Now, to further support the efforts galvanised by the Paris Agreement and the rising expectations of our stakeholders, we have decided to strengthen our commitment. After a comprehensive review of the energy transition underway in each of our key markets, the Board has set even more ambitious targets of reducing our carbon intensity by 82% by 2050 while increasing the share of non-carbon emitting generating capacity from 30% to 40% and renewable energy capacity from 20% to 30% by 2030.

As part of this commitment, we are working to support the Hong Kong Government's Climate Action Plan which calls for a reduction of carbon intensity by 65-70% from 2005 levels by 2030 and requires an increase in the use of natural gas to around half of the total fuel mix for electricity generation in 2020.

The new gas-fired generation unit to be built at Black Point Power Station and our plan to develop an offshore LNG terminal are both very much part of this effort. The gas unit will start commercial operation in time for the 2020 deadline and the environmental impact assessment for the LNG terminal, which aims to enhance Hong Kong's energy security, will soon be presented to the Government.

As I have said many times in the past, Hong Kong is our home and remains our core business, I was thus pleased to see the Government's approval in 2017 of a new Scheme of Control (SoC) Agreement. The new Agreement, which will run for 15 years from 2018 to 2033, provides us with the regulatory certainty that an industry such as ours requires for long-term planning and investment decisions. With that in mind, we have already submitted to Government a new Development Plan setting out our investment strategy for the next five years.

As part of the new SoC Agreement, more initiatives will be introduced to promote the development of renewable energy, enhance energy saving and demand management. This sits well with our ambitions to keep abreast or, where we can, stay ahead of the technological changes that are reshaping the way utilities do business. We are strengthening our management team with the appointments of experts in the field to drive our innovation strategy and better utilise the wealth of data we collect. We have a number of ideas under development in this area that will be discussed by the Chief Executive Officer in his Strategic Review.

As we continue to work towards a brighter future it is important to reflect on the challenges and achievements of our past that have led us to where we are today. In October 2017, we premiered our documentary *A Century of Power* to a large audience. The documentary traces the history of CLP from its beginning more than 115 years ago and, as Hong Kong's Chief Executive Mrs Carrie Lam put it, pays tribute to the hard work and perseverance of our past generations in making Hong Kong a modern world-class city. It is a shared history that we can all be proud of.

In closing, while I am glad to report the good performance we achieved in 2017, I must add that no matter how good the results are, a job is not well done if it is not done safely. During the course of 2017, four workers of our contractors lost their lives while working on our sites. I once again express my deepest sympathy to the families of the deceased and reiterate that we are making every effort to find ways to help us avoid similar accidents in the future.

*Michael Kadoorie*

**The Honourable Sir Michael Kadoorie**  
Hong Kong, 26 February 2018



# CEO's Strategic Review



“

Our industry continues to confront challenges and opportunities brought about by climate change and technological advances. We are tackling these challenges head-on and embracing the new opportunities they present. ”

**Richard Lancaster**  
Chief Executive Officer

Against the background of all the unpredictable international events I pointed to in my Strategic Review last year, it is indeed pleasing to report that we achieved solid performance in 2017. Our industry continues to confront challenges and opportunities brought about by climate change and technological advances. We are tackling these challenges head-on and embracing the new opportunities they present. We remain true to our purpose which is to address the energy trilemma: providing a safe and reliable electricity supply in an environmentally responsible way and at a reasonable cost.

In particular, energy security is a key but often overlooked issue. We need long-term, reliable fuel supply to cope with economic developments and environmental needs, as in the case of Hong Kong. We also need a flexible, well-coordinated energy system to react promptly to sudden changes in the supply-demand balance, as in the case of Australia. At the same time, we need to be able to answer the combined need for new capacity while accelerating the retirement of older, carbon intensive facilities, as in the case of our growth markets of Mainland China and India. Addressing this requires long-term vision, continuous investment and regulatory support.

For now, I would like to focus on our performances in the five markets where we operate and outline the most important issues facing us in these areas.

### Hong Kong

In 2017, operating earnings from our Hong Kong electricity business increased 2.6% to HK\$8,863 million. The new Scheme of Control (SoC) Agreement we reached with the Hong Kong Government for 2018 to 2033 gives us the certainty to plan for our future investments and developments. The new Agreement reinforces our commitment to working closely with the Government to implement its clean energy policies aimed

at making Hong Kong smarter and greener. We are also ready to serve growing demand from new housing development and infrastructure projects in our supply area. To this end, we have submitted a five-year Development Plan to the Government.

To build a cleaner Hong Kong, the Government targets to reduce carbon intensity by 65-70% in 2030 from the 2005 levels. Significantly for us, it has mandated an increase in the use of natural gas to around 50% of the total fuel mix for electricity generation in 2020. We are currently constructing a new HK\$5.5 billion gas-fired unit at Black Point Power Station which will start operating before 2020 and we are planning an offshore LNG terminal in Hong Kong waters, for which we plan to submit an environmental impact assessment soon. This initiative will help ensure Hong Kong's energy security and allow us to source fuels at competitive prices and deliver a reliable supply to power the city's transformation to a lower carbon future.

In the meantime, we are working on implementing a number of initiatives contained in the new SoC Agreement. One such is introducing a Feed-in Tariff programme which provides financial incentives to customers generating their own renewable energy. We are also issuing Renewable Energy Certificates to provide customers opportunities to participate in the local development of renewable energy. We hope that these initiatives will help provide impetus for the development of more renewable energy in Hong Kong.

### Mainland China

Operating conditions in Mainland China continued to be challenging in 2017, particularly for coal-fired generation facilities. As a result, operating earnings fell 18.6% to HK\$1,238 million.

During 2017, coal prices remained high. This was primarily the result of tight supplies of coal brought about by the country's

efforts to clean up the wider coal sector by shutting down smaller, less efficient mines. On-grid electricity prices from coal-fired generation, however, were not adjusted accordingly. This affected the profitability of our coal-fired projects.

While thermal generation has been impacted by China's transition to a lower carbon future, non-carbon emitting generation plays an increasingly important role. CLP's clean energy portfolio was strengthened in 2017 by the completion of the Yangjiang investment, which signified a key milestone not only for our operation in Mainland China, but also for the Group as a whole. The investment is not only important from an environmental perspective, it will also bring a positive impact to our earnings. Meanwhile, the performance of our renewable projects was solid, thanks to continuous growth of our wind and solar portfolio.

As the Central People's Government continues to reform the energy sector and introduce mechanisms to open up the market, the proportion of market sales substantially increased, bringing down the average price of our realised sales. With a balanced portfolio in place, this enables us to effectively compete in this rapidly evolving market.

### India

Our operations in India had a solid year as both our thermal and renewable projects performed well. This gave rise to a 38% increase in operating earnings to HK\$647 million.

We are well aware of the worsening pollution in India and have always been mindful of the impact of thermal projects on the environment. This is why we installed state-of-the-art environmental facilities for Jhajjar and Paguthan power plants.

We are particularly pleased by the near completion of our first solar project in India, Veltoor, in the south of the country. Renewables are an integral part of CLP's strategy in India and are expected to continue making a vital contribution to our business and the environmental performance of the country.

### Southeast Asia and Taiwan

In 2017, operating earnings decreased 41.6% to HK\$160 million largely because our project in Taiwan, Ho Ping, was affected by higher coal costs and unplanned outages in the second half of the year. Meanwhile, our operations in Southeast Asia remained steady and we continued to press ahead with the development of our two coal-fired projects in Vietnam.

### Australia

I am glad to report that value restoration in our Australia business has strong momentum and is ahead of plan. In 2017,

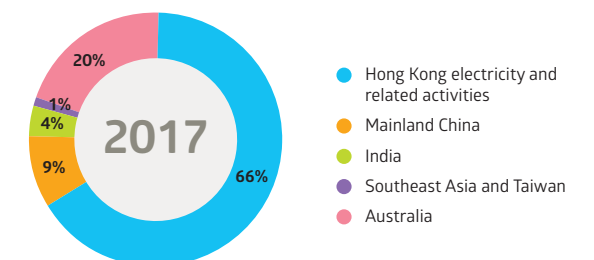
we achieved solid results in a very competitive market. Higher wholesale prices drove an increase in earnings from our Energy segment, while the Customer segment benefitted from the hard work we put in over recent years which puts our customers first and successful initiatives to lower costs. These resulted in a 48.1% increase in operating earnings to HK\$2,738 million.

Energy policies in Australia have been complex and sometimes conflicting. In October 2017, the Federal Government announced its National Energy Guarantee plan. We have examined it carefully and hope it can lead to agreement between State and Federal governments resulting in a national approach. We continue to work with our stakeholders on the redesign of the energy market assuring it does not lead to unnecessary cost for customers. Attracting investment in new generation is critical to restoring the vitality of the National Electricity Market. To achieve that, there is no substitute for stable energy policies.

Our results prove that our integrated business model works well. We are delivering to our customers the energy products, services and choices they need to manage the impact of rising prices while helping vulnerable customers deal with hardship. We can do this thanks to a strong and diversified portfolio of physical assets and contracts, including our initiative to underpin the development of 500MW of renewable energy with contractual offtake arrangements. Australia also urgently needs energy storage and reserve capacity to address the current energy security issue. EnergyAustralia is studying battery, pumped storage and demand response as part of a portfolio to help address that issue and provide reliable, affordable and cleaner energy for all customers. With a stable, national framework CLP is ready to help lead the shift to a cleaner energy future for all Australians.

### Performance Highlights

#### Operating Earnings<sup>1</sup> by Market



About **5.2 million** customer accounts<sup>2</sup>

Electricity sent out<sup>3</sup> **83.9 TWh**

Notes:

- 1 Before unallocated expenses.
- 2 Including 2.56 million in Hong Kong and 2.62 million in Australia.
- 3 Equity basis and capacity purchase arrangements. Also includes long-term power contracts from facilities in which we hold an equity interest.



The new Scheme of Control Agreement reaffirms CLP's commitment in contributing to Hong Kong's greener tomorrow



## Safety

At CLP, we take safety to heart. The two fatal accidents in our Hong Kong operation last year which claimed four lives were a tragic reminder that we must be forever vigilant in our efforts to protect the safety of our staff, contractors and customers. In 2017, under the supervision of the Board, we carried out a fundamental review of our health and safety practices. Contrary to safety management theory and our expectation, we have seen the level of serious incidents across the Group remain relatively stable despite a strong downward trend in the total number of safety incidents. As a result, we significantly strengthened the focus of our safety procedures on the reduction of serious incidents, introduced action plans to improve standards in this area and further elevated the classification of safety in our Group risk register to ensure a sustained increase in oversight on safety. We have also appointed a new Senior Director of Health, Safety and Environment to oversee the new approach. We will closely monitor the implementation of these plans on an ongoing basis with a determination to do as much as we possibly can to prevent a recurrence of such tragic accidents.

## Climate Change

It is now 10 years since CLP's Climate Vision 2050 was first published. During this period, climate change science has progressed, technology has advanced, our business has evolved and the Paris Agreement has increased global ambition to limiting temperature increases to 1.5 degrees Celsius. Against this backdrop, we undertook a comprehensive review of Climate Vision 2050.

It is now clear that increasing global demand for renewables has reduced costs to the point where in some situations renewable energy no longer requires subsidies. In the context of growing societal expectation and increasing technological promises, we have set ourselves tougher targets than those formulated in 2007. We now propose decarbonising our portfolio by over 80% from the 2007 levels and have introduced new carbon intensity reduction targets for 2030 and 2040 to replace the existing 2035 one. Our new goals are to have 30% of our generation capacity coming from renewables in 2030 and 40% from non-carbon emitting sources that year.

Finally, as business models evolve and decentralised generation takes up an increasing part of the system, contracting new renewable energy becomes more mainstream. CLP has historically reported our carbon intensity, proportion of renewable and non-carbon emitting generation on an equity basis reflecting solely our ownership in the generating plant. However, we believe this approach reflects a relatively narrow view of our generation position as it does not take into account the capacity purchase that we make from plant we don't own. Therefore, from now on, we will also report our targets and progress on a basis that includes our capacity purchase.

## Innovation

The digital revolution means the world is changing at a rapid pace and our industry needs to seize the opportunities presented by this phenomenon. We have long recognised this and have made innovation a priority in our long-term plans for the Group. Since 2016, we have appointed a Senior Director of Innovation and a Director of Big Data to our new innovation team, which has been tasked to define and refine how we can leverage all the new and emerging technologies that can help us to be better and more efficient at what we do. This process will help our customers to save energy usage and costs.

We are already making progress. In 2017, we invested in a venture capital fund in Silicon Valley which can help us explore new opportunities. We have also applied new technologies in our operation to boost performance and efficiency. For example, in Hong Kong, we are using drones as "inspectors" to look at aspects of our Black Point Power Station, in particular the operational areas where access by our staff is difficult or potentially dangerous. In Mainland China, we started using robots to clean our solar panels. In Australia, we have rolled out the Redback Smart Hybrid System which combines a solar inverter with battery storage and a smart home energy management software, and a demand response trial for customers to have better control of their energy use. We also utilise data analytics to enhance asset management across the Group.

Changes to the first registration tax waiver on electric vehicles have dramatically reduced the sale of electric vehicles in Hong Kong and has impacted our Smart Charge business which we launched in 2016. However, many manufacturers are now focusing on the development of newer and cheaper electric car models which may again boost sales. We remain confident in the long term for this 50%-owned enterprise.

As the world becomes smarter and connectivity increases, the probability of cyberattacks is also on the rise. Today's utilities are far more vulnerable to these attacks as our infrastructure has become more complex and digital. Therefore, we are actively strengthening our systems and improving our response capabilities to deal with potential cyber events. To keep up to date in this challenging area, we have also taken steps to strengthen our cyber resilience through collaboration with leading international utilities.

## Outlook

Since the launch of our Focus · Delivery · Growth strategy in 2014, we have been focusing on what we do well – managing our operations professionally – and delivering a dependable and increasing return. We have also been growing our portfolio at a steady pace. Our positions are strong and our pathways are clear.

In Hong Kong, the new 15-year SoC Agreement provides certainty for our investments in the energy transition and the new technologies necessary to meet our customers' needs. We look forward to a future that is continuously underpinned by a clear and stable regulatory framework with confidence.

For the longer term, Mainland China and India will remain our major growth markets. In Australia, there has been a long period of energy policy uncertainty which has brought with it significant market volatility and rising energy costs. Having said that, our value restoration programme has borne fruit since introduction in 2014 and from now on, providing and assuming the introduction of a more stable and modern regulatory framework, our focus will be to create value for the long term.

Globally, we note the trend in the development of smart cities, which comes with unprecedented connectivity across all sectors and regions. To support the development of a smart city in Hong Kong, we believe a reliable, efficient and clean energy system will be needed. At CLP we have the drive, desire and expertise to be an integral part of these exciting new developments.

I should stress that the energy industry is a fundamentally solid business amid all these challenges. We are well-prepared to recognise and seize the opportunities that they are bringing.

benefitting from a diversified portfolio, our forward-thinking, clear focus, agility, strong financial structure and a capable workforce. With these new opportunities coming up, we will continue to strengthen our talent pool. The launch of the CLP Power Academy in Hong Kong last year is one good example of this effort.

In the past year, we undertook an exercise to review our brand identity. Our refreshed brand and our new tagline – Energy for Brighter Tomorrows – speak to our purpose to deliver a fundamentally positive contribution to the community as a reliable and engaging energy service provider. It reflects both our achievements over the years in providing energy for the communities we serve and our determination and commitment to continue to innovate and improve. We look forward to a dynamic and bright future and positive engagement with all our stakeholders.



**Richard Lancaster**

Hong Kong, 26 February 2018

**Q What would be some of the most game-changing technologies, business models, and trends for the power industry over the next two years? How is CLP incorporating these elements into everyday operations and the development roadmap?**

**A** The electricity industry is witnessing change at an unprecedented pace. Technology innovation and digitalisation are big drivers of this change, and CLP recognises the importance of embracing innovation and being a leader in the deployment of new technology.

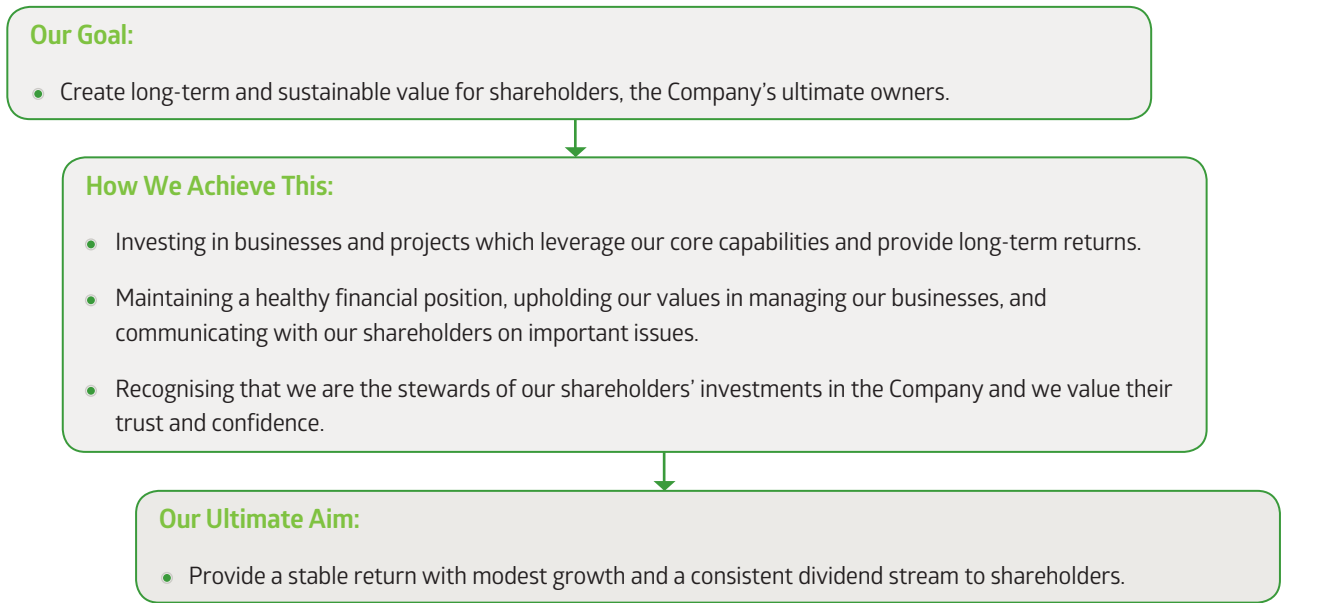
In 2017, we started taking steps to build our knowledge and organisational skills. We also identified strategic partners around the world to bring new skills and know-how to complement our own expertise in the power industry. With so much going on in this field it's important to have a clear focus. We have this and are concentrating our efforts on how we can play a role in smart cities, how we can help customers better manage their energy needs through smart energy platforms and how we can deploy data science to improve our operations, lower costs and provide better customer service. We are now at the stage of taking several innovative ideas through pilot projects which will help us understand the new possibilities and how best to implement them across the business.

But we know our ambitions won't be achieved without a strong organisation with the right culture and capabilities to support innovation. We have a talented workforce with deep and broad industry expertise, and we need to successfully combine this with new skills, ideas and ways of working that we need to adopt. Simply put, the most critical part of CLP's innovation journey is our people.

**Jane Huynh**  
Project Engineer  
CLP Group Operations

**Richard Lancaster**  
Chief Executive Officer

Shareholder Value



Our Shareholders

The table below shows details of CLP's shareholding status.

Shareholding as at 31 December 2017				
Size of Registered Shareholding	No. of Shareholders	% of Shareholders	No. of Shares	% of Issued Share Capital
500 or below	2,447	12.27	753,091	0.03
501 – 1,000	3,655	18.32	2,916,358	0.12
1,001 – 10,000	9,272	46.47	39,633,190	1.57
10,001 – 100,000	4,065	20.37	116,528,747	4.61
100,001 – 500,000	427	2.14	88,103,616	3.49
Above 500,000	85 <sup>1</sup>	0.43	2,278,515,568	90.18
Total	19,951 <sup>4</sup>	100.00	2,526,450,570 <sup>2</sup>	100.00

**Shareholding by Category<sup>3</sup>**

- Interests associated with the Kadoorie Family – our single largest shareholder group
- Institutional Investors – many based in North America, UK, Europe and Asia
- Retail Investors – mostly based in Hong Kong

Notes:

1 Information on [the 10 largest registered shareholders](#) in the Company is set out on our website. [🔗](#)

2 52.23% of all our issued shares were held through Central Clearing and Settlement System of Hong Kong (CCASS).

3 The Listing Rules required 25% public float was maintained throughout the year and up to 26 February 2018.

4 Actual number of investors is much greater as many shares are held through intermediaries including CCASS.

The scale of our shareholders' investment is reflected in the market capitalisation of CLP Holdings which stood at HK\$202 billion as at 31 December 2017. Our shares represent 1.60% by weighting of the Hang Seng Index (HSI), Hong Kong's leading listed companies index.

Delivering Value to Shareholders

Through Share Price Performance

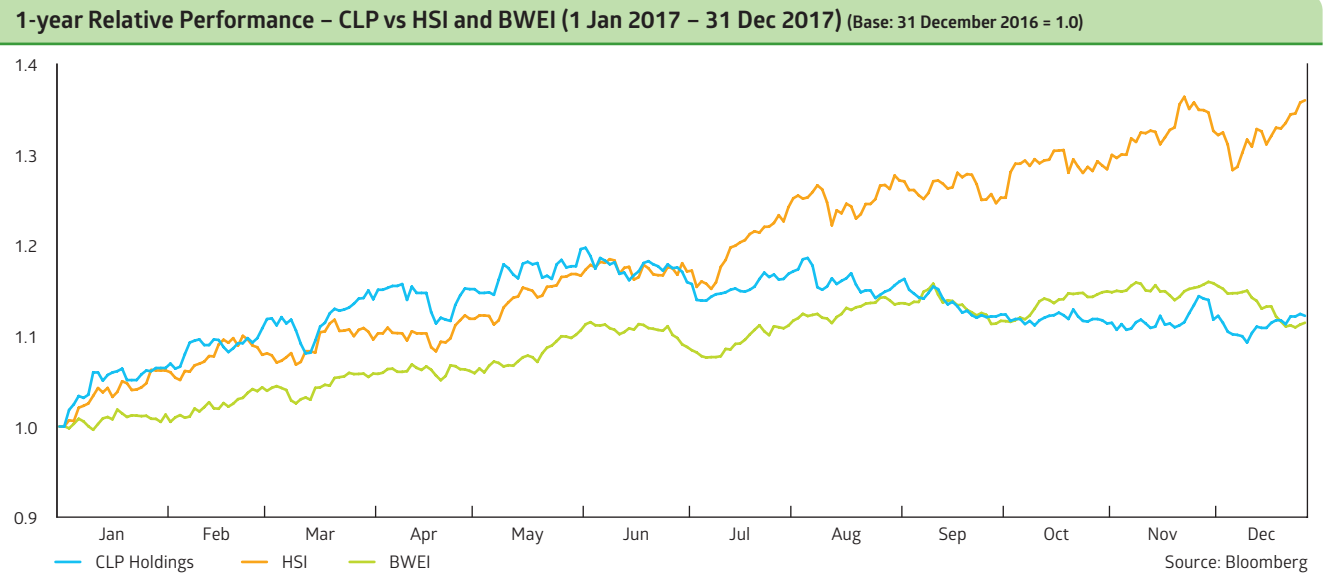
Our Share Price in 2017



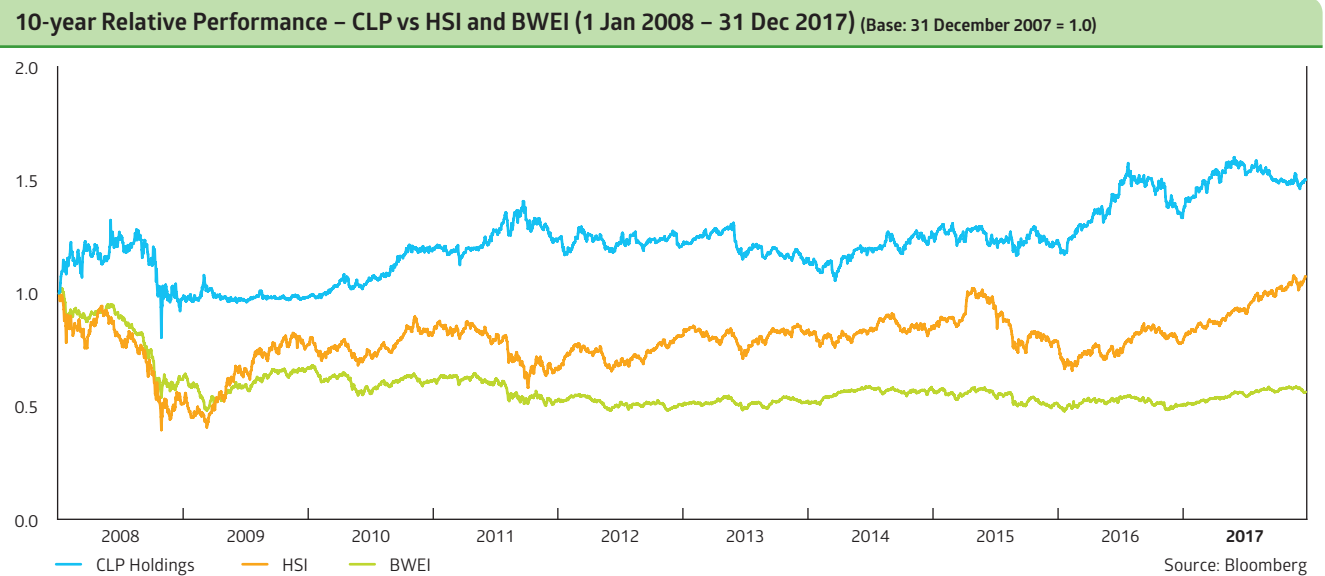
Following strong appreciation during the first half of 2017, the share price stabilised during the middle of the year and declined towards year-end. This was largely driven by growing concerns that the US Federal Reserve would increase interest rates and that Hong Kong utilities have in the past demonstrated an inverse correlation with rising interest rates.

As for comparison, the HSI and the Bloomberg World Electric Index (BWEI) were up by 36.0% and 11.4% respectively, recovering strongly since 2016.

This comparison is shown in the chart below.



The trend shown in the 10-year Relative Performance chart below represents the share price changes compared with the closing price 10 years ago.

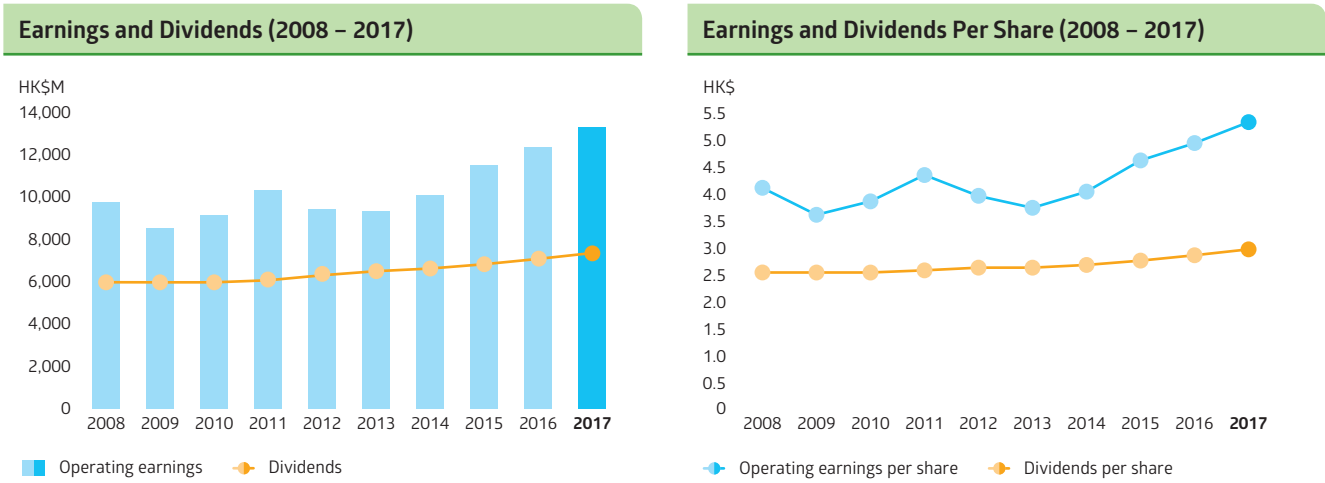




Through Dividend Payments

Our longstanding practice is to provide reliable and consistent ordinary dividends with gradual growth, linked to the underlying earnings performance of the business. Our shareholders, whether institutional or retail investors, have continued to emphasise the importance they attach to a consistent dividend stream with gradual growth from their investment in CLP shares. In fact, our annual dividends have not decreased since 1960 – a solid record maintained over the past 57 years.

The following charts demonstrate that we have maintained a stable dividend stream, despite fluctuations in earnings over the period.



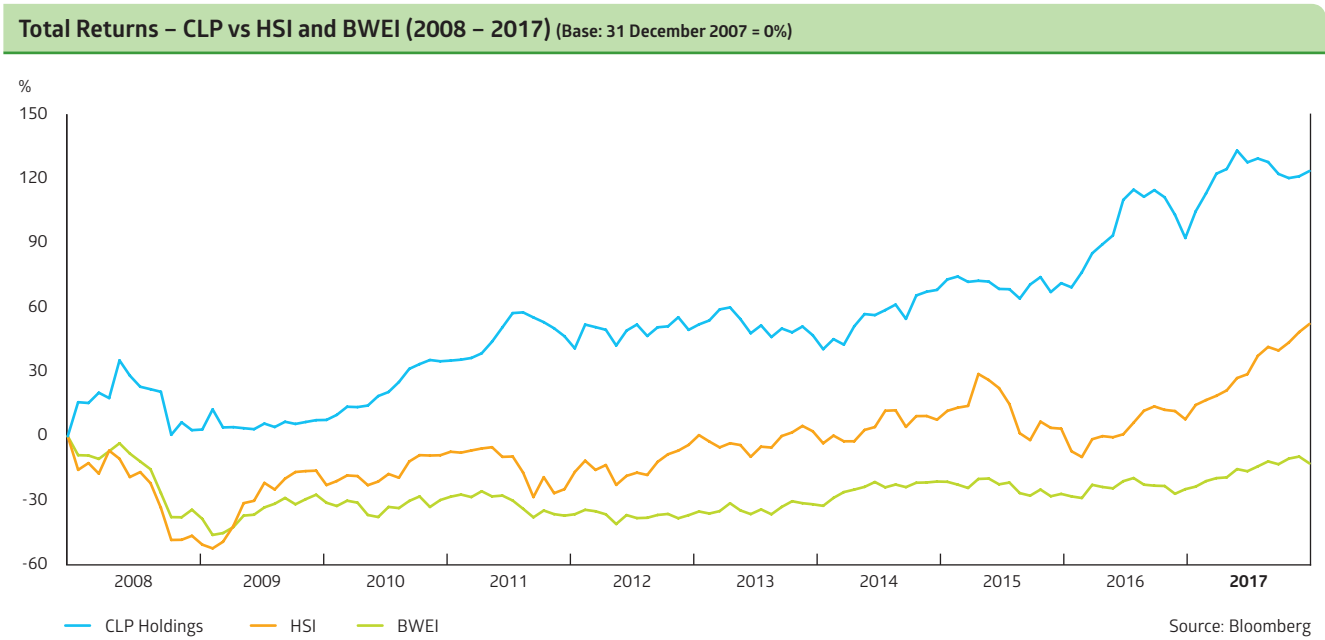
Past 10 years (2008-2017)

From 2008 to 2017, CLP’s ordinary dividend payments were between 55% and 66% of operating earnings, except for 2009 and 2013 when our payout ratio rose to 70% of operating earnings. This was due to a significant decline in earnings caused by the reduction in the permitted rate of return under the SoC in 2009 and the difficult market conditions in Australia in 2013.

The total dividends declared for 2017 were HK\$2.91 per share representing an increase of 3.9% over the total dividends for 2016. The dividend payout ratio for 2017 was 55% of operating earnings.

Through Total Returns

Total returns to shareholders come from the combination of share price appreciation and dividend payments over time. During the 10-year period from 2008 to 2017, CLP provided an annualised rate of return of 8.38%, as compared with 4.30% for the HSI and a negative return of 1.35% for the BWEI.



CLP Shares – Investment Comparison

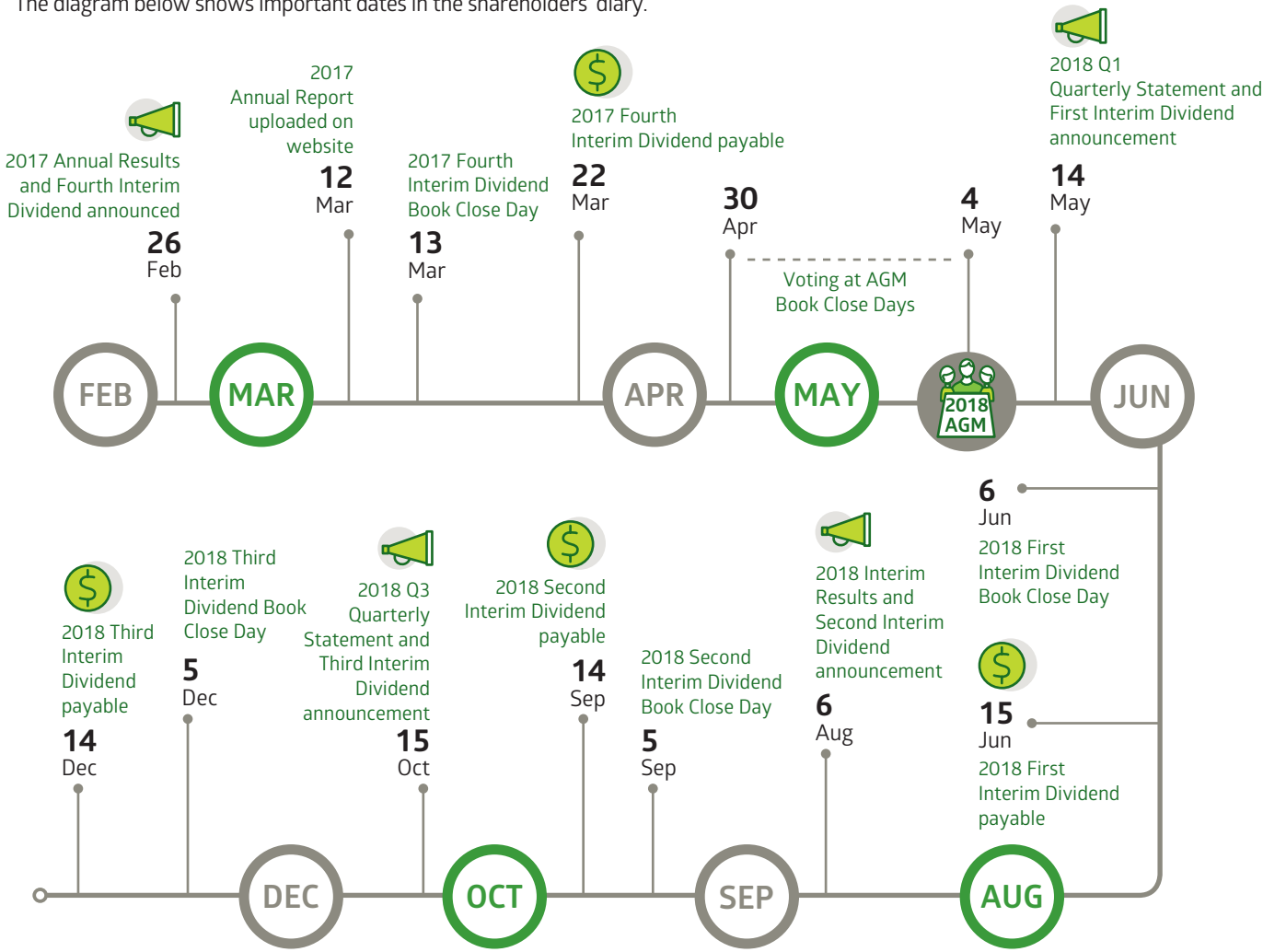
For reference only, we have set out below our share price performance and the performance of some comparable investments which our shareholders might make. We have assumed that during the period of 1, 5 and 10 years prior to 31 December 2017, an investor has put HK\$1,000 into each of these investments every year. We have then compared the total worth of these investments (including bonus shares and dividends or interest reinvested) at the end of each of the three periods.

Investment Returns	Total Investment Worth at 31 December 2017		
	1-Year Period HK\$	5-Year Period HK\$	10-Year Period HK\$
CLP	1,162	6,812	16,485
Tracker Fund of Hong Kong	1,405	7,271	16,820
Hong Kong and China Gas	1,254	6,424	17,280
Power Assets Holdings	1,192	6,438	17,926
HK Electric Investments	1,182	n/a	n/a
HK\$1-Year Fixed Deposits	1,015	5,152	10,549

Adapted from Bloomberg

Shareholders’ Dates 2018

The diagram below shows important dates in the shareholders’ diary.



Any changes to these dates will be published on our [website](#).



# Financial Review

International Commerce Centre, Hong Kong

Our Focus • Delivery •  
Growth strategy and  
diversified portfolio  
continue to deliver  
steady growth



## CLP Group's Financial Results and Position at a Glance

### Strategy – Focus • Delivery • Growth

CLP's strategy is to focus on business activities and initiatives that best utilise our core competencies; deliver on the potential of our investments and generate growth for the shareholders. Our core market and strategic focus remain in Hong Kong. Mainland China and India continue to be our primary growth markets, with particular focus on renewable energy and other opportunities along the energy supply chain. Southeast Asia is our secondary growth market. Our focus in Australia is to restore value and progress gradually to long-term value creation.

### How Well We Execute Our Strategy

Hong Kong business was the major earnings contributor, representing 66% of Group operating earnings. Australia business demonstrated a strong momentum and delivered solid results in a challenging market. Thermal and renewable projects in India performed steadily while thermal projects in Mainland China were adversely impacted by high coal prices and overcapacity. Earnings from Southeast Asia and Taiwan were aligned with the forecast and their operations remained stable.

### Adequate Resources Generated to Support Our Strategy

Free cash flow (FCF) represents the cash which a company can generate without causing issues to its operations. FCF can be used for distribution to the debt holders and shareholders and to grow the business.

FCF in 2017 was strong due to improved working capital driven by better EBITDAF performance and the receipt of upfront payment for Argyle Street redevelopment project, partly offset by more SoC cash outflows. FCF provides resources to finance our investments in Yangjiang Nuclear and other projects and increases our cash reserves for funding future business opportunities. FCF for the last five years can be found in the Broader Perspective (page 35).

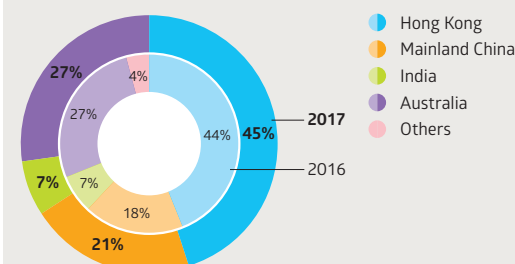
### Where We Stand

- Successful execution of strategy and achieved solid performance in 2017 from the diversified portfolio
- Secured regulatory certainty in Hong Kong with a new SoC Agreement signed
- Increased our non-carbon emitting portfolio by acquisition of 17% interest in Yangjiang Nuclear
- Invested HK\$1.5 billion in renewable projects, which now represented 13% of our generation capacity and contributed HK\$649 million to earnings
- Credit ratings upgraded by Standard & Poor's
- Delivered a total shareholders' return (share price appreciation and dividend payments) of 16.3% in 2017

### Last Year's Statement of Financial Position

	2016 HK\$M
<b>Working capital</b>	
Trade and other receivables <sup>1</sup>	13,464
Trade and other payables <sup>1</sup>	(20,176)
Cash and cash equivalents	4,467
Others <sup>1</sup>	(1,161)
	(3,406)
<b>Non-current assets</b>	
Fixed assets, leasehold land and land use rights and investment properties	139,421
Interests in joint ventures and associates	10,784
Others <sup>1</sup>	32,490
	182,695
<b>Debts and other non-current liabilities</b>	
Bank loans and other borrowings <sup>2</sup>	(51,646)
Others	(21,870)
	(73,516)
<b>Net assets</b>	<b>105,773</b>
<b>Equity</b>	
Share capital, reserves and non-controlling interests	27,226
Retained profits	78,547
	105,773
<b>Closing exchange rate</b>	
A\$/HK\$	5.5920
INR/HK\$	0.1141
RMB/HK\$	1.1121

### 2-Year Net Assets by Region

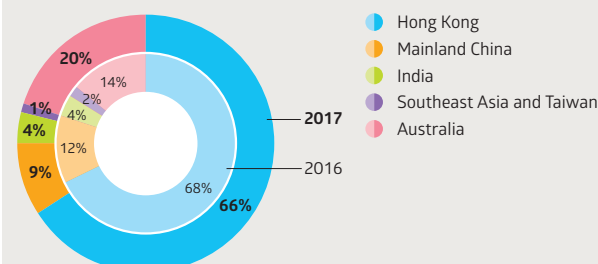


Notes:  
 1 Comparative figures have been reclassified to conform with current year's presentation. Details are set out in Note 1 of the Significant Accounting Policies to the Financial Statements.  
 2 Including current and non-current portions

### Statement of Profit or Loss

	2017 HK\$M	2016 HK\$M	Increase / (Decrease) %
Revenue	92,073	79,434	15.9
EBITDAF of subsidiaries	26,204	23,714	10.5
Share of results of joint ventures and associates, net of tax	1,458	1,641	
EBITDAF of the Group	27,662	25,355	9.1
Depreciation and amortisation	(7,368)	(6,909)	6.6
Fair value adjustments	(138)	341	
Net finance costs	(2,029)	(2,124)	(4.5)
Income tax expense	(2,780)	(2,855)	
Attributable to non-controlling interests and perpetual capital securities holders	(1,098)	(1,097)	
<b>Earnings attributable to shareholders</b>	<b>14,249</b>	<b>12,711</b>	<b>12.1</b>
Excluding: Items affecting comparability	(942)	(377)	
<b>Operating earnings</b>	<b>13,307</b>	<b>12,334</b>	<b>7.9</b>
<b>Average exchange rate</b>			
A\$/HK\$	5.9958	5.7615	4.1
INR/HK\$	0.1200	0.1152	4.2
RMB/HK\$	1.1571	1.1649	(0.7)

### 2-Year Operating Earnings (Before Unallocated Expenses) by Region



### Retained profits (HK\$M)

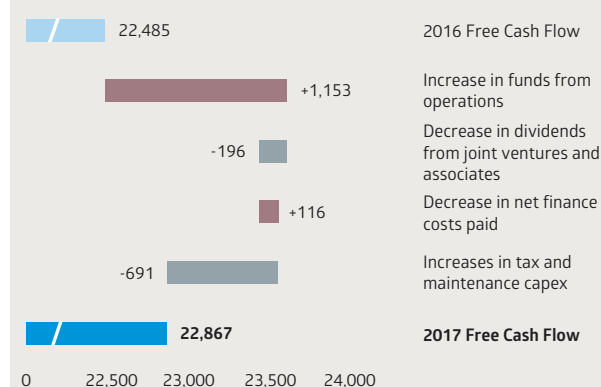
Balance at 31.12.2016	78,547
Earnings attributable to shareholders	14,249
Dividends paid	(7,226)
Other movements	(271)
<b>Balance at 31.12.2017</b>	<b>85,299</b>
<b>Fourth interim dividend declared for 2017, HK\$/share</b>	<b>1.14</b>

### Statement of Cash Flows

	2017 HK\$M
EBITDAF of subsidiaries	26,204
SoC related movements	(1,291)
Working capital movements	1,675
Non-cash items	(82)
Funds from operations	26,506
Tax paid and interest received	(2,089)
Cash inflow from operating activities	24,417
Cash outflow from investing activities	(16,735)
Cash outflow from financing activities	(5,863)
Net increase in cash and cash equivalents	1,819
Cash and cash equivalents at 31.12.2016	4,467
Effect of exchange rate changes	243
<b>Cash and cash equivalents at 31.12.2017</b>	<b>6,529</b>
<b>Free Cash Flow</b>	
Funds from operations	26,506
Less: tax paid	(2,234)
Less: net finance costs paid *	(2,139)
Less: maintenance capital expenditure	(994)
Add: dividends from joint ventures and associates	1,728
<b>2017 Free Cash Flow</b>	<b>22,867</b>

\* Includes distributions paid to perpetual capital securities holders

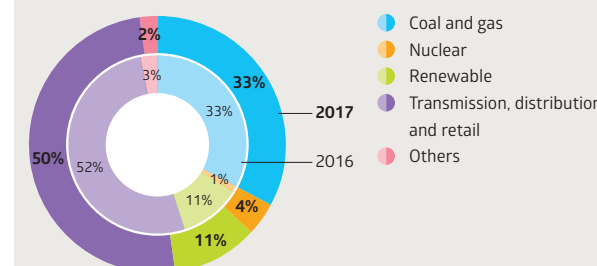
### Movements in Free Cash Flow (HK\$M)



### This Year's Statement of Financial Position

	2017 HK\$M
<b>Working capital</b>	
Trade and other receivables	15,427
Trade and other payables	(18,978)
Cash and cash equivalents	6,529
Others	2,770
	5,748
<b>Non-current assets</b>	
Fixed assets, leasehold land and land use rights and investment properties	143,738
Interests in joint ventures and associates	18,464
Others	32,239
	194,441
<b>Debts and other non-current liabilities</b>	
Bank loans and other borrowings <sup>2</sup>	(57,341)
Others	(21,341)
	(78,682)
<b>Net assets</b>	<b>121,507</b>
<b>Equity</b>	
Share capital, reserves and non-controlling interests	36,208
Retained profits	85,299
	121,507
<b>Closing exchange rate</b>	
A\$/HK\$	6.1000
INR/HK\$	0.1224
RMB/HK\$	1.1994

### Capital Assets\* by Asset Type

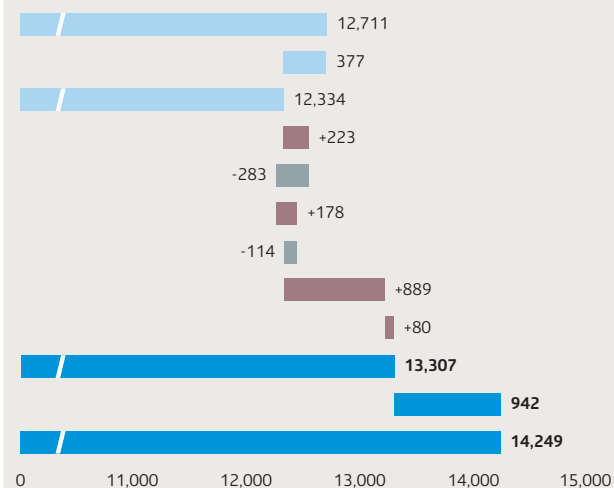


\* Capital assets represent the year end balances of fixed assets, leasehold land and land use rights, investment properties, goodwill and other intangible assets, and interests in joint ventures and associates

## Analysis on Financial Results

**Total Earnings (2017: HK\$14,249 million; 2016: HK\$12,711 million; ▲ 12.1%)**  
**Operating Earnings (2017: HK\$13,307 million; 2016: HK\$12,334 million; ▲ 7.9%)**

### Earnings for the Year (HK\$M)



2016 Total earnings

Items affecting comparability for 2016

2016 Operating earnings

Hong Kong: SoC

Mainland China: Coal-fired

Renewable

Nuclear

India: Paguthan

Jhajar

SEA and Taiwan: Ho-Ping

Lopburi

Australia: Energy

Customer

Enterprise

Others

2017 Operating earnings

Items affecting comparability for 2017

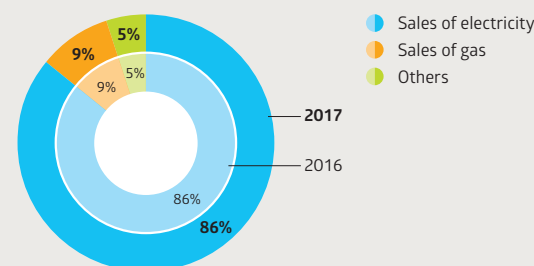
2017 Total earnings

The performance of individual business is analysed on "Business Performance and Outlook" on pages 38 to 65.

**Revenue (2017: HK\$92,073 million; 2016: HK\$79,434 million; ▲ 15.9%)**

	2017 HK\$M	2016 HK\$M	Increase HK\$M	%
Hong Kong	39,965	37,968	1,997	5.3
Australia	45,895	36,441	9,454	25.9
India	4,887	3,808	1,079	28.3
Mainland China and others	1,326	1,217	109	9.0
	92,073	79,434	12,639	

### Revenues by Nature



- Hong Kong: Higher fuel cost recovery revenue in line with increase in fuel costs; higher basic tariff revenue despite stable sales volume
- Australia: Higher retail and wholesale electricity prices mainly reflecting the significant increase in pool prices due to Hazelwood closure and extreme weather; lower sales volume in face of severe market competition
- India: Higher generation of Jhajar on higher demand; higher renewable revenue due to partial commissioning of Veltoor Solar; stable operation in Paguthan
- Mainland China: Our investments mainly through joint ventures and associates and thus no proportionate share of their revenues/expenses under equity accounting; higher revenue from subsidiaries as a result of acquisition of Sihong Solar in July 2016 and commissioning of wind and solar projects in late 2016 and throughout 2017

### Hong Kong

	2017	2016
<b>Electricity sales (GWh)</b>		
Local sales	33,164	33,237
Total sales	34,505	34,442
<b>Average total tariff (HK cents per unit)</b>	113.2	113.2

### Australia

	2017		2016	
Customers	Electricity TWh	Gas PJ	Electricity TWh	Gas PJ
Mass Market	10.9	34.7	10.8	34.6
Commercial & Industrial	8.0	23.1	9.2	31.5
Energy	Mount Piper		Yallourn	
Generations (GWh)	9,501	6,685	10,004	7,080
Average pool prices (A\$/MWh) *	92.2	96.1	47.4	59.0

\* Represented the 12-month average pool price published by Australian Energy Market Operator (AEMO) applicable to Victoria (Yallourn) and New South Wales (Mount Piper)

**Items Affecting Comparability  
(2017: HK\$942 million; 2016: HK\$377 million)**

	2017 HK\$M	2016 HK\$M
Property revaluation and transaction		
Revaluation gains/(losses) on investment properties	369	(146)
Gain on sale of a property	-	643
Reversal of tax provision		
Tax on acquired derivatives in Australia *	573	-
Capital gain tax in Mainland China	-	83
Impairment and provision reversal		
Impairment provision for Fangchenggang	-	(199)
Impairment provision for Beijing Yire Power Station	-	(58)
Reversal of onerous provision in Australia	-	54
	942	377

\* In December 2017, the Australian Taxation Office concluded the tax treatment of acquired derivatives. As a result, the provision made in 2014 was reversed.

**EBITDAF of Group  
(2017: HK\$27,662 million; 2016: HK\$25,355 million; ▲ 9.1%)**

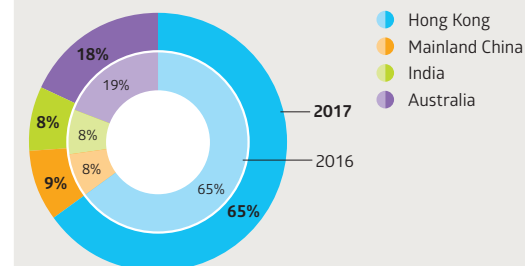
	2017 HK\$M	2016 HK\$M	Increase/(Decrease) HK\$M	%
Hong Kong	18,035	17,691	344	1.9
Mainland China	2,512	2,319	193	8.3
India	2,110	1,954	156	8.0
Australia	5,421	3,798	1,623	42.7
Corporate and others	(416)	(407)	(9)	
	27,662	25,355	2,307	

- Hong Kong: Mainly reflecting increase in permitted return
- Mainland China: Higher contribution from newly commissioned renewable projects and full year effect of profit sharing from Sihong Solar; share of results of Yangjiang Nuclear in December 2017; exchange gains on Renminbi denominated receivables; more than offset by lower earnings from coal-fired joint ventures due to rising coal prices and low utilisation hours
- India: Higher Jhajar contribution as a result of improvement in operational efficiency; partly offset by lower contribution from renewable projects caused by the write-off of Yermala wind project and provision made for a receivable from a wind O&M contractor
- Australia: Higher gross margin from energy (wholesale) segment benefitted from favourable contract settlements and higher prices at Yallourn and Mount Piper, and higher generation at Tallawarra; gross margin from customer (retail) segment improved marginally

**Depreciation and Amortisation  
(2017: HK\$7,368 million; 2016: HK\$6,909 million; ▲ 6.6%)**

- Hong Kong: Higher depreciation on continuous investments in SoC fixed assets
- Australia and India: Mainly impacted by higher average exchange rates in 2017
- Mainland China: Additional depreciation due to Sihong Solar acquisition in July 2016 and newly commissioned renewable projects in late 2016 and throughout 2017

### Depreciation and Amortisation by Region



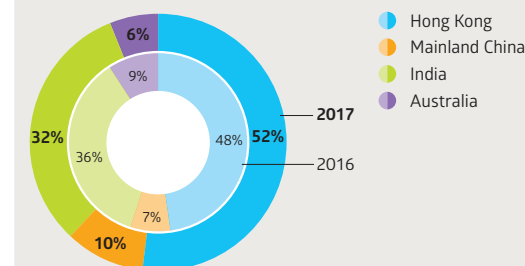
**Fair Value Adjustments  
(2017: loss of HK\$138 million; 2016: gain of HK\$341 million)**

- Hong Kong: Gain (2016: loss) on forward foreign exchange contracts, mainly Euro, for procurement related payments
- Australia: Unfavourable fair value movement on energy contracts (net energy selling) due to rising prices mainly in Victoria, and lower fair value gain on wind offtake contracts

**Net Finance Costs  
(2017: HK\$2,029 million; 2016: HK\$2,124 million; ▼ 4.5%)**

- Overall: Lower average interest rates despite higher debts, mainly for financing capital investments
- Hong Kong: Fair value loss (2016: gain) on hedging derivatives for perpetual capital securities partly offset by lower bank arrangement fees
- India: Lower interest on lower debts which were replaced by internal funding
- Australia: Lower interest on lower debts and lower commitment fees on fewer financing facilities

### Net Finance Costs by Region



## Analysis on Financial Position

Fixed Assets, Leasehold Land and Land Use Rights and Investment Properties (2017: HK\$143,738 million; 2016: HK\$139,421 million;  $\uparrow$  3.1%)  
Goodwill and Other Intangible Assets (2017: HK\$29,087 million; 2016: HK\$27,653 million;  $\uparrow$  5.2%)

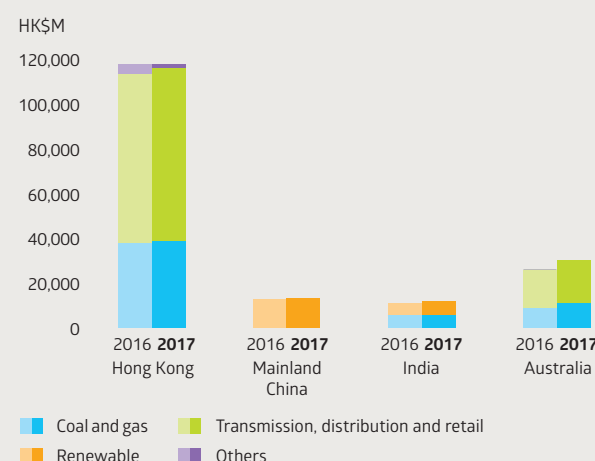
	Fixed Assets, Leasehold Land and Land Use Rights and Investment Properties HK\$M	Goodwill and Other Intangible Assets HK\$M	Total HK\$M	Breakdown	
				SoC Assets HK\$M	Non-SoC Assets HK\$M
Opening balance at 1.1.2017	139,421	27,653	167,074	106,886	60,188
Additions*	12,097	549	12,646	8,068	4,578
Depreciation and amortisation	(6,690)	(678)	(7,368)	(4,706)	(2,662)
Transfer to property under development	(2,971)	–	(2,971)	–	(2,971)
Translation difference and others*	1,881	1,563	3,444	(424)	3,868
Closing balance at 31.12.2017	143,738	29,087	172,825	109,824	63,001

\* Including adjustment for decommissioning assets (HK\$1,165 million) relating to the rehabilitation of certain sites in Australia

\* Mainly appreciation of Australian dollar, Indian rupee and Renminbi, revaluation gains on investment properties and disposal of fixed assets

- Major capital additions for the year including:
  - SoC: Enhancement in transmission and distribution networks and customer service facilities and construction of the new Combined Cycle Gas Turbine (CCGT) plant
  - Non-SoC: Construction of wind and solar projects in Mainland China of HK\$630 million and India of HK\$827 million; and enhancement and capital works in generation plants, mainly Yallourn and Mount Piper, and upgrade of customer service facilities in Australia of HK\$3,062 million
- Argyle Street site was transferred from investment properties to property under development upon execution of the joint development agreement with Sino Land in December 2017

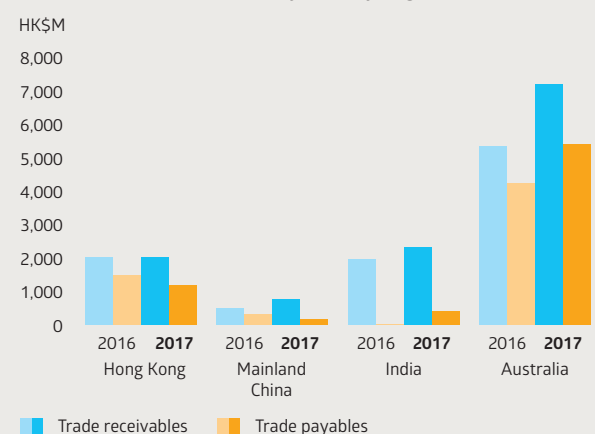
Analysis of Total Balances at Year Ends



Trade and Other Receivables (2017: HK\$15,427 million; 2016: HK\$13,464 million;  $\uparrow$  14.6%)  
Trade and Other Payables (2017: HK\$18,978 million; 2016: HK\$20,176 million;  $\downarrow$  5.9%)

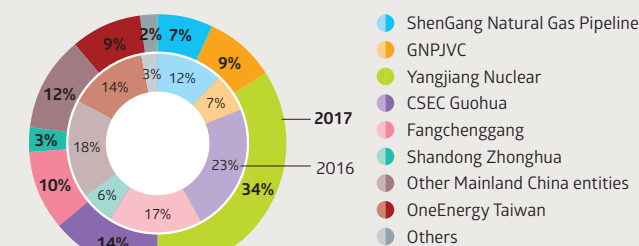
- Hong Kong: Lower other payable balance resulted from reclassification of certain advances from CSG of HK\$5,115 million to non-controlling interests upon execution of the Shareholder Capital Agreement (Note 26 to the Financial Statements) and the special fuel rebate paid to customers in 2017
- Mainland China: Higher receivables on more majority owned renewable projects; receivable of HK\$913 million from the sale of CGN Wind; partly offset by lower dividends receivable
- India: Higher generation of Jhajjar resulted in higher trade receivable and coal purchase payable; higher construction costs payable for Veltoor Solar
- Australia: Higher receivable and payable balances on higher tariffs, pool and contract prices, despite lower volumes

2-Year Trade Receivables / Payables by Region



Interests in Joint Ventures and Associates (2017: HK\$18,464 million; 2016: HK\$10,784 million;  $\uparrow$  71.2%)

- Completion of our acquisition of 17% stake in Yangjiang Nuclear at a consideration of HK\$6.2 billion in December 2017;
- Renminbi translation gains on our investments in Mainland China; partly offset by
- Rising coal prices in Mainland China and Taiwan reduced earnings and dividend distributions from thermal projects



### Derivative Financial Instruments

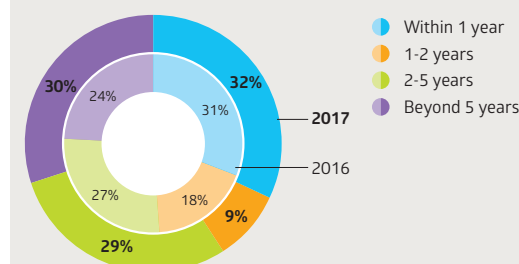
Assets:  
2017: HK\$2,093 million; 2016: HK\$2,801 million;  $\downarrow$  25.3%;  
Liabilities:  
2017: HK\$2,429 million; 2016: HK\$2,557 million;  $\downarrow$  5.0%

As at 31 December 2017, the Group had gross outstanding derivative financial instruments which amounted to HK\$81.0 billion. The fair value of these derivative instruments was a net deficit of HK\$336 million, representing the net amount payable if these contracts were closed out at year end. However, changes in the fair value of derivatives have no impact on cash flows until settlement.

The net fair value of derivatives was changed from asset in 2016 to liability in 2017 mainly because of the unfavourable mark-to-market movements in energy contracts (due to rising wholesale prices) and loan-related derivatives in India (due to weakening of US dollar against Indian rupees).

	Notional Amount		Fair Value Gain / (Loss)	
	2017 HK\$M	2016 HK\$M	2017 HK\$M	2016 HK\$M
Forward foreign exchange contracts and foreign exchange options	27,203	40,003	308	438
Interest rate swaps and cross currency interest rate swaps	34,902	35,452	(818)	(945)
Energy contracts	18,878	14,971	174	751
	80,983	90,426	(336)	244

### Maturity Profile

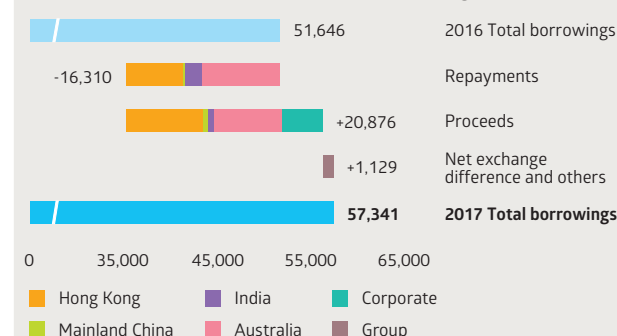


### Bank Loans and Other Borrowings

(2017: HK\$57,341 million; 2016: HK\$51,646 million;  $\uparrow$  11.0%)

- CLP Climate Action Finance Framework was established in 2017 to facilitate the arrangement of sustainable financing for achieving goals in our Climate Vision 2050
- Major financing activities during the year including:
  - Hong Kong: CAPCO established MTN Programme for the first time with strong credit ratings (Standard & Poor's: AA-; Moody's: A1) and bonds issuance up to US\$2 billion, of which US\$500 million was issued in 2017 for financing CCGT project
  - India: Refinanced US dollar loans with corporate bonds at more cost effective terms and maximised the use of internal funding in renewable portfolio to reduce external debts
  - Australia: Scheduled loan repayments and reduction in bank loan facilities to save costs
  - Corporate: Arranged HK\$5.1 billion 2-year bank loan facilities to fund the acquisition of 17% equity stake in Yangjiang Nuclear

### Movements in Bank Loans and Other Borrowings (HK\$M)



- The net debt to total capital ratio was reduced from 29.5% to 27.8%.
- Standard & Poor's upgraded the credit ratings of CLP Holdings from A- to A and CLP Power Hong Kong from A to A+. Credit rating of EnergyAustralia was also raised from BBB to BBB+ with stable outlook. Moody's affirmed the credit ratings of CLP Holdings (A2) and CLP Power Hong Kong (A1).

More details can be found on "Financial Capital".



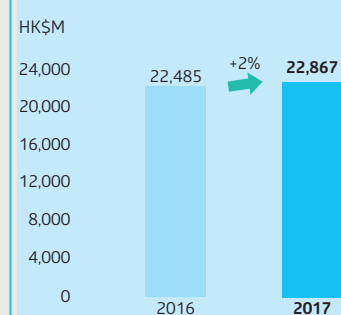
## Cash Flow Analysis

Free Cash Flow (2017: HK\$22,867 million; 2016: HK\$22,485 million;  $\uparrow$  1.7%)

- Free cash flow increased HK\$382 million because of:
  - Receipt of upfront payment of HK\$3 billion from the joint development project at Argyle Street;
  - Favourable working capital movements from EnergyAustralia driven by improved financial performance; partly offset by
  - More SoC cash outflows due to payment of special fuel rebate of HK\$786 million and lower fuel cost recovery from customers
- Capital investments include additions to fixed assets, leasehold land and land use rights, investment properties and intangible assets, and investments in and advances to joint ventures and associates, and acquisition of business. Major items include:
  - HK\$7.6 billion of SoC capital expenditure (SoC capex) to enhance transmission and distribution networks, generation facilities and customer services in Hong Kong
  - HK\$946 million of Growth capital expenditure (Growth capex) related to our renewable projects in Mainland China and India
  - Balance payment after initial deposit of HK\$5.3 billion (RMB4.5 billion) for acquisition of 17% interest in Yangjiang Nuclear

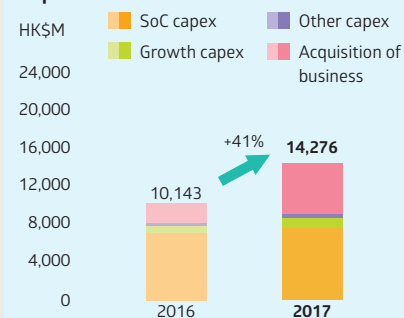
### Cash Inflow

#### Free Cash Flow



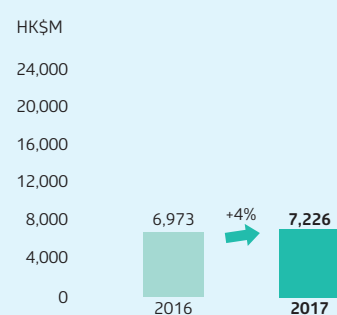
### Cash Outflow

#### Capital Investments \*



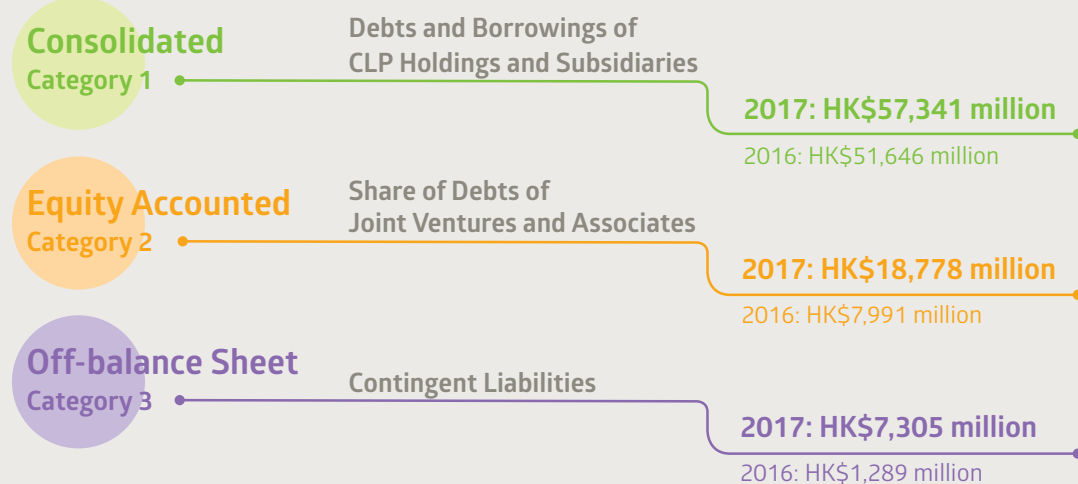
\* Excluding maintenance capex as deducted from free cash flow

#### Dividends Paid



## Financial Obligations at a Glance

The consolidated financial statements only show the financial obligations of CLP Holdings and its subsidiaries (category 1). In order to have a full picture of the financial risks of the Group associated with unconsolidated financial obligations, the borrowings of equity accounted entities (category 2) and off-balance sheet contingent liabilities (category 3) are also included. The full financial obligations of the Group are presented below:



Category 1: Borrowings of subsidiaries are non-recourse to CLP Holdings.

Category 2: These debts are non-recourse to CLP Holdings and its subsidiaries. The share of debts is calculated by reference to the Group's shareholdings in the relevant joint ventures and associates.

Category 3: Details of the contingent liabilities are set out in Note 30 to the Financial Statements.

## A Broader Perspective

	2017	2016	2015	2014	2013
<b>Performance Indicators</b>					
EBITDAF <sup>1</sup> , HK\$M	27,662	25,355	31,267	23,442	19,689
ACOI <sup>2</sup> , HK\$M	19,925	18,128	17,929	17,232	16,935
Operating earnings, HK\$M	13,307	12,334	11,519	10,062	9,307
Total earnings, HK\$M	14,249	12,711	15,656	11,221	6,060
Return on equity, %	13.8	13.3	17.3	12.8	6.8
Operating return on equity <sup>3</sup> , %	12.9	12.9	12.7	11.5	10.4
<b>Financial Health Indicators</b>					
Undrawn facilities, HK\$M	25,924	23,986	29,685	32,533	33,218
Total borrowings, HK\$M	57,341	51,646	55,483	67,435	56,051
Fixed rate borrowings to total borrowings, %	52	57	57	58	67
FFO interest cover <sup>4</sup> , times	14.6	14.0	9.2	9.1	8.1
FFO to debt <sup>5</sup> , %	48.6	47.3	34.2	37.9	35.7
Net debt to total capital, %	27.8	29.5	32.4	38.0	36.7
Debt / Capitalisation <sup>6</sup> , %	28.4	28.7	33.3	39.7	36.2
<b>Shareholders' Return Indicators</b>					
Dividends per share, HK\$	2.91	2.80	2.70	2.62	2.57
Dividend yield, %	3.6	3.9	4.1	3.9	4.2
Total returns to shareholders <sup>7</sup> , %	8.4	6.4	8.4	8.8	9.9

Readers can refer to "Shareholder Value" on pages 22 to 25 for more analysis on shareholders' return.

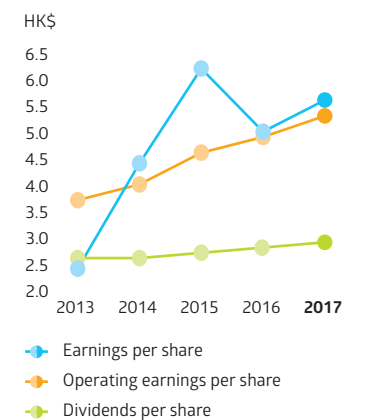
### Cash Flows and Capital Investments

FFO <sup>4</sup> , HK\$M	26,506	25,353	20,994	23,431	21,798
Free cash flow <sup>8</sup> , HK\$M	22,867	22,485	17,290	19,027	16,664
Capital investments, HK\$M	15,270	10,866	11,967	25,824	10,745

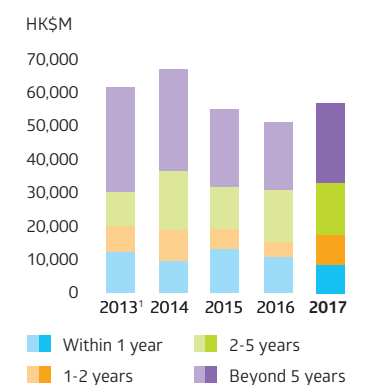
Notes:

- EBITDAF = Earnings before interest, taxes, depreciation and amortisation, and fair value adjustments. For this purpose, fair value adjustments include fair value gains or losses on derivative financial instruments relating to transactions not qualifying as hedges and ineffectiveness of cash flow hedges.
- ACOI (Adjusted Current Operating Income) represents operating earnings before net finance costs, income tax, other non-controlling interests, distribution to perpetual capital securities holders and net fair value gain / loss on derivatives relating to transactions not qualified as hedges and ineffectiveness of cash flow hedges.
- Operating return on equity = Operating earnings / Average shareholders' funds
- FFO (Funds from operations) = Cash inflow from operations. FFO interest cover = FFO / (Interest charges + capitalised interest).
- FFO to debt = FFO / Average debt. Debt = Bank loans and other borrowings.
- Capitalisation = Closing share price on the last trading day of the year x number of issued shares at the end of the year
- Total returns to shareholders represents the 10-year annualised rate of return from the combination of share price appreciation and dividend payments.
- Free cash flow = FFO – income tax paid + interest received – interest and other finance costs paid – maintenance capital expenditure + dividends received from joint ventures and associates

### Earnings and Dividends Per Share



### Loan Balance – Maturity<sup>2</sup>

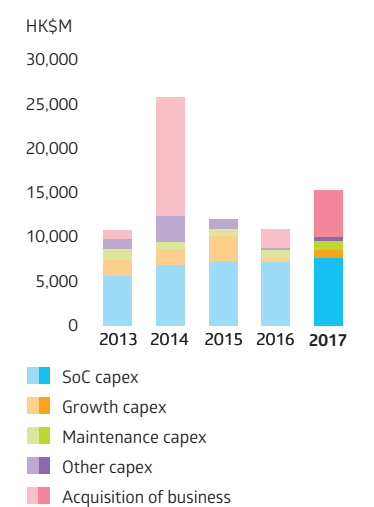


Notes:

1 The 2014 to 2017 figures include CAPCO and PSDC as subsidiaries of the Group after the acquisitions. For comparative purpose, we have included CLP Group, CAPCO and PSDC in 2013 figure.

2 The maturities of revolving loans are in accordance with maturity dates of the respective facilities instead of the loan drawdown tenors.

### Capital Investments





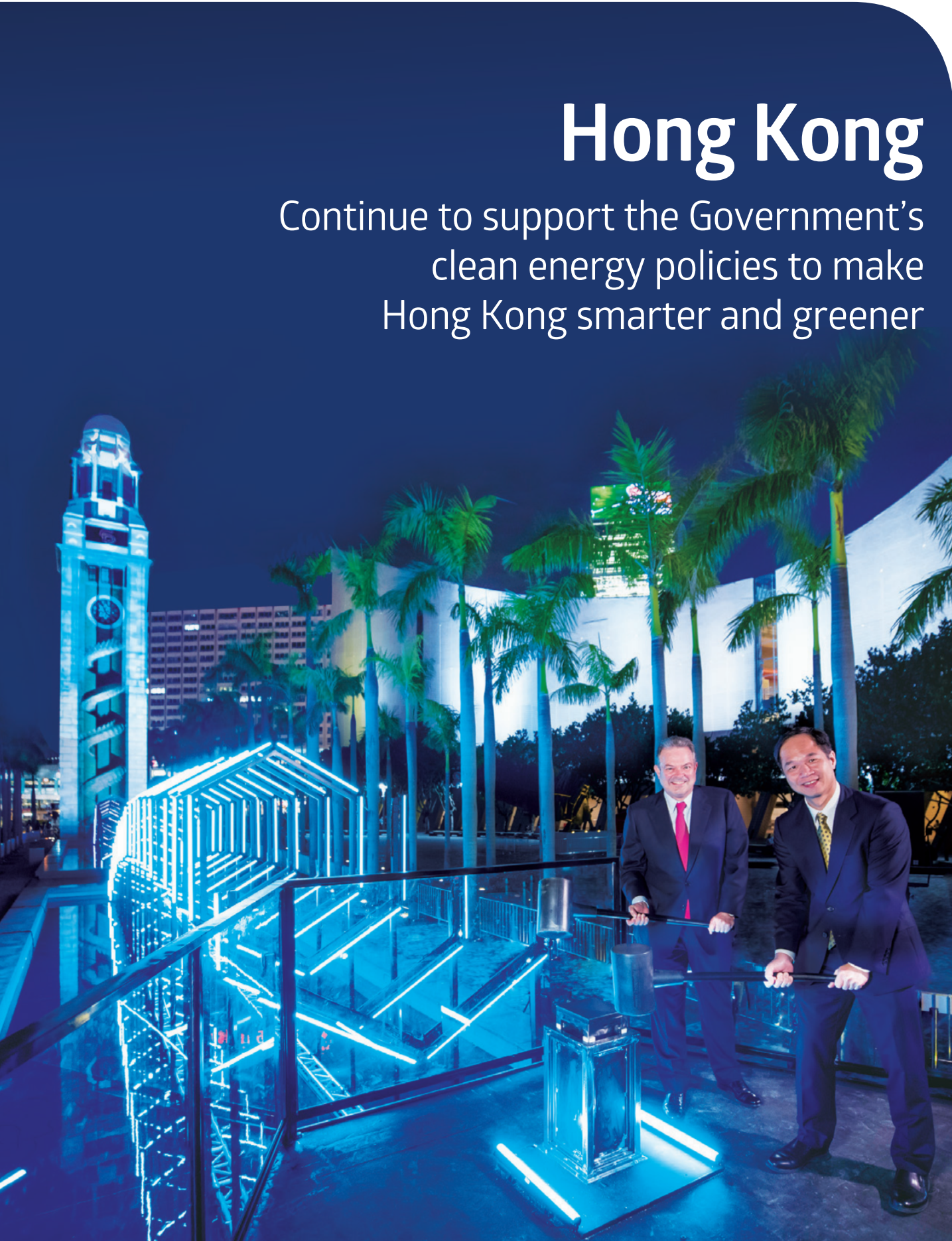


# Business Performance and Outlook

CLP's transmission network, Hong Kong

We are well-positioned  
to navigate the energy  
transition and transform  
into a utility of the  
future





# Hong Kong

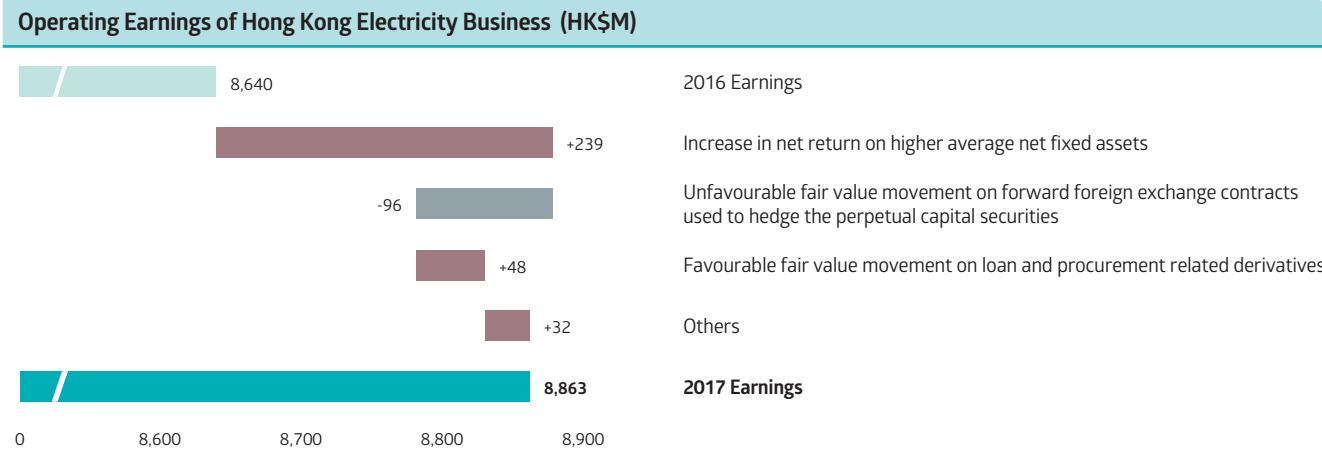
Continue to support the Government's clean energy policies to make Hong Kong smarter and greener

## Financial and Operational Performance

### Overview

CLP worked hard to deliver a highly reliable, environmentally responsible and safe electricity supply to customers in 2017. Regrettably, during the year there were two industrial incidents which led to four casualties.

In 2017, operating earnings from our electricity business increased 2.6% from a year ago to HK\$8,863 million.



CLP's operations in Hong Kong have been regulated by the Government under the Scheme of Control (SoC) Agreement for more than 50 years. This arrangement has provided the stability to allow us to respond to the changing needs of Hong Kong society and deliver a constantly improving environmental performance.

A new SoC Agreement was signed with the Government in April 2017, giving CLP the opportunity to continue to power the growth of Hong Kong. It comes into effect in October 2018 and runs until December 2033. The new Agreement provides certainty for our customers, employees, shareholders, and everyone who uses the electricity infrastructure of Hong Kong. It will help us to undertake the long-term investments needed to support Hong Kong's transition to a low carbon economy guided by the Hong Kong Government's 2020 and 2030 carbon intensity targets. In accordance with the requirements of the new SoC Agreement, we have submitted a Development Plan for 2018-2023 to the Government.

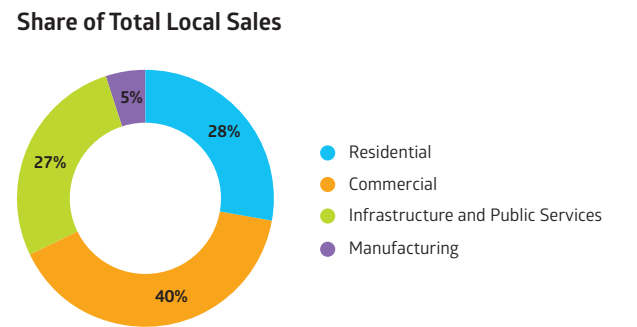
### Meeting Customer Needs

The number of customers served by CLP in 2017 increased year-on-year from approximately 2.52 million to 2.56 million. Local sales of electricity decreased slightly by 0.2% to 33,164 gigawatt hours (GWh) compared with the previous year. The reduction was caused mainly by a dip in demand from the residential sector because of mild weather in the first half of the year. Sales to Mainland China amounted to 1,341GWh, an 11.3% increase from 2016. As a result, total electricity sales in 2017 saw a marginal increase of 0.2% to 34,505GWh. We recorded a local

demand peak of 7,155MW on 22 August, 1.8% higher than the previous record set in 2014 and 4.6% above the day of highest demand in 2016. The demand peak during the year would have been higher had we not actively pursued demand response initiatives under which we incentivise key customers to reduce electricity usage.

### Local Electricity Sales in 2017

Year-on-Year Change	Increase / (Decrease)	
	GWh	%
Residential	(177)	↓ (1.9)
Commercial	(14)	↓ (0.1)
Infrastructure and Public Services	129	↑ 1.5
Manufacturing	(11)	↓ (0.6)





We are mindful of the impact of tariff increases on people's livelihood and business, and have maintained a relatively stable Basic Tariff over the past decade. For 2018, with the offering of a Rent and Rates Special Rebate, we adjusted the Average Net Tariff by 1.9% to HK\$1.154 per unit of electricity amid the pressure of continuing inflation, increasing fuel costs due to increased gas generation by 2020 and rising operating costs.

### Powering Hong Kong

Hong Kong experienced a succession of extreme weather events in 2017. The territory was affected by seven typhoons with two particularly strong ones striking in the space of five days. We were able to maintain our highly reliable service despite these challenges. During Typhoon Hato, which triggered Hong Kong's most severe number 10 storm warning for the first time since 2012, CLP customers experienced an average of just 0.7 minutes of unplanned power interruption, down from 1.8 minutes when Typhoon Vicente hit Hong Kong five years earlier. Despite Hato's closer proximity and higher wind speeds, the number of customers affected also dropped to less than 23,000, compared with 32,000 during Vicente. These figures highlight the resilience of our systems. More importantly, they underline the need for continuing careful and diligent investment in our infrastructure so that we can maintain and improve our reliability for customers as extreme weather events become more commonplace.

Solid and dependable infrastructure provides the backbone for us to serve our customers well. In 2017, we invested HK\$8.1 billion to maintain and enhance our supply systems and generation assets to meet customer demand. We are upgrading the gas turbines in our existing gas-fired generation units while constructing new facilities. To support Hong Kong's infrastructure development, we commissioned two new 132kV substations to provide power supplies to a data centre in Tseung Kwan O and the new border control facilities at Heung Yuen Wai.

### Building a Lower Carbon Economy

We are working hard to reduce the carbon intensity of our electricity supply with a significant change in the fuel mix we use at our power plants. Around one third of CLP's electricity supply is already non-carbon emitting, while about a quarter is produced by gas-fired generation with high efficiency and low emission. Gas-fired power generation produces about half the carbon emissions of coal generation, so increasing the proportion of gas-fired generation makes a significant difference to the environment over time. To support the government's target of generating about half of Hong Kong's electricity from natural gas by 2020, we are building a new 550MW advanced combined-cycle gas turbine at Black Point Power Station which will operate with a world-class efficiency and environmental performance. The project will

mainly be financed by an Energy Transition Bond issued at attractive rates under our new Climate Action Finance Framework. Construction is progressing well and we are on schedule to put the unit into operation before 2020.

As we become more reliant on gas and to meet the Government's expectations for our fuel mix for power generation, we need to ensure we secure additional reliable supplies of natural gas at competitive prices from the global market. We are therefore working to develop an offshore LNG import terminal for our city, using a Floating Storage and Regasification Unit (FSRU) located in the southern waters of Hong Kong. Good progress has been made on LNG supply and the FSRU vessel arrangements. We are now finalising the environmental impact assessment for the project and will soon submit it to the Government.

The new SoC Agreement contains important elements to support Hong Kong's transition to a low carbon economy. These include initiatives to increase the pace of energy efficiency projects undertaken by our customers, and the introduction of new programmes to promote renewable energy.

Two important new energy efficiency funds are being established. The new CLP Eco Building Fund will promote energy saving for buildings and the CLP Community Energy Saving Fund aims to encourage wider usage of energy efficient electrical appliances. We are also introducing a new Feed-in Tariff programme and Renewable Energy Certificates. The Feed-in Tariff programme will incentivise people to develop small-scale renewable energy projects by shortening the payback period of their investment. CLP will continue to facilitate easy grid connection for these projects. Renewable Energy Certificates allow customers to buy clean energy from us and recognise the contribution that renewable energy makes to lowering emissions. These two instruments will give customers the opportunity to provide practical support to accelerate the development of renewable energy in Hong Kong.

We continue to play a direct role in the development of Hong Kong's renewable energy sources by connecting the Government's large-scale waste-to-energy projects to our grid and exploring other utility-scale renewable energy opportunities in Hong Kong. For example, we are pioneering Hong Kong's largest landfill gas power generation project at the West New Territories (WENT) Landfill site. An environmental permit was granted in April 2017 and we plan to install 10MW power generation units in the initial stage of the project that uses landfill gas as fuel. The amount of energy produced will be enough to meet the annual electricity demand of around 17,000 four-person homes. A commercial agreement for the project is being finalised and we expect it to go into operation in the middle of 2019.

### Developing a Greener, Smarter Energy System

Electricity has a critical role to play in Hong Kong's transformation into a smart city. It accounts for more than half of all the energy we use in our homes, businesses, infrastructure and transport networks. CLP's world-class reliability is more essential than ever to power our daily lives including the smart phones and computers that make our lives more manageable, and we have a unique opportunity to play a key role in creating a smarter, greener city.

We are making use of new technology to transform conventional transmission and distribution networks into a smart grid. Drones are being deployed to inspect power lines and generation facilities to improve efficiency and safety, and Virtual Reality technology is being applied to operational and safety training to enhance its effectiveness.

At the same time, we want to make smart technology directly available to more of our customers. The Smart Energy Programme launched in the middle of last year provided the opportunity for 26,000 residential customers to take part in a one-year demand side management pilot study to examine how they could better manage their consumption and make real savings on bills. Smart meters directly connected to CLP's energy management and customer service systems were installed and customers were incentivised to use less electricity at times of peak system demand, save money by shifting their electricity usage to off-peak periods, and use new smart phone apps to receive energy saving tips along with up-to-date information on their consumption. We hope to extend these benefits to many more customers in future.

To promote smart living, we launched a mobile app in July 2017 that allows customers to manage their electricity accounts, settle bills, shop for energy efficient appliances, and gain quick access to useful information including the locations of CLP customer service centres.

We opened the new CLP Smart Energy Experience Centre in Yuen Long in April 2017 to introduce one-stop advisory services on smart technology for homes and offices. The centre also acts as a shop window for home-grown companies by showcasing innovative products and services such as smart home controls, facial recognition devices, and voice-controlled appliances developed by local start-ups.

For business customers, we provide an energy audit service to assess their energy efficiency performance. This helps them identify savings opportunities and areas in need of improvement. More than 160 audits were conducted in 2017. We also launched the Smart Enterprise Service app, deploying an Internet of Things platform for total energy management solutions which enable customers to control and monitor their electrical equipment and devices remotely.

Green transport is a key requirement for any smart city. To promote green motoring and encourage the use of our city-wide electric vehicle (EV) charging service, we have expanded our EV charging network to 49 charging stations with 154 charging points across our service area. In parallel, we have upgraded the CLP mobile app which now provides users with the latest status of CLP's charging stations and helps drivers locate their nearest available charging points.



We use drones to inspect power lines, significantly improving efficiency and safety



## Promoting Education and Learning

The continuing success of the power industry in Hong Kong depends upon expertise, innovation and the ability to nurture talented individuals capable of keeping pace with the sector's rapid evolution. To ensure we have the best possible talent pool to help our city and country grow, we established the CLP Power Academy in October 2017, offering for the first time accredited professional programmes for electrical and mechanical tradespeople and people interested in joining our industry.

We also produced a milestone documentary film called *A Century of Power* which told the parallel and intertwined histories of CLP and Hong Kong. We hope the film will inspire our new generation to appreciate the contribution of electricity to our past, present, and future success of our city.

Meanwhile, we arranged a broad range of educational activities aimed at ensuring we have quality human resources for the development of both CLP and Hong Kong. More details can be found in the Social and Relationship Capital chapter on pages 87-89 and the highlights below illustrate how we provide support for every stage of life's learning journey.

### CLP's Education Programmes

Distributed a **POWER YOU Kindergarten Education Kit** to about 1,000 kindergartens for free with subsequent visits by graduate trainees to share basic knowledge of energy and safety, and to promote energy efficiency and conservation (EE&C).

CLP Power Academy and Vocational Training Council jointly launched the Professional Diploma in Power Engineering, attracting more than 170 applications for 40 available places.

Professor Charles Ng inaugurated as first **CLP Holdings Professor of Sustainability** at the Hong Kong University of Science and Technology.

**Green Elites Campus Accreditation Programme** helps primary school students develop green lifestyle.

Around 8,400 secondary school students took part in the **Engineer in School** programme to learn about energy issues and career prospect in engineering.

**LS-energy.hk** is Hong Kong's first one-stop e-Learning portal to support the senior secondary Liberal Studies programme.

A new multi-purpose promotion vehicle joined CLP's **Green Studio mobile classroom** to deliver EE&C messages to schools and communities.

**CLP Power Low Carbon Energy Education Centre** was opened at the City University of Hong Kong.

## Environmental Performance

### Air Emissions

Reducing air emissions is a vital step in creating a better living environment. We engage a comprehensive and robust system for our generation portfolio to carefully monitor environmental performance, ensure full compliance, and explore opportunities for improvement.

In 2017, we were able to comply with all the emissions caps set by the Government seeking a 9% reduction in emissions

compared with 2016. We were able to achieve the targets while maintaining supply reliability and a reasonable tariff level by optimising our diversified fuel mix, and maintaining the effectiveness of our emissions control facilities.

We also completed a review with the Government for a new set of emissions caps for our power stations which will come into effect from 2022. The emissions caps for sulphur dioxide, nitrogen oxides, and respirable suspended particulates will be substantially reduced by 80%, 53%, and 53% respectively compared with 2010 levels.

## Environmental Regulatory Compliance

All Hong Kong assets under our operational control maintained full compliance with environmental regulations in 2017.

## Social Performance

The sustainable success of our business is closely aligned with the wellbeing of the communities we serve. We work closely with non-governmental organisations and community groups to identify society's evolving needs and develop programmes that help meet those needs. Our community initiatives focus on three areas: environment, education and development, and community wellbeing.

Throughout the year, we initiated and supported 425 community projects in Hong Kong. Some of the key projects are highlighted below while more details can be found in the Social and Relationship Capital chapter on pages 87 – 89.

### Ensuring a Safe Workplace

Safety is our utmost priority. We were therefore deeply saddened by two fatal incidents in 2017 which resulted in the death of four workers of our contractors. To prevent similar events in future, we undertook a thorough review of our safety management system with a focus on avoiding serious injuries and fatalities, enhancing our safety leadership and improving the management of contractors. Details can be found in the Human Capital chapter on pages 81 – 86.



Three Hotmeal Canteens have provided over **430,000** hot meals to people in need since 2011.



A record **17GWh** of electricity saved in the Power Your Love programme by more than **410,000** customers, equivalent to the annual electricity consumption of 4,000 households.

**HK\$6 million** donated from CLP shareholders' fund helped ease pressure from electricity costs for **20,000** underprivileged households.

### Community Wellbeing



More than **3,000** elderly people have celebrated festivities with CLP volunteers since the Sharing the Festive Joy programme was launched in 2014.

### Volunteering



More than **1,600** CLP volunteers contributed nearly **15,000** hours of community services.

### Education and Development



Over **166,000** students in different learning stages participated in our **56** education programmes.



Outlook

At CLP, we strive to provide our customers with a world-class electricity supply with high supply reliability, an improving environmental performance, and reasonable tariffs. We are committed to continuing to do so in the future despite the challenges of extreme and changing weather, an uncertain global economic outlook, volatile international fuel markets, and rising environmental performance expectations. We will ensure the safe and timely construction of the new combined-cycle generating unit at Black Point Power Station. We will press ahead with the development of an offshore LNG terminal to maintain our supply reliability, fuel source diversity, and our ability to procure fuel on competitive terms. We will work closely with the Government on the next Development Plan to ensure appropriate investment and resources are available for us to maintain our world-class service to customers. We will also explore options to further reduce Hong Kong's carbon emissions in the long term, including the possibility of an even cleaner fuel mix and the import of clean energy.

We are committed to working with our customers to put the new SoC Agreement into effect and to energetically promoting

renewable energy and greater energy efficiency. We will make more details of the Feed-in Tariff programme and Renewable Energy Certificates available during 2018 and preparation is underway to launch the new Eco-Building Fund and the Community Energy Saving Fund to help lead Hong Kong towards a lower carbon future.

In a fast-changing world, CLP will capitalise on technological advances to continually improve our operations and to provide better value for our customers. We will make use of data analytics and robotics to optimise our asset management and improve our predictive operational management capability. New forms of technology such as chatbots will be deployed to enhance our services and customer offerings. We will also continue to work closely with our stakeholders and support the community in practical and meaningful ways, providing environmental education, supporting youth development, and helping disadvantaged people in our community. As Hong Kong becomes a world-class smart city, it needs a smart utility to support and facilitate the transformation. CLP is ready to take that role.

**Q Under the new SoC Agreement, there will be a more frequent Fuel Cost Adjustment mechanism. Will it result in a lower balance of the Fuel Clause Recovery Account?**

**A**

Currently, the Fuel Cost Adjustment is reviewed and adjusted annually during the tariff review process. The balance in the Fuel Clause Recovery Account serves as a buffer to help stabilise tariffs against fuel price volatility and CLP does not profit from it. The Fuel Clause Recovery Account mechanism has already proved effective in stabilising tariff levels over the years. However, as fuel prices have dropped in the past couple of years, there has been some criticism over the high level of balance of the Fuel Clause Recovery Account.

Following the implementation of the new SoC Agreement, a new arrangement for the Fuel Cost Adjustment in the total tariff will be put in place so that it will be adjusted more frequently to reflect changes in fuel prices in a more timely way with greater transparency.



**Mr Wan Ho Kin Haywood**  
CLP Customer



**TK Chiang**  
Managing Director  
CLP Power Hong Kong



# Mainland China

Remain confident about long-term growth prospects thanks to our diversified portfolio and strong presence in low carbon energy projects



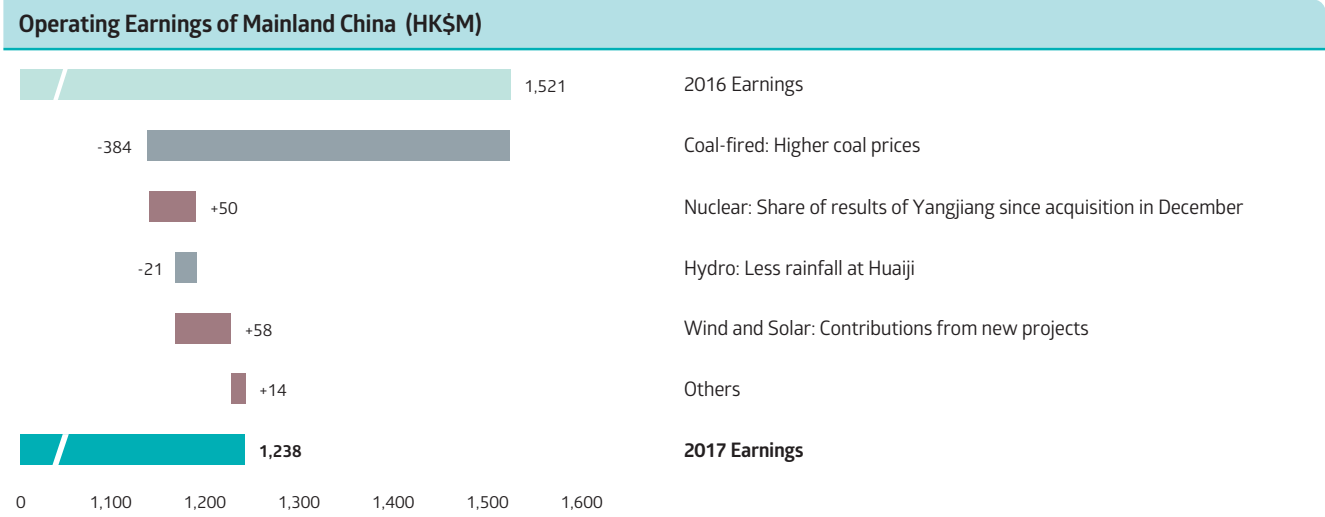
Financial and Operational Performance

Overview

China maintained strong economic growth in 2017 with GDP expanding 6.9% from a year earlier, contributing to a 6.6% growth in demand for electricity. However, the Central People’s Government has launched a series of campaigns to address coal oversupply issues over the last few years, leading to coal mine closures. Coal costs started to rise rapidly in the second half of 2016. This, together with overcapacity in the industry, has a major impact on the profit levels of electricity generation facilities, most notably for our thermal plants. Meanwhile, as the electricity market reform continued to gather pace, an increasing portion of our sales were carried out through competitive bidding, which often resulted in tariff levels that are lower than the approved benchmark rates.

Against this background, the operating earnings of CLP in Mainland China fell 18.6% to HK\$1,238 million. However, earnings of our renewable projects were higher, benefitting from the addition of five new projects since 2016. Daya Bay Nuclear Power Station operated reliably with higher generation and stable earnings. Our performance in Mainland China is summarised below.

Operating Earnings	2017 HK\$M	2016 HK\$M	Change %
Renewables	441	404	+9.2
Thermal	45	429	-89.5
Nuclear	913	863	+5.8
Operating and Development Expenditure	(161)	(175)	-8.0
Total	1,238	1,521	-18.6



Nuclear Projects

A highlight of CLP’s operations in Mainland China in 2017 was the completion of the acquisition of a 17% equity interest in Yangjiang Nuclear Power Co., Ltd. in December. Yangjiang Nuclear Power Station is located in Guangdong and consists of six generation units, of which four are in commercial operation while the remaining two are under construction with commissioning targeted for 2018 and 2019. The transaction was significant for a number of reasons. It increased our investment in low carbon technologies, strengthened CLP’s longstanding relationship with the CGN Group which commenced with our investment in Daya Bay over 30 years ago, and made an immediate contribution to our earnings.

Daya Bay Nuclear Power Station continued to perform well and maintained a good safety performance without any licensing operational events or abnormal incidents as defined by the International Atomic Energy Agency.

Renewable Projects

The addition of 62MW of new projects and higher output at our wind and solar projects were the major drivers behind the better performance of our renewables business in 2017.

The Laiwu II wind project in Shandong was commissioned towards the end of the year. Together with the full-year contribution of the three projects that started commercial operations in 2016, the energy sold from our wind portfolio increased by more than 8% compared with 2016.

The performance of our hydro projects was satisfactory in general but variable reflecting local conditions. Dali Yang\_er Hydro Power Station in Yunnan reported stable generation. However, Jiangbian Hydro Power Station in Sichuan was affected by grid curtailment while there was lower rainfall at Huaiji Hydro Power Station in Guangdong.

Generation from our solar portfolio increased slightly compared with the previous year. In June, we commissioned a new project at Huai’an in Jiangsu, which is our second solar-agriculture integrated farm in Mainland China.

Thermal Projects

Last year was challenging for coal-fired projects in Mainland China as coal prices were high while tariffs did not keep pace with costs and overcapacity was severe. The Central People’s Government’s clean energy policies also meant output from renewable or nuclear projects were often given priority. This affected our thermal projects across the board and was particularly severe at our Fangchenggang Power Station which was also impacted by the restrictions to import coal at certain ports.

As a result of these factors, we focused on optimising our current operations and finding ways to boost future output. At Fangchenggang, we responded quickly by increasing the portion of market sales from two-fifths in 2016 to 100% in 2017. As we expected competition on the supply side to remain strong in the short to medium term, we also sought to secure some longer term market sales contracts with large industrial customers so that, going forward, the plant could increase sales and secure more generation hours.

Our other minority-owned thermal projects were similarly affected by high coal prices, oversupply, and low tariffs.



CLP’s investment in Yangjiang Nuclear strengthens our position in Mainland China and underscores our support for the country’s low carbon transition

The table below shows the performance of our projects in Mainland China.

Renewable Projects – Performance							
	Installed Capacity Equity MW	Electricity Sent Out <sup>1,2</sup> GWh		Availability <sup>2</sup> %		Utilisation <sup>2</sup> %	
		2017	2016	2017	2016	2017	2016
<b>Wind</b>	1,129.9	<b>2,190</b>	1,909	<b>98.5</b>	97.6	<b>22.3</b>	20.7
Wholly-owned	444	<b>838</b>	603	<b>99.4</b>	98.9	<b>23.8</b>	22.3
Qian'an I and II	99	<b>180</b>	142	<b>98.5</b>	97.6	<b>20.8</b>	16.5
Penglai I	48	<b>88</b>	94	<b>99.8</b>	99.8	<b>20.9</b>	22.4
Laiwu I	49.5	<b>69</b>	75	<b>99.8</b>	99.7	<b>16.5</b>	16.9
Laiwu II <sup>3</sup>	49.5	<b>25</b>	n/a	<b>98.9</b>	n/a	<b>25.9</b>	n/a
Xundian I	49.5	<b>127</b>	138	<b>99.4</b>	99.6	<b>29.2</b>	31.8
Sandu I	99	<b>238</b>	126	<b>99.8</b>	99.1	<b>27.5</b>	28.9
CLP Laizhou I	49.5	<b>112</b>	28	<b>99.6</b>	99.6	<b>26.5</b>	25.6
Minority-owned <sup>4</sup>	403.3	<b>744</b>	726	<b>98.7</b>	98.2	<b>22.0</b>	20.5
CGN Wind JV <sup>5</sup>	282.5	<b>609</b>	579	<b>98.2</b>	97.2	<b>22.1</b>	20.1
<b>Solar<sup>6</sup></b>	233.6	<b>382</b>	324	<b>99.8</b>	99.7	<b>18.9</b>	18.3
Jinchang Solar	43.4	<b>66</b>	62	<b>99.9</b>	99.6	<b>17.4</b>	16.4
Sihong Solar	93.4	<b>138</b>	97	<b>99.7</b>	100.0	<b>17.0</b>	16.5
Xicun	84	<b>166</b>	165	<b>100.0</b>	99.6	<b>22.6</b>	22.2
Huai'an <sup>7</sup>	12.8	<b>12</b>	n/a	<b>98.7</b>	n/a	<b>17.5</b>	n/a
<b>Hydro</b>	489.3	<b>1,533</b>	1,792	<b>87.8</b>	88.2	<b>37.2</b>	43.6
Dali Yang_er Hydro	49.8	<b>183</b>	185	<b>80.3</b>	79.8	<b>42.3</b>	42.2
Huaiji Hydro	109.5	<b>341</b>	487	<b>87.4</b>	86.8	<b>36.7</b>	50.7
Jiangbian Hydro	330	<b>1,009</b>	1,120	<b>89.1</b>	90.0	<b>36.7</b>	41.0
Thermal Projects – Performance							
<b>Majority-owned</b>							
Fangchenggang I & II	1,806	<b>3,248</b>	2,157	<b>80.6</b>	97.2	<b>21.9</b>	28.1
<b>Minority-owned</b>	2,255	<b>10,216</b>	10,111	<b>95.4</b>	95.6	<b>55.5</b>	53.6
Shiheng I & II	370.4	<b>1,843</b>	1,869	<b>91.8</b>	91.3	<b>61.3</b>	61.1
Heze II	176.4	<b>735</b>	1,023	<b>88.2</b>	96.7	<b>50.9</b>	70.0
Liaocheng I	352.8	<b>1,779</b>	1,738	<b>95.9</b>	93.1	<b>60.9</b>	59.2
Panshan	206.7	<b>938</b>	967	<b>93.8</b>	99.8	<b>55.4</b>	56.9
Sanhe I and II <sup>8</sup>	219.5	<b>1,005</b>	972	<b>97.2</b>	96.9	<b>57.2</b>	55.4
Suizhong I and II	564	<b>2,555</b>	2,305	<b>95.9</b>	96.0	<b>55.0</b>	49.6
Zhungeer II and III	257.4	<b>984</b>	850	<b>98.6</b>	95.1	<b>48.5</b>	41.8
Shenmu	107.8	<b>376</b>	388	<b>100.0</b>	98.1	<b>45.5</b>	46.6

Any minor discrepancies in totals are due to rounding

#### Notes:

- Indicates CLP's equity sent-out.
- Apply only to projects that have been commissioned for a full year's operation.
- The project went into commercial operation in October 2017.
- Changdao Wind Farm ceased operation in the second half of 2017.
- CLP divested its interest in the joint venture in December 2017. Before the divestment, our interest amounted to 314MW, of which 282.5MW was operational and 31.5MW was under construction.
- Alternate Current (AC) capacity is used to align with the calculation method for other power plants in the CLP portfolio.
- The project went into commercial operation in June 2017.
- A 30MW retrofit expansion was completed in 2017.

## Environmental Performance

### Air Emissions

While the newer, Phase II of Fangchenggang Power Station was designed and built to fulfill the latest higher energy efficiency and air emissions requirements in Mainland China, we completed retrofitting Unit 1 of Phase I of Fangchenggang in 2017 to comply with energy and environmental standards. The upgrade of Unit 2 is expected to be completed in 2018, upon which both phases of the coal-fired plant will meet the stringent new energy saving and air emissions requirements in Mainland China which take effect from 2020. Despite an increase in output of around 66% compared to 2016, total air emissions at Fangchenggang were similar to 2016. This is testimony to the effectiveness of the emissions controls of Phase II that commenced operation at the end of 2016.

### Water

At Fangchenggang, a water recycling system has been installed to collect used water from the coal yard. The water is treated and used for suppressing the dust of the coal piles and general cleaning.

## Environmental Regulatory Compliance

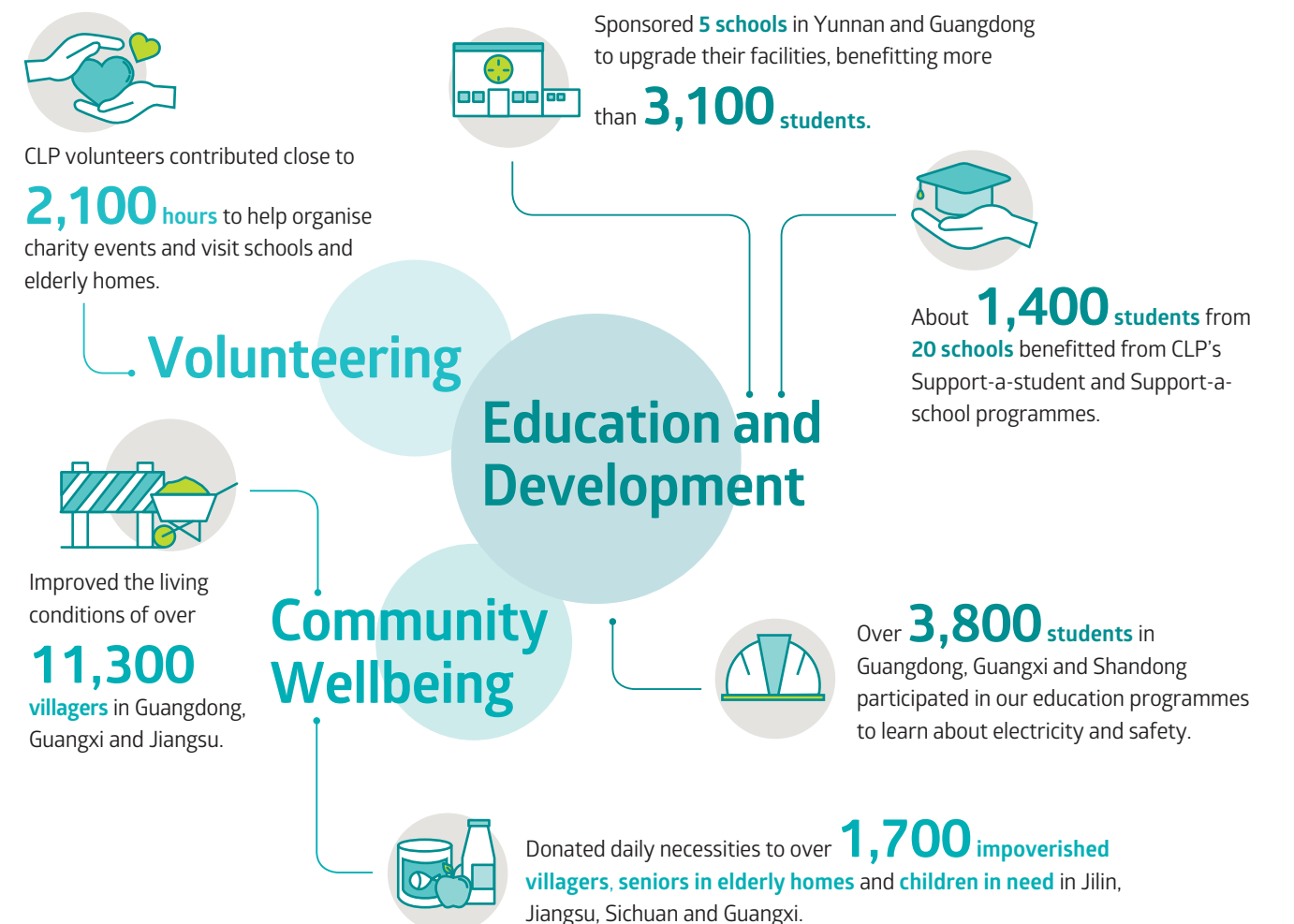
During 2017, there were no fines or prosecutions arising from environmental-related regulatory non-compliances for any of our assets in Mainland China which we had operational control. In 2016, some environmental and forestry land damages occurred relating to the construction of the Sandu I Windfarm in Guizhou province. All site environment restoration and seasonal revegetation works were completed in 2017.

## Social Performance

### Stakeholder Engagement

Over the course of the year, we met with government officials and business partners at different levels to strengthen our relationship with key stakeholders and promote the operational and safety excellence of CLP.

As a founding member of the Guangxi Power Exchange Centre, we organised a visit to Australia in March for the Guangxi Power Sector Reform Research Delegation. The main purpose of the trip was for delegation members to gain a comprehensive





understanding of the history, governance structure, set-up, and experience of their counterparts in Australia's power market reforms. The visit provided us with an opportunity to contribute our knowledge and to capitalise on our experience in competitive markets such as Australia.

In July, Chairman Sir Michael Kadoorie led a team of senior CLP executives to Beijing to further enhance relations with key stakeholders in Mainland China, learn more about the Central People's Government's energy policies, and explore collaboration opportunities.

### Community Initiatives

In 2017, community initiatives were conducted at different sites with an emphasis on promoting safety awareness and community well-being. Some of the key projects are highlighted on the previous page while more details can be found in the Social and Relationship Capital chapter on pages 87 – 89.

### Outlook

The energy market in Mainland China is expected to remain challenging in the short term, largely because of overcapacity, keen competition for new projects, and the Government's commitment to transform the country into a low carbon economy. As a result of the import coal restrictions at certain

ports, we have started to diversify our fuel sources and utilise more domestic coals at Fangchenggang.

Nevertheless, we remain positive about long-term growth prospects in Mainland China thanks to our diversified portfolio and strong presence in low carbon energy projects.

In December 2017, the Government announced the launch of a nationwide carbon market which is expected to be the world's largest carbon trading system and underscores Mainland China's determination to see carbon emissions peak by the end of 2030. The initial phase of the market will cover only power generation. Power generators will be given an emissions ceiling by the Government and those emitting beyond their allocation will have to procure the shortfall from the market. We will closely monitor the impact on our assets and ensure that all our projects comply with the new rules.

In the renewables sector, as competition for solar and wind quota intensifies and the Government phases out subsidies, we plan to adopt a more cautious approach and maintain our stringent investment discipline as we look for new investment opportunities. We expect the two nuclear projects in particular Yangjiang to continue to contribute to our future earnings growth on the Mainland.

**Q** In 2014, I participated in the feasibility study for a solar-agriculture integration model at CLP Xicun Solar Power Station in Yunnan. What has the project achieved and what is its significance towards CLP's development of new energy in Mainland China?

**A** We have planted honeysuckle and other cash crops beneath the photovoltaic panels at CLP Xicun Solar Power Station to tackle soil erosion and maximise land use. The initiative has provided work for villagers and raised living standards in the rural area. It has been a great success and has become a model for combining scientific use of land resources, clean energy, and ecological protection.

Following the success of the Xicun project, CLP Sihong Solar Power Station in Jiangsu now uses its surrounding abundant local water supply to develop a fish farm underneath the photovoltaic panels, breeding crabs, crayfish and mandarin fish. The initial results have been positive and have provided work and income for residents.

The two solar projects demonstrate our support of the Central People's Government's goals of tackling climate change and reducing carbon emissions. The addition of cash crops and a fish farm at Xicun and Sihong respectively have helped generate income and jobs and raise living standards in an environmentally sensitive way. We are proud to have played a part in the process and will continue to look at innovative ways of bringing benefits to the communities in future energy projects.



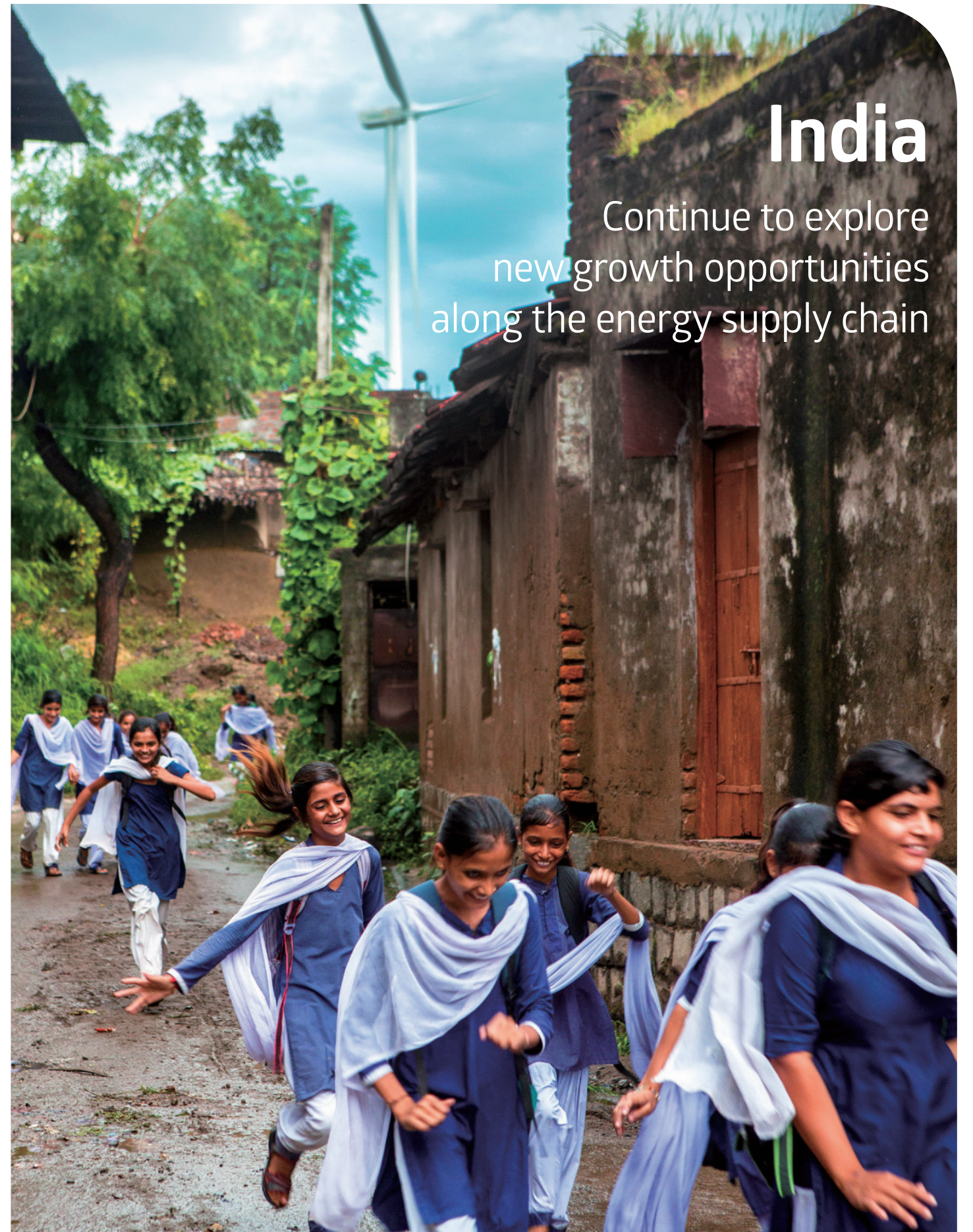
**Dr Li Jing**  
Associate Professor  
Department of Agriculture, Kunming University



**Chan Siu Hung**  
Managing Director – China

# India

Continue to explore new growth opportunities along the energy supply chain





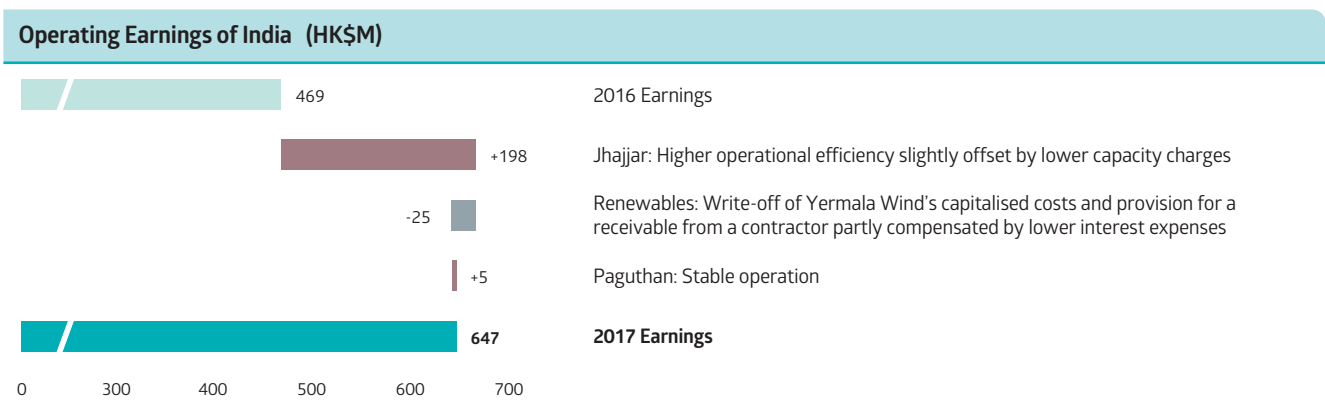
Financial and Operational Performance

Overview

Electricity demand continued to rise in India in 2017. However, the growth rate slowed compared with previous year and was unable to keep pace with the expansion in supply. The market therefore continues to have spare capacity, limiting utilisation of thermal plants. Meanwhile, in light of India's big push for renewable energy, opportunities in grid-connected solar projects were fiercely competitive, making winning projects at financially attractive terms difficult. This was because India's renewables sector has transitioned from a feed-in tariff regime to competitive auctions, and aggressive bidding drove tariffs down to new lows.

In spite of that, CLP India achieved a 38% rise in operating earnings to HK\$647 million in 2017. This strong increase was driven chiefly by better operating efficiency and higher utilisation of our coal-fired Jhajjar project, the steady performance of our gas-fired Paguthan plant and lower interest cost. Our renewables performance included the contribution from our first solar plant in the country as well as termination costs linked to the cessation of the development of a wind project. The performance of our operations in India is summarised below.

Operating Earnings	2017 HK\$M	2016 HK\$M	Change %
Renewables	110	135	-18.5
Thermal	537	334	+60.8
Total	647	469	+38.0



Renewable Projects

The addition of the Veltor Solar Farm in Telangana in southern India marked a major achievement for CLP India, taking the size of our commissioned renewable portfolio to about 970MW. In a testament to our “safety first” culture, we recorded zero lost time injuries during Veltor's construction. This was achieved despite the long construction period, the vast size of the site and the large number of workers involved. CLP currently owns 49% of Veltor and we have an option to acquire the remaining 51% in future from our partner Suzlon.

The operational performance of our wind business was strong. Although wind resources were lower than a year ago, our output remained steady due to higher machine availability and lower load restriction. Financially our operational improvement was offset by a loss recorded after we decided to cease construction of the Yermala project because of land issues.

Performance of our renewable projects can be seen in the table below.

Renewable Projects – Performance							
	Installed Capacity Equity MW	Electricity Sent Out <sup>1, 2</sup> GWh		Availability <sup>2</sup> %		Utilisation <sup>2</sup> %	
		2017	2016	2017	2016	2017	2016
Wind	924.2	1,693	1,692 <sup>3</sup>	94.5	92.9	20.9	21.0
Andhra Lake	106.4	200	191	92.6	84.8	21.4	20.4
Bhakrani	102.4	144	130 <sup>3</sup>	91.3	89.0	16.0	15.1
Chandgarh	92	177	185	97.3	97.0	22.0	22.9
Harapanahalli	39.6	93	89	99.6	95.6	26.7	25.6
Jath	60	105	118	97.7	97.1	20.1	22.4
Khandke	50.4	79	85	88.1	84.7	17.9	19.3
Mahidad	50.4	91	98	90.7	92.1	20.7	22.0
Samana I	50.4	96	91	93.3	92.3	21.7	20.5
Samana II	50.4	104	100	93.9	92.2	23.6	22.5
Saundatti	72	132	132	97.0	96.0	20.9	20.9
Sipla	50.4	71	76 <sup>3</sup>	89.5	90.4	16.2	17.8
Tejuva	100.8	185	168 <sup>3</sup>	98.1	96.9	20.9	19.5
Theni I	49.5	114	119	94.1	97.8	26.4	27.4
Theni II	49.5	102	110	98.0	98.1	23.5	25.2
Solar							
Veltor <sup>4</sup>	46	23	n/a	99.6	n/a	18.9	n/a

Notes:  
1 Indicates CLP's equity sent out.  
2 Apply only to projects that have been commissioned for a full year's operation.  
3 Sent-out figures for Bhakrani, Sipla and Tejuva in 2016 have been restated to exclude the rebates the plants received as reimbursement for line loss.  
4 Veltor is a 100MW project. Of the 49MW owned by CLP, 46MW was operational and 3MW was under construction as at 31 December 2017.

Thermal Projects

In 2017, Jhajjar's profitability increased sharply by about 170%, driven by a nearly 85% rise in utilisation and improvement in coal supply in terms of both quantity and quality. This resulted in significantly higher efficiency as well as record ash-sales. In fact, utilisation increased to nearly 65% in the second half of 2017, as the better coal quality helped reduce heat rates and improve efficiency. This in turn translated into lower costs for our customers. Meanwhile, the plant's availability reached 78.9% for 2017 despite an extended planned maintenance outage in the first half. We expect it to exceed 80% by the Indian fiscal year ended 31 March 2018, at which level the entire capacity charges will be recovered. For the 2017 fiscal year, the plant not only fully recovered its fixed costs, but also earned an incentive for availability exceeding 85%.

At Paguthan, performance remained steady during the year. Availability remained high at 95.5% as we were able to use imported re-gasified LNG (RLNG). However, utilisation continued to be low because of the high cost of spot RLNG, which discouraged our customer from buying electricity from us.



The table below shows the performance of our thermal projects.

Thermal Projects – Performance							
	Installed Capacity Equity MW	Electricity Sent Out GWh		Availability %		Utilisation %	
		2017	2016	2017	2016	2017	2016
Coal							
Jhajjar	1,320	5,463	2,965	78.9	93.2	50.4	27.3
Gas							
Paguthan	655	376	547	95.5	94.4	6.7	9.7

Environmental Performance

New Environmental Regulations

A set of new statutory limits applicable to coal-fired power plants in India have been announced and Jhajjar will be required to meet these in 2019. The new limits cover particulates, nitrogen oxides, sulphur dioxide, and mercury. There is also a water use intensity requirement. Jhajjar is already equipped with environmental control systems to comply with the particulates, sulphur dioxide, and mercury emissions limits. For nitrogen oxides, some tuning or modifications may be required and a cross functional team has been formed to investigate and address this.

Air Emissions

As mentioned in last year’s report, overall air emissions levels in 2016 for both Jhajjar and Paguthan were lower than 2015 due to low dispatch. In 2017, Paguthan’s continued decline in output resulted in even lower total air emissions. However, Jhajjar’s output rose back up to a level similar to 2015 and so its total

air emissions also increased commensurately. We continued to make improvements in our particulate controls at Jhajjar, resulting in further reduction in particulate emissions per unit of sent out. However, there were 13 licence limit exceedances for particulates during the year that did not result in any fines or penalties. We will continue to work hard on minimising our particulate emissions at Jhajjar.

Water

In 2017, the cooling water system at Jhajjar was optimised. Combined with improved efficiency brought by higher plant load, raw water consumption per unit of sent out electricity dropped by 9% and water recirculation increased by 14% in 2017 compared to 2016.

Environmental Regulatory Compliance

During 2017, there were no fines or prosecutions arising from environmental-related regulatory non-compliances for any of our India assets in which we had operational control.



The near completion of CLP’s first solar farm in India, Veltor Solar, expands our renewable portfolio to about 970MW in the country

Social Performance

We believe that the best form of celebration is giving back to society. Consequently, to mark CLP India’s 15<sup>th</sup> anniversary in 2017, we organised 15 community events near our sites across the country. The initiatives, ranging from hospital visits and

HIV awareness training to laptop donations, directly benefitted around 1,000 people. At the same time, we continued to run our regular initiatives for the benefit of the communities we serve. Some of the key projects are highlighted below while more details can be found in the Social and Relationship Capital chapter on pages 87 – 89.





## Outlook

We expect India's power sector to grow steadily in the coming years, reflecting stable industry conditions brought about by the country's economic development and new growth potential from the Government's push for electric mobility. The financial health of the debt-laded distribution companies has gradually strengthened under the so-called UDAY scheme. India remains a primary focus for CLP and we will continue to explore new growth opportunities along the energy supply chain.

One of the unintended consequences of the country's rapid economic growth has been worsening pollution, which is taking a toll on some coal-fired power generation assets. Building on our experience in other markets, we constructed Jhajjar with flue gas desulphurisation (FGD) equipment that reduces emissions of sulphur dioxide, even though it was not a legal requirement at the time. The government has scheduled our FGD to begin operating in 2019 which will help improve air quality.

Over the years, we have worked hard to improve both the quantity and quality of the coal supply to Jhajjar. This will remain a key focus for us as dispatch from Jhajjar increases amid higher coal prices.

The power purchase agreement (PPA) signed by Paguthan and Gujarat Urja Vikas Nigam Limited will expire in December 2018. Even though the plant was commissioned some 20 years ago, it remains one of the country's most efficient power stations and continues to achieve the highest levels of safety and environmental standards. We do not expect the PPA to be extended in its current form beyond 2018. To best utilise this valuable asset, we are exploring various options including the prospect of merchant sales.

In the renewable energy sector, our current focus is to enhance the operation of our existing assets to improve availability, while exploring new projects to capitalise on the growing share of solar and wind generated electricity in the country.

**Q** When it comes to inclusion, how do you foster an environment where people with different backgrounds know you value their ideas?

**A**

Diversity has many dimensions. In CLP India, we have decided to focus on two particular aspects: gender diversity and equal respect for all faiths. We have several initiatives on increasing the female representation among our employees and they have already started to bear fruit. In the last three years the percentage of women representation increased by 63%, while our total headcount grew by 29%. We also intend to extend the impetus to our contractor staff.

Additionally, we ensure that we treat the diversity of faiths among our staff as a source of strength, and practise this in all our policies – whether they are choosing public holidays, celebrating special days in office or having a multi-faith prayer room in office.

We have an open and non-hierarchical corporate culture that values every individual. We believe actions speak louder than words. These steps, as well as our enunciation of "Respect for People" as a core value, give our staff the confidence that diversity of backgrounds, thoughts and views will always be welcome in CLP India.

We realise that this is a journey and we need to do a lot more in this space.



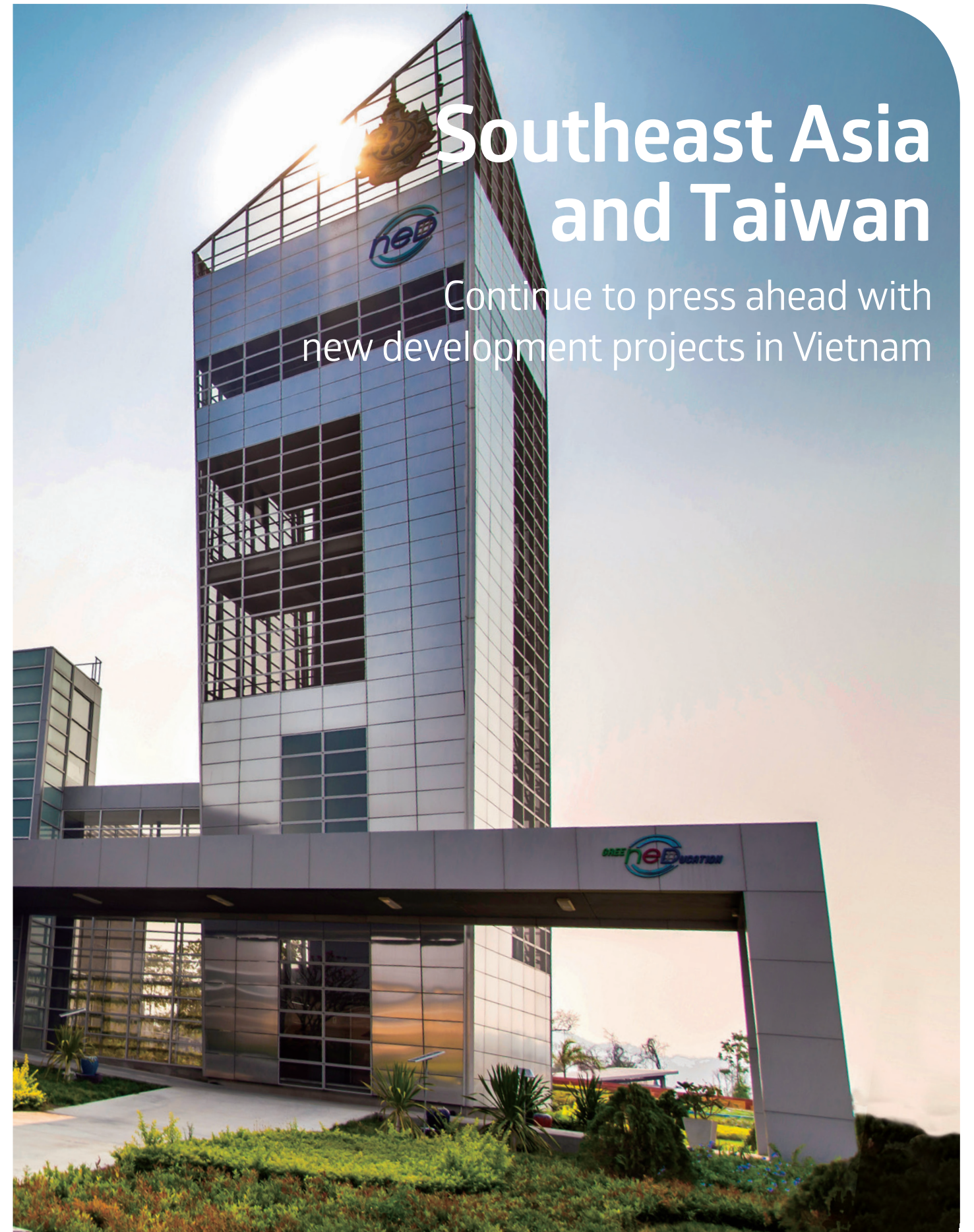
**Ms Rewati Bhagwat**  
External Member, CLP India's Internal Committee  
Board Member, Abhivyakti Media for Development



**Rajiv Mishra**  
Managing Director - India

# Southeast Asia and Taiwan

Continue to press ahead with new development projects in Vietnam





Financial and Operational Performance

Overview

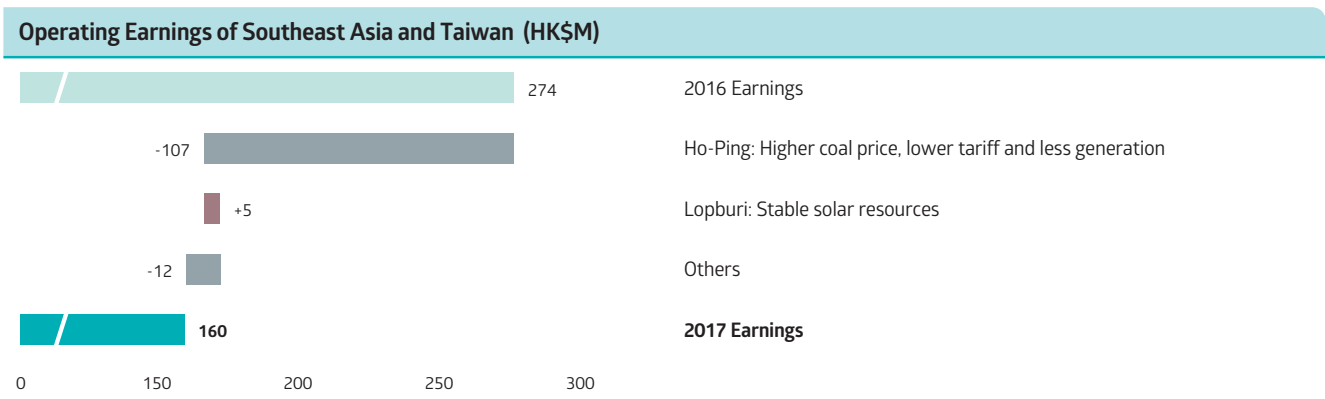
In 2017, operational and financial performance of Ho-Ping Power Station in Taiwan was affected by high coal prices and the loss of generation in the summer after a typhoon damaged one of the transmission towers connecting the plant to the electricity grid, causing it to shut down. Through the concerted efforts of Ho-Ping and its contractors, and support from Taiwan's government agencies, a temporary transmission tower was constructed immediately after the typhoon and generation from the power plant was restored in two weeks. Construction of a strengthened permanent transmission tower is underway, and will be completed in the second quarter of 2018. We expect Ho-Ping's operation to return to normal then.

In Thailand, the Lopburi solar project recorded strong results, thanks to high availability and good solar irradiance.

Arrangement of project financing for our two coal-fired projects under development in Vietnam, namely Vinh Tan III and Vung Ang II, is well advanced. However, detailed negotiations with our Vietnamese counterparties on project agreements, particularly some key terms in the PPAs, have delayed our progress in 2017. Resolution of these issues is actively being pursued.

Our performance in Southeast Asia and Taiwan is summarised below.

Operating Earnings	2017 HK\$M	2016 HK\$M	Change %
Renewables	65	60	+8.3
Thermal	142	249	-43.0
Operating and Development Expenditure	(47)	(35)	+34.3
Total	160	274	-41.6

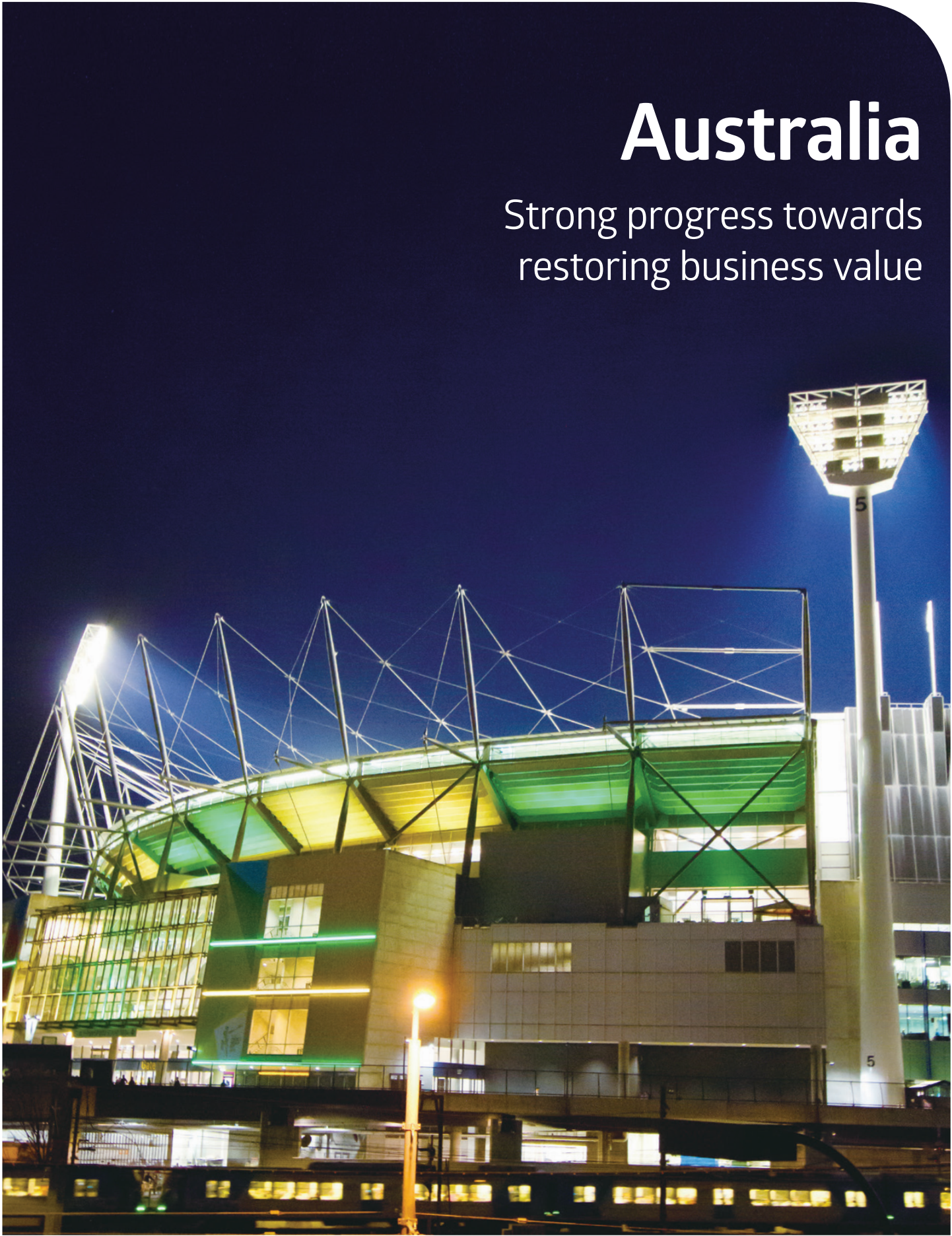


Outlook

We target to make final investment decisions regarding Vinh Tan III and Vung Ang II in 2018 so that we can commence construction for one or both projects. More broadly, we will continue to focus on our existing operations in the region.

Australia

Strong progress towards restoring business value





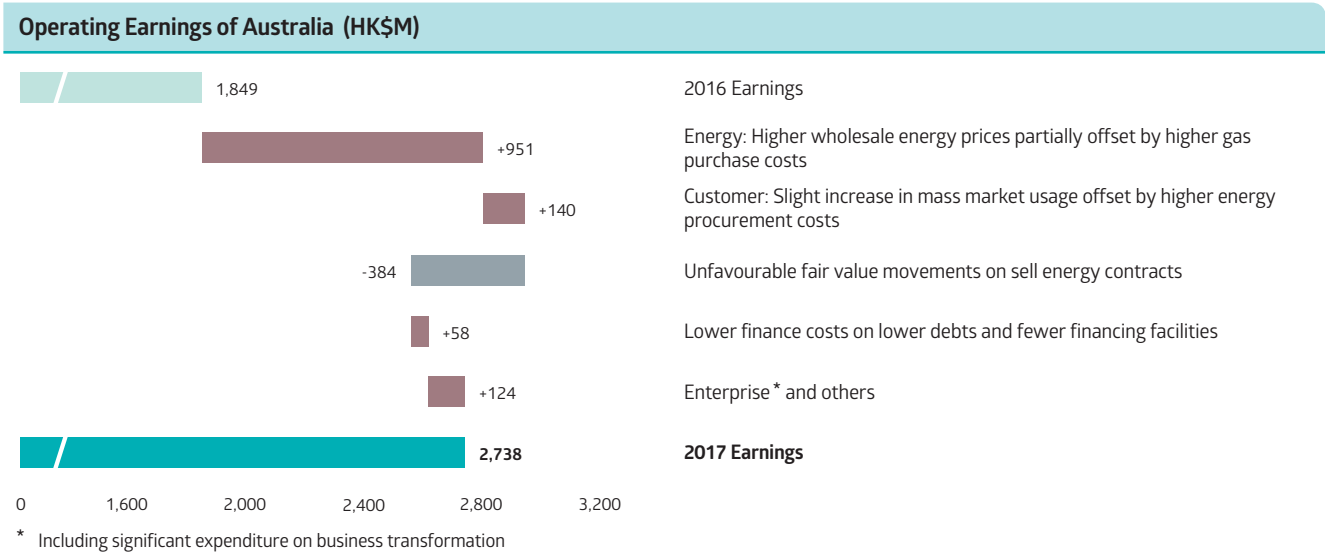
Financial and Operational Performance

Overview

Australia’s energy sector was extremely volatile. In the National Electricity Market (NEM), wholesale prices increased sharply in response to the closure of generators on short notice without significant reduction in demand. Most notable was the closure of ENGIE’s 1,600MW Hazelwood power station in Victoria in March 2017 shortly after it was announced that Victoria’s Portland aluminium smelter would remain open with a multi-year support package from the State Government. In the absence of committed replacement generation, wholesale energy prices rose across the NEM, impacting millions of households and businesses.

At the same time, continued uncertainty about energy and climate policies has eroded confidence and the willingness of businesses to invest in new, long-term generation assets. These supply and price issues prompted several industry reviews and interventions in energy markets by the Federal and various State Governments.

Despite the challenging market, EnergyAustralia made strong progress towards restoring value to its business, achieving an increase in operating earnings of 48.1% to HK\$2,738 million compared to 2016.



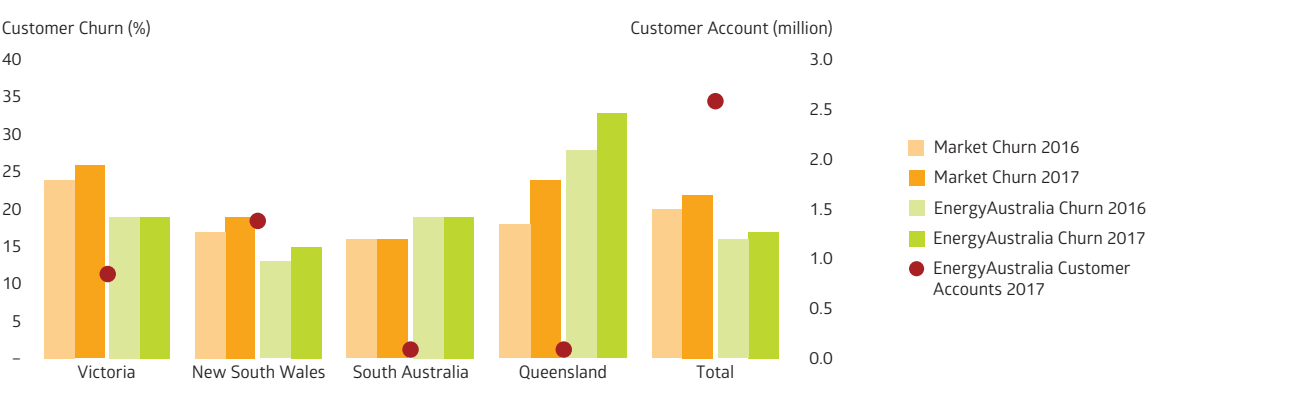
Customer

EnergyAustralia’s transformation programme has put customers at the centre of our business and our decision-making. This approach has led us to develop a portfolio of energy products and services for both new and existing customers to move Australians towards more efficient and sustainable energy use.

In early 2017, we relaunched our brand, promising to *Light the Way* and engage customers in the transition to a cleaner energy future. We launched our carbon offset product *Go Neutral* in 2016, which is a government-certified carbon neutral programme that allows households to offset all the carbon emissions generated from their home’s electricity use, at no additional cost to them. Over 100,000 Australian homes have joined this programme.

In the second half of 2017, rising prices resulted in a challenging market with intense competition leading to higher levels of customers churn. Despite this, EnergyAustralia maintained overall customer account numbers last year and achieved a churn rate below the market average.

Customer Churn and Accounts



To help ease pressure on households, in 2017 EnergyAustralia introduced a new product, *Secure Saver*, giving customers in Victoria, New South Wales (NSW) and Queensland the option of fixing their electricity and gas tariffs for two years. We also committed an additional A\$10 million to our hardship programme, boosting our ongoing support for our most vulnerable customers through various payment plan initiatives.

Following the implementation of the government-led national electricity metering reforms, *Power of Choice*, which commenced in December 2017, EnergyAustralia is now able to directly offer customers smart meters. Previously this had been the sole responsibility of energy distributors. These reforms were aimed at providing customers with more opportunities

to make informed choices about the way they use electricity products and services.

Energy Production

In order to ensure supply reliability as Australia transitions to a cleaner energy future, we worked hard to optimise our generating assets during the year.

As planned, Yallourn Power Station in Victoria produced less energy than the prior year due to scheduled maintenance and other repair works. Yallourn will continue to perform a valuable role in supplying reliable power and maintaining grid stability as more renewable energy is integrated into the system.



Partnership between EnergyAustralia and the Sydney Opera House aims at helping the House with its sustainability goals



Mount Piper Power Station in NSW also produced less energy than in 2016 as coal was rationed due to uncertainty about long-term supply from the Springvale mine. In October 2017, however, the NSW Government legislated to confirm planning consent for the Springvale mine. This enabled the signing of a long-term coal contract for Mount Piper. With progress on the new Water Treatment Plant which delivers a better environmental outcome than required under the planning consent Mount Piper is now positioned to supply the NEM through periods of tight supply.

Our gas-fired power facilities in NSW, Victoria and South Australia also play an important role in our generation portfolio. The flexible operation of these facilities helps provide our customers with protection from extreme pricing events caused by extreme weather and system constraints. We continue to focus on optimising the availability of our gas units so that they are available whenever needed.

In May 2017, legal proceedings were commenced against EnergyAustralia in the Supreme Court of Victoria by Lochard Energy seeking damages in relation to its purchase from EnergyAustralia of the Iona Gas Plant in 2015. EnergyAustralia is vigorously defending the action. Our view, based on available information, is that a material outflow of economic benefits from the CLP Group is unlikely.

Renewable and Thermal Projects – Performance							
	Installed Capacity Equity MW	Electricity Sent Out <sup>1</sup>		Availability		Utilisation	
		GWh		%		%	
		2017	2016	2017	2016	2017	2016
<b>Wind</b>							
Cathedral Rocks	33	<b>81</b>	78	<b>91.5</b>	86.0	<b>29.4</b>	27.9
<b>Gas</b>	1,592.2	<b>2,631</b>	1,154	<b>90.1</b>	89.6	<b>19.6</b>	9.9
Ecogen	966	<b>966</b>	256	<b>92.1</b>	87.0	<b>12.2</b>	5.4
Hallett	203	<b>20</b>	39	<b>91.5</b>	90.5	<b>1.2</b>	2.3
Tallawarra	420	<b>1,644</b>	858	<b>84.9</b>	95.2	<b>45.5</b>	23.8
Wilga Park <sup>2</sup>	3.2	<b>n/a</b>	n/a	<b>n/a</b>	n/a	<b>n/a</b>	n/a
<b>Coal</b>	2,880	<b>16,827</b>	17,746	<b>79.5</b>	82.8	<b>72.4</b>	76.0
Mount Piper	1,400	<b>6,880</b>	7,264	<b>75.8</b>	77.6	<b>60.1</b>	63.6
Yallourn	1,480	<b>9,946</b>	10,483	<b>83.0</b>	87.8	<b>84.1</b>	87.8
Any minor discrepancies in totals are due to rounding							
Notes:							
<sup>1</sup> Indicates CLP's equity sent out and capacity purchase.							
<sup>2</sup> Wilga Park gas-fired Power Station is used to burn exploration gas from the Narrabri coal seam gas project (of which EnergyAustralia has a 20% equity stake).							

Supporting a Low Carbon Future

EnergyAustralia has entered into several PPAs to underpin the development of more than 500MW of renewable generation capacity since we announced in December 2016 a programme to support new wind and solar farms in eastern Australia. These PPAs will help EnergyAustralia meet our obligations under the Australian Government's Renewable Energy Target which requires retailers in the NEM to source approximately 23.5% of electricity sales from renewable sources by 2020. The table below lists the new projects underpinned by our renewable programme.

Projects	Installed Capacity / Offtake for EnergyAustralia MW	Estimated Commission Date
Coleambally Solar Farm (NSW)	150 / 100	January 2019
Manildra Solar Farm (NSW)	48.5 / 48.5	April 2018
Ross River Solar Farm (Queensland)	142 / 114	July 2018
Gannawarra Solar Farm (Victoria)	60 / 60	April 2018
Bodangora Wind Farm (NSW)	113 / 68	October 2018

At the same time, we continued buying renewable energy from projects under existing contracts with details shown in the table below.

Renewable Generating Capacity under Contract to EnergyAustralia			
	Offtake for EnergyAustralia MW	Electricity Sent Out	
		GWh 2017	2016
<b>Wind</b>			
Boco Rock	113	<b>347</b>	373
Gullen Range	165.5	<b>451</b>	514
Mortons Lane	19.5	<b>59</b>	67
Taralga	107	<b>282</b>	318
Waterloo <sup>1</sup>	55.5	<b>147</b> <sup>1</sup>	159 <sup>1</sup>
Note:			
<sup>1</sup> EnergyAustralia purchases half of the energy generated by Waterloo Wind Farm Stage 1 (111MW) and none of the energy generated by Stage 2 (19.8MW). The electricity sent out figures indicate those purchased by EnergyAustralia.			

EnergyAustralia is assessing other projects which may play leading roles in a new, modern energy system in Australia. A proposed 225MW seawater pumped hydro project in South Australia is one example. During the year this project passed a major milestone with initial feasibility work indicating there were no “show stoppers” to the development. If developed, this project would store energy like a battery for times when it is needed and would support the integration of intermittent renewable supply into the grid in a way that delivers affordable, reliable and cleaner power for customers.

Studies also determined a 27MW energy recovery project at Mount Piper is technically and economically viable. This project would use non-recyclable household waste material to fuel electricity generation. It will now progress to the next stage of planning, including preparation of a comprehensive study of environmental impacts.

New Business

Our NextGen division focuses on new products and services that puts customers in control of their energy. It made a number of significant achievements in 2017.

The Redback Smart Hybrid System – developed through our partnership with Brisbane-based Redback Technologies – was commercially launched in September 2017. When paired with solar panels and compatible batteries, this technology transforms a standard solar system into an intelligent energy management system.

In October 2017, EnergyAustralia announced plans to deliver up to 50MW of demand response reserve capacity as part of a three-year pilot programme by the Australian Renewable

Energy Agency and the Australian Energy Market Operator. This capacity, the largest single commitment under the programme, would be called upon at short notice should NEM reserves fall to critical levels. Demand response has the potential to maintain system reliability, support the integration of new renewable energy supplies and ease some pressure on prices. It is also another option for customers looking to take control of their energy usage.

In partnership with London-based Startupbootcamp, in 2017 we established a programme aimed at fast-tracking exciting new energy related start-up businesses. We also entered into a partnership with Kiah Research, part of Australia's TCG Group, to provide EnergyAustralia with opportunities to partner with small and mid-size businesses specialising in new energy efficiency and digital application management technologies. We are studying various projects and opportunities arising from this partnership.

Environmental Performance

Air Emissions

EnergyAustralia had a stable year in terms of environmental performance. Overall, emissions from our Australian power stations decreased by 4% compared with the previous year. Decreased coal-fired generation from Mount Piper resulted in an almost 2% decrease in its emissions in 2017. Yallourn also had lower energy output which resulted in an almost 8% decrease in its emissions compared to 2016. Overall emissions from gas-fired generation facilities increased in 2017 as higher wholesale prices led to higher generation volumes but total emissions remained small.

## Environmental Regulatory Compliance

During 2017, there were no fines or prosecutions arising from environmental-related regulatory non-compliances for any of our assets in Australia where we had operational control.

We continued to implement the recommendations of our 2016 regulatory compliance audit at Yallourn. We also completed improvements to Mount Piper's pollution incident response management plan and to data reporting from the closed Wallerawang Power Station.

## Social Performance

In 2017, EnergyAustralia announced partnerships with two of Australia's best-known landmarks – the Sydney Opera House in NSW and the Melbourne Cricket Ground in Victoria. These programmes are aimed at assisting the icons to achieve their sustainability targets, by developing technologies and

approaches that may one day be used in homes across the country.

Meanwhile, we progressed our Reconciliation Action Plan to increase engagement with Aboriginal and Torres Strait Islander peoples and communities. Similarly, more work was done on our Financial Inclusion Action Plan, including engaging with external stakeholders on how we might improve support for vulnerable customers.

In addition, EnergyAustralia won the Achievement Award for most improved organisation at the annual Australian Workplace Equality Index awards which celebrates LGBTI inclusion in the workplace.

Other community initiatives are highlighted below, including a near-doubling of employee participation in volunteering programmes from 2016. Please also refer to the Social and Relationship Capital chapter on pages 87 – 89 for more details.



Helped pack almost **100 tonnes** of food that was distributed to **215 charity partners**. This equates to **195,405 meals** to people in need.



With the extension of the **community grants programme** to Geelong, EnergyAustralia offered grants for projects and community supporting initiatives at **6 sites**.

## Community Wellbeing

## Volunteering

## Education & Development



**31 students** successfully completed their school studies for the year under our ongoing collaborative programme with the Aboriginal AFL Academy. **12** of them graduated and will go onto **further education or seek employment**.



Around **300 employees** participated in almost **2,000 hours** of volunteering services.

## Outlook

Energy policy was subject to intense public and political discussion in Australia in 2017, focused both on prices and supply reliability. EnergyAustralia believes that a stable and national approach to policy remains the best prospect for a lasting solution. We are optimistic that the proposed National Energy Guarantee can provide a way forward. Restoring certainty so that businesses have confidence to invest in reliable, affordable and cleaner supplies of energy is key. We believe a durable policy must begin by considering impacts on

customers and that care must be taken to avoid adding cost and complexity.

Operationally, we expect wholesale market conditions to remain tight in 2018, with asset reliability remaining a key focus. Wholesale prices are trading at high levels in the short term before easing in 2019. Meanwhile, we see no easing in the extremely competitive retail market. EnergyAustralia will help ease pressure from higher wholesale prices by running our assets efficiently, supporting vulnerable customers and helping households and businesses better manage their energy use.

**Q** EnergyAustralia is partnering with the Sydney Opera House to help Australia's most famous "house" meet its long-term sustainability goals. How will you apply what we learn and develop together to help people around the country use energy in ways that are smarter and more sustainable?

**A** Delivering reliable, affordable and cleaner energy for all Australians is one of the great challenges of our time. The supply side – building new generation facilities gets a lot of the attention, but the demand side involving the customer is every bit as exciting.

Our partnership will do more than help "Australia's House" to operate more sustainably. We expect what we learn and the technology we develop will contribute to people around Australia and help them use energy in ways that are smarter and more efficient. Yes, it may mean families and businesses use less energy but that's great, because when customers save power, it's good for their wallets and it's good for the environment.

To achieve it, we've brought together the best and most creative minds from EnergyAustralia, the Sydney Opera House and Australia's pre-eminent scientific research organisation, the Commonwealth Scientific and Industrial Research Organisation. Our think tank has already drawn up projects to explore innovative fuel-cell technology that can manage fluctuating energy consumption, provide fault-detection technology designed to reduce energy consumption and cost, and introduce solar sharing opportunities between our customers and the Sydney Opera House.

All these projects are relevant to how customers actually use energy and each of them has the potential to play an important role in a new, modern energy system for Australia.



**Ms Louise Herron AM**  
Chief Executive Officer  
Sydney Opera House



**Catherine Tanna**  
Managing Director  
EnergyAustralia



# Capitals



We explain how CLP manages a number of critical resources and relationships – known as the Six Capitals – to create value for our stakeholders and contribute to the sustainability of our business



Despite uncertainties arising from new global political and economic order, financial markets continued to advance through much of 2017. However, as the good economic conditions started to wane towards the end of the year, controlled monetary tightening by most central banks and deleveraging efforts by the Chinese authorities led to some fluctuations in the financial markets, especially for interest rates.

The 10-year US Treasury yield, for instance, topped 2.6% in March 2017 on comments by the Federal Reserve that signalled a higher interest rate environment, before dropping to 2.1% in September 2017 after authorities used more benign wordings and then rebounding to 2.5% by the end of 2017. Meanwhile, one-month Hong Kong Interbank Offered Rates (HIBOR) spiked to 1.2% in December 2017, their highest level since the global financial crisis. China's 10-year sovereign bond yield breached 4% in November 2017 after bottoming out at 2.6% in October 2016.

Such market movements presented corporates with challenges and opportunities depending on their financial discipline, competency, and readiness to deal with market fluctuations. At CLP, we remained focused on our well-proven financial philosophy and deployed our financial flexibility and capability to diversify so that we could navigate through the volatile market in support of the business strategy.

Financial Prudence, Perseverance and Responsiveness

In 2017, CLP continued to make strategically important, measured investments to enhance value for our shareholders, customers, governments, NGOs, financial institutions and business partners. This would not have been achieved without effective, timely financing arrangements which delivered cost-effective funding and a well-mitigated risk profile.

In Hong Kong, CAPCO invested in a HK\$5.5 billion 550MW CCGT generation unit at Black Point Power Station to meet the long-term energy demand of the city and support the Hong Kong Government's low carbon transition by increasing the portion of gas in Hong Kong's fuel mix for power generation.

In January and March 2017, CAPCO arranged HK\$5.7 billion diversified, cost-effective, long-tenured funding, comprising a HK\$1.4 billion 15-year loan facility supported by export credit agency (ECA) and a HK\$4.3 billion five-year commercial loan facility which were adequate to fully cover the project cost. The credit margins of the two loan facilities were one of the tightest among Hong Kong corporates since the global financial crisis and the ECA insurance premium rate was very favourable.



CAPCO issues its first Energy Transition Bond to fund Black Point Power Station's new gas-fired generation unit

In line with our prudent but warranted policy of diversifying debt funding in terms of tenor, market and instrument for capital expenditure with a long payback period, CAPCO identified a good opportunity to execute an inaugural US\$500 million (HK\$3.9 billion), 3.25% coupon, 10-year Energy Transition Bond in July 2017 under CLP's new Climate Action Finance Framework (CAFF) to refinance a major portion of the five-year commercial loan facility.

The bond attracted keen interest from over a hundred global investors, including Environmental, Social and Governance (ESG) investors in Europe and Asia, particularly Japan. It carried a very competitive 1.025% interest margin over the 10-year US Treasury Note, the tightest spread in such tenor ever achieved by a utility company in Hong Kong. The bond also had the distinction of being the first benchmark US dollar Energy Transition Bond issued globally. Its arrangement, execution and listing status in Hong Kong will support the city's ambition to become a regional hub for green financing.

In Mainland China, we expanded our non-carbon generation portfolio with the acquisition of a 17% equity stake in the Yangjiang Nuclear Power Co., Ltd. In October 2017, CLP arranged HK\$5.1 billion two-year bank loan facilities at preferential interest rates to fund the acquisition, after applying HK\$1.7 billion of RMB denominated internal resources to finance the transaction.

Strong Financial Profile, More Firepower to Pursue Business Opportunities

CLP recognises that good, unrestricted access to global capital market and bank funding is critical to allow the Group to carry out its business operations, sustain long-term growth and guard against contingencies. To do this, we remain vigilant of our inherent duty to maintain a sound balance sheet, robust financial structure and strong investment grade credit ratings, while delivering on business performance and earnings objectives.

This dedication paid off when Standard & Poor's (S&P) upgraded the credit ratings of CLP Holdings from A- to A, CLP Power Hong Kong from A to A+ in May 2017 and EnergyAustralia from BBB to BBB+ in July 2017. In June 2017, S&P assigned CAPCO a first-time credit rating of AA-.

We see these upgrades as a vote of confidence. Our continued efforts to restore value to our Australian business and deleveraging (notably in CLP Holdings, CLP Power Hong Kong and EnergyAustralia) have further reduced financing costs and strengthened our financial ratios.

CAPCO's financial structure was further strengthened by replacing 75% of shareholders' loans with an equity-like instrument in April 2017. It was a key factor in obtaining the inaugural AA- credit rating of the company and preferential commercial terms for the Energy Transition Bond and ECA-supported loan facility.

Q A Nippon Life has been very committed to ESG investments. What is your stance in moving into cleaner energy sources and green projects in the medium term?

CLP is committed to growing our investment in low carbon electricity generation as manifested by our Climate Vision 2050. We have already made significant progress as our equity-based renewable energy generation capacity has almost tripled since 2007. We are keen to keep up the momentum by further expanding our low carbon portfolio. In Hong Kong, we continue to move away from coal to a more balanced energy fuel mix to support the Government's climate targets. Our Australian business has been purchasing wind and solar energy from third parties to further diversify its generation mix. In India and Mainland China, we continued to expand our renewable portfolio in the last 12 months and commissioned our first and fourth solar projects in the two countries respectively. Last but not least, we launched the CLP Climate Action Finance Framework in 2017 and issued our first Energy Transition Bond within the framework, and we were delighted to see Nippon Life taking up a substantial part of that initiative as well as the participation of over 100 other ESG investors.



Mr Ryu Hihara  
General Manager  
Credit Investment Department  
Nippon Life Insurance Company



Geert Peeters  
Executive Director &  
Chief Financial Officer



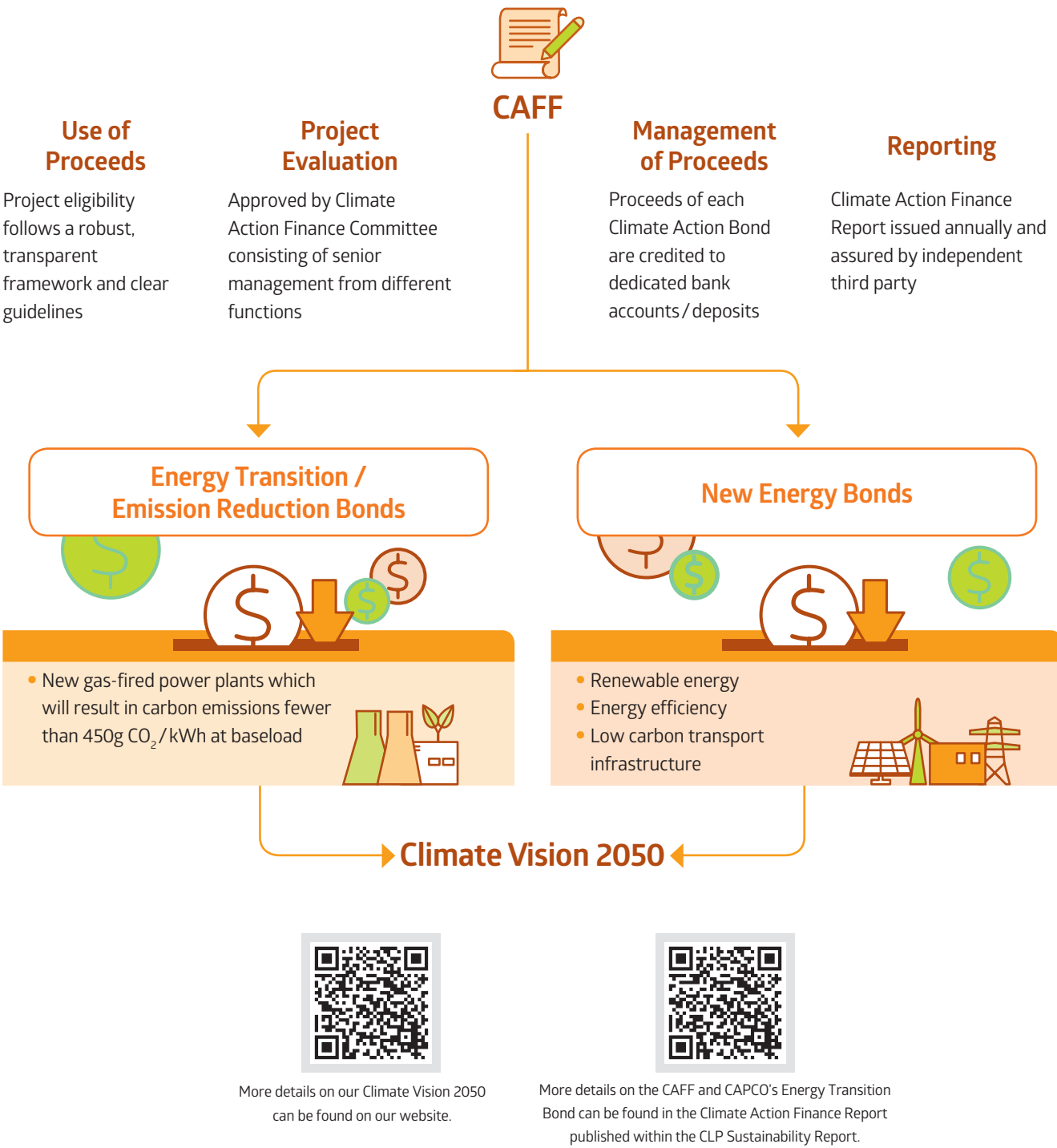
The upgrades in credit ratings brought immediate benefits as bond investors and banks quickly recognised the stronger financials and improved credits of CLP entities which translated into lower funding costs.

A Financing Framework for a Greener Portfolio

To source funding for our energy transition efforts, CLP Holdings launched the CAFF in July 2017 after two years of contemplation, refinement and communication with

stakeholders. The CAFF sets out a holistic approach for us to provide more options for financing the transition towards a low carbon energy future by tapping into a fast-expanding community of green and ESG investors. It enables CLP entities to arrange financings through two types of Climate Action Bonds: New Energy Bonds for renewables and energy savings projects, and Energy Transition Bonds to fund projects that help reduce emissions. The US\$500 million bond issued by CAPCO in July 2017 to fund a new highly efficient CCGT project was the first CLP Energy Transition Bond.

CLP Climate Action Finance Framework



CLP works hard to maintain a healthy diversity of funding sources to ensure access to global financial markets in a cost-effective and timely manner. At the end of 2017, CLP had business relationships with 52 financial institutions, about half of which have been partners for more than a decade. These long-standing relationships reflect CLP's constant efforts to forge mutually beneficial partnerships and maintain our outstanding reputation in financial markets. In addition to conventional bank loans, CLP Power Hong Kong and CAPCO are able to tap into the global debt capital market and achieve asset-liability matching funding in a time and cost efficient manner through Medium Term Note (MTN) programmes.

Our Credit Ratings		
	S&P	Moody's
CLP Holdings	▲ A / Stable	A2 / Stable
CLP Power Hong Kong	▲ A+ / Stable	A1 / Stable
CAPCO	AA- / Stable	A1 / Stable
EnergyAustralia	▲ BBB+ / Stable	not applicable
Positives	<ul style="list-style-type: none"><li>CLP Holdings' financial performance to improve after Yangjiang investment</li><li>Enhanced capital structure of CAPCO</li><li>Favourable regulatory and operating conditions in Hong Kong</li><li>EnergyAustralia's secured long-term fuel supply to support stable operation</li></ul>	
Negatives	<ul style="list-style-type: none"><li>Lower permitted rate of return on assets under new SoC Agreement</li><li>Uncertainty from the legal proceedings against EnergyAustralia with respect to its sale of Iona Gas Plant</li></ul>	

Positives	<ul style="list-style-type: none"><li>Strong financial profile, supported by predictable regulated cash flows from Hong Kong business</li><li>Well-managed debt maturity and sound liquidity profile, supported by good access to diversified funding</li></ul>	
Negatives	<ul style="list-style-type: none"><li>Overseas and unregulated business investments increase risk profile</li><li>The upcoming reduction in permitted regulated returns in Hong Kong</li></ul>	

Our Debt Profile as at 31 December 2017

	CLP Holdings HK\$M	CLP Power Hong Kong HK\$M	CAPCO HK\$M	Other Subsidiaries HK\$M	CLP Group HK\$M
Availability Facility*	11,278	37,211	11,942	22,834	83,265
Loan Balance	4,388	30,755	9,606	12,592	57,341
Undrawn Facility	6,890	6,456	2,336	10,242	25,924

Note:  
\* For the MTN Programmes, only the amounts of the bonds issued as at 31 December 2017 were included in the total amount of Available Facility. The Available Facility in EnergyAustralia excluded a facility set aside for guarantees.



More information about our credit ratings can be found on our website.



More information about major financing activities in 2017 and our debt profile can be found on pages 34 and 35 of CLP Holdings 2017 Annual Results Analyst Briefing.



Analyses of loan balance by types and bond funding by currencies can be found on page 44 of Investor Presentation Introductory Pack.

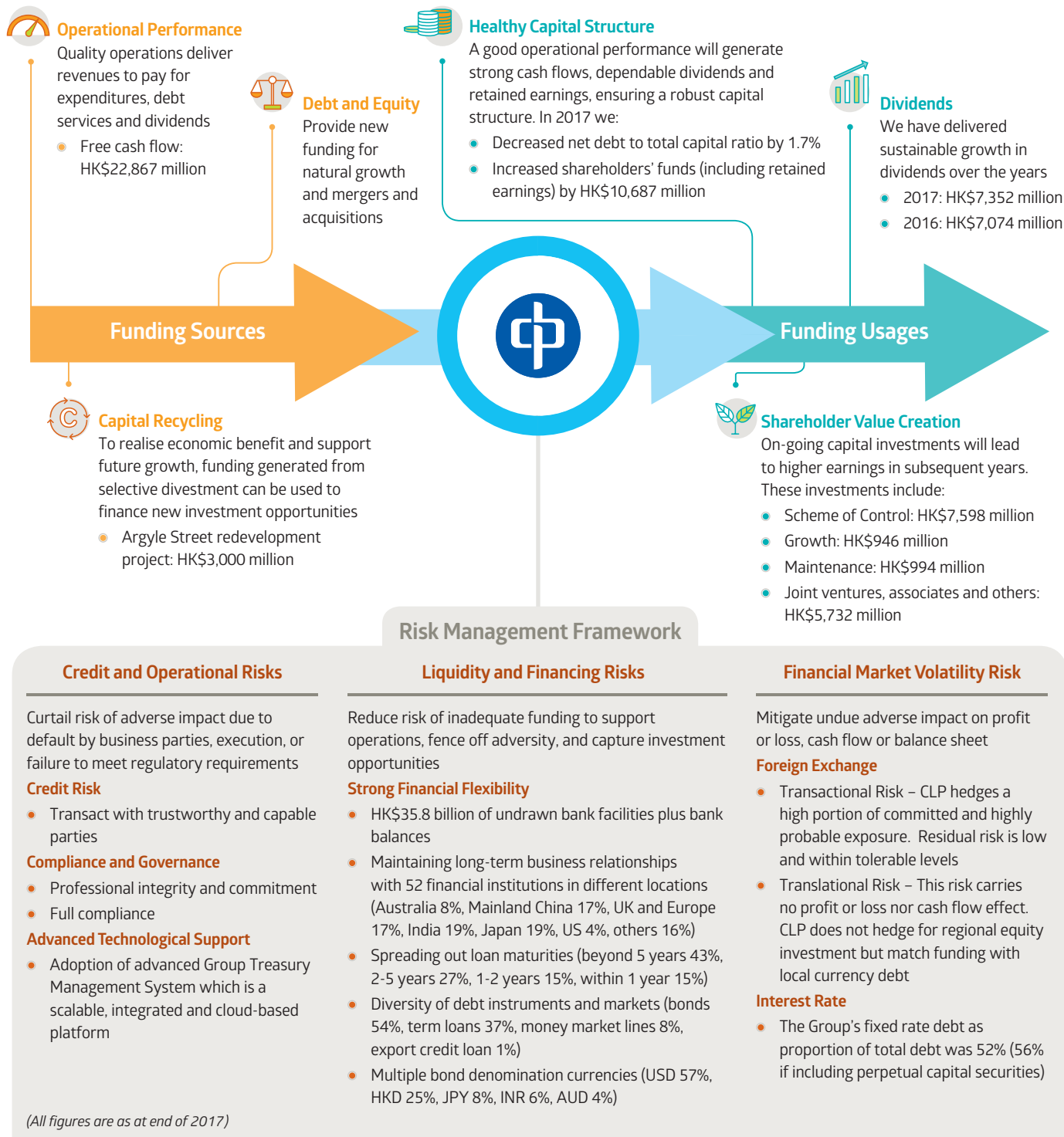


A Vigilant, Diligent Risk Management Approach

The power industry is known for its high investment costs, capital intensity and long payback periods with compounding risk factors. The ability to arrange timely, cost-effective, diversified, multiple-tenured and sustainable funding is a critical factor in managing and expanding our business.

With our growing, cross-border business portfolio, we are exposed to multiple risks of liquidity, financing and refinancing, foreign exchange, interest rates, counterparties and compliance. Risk management is a key component in CLP's financial framework. A holistic risk management framework with effective implementation helps CLP protect profit and improve the reliability of cash flows to contribute to the financial strength of CLP and create value for shareholders.

The diagram below highlights our funding sources, usages and risk mitigation strategies.



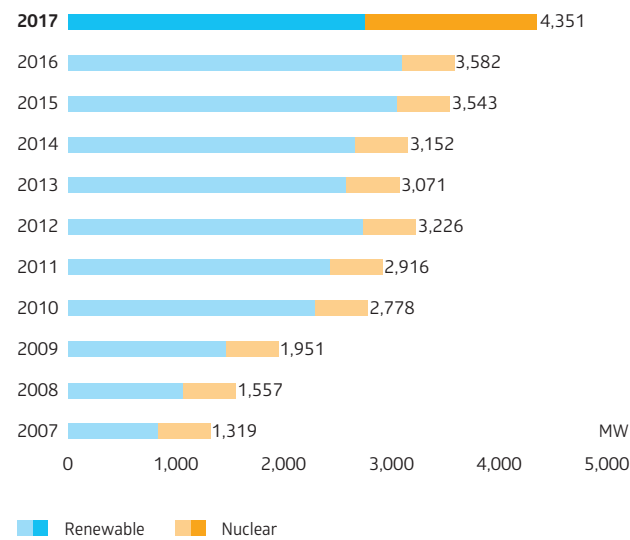
Manufactured Capital

Our business mainly entails owning and operating power generation assets across the Asia-Pacific region, a transmission and distribution network in Hong Kong, and energy retailing services in Hong Kong and Australia. To deliver the energy needed to fuel the growth of our communities, we procure and invest in physical assets such as equipment, buildings and infrastructure.

Generating Cleaner Power

Since our first 75kW generator was commissioned over a century ago in Hong Kong, our generation capacity on equity basis, in operation and under construction, across the Asia-Pacific region has increased to 19,395MW, supplemented with an additional 5,159MW of capacity purchase. Our generation portfolio utilises diverse types of energy sources, including coal, gas, nuclear and renewable energy (wind, hydro and solar). In 2017, the Group's total generation capacity on equity basis and including capacity purchase increased by 3.25% to 24,554MW mainly due to our investment in Yangjiang Nuclear Power Co., Ltd. Coal-fired generation capacity remained at about the same level whereas renewable capacity, including capacity purchase, decreased by 9.56% primarily because of the divestment of our minority interest in CGN Wind Power Company Limited.

CLP Group Non-Carbon Generation Capacity on Equity Basis



Developing Non-carbon Energy

Our investment in Daya Bay Nuclear Power Station in the mid 1980s marks our entry into non-carbon generation. In 1997, we acquired our first renewable project, Huaiji Hydro. The scale of our non-carbon generation portfolio, on an equity basis, has since then grown to 4,351MW by the end of 2017. Today, we are one of the largest external investors in wind power in India and Mainland China, with over 2,700MW of equity renewable energy capacity in the Asia-Pacific region.

Currently, we are considering several opportunities to construct new sites or acquire operational assets as well as potential strategic investment partnerships. If successful, these will help us achieve our existing target of having 20% renewable energy capacity by 2020 and an additional new target of 30% renewable energy capacity by 2030 that was set as part of our Climate Vision 2050 review. Details on our performance in achieving the renewable and non-carbon targets are set out in the Natural Capital chapter on pages 90-93.

Planning for Efficiency

We are constantly identifying opportunities to improve the operational efficiency of all our assets. Such efforts start from the project planning stage when we select the site with the highest yield and the best available technology, which sets the foundation of the operational efficiency or capacity factor range of the asset throughout its entire life. Quite often, the choice of site, technology and energy source may be constrained by incumbent project requirements set typically by the local authority. However, even if the type of energy source to be used, such as coal, gas or renewable is already set, we can still choose the most efficient technology that is available and proven for the specified energy source.

For instance, in Hong Kong, the new gas-fired generation unit being constructed at Black Point Power Station features an advanced design with a CCGT configuration that will give it an efficiency of around 60%. Such a performance standard is not only significantly higher than that of existing gas-fired units in Hong Kong, but also among the highest in the world. The design allows for greater electricity output without the use of additional fuel, leading to a reduction in emissions intensity. In addition, the installation of advanced Selective Catalytic Reduction system can further reduce the nitrogen oxides emissions.



### Maintaining Asset Quality

For plants in operation, we continued to invest in improving operational efficiency. These efforts allow us to maintain our standards of efficiency for generation plants across the Group and to meet increasingly stringent regulations on emissions and fuel efficiency in certain jurisdictions.

For example, in 2017, at our Fangchenggang Power Station in Mainland China, we completed the emission control retrofit project for one of the two supercritical units of Phase I, thereby increasing its efficiency and ensuring compliance with Mainland China's 2020 emissions requirements. The second unit at FCG Phase I will be retrofitted in 2018. At Black Point Power Station in Hong Kong, with the proven operating performance of the first upgraded gas turbine unit, we prepared for two more units to be upgraded in 2018. On completion of the third gas turbine systems upgrade, we expect to see benefits such as an increase of 75MW in capacity (25MW for each gas turbine unit), enhancement in nitrogen oxides emissions performance, minor improvement in efficiency and a reduction of fuel cost.

### Optimising Asset Performance

Technologies supporting data processing, storage and management continue to advance and are becoming more affordable and accessible. Consequently, the opportunities arising from big data and data analytics are also increasing, with a wide range of potential applications including performance optimisation.

As our fossil-fuelled assets age, not only will their operational efficiency decline, but the probability of plant component failure will also increase. We need to detect abnormalities in performance or potential premature failure so that we can take appropriate preventive actions in a timely manner to help slow down the efficiency decline and reduce the probability of unplanned disruptions. In 2017, we embarked on a pilot project in Hong Kong to test an innovative product on its ability to detect premature failure on critical plant components as well as to provide deeper insights into operational trends and performance optimisation. Results of the project will be assessed in early 2018 to determine the next steps needed in making improvements to overall asset fleet performance by using data analytics and insights.

Given our current portfolio of over 2,700MW of equity renewable energy, the dataset we have accumulated over the past decade can provide us with a foundation for developing new insights and ultimately solutions for renewable energy management systems. This in turn will enhance our ability to predict and respond appropriately to resource variability so as to optimise the operational efficiency of our renewable energy fleet. Hence in 2017, we explored this possibility further by carrying out a pilot of a smart data platform to optimise operational performance of our wind and solar plants. We have also established a renewable energy team within our Group Operations Department to focus on renewable energy performance and optimisation.



The gas supply deal between CAPCO and CNOOC China is a good example of our procurement strategy which emphasises on establishing long-term relationships with suppliers

### Delivering World-Class Reliability

Our transmission and distribution network in Hong Kong serves about 80% of the population of the city. The reliability of our system is above 99.999% and is higher than other major cities such as London, New York and Sydney. At the end of 2017, we had approximately 1,164 km of overhead lines and about 14,514 km of underground circuits at medium or higher voltage. In addition, we also had 232 primary and 14,483 secondary substations in Hong Kong.

### Investing in a Climate-Resilient Grid

Last year was not only among the hottest on record in Hong Kong, but also saw many high-impact extreme weather events including typhoons, floods, heatwaves and drought around the world. Such events can often cause disruptions to power supply. Therefore it is critical that our system is resilient enough to

withstand these extreme conditions to minimise disruption to critical services and infrastructure and to enable faster recovery of affected communities. In 2017, Hong Kong experienced seven typhoons, including Super Typhoon Hato with wind speed of up to 185 km per hour. Due to the strength and resilience of our power system, there were no systemic power failures.

Overhead lines make up a significant part of CLP's Hong Kong transmission and distribution network, and more than 700 pylons of 400kV overhead lines form the backbone of our supply system. If a pylon is destroyed by strong winds or collapses because of a landslide, it can take several months to be restored. Over the years, we have taken steps to reinforce the pylons ensuring that they can withstand the impact of adverse weather such as super typhoons. CLP conducts regular emergency typhoon drills, particularly ahead of Hong Kong's typhoon season to help reduce the vulnerability of the power

**Q** There are a lot of construction of major infrastructure and property development projects going on within CLP's service area in Hong Kong as part of the Guangdong-Hong Kong-Macao Bay Area development initiative and other Government's New Development Area plans. Can you outline how significant the impact will be on CLP's power supply infrastructure spending over the next few years?

**A** A safe and reliable electricity supply is vital for Hong Kong's stability, competitiveness, and ability to attract organisations to set up business in Hong Kong. As a responsible electricity provider, the majority of our capital investment is in our transmission and distribution network. We must meet several key challenges in the coming years, including continued load growth with new housing and infrastructure developments as well as refurbishment, replacement, and reinforcement of our network to maintain our world-class reliability levels and enhance customer service through the deployment of digital technology.

We will make significant capital investment not only to meet the electricity needs of a number of major infrastructure development projects such as the Kai Tak Development and the West Kowloon Cultural District, but also to support several key transportation development schemes such as the Hong Kong-Zhuhai-Macao Bridge, the Third Runway System at the airport and the Hong Kong Boundary Crossing Facilities Island. The scale of these investments and the need to sustain the assets involved drives a considerable part of our investment programme. We will liaise closely with the government to optimise our resources and meet the rising demand for power.



**Mr Angello Chan**  
Managing Director  
Energy Technology & Utilities Research  
Head of Hong Kong / China & Taiwan  
Equity Research, Global Research  
Merrill Lynch (Asia Pacific) Ltd



**Betty Yuen**  
Group Director &  
Vice Chairman – CLP Power Hong Kong



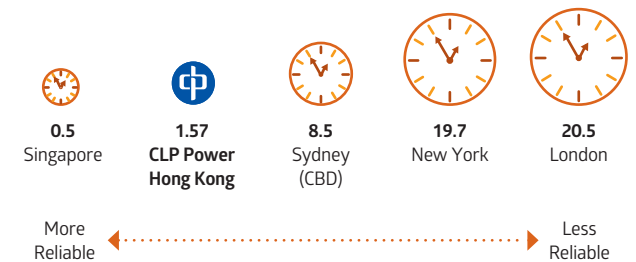
system and minimise the downtime required for recovery from extreme weather events. Emergency restoration systems were introduced to construct temporary pylons quickly to reduce the recovery time. We have also implemented additional measures to counter the potential impact of severe typhoons and storm surges. These include installing smart switchgears on distribution overhead lines, putting in place flooding prevention measures and alarm at lowlying flood prone substations and establishing a typhoon response protocol and coordinating system.

Ensuring Efficiency and Reliability

In 2017, we continued our efforts to improve the reliability of our power supply network. Our average network loss for the past five years was around 4.04% of the total energy, which is slightly lower than the 2016 figure. Between 2015 and 2017, a CLP customer on average experienced 1.57 minutes of unplanned power interruptions per year, which is higher than the 1.48 minutes in the previous three-year period mainly due to the significant impact of Super Typhoon Hato.

Reliability Levels in Major Metropolitan Cities

Unplanned customer minutes lost per year



- Notes:
- 2015-2017 average for CLP Power Hong Kong.
  - 2014-2016 average for all other cities (the latest available data).
  - Singapore's power supply network is mostly underground, and is less exposed to the influence of weather and other external interferences than overhead lines.

Developing New Grid Management Capabilities

Given the continued growth of renewable energy and its role in the power sector, grid management capabilities will become increasingly important. Services to integrate renewable energy into the grid and manage these variable sources while maintaining grid stability will be in demand. In Hong Kong, CLP provides expert advice to help our customers understand and resolve technical issues so that they can connect their renewable energy systems (normally less than 200kW) to the electricity grid. There are to date approximately 300 distributed

renewable energy facilities connected to CLP Power's grid, with a total generation capacity of over 40MW. As the number of renewable installations connected to the grid rises, we will have the opportunity to gain more insights into the impacts of these variable sources on the grid and proactive grid management actions.

One of the measures to help counter the volatility of renewable energy is the use of energy storage. The EnergyAustralia/Redback energy storage system, for instance, enables us to build our capability and observe the possible effects of energy storage on the grid as well as its potential role in grid management.

Procuring for Power

Shifting from Transactional to Strategic Procurement

In 2017, we began implementing our CLP Group Procurement Standard and several strategic procurement initiatives with the aim of developing and institutionalising leading procurement practices and capabilities across the Group companies.

We conducted a comprehensive review of our third party spend across products and services received, resulting in the establishment of group-level Categories of spend governed by Category Councils. Each Council comprises supply market, category and business experts from across the CLP Group. Category business plans are developed in consultation with internal business stakeholders to address current and future business needs while leveraging group synergies and achieving best value for CLP and for our customers.

Developing Long-Term Supplier Relationships

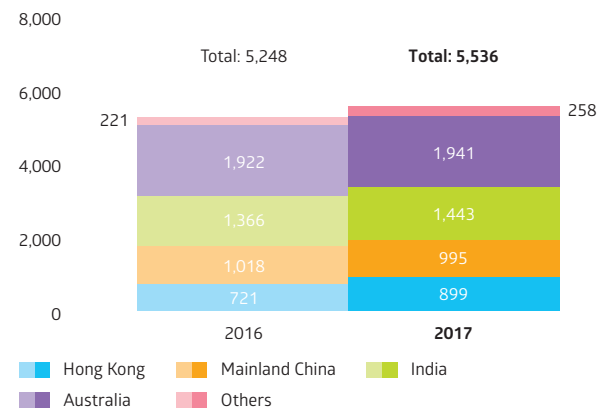
In addition, the relationship with our suppliers is critical to our long-term business success and we take a collaborative approach in regularly engaging with our partners across the different levels of our respective organisations. We have developed a Supplier Relationship Management framework for our key strategic suppliers to jointly review delivery performance, continuous improvement and innovation opportunities. This enables us to strengthen and align our business relationships, mitigate supply chain risks, drive continuous improvements in the areas of Sustainability, Health, Safety, Security and Environment (HSSE), Quality and Innovation, and optimise value from a CLP Group perspective.

Procuring Responsibly

We take a collaborative approach to engaging with our suppliers to uplift their sustainability capabilities. Suppliers for critical projects, which constitute the majority of our 2017 project base, are assessed on their relevant sustainability status and practices through self-declaration, tender evaluation, site visits or checks, and two-way performance reviews as appropriate.

In addition to assessing new suppliers, we conduct risk assessments on our existing key suppliers. In the past year, we have assessed 78 key suppliers against sustainability requirements and conducted follow-up site visits with three key suppliers to verify responsible procurement practices. Our overall assessment and monitoring mechanisms have confirmed that there were no significant risk findings related to our Responsible Procurement Policy Statement in 2017.

Number of Suppliers by Geographical Region



No supplier relationship was terminated due to the assessment and monitoring result. Given the nature of our business, we collaborate with suppliers in managing environmental impacts during operations. We also actively seek opportunities to advocate responsible procurement to peer companies through organised practice and experience sharing activities.

Our business operations involve construction and site work, for which subcontracting is a common practice within the industry. We engaged with some critical sub-contractors in Hong Kong to understand their sustainability status and practices in 2017, and will continue such engagements in 2018, with the aim of further uplifting supplier sustainability capabilities.

Keeping Abreast of International Best Practice

We keep abreast of the external trend and latest development on sustainable procurement, such as the ISO Guide on Sustainable Procurement (ISO 20400:2017) that provides guidance to organisations on integrating sustainability within procurement, for the purpose of continuous improvement.

In addition, we are committed to protecting the company's intellectual property rights, as well as all applicable laws and regulations, including observing the intellectual property rights of our suppliers and vendors.

Serving Our Customers and Communities

We take protection of customer privacy and information seriously, as indicated by our CLP Privacy Policy Statement, which stipulates measures to respect and protect the personal data we receive. In 2017, in our Hong Kong retail business, no customer privacy and data loss cases were reported or noted. Our EnergyAustralia retail business received 56 privacy complaints relating to information being provided to unauthorised parties. EnergyAustralia has adequately dealt with the resolution of each complaint. Of the 56 complaints, three were received from the Australian Privacy Commissioner regarding potential breaches of customer privacy. Following investigation, however, the Commissioner closed all files on the basis that EnergyAustralia had not interfered with the customer's privacy.

Electricity needs to be provided safely. We take this responsibility seriously and place the highest priority on both customer and employee safety. Working near electricity supply lines could impose public health and safety concerns. We conduct regular construction site inspections and provide cable plans and safety talks to road work contractors to enhance safety awareness. Electromagnetic fields (EMF) arising from the power system is another public health concern. Our power supply equipment fully complies with the guidelines issued by the International Commission on Non-Ionizing Radiation Protection. Regular EMF measurements on our power supply equipment are carried out jointly with the Electrical and Mechanical Services Department in Hong Kong. The measured EMF levels are well below the guideline limits.



## Intellectual Capital

Our intellectual capital includes our knowledge, experience and expertise in developing and operating projects as well as managing the business. Against a fast changing environment, our capabilities need to evolve over time to keep pace with technological developments and societal changes. Our commitment to innovate at all levels is crucial for our sustainability: using technologies to improve processes, developing new products and services, and formulating long-term business strategies that prepare ourselves for future trends and customer needs.

### The Pioneer

CLP was founded over a century ago in Hong Kong. We have embraced new ideas and technologies along the way as we grew from a Hong Kong-based power company to a leading energy service provider in the Asia-Pacific region. We have taken the lead in investing in advanced power generation technologies available at the time, ventured into new markets and developed up-to-date operational processes and services that could spearhead our business strategy and growth.

We helped introduce nuclear power into Mainland China in the 1980s with our investment in Daya Bay Nuclear Power Station, China's first large-scale commercial nuclear power project. We made another milestone in 1996 when our Black Point Power Station went on stream and became the first gas-fired power generating plant in Hong Kong. Our Lopburi Solar Farm is Thailand's first utility scale solar power project. Today, our

renewable energy equity capacity stands at 2,700MW and we are one of the largest external investors in wind power in India and Mainland China.

We take pride that we have achieved excellence in many areas of our operations. Our supply reliability in Hong Kong is among the best in the world, for instance. The fact that we are an established energy company with businesses spanning the entire energy value chain means that we have over the years accumulated a wealth of experience and expertise in what we do. Such capabilities and insights are valuable assets for any energy company trying to navigate through today's challenging and ever-changing environment.

### Strength and Foresight

We are keenly aware that the industry is constantly evolving and we must continue to seek improvement in our operations and adapt in order to stay ahead of the competition. Over the years, we have adopted and improved best available and proven technologies that could enhance efficiency and improve our operational performance. We share the view that instead of constantly seeking to reinvent the wheel, we can achieve the best outcomes by combining our expertise with the application of technological advancements.

For example, we have implemented boiler optimisation programmes at our Castle Peak Power Station to reduce nitrogen oxides emissions and increase boiler efficiency.



Conducting study tours to some of the world's smartest cities in the Netherlands, Israel and other countries to gain insights of their digital asset infrastructure, and establishing partnerships with Siemens to further strengthen our smart city capability



We also introduced a nine-day load forecast and alert services based on weather modelling, enabling our customers with large air-conditioning loads to reduce their electricity usage and demands.

Such a mindset also helps to shape how we plan and implement our investment decisions. As energy investments run for decades, we plan for the long-term, taking into account the changing regulatory requirements and evolving market trends. By doing our homework diligently so as to make the best predictions of the future, we are able to make investments that can stand the test of time and save costly investment down the road. One such example was our decision in 2009 to install FGD technology at our Jhajjar power plant – a significant investment although the technology was not required by Indian environmental regulations at the time. FGD is now no longer an option but a standard mandated for coal-fired power plants in India under the country's new and more stringent emissions regulations.

### Digital Age

We are now in the digital age and the energy landscape is changing even faster. On the one hand, utilities need to address the customers' desire to switch to low-carbon fuel sources. On the other hand, the digital revolution has reshaped the playing field of the energy market. Bits and bytes enable new entrants – many of them asset-light and technology-focused – to quickly seize market opportunities.

To compete, we need to capitalise on our existing strengths and capabilities and allocate more resources into developing a new competitive edge. We also need to forge new strategic partnerships that help enrich our knowledge and deepen our insight, while exploring new markets and areas that we have yet to tap into. All of these are part of a journey of innovation that will allow us to stay ahead of the competition.

### Data Power

Like everyone else, one area that is of particular importance to our innovation drive is data. By unlocking the immense potential of data, we can better manage our operations using analytics, seize new business opportunities, and deepen our relationships with customers and stakeholders.

In 2017, we set up a new team of data experts and allocated resources to boost our analytic capabilities. At the same time, we have collaborated with external partners to launch trials and pilots, which apply analytics tools to improve the operational efficiency of our assets and develop our ability to detect anomalies in performance or potential failure. For example, we have carried out a pilot of a smart data platform to optimise the operational performance of our wind and solar plants. For more details, see Manufactured Capital chapter on pages 73-77.

By investing in our data capability, we aim to develop an energy ecosystem that orchestrates the flow of data and applications throughout our business, which will provide a foundation for driving operational innovation and developing new products and services.

### Smart City

The worldwide pursuits of a "smart city" have accelerated in recent years. There are now thousands of smart city projects and pilots underway around the globe. While some of them have begun to take shape, others are still in their infancy stage. In 2017, we conducted learning visits to cities that are recognised as front runners in the field and where energy companies are playing a significant role in the development. The experiences of the world's leaders helped to inform the positioning of CLP as a smart city orchestrator. Our vision is to become a preferred partner for delivering smart city infrastructure and services in each of the markets and regions where we operate.

For instance, we signed a Memorandum of Understanding (MoU) with Siemens Limited in November 2017 in Hong Kong to develop smart city solutions, and we have established a pilot study of Smart Energy Community in support of the Energising Kowloon East project.

Demand response initiative is another area we are looking at. Last year, our peak demand in Hong Kong would have been higher than the 7,155MW on 22 August we reported, had we not utilised some demand response measures to incentivise key customers to lower electricity usage on another hot summer day.

Meanwhile, EnergyAustralia has committed to deliver 50MW of demand response reserve capacity as part of a pilot programme by the Australian Renewable Energy Agency and the Australian Energy Market Operator to keep lights on at times of peak demand, such as on extremely hot days by reducing energy consumption. The capacity will be made available using technologies like remote monitoring systems and battery storage.

### Cyber Security

Today, cyber security has become a key concern for critical infrastructure including power generation and transmission. In 2015, a power grid in Ukraine was crippled by a malware attack, affecting 225,000 people. Similar attacks have happened although few have drawn public attention. The lack of publicity can be explained by the fact that most utility companies are reluctant to discuss such incidents for fear of causing public alarm or damage to brand reputation.



While utility companies rarely talk about their cyber security strategy and encounters, the hackers constantly share information. Such an unequal playing field has put the companies at a disadvantage and so we believe that the industry must work more closely together. To keep up to date in this challenging area, we have taken steps to strengthen our cyber resilience through collaboration with leading international utilities. In June 2017, we leveraged upon the Guangdong, Hong Kong and Macau Power Industry Summit platform to organise a symposium on cyber security issues with our regional partners including China Southern Power Grid, China General Nuclear Power Corporation and Companhia de Electricidade de Macau.

Given the clear threat of cyberattacks, the proper risk management approach is no longer just about how we keep cyber criminals out, but also how we know when our assets or systems are compromised. We must also ensure that we can recover in the shortest time possible with the smallest impact.

To do that, we have been working to establish a threat detection capability for our industrial control systems. We have also made progress in establishing a brand monitoring and protection service at the Group level, including digitally managed online asset protection such as websites and social media presence. We are committed to continuing our efforts to strengthen our system, improve our solutions and shorten the time needed to react and recover in case of an attack.

**Q Small and Medium Enterprises (SMEs) often have limited resources to adopt energy conservation initiatives. How does CLP support SMEs in energy efficiency and conservation (EE&C)?**

**A** CLP provides a wide range of EE&C services to customers. We offer businesses an energy audit service to identify energy saving opportunities, a Meter Online service for better energy management, and an Energy Billboard programme to benchmark energy consumption and help customers better understand their consumption levels.

In addition, CLP has launched a new digital and mobile EE&C service this year called Smart Enterprise that offers tailor-made energy management solutions to our commercial and industrial customers. Riding on an Internet-of-Things platform, Smart Enterprise collects static as well as real-time data through different sensor devices for conducting analysis. Users can monitor and control operating systems on a real-time basis to enhance their operational and energy efficiency with just a few touches on a smart phone screen by using mobile apps. Smart Enterprise provides comprehensive functions to enhance business performance including air-conditioning control, lighting control, sense control, energy management, and security surveillance. These solutions can be used in different business environments including hotels, restaurants, factories, and estate management offices. CLP will continue to introduce and implement new initiatives to support SMEs and encourage energy saving.



**Mr Motonobu Yanai**  
Executive Director & CEO  
A-1 BAKERY CO., (HK) LTD.



**Quince Chong**  
Chief Corporate Development Officer  
CLP Power Hong Kong

We operate in a complex and rapidly changing business environment. Major trends with implications for our human capital are the energy transition to a low carbon economy, the impact of digitalisation on the energy sector, demographic trends and the social and economic consequences of an ageing population, and the future impact of artificial intelligence and robotics on jobs.

At the end of 2017, the Group employed 7,542 people compared with 7,428 in 2016. A total of 4,269 were employed in the Hong Kong electricity and related businesses and 2,978 by our businesses in Mainland China, India, Southeast Asia, Taiwan and Australia, with the remaining 295 employed by CLP Holdings. Total remuneration for the year ended 31 December 2017 was HK\$5,573 million compared with HK\$5,151 million in 2016, including retirement benefit costs of HK\$561 million compared with HK\$440 million in 2016.

**Safety First**

To look after our human capital, we are committed to ensuring the highest standards of safety at every level of our operations and to continually improving our safety performance. We have reduced our injury rates by up to a third over the past eight years. Despite this downward trend, however, we had two fatal accidents resulting in the death of four workers of our contractors in Hong Kong in 2017. A fatality also occurred in March 2017 at a coal plant in Shandong where we have minority ownership but no operating control.

We have conducted thorough investigations into the incidents and an internal panel has looked into their causes and reviewed our safety standards and procedures. It was clear from our analysis that while our injury rates are generally lower, fatal incidents have declined only marginally. In addition, we have studied safety records worldwide as part of our examination for possible remedies and interventions.

Minor injuries such as hand injuries and sprains make up the majority of our injury statistics. However, focusing on them disproportionately does not help us prevent serious injuries and fatalities, which together account for around one in five incidents. We need to focus more intensively on those incidents to reduce serious injuries and fatalities in the workplace.

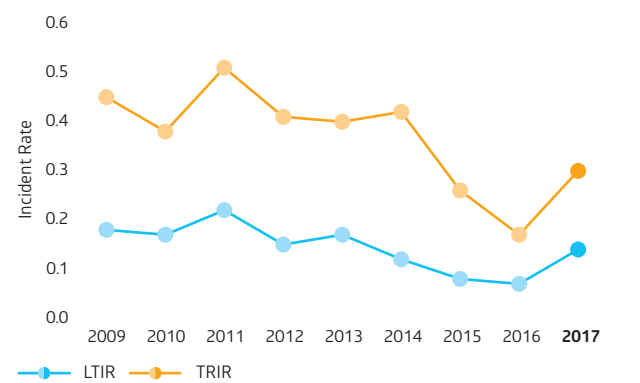
In view of this, we took a number of steps to strengthen our safety management system. We implemented six life-saving rules for employees and contractors involved in higher risk activities, improved reporting and investigation procedures for cases involving potential serious injuries and fatalities, and launched our first Behavioural-based Safety Observation programme in India at Jhajjar in July 2017 which included workshops and training. Similar safety programmes have been adopted in other regions.

We also reviewed in detail how each of our assets and regions addressed safety risks and concluded that a bottom-up approach of detailed risk registers was in place enabling us to ensure safety in our daily operation. In September, a risk management workshop was held where regional representatives shared their views and agreed on a standardised approach going forward.

We have since made progress in the alignment of risk management, setting comparable standards for the security risk framework, identifying generic environmental risks, and enhancing of the review of our HSSE standards and management at Group level. We will continue with the standardised approach and refine it through quarterly HSSE risk reviews so that better information is available for the Group HSSE Committee and for risk management reporting. To ensure this work is coordinated and reported to the highest level of the organisation, we have recruited a new Senior Director for Health, Safety and Environment in 2017 who has also been tasked with reviewing the capabilities of our safety resources, assessing the suitability of the new approach, and addressing any issues found.

The following charts show the safety performance of all CLP employees and contractors in the Group and individual regions in terms of Lost Time Injury Rate (LTIR) and Total Recordable Injury Rate (TRIR) in 2017. Our injury rates saw a notable rise in 2017 mainly because of increases in the number of non-serious incidents in Australia and Hong Kong. Both regions have undertaken safety improvement activities to address their injury performance. For example, safety coaching was made available to employees and contractors in Australia to raise safety and risk awareness.

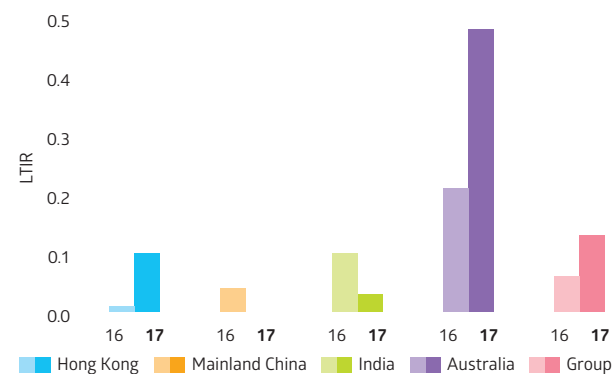
**Group Lost Time Injury Rate and Total Recordable Injury Rate**



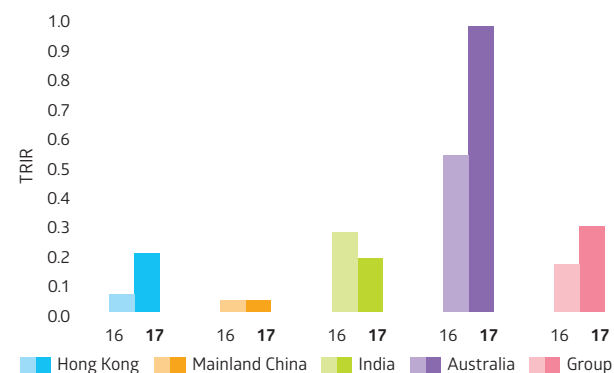
- Notes:
- 1 The LTIR and the TRIR are the number of lost time injuries or recordable injuries measured over 200,000 working hours of exposure, which is equivalent to around 100 persons working for one year.
  - 2 A first aid case at CLP Power Hong Kong in 2016 was reclassified as a medical treatment case.



Lost Time Injury Rate at Group and Regional Levels



Total Recordable Injury Rate at Group and Regional Levels



Building a Sustainable Workforce

To build and maintain a sustainable and innovative workforce, we emphasise diversity, equality of opportunity, competitive benefits, and respect for human rights.

Diversity and Equality of Opportunity

The energy sector is facing transformational change. In this complex environment, it is essential for our leadership team to have diverse thinking and background in order to strengthen organisational decision-making capability, agility, and resilience.

The diversity of our leadership team is shown in the tables below:

Percentage of Group Executive Committee (GEC) members by Gender

Male	69%
Female	31%

Percentage of Group Executive Committee (GEC) members by Nationality

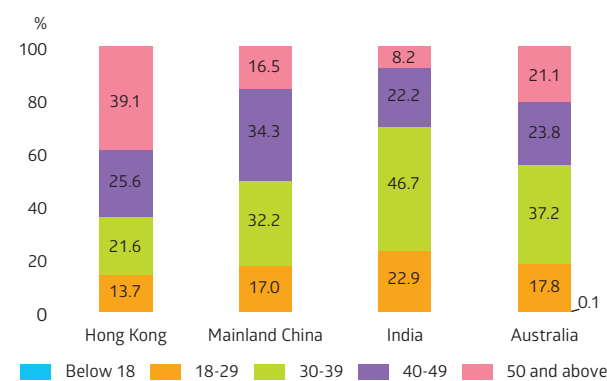
Chinese	23%
European	23%
American / Canadian	15%
Australian / New Zealander	31%
Indian	8%

Note:

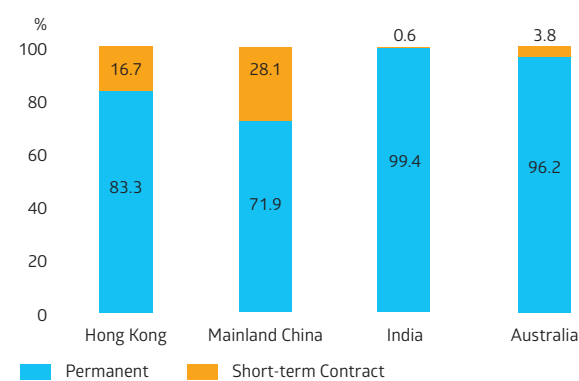
The statistics are based on GEC members' passport nationality, which does not necessarily reflect their ethnic origin.

The diversity of our broader workforce is also important, both as a reflection of the different communities in which we operate, and because a sustainable workforce requires us to have a broad base of recruitment. Workforce diversity, particularly of tenure, also supports innovation capability.

Age Distribution by Region



Employment Type by Region



How we manage diversity must take into account that we operate in countries with very different social and cultural contexts. This means we must be sensitive to differences in culture, values, traditions, and religions, and respect local approaches to the regulation of diversity issues.

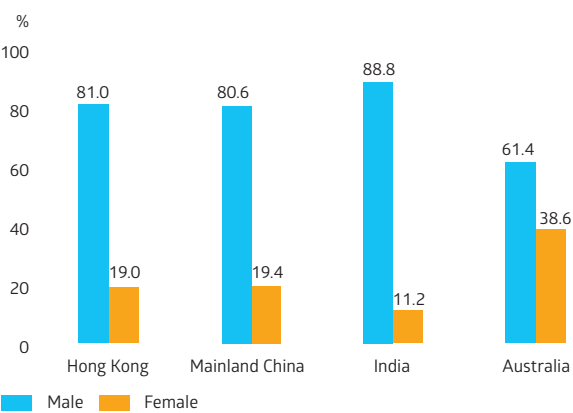
Consequently, we give flexibility to each subsidiary to develop local specific approaches to diversity, within a consistent overall framework.

Diversity, Inclusion and Gender Equality

We focus our efforts on three priorities to improve our gender diversity. These priorities have been chosen because they reflect our business needs, align with the Sustainable Development Goals of the United Nations, and support the social and economic empowerment of women.

In our 2017 independently administered Employee Opinion Survey in Hong Kong, we asked 3,794 staff their opinions on whether CLP is committed to the fair treatment of all employees regardless of age, race, ethnic background, gender, religion, sexual orientation or disability. From the survey, the percentage of staff who agreed or strongly agreed was 37 points above the Hong Kong norm.

Gender Distribution by Region



For further details on these priorities and initiatives taken in 2017, please see our [Sustainability Report](#).



CLP Power Academy facilitates zero-risk learning by applying innovative technologies such as Virtual Reality and Augmented Reality



Competitive and Sustainable Benefits

The ability to attract and retain talent with diverse thinking, background and tenure is essential to maintaining a sustainable workforce. Competitive pay and benefits play a key part in this.

We comply fully with local legal requirements with respect to minimum wage. In practice, our remuneration and benefits often significantly exceed local legal requirements. We place great importance on treating employees fairly, which includes ensuring a fair wage, fair benefits, fair working hours, and fair treatment regardless of gender, race, or other attributes recognised by the laws of the countries in which we operate. We are currently reviewing our policy on remuneration and benefits for our part-time employees in Hong Kong.

In 2017, CLP’s Group Provident Fund Scheme won the inaugural Best Asian Private Pension Fund award from Asia Asset Management, in consultation with National University of Singapore Business School’s Centre for Asset Management Research and Investments. The award recognises our efforts in making a marked improvement for the benefit of our members and beneficiaries, particularly over the last year.

Implementing Family Friendly Policies

We reviewed our family friendly leave policies in Hong Kong in 2017 and announced a number of changes effective 1 January 2018. These include an increase of maternity leave to 16 weeks, enhancement of marriage leave to five days, and the introduction of adoption leave.

Enhancing Employee Wellbeing

We recognise that employee wellbeing extends beyond physical health to mental health. In 2017, 84 managers in Hong Kong attended briefing sessions on the importance of mental health in the workplace.

In our 2017 independently administered Employee Opinion Survey, we asked our staff their opinions on whether our health and wellness programmes have encouraged them to live a healthier lifestyle. The percentage of staff who agreed or strongly agreed was 28 points above the Hong Kong norm.

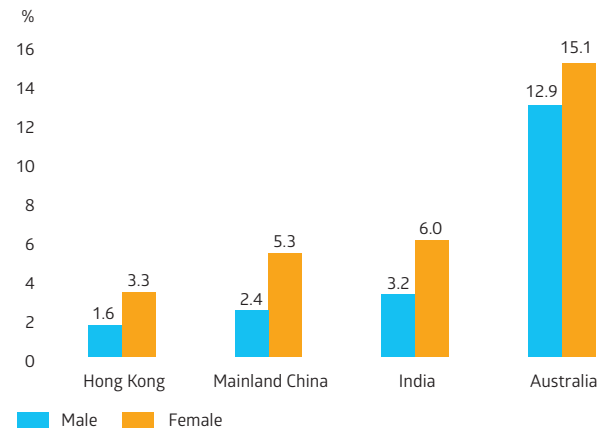
EnergyAustralia has continued its efforts in 2017 with a focus on employee wellbeing and offering resilience training to all employees, along with targeted training in the areas of mental health, and supporting employees impacted directly or indirectly by family violence. In addition, a pilot programme organised in conjunction with the Brotherhood of St Laurence to offer employment within the Geelong Call Center to refugees commenced, with the first person being placed.

In India, an employee assistance programme was launched across all locations and awareness sessions were conducted.

Our ability to retain staff is reflected in the voluntary turnover rates that are generally lower than local market averages. The following charts present our voluntary turnover rates according to age, region and gender.

Voluntary Turnover Rate

By Region and Gender



By Region and Age Group (%)

	Below				50 and above
	18	18-29	30-39	40-49	
Hong Kong	–	2.3	3.2	2.0	1.2
Mainland China	–	8.8	3.3	1.5	–
India	–	4.6	3.4	3.0	2.9
Australia	–	22.7	13.0	10.6	10.5

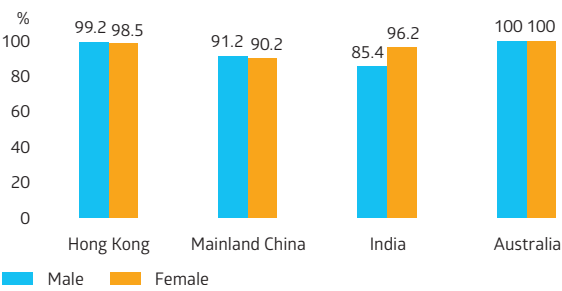
Capability Building

Maintaining our core competencies and building new capability in the areas of new technology and innovation are essential for us to cope with the challenges brought by energy transformation and digitalisation.

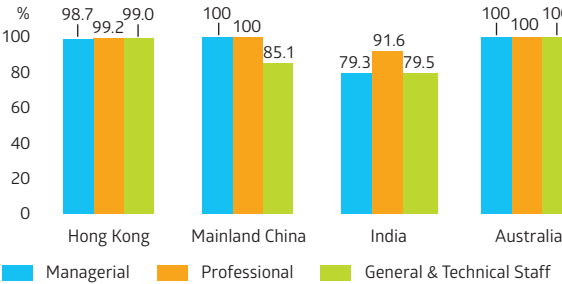
We strengthen organisational capabilities through senior level strategic hires, diversifying recruitment channels, strengthening staff deployment and development processes, making continuous investment in training and development, and leveraging our strategic partnerships with academic institutions.

Employee Training

% of Employees Trained by Region and Gender



% of Employees Trained by Region and Professional Category



We recruited a number of senior level staff globally for different functions including renewable energy, innovation, and big data to enhance our strategic capabilities. We also broadened our recruitment channels to hire young engineering talent to strengthen the engineering talent pipeline. We collaborated with a number of overseas universities to provide industrial placement opportunities for engineering students. For example, six students from the University of New South Wales started their placements in Hong Kong in December 2017.

In addition to our ongoing management development programmes, we have focused our efforts in the areas of innovation and new technologies to build the capabilities of our workforce and to stay aligned with our changing business environment. For example, design thinking workshops were launched to introduce a systematic thinking process of generating user-centric innovation for 40 key staff in Hong Kong. We have also launched the CLP Power Academy in Hong Kong, details of which can be found in the Social and Relationship Capital chapter on pages 87-89.

Our capabilities are also extended and broadened by leveraging external strategic partnerships. Some of the programmes with our strategic partners École polytechnique fédérale de Lausanne (EPFL) and the International Institute for Management Development (IMD) include:

- An online programme on the impact of digital disruption was provided by IMD for 22 senior employees

Average Training Hours per Employee

By Gender	
Male	52.4
Female	29.5

By Professional Category	
Managerial	28.3
Professional	39.7
General & Technical Staff	55.5

By Region	
Hong Kong	57.5
Mainland China	71.3
India	36.4
Australia	18.8

- An executive development programme with EPFL for 20 employees on the impact of new technologies
- Industrial placements for three MSc students from EPFL to work on complex technical challenges as part of their MSc studies
- Technology-related briefings on topics such as solar energy and digital transformation were provided for senior management and the non-executive directors by experts from EPFL, and on energy harvesting using graphene by the University of Manchester Graphene Centre

Respect for Human Rights

Our human resources policies and procedures are intended to ensure that we comply with all local laws and regulations in relation to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and those covering benefits and welfare in the markets where we operate.

Given the technical complexities and ambiguities of some local laws and regulations, the risk of unintended breaches cannot be prevented entirely. We take immediate action to investigate and address any suspected breaches or issues that are brought to our attention.



We also carry out independent audits of our human resources policies and practices to identify any risks of legal non-compliance and take remedial actions if such risks are identified.

Occasionally, there are disagreements with individual employees or unions over the interpretation or application of local laws and regulations. In such cases, we will first attempt to resolve any issues amicably within locally determined procedures. If negotiation or conciliation is not successful, we comply fully with the final decisions of any relevant arbitration, tribunal, or court.

In addition to local legal compliance, we fully respect internationally recognised human rights across our value chain. We recognise that our corporate responsibility to respect human rights extends to our network of suppliers and contractors.

Working in partnership with the independent Danish Institute for Human Rights, in 2017 we completed a pilot due diligence exercise focused on the use of contractor labour in Hong Kong and India. For further information, please see our [Sustainability Report](#).

#### Use of Contractor Labour

A flexible resourcing model is imperative for our business, but it needs to be managed responsibly. Our workforce includes not only our permanent staff, but also short-term contract staff, temporary staff, and labour supplied by external contractors.

It is our priority to strengthen our understanding and reporting of our use of contractor labour. We will begin to report our utilisation of contractor employed labour with effect from 2018. As contractors are not our direct employees, this presents significant data collection and validation issues, and it may therefore take more than one reporting cycle to be able to report fully and completely.

#### Child and Forced Labour

CLP prohibits the employment of child labour or forced labour in any of our operations. We require all our operations to ensure that they do not use child or forced labour.

We have also put an increasing focus on due diligence activities in relation to human rights, and engaged independent consultants to conduct risk assessment regarding our contractor workforce.

In 2017, we did not identify any operation or supplier as having significant risk of child labour, young workers exposed to hazardous work, or forced or compulsory labour. There was no breach of the laws and regulations in relation to child and forced labour across our Group in 2017.

#### Discrimination and Harassment

We have clear policies in place with respect to complaints about discrimination and harassment, supported by employee training. Our Group-wide anti-harassment policy sets a common framework of principles, and our detailed policies in each country are fully compliant with local legislation.

Q

How can CLP prevent serious incident after the two fatal incidents in the past year?

In learning from the two tragic incidents in 2017, we have renewed our efforts on the elimination of hazards that could cause serious injuries or fatalities, and where that is not feasible, we seek to implement engineering controls to reduce the risks to our workforce. We thoroughly investigate all cases with potential for serious injuries in order to learn lessons and share these across the organisation. We understand that policies and procedures are not the only solution to preventing incidents, and we are also focusing on the positive leadership and behaviours needed to drive safety culture improvement. We undertake regular review of the effectiveness of our control measures in managing the risks to our workforce to ensure that we are continually improving. In addition, we are working with our contractors to improve safety performance and we provide clear direction through our corporate HSSE requirements.



**Lily Chau**  
Graduate Trainee  
CLP Power Hong Kong



**Vanessa Forbes**  
Senior Director  
Health, Safety & Environment  
Group Operations

## Social and Relationship Capital

As a business that aims to power the growth of not only this generation, but also the next, a purpose of CLP is to support the sustainable development of the communities in which we operate. To achieve this, we rely on various capitals to create value for our stakeholders. Social and relationship capital helps build the foundation of our reputation and the trust our stakeholders have in CLP. It comprises intangibles such as shared values, commitments and knowledge.

We live in an age of rapid and unsettling change. Technological advances, climate change, and geopolitical instability are reshaping a world that has become increasingly uncertain, unstable and divided. These forces also exacerbate the discontent among the have-nots and the younger generation. As a responsible corporate, we see our role in improving the quality of life of the communities we serve.

#### Shared Values

Philanthropy and social assistance programmes help address social issues. More importantly, instilling a sense of pride, achievement, and self-worth among young people can create opportunities and bring about life-lasting changes. It is an approach that reflects the core belief of CLP's founding Kadoorie family in "helping others to help themselves", which has become a guiding principle for us.

In recent years, discontent in society has grown as young people become disenchanted and lose hope in the future because of the widening social divide and the lack of opportunities. CLP sees the need to focus some of our resources on helping the younger generation. We have set up a dedicated office in 2017 to strengthen coordination and communication between departments involved in CLP's youth engagement and to support initiatives that help young people advance their careers and become more upwardly mobile.

#### Appreciating History

Understanding our past is an essential part to shape a successful future. By understanding where we came from, we can learn to manage change in a sensible and responsible manner, and build a brighter tomorrow.

To help inspire young people to appreciate history and have a more positive outlook on life, we premiered our documentary *A Century of Power* in 2017, which presents the history of CLP and Hong Kong's transformation in parallel. We plan to continue our engagement work through a series of education and outreach programmes in 2018 to further stimulate interest and appreciation of our shared past among young people.

CLP is a long-time supporter of arts and culture. We participated in the city's first light festival, Lumieres Hong Kong, in November as the event's energising partner. At Lumieres Hong Kong, more than a dozen international and local artists mesmerised the city with their creative light installations, art pieces and projections at various heritage landmarks. We took the opportunity to engage with young people and on social media.

#### Nurturing Talent

Education is the most powerful investment in our future. CLP set up its first training school more than half a century ago and has trained thousands of engineers and technical staff. In response to the acute demand for manpower in the industry in Hong Kong due to the large number of infrastructure projects planned or underway and an ageing population, we launched the CLP Power Academy in October to provide well-structured and accredited vocational training programmes for young people who want to pursue careers in the power industry. The academy introduced its first programme, the Professional Diploma in Power Engineering, in partnership with the Vocational Training Council and received more than 170 applications for 40 available places. The academy plans to roll out more diploma and degree programmes in 2018 for people within the trade who want to advance their careers, and non-degree school leavers.

To promote the electrical and mechanical trade and raise the social status of technical workers, CLP Power teamed up with the Electrical and Mechanical Trade Promotion Group in September to welcome more than 800 apprentices into the E&M sector. Through these initiatives, we hope to raise awareness of the industry and help young people to advance their career and achieve upward mobility.



In 2017, we continued our education initiatives which cover the learning journey from kindergarten to university. Details can be found in the Hong Kong Business Performance and Outlook chapter on pages 38-44.



Green Elites Campus Accreditation Programme



CLP Power Low Carbon Energy Education Centre



POWER YOU kindergarten education kit



Green Studio



Engineer in School



CLP Holdings Professorship in Sustainability

## External Engagement

In 2017, CLP continued its engagement activities through participation in and support of lectures, seminars and conferences, covering topics from innovation to climate change. More details can be found in our [Sustainability Report](#).

In the past year, CLP senior executives continued their active participation in external conferences and forums. For example, CEO Richard Lancaster and CLP Power Managing Director TK Chiang spoke at the Business Environment Council's EnviroSeries Conference in Hong Kong on smart city. Senior Director – Innovation Austin Bryan shared his insights on digital transformation and the opportunities available at the CIO Leadership Forum in Hong Kong. At the United Nations

Climate Change Conference COP23 in Bonn in November, Director – Group Sustainability Dr Jeanne Ng spoke about CLP's sustainability efforts at the Energy Day.

## Bridging Gaps

### Closing Gender Gap

Social inclusion is a key focus across the CLP Group. In Australia, we encouraged more women and girls to study to become engineers by teaming up with the non-profit group Power of Engineering. The partnership was formed after the newly-established Social Investment Committee of EnergyAustralia decided to champion the themes of education and social inclusion.

India has made great strides in the empowerment of women over the decades but Indian women still have some grounds to cover with respect to financial independence. CLP India believes women empowerment is family empowerment, and much can be achieved by equipping women with the necessary skills and resources. For example, we support women in communities near our assets to form micro-savings or credit societies. These societies not only teach them financial management skills but also give them access to low-cost capital enabling them to improve livelihoods through income generating activities.

## Poverty Alleviation

People who live in sub-divided units are among the least fortunate in Hong Kong. Despite their poor living conditions, they lack adequate social protection. To ease their financial

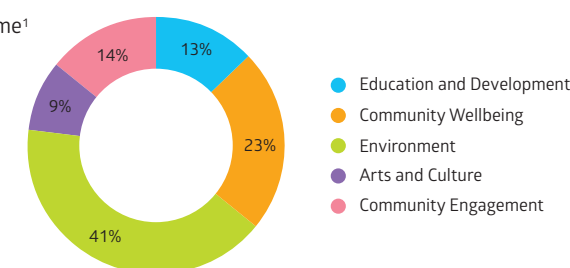
burden, CLP has lowered their electricity bills through donations made available by the Power Your Love programme. In 2017, around 10% of beneficiaries of the programme were people who lived in sub-divided units. CLP also supported the Community Housing Movement led by the Hong Kong Council of Social Service by providing underprivileged households with energy efficient electric appliances.

In Australia, the cost of energy has increased across the country impacting financially disadvantaged households. EnergyAustralia supported vulnerable customers in a number of ways – through payment plans, matching payment opportunities, debt waivers and appliance swaps. In June, the company announced an additional A\$10 million for financial and other support for some of its most vulnerable customers.

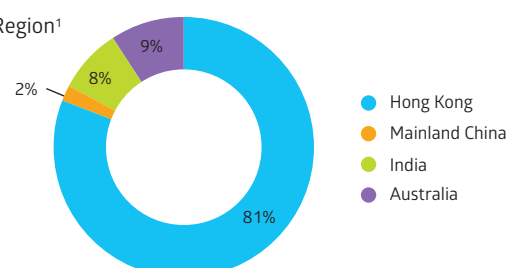
## CLP's Community Initiatives in 2017

### Our Community Spending

By Theme<sup>1</sup>



By Region<sup>1</sup>

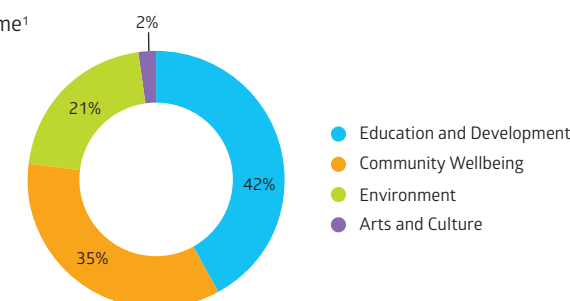


### Our Beneficiaries



439,612 direct beneficiaries

By Theme<sup>1</sup>



451 organisations benefitted



647 programmes were implemented

### Contributing Our Time and Expertise



19,945 volunteering hours by CLP staff and family members

Note:

<sup>1</sup> Figures include rounding adjustments.



# Natural Capital

CLP is committed to managing the short-term and long-term impact of our business on the environment in a responsible manner. This commitment is an essential counterbalance to the greenhouse gas, waste, and emissions which our business unavoidably produces through our reliance on natural resources such as fuels and water.

## Moving Towards a Low Carbon Future

We were among the first power utilities in the world to commit to a carbon reduction pathway. Our climate change journey began back in 2004, when we published our first renewable energy target of 5% of our overall generation capacity within six years. In 2007, we set a carbon intensity reduction target of around 75% by 2050 compared with 2007 levels, based upon scenarios presented in the Energy Technology Perspectives 2006 from the International Energy Association (IEA). This target became the cornerstone of our Climate Vision 2050, and was supported by a series of interim carbon emissions intensity targets in 2010, 2020, and 2035.

In 2010, our Climate Vision 2050 was updated and the 2020 carbon intensity target was stepped up from 0.7kg CO<sub>2</sub>/kWh – a reduction of around 15% from 2007 levels – to 0.6kg, a reduction of around 30%. Having already met our 5% target, we set a new 2020 renewable energy target of 20% and a non-carbon emitting energy target, which includes nuclear power, for the same year of 30%.

## Reviewing Our Climate Vision 2050

A great deal has changed in the climate change arena since 2007. Most world leaders have signed up to the Paris Agreement and there have been giant strides in climate change science, technology and social expectations.

In reviewing our Climate Vision 2050 in 2017, we carried out scenario analyses to test the impact on our business of varying speeds of transition to a low carbon future in our markets, along with different options for implementing our approach. We developed realistic simulations of how our business would look under slow, medium, and fast transition scenarios and set them against the IEA's Energy Outlook 2016 projections for world and regional energy development. It transpired that the targets we set a decade ago had predicted the future relatively well and were close to the medium-speed scenario that assumes countries will meet the targets set out in the Paris Agreement.

Although our original targets still appeared valid considering the anticipated pace of change in our region, we believed there was room for improvement. Now, to further support the Paris Agreement goals, we have set even more ambitious targets:

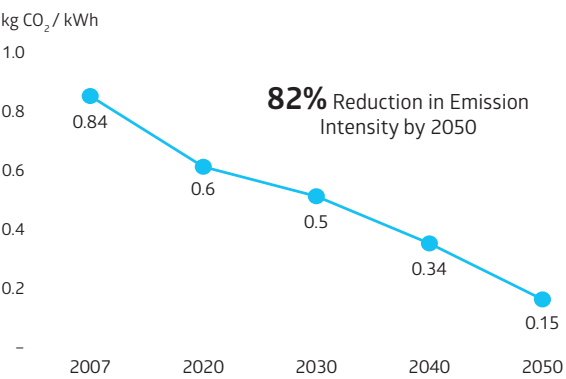
- **Tightening of our cornerstone carbon intensity reduction target from 75% to 82% by 2050** compared with 2007;

- **Developing new interim carbon intensity reduction targets of 40% by 2030 and 60% by 2040** compared with 2007. We have taken away the previous interim target for 2035 to align with the Paris Agreement timeline as well as the United Nations Sustainable Development Goals, which focus mostly on 2030; and
- **Establishing a renewable energy target of 30% and a non-carbon emitting target of 40% by 2030**, considering the growing significance of solar and wind in new capacity additions globally.

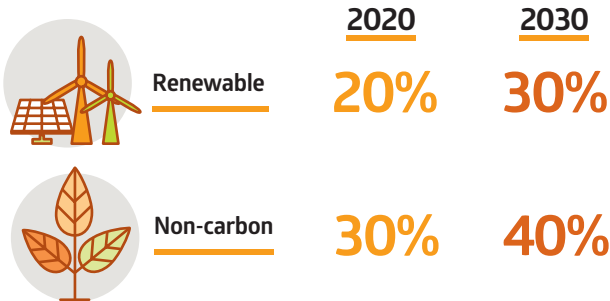
The updated targets build on the optimism of our original aspirational, science-based trajectory, but take into consideration the realities of the development of energy markets in the Asia-Pacific region. We believe these new targets are challenging and ambitious and we will review them regularly to ensure that we take into account the momentum of change over time. For a more holistic picture of power capacity requirements, we will also begin to report our progress on these targets on a basis that includes capacity purchase in addition to facilities we own. The two new targets on renewable energy and non-carbon emitting energy for 2030 will also take into account the capacity purchase we make.

### CLP's Climate Vision 2050 – Our New Targets

#### Energy Transition Targets



#### Clean Energy Targets



In 2017, the carbon intensity of our Group's equity generation fell to 0.80kg CO<sub>2</sub>/kWh from the 2016 level of 0.82kg. This was mainly due to decreased output from Castle Peak Power Station in Hong Kong, and Mount Piper and Yallourn power stations in Australia, an increase of output from the more fuel-efficient Tallawarra Power Station in Australia, as well as more generation from several renewable assets completing their first full year of operation in 2017. The significant reduction of generation from less efficient coal plants and rise in output from a more efficient gas power plant in Australia meant lower carbon emissions per unit of electricity sent out.

The 2017 intensity figure would be lower at 0.69kg CO<sub>2</sub>/kWh if calculated on an equity plus capacity purchase basis. This is because most of our capacity purchase is generated from nuclear and renewable energy.

Meanwhile, in 2017, our investment in Yangjiang Nuclear Power Co., Ltd. has lifted our non-carbon generation capacity from 19.2% to 22.4% of our total capacity calculated on an equity basis and 23.2% on an equity plus capacity purchase basis. However, our divestment in wind power projects in China and the increase of nuclear capacity contributed to a fall in the share of renewable energy in our portfolio from 16.6% to 14.2% on an equity basis and 13.1% on an equity plus capacity purchase basis.

## Reducing Our Impact on the Environment

In CLP's Value Framework, we commit to continuously improving our environmental performance in line with technological advances and evolving stakeholder expectations. We have a Group Environmental Policy Statement, which is supported by a range of standards and guidelines at the Group and business unit levels to address the environmental issues we face, including the HSSE Management Standard and the Power Plant Emissions Standard for example.

We require power generation facilities over which we have operational control to achieve third-party certified ISO14001 environmental management certification within two years of acquisition or the beginning of operations. We are pleased to report that in 2017, all assets in this category obtained the certification on time. We are upgrading our ISO14001:2004 systems to the ISO14001: 2015 standard, with several of our plants including Jhajjar and Paguthan in India and Jiangbian, Sihong and Qian'an in Mainland China completing their upgrades in 2017.



The CLP Power Low Carbon Energy Education Centre at City University of Hong Kong provides an innovative and interactive platform for raising public awareness on climate change and the importance of low carbon energy sources



We also continued expanding and strengthening our data governance and management system to ensure our data reporting and analytical work is robust. CLP's recent performance in key environmental categories is summarised in the table below.

Environmental Category	Aspect	Parameters	2017	2016
Emissions	Greenhouse gases	Total CO <sub>2</sub> emissions (from power generation) Carbon intensity	<b>47,921kT</b> <b>0.80kg CO<sub>2</sub> per kWh / 0.69kg CO<sub>2</sub> per kWh<sup>1</sup></b>	46,518kT 0.82kg CO <sub>2</sub> per kWh / 0.72kg CO <sub>2</sub> per kWh <sup>1</sup>
	Air pollutants	Total SO <sub>2</sub> emissions	<b>81.6kT</b>	71.2kT
		Total NO <sub>x</sub> emissions	<b>59.3kT</b>	58.1kT
		Total particulate matter emissions	<b>8.3kT</b>	8.5kT
Resource Use	Water discharged	Total water discharged	<b>4,437.7 Mm<sup>3</sup></b>	4,219.2 Mm <sup>3</sup>
	Waste	Total solid waste produced	<b>21,191T</b>	9,619T
		Total liquid waste produced	<b>1,523kl</b>	1,335kl
	Fuel	Total coal consumed	<b>471,976TJ</b>	453,904TJ
		Total gas consumed	<b>91,426TJ</b>	86,787TJ
		Total oil consumed	<b>5,069TJ</b>	4,162TJ
		Non-carbon %	<b>22.4% / 23.2%<sup>1</sup></b>	19.2% / 20.7% <sup>1</sup>
	Renewable energy %		<b>14.2% / 13.1%<sup>1</sup></b>	16.6% / 14.9% <sup>1</sup>
Water	Total water withdrawal		<b>4,480.8 Mm<sup>3</sup></b>	4,257.0 Mm <sup>3</sup>

Note:  
<sup>1</sup> Equity basis/Equity basis and capacity purchase arrangements.

Air Emissions

Our total air emissions rose to 149.2kT in 2017, mainly due to a significant increase in generation from Jhajjar in India driven by greater demand from our customer. We continued to invest in maintaining our standards of efficiency for our plants and to meet increasingly stringent regulations on emissions and fuel efficiency across different jurisdictions. An example is our emissions control retrofit at Fangchenggang Power Station in Mainland China.

Waste

Our total solid waste increased to 21,191T in 2017 because of construction at our Black Point Power Station in Hong Kong. Waste programmes continued to be implemented at our assets across the Group in 2017. For example, air-conditioners and air conditioning chillers at Castle Peak Power Station in Hong Kong were replaced as part of a rolling programme to phase out the use of refrigerant compound HCFCs. At Jhajjar Power Station in India, an oil filtering system was installed during the year through which approximately 11,000 litres of oil was filtered and reused.

Water

In 2017, we continued implementing initiatives to improve our water use, including optimising the cooling water system at Jhajjar in India. In Fangchenggang of Mainland China, we implemented a water recycling system which collects water from the coal yard, treats and stores for reuse in the coal yard water spraying system to suppress the dust of coal piles and for general cleaning of the coal plant. The quantity of water withdrawal and discharge in CLP's operations is dominated by thermal plants using once-through seawater cooling where very large quantities of seawater are used for cooling and returned to the sea with only a slight increase in temperature. In 2017, commencement of operation at Fangchenggang II and higher generation at Tallawarra in Australia resulted in an overall increase in water withdrawal and discharge.

Environmental Regulatory Compliance

In 2017, there were 13 licence limit exceedances for particulate emissions at Jhajjar in India, which were minor incidents that did not result in any penalties. This was related to the significantly greater use of Jhajjar during the year and overall, Jhajjar has reduced its particulate matter emissions per unit of electricity sent out.

For the year ending 31 December 2017, there were no environmental non-compliance incidents resulting in fines or prosecution at any of our operating sites. In 2016, some environmental and forestry land damages occurred relating to the construction of Sandu I Windfarm in Guizhou. All site environment restoration and seasonal revegetation works were completed in 2017.

Environmental Regulatory Non-Compliances and Licence Exceedances					
	2017	2016	2015	2014	2013
Environmental regulatory non-compliances resulting in fines or prosecutions	<b>0</b>	0	1	1	0
Environmental licence limit exceedances & other non-compliances	<b>13</b>	2	13	3	4

Upcoming and Emerging Schemes and Regulations


In China, a nationwide carbon trading scheme, which we have outlined in the Mainland China Business Performance and Outlook chapter on pages 45-50, was recently launched and the government has also issued Guideline on Designation of Ecological Protection Zone. We are keeping a close eye on these developments to ensure compliance of our projects and formulating our action plans in response. In India, coal-fired power stations face more stringent requirements on emissions of particulates, nitrogen oxides, sulphur dioxide, and mercury, as well as water uses. We have also taken note of the new national standards in Australia on phasing out the use of a group of perfluorinated chemicals although the standards have not yet been incorporated into state legislations. EnergyAustralia is investigating the extent and risk profile of the impact of the chemicals at its sites.

Q


I understand CLP has plans to increase the usage of gas to replace coal for power generation in Hong Kong to help reduce air pollution. But that will lead to higher cost and put pressure on our electricity bills. Since we have many days with abundant sunshine here, would CLP consider making better use of solar power? Would it be possible to install floating solar panels on major reservoirs to absorb sunlight and use it for power generation?

A

CLP supports the development of renewable energy and has investments in over 2,700MW of renewable energy in its portfolio. Hong Kong presents practical and economic challenges given the significant land requirements for renewable energy facilities as well as its high land prices. CLP currently supports customers' projects to connect to our grid through simplified connection procedures. In the future, CLP will also introduce new initiatives such as Feed-in Tariff (FiT) and Renewable Energy Certificates (RECs) to encourage renewable energy development as part of the new SoC. The FiT scheme will provide financial incentives for customers to connect their renewable systems to the grid. Customer who cannot install their own renewable energy systems will be able to support renewable energy development through the purchase of RECs backed by locally-generated renewable electricity. In addition, we are working closely with the Government on floating solar projects at sites including Shek Pik and Plover Cove reservoirs.



Mr Leung Ngan Kwan  
CLP Shareholder



Rick Truscott  
Chief Operating Officer  
CLP Power Hong Kong



# Governance

Ting Kau Bridge, Hong Kong

Good corporate governance is a key enabler of long-term value creation, which enhances our credibility and safeguards the interests of our stakeholders



## Board of Directors

### Non-executive Directors



#### The Honourable Sir Michael Kadoorie • Chairman

GBS, LLD (Hon.), DSc (Hon.)

Aged 76 • Appointed on 19 January 1967\* Chairman

**Expertise** Global market experience Other listed board roles Related industry experience (Power / Property) Other industries (Aviation / Travel & leisure)

#### Titles, Qualifications and Education

Gold Bauhinia Star  
Commandeur de la Légion d'Honneur  
Commandeur de l'Ordre des Arts et des Lettres  
Commandeur de l'Ordre de la Couronne  
Commandeur de l'Ordre de Leopold II

#### Other major offices

- The Hongkong and Shanghai Hotels, Ltd. (Non-executive Chairman)  
Sir Elly Kadoorie & Sons Ltd. (Director)  
Heliservices (Hong Kong) Ltd. (Chairman)
- CK Hutchison Holdings Ltd. (Independent Non-executive Director)



#### William Elkin Mocatta • Vice Chairman

FCA

Aged 64 • Appointed on 16 January 1993\* Chairman Chairman

**Expertise** Global market experience Other listed board roles Professional (Accounting) Related industry experience (Power / Property)

#### Titles, Qualifications and Education

Fellow of The Institute of Chartered Accountants  
in England and Wales

#### Major positions held with the Group

CLP Power Hong Kong Ltd. (Chairman)  
Castle Peak Power Company Ltd. (Chairman)  
CLP Properties Ltd. (Chairman)

CLP Property Investment Ltd. (Chairman)

Hong Kong Pumped Storage Development Company, Ltd. (Chairman)

#### Other major offices

- The Hongkong and Shanghai Hotels, Ltd. (Non-executive Director)  
Sir Elly Kadoorie & Sons Ltd. (Executive Director)
- CK Hutchison Holdings Ltd. (Alternate Director)



#### John Andrew Harry Leigh

Aged 64 • Appointed on 10 February 1997\*

**Expertise** Company executive Global market experience Other listed board roles Professional (Legal) Related industry experience (Power / Property)

#### Other major offices

- The Hongkong and Shanghai Hotels, Ltd. (Non-executive Director)  
Sir Elly Kadoorie & Sons Ltd. (Director)

#### Past experience

Prior to joining the CLP Group in 1986, Mr Leigh was in private practice as a solicitor in Hong Kong and the UK. He was the Senior Legal Advisor, Company Secretary and General Manager – Corporate Affairs in the CLP Group between 1986 and 1996.



#### Andrew Clifford Winawer Brandler

MA, MBA, ACA

Aged 61 • Appointed on 6 May 2000

**Expertise** Company executive Global market experience Other listed board roles Professional (Accounting / Banking and Finance) Related industry experience (Power)

#### Titles, Qualifications and Education

Member of The Institute of Chartered Accountants  
in England and Wales  
Master of Arts, the University of Cambridge  
Master in Business Administration, Harvard Business School

#### Major positions held with the Group

EnergyAustralia Holdings Ltd. (Director)

#### Other major offices

- The Hongkong and Shanghai Hotels, Ltd. (Non-executive Deputy Chairman)  
Sir Elly Kadoorie & Sons Ltd. (Chairman)

- Tai Ping Carpets International Ltd. (Non-executive Director)

- MTR Corporation Ltd. (Independent Non-executive Director)

#### Public service

Hong Kong Golf Association Ltd. (Alternate Director)  
The Chinese International School Foundation (Chairman of the Board of Governors)

#### Past experience

Mr Brandler was the Group Managing Director and Chief Executive Officer of CLP Holdings from 6 May 2000 to 30 September 2013. He continued to serve on the Board of CLP Holdings as an Executive Director until his redesignation as a Non-executive Director on 1 April 2014.

Audit & Risk Committee

Finance & General Committee

Human Resources & Remuneration Committee

Nomination Committee

Provident & Retirement Fund Committee

Sustainability Committee



#### Lee Yui Bor

BSc, MSc, PhD, DIC, C.Eng., MIET, FHKIE

Aged 71 • Appointed on 4 August 2003

**Expertise** Company executive CLP market experience (China) Professional (Engineering) Related industry experience (Power)

#### Titles, Qualifications and Education

Chartered Engineer  
Fellow of the Hong Kong Institution of Engineers  
Honorary Fellow of the Association of the Electricity Supply  
Industry of East Asia and the Western Pacific  
(as President in 1992)  
Bachelor of Science in Electrical Engineering, the University  
of Hong Kong  
Master of Science, Imperial College, the University of London  
Doctor of Philosophy, the University of Bath (UK)

#### Other major offices

Heliservices (Hong Kong) Ltd. (Director)  
Longmen Group Ltd. (Chairman)  
Metrojet Ltd. (Director)  
The University of Hong Kong (Honorary Professor)

#### Past experience

Dr Lee first joined the CLP Group in 1976 and retired as an Executive Director of CLP Holdings in 2007.

### Independent Non-executive Directors



#### Vernon Francis Moore

BBS, FCA, FCPA

Aged 71 • Appointed on 7 March 1997\* Chairman

**Expertise** Company executive CLP market experience (Australia / China / India) Global market experience Other listed board roles Professional (Accounting) Related industry experience (Power / Property / Steel infrastructure) Other industries (Aviation / Banking / Mining)

#### Other major offices

- CITIC Ltd. (Personal advisor to the Chairman)  
CITIC Mining International Ltd. (Executive Director)  
CITIC Pacific Ltd. (Executive Director)  
New Hong Kong Tunnel Company Ltd. (Non-executive Chairman)  
Western Harbour Tunnel Company Ltd. (Non-executive Chairman)

#### Public service

The Community Chest (Deputy Chairman of the Executive Committee)  
Asia Society Hong Kong Center (Trustee)

#### Past experience

Mr Moore was an executive director of CITIC Ltd. from 1990 to 2014 and chief financial officer from 1990 to 2005 and 2008 to 2014. He was also a non-executive director of Cathay Pacific Airways Ltd. from 1992 until 2009 (except June to September 1996).



#### Sir Roderick Ian Eddington

AO

Aged 68 • Appointed on 1 January 2006

**Expertise** Company executive CLP market experience (Australia) Global market experience Other listed board roles Professional (Banking and Finance / Engineering) Other industries (Aviation)

#### Titles, Qualifications and Education

1974 Rhodes Scholar, the University of Western Australia  
Doctor of Philosophy in the Department of Engineering Science,  
the University of Oxford

JP Morgan Chase Bank N.A.  
(Non-executive Chairman (Asia Pacific Advisory Council))  
Lion Pty Ltd. (Non-executive Chairman)

#### Other major offices

- 21st Century Fox (split from News Corporation)  
(listed on NASDAQ) (Non-executive Director)  
John Swire & Sons Pty Ltd. (Non-executive Director)

#### Past experience

Sir Rod Eddington was the Chief Executive of British Airways plc from 2000 until he retired on 30 September 2005. He has close connections with Hong Kong through his previous directorships with Cathay Pacific Airways Ltd. , Swire Pacific Ltd. and Hong Kong Aircraft Engineering Company Ltd. during the period from 1988 to 1996.



#### Nicholas Charles Allen

Aged 62 • Appointed on 12 May 2009

**Expertise** Global market experience Other listed board roles Professional (Accounting) Related industry experience (Property-related / Retail)

#### Titles, Qualifications and Education

Fellow of The Institute of Chartered Accountants  
in England and Wales  
Member of The Hong Kong Institute of Certified Public  
Accountants  
Bachelor of Arts in Economics / Social Studies, the University  
of Manchester (UK)

#### Other major offices

- Link Asset Management Ltd. (as manager of The Link Real Estate Investment Trust) (Independent Non-executive Chairman)
- Lenovo Group Ltd. (Independent Non-executive Director)

#### Past experience

Mr Allen joined Coopers & Lybrand (C&L) in London in 1977 and was transferred to C&L Hong Kong in 1983. He was admitted to partnership in C&L Hong Kong in 1988, which was subsequently merged with Price Waterhouse into PricewaterhouseCoopers (PwC) in 1998. Mr Allen retired from PwC in 2007.



Board of Directors

Independent Non-executive Directors



**Cheng Hoi Chuen Vincent**  
GBS, OBE, JP  
Aged 69 • Appointed on 17 August 2011

HChairman

F&G

N

Expertise

Company executive

CLP market experience (China)

Other listed board roles

Professional (Banking and Finance)

**Titles, Qualifications and Education**  
Gold Bauhinia Star  
Order of the British Empire  
Justice of the Peace  
Bachelor of Social Science in Economics, the Chinese University of Hong Kong  
Master of Philosophy in Economics, the University of Auckland

**Other major offices**  
⌚ CK Hutchison Holdings Ltd. (Independent Non-executive Director)  
⌚ China Minsheng Banking Corp., Ltd. (Independent Non-executive Director)

⌚ Great Eagle Holdings Ltd. (Independent Non-executive Director)

⌚ Hui Xian Asset Management Ltd. (as manager of Hui Xian Real Estate Investment Trust) (Independent Non-executive Director)

⌚ MTR Corporation Ltd. (Independent Non-executive Director)

⌚ Shanghai Industrial Holdings Ltd. (Independent Non-executive Director)

⌚ Wing Tai Properties Ltd. (Independent Non-executive Director)

**Past experience**  
Mr Cheng was the Adviser to the Group Chief Executive of HSBC Holdings plc ⌚ (June 2011 to May 2012), Chairman of The Hongkong and Shanghai Banking Corporation Ltd., HSBC Bank (China) Company Ltd. and HSBC Bank (Taiwan) Ltd. between 2005 and 2011, an Executive Director of HSBC Holdings plc (2008 to 2011), and a Non-executive Director of HSBC Bank (Vietnam) Ltd. (2008 to 2010).



**Law Fan Chiu Fun Fanny**  
GBM, GBS, JP  
Aged 65 • Appointed on 17 August 2011 and reappointed on 1 August 2012

A

S

Expertise

CLP market experience (China)

Other listed board roles

Public administration

Technology

**Titles, Qualifications and Education**  
Grand Bauhinia Medal  
Gold Bauhinia Star  
Justice of the Peace  
Bachelor of Science (Hon.), the University of Hong Kong  
Master in Public Administration, Harvard University (Littauer Fellow)  
Master in Education, the Chinese University of Hong Kong

**Other major offices**  
⌚ China Resources (Holdings) Co., Ltd. (External Director)  
⌚ China Unicom (Hong Kong) Ltd. (Independent Non-executive Director)  
⌚ DTXS Silk Road Investment Holdings Company Ltd. (Independent Non-executive Director)  
Fan Family Trust Fund (Director)  
⌚ Nameson Holdings Ltd. (Independent Non-executive Director)

**Public service**  
12<sup>th</sup> National People's Congress of the People's Republic of China (Hong Kong SAR Deputy)  
China-US Exchange Foundation (Special Advisor)  
Hong Kong Science and Technology Parks Corporation (Chairperson)  
Ningbo Huizhen Academy (Honorary Principal)  
The Government of Hong Kong SAR (Member of the Executive Council)

**Past experience**  
Prior to her retirement from the civil service in 2007, Mrs Law was the Commissioner of the Hong Kong Independent Commission Against Corruption. During her 30 years in the civil service, Mrs Law has worked in many fields, including medical and health, economic services, housing, land and planning, home affairs, social welfare, civil service, transport and education.



**Lee Yun Lien Irene**  
Aged 64 • Appointed on 15 October 2012

A

F&G

S

Expertise

Company executive

Global market experience

Other listed board roles

Professional (Legal)

Related industry experience (Property-related / Retail)

Other industries (Aviation)

**Titles, Qualifications and Education**  
Member of the Honourable Society of Gray's Inn, UK  
Barrister-at-Law in England and Wales  
Bachelor of Arts, Smith College (USA)

**Other major offices**  
⌚ Hysan Development Company Ltd. (Executive Chairman)  
⌚ Cathay Pacific Airways Ltd. (Independent Non-executive Director)


⌚ Hang Seng Bank Ltd. (Independent Non-executive Director)

⌚ HSBC Holdings plc (Independent Non-executive Director)  
The Hongkong and Shanghai Banking Corporation Ltd. (Independent Non-executive Director)

**Past experience**  
Ms Lee has held senior positions in investment banking and fund management in a number of renowned international financial institutions.

\* The date given is that of appointment to the Board of China Light & Power Company, Ltd., the holding company of the CLP Group prior to the Group Reorganisation in 1998. All of these Directors were appointed to the Board of CLP Holdings on 31 October 1997.

⌚ The securities of these companies are currently listed on the Hong Kong Stock Exchange or overseas stock exchange(s).



**Zia Mody**  
LLM  
Aged 61 • Appointed on 2 July 2015

H

Expertise

CLP market experience (India)

Other listed board roles

Professional (Legal)

Technology

**Titles, Qualifications and Education**  
Member of the New York State Bar by examination  
Advocate with the Bar Council of Maharashtra and Goa  
Bachelor of Laws, the University of Cambridge  
Master of Laws, Harvard Law School

**Other major offices**  
⌚ Ascendas Property Fund Trustee Pte. Ltd. (as the trustee-manager of Ascendas India Trust) (listed on Singapore Exchange Ltd.) (Independent Director)  
AZB & Partners (AZB) (Senior Partner)  
The Hongkong and Shanghai Banking Corporation Ltd. (Independent Non-executive Deputy Chairman)

**Public service**  
Cambridge India Research Foundation (Non-executive Director)  
ICCA Foundation, Inc. (the International Council for Commercial Arbitration) (Non-executive member of the Governing Board)  
J. B. Petit High School for Girls (Trustee)  
London Court of International Arbitration (India) Private Ltd. (Director)

**Past experience**  
Mrs Mody worked as a corporate associate at Baker & McKenzie in New York for five years before establishing the Chambers of Zia Mody in India in 1984, which then became AZB in 2004.

Executive Directors



**Richard Kendall Lancaster • Chief Executive Officer (CEO)**  
BE  
Aged 56 • Appointed on 3 June 2013

S

F&G

Expertise

Company executive

CLP market experience (Australia / China / India)

Global market experience

Professional (Engineering)

Related industry experience (Power)

**Titles, Qualifications and Education**  
Bachelor of Engineering in electrical engineering, the University of New South Wales

**Public service**  
Business Environment Council (Chairman)  
World Business Council for Sustainable Development (Council Member) (a member of the Climate and Energy Cluster Board)  
Hong Kong Management Association (Fellow)  
The Australian Chamber of Commerce Hong Kong & Macau (Founding member of the Advisory Council)

UNSW Hong Kong Foundation (Board Member)  
World Energy Council (Hong Kong Member Committee) (Chairman)

**Past experience**  
Prior to assuming his role of CEO in September 2013, Mr Lancaster was the Managing Director of CLP Power Hong Kong for three years, responsible for its electricity generation, transmission and distribution business and service to its customers in Hong Kong. He began his career with the Electricity Commission of New South Wales in Australia and has more than 30 years of experience in the power industry and in other industrial operations in Australia, UK and Hong Kong. Mr Lancaster joined CLP in 1992 and has held a variety of managerial positions in CLP. His experience covers project management, power plant operations, commercial, finance, legal and corporate functions.



**Geert Herman August Peeters • Chief Financial Officer (CFO)**  
MSc(Eng.), CEng(Belgium), ICPA  
Aged 54 • Appointed on 1 January 2016

F&G

P

Expertise

Company executive

CLP market experience (Australia / China / India)

Global market experience

Professional (Engineering)

Related industry experience (Power)

**Titles, Qualifications and Education**  
Knight in the Order of King Leopold  
Master of Science in electro mechanical engineering (hons. RUG Gent, Belgium)  
Postgraduate degree in business and IT administration (HEC Brussels, Belgium)  
Executive business training, INSEAD Paris, France  
International Certified Professional Accountant

**Public service**  
CNBC Global CFO Council (Member)  
International Integrated Reporting Council (Member)

**Past experience**  
Mr Peeters has been the Group Director & CFO since 1 April 2014. He was appointed the Executive Director and Chief Financial Officer of CLP Holdings with effect from 1 January 2016 with additional responsibility for Group business development oversight. He has over 25 years of experience in the energy industry. Prior to joining CLP, he was the Deputy Chief Financial Officer of GDF SUEZ (now known as ENGIE) Group based in Paris and Executive Director and CFO of International Power plc, a ENGIE subsidiary formerly listed on the London Stock Exchange and part of the FTSE 100. Mr Peeters was with GDF SUEZ from 1997 to 2013, gaining extensive experience in senior financial and operational roles in Europe, Latin America, the Middle East and North America.

Full particulars of [Directors](#), including their directorships in the subsidiary companies of CLP Holdings, other directorships held in the last three years in public listed companies and other major appointments are available on our website. Directorships in listed companies include service on both the Boards and Board Committees. [📄](#)



# Senior Management



From left to right

Front row: Derek Parkin, Geert Herman August Peeters, Richard Kendall Lancaster, Yuen So Siu Mai Betty, Chiang Tung Keung

Back row: Roy Anthony Massey, Chong Wai Yan Quince, David John Simmonds, Chan Siu Hung, Catherine Leigh Tanna, Rajiv Ranjan Mishra

- **Richard Kendall Lancaster**  
**Chief Executive Officer**  
Mr Lancaster's biography is on page 99.

- **Geert Herman August Peeters**  
**Executive Director & Chief Financial Officer**  
Mr Peeters' biography is on page 99.

- **Derek Parkin**  
**Chief Operating Officer, BSc(Hons), MPhil, MBA, CEng, Eur Ing, FEI, FIMM, MIO, aged 58**  
Mr Parkin joined CLP as the Group's Chief Operating Officer in September 2015. He is responsible for the Group's operations, engineering, construction and fuel procurement. He also leads CLP's occupational health, safety, security and environment function. Mr Parkin is a chartered engineer and has over 30 years of engineering and business management experience across Europe, Russia, Asia and South America. Prior to joining CLP, Mr Parkin was the Chief Operating Officer / Chief Executive Officer of UK Coal and served on the executive board of power and gas giant E.ON UK for more than five years before being appointed as the Managing Director of New Build and Technology of E.ON.

- **David John Simmonds**  
**Group General Counsel & Chief Administrative Officer, Company Secretary, LLB, BCom, FCIS, FCS, aged 47**  
Mr Simmonds holds a Bachelor of Laws (Honours) degree and a Bachelor of Commerce degree from the University of Melbourne. Mr Simmonds joined the CLP Group in August 2007 and became the Group General Counsel & Chief Administrative Officer on 30 September 2013 and the Company Secretary of CLP Holdings on 1 January 2016. He is responsible for the provision of legal and insurance services across the CLP Group, the Group's property development and management activities, special projects of the CEO, and a range of commercial and administrative matters of significance to the Group. He is also responsible for the corporate secretarial affairs of CLP Holdings and its subsidiaries. He has extensive infrastructure experience advising on strategic acquisitions and divestments, projects and construction, corporate structuring, regulatory issues and competition laws. He is a current Council Member of The Hong Kong Institute of Chartered Secretaries.

- **Chong Wai Yan Quince**  
**Chief Corporate Development Officer, JP, BSSc, aged 54**   
Ms Chong joined CLP Power Hong Kong on 1 September 2012 as Chief Corporate Development Officer. At CLP Power Hong Kong, she leads the functions of customer and business development, public affairs and community relations. Her role helps drive customer service excellence and strengthen ties with customers and the community as a whole. She is also responsible for all public affairs and sustainability development matters of the CLP Group. Ms Chong has over 30 years of experience in corporate communications and customer services after having held various senior management positions in the tourism, hotel and aviation industries. Ms Chong is currently the Chairperson of the Hospital Governing Committee of Kwai Chung Hospital & Princess Margaret Hospital, and a member of Vocational Training Council. She is also a member of the 12<sup>th</sup> Hunan Provincial Committee of the Chinese People's Political Consultative Conference.

- **Roy Anthony Massey**  
**Chief Human Resources Officer, MBA, LLB, aged 63**  
Mr Massey is responsible for all human resource related matters across the Group. Prior to joining CLP in 2000, Mr Massey was a management consultant for 16 years, working on projects in the UK, Russia, Romania and the Middle East. Mr Massey was previously a Human Resources Manager in both the UK and with a US multinational in Saudi Arabia. Mr Massey holds an MBA degree from the Manchester Business School, and a degree in Law from Liverpool University.

- **Yuen So Siu Mai Betty**  
**Group Director & Vice Chairman – CLP Power Hong Kong, B.Comm., CPA, aged 60**   
Mrs Yuen was appointed as the Vice Chairman of CLP Power Hong Kong Limited in 2010, with a primary focus on the strategic direction of the Group's electricity business in Hong Kong and China. She is also responsible for CLP's investments in Guangdong Daya Bay and Yangjiang nuclear projects as well as further development of CLP's nuclear business on the Mainland. She worked for ExxonMobil for 13 years before joining CLP in 1999.

- **Chiang Tung Keung**  
**Managing Director – CLP Power Hong Kong, BSc(Eng.), MSc, MBA, MHKIE, CEng, MIET, aged 51**  
Mr Chiang holds overall responsibility for the operations of the Hong Kong business. He holds a Bachelor of Science in Electrical & Electronic Engineering from the University of Hong Kong, a Master of Science in Electrical Engineering from the Hong Kong Polytechnic University and a Master of Business Administration from the Chinese University of Hong Kong. Mr Chiang joined CLP Power Hong Kong as a Graduate Trainee in 1988 and has extensive experience in generation, transmission and distribution systems as well as regulatory strategy. He was the Chief Operating Officer – CLP Power Hong Kong before taking up his current position in June 2017.

- **Chan Siu Hung**  
**Managing Director – China, JP, BSc(Eng.), MSc, CEng, HonFEI, MIET, MHKIE, aged 59**  
Mr Chan is responsible for CLP's China business. Mr Chan holds an MSc degree in Electricity Industry Management and Technology from the University of Strathclyde, and a BSc degree in Electrical Engineering from the University of Hong Kong. He joined CLP Power Hong Kong in 1981 and has held various management positions in different functional areas including operations, maintenance, asset management, corporate strategy and planning. Mr Chan is a member of the 11<sup>th</sup> and 12<sup>th</sup> Guangdong Provincial Committee of the Chinese People's Political Consultative Conference.

- **Rajiv Ranjan Mishra**  
**Managing Director – India, MBA, aged 52**  
Mr Mishra is responsible for running CLP's business in India. He joined the CLP Group in 2002 and has over 20 years' experience in the power industry, both in India and internationally, mostly involved in project financing, investment appraisal, finance and accounting and general management. He holds a Bachelor degree in Chemical Engineering (first class distinction) from BIT, Sindri and an MBA degree from the Indian Institute of Management, Lucknow, and is an Advanced Management Program Graduate from the Harvard Business School, Boston.

- **Catherine Leigh Tanna**  
**Managing Director – EnergyAustralia, LLB, aged 56**  
Appointed as Managing Director of EnergyAustralia on 1 July 2014, Ms Catherine Tanna holds overall responsibility for the asset management and business development of CLP's investments in Australia. Ms Tanna is also a Director on the Boards of the Reserve Bank of Australia and the Business Council of Australia, and she is a member of Chief Executive Women. Prior to joining EnergyAustralia, Ms Tanna was the Chairman, BG Australia. Ms Tanna also had a long career with Shell and BHP Billiton. Ms Tanna studied at the University of Queensland and holds a Bachelor of Laws degree.

 Finance & General Committee  Sustainability Committee

Full particulars of [Senior Management](#), including their directorships in the subsidiary companies of CLP Holdings and other major appointments are available on our website: [CLP](#)



# Corporate Governance Report

## Message from the Company Secretary

We recognise the growing interest in, and significance of, issues relevant to the long-term sustainability of our business and we are committed to presenting our disclosures in a more “reader friendly” manner; disclosures that are useful and presented with clarity.

Our integrated approach to annual reporting supports this objective. A key aspect of this year’s Annual Report is the disclosure of (i) the sustainability topics that matter most to our business and to our key sustainability stakeholders and (ii) the reporting boundaries of these topics. The sustainability topics have been determined by Senior Management by applying our boundary scoping and materiality identification methodology. From this exercise, the “most material” topics have been included in this Annual Report and are discussed in greater detail in the Capitals section on page 66. This year, the process has been enhanced by an additional survey of our key sustainability stakeholders which provided a further reference for our assessment.

We believe our integrated approach to reporting will provide a useful insight into how we manage our business at CLP.

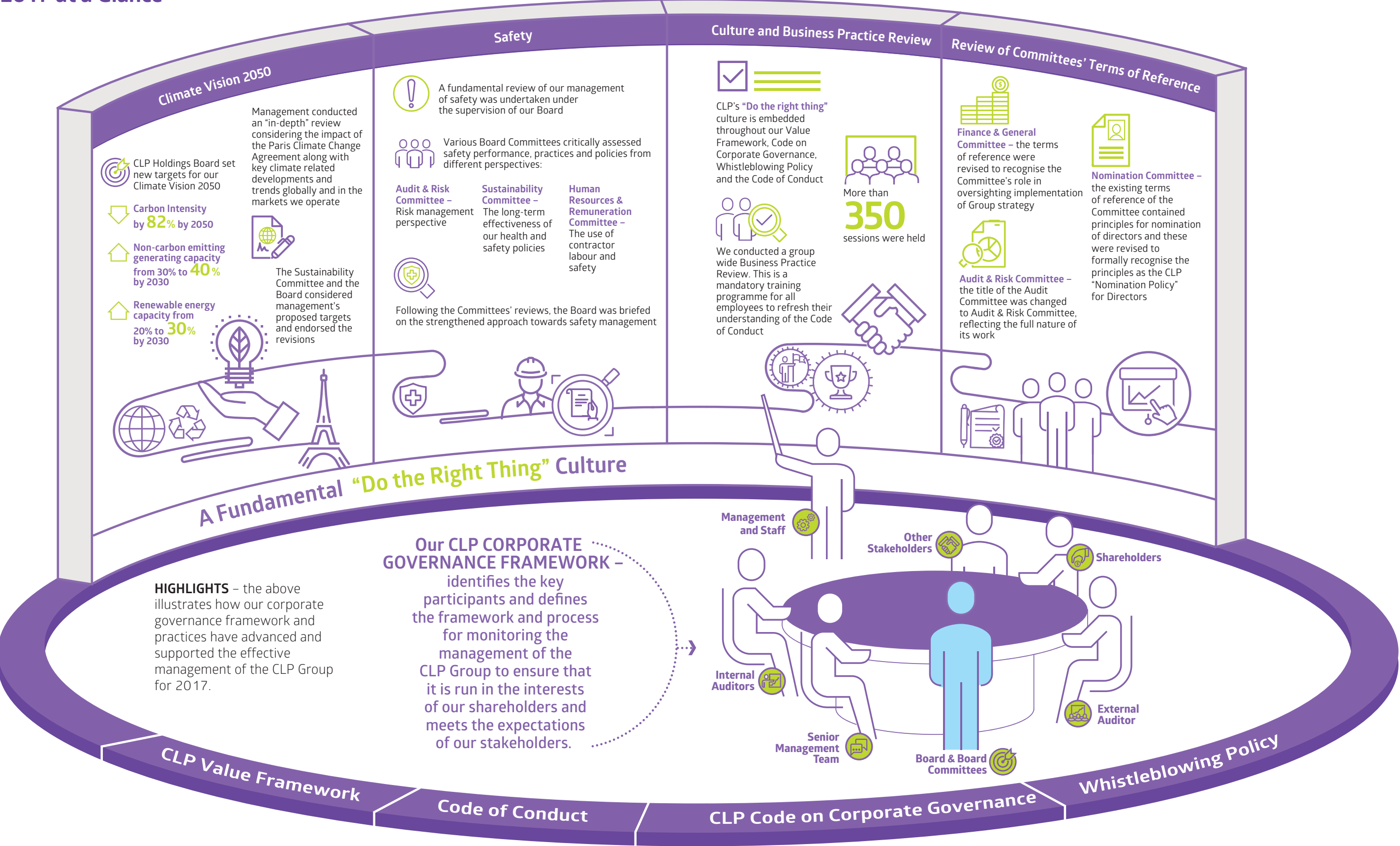
**David Simmonds**  
Company Secretary



Company Secretary David Simmonds (first on the right) discusses and exchanges views with shareholders during our Shareholders' Visit Programme



2017 at a Glance





## The CLP Code: Compliance and more

The “[CLP Code on Corporate Governance](#)” (CLP Code) is our own unique code on corporate governance (available on our website or from the Company Secretary on request). Our Code incorporates and goes beyond the principles of good corporate governance, and the two levels of recommendations in The Corporate Governance Code and Corporate Governance Report (the Stock Exchange Code), Appendix 14 of the Rules Governing the Listing of Securities (the Listing Rules) issued by The Stock Exchange of Hong Kong Limited (Hong Kong Stock Exchange). The only exception to this however, concerns quarterly reporting, details of which are explained on page 106. [📄](#)

Our CLP Code exceeds the code provisions and recommended best practices of the Stock Exchange Code. Our Code enables us to continue to monitor and develop our practices, ensuring that these are consistent with the practices and standards which our shareholders would expect of us. We have made **further enhancements to our corporate governance practices in 2017** and these are highlighted in “**2017 at a Glance**”.

### Areas in which our Code exceeds the Stock Exchange Code

#### Our Board

- The composition of the Board and the Audit & Risk Committee exceed the independence requirements under the Listing Rules.
- We conduct a regular evaluation of the performance of the Board and its Committees and a [summary](#) of the conclusions is published on the CLP website. [📄](#)
- We issue a formal letter of appointment for Non-executive Directors. The [model letter](#) is on our website and deals with a range of matters regarding a Director’s appointment and responsibilities. [📄](#)

#### Our unique policies and practices

- CLP has established its own Corporate Governance Framework, a Value Framework and its own Code for Securities Transactions.
- We have formulated our own Anti-Fraud Policy which stipulates our commitment to preventing, detecting and reporting fraud, bribery and extortion.
- General Representation Letters are issued by our CEO and CFO to the Audit & Risk Committee as verification compliance.

#### Our disclosure

- Our Fair Disclosure Policy sets out the principles for the broad and non-exclusionary distribution of information to the public.
- Our Continuous Disclosure Obligation Procedures guide the organisation in monitoring and disclosing potential inside information.
- The Continuous Disclosure Committee (established in 2016) conducts regular assessment of potential inside information.
- Our Risk Management Report sets out CLP’s risk management framework and how CLP manages the Group’s material risks.
- We disclose our Senior Management’s CLP shareholding interests and their confirmation of compliance with the Model Code and CLP Code for Securities Transactions, in addition to similar disclosures by our Directors.
- We have enhanced our disclosure of financial information on the CLP Group’s joint ventures and associates.
- We issue individual reports for the Audit & Risk Committee, Human Resources & Remuneration Committee and Sustainability Committee.
- We announce our financial results within two months after the end of the financial year. We publish our full Annual Report on our website within the following fortnight and send this to shareholders about two weeks after that. [📄](#)



## Compliance with the Stock Exchange Code and the Environmental, Social and Governance (ESG) Reporting Guide

Throughout the year, the Company has met the Code Provisions and applied all the principles in the Stock Exchange Code. CLP deviates from only one Recommended Best Practice in the Stock Exchange Code – that an issuer should announce and publish quarterly financial results.


### Our Considered Reasons for not Issuing Quarterly Financial Results

While CLP does issue quarterly statements which set out key financial and business information such as electricity sales, dividends and progress in major activities, we do not issue quarterly financial results for the following considered reasons:

- they do not bring significant benefits to our shareholders;
- they encourage a short-term view of the Company's business performance;
- CLP's activities do not run and need not be disclosed and judged on a three-month cycle; and
- preparation of quarterly reports is costly, including the opportunity cost of Board and management time spent on quarterly reporting.

Shareholders are invited to let us know if their views differ and we will review our position if there is a clear and justifiable demand from shareholders for quarterly financial reporting.

### CLP's Approach to ESG Reporting

- Compliance and more: we follow the Hong Kong Stock Exchange's ESG Reporting Guide and take an integrated approach under the <IR> guidelines published by the International Integrated Reporting Council (IIRC).
- ESG information in the 2017 Annual Report:
  - Key Performance Indicators (KPIs) – the ESG KPIs for 2017 along with the previous four years (2013-2016) are disclosed in the Five-year Summary: CLP Group Statistics on pages 266 and 267 of this Annual Report; these include the Hong Kong Stock Exchange's ESG Reporting Guide Reference as well as other relevant KPIs;
  - Discussion – a full discussion of the relevant policies, practices and performances are disclosed in the Capitals section (pages 66 to 93) and the Corporate Governance Report (pages 102 to 126) of this Annual Report; and
  - Scoping and Materiality – how we determine what is material and the reporting boundaries for disclosure are highlighted in "Message from the Company Secretary".
- Our [2017 Sustainability Report](#), which is published online at the same time, captures in detail our delivery of social and environmental value in 2017 and reports, in an integrated manner, all aspects of our activities, prepared in accordance with the Core option of the new Global Reporting Initiative's Sustainability Reporting Standards. It also includes an independent assurance report from PricewaterhouseCoopers (PwC). 

## Our Board

### The CLP Board

Key features of our Board are:

- it is a diversified Board of 14 Directors with three female Directors and the Independent Non-executive Directors representing half of the Board;
- it includes seven influential and active Independent Non-executive Directors to whom shareholders' concerns can be conveyed;
- the non-executive members of the Board bring a wide range of business and financial experience to the Board;
- the posts of Chairman and CEO are separately held by The Hon Sir Michael Kadoorie and Mr Richard Lancaster, respectively; and
- the Board has a culture of high integrity – reflecting the Chairman's values.

### The Board's Roles and Responsibilities

Our Board plays more than a key role in our Corporate Governance Framework. Under the leadership of our Chairman, the Board cultivates good governance as the cornerstone of our corporate culture. To achieve this, the Board actively promotes the success of the Group by directing and supervising its affairs in a responsible and effective manner.

Some of the key responsibilities of the Board include:

- setting the Group's values and standards;
- establishing and maintaining the strategic direction and objectives of the Group;
- overseeing the management of CLP's relationships with stakeholders, such as Government, customers, communities and others who have a legitimate interest in the responsible conduct of the Group's business;
- monitoring the performance of management;
- ensuring that a framework of prudent and effective controls is in place to enable risks to be assessed and managed; and
- ensuring the financial statements are prepared to give a true and fair view of the state of affairs of the Group.



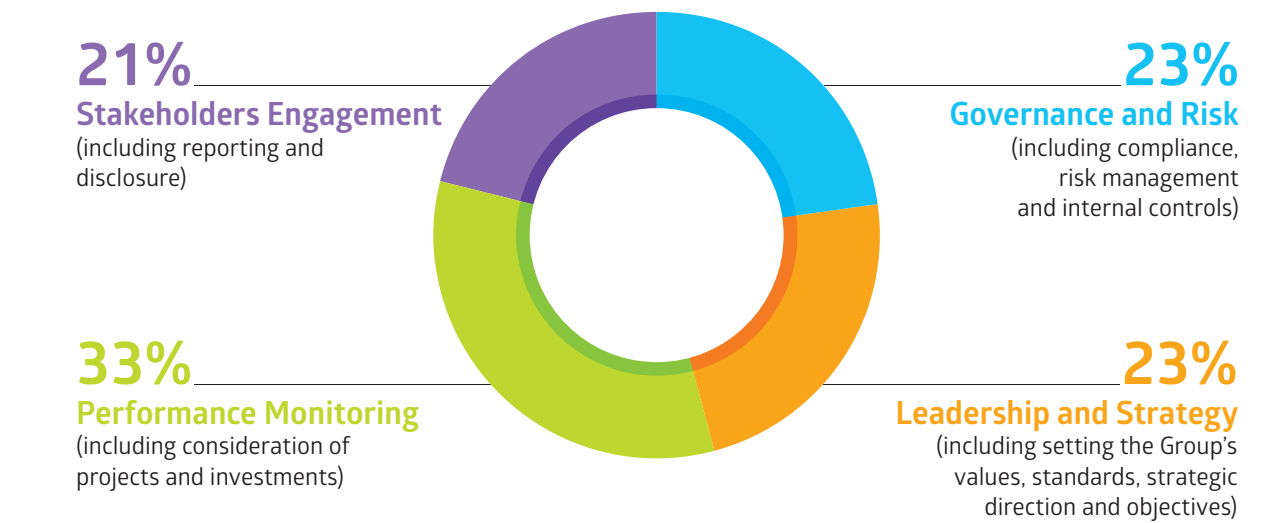
How the Board Spent its Time in 2017

The following table shows a breakdown of the matters considered by, and briefings to, the Board in 2017.

Annual recurring matters		Briefings on selected topics
January – March	<ul style="list-style-type: none"><li>Annual Report and 2016 Results</li><li>2016 Fourth Interim Dividend</li><li>Evaluation of Audit &amp; Risk Committee Effectiveness</li><li>2016 Audit Fees</li><li>Continuing Connected Transactions</li></ul>	<ul style="list-style-type: none"><li>Solar Technology</li></ul>
April – June	<ul style="list-style-type: none"><li>Quarterly Statement 2017 (January – March)</li><li>2017 First Interim Dividend</li></ul>	
July – September	<ul style="list-style-type: none"><li>Interim Report and 2017 Interim Results</li><li>2017 Second Interim Dividend</li></ul>	<ul style="list-style-type: none"><li>Swissgrid Digital Transformation Experience</li><li>Smart City and Smart Meters</li></ul>
October – December	<ul style="list-style-type: none"><li>Quarterly Statement 2017 (January – September)</li><li>2017 Third Interim Dividend</li><li>CLP Group Business Plan &amp; Budget</li><li>Directors' and Officers' Liability Insurance Policy Renewal</li></ul>	<ul style="list-style-type: none"><li>Big Data and Data Analytics</li></ul>

Key areas of focus	Commentary
Climate Vision 2050 – review and setting of new targets	The Board approved the new targets for our Climate Vision 2050. The Board has set the targets following a comprehensive review that was undertaken by management. Before the new targets were considered by the Board, the proposal along with progressive updates were presented to the Sustainability Committee for the members to discuss openly.
Our key markets	<p>The Board received updates on the latest developments for the Group’s key markets and had detailed discussions with management on the key challenges and opportunities for the different markets.</p> <p>Hong Kong – regulatory matters (New Scheme of Control Agreement 2018 and Development Plan)</p> <p>Mainland China – power sector reform and outlook</p> <p>Australia – performance, hedging policy, national energy policy and regulatory related developments</p> <p>India – potential strategy and investment opportunities</p>
Briefings and reporting – Management Talent Development and Succession Planning – Cyber and physical security – Health, Safety, Security and Environment (HSSE)	To strengthen the Board’s oversight of the areas that are delegated to other Board Committees, the Board received briefings and reports on those areas that fall under the direct responsibilities of the Human Resources & Remuneration Committee (Management Talent Development and Succession Planning), Audit & Risk Committee (cyber and physical security and HSSE) and Sustainability Committee (HSSE).
Board evaluation follow-up	The Board received the report and recommendations from the external Board evaluation. Key recommendations that were adopted included strengthening the Board reporting of the work at the Committees level and the recognition of the Finance & General Committee’s role in overseeing implementation of the Group strategy.

This illustrates how the Board spent its time on the following main categories\*:



\* In determining the estimated time spent, we took into account the time discussing the relevant agenda items and the volume of supporting board papers.

Attendance at our Board Meetings and the interaction between Senior Management and our Directors

Our Board Meetings are typically attended by the following members of our Senior Management:

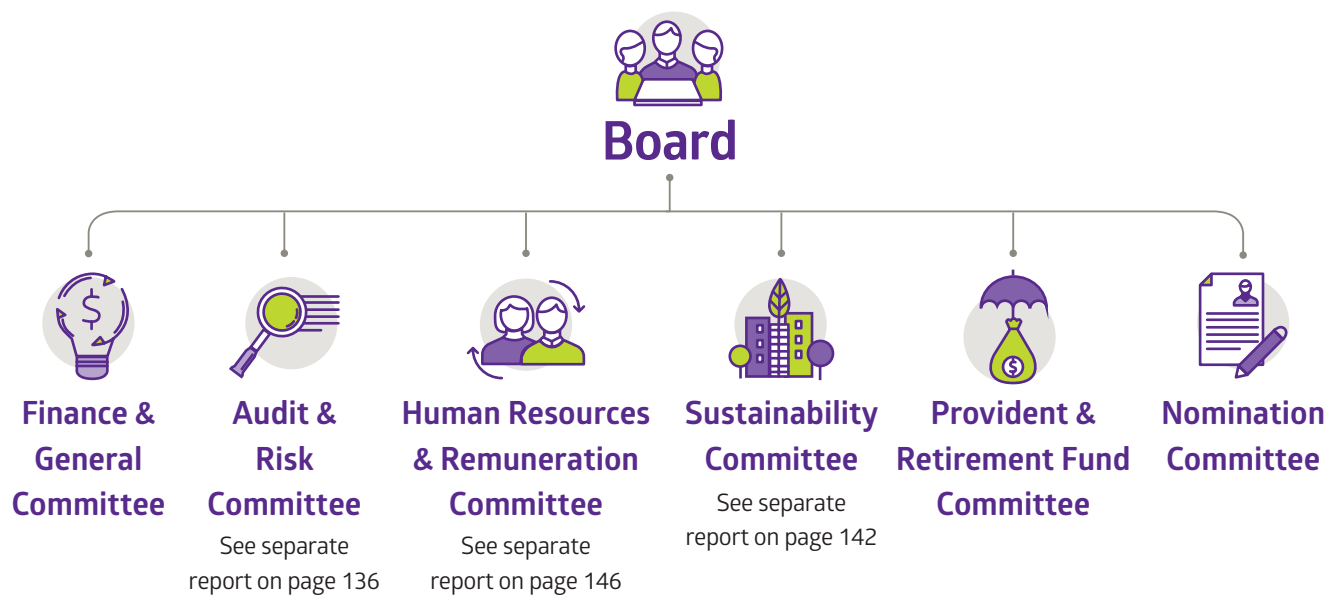
- Mrs Betty Yuen (Group Director & Vice Chairman – CLP Power Hong Kong);
- Mr Chiang Tung Keung (Managing Director – CLP Power Hong Kong);
- Mr Chan Siu Hung (Managing Director – China);
- Mr Rajiv Mishra (Managing Director – India);
- Ms Catherine Tanna (Managing Director – EnergyAustralia);
- Mr Derek Parkin (Chief Operating Officer); and
- Mr David Simmonds (Group General Counsel & Chief Administrative Officer).

Our Board meetings are generally followed by or preceded by a luncheon hosted by the Chairman. This is typically attended by the Directors and members of the Senior Management who join the Board meetings and provides a good opportunity for Directors and Senior Management to interact with each other in an informal setting and to discuss a wide range of issues including those concerning the Group.



Board Committees

The following diagram explains the responsibilities and the work that each Board Committee undertook during 2017 and in 2018 up to the date of this Report (the Relevant Period). The terms of reference for the Nomination Committee, the Finance & General Committee and the Audit & Risk Committee have been updated, the key changes are set out in the respective reports and highlights for the Committee.



[Terms of reference and membership of all Board Committees](#) are disclosed in full on the websites of CLP and the Hong Kong Stock Exchange. They are also available upon request from the Company Secretary. [📄](#)

The Board discharges some of its responsibilities through delegation, with appropriate oversight, to the respective Board Committees and these are set out below. Full details of the Committees' work are disclosed in the relevant sections for each of the Board Committees. In short, the Board:

- (a) develops and reviews the Company's policies and practices on corporate governance (Audit & Risk Committee);
- (b) reviews the contribution required from Directors to perform his or her duties (Nomination Committee);
- (c) reviews and monitors the training and continuous professional development of Directors (Nomination Committee) and Senior Management (Human Resources & Remuneration Committee);
- (d) reviews and monitors the Company's policies and practices on compliance with legal and regulatory requirements (Audit & Risk Committee);
- (e) develops, reviews and monitors the Code of Conduct applicable to employees (Audit & Risk Committee); and
- (f) reviews the Company's compliance with the CLP Code and disclosure in the Corporate Governance Report (Audit & Risk Committee).

Membership of Provident & Retirement Fund Committee
Mr William Mocatta (Chairman), Mr Geert Peeters and a Trustee.
Responsibilities and Work Done
This Committee advises the Trustee on investment policy and objectives for the Group's retirement funds, namely the CLP Group Provident Fund Scheme and CLP Group Top-Up Scheme.
During the Relevant Period, the Committee monitored the performance of the overall portfolio, the investment managers and operational efficiency. Education and communication are arranged for schemes members for better retirement planning.

Membership of Finance & General Committee
Mr William Mocatta (Chairman), Mr Vernon Moore, Sir Rod Eddington, Mr Nicholas C. Allen, Mr Vincent Cheng, Ms Irene Lee, Mr Andrew Brandler, Mr Richard Lancaster, Mr Geert Peeters and Mrs Betty Yuen.
Responsibilities and Work Done
Key changes to the terms of reference: <ul style="list-style-type: none"><li>the role of the Committee in the review of the implementation of the CLP Group Strategy is formally recognised.</li></ul>
This Committee reviews the financial operations of the Company which include Group-wide financial, accounting, treasury and risk management policies, major financing transactions, corporate plans and budgets and business performance. The Committee also reviews major acquisitions or investments and their funding requirements. As reflected in the amended terms of reference, the Committee reviews the implementation of the Company's strategy approved by the Board and the performance and business environment of the Company; and the Committee will also identify any matters that should be referred to the Board for review and further consideration.
The work performed by the Committee during the Relevant Period included the review and the consideration of the following matters: <ul style="list-style-type: none"><li>the Company's interim and annual results and the dividends payable to shareholders for the financial years ended 31 December 2016 and 2017;</li><li>the CLP Group Business Plan and Budget 2018 – 2022;</li><li>the 2018 tariff strategy and the development plan for the Hong Kong business;</li><li>the Argyle Street redevelopment project;</li><li>investment in specific projects in Australia, China, India and Vietnam;</li><li>investment in an energy-related technology fund;</li><li>funding arrangements for the Yangjiang investment;</li><li>performance of the coal-fired generation portfolio in China;</li><li>implementation of Group strategy for selected business units;</li><li>the CLP Group cost of capital study;</li><li>CLP's foreign exchange translation risk and counterparty exposures; and</li><li>revision of the terms of reference of the Committee.</li></ul>
The nature of the work of the Committee includes the review of transactional items which may arise from time to time and require the review on the part of the Committee on a time sensitive basis. During the Relevant Period, the Committee convened two additional Committee meetings to consider these type of transactional items in July 2017 and January 2018.

Membership of Nomination Committee
The majority of the members are Independent Non-executive Directors. This Committee is chaired by the Chairman of the Board, The Hon Sir Michael Kadoorie, with Mr Nicholas C. Allen and Mr Vincent Cheng as members.
Responsibilities and Work Done
Key changes to the terms of reference: <ul style="list-style-type: none"><li>a "Nomination Policy" for Directors was formally adopted and this incorporated the existing nomination criteria and principles for Directors that are set out in the Committee's terms of reference.</li></ul>
This Committee is responsible for: <ul style="list-style-type: none"><li>reviewing the Board structure and composition and Board Diversity Policy;</li><li>making recommendations to the Board on Directors appointment and reappointment and succession planning;</li><li>assessing the independence of the Independent Non-executive Directors and whether Directors are spending sufficient time performing their duties; and</li><li>reviewing and monitoring the training and continuous professional development of Directors.</li></ul>
The work performed by the Committee during the Relevant Period included: <ul style="list-style-type: none"><li>examining the current Board structure and composition;</li><li>reviewing the Board Diversity Policy;</li><li>assessing the independence of all Independent Non-executive Directors, including the Directors who are due to retire, namely, Mr Nicholas C. Allen, Mrs Fanny Law and Ms Irene Lee. Except for Ms Irene Lee, all the retiring Directors will present themselves for re-election by shareholders at the 2018 Annual General Meeting (AGM);</li><li>considering the approach and revising the terms of reference of the Committee to recognise and adopt the provisions regarding nomination criteria and principles as the Nomination Policy;</li><li>reviewing the training and continuous professional development of Directors; and</li><li>evaluating Directors' time commitment and the contribution required from Directors to discharge their responsibilities.</li></ul>



Directors' Attendance and Development

In 2017, six Board meetings were held and the overall attendance rate of Directors at Board meetings was 90.24% (2016: 89.11%).

Details of Directors' attendance at the AGM, Board and Board Committee meetings and development programmes in the year 2017 are set out in the following table.

	Board <sup>1</sup>	Audit & Risk Committee <sup>2</sup>	Finance & General Committee	Human Resources & Remuneration Committee	Nomination Committee <sup>3</sup>	Provident & Retirement Fund Committee	Sustainability Committee	AGM <sup>2, 4</sup>	Directors Development Programme*
Non-executive Directors									
The Hon Sir Michael Kadoorie	5 / 6 <sup>(C)</sup>				1 / 1 <sup>(C)</sup>			1	A, B, C
Mr William Mocatta	6 / 6 <sup>(VC)</sup>		6 / 6 <sup>(C)</sup>	3 / 3		2 / 2 <sup>(C)</sup>		1	A, B, C
Mr J. A. H. Leigh	6 / 6							1	A, B
Mr Andrew Brandler	5 / 6		6 / 6				2 / 3	1	A, B, C
Dr Y. B. Lee	6 / 6							1	A, B, C
Independent Non-executive Directors									
Mr Vernon Moore	6 / 6	6 / 6 <sup>(C)</sup>	5 / 6	3 / 3				0	A, B, C
Sir Rod Eddington	6 / 6		5 / 6					0	A, B
Mr Nicholas C. Allen	4 / 6	6 / 6	5 / 6	3 / 3	1 / 1		3 / 3	1	A, B, C
Mr Vincent Cheng	4 / 6		6 / 6	3 / 3 <sup>(C)</sup>	1 / 1			1	A
Mrs Fanny Law	6 / 6	6 / 6					3 / 3	1	A, B, C
Ms Irene Lee	5 / 6	6 / 6	5 / 6				3 / 3	1	A, C
Mrs Zia Mody	5 / 6			2 / 3				0	A, C
Executive Directors									
Mr Richard Lancaster	5 / 5		6 / 6				3 / 3 <sup>(C)</sup>	1	A, B, C
Mr Geert Peeters	5 / 5		4 / 6			2 / 2		1	A, B, C

Notes:

- 1 Included a Board meeting where the Chairman met Independent and other Non-executive Directors in the absence of the Executive Directors and management.
- 2 Representatives of the external auditor participated in every Audit & Risk Committee meeting and the AGM.
- 3 In addition to the annual meeting, the Nomination Committee considered and reviewed the independence of Independent Non-executive Directors, Directors' time commitment and Directors' continuous professional development in 2017.
- 4 Out of the seven Independent Non-executive Directors, Mr Vernon Moore participated in the AGM through live webcast and two were unable to attend due to other overseas commitments. The other four Independent Non-executive Directors (along with other Directors) were available to take shareholders' questions specifically addressed to the Independent Non-executive Directors during the AGM (of which there were none).
- 5 Chairmen of the Board and Board Committees and the Vice Chairman of the Board are indicated by (C) and (VC) respectively.

\* Our Directors Development Programme includes:

A – reading regulatory and industry related updates;

B – meeting with local management and stakeholders, including hosting shareholders' visits (2016-2017 Shareholders' Visit Programme) and visiting CLP's facilities and special projects with CLP's involvement; and

C – attending expert briefings / seminars / conferences relevant to the business or director's duties. Directors have access to Chatham House (a leading independent policy institute based in London) publications and the opportunity to attend Chatham House events on topics relevant to our business.

Directors Time Spent on other CLP Affairs

In addition, our Non-executive Directors have also spent a considerable amount of time on other CLP affairs and these included the following:

- our Chairman, joined members of our Senior Management for a visit to Beijing and met with key stakeholders on the Mainland on matters such as energy policies and potential new opportunities;
- our Chairman, along with Mr William Mocatta (Non-executive Director and Chairman of CLP Power) and Mr Andrew Brandler (Non-executive Director and a Director of EnergyAustralia), visited the local operations of EnergyAustralia, met with local management and an interview with the Chairman was conducted for a staff townhall; and
- our Non-executive Directors (including Independent Non-executive Directors) had participated in various officiating events and ceremonies for CLP and this provided the opportunity to visit CLP's assets or operations and to meet and interact with CLP colleagues and management in an informal setting.

The Board is regularly kept up-to-date on key events, outlook, safety and environmental matters of the Group through the CLP Group Monthly Management Reports. The Management Report gives a balanced and understandable assessment of the Company's performance, position and prospects in sufficient detail and includes year-to-date financials as well.

Directors' Time and Directorship Commitments

To ensure that our Directors have spent sufficient time on the affairs of the Company, the Directors have given certain confirmations and made disclosures about their other commitments.

- Sufficient time and attention: Directors have confirmed that they have given sufficient time and attention to the affairs of the Company for the year.
- Other offices and commitments: Directors disclose to the Company twice a year the number, identity and nature of offices held in Hong Kong or overseas listed public companies and organisations and other significant commitments, together with an indication of the time involved.
- Other directorships: As at 31 December 2017, none of our Directors, individually, held directorships in more than eight public companies (including the Company).

Our Executive Directors do not hold directorship in other public companies; however, they are encouraged to participate in professional, public and community organisations.

In respect of those Directors who stand for re-election at the 2018 AGM, all their directorships held in listed public companies in the past three years are set out in the Notice of AGM. [Other details of the Directors' biographies](#) are set out under "Board of Directors" on pages 96 to 99 of this Annual Report and on CLP's website. [🔗](#)

Board Evaluation

In 2017, the Board reviewed and considered the summary findings of the independent evaluation of the Board and the Committees that was carried out by Heidrick & Struggles. Subsequently, the [summary findings](#) have been published on the CLP website. [🔗](#)

As follow-up action to the recommendations from the independent evaluation, a number of actions were taken in 2017:

- the Board considered the role and responsibilities of the Finance & General Committee in reviewing the implementation of the CLP Group's strategy and the Board subsequently approved the Committee's terms of reference to recognise these;
- a more focused approach on the use of experts and the selection of topical issues were taken with respect to the expert briefing topics for the Board; and
- to strengthen the collaboration and information sharing between the Board and the Committees, the Board received a number of briefings and updates in terms of the work undertaken by various Committees such as the Human Resources & Remuneration Committee (Management Talent Development and Succession Planning), Audit & Risk Committee (cyber and physical security and HSSE) and Sustainability Committee (HSSE).

In line with our CLP Code, we will undertake the performance evaluation of our Board and Committees on an ongoing basis and in respect of the Board year for 2017, an evaluation will be conducted internally.



## Nomination and Appointment of Directors

CLP follows a formal, considered and transparent procedure for the appointment of new Directors.

### CLP's Nomination Policy

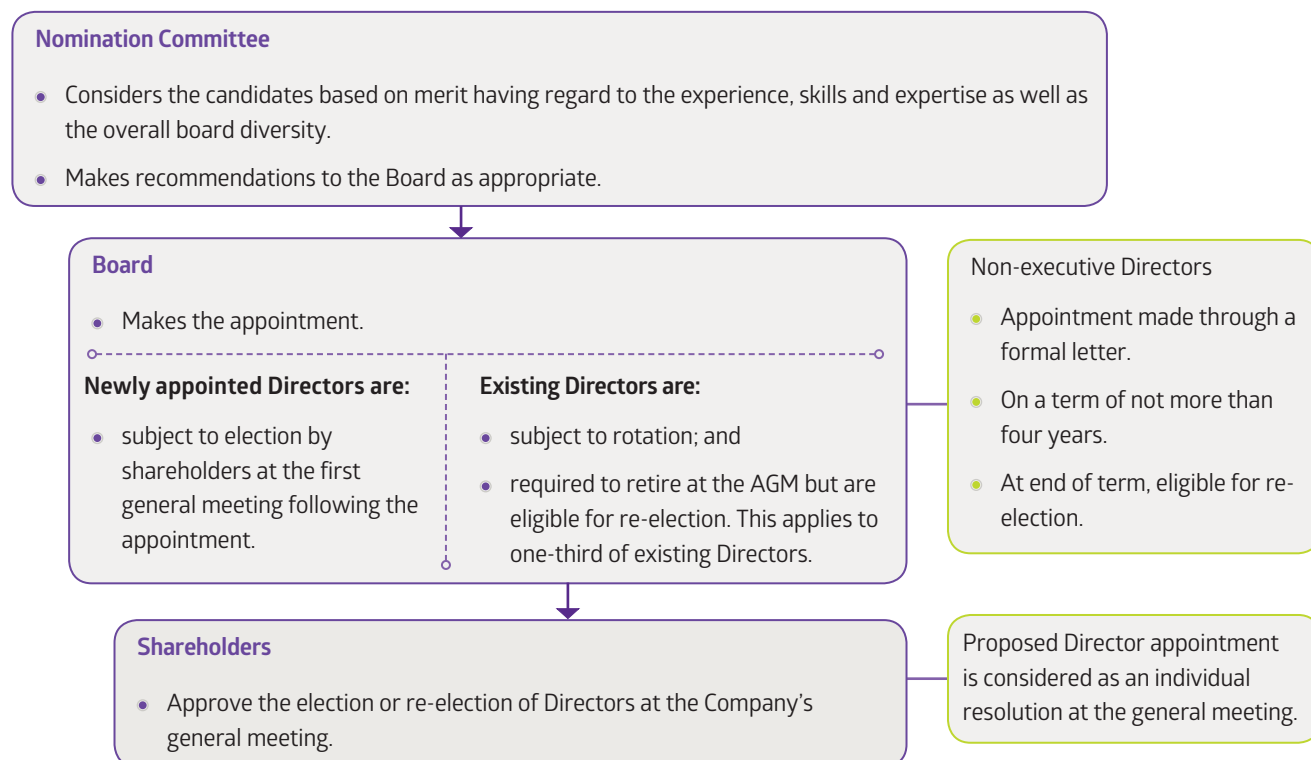
Our Board has adopted the following Nomination Policy:

The Nomination Committee will:

- 1 review and monitor the structure, size and composition (including the skills, knowledge, experience and diversity of perspectives) of the Board on an annual basis and make recommendations on any proposed changes to the Board to complement the Company's corporate strategy;
- 2 identify and nominate qualified individuals for appointment as additional Directors or to fill Board vacancies as and when they arise. The criteria to be adopted by the Board in considering each individuals shall be their ability to contribute to the effective carrying out by the Board of its responsibilities set out in the CLP Code, in particular, those relating to new directors having such expertise to make a positive contribution to the Board and that every director can give sufficient time and attention to the Company's affairs; and that all non-executive directors are independent of management with a defined set of responsibilities (as fully set out in paragraphs II.B.34 and 35 of the CLP Code);
- 3 make recommendations to the Board on the appointment or reappointment of Directors and succession planning for Directors, in particular the Chairman and the CEO; and
- 4 make recommendations to the Board with particular regard to ensuring a substantial majority of the Directors on the Board being independent of management.

### CLP's process for appointing a Director

The diagram below presents the approach used by CLP to appoint our Directors.



Why Board Diversity is Important to CLP

CLP's Value Framework emphasises our respect for people and diversity. The CLP Board Diversity Policy was adopted by the Board in 2013 and incorporated Code Provisions of the Stock Exchange Code. Our concept of diversity incorporates a number of different aspects, such as independence, professional experiences, business perspectives, skills, knowledge, gender, age, cultural and educational background, ethnicity and length of service.

The Value in Board Diversity

- Enhances decision-making capacity
- Improves effectiveness in dealing with organisational changes
- Reduces likelihood of group thinking
- Contributes to sustainable development

How is this Relevant to our Shareholders?

- The Nomination Committee reviews the Board Diversity Policy periodically
- Shareholders approve the election or re-election of Directors
- Directors and the Board are responsible for promoting the shareholders' interests
- Shareholders need to be satisfied with the level of board diversity
- We are committed to providing shareholders sufficient information to assess our board diversity

Assessment Results of Diversity

We assessed the diversity of our Board and revealed that:



The independence of Directors remains at the same high level of 50%



The diversity level in terms of nationality and professional background and experience is maintained at a high level with no single group representing more than 50% of the total



Gender diversity (female representation) remains at 21% while high by local standards would not be regarded as high in jurisdictions such as the UK (FTSE 100 average of 26.7%)



Representation of Executive Directors on the Board remains at the same level of 14%



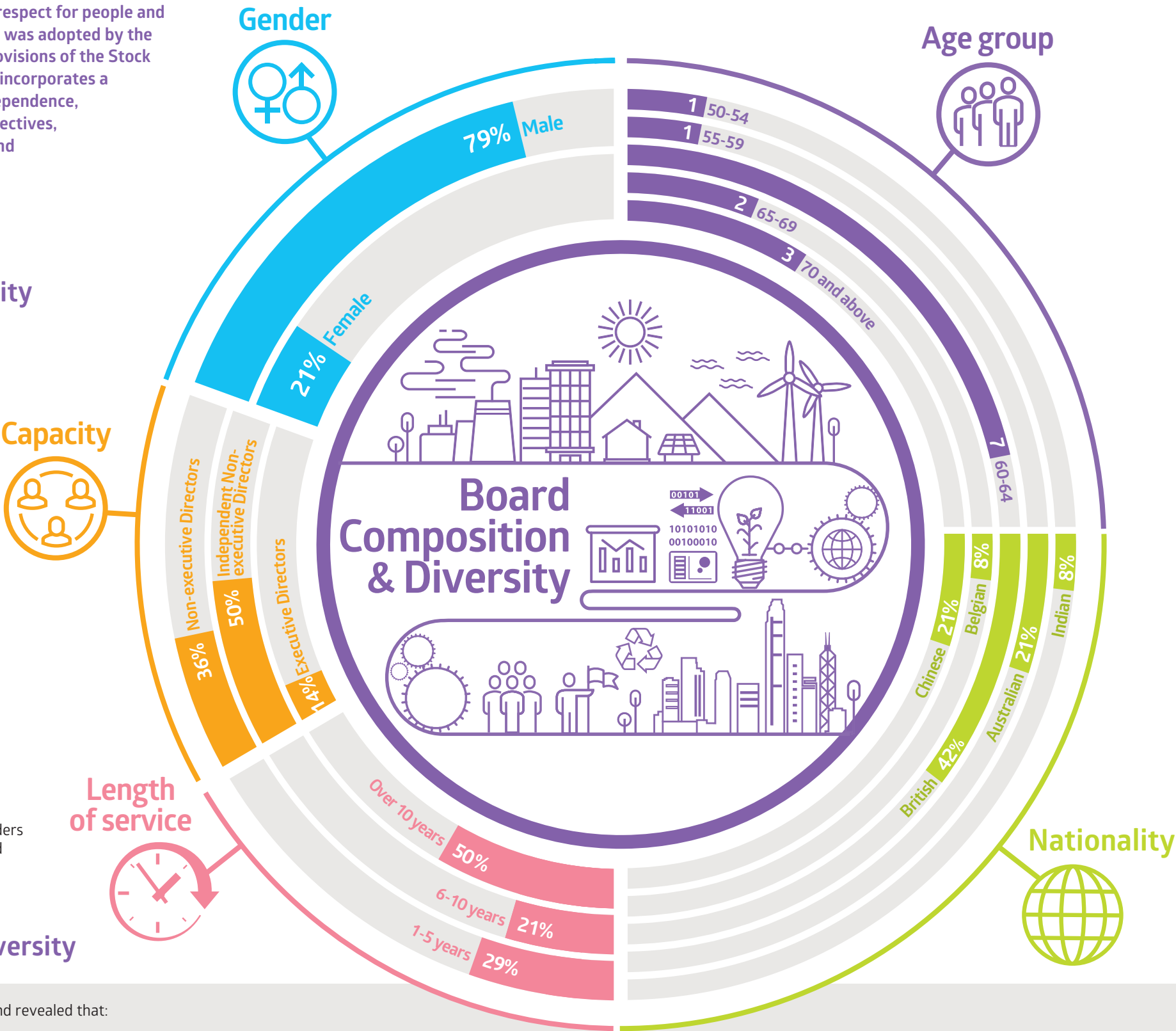
Of directors have served on the Board for over 10 years



The age group of 60-64 represents half of the Board



The overall diversity of the Board remains at high level similar to last year



Board Expertise

An analysis of the skills set mix was considered by the Nomination Committee and the Board continues to possess a balance of skills appropriate for the requirements of the business of the Group. The table below highlights the breakdown of the skills set mix of our Directors and demonstrates the broad and diverse mix of experience and background relevant to CLP that the Directors can bring to the Board and its Committees.

Expertise	No. of Directors
CLP market experience (Australia/China/India)	8/14
Related industry experience (Power/Property/Retail/Steel infrastructure)	10/14
Technology	2/14
Global market experience	10/14
Other industries (Aviation/Banking/Mining/Travel & leisure)	4/14
Other listed board roles	11/14
Company executive	9/14
Public administration	1/14
Professional	12/14
• Engineering	4/14
• Legal	3/14
• Accounting	4/14
• Banking and Finance	3/14

Note:  
Multiple professional background and experience may apply to a Director.



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## Disclosure of Conflict of Interest and Independence of Directors

Directors are requested to declare their and their connected entities' direct or indirect interests, if any, in any proposals or transactions to be considered by the Board at Board meetings and withdraw from the meetings as appropriate. In 2017, none of the Directors were required to withdraw from meeting in these circumstances.

The Company follows guidelines at each financial reporting period to obtain confirmations from Directors in respect of any transactions of the Company or its subsidiaries which are related to Directors or their connected entities.

In addition, identified significant related party transactions are disclosed in Note 29 to the Financial Statements.

As required under the Listing Rules, the Company received written confirmations from all of the Independent Non-executive Directors regarding their independence. The Company considers all of the Independent Non-executive Directors to be independent.

Details of all Directors and their biographies including, if any, relationship between the members are disclosed on pages 96 to 99.

## Directors' Shareholding Interests

Directors' interests in CLP's securities as at 31 December 2017 are disclosed in the Directors' Report on page 161. All Directors have confirmed, following specific enquiry by the Company, that throughout the year ended 31 December 2017 they have complied with the required standard set out in the Model Code and our own Code for Securities Transactions. CLP's own Code for Securities Transactions is largely based on the Model Code set out in Appendix 10 of the Listing Rules and is on terms no less exacting than those in the Model Code.

## Management and Staff

One of the key tasks of CLP's management and staff is the successful implementation of strategy and direction as determined by the Board under the leadership of our Chairman. This includes promoting and implementing the good corporate culture set by our Board over the years. In doing so, they must apply business principles and ethics which are consistent with those expected by the Board, CLP's shareholders and other stakeholders, and these have been documented in our Code of Conduct.

In 2017, we conducted a group wide Business Practice Review (other than EnergyAustralia who will undertake this in 2018) which provided a mandatory in-person training for our Group's employees to refresh their understanding of the Code of Conduct and other major policies.

The positions of Chairman and CEO are separate, our CEO has the overall responsibility for carrying out the strategy and direction set by the Board and for managing the Group's business. The delegation of authority by the Board to the Committees, Senior Management and management are prescribed in the form of a "Company Management Authority Manual" (CMAM).

In 2017, we also updated the CMAM of one of our key CLP Group subsidiaries and the revised CMAM provided further clarity in terms of the delegation of authority to management, this is part of our ongoing efforts to review and to ensure that our CMAM and the delegation of authority remain valid and relevant in terms of empowering our management to undertake management decisions in the proper carrying out of their duties.

Role of Management and Staff in promoting good corporate governance practices



Management and staff adhere to various Group policies that reflect the values and corporate culture of CLP

Value Framework

- Sets out the business principles and ethics that underpin CLP's activities.
- Articulates our vision, mission, values, commitments, policies and codes.
- Covers all aspects of our operations.

Code of Conduct

- Provides unique guiding principles for our employees to do what is right, behave with integrity and honesty, obey all laws (including anti-corruption practices) and communicate openly. These principles cover all aspects of our operations.
- Non-compliance results in disciplinary action.
- Disciplinary measures are subject to review and endorsement by a Group Code of Conduct Committee, which comprises the CFO, Group General Counsel & Chief Administrative Officer and Chief Human Resources Officer.
- In 2017, there was no Code of Conduct violation in respect of bribery (2016: one suspected case).
- 2017 – there were 28 breaches (2016: 21) of the Code – see also Audit & Risk Committee Report.

Whistleblowing Policy

- Applies to CLP Group with specific policy for CLP India and EnergyAustralia.
- Allows employees and third parties to report suspected misconduct, malpractice or irregularity.
- 2017 – there were 11 reported cases (2016: 23).

Our Management and Staff are subject to CLP Securities Dealing Restrictions.

- We appreciate that some of our staff may in their day-to-day work have access to potentially inside information.
- Our Senior Management and selected members of staff, "Specified Individuals", are subject to securities dealing restrictions in our CLP Code for Securities Transactions.
- Securities Transactions: All members of the Senior Management have confirmed, following specific enquiry by the Company, that throughout the year ended 31 December 2017 they have complied with the required standard set out in the Model Code and CLP Code for Securities Transactions.
- Shareholding in CLP shares: Save for the interest disclosed by the CEO in the Directors' Report on page 174 and the interest in 600 shares disclosed by the Managing Director – China, the other members of the Senior Management did not have any interests in CLP Holdings' securities as at 31 December 2017.

Senior Management Training and Development

We have a formal procedure in place for reporting the training and continuous professional development of Senior Management. Members of Senior Management have access to a variety of training activities. These include access to on-line learning and information sources, formal executive development programmes at leading business schools and attendance at executive briefings on matters of topical interest provided through our strategic partnerships with organisations such as Chatham House, École Polytechnique Fédérale de Lausanne and IMD. We also make selective use of systematic and independent executive assessment and coaching processes to assist with identifying individual development needs and provide input to our succession planning decisions.

Participation in Training and Continuous Professional Development of Senior Management in 2017

Senior Management	Attending formal executive development / training programme	Attending expert briefings / seminars / workshops / conferences relevant to the business or their duties	Participating as speakers at events	Access to web based learning resources
Mr Richard Lancaster		✓	✓	✓
Mr Geert Peeters	✓	✓	✓	✓
Mr Derek Parkin		✓	✓	✓
Mr David Simmonds <sup>1</sup>	✓	✓	✓	✓
Ms Quince Chong		✓	✓	✓
Mr Roy Massey		✓	✓	✓
Mrs Betty Yuen		✓	✓	✓
Mr Chiang Tung Keung <sup>2</sup>	✓	✓	✓	✓
Mr Chan Siu Hung		✓	✓	✓
Mr Rajiv Mishra		✓	✓	✓
Ms Catherine Tanna	✓	✓	✓	✓

Notes:

1 During 2017, Mr David Simmonds, the Company Secretary, served as a member of the Company Secretaries Panel, the Technical Consultation Panel and leads the Competition Law Interest Group of the Hong Kong Institute of Chartered Secretaries. He was also a frequent speaker at seminars and has fulfilled the relevant professional training requirements under the Listing Rules.

2 Mr Chiang Tung Keung was appointed as a member of Senior Management on 1 June 2017.



Shareholders

Shareholders are one of our key stakeholders and from a corporate governance perspective, the importance of the key elements of the relationship can be illustrated as follows:

Shareholders' Rights

- Shareholders have a set of rights including the right to dividends and to vote and attend general meetings.
- Shareholders also have [the right to convene general meetings and to put forward proposals](#) – details of which can be found in our explanatory notes to the 2018 Notice of AGM and on our website or on request. [🔗](#)
- Shareholders can make enquiries with the Board through the Company Secretary via our shareholders' hotline (852) 2678 8228, email at [cosec@clp.com.hk](mailto:cosec@clp.com.hk) or by posing questions at our general meetings.

Our Responsibilities to Shareholders

- The Board and Senior Management recognise their responsibilities to represent the interests of our shareholders as a whole.
- Our goal is to create long-term sustainable value for shareholders; for further details, please refer to the Shareholder Value section of this Annual Report.

Other shareholder-related information:

- by type and aggregate shareholding – see page 22
- coming important dates – see page 25
- year-end CLP shares public float – see page 22

Our AGM – an important event for our shareholders

- is attended by our Directors, Senior Management and our external auditor;
- includes a keynote address by our Chairman;
- since 2004, allows resolutions to be voted on by poll (instead of show of hands), the results of which are announced on the same day;
- provides an opportunity for our shareholders to raise questions in a dedicated interactive Q&A session; and
- minutes including the Q&A session are published after the meeting.

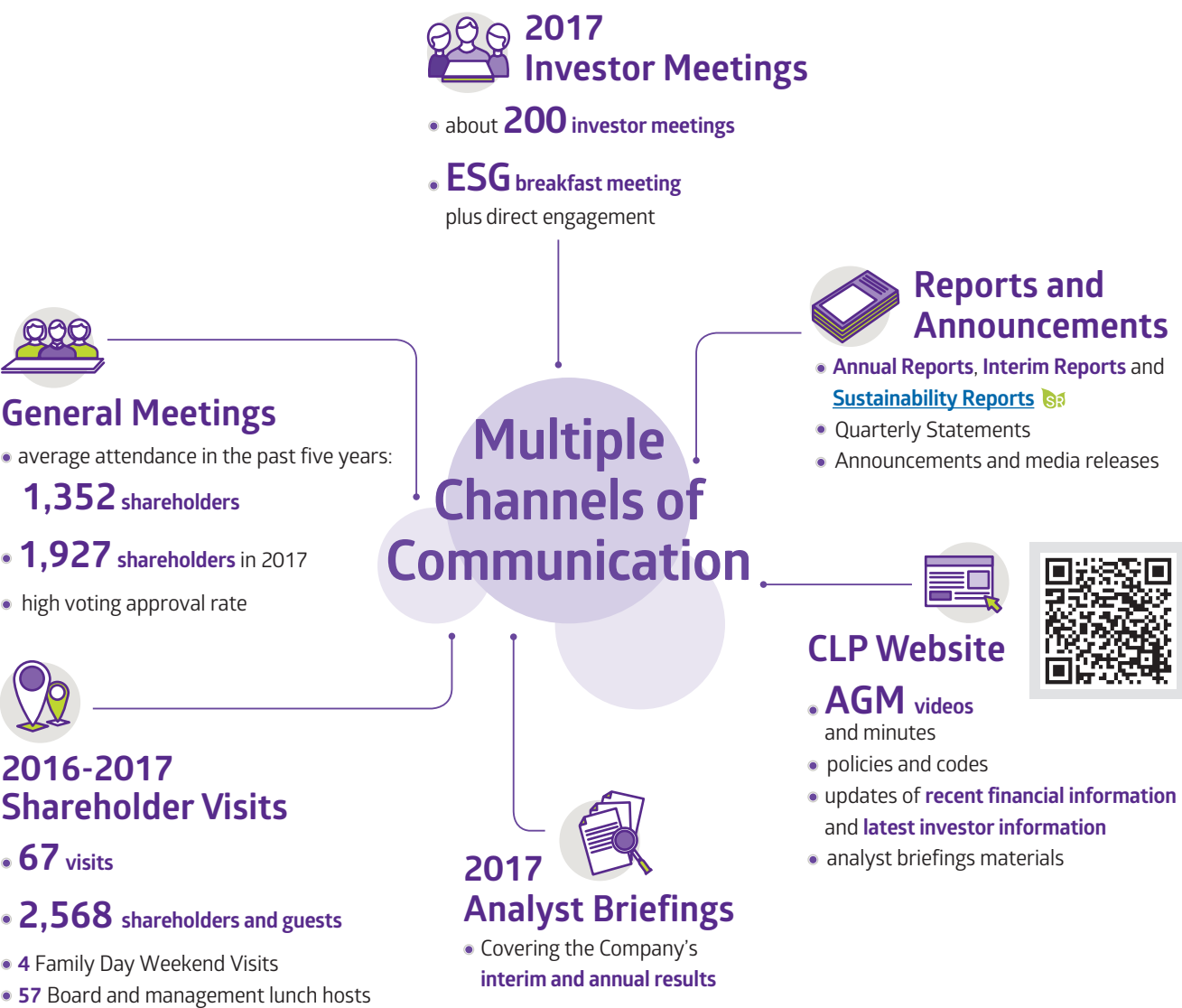
At our 2017 AGM held on 5 May 2017 at the Grand Ballroom, 1/F., Crowne Plaza Hong Kong Kowloon East, 3 Tong Tak Street, Tseung Kwan O, Hong Kong, this was well supported by our shareholders with:

- a record breaking attendance of over 1,900 shareholders; and
- a high level of votes approving the following major items:
  - the re-election of directors ranging from over 81% to over 98%; and
  - the general mandate to issue new shares of up to 5% of shares in issue only, at a price not being at a discount of more than 10% to a benchmarked price and to repurchase shares of not more than 10% shares in issue (over 99%).

Communication with Shareholders

The importance to CLP of an effective dialogue with shareholders and investors has been recognised with the implementation by the Board of a [Shareholders' Communication Policy](#), which is published on our website. This Policy forms the basis for extensive and ongoing engagement with our shareholders and the investment community. [🔗](#)

The diagram below shows the approach we take with our shareholders communications.



These channels allow us to receive feedback from our shareholders and investment community. In addition, we have the shareholders' hotline as well as dedicated investor relations and company secretary email accounts for taking enquiries and for receiving information requests from shareholders.

Reviewing and enhancing shareholders communication

The Audit & Risk Committee is responsible for regularly reviewing the effectiveness of the Shareholders' Communication Policy. The most recent review was undertaken in October 2017 and the effectiveness of the Policy was confirmed.

We strive to further enhance the effectiveness of our communication with our shareholders, by undertaking a number of key measures in this area:

- we are continuously adopting a more “reader friendly” approach to our Annual Report. A key aspect of this year’s Annual Report is the disclosure of “most material” sustainability topics and these are discussed in greater detail in the Capitals section.
- to broaden our shareholders participant base, invitations for our unique Shareholders’ Visit Programme has been extended to non-registered shareholders; the 2017/2018 programme has been expanded to run for the whole year to attract more first time visitors; and “Family Day” weekend visits will be organised during summer holiday to cater for a younger demographic who can bring younger family members along;
- communications with institutional shareholders – meetings with both existing and potential institutional investors were held and the investors base whom management met with was further broadened; in Hong Kong, meetings with private bank client advisors were also held to assist them with their understanding in their advisory work for their clients; an investor tour of our Hong Kong generation facilities was conducted; a call with an institutional investor was conducted with the attendance and participation by one of our Independent Non-executive Directors; and
- direct engagement with targeted stakeholders on ESG.



CLP’s 2017 AGM attracts a record breaking attendance of over 1,900 shareholders

Providing Feedback and Answering Questions


Feedback and questions are an essential part of effective communication. Recognising that some of the questions posed by our shareholders may be of interest to other shareholders, we have selected some of the key questions in 2017 to be included in our Annual Report. Given the significance of these topics, these are commented in the Chairman’s Statement on page 14 and/or CEO’s Strategic Review on page 17 and are also discussed in selected sections as highlighted below.

These cover the following topics:

Topics	Sections
1 The New Scheme of Control Agreement	<ul style="list-style-type: none"><li>• Business Performance and Outlook – Hong Kong (page 38)</li><li>• Risk Management Report (page 127)</li></ul>
2 Hong Kong – progress on construction of the new gas-fired generation unit, proposal of the floating offshore LNG Terminal in Hong Kong and development of the Argyle Street site	<ul style="list-style-type: none"><li>• Business Performance and Outlook – Hong Kong (page 38)</li><li>• Financial Capital (page 68)</li><li>• Notes to the Financial Statements (page 206)</li></ul>
3 China – completion of Yangjiang nuclear power acquisition, market sales, pressure on performance of the coal-fired generation portfolio	<ul style="list-style-type: none"><li>• Business Performance and Outlook – Mainland China (page 45)</li><li>• Financial Capital (page 68)</li><li>• Risk Management Report (page 127)</li></ul>
4 India – renewable energy development opportunities, operational performance of the generation assets, and power purchase agreement renewal	<ul style="list-style-type: none"><li>• Business Performance and Outlook – India (page 51)</li><li>• Financial Capital (page 68)</li><li>• Natural Capital (page 90)</li></ul>
5 EnergyAustralia – progress of the Restore Value Programme, policy and regulation uncertainty, development of renewables generation projects, future opportunities for the business and progress of the litigation regarding our sale of Iona Gas Plant	<ul style="list-style-type: none"><li>• Business Performance and Outlook – Australia (page 59)</li><li>• Financial Capital (page 68)</li><li>• Risk Management Report (page 127)</li></ul>
6 CLP’s investment strategy to address climate change, exposure to coal-fired generation and mitigation measures	<ul style="list-style-type: none"><li>• Business Performance and Outlook – Hong Kong (page 38)</li><li>• Business Performance and Outlook – Mainland China (page 45)</li><li>• Business Performance and Outlook – Australia (page 59)</li><li>• Financial Capital (page 68)</li><li>• Natural Capital (page 90)</li><li>• Risk Management Report (page 127)</li></ul>
7 Dividends, managing our financial and debt position as uncertainty in financial markets increases, use of cash generated in the business	<ul style="list-style-type: none"><li>• Financial Highlights (page 3)</li><li>• 2017 In Figures (page 5)</li><li>• Financial Review (page 28)</li><li>• Financial Capital (page 68)</li></ul>



Internal Auditors

CLP’s Group Internal Audit (GIA) department plays a major role in monitoring the internal governance of the CLP Group. The head of the department, Senior Director – Group Internal Audit, leads a well-resourced department of 26 highly qualified professional staff. For detailed tasks of the department please see the [CLP Code](#) on the CLP website. 

The Senior Director – Group Internal Audit is a member of the Group Executive Committee, who reports directly to the Audit & Risk Committee and the CEO and has direct access to the Board through the Chairman of the Audit & Risk Committee. The Senior Director – Group Internal Audit has the right to consult the Audit & Risk Committee without reference to management.

External Auditor

The Group’s external auditor is PwC and we recognise their independence as an external auditor is a fundamental governance principle.

How the Group ensures the independence of the external auditor:

- The lead audit partner of PwC is subject to rotation every seven years (as per The Independent Federation of Accountants rules on independence of external auditors).
- As part of the rotation, the current lead audit partner was first appointed for the 2014 financial year-end audit and he did not have any involvement in CLP Group for 10 years prior to the appointment in 2014.
- PwC is required to give an annual confirmation on their independence.

In addition, PwC will not be engaged to perform non-audit work unless the non-audit work meets the criteria suggested in the Listing Rules and has been pre-approved by the Audit & Risk Committee or its delegates. There must be clear efficiencies and value-added benefits to CLP from the work being undertaken by PwC, with no adverse effect on the independence of their audit work, or the perception of such independence.

During the year, PwC provided the following audit and permissible audit related and non-audit services to the Group:



	2017 HK\$M	2016 HK\$M
<b>Audit</b>	<b>39</b>	39
<b>Permissible audit related and non-audit services</b>		
Audit related (including Sustainability Report assurance, Continuing Connected Transactions limited assurance, audits of CLP’s provident funds and auditor’s attestation)	<b>6</b>	4
Non-audit services (including tax advisory and other services)	<b>3</b>	5
<b>Total</b>	<b>48</b>	48

(For these purposes, **Permissible audit related and non-audit services** include any entity under common control, ownership or management with PwC or any entity that a reasonable and informed third party having knowledge of all relevant information would reasonably conclude as part of the audit firm nationally or internationally.)

The fees of PwC and other non-principal external auditor are shown in Note 4 to the Financial Statements.

For the year ended 31 December 2017, the fees for permissible audit related and non-audit services accounted for 12.5% and 6.3% of the total fees respectively.

Other Stakeholders

Good governance requires due regard to the impact of business decisions (including environmental impact), both on shareholders and on other key stakeholders. This Annual Report and our [Sustainability Report](#), available on the CLP website, explain how we discharge our responsibilities to employees, customers, lenders, the environment and the communities in which we operate.  

Risk Management and Internal Control

Effective risk management and internal control systems help the organisation anticipate its risk exposure, put controls in place to counter threats, and effectively pursue the set objectives. They are therefore an essential part of an organisation’s operation and governance processes. This section explains (and contains cross references) the key features of our risk management and internal control systems.

Risk Management

CLP’s overall risk management framework is overseen by, and the responsibility of, the Board, through its Audit & Risk Committee, and comprises four key elements:

- Risk management philosophy – CLP recognises that risk management is the responsibility of everyone within CLP and thus it is integrated into the business and decision-making process;
- Risk Appetite – the nature and extent of the risks that the Group is willing to undertake in pursuit of its strategic and business objectives;
- Risk Governance Structure – clear roles and responsibilities are assigned to multiple layers within the organisation. This structure facilitates risk identification and escalation; and
- Risk Management Process – through an integrated top-down and bottom-up risk review process, which enables risks identification and prioritisation throughout the Group, management maintains an open and effective communication channel to enable the timely escalation of material risk and adequate supervision of risk mitigation.

The way we manage risk is set out in the Risk Management Report on page 127.

Internal Control

The Company’s structure of internal control is based on the internationally recognised COSO (Committee of Sponsoring Organizations of the Treadway Commission) 2013 integrated framework. This comprised 17 principles under the five COSO components of an effective internal control framework.

Our internal control system covers every activity and transaction of our Group. Management (which includes qualified accountants) is primarily responsible for the design, implementation, and maintenance of internal controls. It is based on clear stewardship responsibilities, authorities and accountability, supported by well-defined policies and procedures established and communicated to all staff.

With our developed internal control framework, we have continued to maintain voluntary compliance with the substance of the requirements under the Sarbanes-Oxley Act. We were required to comply with this Act when our Yankee Bonds were still in issue prior to its redemption and deregistration from the US Securities and Exchange Commission in 2008.

Identifying, Evaluating and Managing Significant Risks

Management and our staff concerned evaluate the control environment and conduct risk assessments of the business and processes. Key risks and associated controls, including mitigation when needed, are continually reviewed and updated.

High risks key controls are required to be tested annually by management while lower risk key controls are tested on rotational basis. Based on the testing results, process owners are able to represent to Senior Management that their internal controls are working as intended, or that necessary corrections have been made where control weaknesses are identified. The Board and its Audit & Risk Committee oversee management’s monitoring activities, and thus the effectiveness of the controls that have been put in place.

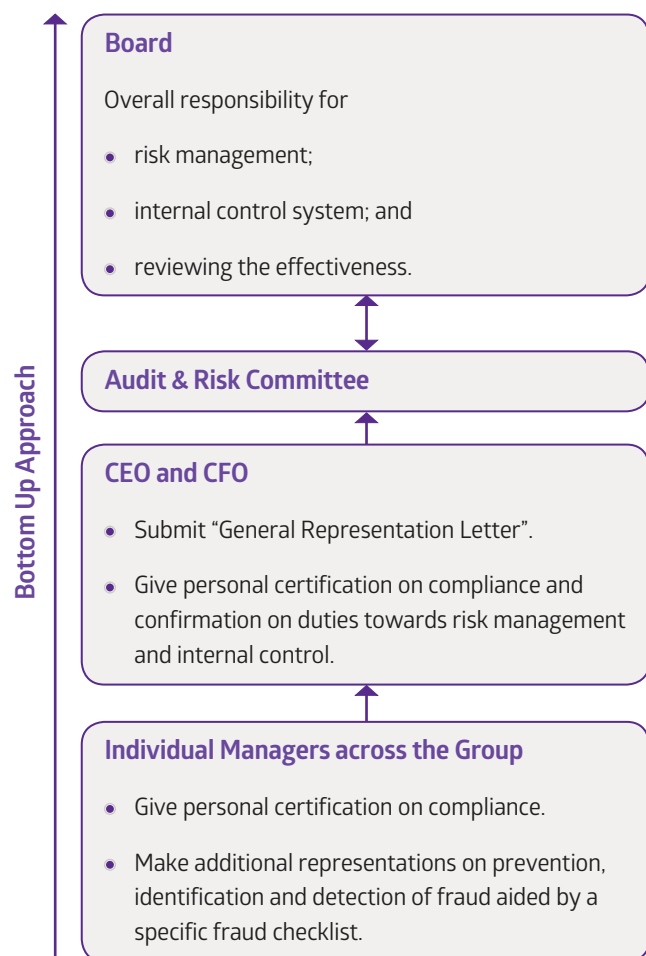
GIA provides independent assurance to the Board on the adequacy and effectiveness of internal controls for CLP. They adopt a risk-based approach, concentrating on areas with significant risks or where significant changes have been made. GIA is equipped with well qualified and capable staff with access to all the data and operations of the Group. Audit issues identified are followed up for proper implementation and the progress is reported to the Audit & Risk Committee periodically.

The external auditor also tests the key controls to the extent that they will be relied on for the audit. The Board is regularly informed of significant risks that may have an impact on CLP’s performance.

### Management Representation

The process of General Representation Letters reinforces personal responsibility for good governance and controls at all levels within CLP. It involves a procedure whereby individual managers across the Group are requested to verify compliance with internal controls in their particular businesses, departments and activities.

CLP's General Representation Letter Process – compliance verification



### Effectiveness of Risk Management and Internal Control Systems

Through the Audit & Risk Committee's review, the Board is responsible for the Company's risk management and internal control systems and for reviewing their effectiveness.

#### The review process

Five times a year, the Audit & Risk Committee reviews the management's findings and opinion of GIA on the effectiveness of the Company's risk management and internal control

systems. The reviews cover management's assessment of the internal controls of key business operations, changes in material risks, internal control and compliance issues (both financial and non-financial) and significant issues arising from internal and the external audit reports.

For the year ended 31 December 2017, the Board considered the risk management and internal control systems of the Group to be effective and adequate. No significant areas of concern that might affect shareholders were identified.

### Inside Information

We have our own [Continuous Disclosure Obligation Procedures](#) which set out the procedures and controls for handling and dissemination of inside information. The Procedures are on the CLP website. The Continuous Disclosure Committee (established in 2016) conducted regular assessment of potential inside information. The members of the committee include the CEO, CFO, the Company Secretary and the Director – Investor Relations. Please also see page 105 on "Our disclosure". [🔗](#)

### Corporate Governance – Continuing Evolution and Disclosure

Our own corporate governance practices evolve, not only in line with local requirements, but through our own experience and by reference to international developments. Through this Corporate Governance Report, the [CLP Code](#) and the [Corporate Governance section](#) of our website, we offer a comprehensive view of our practices and policies and how these are developing. Our objective is that, at all times, our corporate governance meets our shareholders' expectations and serves their interests. [🔗](#)

We will continue to review and, where appropriate, improve on our corporate governance practices in light of our experience, regulatory requirements and international developments.

By Order of the Board

**David Simmonds**

Company Secretary

Hong Kong, 26 February 2018



# Risk Management Report

*Effective risk management that takes into account the need to balance risk and opportunity is critical to the long-term growth and sustainability of our business.*

## CLP's Risk Management Framework

Risk is inherent in CLP's business and the markets in which we operate. We aim to identify risks early so they can be understood, managed, mitigated, transferred, or avoided. This demands a proactive approach to risk management and an effective Group-wide risk management framework. Our risk management framework comprises four key elements which will be discussed in more detail later:

1. Risk management philosophy
2. Risk appetite
3. Risk governance structure
4. Risk management process

## CLP's Risk Management Philosophy

CLP's overall risk management process is overseen by the Board through the Audit & Risk Committee. CLP recognises that risk management is the responsibility of everyone within the Group. Throughout the company, therefore risk management is integrated into business and decision-making processes including strategy formulation, business development, business planning, capital allocation, investment decisions, internal control, and day-to-day operations.

We have clear risk management objectives on strategic and operational levels:

- At a **strategic level**, CLP focuses on the identification and management of material risks inherently associated with the pursuit of the Group's strategic and business objectives. In pursuing growth opportunities, CLP aims to optimise risk and return decisions as defined and quantified through diligent and independent review and challenge processes.
- At an **operational level**, CLP aims to identify, assess, evaluate, and mitigate all operational hazards and risks. We do this in order to create a safe, healthy, efficient, and environmentally-friendly workplace for our employees and contractors while ensuring public safety and health, minimising environmental impact, and securing asset integrity and adequate insurance.

## CLP's Risk Appetite

CLP's risk appetite represents the nature and extent of the risks the Group is willing to undertake in pursuit of its strategic and business objectives. In line with CLP's Value Framework and the expectations of our stakeholders, CLP only takes reasonable risks that fit our strategy and capability, can be understood and managed, and do not expose the Group to:

- Hazardous conditions affecting safety and health of our employees, contractors, and / or the general public
- Material financial loss impacting financial viability and strategy execution of the Group
- Material breach of external regulations leading to loss of critical operational and business licences, and / or substantial fines
- Damage to the Group's reputation and brand name
- Business or supply interruptions leading to severe impact on the community
- Severe environmental incidents

### CLP's risk profiling criteria:

Based on our risk appetite, CLP has established a risk assessment matrix to help rank risks and prioritise risk management efforts at the Group level. Business units are required to adopt the same risk matrix structure in order to establish their own specific risk profile, determine consequences and the likelihood of identified risks, and establish risk mitigation strategies.

CLP’s Risk Governance Structure

Our Risk Governance Structure:

- Facilitates risk identification and escalation while providing assurance to the Board
- Assigns clear roles and responsibilities and facilitates implementation with guidelines and tools
- Recognises our **5 Lines of Assurance** model as explained below:



<b>Board Oversight</b>
<b>The Audit &amp; Risk Committee, acting on behalf of the Board:</b> <ul style="list-style-type: none"><li>• Evaluates and determines the nature and extent of the risks the Board is ready to endorse in pursuit of the Group’s strategic objectives</li><li>• Ensures an appropriate and effective risk management framework is established and maintained</li><li>• Oversees management of risk identification, reporting and mitigation efforts</li></ul>
<b>Independent Assurance</b>
<b>The Group Internal Audit:</b> <ul style="list-style-type: none"><li>• Carries out independent appraisal of the effectiveness of the risk management framework</li></ul>
<b>Management Oversight &amp; Communication</b>
<b>The Chief Financial Officer and the Group Executive Committee:</b> <ul style="list-style-type: none"><li>• Provide leadership and guidance for the balance of risk and opportunity</li><li>• Review and report to the Board through the Audit &amp; Risk Committee on the material risks affecting the Group as well as their potential impact, their evolution, and the mitigating measures</li><li>• Ensure that a review of the effectiveness of the risk management framework has been conducted at least annually and provide confirmation of this to the Board through the Audit &amp; Risk Committee</li></ul>

Control & Monitoring

- Group Functions: Finance, Risk Management, Internal Control, Tax, Operations, Information Technology, Legal, Human Resource, Sustainability**
- Establish relevant Group-wide policies, standards, procedures, and guidelines
  - Oversee the risk and control activities of business units relevant to their respective functions

Ownership

- Business Units, Functional Units, and Individuals:**
- Are responsible for identifying and assessing key risks in their areas of responsibility, making effective risk management decisions, establishing risk mitigation strategies, and promoting a risk-aware culture
  - Carry out risk management activities and reporting in their day-to-day operations and ensure risk management processes and mitigation plans follow good practices and guidelines established by the Group
  - Appoint risk managers or coordinators to facilitate communication, experience sharing, and risk reporting

Group Risk Management Function

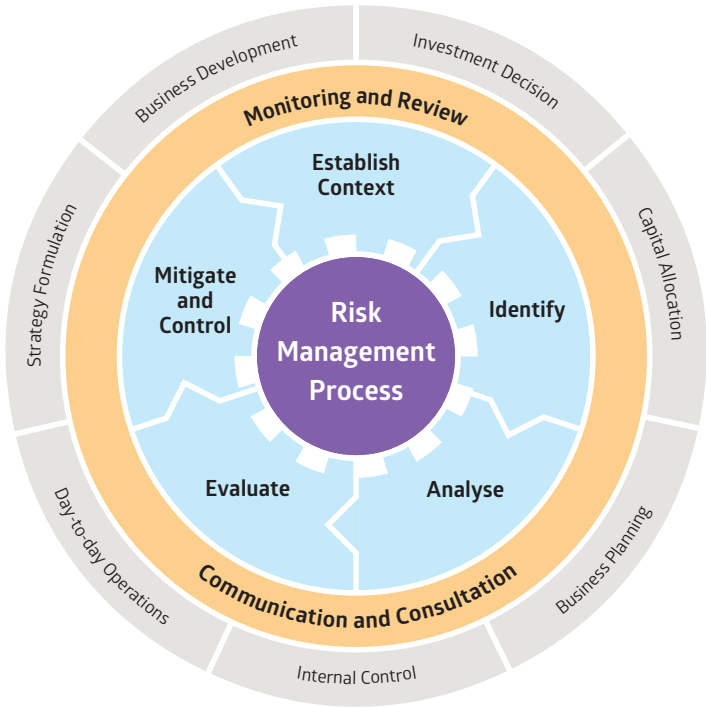
- Implements the Group’s Risk Management Framework, and assists business units in implementing their own frameworks
- Manages regular risk review and risk reporting processes of the Group
- Facilitates independent risk appraisal for projects seeking endorsement by the CLP Holdings Investment Committee
- Facilitates risk communication, experience sharing, and risk reporting

CLP’s Risk Management Process

The process is integrated into business and decision-making processes and involves:

- Establishing the context
- Identifying risks and assessing their potential consequences and likelihood
- Evaluating the risk level, control gaps, and priorities
- Developing control and mitigation plans

It is a continuous and interactive process with stakeholder communication and consultation, and is subject to regular monitoring and review.





Quarterly Risk Review Process at Group Level

An integrated top-down and bottom-up risk review process

CLP adopts an integrated top-down and bottom-up risk review process to enable:

(1) Comprehensive identification and prioritisation of all material risks throughout the Group

(2) Containment of material risks at the right managerial level

(3) Effective risk dialogue among the management team

(4) Proper governing of risk mitigation efforts

Top-down Process

At the Group Risk Management quarterly meetings, members of the Group Executive Committee discuss the top-tier risks and examine any other risk issues that they consider important. This dialogue offers an opportunity for the management to identify and respond to emerging risks early on, voice risk concerns, share risk insights, and seek risk management guidance.

Group Risk Management facilitates the review of emerging risks by compiling relevant information from both internal and external sources.

Emerging risks that are identified and considered material are further assessed and monitored by relevant business units or group functions.

Bottom-up Process

Our business units and group functions are required to submit their list of material risks identified through their risk management process to Group Risk Management on a quarterly basis.

Through a diligent process of aggregation, filtering, prioritising, and consultation, Group Risk Management compiles a Quarterly Group Risk Management Report for review and discussion by the Group Executive Committee.

Upon approval, the Report is submitted to the Audit & Risk Committee on a quarterly basis. “Deep dive” presentations on selected risks are presented to the Audit & Risk Committee for more detailed review.

Risk Review Process for Investment Decisions

All new material investments must be endorsed by the CLP Holdings Investment Committee, chaired by the CEO, before approval is sought from the Board or Finance and General Committee.

CLP adopts a multi-gated system of periodic project appraisals during development and investment cycles.

CLP requires independent multi-disciplinary review of any investment proposal. Independent risk appraisal by Group Risk Management is part of the investment review process.

Group Risk Management ensures a detailed project risk assessment is carried out for each investment project. Detailed checklists and worksheets are used to identify risks and mitigations and to assess risk levels. Material risks and associated mitigations are highlighted and discussed at the Investment Committee.

Risk Management Integrated with Internal Control Systems

Risk management is closely linked to CLP’s Integrated Framework of Internal Control. Key controls are subject to testing in order to assess their effectiveness. Details on Internal Control are set out in the Corporate Governance Report on pages 125 to 126.

Risk Management in the Business Planning Process

As part of the annual business planning process, business units are required to identify all material risks that may impact the delivery of their business objectives. Overarching strategic risks to the Group are also reviewed. Identified risks are evaluated based on the same set of risk profiling criteria as the quarterly risk review process and plans to mitigate the identified risks are developed. The material risks listed on pages 131 to 135 have been laid out in our 2017 business planning process.

Material Risks to the Group

As an investor and operator in the energy sector of the Asia-Pacific region, CLP categorises its risk profile into five key risk areas: Regulatory, Financial, Market, Commercial, and Industrial and Operational. CLP’s 2017 business planning process has identified the following areas as material risks to the Group:

Regulatory Risk	
<p>CLP operates in a heavily regulated industry and regulatory risk remains a key challenge for us.</p> <p>Following the conclusion of the new Scheme of Control Agreement, the short-term regulatory risk of Hong Kong business has reduced. However, the risk remains of adverse regulatory changes in the medium to longer term.</p> <p>Our Australian business continues to face regulatory uncertainty on numerous fronts in the absence of a national energy and climate policy, including carbon, renewable energy target, spot market rule changes, emissions reduction scheme, and retail pricing re-regulation.</p> <p>In Mainland China, the implementation of power sector reforms including market power sales, transmission and distribution pricing mechanism, and the spot electricity wholesales market, is gathering pace. The practical implications may vary from province to province.</p>	<p>We manage by:</p> <div><div>a) Working constructively with governments to advocate our positions on regulatory changes</div><div>b) Implementing comprehensive stakeholder engagement plans to facilitate sensible and informed discussion on regulatory matters</div><div>c) Mobilising internal resources to ensure timely response to regulatory changes and maintaining regulatory compliance</div><div>d) Communicating and highlighting the importance of a balance between reliable and safe supply, care for the environment, and reasonable tariffs</div><div>e) Reinforcing CLP’s efforts in caring for the community and promoting energy efficiency</div></div>

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Group Top Tier Risk – Regulatory	Changes in 2017	Additional References
Uncertain regulatory changes impacting EnergyAustralia	↔	Pages 60 – 65
Regulatory and political risk of Hong Kong business	↓	Pages 39 – 44
Uncertain impacts of China power sector reforms	↔	Pages 46 – 50

Financial Risk		
<p>CLP's investments and operations, which are long term in nature, are exposed to various financial risks including cash flow and liquidity risks, credit and counterparty risks, interest rate risks, and foreign currency risks.</p> <p>Group-level earnings may also be impacted by marked-to-market fair value gains or losses as some of our economic hedges are classified as ineffective according to the Hong Kong Financial Reporting Standards.</p> <p>The highly volatile foreign exchange and equity markets and anticipated interest rate hikes have further increased the challenge for CLP to secure financing for development projects on competitive terms.</p>	<p>We manage by:</p> <ol style="list-style-type: none"> <li>Maintaining strong investment grade credit ratings and preserving a healthy capital structure</li> <li>Soliciting adequate and cost-effective funding</li> <li>Securing debt funding diversity and maintaining an appropriate mix of committed credit facilities</li> <li>Maximising the use of local funding options</li> <li>Hedging most transactional foreign currency exposures in line with CLP's Treasury Policy</li> <li>Pursuing "natural hedge" by matching currency of revenue, cost and debt as well as ensuring project level debt financing should be denominated in and/or swapped into functional currency where possible</li> <li>Controlling financial counterparty exposure by transacting only with creditworthy and pre-approved financial institutions, allocating exposure limits based on bank's credit standing, and ensuring non-recourse to CLPH for counterparties of CLPH's subsidiaries and affiliates</li> <li>Maintaining good, trustworthy relationships with lenders</li> <li>Ensuring transparency in financial communications and disclosures</li> </ol>	
Group Top Tier Risk – Financial	Changes in 2017	Additional References
Foreign currency risk associated with the Group's investments	↔	Pages 68 – 72
Group's liquidity risk of adequate funding at competitive terms	↔	Pages 68 – 72
Default of Group's financial counterparties	↔	Pages 68 – 72

Market Risk		
<p>Market risk is another driver of earnings volatility facing the Group.</p> <p>The swings from oversupply to undersupply in the wholesale generation market as well as increasing retail competition continue to impact EnergyAustralia.</p> <p>In Mainland China, changes in the structure of the economy, tighter environmental rules and increasing market sales through competitive bidding have led to a reduction in the output and lower tariffs for the thermal power plants, notably Fangchenggang, amid an increase in coal prices resulting from supply side intervention and imported coal restriction.</p>	<p>We manage by:</p> <ol style="list-style-type: none"> <li>Focusing on restoring value to EnergyAustralia's business through four strategic objectives: becoming a world-class energy retailer; leading in NextGen products and services; developing a sustainable low-cost operating model; optimising centralised generation</li> <li>Managing actively our wholesale energy portfolio and implementing strategies to align wholesale and retail positions</li> <li>Implementing an approved energy risk policy, with energy market transactions subject to approved limits and controls</li> <li>Exploring different revenue streams and value-added services for our customers</li> <li>Improving our current operations, fuel procurement, and development strategy while closely monitoring our operating cash flow in view of market volatility</li> <li>Specific to Mainland China: <ul style="list-style-type: none"> <li>Proactively engaging with government to advocate our positions on coal supply issues, tariff adjustment, and generation dispatch and power supply opportunities</li> <li>Securing more market sales contracts with large industrial customers</li> </ul> </li> </ol>	
Group Top Tier Risk – Market	Changes in 2017	Additional References
Energy market volatilities and retail competition impacting EnergyAustralia	↔	Pages 60 – 65
Volume risk and coal supply issues affecting Fangchenggang Power Station	↑	Pages 46 – 50

Commercial Risk		
<p>Commercial risk refers to potential losses arising from inadequate gross margins and non-performance of trading partners or counterparties. It is important to ensure that our trading partners or counterparties are reliable, financially healthy, and willing to pay.</p> <p>Currently, key commercial risks impacting CLP are commercial disputes with offtakers over the implementation of power purchase agreements (PPAs), the financial health of our counterparties, fuel supply security and price volatility, payment delay, tariff affordability, and tariff adjustment challenges.</p>	<p>We manage by:</p> <ol style="list-style-type: none"> <li>Diligently pursuing resolution of payment delays and disputes with offtakers</li> <li>Monitoring the financial health of our counterparties including offtakers, fuel suppliers, equipment suppliers, engineering, procurement, construction (EPC), and operation and maintenance (O&amp;M) contractors</li> <li>Liaising with our fuel suppliers to mitigate ongoing sources of environmental, economic, operational, delivery and credit risks affecting fuel supply security; contingency planning for potential supply disruptions</li> <li>Diversifying our fuel sources and fuel procurement strategy in order to secure a stable supply of fuel while attaining a lower average fuel cost for our customers</li> <li>Reviewing the merit order of our plants and ensuring their competitiveness in the long run</li> </ol>	



Group Top Tier Risk – Commercial	Changes in 2017	Additional References
EnergyAustralia's Mount Piper coal supply risk	↔	Pages 61 – 63
Major commercial disputes with offtakers over PPAs in India	↔	Pages 243 – 244
Hong Kong gas supply security	↔	Pages 40 & 44
Volatility of fuel costs for Hong Kong business and challenge of tariff adjustments	↑	Pages 39 – 40, 44
Counterparty risk of Indian EPC and O&M contractors	↓	–
Risk of PPA extension at Paguthan Power Station	↔	Page 56
Litigation related to EnergyAustralia's Iona gas plant disposal	New	Pages 62 & 244

Industrial & Operational Risk	
<p>CLP's operations are exposed to a variety of industrial and operational risks relating to Health, Safety, Security and Environment (HSSE), plant performance, human capital, data privacy, cyber-attacks, and extreme weather events as a result of climate change.</p> <p>In particular, climate change and cyber security are two key emerging risks which may have material impact on the Group over a longer timeframe.</p> <p>CLP continues to face the risk of safety incidents and contractors' safety management. Despite CLP's efforts in safety, two fatal incidents occurred in 2017 which resulted in the death of four contractor workers in Hong Kong.</p>	<p>We manage by:</p> <p>a) Planning and implementing operations and system reinforcements where necessary in order to maintain high operational and emissions performance</p> <p>b) Enhancing our operational efficiency and reliability by strengthening our asset and fleet management</p> <p>c) Maintaining emergency response and crisis management plans with regular drills</p> <p>d) Implementing the CLP Group HSSE Management System and group-wide initiatives to prevent serious injuries and fatalities, enhance our safety leadership and improve safety management of contractors</p> <p>e) Implementing the Project Management Governance System to facilitate a consistently safe, timely and cost-effective delivery of high quality projects</p> <p>f) Implementing appropriate controls, technologies and practices at all levels to mitigate cyber security risks so as to (i) avoid disruption to energy supply systems, (ii) protect confidentiality, integrity and availability of information assets, and (iii) comply with the necessary regulatory requirements</p>

Group Top Tier Risk – Industrial & Operational	Changes in 2017	Additional References
Major HSSE incidents at construction or operating plants	↑	Pages 20, 43, 81, 86, 91 – 93
Uncertainty in plant performance of Jhajjar in India	↔	Pages 53 – 54, 56
Cyber-attack on business and power systems	↔	Pages 79 – 80
Performance risk of wind power projects across the Group	↔	Pages 47 & 52
Extreme weather events	↔	Pages 40, 75 – 76

- ↑ Risk level increased
- ↓ Risk level decreased
- ↔ Risk level remained broadly the same

Continuous Improvement

CLP is facing a wide range of current and emerging risks which demand continuous and close attention by management. We are committed to continually improving our risk management framework, capabilities, and culture across the Group to ensure the long-term growth and sustainability of our business.

Given the increasing significance of Environmental, Social and Governance (ESG) risks as well as performance, we have been exploring ways to strengthen our capability in monitoring emerging ESG risks and opportunities. We have also begun a pilot project to explore ways of integrating our knowledge of global trends with the process of identifying emerging risks and opportunities.

Effectiveness Review of Risk Management and Internal Control Systems

The Audit & Risk Committee, on behalf of the Board, has reviewed the effectiveness of the Group's risk management and internal control systems during the period covered by this annual report. The details of the effectiveness review are described in the Corporate Governance Report on page 126 and the Audit & Risk Committee Report on page 138.

It should be acknowledged that our risk management and internal control systems are designed to manage rather than eliminate the risk of failure in achieving our strategic and business objectives, and can only provide reasonable, but not absolute, assurance against material loss or misstatement.



**Geert Peeters**  
Executive Director & Chief Financial Officer  
Hong Kong, 26 February 2018

# Audit & Risk Committee Report

## Members

The Audit & Risk Committee (known as the Audit Committee until January 2018) is appointed by CLP Holdings' Board of Directors. All four members of the Committee are Independent Non-executive Directors, namely:

- Mr Vernon Moore as the Chairman;
- Mr Nicholas C. Allen;
- Mrs Fanny Law; and
- Ms Irene Lee.

Full biographies of the members are set out on pages 96 to 99.

In addition to the members, the regular attendees at the Committee's meetings include:

- Mr Richard Lancaster (Chief Executive Officer);
- Mr Geert Peeters (Chief Financial Officer);
- Mr David Simmonds (Group General Counsel & Chief Administrative Officer);
- Mr Benjamin Lau (Senior Director – Group Financial Control);
- Mr Pablo Arellano (Senior Director – Group Financial Planning & Control);
- Ms Kathy Liu (Senior Director – Group Internal Audit); and
- Representatives from PwC (External Auditor).

## Meetings and Attendance

The Committee held six meetings during 2017 and another two meetings were held in 2018 up to the date of this Report. Individual attendance of members for the 2017 meetings is set out in the Corporate Governance Report on page 112. The following table shows the topics the Committee considered during the period:

	2017						2018	
	Jan	Feb	Apr	Jun	Jul	Oct	Jan	Feb
<b>Risk Management, Internal Control and Compliance</b>								
Quarterly risk management report		✓	✓		✓	✓		✓
Deep dive into selected risks and processes			✓	✓	✓	✓		
Internal control review update		✓		✓		✓		✓
Risk management and internal control systems		✓	✓	✓	✓	✓		✓
Management's general representation letter		✓			✓			✓
Outstanding internal audit issues		✓	✓	✓	✓	✓		✓
Legal and regulatory compliance		✓			✓			✓
<b>Interim and Annual Financial Statements</b>								
Annual and interim financial statements and reports		✓			✓			✓
Assessment of critical accounting and judgmental issues	✓			✓			✓	
Sustainability Report data assurance review		✓				✓		✓

	2017						2018	
	Jan	Feb	Apr	Jun	Jul	Oct	Jan	Feb
<b>Internal and External Auditing</b>								
Internal audit results and audit issues		✓	✓	✓	✓	✓		✓
Internal audit policies and practices						✓		
Ethical and controls commitment surveys			✓		✓			
PwC's audit report		✓			✓			✓
Audit fees and non-audit matters		✓						✓
Audit plan and audit progress		✓	✓	✓	✓	✓		✓
<b>Corporate Governance</b>								
Corporate governance trends, developments and related policies						✓		
Code of Conduct and whistleblowing cases		✓	✓	✓	✓	✓		✓
Continuing connected transactions		✓						✓

## EnergyAustralia

CLP's subsidiary, EnergyAustralia, has its own board of directors that includes independent non-executive directors.

The EnergyAustralia board has established an Audit and Risk Committee (ARC) that carries out the functions of an audit and risk committee for EnergyAustralia's business.

The Committee's function with respect to the operations of EnergyAustralia is strengthened and supplemented by EnergyAustralia ARC. There is an open invitation between this Committee and the EnergyAustralia ARC for members to attend the other committee's meetings.

Between 1 January 2017 and the date of this Report, the Chairman of the Committee participated in two EnergyAustralia ARC meetings and the Chairman of EnergyAustralia ARC participated in one meeting of the Committee. The Chairman of the Committee also had the opportunity of meeting with members of the EnergyAustralia ARC informally.

## Responsibilities

### Terms of Reference

To better reflect the current responsibilities and nature of work of the Committee, the title of the Committee was changed in January 2018 to the "Audit & Risk Committee".

The Committee's terms of reference follow international best practice and they also comply with the HKICPA's "A Guide for Effective Audit Committees" and the Stock Exchange Code. Full [terms of reference](#) can be found on CLP's and the Hong Kong Stock Exchange's websites. [📄](#)

### Accountability

The Committee is accountable to the Board. The Chairman makes a regular report to the Board on the Committee's review of significant internal control and risk management issues and the Company's annual/interim results. In addition, the Chairman reports to the Board annually on the Committee's activities. During the year, the Chairman reported on the Committee's work on reviewing cyber and physical security at a Board meeting where management provided a briefing on these topics in particular, the Chairman reported on the Committee's assessment of the risks posed to the business by the potential cyber and/or physical attacks, and CLP's preparedness.



Primary Responsibilities

The Committee’s primary responsibilities are to:



- assure that adequate risk management and internal control systems are in place and followed;
- assure that appropriate accounting principles and reporting practices are followed;
- review, and to make sure that, the assurance of the sustainability data in the Sustainability Report is appropriate;
- satisfy itself that the scope and direction of external and internal auditing are adequate;
- satisfy itself that good accounting, audit principles, risk management, internal controls and ethical practices are applied on a consistent basis throughout the CLP Group (without limiting the responsibilities of the boards of CLP subsidiaries); and
- perform the corporate governance duties described further in this Report and fulfil the functions conferred on the Committee by the CLP Code.

The next section of the Report highlights the key focus areas of the Committee in the period under review, and illustrates the manner in which the Committee discharges its responsibilities.

Summary of Work Done

The Committee’s key areas of focus for the full year 2017 and in 2018 up to the date of this Report are set out below:

Areas of focus	How did the Committee address such areas?
<b>Risk Management, Internal Control and Compliance</b>	
Risk management and internal control	<p>The Committee received and reviewed management’s periodic internal control review updates and the Group’s quarterly risk management reports.</p> <p>To provide further assurance to the Committee regarding the effectiveness of the risk management and internal control systems, the CEO and CFO provided to the Committee General Representation Letters describing the state of internal control and other matters prior to the publication of the interim and annual financial statements (see page 126 for further details regarding the General Representation Letters).</p> <p>The Committee’s monitoring of the risk management and internal control systems were greatly assisted by the GIA and by the external auditor’s report of their testing of the control environment of the Group. During the period, no material internal control issues were identified.</p> <p>The Committee was satisfied that the Group’s risk management and internal control systems were effective for the period and that these continue to be effective and adequate as at the date of the Report.</p> <p>When the risk rating for “health, safety, security and environment” was increased following the fatality incidents in 2017, management delivered a deep dive briefing to the Committee, and explained to the Committee management’s framework and approach to addressing the risk “serious injuries and fatalities”. The Committee acknowledged the various initiatives that were being implemented and also invited management to report back to the Committee on the progress in due course.</p> <p>The Chairman along with another Member attended and observed a typhoon drill exercise conducted by CLP Power Hong Kong. They were able to see first-hand the procedures that were activated and undertaken in the scenario of a super typhoon hitting Hong Kong. They found the preparedness of the staff and the whole process and exercise to be reassuring.</p>

Areas of focus	How did the Committee address such areas?
Compliance	<p>The Committee reviewed the Group’s compliance with applicable legal and regulatory requirements including the CLP Code, the Stock Exchange Code, the Listing Rules, the Companies Ordinance and the Securities and Futures Ordinance.</p> <p>The Committee noted that the only exception was that CLP does not publish quarterly financial results and agreed with the considered reasons for this approach; please refer to the Corporate Governance Report, Compliance with the Stock Exchange Code and the ESG Reporting Guide, page 106.</p>
Cyber security	<p>Cyber security was identified as a significant risk to the Group and is recorded and tracked in the Group’s Risk Heat Map.</p> <p>In 2017, the Committee received a regular update on the status of the Group’s cyber security initiatives from management, such as the continuous development of cyber-safe culture of CLP and the worldwide cyber security trends. Furthermore, shortly after the “wannacry” global widespread cyberattack that affected many organisations, an additional briefing on the attack was conducted, and highlighted precautionary measures that were taken which prevented CLP from being affected by the attacks.</p>
<b>Interim and Annual Financial Statements</b>	
Annual Reports and Interim Report	<p>The Committee reviewed the 2016 and 2017 Annual Reports and the 2017 Interim Report and on the recommendations from the Committee, these were approved by the Board.</p>
2017 Financial Statements – judgmental issues	<p>Management and PwC presented to the Committee the key judgmental issues with material accounting impact. These included the review of the carrying values of the Group’s generation assets and goodwill, and the disclosures and accounting treatment of certain litigation and disputes. The Committee agreed with the judgements made.</p>
Sustainability Report data assurance	<p>The Committee considered and took note of PwC’s report on the sustainability assurance in respect of the 2016 and 2017 <a href="#">Sustainability Reports</a>. </p> <p>In 2017, CLP Holdings adopted the Climate Action Finance Framework to facilitate the arrangement of socially sustainable financings, and pursuant to which a Climate Action Finance Report will be issued. The Committee reviewed and approved the engagement of PwC for the limited assurance engagement on the Climate Action Finance Report for inclusion in the <a href="#">2017 Sustainability Report</a>. </p>

Areas of focus	How did the Committee address such areas?
<b>Internal and external auditing</b>	
Internal audit	<p>The Committee received and considered reports from the Senior Director – Group Internal Audit. Four reports out of a total of 31 submitted carried an unsatisfactory audit opinion.</p> <p>The Committee and management had detailed discussions on the matters covered by all the reports. Those with unsatisfactory opinions received special attention, and in a number of cases, relevant business unit management attended a Committee meeting to discuss with the Committee the issues, context, measures taken and to be taken, and business implications. The reports identified control weaknesses in relation to certain areas of the EnergyAustralia sales call process; lack of a maintenance plan at one plant; inadequate user access review and change management processes; and verification of contract deliverable documents in different individual business units. None of the control weaknesses identified had a material impact on the financial statements.</p>
Internal audit function	<p>The Committee also reviewed the adequacy of resources, staff qualifications and experience, training programmes and budget of the GIA function as well as the accounting and financial reporting functions of the Group.</p>
Financial Statements – auditor’s opinion	<p>For both the 2016 and 2017 financial statements, PwC presented the auditor’s opinion on the financial statements, which focused on the Key Audit Matters that were most significant in the audit process. The drafting of the Key Audit Matters was carefully considered and reviewed by the Committee and the final Key Audit Matters incorporated and reflected the comments from the Committee while being the independently formed view of the auditor.</p>
External audit related	<p>The Committee reviewed the following fees payable to PwC:</p> <ul style="list-style-type: none"><li>• audit fees for 2016 and 2017 for approval by the Board; and</li><li>• permissible audit related and non-audit services provided by PwC for 2016 and 2017 (please see page 124 for further details).</li></ul> <p>PwC was reappointed as external auditor for 2017 at the 2017 Annual General Meeting and the reappointment was approved by over 99.9% of the shareholders’ votes.</p> <p>For 2018, the Committee having considered and being satisfied with PwC’s performance and independence as external auditor, recommended to the Board that PwC be reappointed. The Company’s shareholders will consider this at the forthcoming 2018 AGM. PwC had issued a letter of independence to the Audit &amp; Risk Committee: for further details on the assessment of their independence, please see page 124. The Committee considers that regular change to the lead audit partner is a better assurance of independence than changing the audit firm. The current lead audit partner has served for four years.</p> <p>The Committee approved the appointment of KPMG in place of PwC India as statutory auditor of the CLP India business. Regular audit firm rotation is a mandatory requirement of Companies Act 2013 of India.</p>

Areas of focus	How did the Committee address such areas?
<b>Corporate Governance</b>	
Corporate Governance practices	<p>The Committee received a report of Corporate Governance Policies and Practices Review. The Committee took note of the Review regarding shareholders’ communication policy, Code of Conduct, whistleblowing policy, and policy and guidelines on the provision of gifts and entertainment, CLP’s corporate governance practices as well as the new initiatives of the Hong Kong Stock Exchange and the Securities and Futures Commission. The Committee was supportive of the contents of the Review and the new initiative to extend the invitation for the Shareholders’ Visit Programme to non-registered shareholders (i.e. those who hold through brokerage or nominee accounts).</p>
Continuing connected transactions	<p>The Committee considered the work by PwC on the annual reporting and confirmation of continuing connected transactions required by the Listing Rules. The members noted that PwC had undertaken additional agreed upon procedures for the review of certain selected continuing connected transactions.</p>
Code of Conduct	<p>The Committee received and considered the periodic updates on the breaches of the Code of Conduct. None of the 28 breaches in 2017 were material to the Group’s financial statements or overall operations. The breaches were mainly related to issues of work place behaviour and individuals’ ethics and integrity. None of the reported Code of Conduct violations involved senior managers.</p> <p>The Committee noted that a Business Practice Review was conducted in 2017 for the Group other than EnergyAustralia (their review will be conducted in 2018). This review is an in-person training programme mandatory for all employees and encouraged for contractors, carried out once every four years, to refresh their understanding of the CLP Code of Conduct and other major corporate policies. More than 350 sessions were held in 2017 which covered over 6,000 full-time employees and 1,600 contractors.</p>

Audit & Risk Committee Effectiveness

The Company Secretary evaluated the performance and effectiveness of the Committee during 2017 and the Committee was pleased to note that the Company Secretary concluded that the Committee was performing its responsibilities in an effective manner in accordance with its terms of reference.

The evaluation was reviewed and the conclusion was confirmed by internal and external auditors. The CLP Holdings Board endorsed the Company Secretary’s evaluation.



**Vernon Moore**  
Chairman, Audit & Risk Committee  
Hong Kong, 26 February 2018



# Sustainability Committee Report

## Members

The Sustainability Committee is appointed by CLP Holdings' Board of Directors and the members of the Committee are:

- Mr Richard Lancaster (Chief Executive Officer) as the Chairman;
- Mr Nicholas C. Allen (Independent Non-executive Director);
- Mrs Fanny Law (Independent Non-executive Director);
- Ms Irene Lee (Independent Non-executive Director);
- Mr Andrew Brandler (Non-executive Director); and
- Ms Quince Chong (Chief Corporate Development Officer).

Full biographies of the members are set out on pages 96 to 101.

In addition to the members, the regular attendees at the Committee's meetings include:

- Mr Geert Peeters (Chief Financial Officer);
- Mr Derek Parkin (Chief Operating Officer);
- Mr David Simmonds (Group General Counsel & Chief Administrative Officer);
- Mr Roy Massey (Chief Human Resources Officer); and
- Dr Jeanne Ng (Director – Group Sustainability).

## Meetings and Attendance

The Committee meets as frequently as required but not less than twice a year and any Committee member may call a meeting. Between 1 January 2017 and the date of this Report, the Committee met four times (including three times in 2017 and once in 2018). The following table provides an overview of how the Committee spent its time during the period:

	February	2017 September	November	2018 February
Sustainability Reporting / Indices Performance	✓		✓	✓
Community Investment Activities	✓			✓
Climate Change		✓	✓	
Health, Safety, Security and Environment		✓		
Sustainable Development Goals		✓	✓	

## Responsibilities

### Terms of Reference

The current [terms of reference](#) were adopted in February 2015 and are set out on the CLP's and the Hong Kong Stock Exchange's websites. [🔗](#)

### Accountability

The Committee is accountable to the Board. The Committee is authorised by the Board, at CLP's expense, to investigate all matters that fall within its terms of reference. The objectives of the Committee are to oversee management and advise the Board on matters required to enable:

- (a) the CLP Group to operate on a sustainable basis for the benefit of current and future generations;
- (b) sustainable growth by maintaining and enhancing CLP Group's economic, environmental, human, technological and social capital in the long term; and
- (c) the effective management of CLP Group's sustainability risks.

## Primary Responsibilities

The Committee's primary responsibilities include:

- reviewing, endorsing and reporting to the Board on CLP's sustainability frameworks, standards, priorities and goals and overseeing CLP group-level strategies, policies and practices on sustainability matters to attain those standards and goals;
- reviewing and reporting to relevant Board Committees on key international sustainability trends, benchmarking against peers, sustainability risks and opportunities and other emerging issues;
- overseeing, reviewing and evaluating CLP Group's sustainability performance in terms of internationally-recognised metrics relevant to the industry, as well as the requirements of sustainability stock indices and the desirability of CLP's inclusion in those indices;
- reviewing and advising the Board on CLP's public reporting with regard to its performance on sustainability matters; and
- overseeing CLP's community, charitable and environmental partnerships, strategies and related group-level policies and making recommendations to the Board on any changes to those partnerships, strategies and policies.

## Summary of Work Done

The work performed by the Committee during this period is summarised below.

*An important area of work of the Committee was the comprehensive review of the Climate Vision 2050\*.*

Areas of focus	How did the Committee address such areas?
<b>Sustainability goals, priorities, policies &amp; frameworks</b>	
Climate Vision 2050* Review	The Committee was briefed on the climate change-related developments globally and the progress of management's review of CLP's Climate Vision 2050, having regard to the following key objectives: risk management, support of CLP Group strategy, improved disclosure and continued leadership. The Committee also reviewed and endorsed management's proposed amendments to the Energy Transition Targets and the Renewable Energy and Non-Carbon Emitting Clean Energy Targets in the Climate Vision 2050. Discussions on the revised Climate Vision 2050 can be found in the Chairman's Statement on page 14, CEO's Strategic Review on page 17 and Natural Capital on page 90.
Sustainable Development Goals (SDGs) 2030	The Committee deliberated on the different SDGs and how these were relevant to CLP's current business objectives and strategy. Management took on board the Committee's views and feedback on their proposals, and the Committee adopted the following 4 SDGs as CLP's 2030 SDGs: SDG 13 (Climate Action), SDG 7 (Affordable & Clean Energy), SDG 8 (Decent Work & Economic Growth) and SDG 9 (Industry, Innovation & Infrastructure).
Operational Health, Safety, Security & Environment Standards	The Committee reviewed and discussed management's findings on tackling serious injuries and fatalities, including the need to focus on serious injuries and fatalities, identifying common themes from fatal accidents and the establishment and implementation of the Serious Injuries and Fatalities Framework.
<b>Sustainability trends and risks</b>	
Climate change-related developments and risks*	The Committee was briefed on the global trends for climate change-related developments and carbon-related reporting disclosures including: divestment from institutional investors, increasing institutional investor expectations on carbon risk disclosure and recommendations from the Financial Stability Board's Task Force on Climate-related Financial Disclosures.
SDGs benchmarking	The Committee was provided with relevant benchmarking of how many and what SDGs were being adopted by our industry peers as background to the discussion on the development of CLP's SDGs.

Areas of focus	How did the Committee address such areas?																
Sustainability performance																	
Performance on external sustainability indices	<p>The Committee reviewed CLP's performance on external sustainability indices with the ultimate objective of improving our sustainability performance.</p> <p>The Committee analysed the results of our 2016 sustainability performance and noted CLP's overall rankings on the Dow Jones Sustainability Index (DJSI) and CDP have been maintained although it is clear through our slightly lower ratings in 2017, that other companies are improving their scores as well. The Committee recommended CLP to continue to focus on improving performance where appropriate and for Senior Management to continue to review the survey submissions on a regular basis with a focus on the areas identified for possible improvement.</p> <p>Further details of selected 2017 sustainability ratings for CLP's 2016 sustainability performance is shown in the following table. The scores reflected the performance of the year before.</p> <table><tr><th>Index Name</th><th>2017 Score</th><th>2016 Score</th><th>2015 Score</th></tr><tr><td>DJSI</td><td>70</td><td>73</td><td>57</td></tr><tr><td>CDP – Climate</td><td>B *</td><td>A-</td><td>96 (C)</td></tr><tr><td>Hang Seng Corporate Sustainability Index</td><td>A+</td><td>AA</td><td>AA</td></tr></table> <p>* CDP reviewed their scoring methodology again in 2017, shifting the weighting of certain questions. Hence year-on-year performance cannot be compared directly.</p>	Index Name	2017 Score	2016 Score	2015 Score	DJSI	70	73	57	CDP – Climate	B *	A-	96 (C)	Hang Seng Corporate Sustainability Index	A+	AA	AA
Index Name	2017 Score	2016 Score	2015 Score														
DJSI	70	73	57														
CDP – Climate	B *	A-	96 (C)														
Hang Seng Corporate Sustainability Index	A+	AA	AA														
Sustainability Reporting																	
Sustainability Reporting Standards	<p>The Committee considered the evolving approach in preparing the Sustainability Report both in terms of industry standards and regulatory compliance. The Committee took note and gave its support for the launch of the website format of the <a href="#">Sustainability Report</a>. 🌐</p> <p>The Committee endorsed the preparation of the 2017 Sustainability Report in accordance with the Core level of the GRI Sustainability Reporting Standards and in reference to the International Integrated Reporting Council's International &lt;IR&gt; Framework. The Committee also reviewed the <a href="#">2017 In Essence Sustainability Report</a>. 🌐</p> <p>The Committee noted the 2017 boundary scoping and materiality identification results and the related sustainability assurance findings. The number of KPIs assured remained at 35 in 2017, same as in 2016.</p> <p>The Committee also considered and endorsed the presentation of the contents of the <a href="#">2017 Sustainability Report</a> and how it meets the Hong Kong Stock Exchange's ESG Reporting Guide "comply or explain" and "recommended disclosure" requirements, as well as the GRI Sustainability Reporting Standards. The Committee also took note of the inclusion of the Five-year Summary of statistics on the Group's environmental and social performance in this Annual Report (pages 266 and 267) which contains cross-references to the KPIs suggested in the Hong Kong Stock Exchange's ESG Reporting Guide. 🌐</p>																
Sustainability data assurance	<p>The continuing practice of commissioning independent assurance of selected KPIs was reported to and acknowledged by the Committee. The oversight of the assurance of the metrics and reporting is the responsibility of the Audit &amp; Risk Committee.</p>																



Areas of focus	How did the Committee address such areas?
Community, charitable and environmental partnerships and initiatives	
Community initiatives	<p>The Committee reviewed management's report on the community initiatives undertaken by CLP in 2017 and supported the proposed overall strategy for 2018 as well as the specific initiatives in terms of the following:</p> <ul style="list-style-type: none"><li>• spending by country, theme and programme;</li><li>• volunteering contributions; and</li><li>• the number of programmes and beneficiaries.</li></ul>

Looking Ahead

The Committee will continue to review its role of supporting the Board and overseeing management in the development, implementation, measurement and reporting of the Group's social, environmental and ethical performance. This will ultimately enable the CLP Group to operate on a sustainable basis for the benefit of current and future generations.

Richard Lancaster

Chairman, Sustainability Committee  
Hong Kong, 26 February 2018



# Human Resources & Remuneration Committee Report

## Introduction

On behalf of the Board, the Human Resources & Remuneration Committee (HR&RC) scrutinises the remuneration policies applied within the CLP Group, including the remuneration of Non-executive and Executive Directors and of Senior Management. Our objective is to ensure that CLP applies properly structured and fair remuneration policies which align the interests of Directors and Senior Management with those of the Company and its shareholders. This Report explains the policies applied to determining remuneration levels and sets out the remuneration paid to Non-executive Directors, Executive Directors and Senior Management. This Report has been reviewed and endorsed by the HR&RC.

As stated in Note 29(C) to the Financial Statements on page 242, the following sections in the highlighted boxes below form part of the Financial Statements and have been audited by the Company's Auditor:

- “Non-executive Directors – Remuneration in 2017”;
- “Change of Remuneration – Executive Directors and Senior Management”;
- “Executive Directors – Remuneration in 2017”;
- “Total Directors’ Remuneration in 2017”; and
- “Senior Management – Remuneration in 2017” which includes the five highest paid individuals.

## Membership

The HR&RC is appointed by CLP Holdings’ Board of Directors. There are no Executive Directors on the HR&RC and a majority of the HR&RC members are Independent Non-executive Directors. The members are:

- Mr Vincent Cheng (Independent Non-executive Director) as the Chairman;
- Mr William Mocatta (Non-executive Vice Chairman);
- Mr Vernon Moore (Independent Non-executive Director);
- Mr Nicholas C. Allen (Independent Non-executive Director); and
- Mrs Zia Mody (Independent Non-executive Director).

Full biographies of the members are set out on pages 96 to 99.

## Responsibilities and Work Done

The HR&RC considers major human resources and pay issues. It also provides forward guidance on EnergyAustralia’s remuneration policy through interactions between the HR&RC and the EnergyAustralia Remuneration Committee.

The HR&RC held three meetings during 2017 and one meeting in 2018 up to 26 February 2018 (the date of this Report). Between 1 January 2017 and the date of this Report, the HR&RC approved the 2016 and 2017 HR&RC Reports, and reviewed the following:

**Performance and Remuneration Review**

- Group performance for 2016 and 2017 and Group targets for 2017 and 2018.
- 2016 and 2017 organisation performance for CLP Power Hong Kong and CLP India and targets for 2017 and 2018.
- Base pay for 2017 and 2018 for Hong Kong payroll staff, CLP India and China.
- CEO’s remuneration.
- Remuneration of direct reports to the CEO, including annual incentive payments for 2016 and 2017 and pay review for 2017 and 2018.

**Training and Benefits Review**

- Training and continuous professional development of Senior Management.
- Vacation and working hours review for Hong Kong payroll staff.

**Succession Planning and Organisational Evolution**

- Senior Management succession plan review 2017 and update on talent development initiatives.

**Human Resources Trends and Development**

- Update on trends in reporting of executive remuneration.
- Review on gender pay equity issues and reporting.
- Update on human rights due diligence exercise and potential human resources policy implications.
- Review of use of contractor labour.

## Remuneration Policies

The main elements of CLP’s remuneration policy have been in place for a number of years and are incorporated in the CLP Code:

- No individual or any of his or her close associates should determine his or her own remuneration.
- Remuneration should be broadly aligned with companies with whom CLP competes for human resources.
- Remuneration should reflect performance, complexity and responsibility with a view to attracting, motivating and retaining high performing individuals and promoting the enhancement of the value of the Company to its shareholders.

Non-executive Directors – Principles of Remuneration

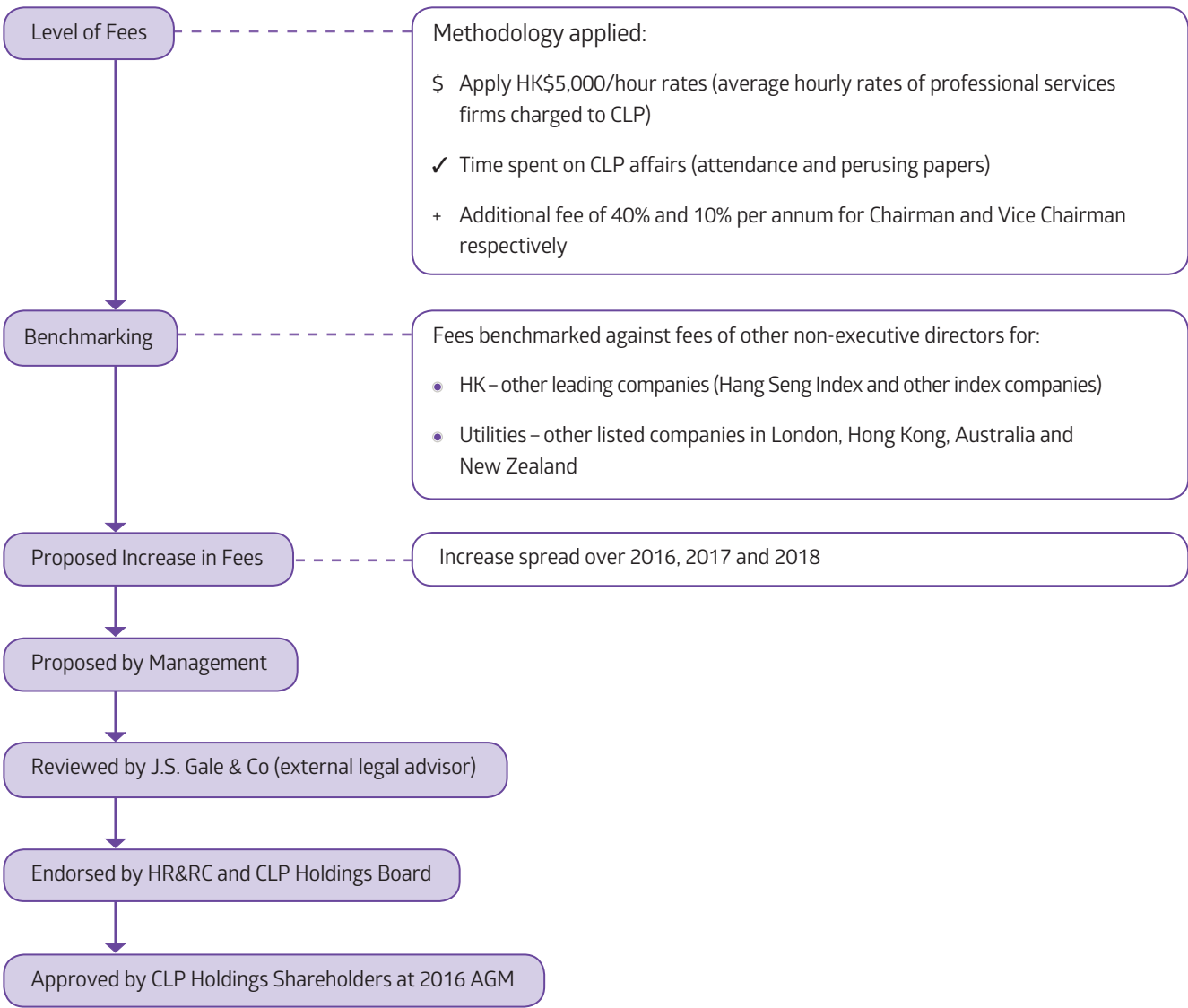
The above policies apply to the remuneration of the Non-executive Directors, with appropriate adjustments to reflect good corporate governance practices, the particular nature of their duties and that they are not employees of the Company.

In considering the level of remuneration payable to Non-executive Directors, we have referred to:

- Report of the Committee on the Financial Aspects of Corporate Governance of December 1992;
- “Review of the Role and Effectiveness of Non-executive Directors” of January 2003 as subsequently codified in the Financial Reporting Council’s “The UK Corporate Governance Code” published in September 2014; and
- The Stock Exchange Code and associated Listing Rules.

CLP’s Non-executive Directors are remunerated in line with market practice such that CLP is able to attract and retain high-calibre candidates needed to run a company successfully, but no more than is necessary for this purpose. The fees are subject to a formal independent review undertaken no less frequently than every three years. The current level of fees were reviewed at the beginning of 2016 (the 2016 Review). The methodology adopted in the 2016 Review is the same as that used in the previous reviews and as explained to shareholders in the CLP Code, save for the adoption of an average of total working hours of Non-executive Directors over three review periods in order to smooth out the effect of short-term fluctuations in their workload. CLP’s approach goes beyond that required by law or regulation in Hong Kong or the provisions of the Stock Exchange Code; the [2016 Review and the opinion of J.S. Gale & Co on that 2016 Review](#) are placed on CLP’s website. [🔗](#)

The 2016 Review and methodology applied are summarised as follows:



Fees for Non-executive Directors<sup>1</sup>

	Fees per annum (before 6 May 2016) HK\$	Fees per annum (w.e.f. 6 May 2016) HK\$	Fees per annum (w.e.f. 6 May 2017) HK\$	Fees per annum (w.e.f. 6 May 2018) HK\$
<b>Board</b>				
Chairman	666,900	698,300	731,200	765,600
Vice Chairman	524,000	548,600	574,500	601,500
Non-executive Director	476,400	498,800	522,300	546,900
<b>Audit &amp; Risk Committee</b> (previously known as the Audit Committee and title changed in January 2018)				
Chairman	463,800	468,200	472,600	477,100
Member	334,700	336,100	337,600	339,100
<b>Finance &amp; General Committee</b>				
Chairman	397,500	414,200	431,700	449,900
Member	287,400	297,700	308,400	319,400
<b>Human Resources &amp; Remuneration Committee</b>				
Chairman	85,300	85,800	86,300	86,800
Member	58,800	60,200	61,600	63,100
<b>Sustainability Committee</b>				
Chairman	106,100	108,200	110,300	112,500
Member	78,400	78,600	78,800	79,000
<b>Nomination Committee<sup>2</sup></b>				
Chairman	14,000	14,000	14,000	14,000
Member	10,000	10,000	10,000	10,000
<b>Provident &amp; Retirement Fund Committee<sup>2</sup></b>				
Chairman	14,000	14,000	14,000	14,000
Member	10,000	10,000	10,000	10,000

Notes:

1 Executive Directors and management serving on the Board and Board Committees are not entitled to any Directors’ fees.

2 A nominal fee has been maintained for the Chairman and Member of the Nomination Committee and the Provident & Retirement Fund Committee.

The levels of fees of the Non-executive Directors were approved by the Shareholders at the 2016 AGM with high level of votes (99.99%).



### Non-executive Directors – Remuneration in 2017

The fees paid to each of our Non-executive Directors in 2017 for their service on the CLP Holdings Board and, where applicable, on its Board Committees are set out below. Higher levels of fees were paid to Chairmen of the Board and Board Committees and the Vice Chairman of the Board as indicated by (C) and (VC) respectively. Executive Directors and management serving on the Board and Board Committees are not entitled to any Directors' fees.

In HK\$	Board	Audit & Risk Committee	Nomination Committee	Finance & General Committee	HR&RC	Provident & Retirement Fund Committee	Sustainability Committee	Total 2017	Total 2016
<b>Non-executive Directors</b>									
The Hon Sir Michael Kadoorie	719,932.88 <sup>(C)</sup>	-	14,000.00 <sup>(C)</sup>	-	-	-	-	733,932.88	701,490.16
Mr William Mocatta <sup>1</sup>	565,630.14 <sup>(VC)</sup>	-	-	425,706.85 <sup>(C)</sup>	61,120.55	14,000.00 <sup>(C)</sup>	-	1,066,457.54	1,022,299.99
Mr J. A. H. Leigh	514,252.06	-	-	-	-	-	-	514,252.06	491,088.53
Mr Andrew Brandler	514,252.06	-	-	304,735.61	-	-	78,731.51	897,719.18	863,773.77
Dr Y. B. Lee	514,252.06	-	-	-	-	-	-	514,252.06	491,088.53
Mr Ronald J. McAulay <sup>2</sup>	-	-	-	-	-	-	-	-	365,707.11
<b>Independent Non-executive Directors</b>									
Mr Vernon Moore	514,252.06	471,093.15 <sup>(C)</sup>	-	304,735.61	61,120.55	-	-	1,351,201.37	1,311,645.90
Sir Rod Eddington	514,252.06	-	-	304,735.61	-	-	-	818,987.67	785,242.63
Mr Nicholas C. Allen	514,252.06	337,086.30	10,000.00	304,735.61	61,120.55	-	78,731.51	1,305,926.03	1,269,109.84
Mr Vincent Cheng	514,252.06	-	10,000.00	304,735.61	86,128.77 <sup>(C)</sup>	-	-	915,116.44	880,870.50
Mrs Fanny Law	514,252.06	337,086.30	-	-	-	-	78,731.51	930,069.87	905,237.71
Ms Irene Lee	514,252.06	337,086.30	-	304,735.61	-	-	78,731.51	1,234,805.48	1,199,391.81
Mrs Zia Mody	514,252.06	-	-	-	61,120.55	-	-	575,372.61	550,806.56
<b>Total</b>								<b>10,858,093.19</b>	<b>10,837,753.04</b>

Notes:

1 Mr William Mocatta received HK\$300,000.00 as fee for his service on the board of CLP Power Hong Kong Limited for each of 2016 and 2017.

2 The fee paid to Mr Ronald J. McAulay (a former Director) is included in the table, solely for the purpose of comparing the total fees paid to Non-executive Directors in 2016 with those in 2017.

There was only a small increase in total Directors' fees compared to 2016, primarily due to an increase in the levels of Non-executive Directors' fees which took effect on 6 May 2017, offset by the reduction of the number of Non-executive Directors.

### Change of Remuneration – Executive Directors and Senior Management

Details of the remuneration of Executive Directors and Senior Management prepared in accordance with the Hong Kong Financial Reporting Standards for the 12 months ended 31 December 2017 are set out in the tables on page 152 (Executive Directors) and pages 158 to 159 (Senior Management).

The amounts disclosed consist of remuneration accrued or paid for service in 2017 and, for the annual and long-term incentives, service and performance in previous years.

The amounts disclosed are the amounts recognised in the financial year for accounting purposes, which do not necessarily reflect the cash actually received by the individual. Where payments are made to the individual over more than one financial year, this is explained in the notes.

To provide a clear picture of remuneration, amounts are shown as recurring or non-recurring items. Recurring items are the normal annual remuneration of Executive Directors and Senior Management, while non-recurring items relate primarily to the appointment or termination of Executive Directors and Senior Management.

In the tables on page 152 and pages 158 to 159 the "total remuneration" column for 2017 includes the following recurring items:

- (i) base compensation, allowances & benefits paid;
- (ii) 2017 annual incentive accrued based on previous year's Company performance. Additionally, as the Company performance actually achieved in 2016 was higher than the annual incentive accrual for 2016, the difference was added in the current period;
- (iii) the 2014 long-term incentive award paid in January 2017 when the vesting conditions were satisfied (the comparative figures are the long-term incentive for 2013 paid in 2016). About 25% of the increase in the value of the phantom shares portion of 2014 long-term incentive payments results from the change in CLP Holdings' share price between 2014 and 2016, with dividends reinvested; and
- (iv) provident fund contribution made.

The "other payments" column includes the following non-recurring item:

- (i) sign-on payments accrued or paid in accordance with the Company's contractual obligation for newly hired Senior Management in consideration of income foregone with their previous employer on joining CLP.

Executive Directors – Remuneration in 2017

The remuneration paid to the Executive Directors of the Company in 2017 was as follows:

	Recurring Remuneration Items					Non-recurring Remuneration Item	Total
	Base Compensation, Allowances & Benefits <sup>1</sup> HK\$M	Annual Incentive HK\$M	Long-term Incentive <sup>3</sup> HK\$M	Provident Fund Contribution HK\$M	Total Remuneration HK\$M		
<b>2017</b>							
CEO (Mr Richard Lancaster)	9.1	7.9	5.3	2.3	24.6	–	24.6
Executive Director & Chief Financial Officer (Mr Geert Peeters)	6.9	6.1	2.4	1.3	16.7	–	16.7
	16.0	14.0	7.7	3.6	41.3	–	41.3

	Performance Bonus <sup>2</sup>					Other Payments HK\$M	Total HK\$M
	Base Compensation, Allowances & Benefits <sup>1</sup> HK\$M	Annual Incentive HK\$M	Long-term Incentive <sup>3</sup> HK\$M	Provident Fund Contribution HK\$M	Total Remuneration HK\$M		
2016							
CEO (Mr Richard Lancaster)	8.8	8.0	3.0	1.6	21.4	–	21.4
Executive Director & Chief Financial Officer (Mr Geert Peeters)	6.6	6.1	–	1.2	13.9	–	13.9
	15.4	14.1	3.0	2.8	35.3	–	35.3

Notes:

- 1 The value of non-cash benefits is included under the “base compensation, allowances & benefits” column of the above table. The nature of these benefits includes electricity allowance, the availability of a company vehicle for personal use, life insurance and medical benefits.
- 2 Performance bonus consists of (a) annual incentive (2017 accrual and 2016 adjustment) and (b) long-term incentive (payment for 2014 award). The annual incentive payments and long-term incentive awards were approved by the HR&RC.
- Payment of the annual incentive and granting of the long-term incentive awards relating to 2017 performance will be made in March 2018. These payments and awards are subject to the prior approval of the HR&RC after 31 December 2017. [Details](#) of these will be published on the CLP website at the time that the 2017 Annual Report is published. [🔗](#)
- 3 The Long-term Incentive (LTI) increase reflects the impact of two executives being promoted/recruited to senior roles during the vesting period together with share price appreciation.

The Group does not have, and has never had, a share option scheme. No Executive Director has a service contract with the Company or any of its subsidiaries with a notice period in excess of six months or with provisions for predetermined compensation on termination which exceeds one year’s salary and benefits in kind.

Total Directors’ Remuneration in 2017

The total remuneration of Non-executive and Executive Directors in 2017 was:

	2017 HK\$M	2016 HK\$M
Fees	10.9	10.8
Recurring Remuneration Items		
Base Compensation, Allowances & Benefits <sup>1</sup>	16.0	15.4
Performance Bonus <sup>2</sup>		
– Annual Incentive	14.0	14.1
– Long-term Incentive	7.7	3.0
Provident Fund Contribution	3.6	2.8
Non-recurring Remuneration Item		
Other Payments	–	–
	52.2	46.1

Notes:

- 1 Refer to Note 1 on Base Compensation, Allowances & Benefits on page 152 for Executive Directors.
- 2 Refer to Note 2 on Performance Bonus on page 152 for Executive Directors.

Of the total remuneration paid to Directors, HK\$11.8 million (2016: HK\$11.4 million) has been charged to the SoC operation.

Executive Directors and Senior Management – Principles of Remuneration

For the purposes of this section, Senior Management means the managers whose details are set out on page 101.

CLP’s Senior Management Remuneration Policy is an important element of the Group’s strategy and an expression of its culture. It is designed to attract, retain and motivate high performing executives – who for their technical and managerial skills and their diversity in terms of origin and experience – are a key factor in support of CLP’s long-term business success and the creation of value for our stakeholders.

Given the scale and life-span of CLP’s investments, and the array of stakeholders impacted by our operations, CLP takes a long-term view to remunerating its executives for their contributions to the Company’s sustainable and profitable growth.

Our Senior Managers are, depending on their role, responsible for a mix of businesses: a vertically-integrated regulated business in Hong Kong, a competitive wholesale and retail energy provider in Australia, and an independent power producer in Mainland China, India, Southeast Asia and Taiwan. Hence, the structure of our remuneration packages is assessed in terms of appropriateness to the role and alignment with the reference market.

The labour market for our CEO and most other Senior Managers extends beyond the local market. Hence, we use both local and international reference markets for purposes of competitive remuneration assessments.

We emphasise strong management development, succession planning and job mobility to fill vacancies for executive positions, as we believe that a long-term career with the Group is an important asset to CLP. Consequently external competitiveness of remuneration has to be balanced with internal equity.



Our policy is based on the following principles that guide our remuneration programmes and decisions:

- appropriateness and fairness of remuneration in relation to the assigned job responsibilities and capabilities demonstrated;
- alignment with Company strategy and shareholder interests;
- competitive with respect to pay levels in the relevant reference market;
- performance based in terms of sustained results, behaviours and values; and
- governed by and compliant with the relevant regulatory frameworks.

In order to make informed decisions on competitive Total Remuneration as well as its individual components, the HR&RC takes reference from remuneration data for comparable positions at relevant local and, as appropriate, international companies that are representative of CLP’s industry, size and operational characteristics and against which CLP competes for executive talent.

To assess appropriate remuneration levels for Senior Management positions, the HR&RC may give different weight to local and international company remuneration data. The comparative analysis is carried out by taking into account specific groups of comparator companies to ensure alignment with the reference market.

The competitive assessment against comparator companies is used both for assessing CLP’s relative performance and for assessing the competitiveness of the remuneration packages.

As publicly disclosed comparator information is available for only a limited number of Senior Management positions, we supplement peer data from published remuneration surveys.

Our Senior Management pay structure consists of fixed pay, annual incentives, long-term incentives and a retirement arrangement. The ratio between these components reflects CLP’s risk management framework that does not induce excessive risk taking and is designed to promote commitment in contributing to the achievement of sustainable results.

In determining incentive payments and Total Remuneration, the HR&RC takes into account a broad range of performance indicators including financial (e.g. long-term growth in the share price and dividends), operational, safety, environmental, social, governance and compliance related factors (see page 156). The determination of performance outcomes is not formulaic, as the HR&RC believes their overriding responsibility is to exercise judgement and responsibility.

In determining overall Total Remuneration, the HR&RC applies a balanced overall judgement, with the intention to align Total Remuneration between the median and the upper quartile of the reference market, with overall positioning consistent with business performance and with individual positioning based on an assessment of performance, potential and the strategic impact of the individual.

An independent external remuneration consultant provides the HR&RC with relevant market information and analysis, with special reference to current practices among our comparator companies at the local and international level.

In 2017, the Company made an enhancement to the retirement benefits for staff on Hong Kong payroll by increasing the employer’s matching contribution to the Defined Contribution scheme for staff reaching defined length of service thresholds subject to the employee’s additional contribution. The aim was to enhance the long-term sustainability of our retirement benefits scheme by anticipating the impact of increasing longevity risk.

The four components of remuneration of members of Senior Management are explained on the following pages.

Executive Directors and Senior Management’s Remuneration (excluding Managing Director – EnergyAustralia)

Base Compensation

Base Compensation for each member of Senior Management is reviewed annually and takes into consideration the competitive position against the relevant labour market, the scope and responsibility of the role and individual performance. The Base Compensation accounts for 34% of his/her potential total remuneration in 2017.

Pension Arrangement

The members of Senior Management are eligible to join the Group’s defined contribution retirement fund. The employer’s contribution to the retirement fund ranges from 10 – 17.5% of Base Compensation plus target annual incentive. To receive the maximum 17.5% employer contribution the employee must have completed 10 or more years of service and is required to contribute 10% of Base Compensation. A 17.5% employer contribution accounts for 9% of his/her potential total remuneration in 2017.

Annual Incentive

Each member of Senior Management has a maximum annual incentive opportunity of 100% of Base Compensation, which accounted for 34% of his/her potential total remuneration in 2017. The maximum annual incentive opportunity may be exceeded in exceptional cases where a discretionary additional annual incentive is awarded by the HR&RC. The actual amount awarded is determined by the HR&RC’s assessment of organisational performance.

The annual incentive award depends on the performance of the CLP Group for the CEO and Hong Kong based members of Senior Management. For the Managing Director of India it is based on the performance of India.

Assessing organisational performance for the Annual Incentive

In assessing organisational performance the HR&RC takes into account a balanced scorecard of measures. Given the scale and complexity of our Group there are a large number of such measures, including both quantitative and qualitative factors.

Given this there is not a formulaic mathematical determination of performance, rather it is a balanced judgement of the HR&RC taking all relevant factors into account.

In reaching their decision the HR&RC considers two questions:

- How well did Senior Management manage performance this year?
- How well are they managing the strategic positioning of the business for the future and ensuring long-term value creation and sustainability?

In assessing performance quantitative financial and operational targets considered by the HR&RC include the following:

Area of performance	Targets
Financial	<ul style="list-style-type: none"><li>Operating EPS</li><li>Operating earnings</li><li>ROE</li></ul>
Safety	<ul style="list-style-type: none"><li>Lost Time Injury Rate</li><li>Total Recordable Injury Rate</li><li>Fatalities</li></ul>
Environmental	<ul style="list-style-type: none"><li>Regulatory non-compliance cases</li><li>CO<sub>2</sub> intensity</li><li>Emissions</li><li>Renewable Energy capacity as a percentage of new generation portfolio</li></ul>
Internal control	<ul style="list-style-type: none"><li>Number of Not Satisfactory Audits</li><li>Number of Code of Conduct cases</li></ul>

In addition to these financial and operational measures the HR&RC also sets a number of specific qualitative objectives each year reflecting the strategic priorities of the Group. In 2017 these objectives included:

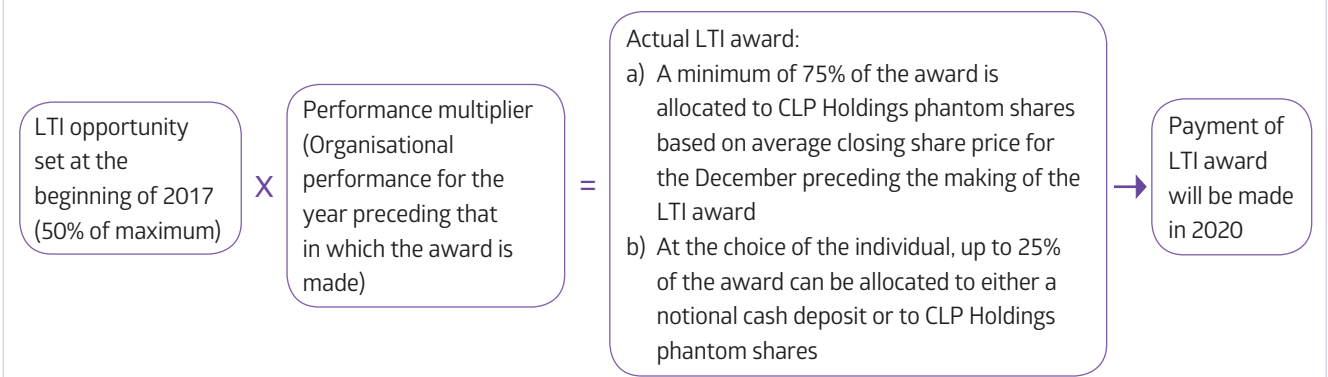
- strengthening organisational capabilities;
- identification and execution of growth opportunities in line with investment strategy;
- acceleration of the innovation agenda to ensure CLP anticipates and manages disruption; and
- reviewing our Climate Strategy and the associated technology roadmap, in the light of current science and the accelerating pace of change.

Finally, the HR&RC considers the performance of Senior Management in ensuring the long-term sustainability of the organisation in relation to four dimensions:

- Business Model
- People and Organisational Capability
- Environmental Impact
- Community Acceptance

Long-term Incentive

Awards under the Long-term Incentive (LTI) plan are based on organisational performance and support the retention of Senior Management. Each member of Senior Management has a maximum LTI opportunity of 66.6% of Base Compensation, which accounts for 23% of his/her potential total remuneration in 2017. The composition of the LTI award:



Of the long-term incentive, a minimum of 75% of the LTI payment for Senior Management is allocated to CLP Holdings phantom shares based on the average closing share price for the December preceding the making of the LTI award. The payment of which is subject to a three-year vesting period. The final value of the award, at the vesting date, is based on the initial allocation choices made and the subsequent impact of changes in share price, dividend reinvestment, exchange rate movements, and interest earned over the three-year vesting period. Senior Management have the choice of allocating 100% of the LTI to phantom shares.

The remuneration components for Ms Catherine Tanna are explained below:

Remuneration for Catherine Tanna, Managing Director – EnergyAustralia

Fixed Annual Remuneration (FAR)

FAR includes base salary and employer contribution to the Australian statutory superannuation scheme, it accounts for 29% of her potential total remuneration in 2017. It is reviewed annually taking into consideration the competitive market position compared to ASX 100 companies, market practice and individual performance.

Annual Incentive

Ms Tanna has a maximum annual incentive opportunity of 150% of FAR, which accounted for 43% of her potential total remuneration in 2017. The actual annual incentive payment depends upon the performance of EnergyAustralia against a balanced scorecard of financial, operational and strategic measures.

The actual payout of Ms Tanna's annual incentive will be approved by the Board of EnergyAustralia. 70% of her actual annual incentive for 2017 will be paid in 2018 with the remainder of the actual annual incentive deferred for two years, payable in 2020.

Long-term Incentive

Ms Tanna was assigned an initial LTI Award of 100% of FAR which accounts for 28% of her potential total remuneration in 2017.

The final value of the 2017 LTI award will be decided by the EnergyAustralia Board, depending on the achievement of the LTI Performance Conditions.

Upon determination of the Final Award Value, 100% of that value (subject to the discretion of the Remuneration Committee of EnergyAustralia) will be paid to Ms Tanna in April 2020 (the Vesting Date).



## Senior Management – Remuneration in 2017

Details of the remuneration of the Senior Management are set out below (except for the Executive Directors, that are set out in “Executive Directors – Remuneration in 2017”).

	Recurring Remuneration Items						Non-recurring Remuneration Item
	Performance Bonus <sup>2</sup>						
	Base Compensation, Allowances & Benefits <sup>1</sup> HK\$M	Annual Incentive HK\$M	Long-term Incentive HK\$M	Provident Fund Contribution HK\$M	Total Remuneration HK\$M	Other Payments HK\$M	Total HK\$M
<b>2017</b>							
Chief Operating Officer (Mr Derek Parkin)	5.2	4.5	–	0.9	10.6	–	10.6
Group Director & Vice Chairman – CLP Power Hong Kong (Mrs Betty Yuen) <sup>3</sup>	4.3	4.7	2.6	1.1	12.7	–	12.7
Managing Director – CLP Power (Mr Paul Poon) <sup>4</sup>	2.3	3.0	3.2	0.6	9.1	–	9.1
Managing Director – CLP Power (Mr Chiang Tung Keung) <sup>5</sup>	2.9	2.5	–	0.8	6.2	–	6.2
Managing Director – EnergyAustralia (Ms Catherine Tanna) <sup>6</sup>	11.9	13.8	4.3	0.1	30.1	–	30.1
Managing Director – India (Mr Rajiv Mishra) <sup>7</sup>	4.0	3.1	1.8	1.0	9.9	–	9.9
Managing Director – China (Mr Chan Siu Hung)	4.1	3.5	2.4	1.1	11.1	–	11.1
Group General Counsel & Chief Administrative Officer (Mr David Simmonds)	5.0	4.3	2.8	1.1	13.2	–	13.2
Chief Corporate Development Officer (Ms Quince Chong)	4.9	4.3	3.0	0.9	13.1	–	13.1
Chief Human Resources Officer (Mr Roy Massey)	4.0	3.8	1.7	1.0	10.5	–	10.5
<b>Total</b>	<b>48.6</b>	<b>47.5</b>	<b>21.8</b>	<b>8.6</b>	<b>126.5</b>	<b>–</b>	<b>126.5</b>

Notes 1 to 7 are set out on page 159.

Of the total remuneration paid to Senior Management, HK\$39.6 million (2016: HK\$32.7 million) has been charged to the SoC operation.

	Recurring Remuneration Items					Non-recurring Remuneration Items	
	Performance Bonus <sup>2</sup>						
	Base Compensation, Allowances & Benefits <sup>1</sup> HK\$M	Annual Incentive HK\$M	Long-term Incentive HK\$M	Provident Fund Contribution HK\$M	Total Remuneration HK\$M	Other Payments HK\$M	Total HK\$M
<b>2016</b>							
Chief Operating Officer	4.9	4.2	–	0.9	10.0	–	10.0
Group Director & Vice Chairman – CLP Power Hong Kong <sup>3</sup>	4.1	4.7	–	0.8	9.6	–	9.6
Managing Director – CLP Power (Mr Paul Poon)	5.3	4.8	2.1	1.0	13.2	–	13.2
Managing Director – EnergyAustralia <sup>6,8</sup>	11.4	12.9	–	0.1	24.4	6.7	31.1
Managing Director – India <sup>7</sup>	3.6	2.7	1.4	0.6	8.3	–	8.3
Managing Director – China	3.8	3.4	1.5	0.7	9.4	–	9.4
Group General Counsel & Chief Administrative Officer	4.7	4.3	1.9	0.9	11.8	–	11.8
Chief Corporate Development Officer	4.7	4.3	2.1	0.8	11.9	–	11.9
Chief Human Resources Officer	3.5	3.2	1.5	0.6	8.8	–	8.8
<b>Total</b>	<b>46.0</b>	<b>44.5</b>	<b>10.5</b>	<b>6.4</b>	<b>107.4</b>	<b>6.7</b>	<b>114.1</b>

Notes:

1 Refer to Note 1 on Base Compensation, Allowances & Benefits on page 152.

2 Refer to Note 2 on Performance Bonus on page 152. For Ms Catherine Tanna, the annual incentive payment was approved by the Board of EnergyAustralia following consultation between the CEO, the Chairman of the EnergyAustralia Remuneration Committee and members of the HR&RC.

3 The annual incentives paid to Mrs Betty Yuen in 2017 and 2016 included additional discretionary annual incentives of HK\$1.0 million for 2016 and HK\$1.0 million for 2015 performance years respectively.

4 Mr Paul Poon stepped down as Managing Director – CLP Power with effect from 1 June 2017 and his remuneration covered the period from 1 January to 31 May 2017. The annual incentive paid to Mr Paul Poon in 2017 included an additional discretionary annual incentive of HK\$1.0 million for 2016 performance.

5 Mr Chiang Tung Keung was appointed as Managing Director – CLP Power to succeed Mr Paul Poon and became a member of Senior Management with effect from 1 June 2017. His remuneration covered the period from that date to 31 December 2017.

6 The remuneration of Ms Catherine Tanna is denominated in Australian dollars. The month end exchange rates prevailing at the month of payment were adopted for conversion to Hong Kong dollars.

7 The remuneration of Mr Rajiv Mishra is denominated in Indian Rupees. There is a temporary currency relief arrangement for Mr Rajiv Mishra where 50% of his base salary and annual incentive payment in Rupees were converted to pay in Hong Kong dollars at an exchange rate of 1 HKD = 8.3 Rupees from 1 October 2015 to 30 September 2019. For the remaining payments in Rupees, the month end exchange rates prevailing at the month of payment were adopted for conversion to Hong Kong dollars.

8 Ms Catherine Tanna joined the Company on 1 July 2014. According to her employment contract, the sign-on award of HK\$14.0 million was paid in September 2016 to compensate her for income lost as a result of forfeiture of incentive awards with her previous employer on joining CLP. This payment was fully accrued under non-recurring remuneration items: 2014 HK\$2.6 million, 2015 HK\$4.7 million and final balancing payment of HK\$6.7 million in 2016.

The five highest paid individuals in the Group included two Directors (2016: two Directors) and three members of Senior Management (2016: three members of Senior Management). The total remuneration of the five highest paid individuals in the Group is shown below:

	2017 HK\$M	2016 HK\$M
Recurring Remuneration Items		
Base Compensation, Allowances & Benefits <sup>1</sup>	37.8	36.8
Performance Bonus <sup>2</sup>		
– Annual Incentive	36.3	36.0
– Long-term Incentive	17.8	7.3
Provident Fund Contribution	5.8	4.7
Non-recurring Remuneration Item		
Other Payments	–	6.7
	<b>97.7</b>	<b>91.5</b>

Notes:

1 Refer to Note 1 on Base Compensation, Allowances & Benefits on page 152.

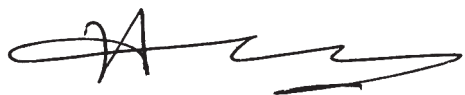
2 Refer to Note 2 on Performance Bonus on page 152.

The remuneration paid to these five individuals is within the following bands:

	Number of Individuals	
	2017	2016
HK\$11,500,001 – HK\$12,000,000	–	1
HK\$13,000,001 – HK\$13,500,000	2	1
HK\$13,500,001 – HK\$14,000,000	–	1
HK\$16,500,001 – HK\$17,000,000	1	–
HK\$21,000,001 – HK\$21,500,000	–	1
HK\$24,500,001 – HK\$25,000,000	1	–
HK\$30,000,001 – HK\$30,500,000	1	–
HK\$31,000,001 – HK\$31,500,000	–	1

## Continued Scrutiny and Disclosure

The HR&RC remains committed to the careful oversight of remuneration policies and levels in the interests of the Company and its shareholders, and to honest and open disclosure on these matters.



**Vincent Cheng**

Chairman, Human Resources & Remuneration Committee

Hong Kong, 26 February 2018

## Directors' Report

The Directors have pleasure in submitting their Report together with the audited Financial Statements for the year ended 31 December 2017.

### Principal Activities

The principal activity of the Company is investment holding and those of its subsidiaries are the generation and supply of electricity. The Company's principal subsidiary companies are listed under Note 32 to the Financial Statements.

### Consolidated Financial Statements

The consolidated Financial Statements incorporate the Financial Statements of the Company and its subsidiaries (collectively referred to as the Group) together with the Group's interests in joint ventures and associates. Details of the joint ventures and associates are provided under Notes 11 and 12 to the Financial Statements.

### Earnings and Dividends

The earnings of the Group for the year are set out under the consolidated statement of profit or loss.

The Directors have declared and paid the first to third interim dividends of HK\$1.77 (2016: HK\$1.71) per share totalling HK\$4,472 million (2016: HK\$4,320 million) during the year.

The Directors declared the fourth interim dividend of HK\$1.14 (2016: HK\$1.09) per share totalling HK\$2,880 million (2016: HK\$2,754 million).

This fourth interim dividend will be paid on 22 March 2018.

### Business Review and Performance

A fair review of the business of the Group and a discussion and analysis of the Group's performance during the year and the material factors underlying its results and financial position, including analysis using financial key performance indicators, are provided in the Financial Highlights on page 3, CEO's Strategic Review on page 17, Financial Review on page 28, the Business Performance and Outlook section on page 36 and Financial Capital on page 68. Description of the principal risks and uncertainties facing the Group can be found throughout this

Annual Report, particularly in the Risk Management Report on page 127. Particulars of important events affecting the Group that have occurred since the end of the financial year 2017, if applicable, can also be found in the above-mentioned sections and the Notes to the Financial Statements. The outlook of the Group's business is discussed throughout this Annual Report including in the Chairman's Statement on page 14, the CEO's Strategic Review on page 17 and the Business Performance and Outlook section on page 36. An account of the Group's relationships with its key stakeholders is included in the Capitals section on page 66.

In addition, more details regarding the Group's performance by reference to environmental and social-related key performance indicators and policies, as well as compliance with relevant laws and regulations which have a significant impact on the Group, are provided in this Annual Report in the Capitals section on page 66, the Governance section on page 94 and the Five-year Summary: CLP Group Statistics – Environmental and Social on pages 266 and 267.

These discussions form part of this Directors' Report.

### Share Capital

There was no movement in the share capital of the Company during the year. There was no purchase, sale or redemption by the Company, or any of its subsidiaries, of the Company's listed shares during the year.

### Reserves

Distributable reserves of the Company amounted to HK\$27,944 million as at 31 December 2017 (2016: HK\$28,340 million).

### Bank Loans and Other Borrowings

The total borrowings (including debentures) of the Group as at 31 December 2017 amounted to HK\$57,341 million (2016: HK\$51,646 million). Particulars of borrowings are set out in Note 20 to the Financial Statements and on pages 68 and 71 of the Financial Capital.



Financial Assistance and Guarantees to Affiliated Companies

The financial assistance given to affiliated companies and the guarantees given for facilities granted to affiliated companies aggregated to 0.3% of the Group's total assets as at 31 December 2017.


Equity-linked Agreements

For the year ended 31 December 2017, the Company has not entered into any equity-linked agreement.

Donations

Donations by the Group for charitable and other purposes amounted to HK\$14,465,000 (2016: HK\$12,645,000).

Five-year Summary

A summary of the results for the year and of the assets and liabilities of the Group as at 31 December 2017 and for the previous four financial years are on pages 264 and 265. A [ten-year summary](#) is on the CLP website. 

Senior Management

The biographical details of the Senior Management as at the date of this Report are set out on page 101. Details of their remuneration are set out in the Human Resources & Remuneration Committee Report on page 146.

Major Customers and Suppliers

Sales to the Group's five largest customers together represented less than 30% of the Group's total turnover during the year. Purchases from the Group's five largest suppliers together accounted for 50.65% of the Group's total purchases during the year and a breakdown of the purchases from each of the five largest suppliers are set out below in descending order:

- 20.39% from Australian Energy Market Operator (AEMO) in which the Group has no economic interest. AEMO is the administrator and operator of the Australian energy market, from whom electricity is bought to supply EnergyAustralia group customers and to whom electricity is sold from EnergyAustralia group generators (as market participants, EnergyAustralia group entities are members of AEMO but do not hold any economic interest in AEMO).

- 10.05% from Guangdong Nuclear Power Joint Venture Company, Limited (GNPJVC) which is 25% owned by the Group. GNPJVC owns Guangdong Daya Bay Nuclear Power Station (GNPS), and CLP Power Hong Kong, a wholly-owned subsidiary of the Company and the largest electricity supplier in Hong Kong, purchases approximately 80% of GNPS's output for supply of electricity to its customers in Hong Kong.
- 8.73% from PetroChina International Guangdong Co., Ltd. (PCIGD) in which the Group has no interest. CAPCO purchases natural gas from PCIGD for its electricity generation.
- 8.41% from Ausgrid in which the Group has no interest. EnergyAustralia pays the distribution charges to Ausgrid which owns and operates the electricity distribution network that provides services to customers located in Sydney, the Central Coast and Hunter regions of NSW.
- 3.07% from Coal India Limited (CIL) in which the Group has no interest. CIL is the single largest coal producer in the world and is an Indian state-owned coal mining corporate which supplies coal to our Jhajar Power Station.

As at 31 December 2017, none of the Directors or substantial shareholders of the Company had any interest in those suppliers other than their indirect interests in GNPJVC, which interests arose from the Group's interest in GNPJVC.

Directors

The Directors of the Company as at the date of this Report, whose names appear on pages 96 to 99, were Directors for the whole year ended 31 December 2017. Their biographical details as at the date of this Report are set out on the same pages. Details of Directors' remuneration are set out in the Human Resources & Remuneration Committee Report on page 146.

Under the Company's Articles of Association, all the Directors are subject to retirement by rotation and re-election at the AGM. In accordance with Article 119 of the Company's Articles of Association, The Hon Sir Michael Kadoorie, Mr Andrew Brandler, Mr Nicholas C. Allen, Mrs Fanny Law and Ms Irene Lee will retire by rotation at the 2018 AGM.

Ms Irene Lee, who has been an Independent Non-executive Director of the Company since 2012, has decided to retire as a Director of the Company in May 2018 as she would like to devote more time to her other business commitments and engagements. Ms Lee has informed the Company that she will not be seeking re-election at the 2018 AGM and will therefore retire at the conclusion of the 2018 AGM.

All the other retiring Directors, being eligible, offer themselves for re-election. None of the Directors offering themselves for re-election at the 2018 AGM has a service contract with the Company which is not determinable by the Company within one year without payment of compensation.


Directors' Interests in Transactions, Arrangements or Contracts

During the year ended 31 December 2017, none of the Directors or his / her connected entity had directly or indirectly any material interest in transactions, arrangements or contracts of significance entered into by the Group.

Alternate Directors

During the year ended 31 December 2017 and up to the date of this Report, Mr Andrew Brandler is alternate to Mr William Mocatta.

Directors of Subsidiaries

The [names of all directors who have served on the boards of the subsidiaries of the Company](#) during the year ended 31 December 2017 or during the period from 1 January 2018 to the date of this Report are available on the CLP website. 

Permitted Indemnity Provisions

During the financial year and up to the date of this Report, the Company has in force indemnity provisions as permitted under the relevant statutes for the benefit of the Directors (including former Directors) of the Company or its associated companies. The permitted indemnity provisions are provided for in the Company's Articles of Association and in the directors and officers liability insurance maintained for the Group in respect of potential liability and costs associated with legal proceedings that may be brought against such Directors.

Continuing Connected Transactions

China Southern Power Grid International (HK) Co., Limited (CSG HK) (effectively China Southern Power Grid Co., Ltd. and its subsidiaries (collectively the CSG Group)) is a connected person of CLP Holdings (at the subsidiary level) by virtue of CSG HK being a substantial shareholder of CAPCO, a subsidiary of CLP Holdings. Accordingly, transactions entered into between members of the CSG Group and members of the CLP Group constitute connected transactions for CLP Holdings under Chapter 14A of the Listing Rules.

Under the Listing Rules, the Group's continuing connected transactions with the CSG Group (CCTs) relating to the power purchases by the CSG Group are required to be subject to an annual aggregate cap determined by the Company, and for 2017, this was HK\$4,478 million. The annual aggregate cap was approved by the Board of Directors and disclosed in the announcement dated 3 January 2017. The project level caps of the CCTs for 2017 set out in the table on pages 164 to 173 are for reference only and were used to derive the annual aggregate cap of HK\$4,478 million.

Other details of the CCTs, which are required to be disclosed pursuant to Rules 14A.49 and 14A.71 of the Listing Rules, are also set out in the table on pages 164 to 173. The considerations for 2017 represented the actual transaction values of the relevant CCTs in the full twelve months of 2017.

	Name, date and term of the agreement	Transaction party within the CLP Group	Transaction party within the CSG Group	Nature and description of the transaction	Basis for determining the consideration	Consideration for 2017 HK\$M
<b>1.</b>	<b>CLP Power Hong Kong electricity sales to Mainland China</b>					
1.1	Power Sales Contract  Original arrangement entered into on 10 February 2012 and extended by way of supplemental agreements. The immediate preceding term was from 1 January to 31 December 2017. On 13 December 2017, a supplemental agreement was entered into to further extend the term to 31 December 2018.	CLP Power Hong Kong	Guangdong Power Grid Co., Ltd., a subsidiary of CSG (CSG-GPG) Guangdong Power Grid Materials Company Limited, as payment agent of CSG-GPG	CLP Power Hong Kong sells electricity to CSG-GPG.	Payment is based on the number of GWh sold multiplied by an arm's length tariff agreed between the parties. The tariff is determined after taking into account available market information and the relevant cost.	163.47
1.2	Energy Economy Interchange Agreement  Original agreement entered into on 25 December 2015 for a two year period to 24 December 2017 and the term was extended to 24 December 2018 by entering into an extension agreement on 9 October 2017.	CLP Power Hong Kong	CSG-GPG	Economic interchange of electricity from, on the one side, CLP Power Hong Kong to CSG-GPG and, on the other, from CSG-GPG to CLP Power Hong Kong, depending on which party is affected by an emergency incident resulting in interruption of normal electricity supply to its customers.	As in item 1.1 above	-
<b>Aggregated total consideration for CLP Power Hong Kong electricity sales to Mainland China</b> (Project level cap for 2017 was HK\$376.00 million)						163.47
<b>2.</b>	<b>The Huaiji hydro project</b>					
2.1	Zelian Hydro Station power purchase agreement (PPA)  Agreement entered into on 28 September 2015 for a one year period with automatic renewals for successive one year periods. The latest renewal was for another one year period to 27 September 2018.	Guangdong Huaiji Xinlian Hydro-electric Power Company Limited, a subsidiary of the Company (CLP-GHX)	Zhaoqing Power Bureau of CSG-GPG, a subsidiary of CSG (CSG-ZPB)	CLP-GHX sells electricity to CSG-ZPB.	Payment is based on the number of GWh sold multiplied by a state pre-determined tariff, determined by the Guangdong Provincial Price Bureau. This tariff is published at Guangdong Provincial Price Bureau Document YueJia [2013] No. 177 and is updated from time to time.  The above pricing also applies to items 2.2-2.7.	1.74
2.2	Longzhongtan Hydro Station PPA  Agreement entered into on 28 September 2015 for a one year period with automatic renewals for successive one year periods. The latest renewal was for another one year period to 27 September 2018.	CLP-GHX	CSG-ZPB	As in item 2.1 above	As in item 2.1 above	2.70
2.3	Jiaoping Hydro Station PPA  Agreement entered into on 28 September 2015 for a one year period with automatic renewals for successive one year periods. The latest renewal was for another one year period to 27 September 2018.	CLP-GHX	CSG-ZPB	As in item 2.1 above	As in item 2.1 above	1.88
2.4	Xiazhu Hydro Station PPA  Agreement entered into on 28 September 2015 for a one year period with automatic renewals for successive one year periods. The latest renewal was for another one year period to 27 September 2018.	CLP-GHX	CSG-ZPB	As in item 2.1 above	As in item 2.1 above	7.74



	Name, date and term of the agreement	Transaction party within the CLP Group	Transaction party within the CSG Group	Nature and description of the transaction	Basis for determining the consideration	Consideration for 2017 HK\$M
2.5	Shuixia Hydro Station PPA  Agreement entered into on 28 September 2015 for a one year period with automatic renewals for successive one year periods. The latest renewal was for another one year period to 27 September 2018.	Guangdong Huaiji Weifa Hydro-electric Power Company Limited, a subsidiary of the Company (CLP-GHW)	CSG-ZPB	CLP-GHW sells electricity to CSG-ZPB.	As in item 2.1 above	32.79
2.6	Baishuihe Four Hydro Stations PPA  Agreement entered into on 28 September 2015 for a one year period with automatic renewals for successive one year periods. The latest renewal was for another one year period to 27 September 2018.	Guangdong Huaiji Changxin Hydro-electric Power Company Limited (CLP-GHC)  Guangdong Huaiji Gaotang Hydro-electric Power Company Limited (CLP-GHG)  CLP-GHW  CLP-GHX  All of the above companies are subsidiaries of the Company.	CSG-ZPB	CLP-GHC, CLP-GHG, CLP-GHW and CLP-GHX sell electricity to CSG-ZPB.	As in item 2.1 above	151.15
2.7	Niuqi Hydro Station PPA  Agreement entered into on 26 July 2016 for a one year period with automatic renewals for successive one year periods. The latest renewal was for another one year period to 25 July 2018.	CLP-GHX	CSG-ZPB	As in item 2.1 above	As in item 2.1 above	26.31
<b>Aggregated total consideration for the Huaiji hydro project</b> (Project level cap for 2017 was HK\$312.71 million)						224.31
<b>3.</b>	<b>The Yang_er hydro project</b>					
3.1	Yang_er Hydro Project PPA  Agreement entered into on 14 October 2016 for a one year period from 1 January to 31 December 2016 with automatic renewal for a one year period to 31 December 2017 (see Note 1).	Dali Yang_er Hydropower Development Co., Ltd., a wholly-owned subsidiary of the Company (CLP Dali Yang_er)	Yunnan Power Grid Company Limited, a subsidiary of CSG (CSG-YPG)	CLP Dali Yang_er sells electricity to CSG-YPG.	See Note 1	3.29
3.2	Yang_er Hydro Project High Voltage Electricity Supply Contract  Agreement entered into on 23 June 2016 for a three year period from 10 May 2016 to 9 May 2019.	CLP Dali Yang_er	Yangbi Electricity Supply Co., Ltd., a subsidiary of CSG (CSG Yangbi)	CSG Yangbi supplies electricity to CLP Dali Yang_er for use by the facilities at the main dam.	Payment is based on the number of kWh sold multiplied by the industrial use tariff for bulk industrial users determined by the Yunnan Provincial Development and Reform Commission (Yunnan PDRC). This tariff is updated from time to time.	0.01

	Name, date and term of the agreement	Transaction party within the CLP Group	Transaction party within the CSG Group	Nature and description of the transaction	Basis for determining the consideration	Consideration for 2017 HK\$M
3.3	Yang_er Hydro Project High Voltage Electricity Supply Contract  Agreement entered into on 23 June 2016 for a three year period from 10 May 2016 to 9 May 2019.	CLP Dali Yang_er	CSG Yangbi	CSG Yangbi supplies electricity (10kV) to CLP Dali Yang_er during overhaul related outages.	As in item 3.2 above	0.01
3.4	Yang_er Hydro Project High Voltage Electricity Supply Contract  Continuingly valid since 4 November 2009 (being the date of the agreement).	CLP Dali Yang_er	Dali Power Bureau of CSG-YPG, a subsidiary of CSG (CSG-DPB)	CSG-DPB supplies electricity (110kV) to CLP Dali Yang_er during overhaul related outages.	As in item 3.2 above	–
<b>Aggregated total consideration for the Yang_er hydro project</b> (Project level cap for 2017 was HK\$37.81 million)						3.31
<b>4.</b>	<b>The Fangchenggang coal-fired project (Phases I and II)</b>					
4.1	Fangchenggang Coal-fired Project PPA  Agreement entered into on 30 December 2016 for a one year period from 1 January to 31 December 2017 with automatic renewal by continued performance.	CLP Guangxi Fangchenggang Power Company Limited, a majority-owned joint venture of the Company (CLP-FCG)	Guangxi Power Grid Company Limited, a subsidiary of CSG (CSG Guangxi)	CLP-FCG sells electricity to CSG Guangxi.	Payment is based on the number of GWh sold multiplied by a state pre-determined tariff, determined by the Guangxi Price Bureau. This tariff is published at Guangxi Price Bureau Document GuiJiaGe [2017] No. 34 and is updated from time to time.	109.54
4.2	Fangchenggang High Voltage Electricity Supply Contract  Agreement entered into on 27 September 2015 for a two year period with automatic renewals for successive two year periods. The latest renewal was for another two year period to 26 September 2019.	CLP-FCG	Fangchenggang Power Bureau of CSG Guangxi, a subsidiary of CSG (CSG-FPB)	CSG-FPB supplies standby electricity to CLP-FCG.	As in item 4.1 above	3.46
4.3	Fangchenggang High Voltage Electricity Supply Contract  Continuingly valid since 1 June 2009 (being the date of the agreement).	CLP-FCG	CSG-FPB	CSG-FPB supplies standby electricity to the water pumping facilities of CLP-FCG.	As in item 4.1 above	–
4.4	Fangchenggang Direct Sales Agreement  New agreement entered into on 15 August 2017 for the period from 1 July to 31 December 2017.	CLP-FCG	Guangxi Nengyuan Lianhe Power Retail Co., Ltd., a subsidiary of CSG (CSG Nengyuan)	CLP-FCG sells electricity to CSG Nengyuan, as purchaser, under a direct sales agreement.	The applicable tariff was determined and negotiated on an arm's length basis with reference to prevailing tariffs at the material time.	16.82
<b>Aggregated total consideration for the Fangchenggang coal-fired project (Phases I and II)</b> (Project level cap for 2017 was HK\$2,392.93 million)						129.82



	Name, date and term of the agreement	Transaction party within the CLP Group	Transaction party within the CSG Group	Nature and description of the transaction	Basis for determining the consideration	Consideration for 2017 HK\$M
<b>5.</b>	<b>The Xicun solar project (Phases I and II)</b>					
5.1	Xicun Solar Project PPA  Agreement entered into on 14 October 2016 for a one year period from 1 January to 31 December 2016 with automatic renewals for successive one year periods. The latest renewal was for another one year period to 31 December 2018.	CLP Dali (Xicun) Solar Power Co., Ltd, a wholly-owned subsidiary of the Company (CLP Xicun)	CSG-YPG	CLP Xicun sells electricity to CSG-YPG.	Payment is based on the number of GWh sold multiplied by a state pre-determined tariff, determined by the National Development and Reform Commission (NDRC) and subject to adjustment in accordance with the Implementation Scheme for Trading in Yunnan Electricity Market issued by Yunnan Provincial Industry and Information Technology Commission, Yunnan PDRC and Yunnan Provincial Energy Administration in 2017 and is updated from time to time.	75.20
5.2	Xicun Solar Project Electricity Supply Contract (10kV)  Agreement entered into on 11 December 2014 for a three year period with automatic renewals for successive three year periods. The latest renewal was for another three year period to 10 December 2020.	CLP Xicun	Binchuan Electricity Supply Company Limited, a subsidiary of CSG (CSG Binchuan)	CSG Binchuan supplies electricity to CLP Xicun (for power consumption at the project site).	As in item 3.2 above	0.01
5.3	Xicun Solar Project High Voltage Electricity Supply Contract  Agreement entered into on 23 June 2016 for a three year period from 25 January 2016 to 24 January 2019.	CLP Xicun	CSG-DPB	CSG-DPB supplies electricity to CLP Xicun (for power consumption at the project site including auxiliary power and power supply during outage and overhaul).	As in item 3.2 above	0.39
5.4	Xicun Solar Project High Voltage Power Supply Contract (for pump station)  Agreement entered into on 31 July 2015 for a three year period to 30 July 2018.	CLP Xicun	CSG Binchuan	CSG Binchuan supplies electricity to CLP Xicun (for watering facilities).	Payment is based on the number of kWh sold multiplied by the agricultural tariff for agricultural users determined by the Yunnan PDRC. This tariff is updated from time to time.	0.02
<b>Aggregated total consideration for the Xicun solar project (Phases I and II)</b> <i>(Project level cap for 2017 was HK\$153.19 million)</i>						75.62
<b>6.</b>	<b>The Xundian wind project</b>					
6.1	Xundian Wind Project PPA  Agreement entered into on 14 October 2016 for a one year period from 1 January to 31 December 2016 with automatic renewals for successive one year periods. The latest renewal was for another one year period to 31 December 2018.	CLP (Kunming) Renewable Energy Co., Ltd., a wholly-owned subsidiary of the Company (CLP Xundian)	CSG-YPG	CLP Xundian sells electricity to CSG-YPG.	As in item 5.1 above	29.12

Name, date and term of the agreement		Transaction party within the CLP Group	Transaction party within the CSG Group	Nature and description of the transaction	Basis for determining the consideration	Consideration for 2017 HK\$M
6.2	Xundian Wind Project Electricity Supply Contract (see Note 2)  Agreement entered into on 30 November 2015 for a three year period to 29 November 2018.	CLP Xundian	Kunming Power Bureau of CSG-YPG, a subsidiary of CSG (CSG-KPB)	CSG-KPB supplies electricity via a 110kV line to CLP Xundian (for start up purposes).	As in item 3.2 above	0.07
6.3	Xundian Wind Project High Voltage Electricity Supply Contract (10kV) (see Note 3)  New agreement entered into on 19 September 2017 for a three year period to 18 September 2020.	CLP Xundian	Xundian Power Supply Company Limited, a subsidiary of CSG (CSG-XPSC)	CSG-XPSC supplies electricity to CLP Xundian for use by the facilities in the plant.	Payment is based on the number of kWh sold multiplied by the commercial and industrial use tariff determined by the Yunnan PDRC. This tariff is updated from time to time.	–
<b>Aggregated total consideration for the Xundian wind project</b> <i>(Project level cap for 2017 was HK\$85.45 million)</i>						29.19
<b>7.</b>	<b>The Sandu wind project</b>					
7.1	Sandu I Wind Project Electricity Supply Contract (220kV)  Agreement entered into on 8 December 2015 for a three year period to 7 December 2018.	CLP (Sandu) Renewable Energy Limited, a wholly-owned subsidiary of the Company (CLP Sandu)	Sandu Power Bureau, a subsidiary of CSG (CSG-SPB)	CSG-SPB supplies electricity to CLP Sandu (for power consumption at the project site).	Payment is based on the number of kWh sold multiplied by the industrial use tariff for bulk industrial users determined by the Guizhou Provincial Development and Reform Commission. This tariff is updated from time to time.	0.19
7.2	Sandu I Wind Project Interim PPA  Agreement entered into on 31 March 2016 with the term commencing from 31 March 2016 until the signing of a formal PPA.	CLP Sandu	Guizhou Power Grid Company Limited, a subsidiary of CSG (CSG Guizhou)	A temporary arrangement for CLP Sandu to sell electricity to CSG Guizhou.	Payment is based on the number of GWh sold multiplied by a state pre-determined tariff, determined by the NDRC. The tariff is published at the NDRC Document FaGaiJiaGe [2014] No. 3008 and is updated from time to time.	143.90
<b>Aggregated total consideration for the Sandu wind project</b> <i>(Project level cap for 2017 was HK\$158.41 million)</i>						144.09
<b>Total Consideration for 2017</b>						<b>769.81</b>

Notes:

- 1

The Yang\_er Hydro Project PPA was renewed for a one year period for 2017 for electricity sales by CLP Dali Yang\_er to CSG-YPG based on the state pre-determined tariff determined by the Yunnan PDRC and subject to adjustment in accordance with the then Yunnan Implementation Scheme Document. Commencing from February 2017, as part of China’s power sector reform, electricity sales by CLP Dali Yang\_er have been carried out entirely through market sales transactions which do not constitute CCTs for the Company. This agreement is therefore no longer considered as a CCT in 2018.
- 2

In connection with the Xundian Wind Project Electricity Supply Contract (ESC), an electricity charging and payment agreement was entered into on 26 October 2016 between CLP Xundian and CSG-KPB for the implementation of pre-payment arrangement which will have no effect on the ultimate transaction value of the ESC.
- 3

The agreement replaced the previous agreement which was known as the Xundian Wind Project Electricity Supply Contract (Interim) that was entered into on 27 October 2015 and was disclosed in the Company’s announcement dated 3 January 2017.

Pursuant to Rule 14A.55 of the Listing Rules, all the Independent Non-executive Directors of the Company have reviewed the CCTs and confirmed that the CCTs have been entered into:

- (i)
- in the ordinary and usual course of business of the Group;
- (ii)
- on normal commercial terms or better for CLP; and
- (iii)
- according to the relevant agreement governing each of the CCTs on terms that are fair and reasonable and in the interests of the Company’s shareholders as a whole.

The Company’s external auditor, PwC, was engaged to report on the CCTs in accordance with Hong Kong Standard on Assurance Engagements 3000 (Revised) “Assurance Engagements Other Than Audits or Reviews of Historical Financial Information”

and with reference to Practice Note 740 “Auditor’s Letter on Continuing Connected Transactions under the Hong Kong Listing Rules” issued by the Hong Kong Institute of Certified Public Accountants.

PwC has reviewed these transactions and, pursuant to Rule 14A.56 of the Listing Rules, confirmed to the Board of the Company that nothing has come to their attention that causes them to believe: that they have not been approved by the Board of the Company; that they were not, in all material respects, in accordance with the pricing policies of the Group if the transactions involve the provision of goods or services by the Group; that they were not entered into, in all material respects, in accordance with the relevant agreements governing the transactions; and that they have exceeded the annual aggregate cap.



Management Contracts

No contracts concerning the management and administration of the whole or any substantial part of the business of the Company were entered into or existed during the year.

Related Party Transactions

Details of the significant related party transactions undertaken in the normal course of business are provided under Note 29 to the Financial Statements. None constitutes a discloseable connected transaction as defined under the Listing Rules.

Interests of Directors and Chief Executive Officer

The interests / short positions of each of the Directors and the CEO in the shares, underlying shares and debentures of the Company or any of the Company’s associated corporations (within the meaning of the Securities and Futures Ordinance) as at 31 December 2017, as recorded in the register required to be kept under Section 352 of Part XV of the Securities and Futures Ordinance, are set out in the table below and the corresponding explanatory notes:

1. Aggregate long position in the shares, underlying shares and debentures of the Company and its associated corporations

The interests of Directors and the CEO in the shares of the Company (other than pursuant to equity derivatives such as share options, warrants to subscribe or convertible bonds) as at 31 December 2017 were as follows:

Directors	Capacity	Total Interests in Number of Ordinary Shares of the Company	% of the Issued Share Capital of the Company
The Hon Sir Michael Kadoorie	Note 1	480,672,780	19.02562
Mr William Mocatta	Note 2	400,000	0.01583
Mr J. A. H. Leigh	Note 3	218,796,853	8.66025
Mr Andrew Brandler	Note 4	10,600	0.00042
Dr Y. B. Lee	Note 5	15,806	0.00063
Mr Nicholas C. Allen	Note 6	27,000	0.00107
Mrs Fanny Law	Personal	16,800	0.00066
Mr Richard Lancaster (CEO)	Personal	600	0.00002

Notes:

- 1

The Hon Sir Michael Kadoorie was deemed (by virtue of the Securities and Futures Ordinance) to be interested in 480,672,780 shares in the Company. These shares were held in the following capacity:

a

1,243 shares were held by his spouse, Lady Kadoorie in a personal capacity.

b

70,146,655 shares were ultimately held by discretionary trusts, of which The Hon Sir Michael Kadoorie is one of the discretionary objects.

c

233,044,212 shares were ultimately held by a discretionary trust, of which The Hon Sir Michael Kadoorie is one of the beneficiaries and the founder.

d

170,180,670 shares were ultimately held by a discretionary trust, of which The Hon Sir Michael Kadoorie is one of the beneficiaries and the founder.

e

1,300,000 shares were ultimately held by a discretionary trust, of which The Hon Sir Michael Kadoorie is one of the beneficiaries and the founder.

f

2,000,000 shares were ultimately held by each of three discretionary trusts, all of which The Hon Sir Michael Kadoorie is one of the beneficiaries and the founder.

For the purpose of the Securities and Futures Ordinance, the spouse of The Hon Sir Michael Kadoorie was taken to have a discloseable duty in Hong Kong in relation to the shares referred to in 1b to 1f above. The spouse of The Hon Sir Michael Kadoorie was therefore deemed to be interested in 480,672,780 shares in the Company representing approximately 19.03% of the issued share capital of the Company, of which 1,243 shares were held by her in a personal capacity and an aggregate of 480,671,537 shares were attributed to her pursuant to the Securities and Futures Ordinance for disclosure purposes. Nevertheless, she has no interest, legal or beneficial, in these 480,671,537 shares attributed to her for disclosure purposes.

2

Mr William Mocatta was deemed (by virtue of the Securities and Futures Ordinance) to be interested in 400,000 shares in the Company. These shares were held in the following capacity:

a

250,000 shares were held in the capacity as the founder of a discretionary trust.

b

150,000 shares were held by a trust of which Mr William Mocatta is one of the beneficiaries.

3

Mr J. A. H. Leigh was deemed (by virtue of the Securities and Futures Ordinance) to be interested in 218,796,853 shares in the Company. These shares were held in the following capacity:

a

145,000 shares were held in a beneficial owner capacity.

b

218,651,853 shares were ultimately held by a discretionary trust. Mr J. A. H. Leigh was deemed to be interested in such 218,651,853 shares in his capacity as one of the trustees of a trust which was deemed to be interested in such 218,651,853 shares.

4

600 shares were held in a personal capacity and 10,000 shares were held in a beneficial owner capacity.

5

600 shares were held in a personal capacity and 15,206 shares were held jointly with spouse.

6

27,000 shares were held in a beneficial owner capacity and jointly with spouse.
- Each of the other Directors, namely Mr Vernon Moore, Sir Rod Eddington, Mr Vincent Cheng, Ms Irene Lee, Mrs Zia Mody and Mr Geert Peeters have confirmed that they had no interests in the shares of the Company or any of its associated corporations as at 31 December 2017.
- None of the Directors or the CEO had interests in debentures or under equity derivatives, interests in underlying shares of the Company or its associated corporations as at 31 December 2017.
2. Aggregate short position in the shares, underlying shares and debentures of the Company and its associated corporations
- None of the Directors or the CEO had short positions in respect of shares, debentures or under equity derivatives, interests in underlying shares of the Company or its associated corporations as at 31 December 2017.
- At no time during the year was the Company or its subsidiaries a party to any arrangement to enable the Directors and the CEO of the Company (including their spouse and children under 18 years of age) to acquire benefits by an acquisition of shares or underlying shares in, or debentures of, the Company or its associated corporations.
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- CLP Holdings 2017 Annual Report 175

Interests of Substantial Shareholders

The interests / short positions of substantial shareholders in the shares and underlying shares of the Company as at 31 December 2017, as recorded in the register required to be kept under Section 336 of Part XV of the Securities and Futures Ordinance, are set out in the table below and the corresponding explanatory notes:

1. Aggregate long position in the shares and underlying shares of the Company

The Company had been notified of the following substantial shareholders' interests in the shares of the Company as at 31 December 2017:

Substantial Shareholders	Capacity	Total Interests		% of the Issued Share Capital of the Company
		in Number of Ordinary Shares of the Company		
Bermuda Trust Company Limited	Trustee / Interests of controlled corporations	311,153,954	Note 1	12.32
Guardian Limited	Beneficiary / Interest of controlled corporation	218,651,853	Note 7	8.65
Harneys Trustees Limited	Interest of controlled corporation	410,524,882	Note 3	16.25
Lawrencium Holdings Limited	Beneficiary	170,180,670	Note 2	6.74
Lawrencium Mikado Holdings Limited	Beneficiary	233,044,212	Note 2	9.22
The Magna Foundation	Beneficiary	233,044,212	Note 2	9.22
The Mikado Private Trust Company Limited	Trustee / Interests of controlled corporations	410,524,882	Note 2	16.25
Oak CLP Limited	Beneficiary	218,651,853	Note 4	8.65
Oak (Unit Trust) Holdings Limited	Trustee	218,651,853	Note 1	8.65
The Oak Private Trust Company Limited	Trustee / Interests of controlled corporations	233,371,475	Note 4	9.24
The Hon Sir Michael Kadoorie	Note 5	480,672,780	Note 5	19.03
Mr J. A. H. Leigh	Notes 6 & 7	218,796,853	Notes 6 & 7	8.66
Mr R. Parsons	Trustee	218,651,853	Note 7	8.65

- Notes:
- 1 Bermuda Trust Company Limited was deemed to be interested in the shares in which Oak (Unit Trust) Holdings Limited, The Oak Private Trust Company Limited and other companies were deemed to be interested, either in the capacity as trustee of various discretionary trusts and / or by virtue of having direct or indirect control over such companies. The interests of Bermuda Trust Company Limited in the shares of the Company include the shares held by discretionary trusts of which The Hon Sir Michael Kadoorie is one of the discretionary objects as disclosed in "Interests of Directors and Chief Executive Officer".
  - 2 The Mikado Private Trust Company Limited was deemed to be interested in the shares in which Lawrencium Holdings Limited, Lawrencium Mikado Holdings Limited and other companies were deemed to be interested, either in the capacity as trustee of various discretionary trusts and / or by virtue of having direct or indirect control over such companies. The Magna Foundation was also deemed to be interested in the shares in which Lawrencium Mikado Holdings Limited was deemed to be interested. The interests of The Mikado Private Trust Company Limited in the shares of the Company include the shares held by discretionary trusts of which The Hon Sir Michael Kadoorie is one of the beneficiaries and a founder as disclosed in "Interests of Directors and Chief Executive Officer".
  - 3 Harneys Trustees Limited controlled The Mikado Private Trust Company Limited and was therefore deemed to be interested in the shares in which such company was deemed to be interested.
  - 4 The Oak Private Trust Company Limited was deemed to be interested in the shares in which Oak CLP Limited and other companies were deemed to be interested, either in the capacity as trustee of various discretionary trusts and / or by virtue of having direct or indirect control over such companies.
  - 5 See Note 1 under "Interests of Directors and Chief Executive Officer".
  - 6 See Note 3 under "Interests of Directors and Chief Executive Officer".
  - 7 Mr R. Parsons and Mr J. A. H. Leigh, in their capacities as trustees of a trust, jointly controlled Guardian Limited and therefore were deemed to be interested in the shares in which Guardian Limited was deemed to be interested. Accordingly, the 218,651,853 shares in which Guardian Limited was interested was duplicated within the interests attributed to each of Mr J. A. H. Leigh and Mr R. Parsons.

As at 31 December 2017, the Company had not been notified of any long positions being held by any substantial shareholder in the underlying shares of the Company through equity derivatives such as share options, warrants to subscribe or convertible bonds.


2. Aggregate short position in the shares and underlying shares of the Company

As at 31 December 2017, the Company had not been notified of any short positions being held by any substantial shareholder in the shares or underlying shares of the Company.

Interests of Any Other Persons

As at 31 December 2017, the Company had not been notified of any persons other than the substantial shareholders who had interests or short positions in the shares or underlying shares of the Company, which are required to be recorded in the register required to be kept under Section 336 of Part XV of the Securities and Futures Ordinance.

Corporate Governance

The Company's corporate governance principles and practices are set out in the Corporate Governance Report on page 102 of this Annual Report, while our [Sustainability Report](#) available online describes the Company's actions and initiatives with particular emphasis on the social and environmental aspects of our activities. 

Auditor

The Financial Statements for the year have been audited by PwC who will retire and, being eligible, offer themselves for reappointment, at the AGM of the Company.

On behalf of the Board



**William Mocatta**  
Vice Chairman  
Hong Kong, 26 February 2018



# Financials

We present an  
accounting view of  
our 2017 financial  
performance and  
where we stood at the  
end of year 2017

Kai Tak Cruise Terminal, Hong Kong

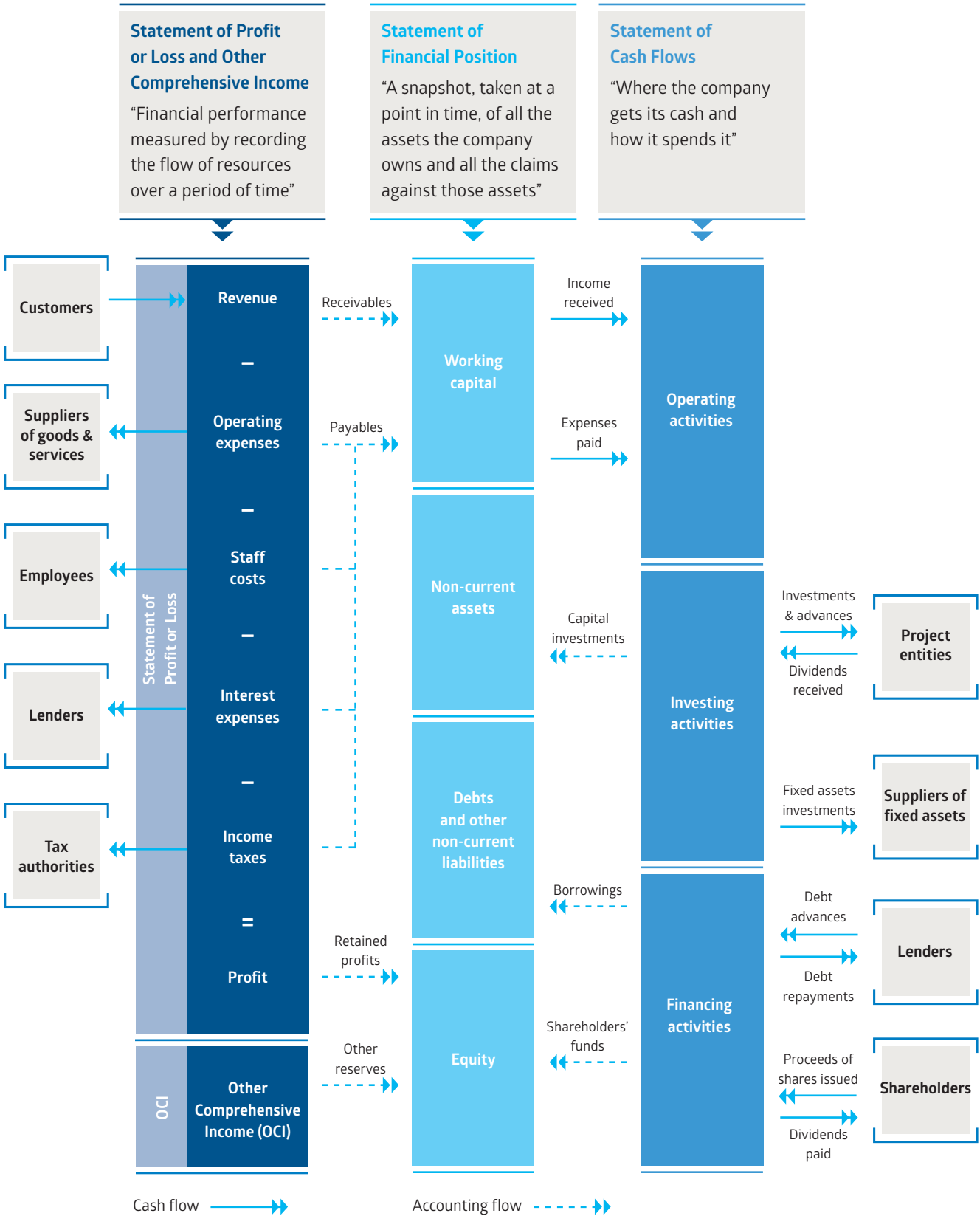


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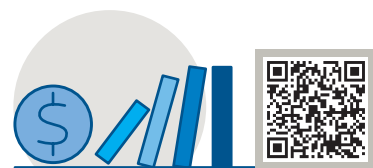
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Approaching Our Financial Statements

The objective of financial statements is to communicate the Group's financial information to its stakeholders, especially shareholders, investors and lenders, for making economic decisions. The diagram below explains the functions and the relationships between the three essential financial statements, as well as their links with the Group's stakeholders.







## Accounting Mini-series

# Expected Credit Loss Provisioning

The 2008 financial crisis highlighted the weakness in the current accounting standard, IAS 39 Financial Instruments: Recognition and Measurement, which adopts the incurred loss model for impairment of financial assets. The issue with the incurred loss model is that impairment losses and resulting write-downs in the reported value of financial assets can only be recognised when there is evidence that they exist (i.e. have been incurred). Reporting entities are not allowed to consider the effects of expected losses.

Following the crisis, the G20 tasked global accounting standard setters to strengthen accounting recognition of financial asset provisions by incorporating a broader range of credit information. In response, the International Accounting Standards Board (IASB) in 2014 published IFRS 9 Financial Instruments which replaces IAS 39 mandatorily in 2018. IFRS 9 includes a new impairment model that is more forward-looking.

CLP elected to early adopt HKFRS 9 (equivalent to IFRS 9) in 2016.

The general purpose of an impairment test is to ensure that an asset is not carried for financial reporting purposes at an amount that exceeds its recoverable amount. To do so would overstate a reporting entity's financial position and performance. As such, a timely recognition of credit losses of financial assets is important. The issue of the recognition of credit losses has been discussed vigorously in the accounting regime since the financial crisis. This accounting mini-series explains the new impairment model under the new accounting standard.

### Old – Incurred loss model

The incurred loss model under HKAS 39 (equivalent to IAS 39) only requires the recognition of credit losses that have been incurred as of the balance sheet date. There is no consideration of probable future losses. Loss identification is based on the occurrence of a “triggering” event supported by observable evidence such as loss of business, default on interest payment, bankruptcy etc. During the financial crisis, it was observed that the recognition of credit losses under the current incurred loss model was not timely reflected in the financial statements. In addition, although higher interest margins were set for riskier financial assets to compensate for expected losses, interest incomes derived from these assets were recognised in full. To overcome these issues, a new expected credit loss model under HKFRS 9 is introduced which replaces the current model and is effective from 1 January 2018.

### New – Expected credit loss (ECL) model

The new ECL model is a forward-looking approach that emphasises on the assessment of increase in credit risk since initial recognition. Under this approach, a loss event is no longer needed to occur before a provisioning is recognised. This also involves a considerable judgment as to how changes in macroeconomic factors will affect credit losses.

Credit losses under the ECL model are measured at expected values. As a result, this new model is more subjective in nature compared to the incurred loss model since it relies significantly on the cash flow estimates prepared by an entity which are inherently subjective. To work out credit losses, the entity needs to consider the probability-weighted outcome, the time value of money and reasonable and supportable information that is available. Credit losses have to be updated at each reporting date to reflect changes in credit quality.

As the ECL model is more forward-looking, the new requirements are expected to increase credit losses of reporting entities with substantial long-term financial assets. The impact for short-term financial assets such as trade receivables is likely to be relatively small.

## Two periods three stages

The new provisioning model bifurcates the estimation into (1) a 12-month ECL (Stage 1) and (2) a lifetime ECL. The computation of the lifetime ECL is further separated into two stages (Stages 2 and 3). Credit risk of a financial asset determines which stage of the model to be applied.

### 12-month ECL

**Stage 1** – It is a measurement of the probability of a default event occurring in the next 12 months after the reporting date.

When a financial asset is initially recognised, the 12-month ECL is recognised in profit or loss. This is akin to a day one loss, the rationale of which is that interest rate charged by a lender includes a margin to cover ECL. Interest revenue at Stage 1 is calculated on the gross carrying amount (i.e. before deducting ECL).

Measurement of ECL	
12-month ECL	Probability of default over <b>the next 12 months</b> × Present value of lifetime cash shortfalls
Lifetime ECL	Probability of default over <b>the lifetime</b> × Present value of lifetime cash shortfalls

If credit risk has increased significantly since its initial recognition, the 12-month ECL would be replaced by lifetime ECL. Alternatively, the credit loss allowance reverts to 12-month ECL if its credit quality subsequently improves.

### Lifetime ECL

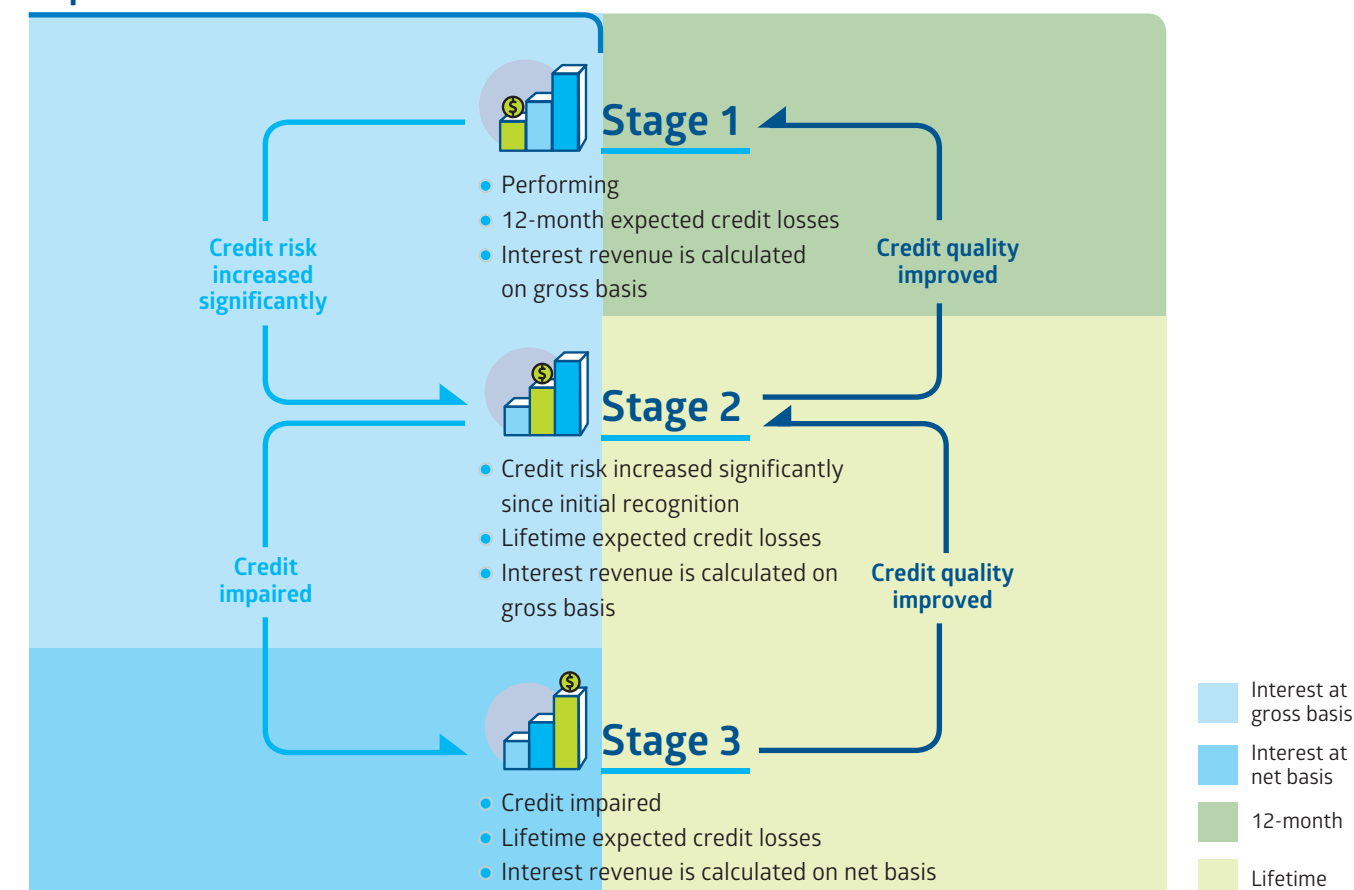
Lifetime ECL is a measurement of the probability of credit losses expected over the remaining life of a financial asset irrespective of the timing of the default. It is estimated based on the present value of all expected cash shortfalls over the remaining life of the financial asset. The assessment of which stage of lifetime ECL to be

applied is based on the increase in credit risk.

**Stage 2** – When the credit quality deteriorates and the resulting credit risk of a financial asset increases significantly since its initial recognition, lifetime ECL has to be recognised. Interest revenue on this financial asset remains to be calculated on gross basis.

**Stage 3** – If credit risk of a financial asset increases to the point that it is considered credit-impaired (similar to the current incurred loss model), lifetime ECL has to be recognised. However, interest revenue is calculated on the net carrying amount (i.e. after deducting ECL). A financial asset

## Expected Credit Loss Model



becomes credit-impaired if an objective event occurred that has a detrimental impact on the estimated future cash flows of the asset. Financial assets at this stage are generally assessed individually.

### Simplified approach

To apply the ECL model, entities need to keep track of the credit quality of financial assets. For entities with many

customers, tracking of changes in credit quality of all these customers would require huge administrative effort. To lessen this administrative burden, the standard introduces a simplified approach.

Under this approach, trade receivables that do not contain significant financing component shall recognise lifetime ECL at all times. In fact, lifetime ECL

does not differ from 12-month ECL in general as these trade receivables have typically less than 12-month duration.

Lifetime ECL could be calculated using a provision matrix based on historical loss patterns or customer bases. However, those historical provision rates would require adjustments to take into account current and forward-looking information.

## Expected Credit Loss Provisioning in CLP

Trade receivables are our major financial assets. Trade receivables in Hong Kong and Australia cover enormous numbers of retail customers. For our generation businesses in the Mainland China and India, the counterparties (i.e. offtakers) are mainly state or state-owned entities. We apply the simplified approach in the provisioning of trade receivables. Let us see how we do it in different regions.



### CLP Power Hong Kong

CLP Power Hong Kong classifies its trade receivables by nature of customer accounts, i.e. active accounts and terminated accounts. Trade receivables are mostly secured by cash deposits or bank guarantees from customers. These, together with very low default rate, resulted in very minimal credit losses.



### EnergyAustralia

In Australia, credit losses for trade receivables are assessed on both individual (wholesale customers) and collective (retail customers) basis. Customer segmentation is done according to the historical credit loss experiences by geographical region, product

At 31 December 2017	Gross Carrying Amount HK\$M	Lifetime Expected Credit Loss HK\$M	Net Carrying Amount HK\$M
CLP Power Hong Kong	1,967	(9)	1,958
EnergyAustralia	8,168	(994)	7,174
CLP India – Wind	482	–	482
CLP China – Renewables *	611	–	611

\* Represent receivables related to the unpaid Renewable National Subsidies

type, customer rating, collateral or trade credit insurance, type of customer, etc. Based on the customer segmentation and its ageing profile, EnergyAustralia derives a provision matrix to estimate the credit losses for each segment, which will be adjusted, where necessary, for forward-looking macroeconomic factors. The provision matrix applied by EnergyAustralia is set out in page 228 of this Annual Report.



### CLP India - Wind

Trade receivables in India are assessed on individual basis. Certain state offtakers of CLP India's wind portfolio experience financial difficulties and thus delaying the payments of power purchase. As such, CLP India is exposed to credit risk and has aged debt. No provision has been made as periodic payments have been

received, penalty interests for late payments have been charged and no history of default was recorded from the offtakers. The business environment has been improving. The exposure is classified as a sovereign credit risk.



### CLP China - Renewables

CLP China's renewable projects are entitled to a national subsidy. Across the industry, there have been delay in payments of the Renewable National Subsidy. The Group recorded a total outstanding amount of HK\$611 million at 31 December 2017. We consider that there are no credit losses on the basis that the counterparty is the Central Government, periodic payments have been received, no losses have been experienced in the past as well as no adverse change is anticipated in the business environment.



# Independent Auditor's Report



## To the Members of CLP Holdings Limited

(incorporated in Hong Kong with limited liability)

### Opinion

#### *What we have audited*

The consolidated financial statements of CLP Holdings Limited ("the Group Financial Statements") and its subsidiaries ("the Group") set out on pages 192 to 260, which comprise the consolidated statement of financial position as at 31 December 2017, the consolidated statement of profit or loss, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the Financial Statements (including financial risk management), which include a summary of significant accounting policies.

#### *Our opinion*

In our opinion, the Group Financial Statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2017, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") and have been properly prepared in compliance with the Hong Kong Companies Ordinance.

### Basis for Opinion

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKSAs") issued by the HKICPA. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Group Financial Statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Independence

We are independent of the Group in accordance with the HKICPA's Code of Ethics for Professional Accountants ("the Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code.

### Key Audit Matters

Key Audit Matters are those matters that, in our professional judgment, were of most significance in our audit of the Group Financial Statements of the current period. These matters were addressed in the context of our audit of the Group Financial Statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

<b>Key Audit Matter</b>	<b>How our audit addressed the Key Audit Matter</b>
<b>Unbilled retail revenue</b> Refer to note 2 in the Group Financial Statements  Retail electricity and gas revenues are recognised when electricity and gas are supplied to and consumed by the customers. The revenues are measured on the basis of periodic cycle meter readings and include an estimated accrual for the value of electricity and gas consumed from the meter reading date to the end of the reporting period (unbilled revenue). Unbilled retail revenue of the Group totalled HK\$4,319 million at 31 December 2017.	Our procedures in relation to unbilled revenue included: <ul style="list-style-type: none"><li>• Obtaining an understanding of and testing the key controls in place to determine the estimate of unbilled revenue for both CLP Power Hong Kong and EnergyAustralia, including the logic of any models;</li><li>• Testing the volume of electricity sent-out by CLP Power Hong Kong to supporting information;</li></ul>

Key Audit Matter	How our audit addressed the Key Audit Matter
<p><b>Unbilled retail revenue (continued)</b></p> <p>In CLP Power Hong Kong Limited (CLP Power Hong Kong), unbilled revenue is calculated using estimates including consumption quantity based on the electricity sent-out adjusted by a loss factor, pattern of residential and non-residential consumption, weather and certain other factors.</p> <p>In EnergyAustralia Holdings Limited (EnergyAustralia) the amount is calculated based on the electricity purchased and applicable tariffs for the mass market customer segment, as well as actual meter readings and contracted rates for commercial and industrial customers. The amount is adjusted for physical energy loss and other measurable factors.</p>	<ul style="list-style-type: none"><li>• Testing the volume of electricity purchased by EnergyAustralia from the wholesale electricity market to the underlying Australian Energy Market Operator (AEMO) invoices on a sample basis and reconciling the total purchase volumes to revenue volumes; and</li><li>• Understanding and challenging the key assumptions relating to volumes and pricing used in determining the level of unbilled revenue for both CLP Power Hong Kong and EnergyAustralia by comparing against historical trends and against the weighted average tariff for prices.</li></ul> <p>Based on the work performed, the unbilled revenue amount is supported by the available evidence.</p>
<p><b>Fixed asset accounting, the calculation of the Scheme of Control permitted return and the carrying value of EnergyAustralia’s generation assets and energy retail business</b></p> <p>Refer to notes 9 and 10 in the Group Financial Statements</p> <p><i>Fixed asset accounting and the calculation of the Scheme of Control permitted return</i></p> <p>Consolidated fixed assets, leasehold land and land use rights were HK\$143 billion at 31 December 2017. This includes fixed assets and leasehold land relating to CLP Power Hong Kong and Castle Peak Power Company Limited (CAPCO) (together the SoC Companies) which are the base used in the calculation of the permitted return under the Scheme of Control (SoC) Agreement.</p> <p>The annual permitted return under the current SoC is 9.99% of the SoC Companies’ average net fixed assets other than renewable energy investments; and 11% for renewable energy investments. If the gross tariff revenue in a period is less than or exceeds the total of the SoC operating costs, permitted return and taxation charges, such deficiency shall be deducted from, or such excess shall be added to, the Tariff Stabilisation Fund (TSF). In any period, the amount of deduction from or addition to the TSF is recognised as a revenue adjustment to the extent that the return and charges under the SoC are recognised in profit or loss.</p> <p>The completeness and accuracy of SoC fixed asset additions, disposals and depreciation charges is important to ensure the permitted return is calculated correctly.</p>	<p>Our procedures in relation to the Group’s fixed assets and the calculation of the SoC permitted return included:</p> <ul style="list-style-type: none"><li>• Assessing the control environment and testing controls over additions, disposals and depreciation charges;</li><li>• Testing the fixed asset additions in the year to supporting evidence on a sample basis and assessing whether the items have been appropriately capitalised;</li><li>• Assessing the estimated useful lives of the SoC Companies’ fixed assets for compliance with the SoC;</li><li>• Testing depreciation charges by performing depreciation reasonableness tests;</li><li>• Reconciling the fixed asset records from the beginning of the financial year to the end of the financial year;</li><li>• Recalculating the permitted return for the year; and</li><li>• Recalculating the SoC adjustment to revenue for the year.</li></ul> <p>Based on the work performed, we found that the Group’s fixed asset accounting and the SoC permitted return calculation are supported by the available evidence.</p>

Key Audit Matter	How our audit addressed the Key Audit Matter
<p><b>Fixed asset accounting, the calculation of the Scheme of Control permitted return and the carrying value of EnergyAustralia’s generation assets and energy retail business (continued)</b></p> <p><i>The carrying values of EnergyAustralia’s generation assets and energy retail business</i></p> <p>EnergyAustralia has goodwill of HK\$16,656 million relating to the energy retail business in Australia and HK\$11,138 million of generation fixed assets.</p> <p>EnergyAustralia management has assessed the recoverable amount of EnergyAustralia’s generation assets and energy retail business at 31 December 2017 and concluded that the carrying values remain appropriate. These conclusions were based on value in use models requiring significant management judgment in respect of the key assumptions as set out in the Group Financial Statements.</p>	<p>Our procedures in relation to management’s assessment of the carrying values of EnergyAustralia’s generation assets and energy retail business included:</p> <ul style="list-style-type: none"><li>• Assessing the appropriateness of the valuation methodology;</li><li>• Reconciling input data to supporting evidence, such as approved business plans;</li><li>• Considering the accuracy of the prior year forecasts against past results;</li><li>• Challenging the reasonableness of the key assumptions based on our knowledge of the business and the industry;</li><li>• Assessing the potential impact of reasonably possible downside changes in these key assumptions; and</li><li>• Checking that the key assumptions used in the value in use calculations have been appropriately disclosed.</li></ul> <p>Based on the work performed, we found that the carrying values of EnergyAustralia’s generation assets and energy retail business are supported by the available evidence and the key assumptions have been appropriately disclosed in notes 9 and 10 in the Group Financial Statements.</p>
<p><b>Recoverability of trade receivables</b></p> <p>Refer to note 16 in the Group Financial Statements</p> <p>CLP Power Hong Kong and EnergyAustralia have significant retail businesses with many individual customers. The offtakers for the Group’s other generation businesses are mainly a small number of state grid operators. Provisions are made for expected credit losses when the Group will not collect all amounts due. Management judgment is required in assessing the expected credit losses.</p> <p>Expected credit losses in CLP Power Hong Kong are close to zero as the trade receivables are mostly secured by cash deposits or bank guarantees from customers and have no recent history of default.</p> <p>EnergyAustralia has trade receivables of HK\$8,168 million at 31 December 2017 against which provisions for expected credit losses of HK\$994 million are held. Management estimated the level of expected losses, by assessing future cash flows for each group of trade receivables including a probability weighted amount determined by evaluating a range of possible outcomes based on twelve month rolling historical credit loss experience by customer segment, geographical region, tenure and type of customer and applying to the receivables held at year end. The impact of economic factors both current and future is considered in assessing the likelihood of recovery from customers.</p>	<p>Our procedures in relation to trade receivables included:</p> <ul style="list-style-type: none"><li>• Testing controls on a sample basis over the billing and collection cycle in CLP Power Hong Kong and EnergyAustralia;</li><li>• Testing the trade receivables ageing analysis in CLP Power Hong Kong and EnergyAustralia;</li><li>• Assessing the appropriateness of the credit loss provisioning methodology throughout the Group;</li><li>• Challenging the information used to determine the expected credit losses by considering cash collection performance against historical trends and the level of credit loss charges over time;</li><li>• Reviewing the accuracy of management’s judgment by comparing historical provisions against actual write-offs;</li><li>• Reviewing minutes of the board of directors’ meetings relating to the recoverability of trade receivables;</li><li>• Understanding the nature of trade receivables from the state grid operators of CLP India’s renewable projects, reading correspondence with the customers and reviewing Court Orders petitioning priority of payment; and</li></ul>



Key Audit Matter	How our audit addressed the Key Audit Matter
<p><b>Recoverability of trade receivables (continued)</b></p> <p>CLP India Private Limited’s (CLP India) renewable projects have trade receivables of HK\$482 million of which HK\$446 million are past due. Management has assessed the recoverability of past-due amounts and concluded no credit loss provision is required as there is no recent history of default and continuous payments are received.</p> <p>As at 31 December 2017, the Group has total receivables of HK\$611 million relating to unpaid Renewable National Subsidies in its Mainland China business. These amounts were not considered by management to be impaired because the subsidy settlement and renewable project accreditation are regulated by the Central Government. Furthermore, there has been payment and no history of default.</p>	<ul style="list-style-type: none"><li>Understanding the policies and regulations set by the Central Government on the Renewable National Subsidy, assessing the Group’s previous renewable project accreditations by the Central Government and assessing the regulatory eligibility criteria has been satisfied by those facilities not yet accredited.</li></ul> <p>We found management’s assessments of the recoverability of trade receivables are supported by the available evidence.</p>
<p><b>Asset retirement obligations (AROs)</b></p> <p>Refer to note 23 in the Group Financial Statements</p> <p>Provisions are held for estimated remediation costs, discounted to present value, where the Group has a legal or constructive obligation for remediation. Estimating the amount and timing of the obligation requires significant judgment. Management has assessed the Group’s obligations for each asset based on the local regulatory environment and expected closure dates.</p> <p>The Group’s provision of HK\$2,182 million mainly relates to land remediation of generation assets in Australia. The provisions are largely based on estimates by external and internal experts that are discounted using internally determined end of plant lives.</p> <p>CLP Power Hong Kong has been investing in the transmission and distribution network to supply electricity to the customers in its supply area in Hong Kong. As CLP Power Hong Kong expects that the land sites being used for the transmission and distribution network will continue to be used for the distribution of electricity supply to its customers, CLP Power Hong Kong currently considers it remote that the network would be removed from the existing land sites. In accordance with the requirements of accounting standards, asset retirement obligations have not been recognised by CLP Power Hong Kong.</p> <p>The Hong Kong Government has published in 2017 the Climate Action Plan 2030+ with a tightened carbon reduction target by 2030. CAPCO envisages that with the Government’s continued commitment to reduce carbon intensity, the removal of its fossil-fuel generation units from the existing land sites may be possible at some point of time in the future. Under the SoC, CAPCO makes a periodic charge to accrue in the statement of financial position a liability balance which would be utilised in discharging asset decommissioning costs if and when incurred. While asset retirement obligations have not been recognised upfront by CAPCO under the applicable accounting standards, CAPCO expects that should such obligation be incurred, it will be met by the deferred liability accrued and the cost recovery mechanism under the SoC.</p>	<p>Our procedures in relation to AROs included:</p> <ul style="list-style-type: none"><li>Assessing the appropriateness of the Group’s accounting policy;</li><li>Evaluating management’s conclusion that management consider it is remote that the Hong Kong transmission and distribution network would be removed from the existing land sites and possible, but not probable, that CAPCO’s fossil-fuel generation units may be removed at some point in time in the future;</li><li>Assessing management’s judgments as to whether a contractual or constructive obligation exists based on the respective power purchase agreements, lease agreements, local laws and regulations, past practice and the Climate Action Plan 2030+; and</li><li>Testing the appropriateness of management’s estimates of costs, timing and discount rates for those assets where management has concluded that the legal or constructive obligation exist.</li></ul> <p>Based on the work performed, the provisions recorded are supported by the available evidence.</p>

Key Audit Matter	How our audit addressed the Key Audit Matter
<p><b>Legal matters</b></p> <p>Refer to note 30 in the Group Financial Statements</p> <p>From time-to-time the Group experiences legal disputes with offtakers, service providers and other third parties. Provisions are recognised when management considers the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation, and the amount has been reliably estimated. Where management considers it is not probable that an outflow of economic benefits will be required, or the amount cannot be estimated reliably, the obligation is disclosed as a contingent liability, unless the probability of outflow of economic benefits is remote. Significant management judgment is required to assess each such matter and based on legal advice whether the probability of a material outflow of economic resources will occur and that a provision should be recognised or a disclosure made.</p> <p>The material legal matters and disputes are as follows:</p> <p>There is a dispute between CLP India and its offtaker – Gujarat Urja Vikas Nigam Limited (GUVNL) in relation to the deemed generation incentive payment and interest on deemed loans. The total claim plus interest and tax with respect to the “deemed generation incentive” amounted to Rs.8,543 million (HK\$1,045 million) at 31 December 2017. On the basis of legal advice obtained, the Directors are of the opinion that CLP India has a strong case and no provision has been made.</p> <p>In December 2015, EnergyAustralia completed the disposal of its entire interest in the Iona Gas Plant for a total consideration of A\$1,780 million (HK\$9,991 million). On 19 May 2017, EnergyAustralia received a Statement of Claim issued by Lochard Energy (Iona Operations Holding) Pty Ltd (Lochard Energy), the purchaser of the Iona Gas Plant, and certain related entities, commencing formal legal proceedings seeking A\$967 million (approximately HK\$5,899 million) or alternatively A\$780 million (approximately HK\$4,758 million) in damages. The claims allege that certain information regarding the technical performance of the Iona Gas Plant, and on which the consortium claims to have relied to make its offer, were incomplete or misleading. EnergyAustralia has rejected the claims and is vigorously defending the legal proceedings. On the basis of currently available information, the Directors’ view is that a material outflow of economic benefits is unlikely and no provision has been made in the Financial Statements.</p>	<p>Our procedures on management’s assessment of legal matters included:</p> <ul style="list-style-type: none"><li>Assessing the processes and controls over legal matters;</li><li>Reviewing the Group’s significant legal matters and other contractual claims;</li><li>Discussing with management any material developments and the latest status of the legal matters;</li><li>Reviewing the minutes of board of directors’ meetings in respect of discussions relating to legal matters;</li><li>Obtaining written confirmation from external legal counsels on the status of the GUVNL and Lochard Energy legal claims;</li><li>Challenging management’s judgments and assessments whether provisions are required;</li><li>Considering management’s assessment of those matters that are not disclosed as the probability of material outflow is considered to be remote; and</li><li>Reviewing the adequacy and completeness of the Group’s disclosures.</li></ul> <p>Based on the work performed, we found the provisions recorded and disclosures made are supported by the available evidence.</p>

## Other Information

The directors of the Company are responsible for the Other Information. The Other Information comprises all the information in the Group's 2017 annual report (other than the Group Financial Statements and our auditor's report thereon).

Our opinion on the Group Financial Statements does not cover the Other Information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the Group Financial Statements, our responsibility is to read the Other Information and, in doing so, consider whether the Other Information is materially inconsistent with the Group Financial Statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this Other Information, we are required to report that fact. We have nothing to report in this regard.

## Responsibilities of Directors and the Audit & Risk Committee for the Group Financial Statements

The directors of the Company are responsible for the preparation of the Group Financial Statements that give a true and fair view in accordance with HKFRSs issued by the HKICPA and the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of the Group Financial Statements that are free from material misstatement, whether due to fraud or error.

In preparing the Group Financial Statements, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

The Audit & Risk Committee is responsible for overseeing the Group's financial reporting process on behalf of the Board of Directors.

## Auditor's Responsibilities for the Audit of the Group Financial Statements

Our objectives are to obtain reasonable assurance about whether the Group Financial Statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. We report our opinion solely to you, as a body, in accordance with section 405 of the Hong Kong Companies Ordinance and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these Group Financial Statements.

As part of an audit in accordance with HKSAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the Group Financial Statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the Group Financial Statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the Group Financial Statements, including the disclosures, and whether the Group Financial Statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the Group Financial Statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Audit & Risk Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit & Risk Committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Audit & Risk Committee, we determine those matters that were of most significance in the audit of the Group Financial Statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Sean William Tuckfield.



**PricewaterhouseCoopers**

Certified Public Accountants

Hong Kong, 26 February 2018



## Consolidated Statement of Profit or Loss

for the year ended 31 December 2017

	<i>Note</i>	2017 HK\$M	2016 HK\$M
<b>Revenue</b>	2	<b>92,073</b>	79,434
Expenses			
Purchases of electricity, gas and distribution services		<b>(38,121)</b>	(31,743)
Staff expenses		<b>(4,195)</b>	(3,892)
Fuel and other operating expenses		<b>(23,691)</b>	(19,744)
Depreciation and amortisation		<b>(7,368)</b>	(6,909)
		<b>(73,375)</b>	(62,288)
Operating profit	4	<b>18,698</b>	17,146
Finance costs	5	<b>(2,180)</b>	(2,261)
Finance income	5	<b>151</b>	137
Share of results, net of income tax			
Joint ventures	11	<b>508</b>	737
Associates	12	<b>950</b>	904
Profit before income tax		<b>18,127</b>	16,663
Income tax expense	6	<b>(2,780)</b>	(2,855)
Profit for the year		<b>15,347</b>	13,808
<b>Earnings attributable to:</b>			
<b>Shareholders</b>		<b>14,249</b>	12,711
Perpetual capital securities holders		<b>249</b>	247
Other non-controlling interests		<b>849</b>	850
		<b>15,347</b>	13,808
<b>Earnings per share, basic and diluted</b>	8	<b>HK\$5.64</b>	HK\$5.03

The notes and disclosures on pages 198 to 260 are an integral part of these consolidated financial statements.

## Consolidated Statement of Profit or Loss and Other Comprehensive Income

for the year ended 31 December 2017

	2017 HK\$M	2016* HK\$M
<b>Profit for the year</b>	<b>15,347</b>	13,808
Other comprehensive income		
Items that can be reclassified to profit or loss		
Exchange differences on translation	<b>4,329</b>	(1,443)
Cash flow hedges	<b>(300)</b>	838
Costs of hedging	<b>(157)</b>	(187)
Share of other comprehensive income of joint ventures	<b>–</b>	20
	<b>3,872</b>	(772)
Items that cannot be reclassified to profit or loss		
Fair value changes on equity investments	<b>(280)</b>	(115)
Remeasurement gains on defined benefit plans	<b>91</b>	34
	<b>(189)</b>	(81)
<b>Other comprehensive income for the year, net of tax</b>	<b>3,683</b>	(853)
Total comprehensive income for the year	<b>19,030</b>	12,955
<b>Total comprehensive income attributable to:</b>		
<b>Shareholders</b>	<b>17,914</b>	11,865
Perpetual capital securities holders	<b>249</b>	247
Other non-controlling interests	<b>867</b>	843
	<b>19,030</b>	12,955

\* Certain comparative figures have been reclassified to conform with current year's presentation.

This statement of profit or loss and other comprehensive income includes not only conventional profit for the year, but also "other comprehensive income". The concept of other comprehensive income is explained on page 181. Further details of other comprehensive income attributable to shareholders are presented in Note 25.

The notes and disclosures on pages 198 to 260 are an integral part of these consolidated financial statements.

# Consolidated Statement of Financial Position

as at 31 December 2017

	Note	2017 HK\$M	2016* HK\$M
<b>Non-current assets</b>			
Fixed assets	9	137,207	130,189
Leasehold land and land use rights under operating leases	9	5,345	5,444
Investment properties	9	1,186	3,788
Goodwill and other intangible assets	10	29,087	27,653
Interests in and loan to joint ventures	11	10,383	9,971
Interests in associates	12	8,081	813
Finance lease receivables	13	620	628
Deferred tax assets	21	929	981
Derivative financial instruments	14	956	1,519
Equity investments		349	1,528
Other non-current assets		298	181
		<b>194,441</b>	182,695
<b>Current assets</b>			
Inventories – stores and fuel		3,050	2,565
Renewable energy certificates		1,047	1,424
Property under development	15	2,971	–
Trade and other receivables	16	15,427	13,464
Finance lease receivables	13	148	136
Derivative financial instruments	14	1,137	1,282
Short-term deposits and restricted cash	17	3,401	200
Cash and cash equivalents	17	6,529	4,467
		<b>33,710</b>	23,538
<b>Current liabilities</b>			
Customers' deposits	16(a)	(5,221)	(4,999)
Fuel clause account	18	(2,212)	–
Trade and other payables	19	(18,978)	(20,176)
Income tax payable		(762)	(792)
Bank loans and other borrowings	20	(8,472)	(10,651)
Derivative financial instruments	14	(789)	(977)
		<b>(36,434)</b>	(37,595)
Net current liabilities		<b>(2,724)</b>	(14,057)
<b>Total assets less current liabilities</b>		<b>191,717</b>	168,638

\* Certain comparative figures have been reclassified to conform with current year's presentation. Details are set out in Note 1 of Significant Accounting Policies.

	Note	2017 HK\$M	2016* HK\$M
<b>Financed by:</b>			
<b>Equity</b>			
Share capital	24	23,243	23,243
Reserves	25	85,454	74,767
Shareholders' funds		<b>108,697</b>	98,010
Perpetual capital securities	26	5,791	5,791
Other non-controlling interests	26	7,019	1,972
		<b>121,507</b>	105,773
<b>Non-current liabilities</b>			
Bank loans and other borrowings	20	48,869	40,995
Deferred tax liabilities	21	14,275	13,819
Derivative financial instruments	14	1,640	1,580
Fuel clause account	18	–	2,867
Scheme of Control (SoC) reserve accounts	22	977	860
Asset decommissioning liabilities and retirement obligations	23	2,987	1,268
Other non-current liabilities		1,462	1,476
		<b>70,210</b>	62,865
<b>Equity and non-current liabilities</b>		<b>191,717</b>	168,638

The more familiar name for the Statement of Financial Position is "Balance Sheet".

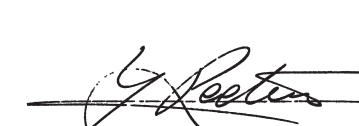
The Company's statement of financial position is presented in Note 31.



**William Mocatta**  
Vice Chairman  
Hong Kong, 26 February 2018



**Richard Lancaster**  
Chief Executive Officer



**Geert Peeters**  
Chief Financial Officer

The notes and disclosures on pages 198 to 260 are an integral part of these consolidated financial statements.



## Consolidated Statement of Changes in Equity

for the year ended 31 December 2017

	Attributable to Shareholders			Perpetual Capital Securities HK\$M	Other Non- controlling Interests HK\$M	Total Equity HK\$M
	Share Capital HK\$M	Reserves HK\$M	Total HK\$M			
Balance at 1 January 2016	23,243	69,875	93,118	5,791	2,023	100,932
Profit for the year	–	12,711	12,711	247	850	13,808
Other comprehensive income for the year	–	(846)	(846)	–	(7)	(853)
Acquisition of a subsidiary	–	–	–	–	53	53
Contribution from other non-controlling interest of a subsidiary	–	–	–	–	9	9
Dividends paid						
2015 fourth interim	–	(2,653)	(2,653)	–	–	(2,653)
2016 first to third interim	–	(4,320)	(4,320)	–	–	(4,320)
Distributions to perpetual capital securities holders	–	–	–	(247)	–	(247)
Dividends paid to other non-controlling interests of subsidiaries	–	–	–	–	(956)	(956)
Balance at 31 December 2016	23,243	74,767	98,010	5,791	1,972	105,773
Balance at 1 January 2017	23,243	74,767	98,010	5,791	1,972	105,773
Profit for the year	–	14,249	14,249	249	849	15,347
Other comprehensive income for the year	–	3,665	3,665	–	18	3,683
Contributions from other non-controlling interests of subsidiaries *	–	(4)	(4)	–	5,146	5,142
Transfer to fixed assets	–	3	3	–	1	4
Dividends paid						
2016 fourth interim	–	(2,754)	(2,754)	–	–	(2,754)
2017 first to third interim	–	(4,472)	(4,472)	–	–	(4,472)
Distributions to perpetual capital securities holders	–	–	–	(249)	–	(249)
Dividends paid to other non-controlling interests of subsidiaries	–	–	–	–	(967)	(967)
<b>Balance at 31 December 2017</b>	<b>23,243</b>	<b>85,454</b>	<b>108,697</b>	<b>5,791</b>	<b>7,019</b>	<b>121,507</b>

\* The contributions included the advances of HK\$5,115 million from China Southern Power Grid International (HK) Co., Limited (CSG HK) to Castle Peak Power Company Limited (CAPCO) reclassified from advances from non-controlling interest included under "Trade and other payables" to redeemable shareholder capital of CAPCO upon execution of a Shareholder Capital Agreement in April 2017 (Note 26).

## Consolidated Statement of Cash Flows

for the year ended 31 December 2017

	Note	2017		2016	
		HK\$M	HK\$M	HK\$M	HK\$M
<b>Operating activities</b>					
Net cash inflow from operations	27(A)	26,506		25,353	
Interest received		145		137	
Income tax paid		(2,234)		(1,814)	
Net cash inflow from operating activities			24,417		23,676
<b>Investing activities</b>					
Capital expenditure		(9,538)		(9,756)	
Capitalised interest and other finance costs paid		(256)		(244)	
Proceeds from disposal of fixed assets		120		848	
Additions of other intangible assets		(549)		(308)	
Acquisitions of subsidiaries		–		(236)	
Deposit paid for acquisition of an associate		–		(568)	
Increase in equity investments		(14)		(1)	
(Investments in and advances to) / repayment of advances from joint ventures and associates		(5,183)		2	
Dividends received from					
Joint ventures		818		1,035	
Associates		910		889	
Equity investments		9		43	
Increase in bank deposits with maturities of more than three months		(3,052)		–	
Net cash outflow from investing activities			(16,735)		(8,296)
Net cash inflow before financing activities			7,682		15,380
<b>Financing activities</b>	27(B)				
Proceeds from long-term borrowings		20,290		12,226	
Repayment of long-term borrowings		(16,340)		(15,651)	
Increase / (decrease) in short-term borrowings		459		(764)	
Interest and other finance costs paid		(1,779)		(1,901)	
Decrease in advances from other non-controlling interest		(79)		(31)	
Contribution from other non-controlling interest of a subsidiary		28		9	
Distributions paid to perpetual capital securities holders		(249)		(247)	
Dividends paid to shareholders		(7,226)		(6,973)	
Dividends paid to other non-controlling interests of subsidiaries		(967)		(956)	
Net cash outflow from financing activities			(5,863)		(14,288)
Net increase in cash and cash equivalents			1,819		1,092
Cash and cash equivalents at beginning of year			4,467		3,565
Effect of exchange rate changes			243		(190)
<b>Cash and cash equivalents at end of year</b>	17		<b>6,529</b>		<b>4,467</b>

The notes and disclosures on pages 198 to 260 are an integral part of these consolidated financial statements.

The notes and disclosures on pages 198 to 260 are an integral part of these consolidated financial statements.

# Significant Accounting Policies

Apart from the accounting policies presented within the corresponding notes to the financial statements, other significant accounting policies are set out below.

## 1. Basis of Preparation

The Company, CLP Holdings Limited, and its subsidiaries are collectively referred to as the Group in the consolidated financial statements.

The consolidated financial statements have been prepared in accordance with Hong Kong Financial Reporting Standards (HKFRS) issued by the Hong Kong Institute of Certified Public Accountants (HKICPA). They have been prepared under the historical cost convention, as modified by the revaluation of certain financial assets and financial liabilities (including derivative financial instruments) and investment properties which are carried at fair value.

The preparation of the consolidated financial statements in conformity with HKFRS requires the use of certain critical accounting estimates. It also requires management to exercise their judgment in the process of applying the Group’s accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are especially significant to the consolidated financial statements, are disclosed in relevant notes to the financial statements.

Certain comparative amounts have been reclassified or regrouped to conform with current year’s presentation which mainly included:

- A reclassification of certain energy contracts with fair value of HK\$590 million and related payable of HK\$255 million from “Trade and other receivables” to “Derivative financial instruments” included under current assets and “Trade and other payables” to reflect the nature of the transaction; and
- Grouping asset retirement obligations of HK\$352 million included in “Other non-current liabilities” with “Asset decommissioning liabilities” into “Asset decommissioning liabilities and retirement obligations”.

## 2. Changes in Accounting Policies

(A) Amendments to standards effective from 1 January 2017

The Group has adopted the following amendments to standards effective from 1 January 2017.

Reference	Description
Amendments to HKAS 7 Disclosure Initiative	Amendments to HKAS 7 Disclosure Initiative require disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flow and non-cash changes. To meet this new disclosure requirement, a reconciliation between the opening and closing balances for liabilities arising from financing activities is presented in Note 27(B) to the Financial Statements.
Amendments to HKAS 12 Recognition of Deferred Tax Assets for Unrealised Losses	Amendments to HKAS 12 Recognition of Deferred Tax Assets for Unrealised Losses clarify that a company needs to consider whether tax law restricts the sources of taxable profits against which it may claim deductions on the reversal of that deductible temporary difference. The adoption of these amendments has had no impact on the results and financial position of the Group.

## 2. Changes in Accounting Policies (continued)

(B) New standards effective after 2017 and have not yet been adopted

The following new standards are effective for annual periods beginning on or after 1 January 2018 and have not been early adopted by the Group for the year ended 31 December 2017.

Reference	Description
HKFRS 15 Revenue from Contracts with Customers	<p>HKFRS 15 establishes a new framework for revenue recognition. This replaces HKAS 18 which covers contracts for goods and services and HKAS 11 which covers construction contracts. The new standard introduces a five-step model to determine when and how to recognise revenue. Revenue is recognised when control of goods or services is transferred to a customer. It also sets out new capitalisation criteria for contract acquisition costs which state that the costs incurred are incremental and the Group is expected to recover them. HKFRS 15 has a mandatory effective date of 1 January 2018.</p> <p>The Group has assessed the effects of applying this new standard and has identified the following key areas that are likely to be affected:</p> <ol style="list-style-type: none"><li>1. Revenue from electricity related technical services in Hong Kong</li><li>2. Revenue from sale of residential and commercial solar and battery products in Australia</li><li>3. Contract acquisition costs for residential customers in Australia</li></ol> <p>The Group expects that the impact of the new standard on items 1 and 2 will not be material as the volume of the identified transactions is considered insignificant to the Group.</p> <p>In relation to item 3, the Group concludes that commissions paid to third parties for obtaining residential customers in Australia meets the new capitalisation criteria. These capitalised costs will be amortised over the expected benefit period of the contracts. The Group intends to adopt the modified retrospective application stipulated in the new standard, under which the cumulative impact of the adoption will be recognised in retained profits at 1 January 2018 and comparative figures will not be restated. The estimated after tax impact is an increase in retained profits of about HK\$200 million at 1 January 2018 with a corresponding recognition of an asset on the statement of financial position. Impact on the Group’s profit or loss arising from the amortisation of the asset is about HK\$90 million for 2018.</p>



## 2. Changes in Accounting Policies (continued)

(B) New standards effective after 2017 and have not yet been adopted (continued)

Reference	Description
HKFRS 16 Leases	<p>HKFRS 16 introduces a substantial change to lease accounting. The standard requires lessees to account for almost all leases under a single on-balance sheet model similar to finance leases under the current accounting standard, HKAS 17. At the commencement date of a lease, a lessee will recognise a liability to make lease payments (i.e. the lease liability) and an asset representing the right to use the underlying asset during the lease term (i.e. the right-of-use asset). Recognition for the lessor will remain essentially unchanged. HKFRS 16 has a mandatory effective date of 1 January 2019.</p> <p>The Group has reassessed all lease contracts as well as contracts which do not satisfy the lease definition under the current standard.</p> <p>For the existing lease contracts, only the Capacity Purchase Contract entered into by Hong Kong Pumped Storage Development Company, Limited (PSDC) does not meet the new lease definition under HKFRS 16. As at 31 December 2017, the operating lease commitment of this contract amounted to HK\$1,692 million. All other existing operating lease contracts which are mainly related to leases for land and buildings meet the new lease definition. As at 31 December 2017, the commitments for these operating leases amounted to HK\$655 million. The new standard will change the accounting for these operating lease contracts. The Group will recognise the right-of-use assets and lease liabilities for these leases according to the new standard. However, for operating leases that will expire within 12 months or less from 1 January 2019, the Group will apply the 12 months or less (i.e. short-term lease) exemption. The accounting of these short-term leases is similar to the accounting for an operating lease under the current standard. For the transition arrangement, the Group intends to adopt the modified retrospective application, which means that the cumulative impact on the adoption of HKFRS 16 will be recognised in retained earnings as of 1 January 2019 and the comparatives will not be restated.</p> <p>No contracts in operation which do not satisfy the lease definition under the current standard will fall into the new lease definition. For other contracts newly entered in 2017, the Group is still assessing whether they will meet the new lease definition.</p>

(C) New standards effective after 2017 and had been early adopted

The Group early adopted HKFRS 9 Financial Instruments with the date of initial application on 1 January 2016.

## 3. Consolidation

(A) Basis of consolidation

The consolidated financial statements of the Group incorporate the financial statements of the Company and its subsidiaries made up to 31 December and include the Group's interests in joint ventures and associates on the basis set out in (B) below.

Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity.

The financial statements of subsidiaries acquired during the year are included in the consolidated financial statements from the date on which control is transferred to the Group. They are de-consolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between Group entities are eliminated on consolidation. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Where necessary to ensure consistency with the policies adopted by the Group, adjustments are made to the financial statements of subsidiaries, joint ventures and associates.

(B) Joint ventures and associates

A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

An associate is an entity over which the Group has significant influence but not control nor joint control over the financial and operating policies, generally accompanying a shareholding of between 20% and 50% of the voting rights.

Investments in joint ventures / associates are accounted for using the equity method. They are initially recognised at cost. Subsequent to initial recognition, the consolidated financial statements include the Group's share of post-acquisition profit or loss and other comprehensive income, until the date on which joint control or significant influence ceases. Distributions received from an investee reduce the carrying amounts of the investments.

(C) Joint operations

A joint operation is an arrangement in which the Group has joint control (as explained in (B) above), whereby the Group has rights to the assets and obligations for the liabilities, relating to the arrangement. When the Group undertakes its activities under a joint operation, the Group as a joint operator recognises its direct right to, and its share of jointly held assets, liabilities, revenues and expenses of the joint operation. They are incorporated in the financial statements under appropriate headings.

(D) Change in ownership interests

Transactions with non-controlling interests are treated as transactions with equity owners of the Group. For purchases of ownership interests from non-controlling interests, the difference between any consideration paid and the relevant share of the carrying value of net assets of a subsidiary acquired is recorded in equity. For disposal of ownership interests to non-controlling interests that do not result in loss of control, gains or losses on disposals to non-controlling interests are also recorded in equity.

### 3. Consolidation (continued)

#### (D) Change in ownership interests (continued)

If the ownership interest in a joint venture or associate is reduced but joint control or significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive income is reclassified to profit or loss where appropriate. Gains or losses on disposals are recognised in profit or loss.

For changes in ownership interests that result in loss of control of subsidiaries, loss of joint control in joint ventures or loss of significant influence in associates, any retained interest in the entity is remeasured to its fair value, with the change in carrying amount recognised in profit or loss. The fair value is the initial carrying amount for the purpose of subsequent accounting for the retained interest as a joint venture, associate or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are reclassified to profit or loss.

A quick guide to the classification of different entities:

Control → Subsidiary

Joint Control → Joint Venture / Joint Operation

Significant Influence → Associate

Less than Significant Influence → Equity Investment

### 4. Impairment of Non-Financial Assets

Non-financial assets that have indefinite useful lives are not subject to amortisation. They are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable and, in any case, at least annually. Non-financial assets that are subject to amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash generating units (CGUs)). Goodwill arising from a business combination is allocated to CGUs that are expected to benefit from the synergies of the combination. An impairment loss is recognised for the amount by which the carrying amount of an asset or a CGU exceeds its recoverable amount. The recoverable amount is the higher of the fair value of an asset or a CGU less costs of disposal and its value in use.

An impairment loss recognised in prior years for an asset other than goodwill is reversed when there is a favourable change in the estimates used to determine the recoverable amount of an asset. A reversal of the impairment loss is limited to the asset's carrying amount (net of accumulated amortisation or depreciation) that would have been determined had no impairment loss been recognised in prior years.

### 5. Equity Investments

Equity investments are initially recognised at fair value and are subsequently measured at fair value through profit or loss. However, at initial recognition, the Group may make an irrevocable election (on an instrument-by-instrument basis) to present in other comprehensive income subsequent changes in fair value of an equity investment that is neither held for trading nor contingent consideration recognised by an acquirer in a business combination.

Where an equity investment is elected to present subsequent changes in the fair value in other comprehensive income, the gains or losses on such equity investments are never reclassified to profit or loss and no impairment is recognised in profit or loss. Dividends on equity investments are recognised in profit or loss unless they clearly represent a recovery of part of the cost of the investment, in which case they are recognised in other comprehensive income. Cumulative gains and losses recognised in other comprehensive income are transferred to retained profits on disposal of an equity investment.

### 6. Inventory

Inventory comprises stores and fuel and is stated at the lower of cost and net realisable value. Cost is calculated on the weighted average basis for stores, coal and gas. Net realisable value is determined on the basis of anticipated sales proceeds less estimated selling expenses.

### 7. Renewable Energy Products

Renewable energy and energy efficiency schemes operate through the creation, trade and surrender of energy products. Renewable energy certificates are recognised upon the risks and rewards transferring to the Group and are measured at the lower of cost or net realisable value. Cost is calculated on the weighted average basis.

### 8. Employee Benefits

#### (A) Defined contribution obligations

The Group operates and / or participates in a number of defined contribution plans. The assets of these plans are held in separate trustee-administered funds. The pension plans are funded by payments from employees and by the participating companies of the Group, and provide benefits linked to contributions and investment returns on the plans. The Group has no further legal or constructive payment obligations if the fund does not hold sufficient assets to pay all employees the benefit relating to employee service in the current and prior periods, once the contributions have been paid.

Forfeited contributions (by employers on behalf of employees who leave the scheme prior to vesting fully in such contributions) are not used to offset existing contributions but are credited to a reserve account of that provident fund, and are available for distribution at the discretion of the relevant employers.

Contributions to the defined contribution plans are recognised as expenses in the year to which the contributions relate, except to the extent that they are capitalised as part of the cost of qualifying assets.

#### (B) Defined benefit obligations

The Group operates defined benefit pension plans in Australia and India. Under the plans, the employees are entitled to lump sum benefits on retirement, death, disablement and withdrawal. The level of benefits provided depends on employees' years of service and final average salary. Plan assets held in trusts are governed by local regulations and practice in each country.

The cost of providing benefits under the defined benefit plan is determined using the projected unit credit actuarial valuation method. Past service costs are recognised immediately in profit and loss. Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are recognised directly in other comprehensive income.

#### (C) Incentive bonus and employee leave entitlement

Provisions are made for the estimated liability for incentive bonus and employee leave entitlement as a result of services rendered by employees up to the end of the reporting period, where there is a contractual obligation or past practice has created a constructive obligation.



9. Foreign Currency Translation

Items included in the financial statements of each of the Group entities are measured using the currency of the primary economic environment in which the entity operates (the functional currency). The consolidated financial statements are presented in Hong Kong dollar, which is the Group’s presentation currency.

Foreign currency transactions are translated into the relevant functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are remeasured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies by using the exchange rates at the end of the reporting period are recognised in profit or loss, except when deferred in other comprehensive income as qualifying cash flow hedges or qualifying net investment hedges.

For subsidiaries, joint ventures and associates that have a functional currency different from the Group’s presentation currency for the purpose of consolidation, assets and liabilities for each statement of financial position presented are translated using the closing rate at the end of the reporting period; and income and expenses for each statement of profit or loss presented are translated at the average exchange rate for the reporting period (unless this average rate is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the date of the transactions). All resulting exchange differences are recognised in other comprehensive income and as a separate component of equity.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated using the closing rate at the end of the reporting period.

Upon disposal of a foreign operation (that is, a disposal of the Group’s entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary / loss of joint control over a joint venture / loss of significant influence over an associate that includes a foreign operation), all of the exchange differences accumulated in equity in respect of that operation are reclassified to profit or loss.

In the case of a partial disposal that does not result in the Group losing control over a subsidiary that includes a foreign operation, the proportionate share of accumulated exchange differences are re-attributed to non-controlling interests and are not recognised in profit or loss. For all other partial disposals (that is, reductions in the Group’s ownership interest in a joint venture or associate that do not result in the Group losing joint control or significant influence) the proportionate share of the accumulated exchange difference is reclassified to profit or loss.

Monetary assets and liabilities are assets to be received and liabilities to be paid in fixed amounts. For example, a trade receivable is a monetary asset (the amount to be received is fixed) but a fixed asset is not a monetary asset because it is uncertain how much you will receive if the fixed asset is to be sold.

A company entity can have both functional currency and presentation currency; however, a consolidation group can only have presentation currency but not functional currency. This is because presentation currency is a matter of choice but functional currency is based on the different primary economic environment in which each group entity operates.

10. Leases

Leases of assets in which substantially all of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under an operating lease is amortised on a straight-line basis over the term of the lease to profit or loss.

Leases of assets where the lessee has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalised at their commencement at the lower of the fair value of the leased asset and the present value of the minimum lease payments. A fixed asset held under a finance lease is depreciated over the shorter of its useful life or the lease term. The corresponding rental obligations, net of finance charges, are included as obligations under finance leases in current and non-current liabilities. Where assets are leased out under a finance lease, the present value of the lease receipts is recognised as a receivable.

For a finance lease, each lease receipt / payment is allocated between the receivable / liability and finance income / charges so as to achieve a constant rate on the finance balance outstanding. The interest element of the lease receipt / payment is recognised in profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the receivable / liability for each period.

CLP believes that understanding financial statements is a right, not a privilege. To help those unfamiliar with accounting terms read our financial statements, we have developed an accounting “mini-series” to explain various accounting concepts which are applicable to the operations of the Group over the years. Readers who are interested in our expanded discussions on the following topics are encouraged to visit our website: [🔗](#)

- Lease accounting
- Fair value, derivatives, hedging and CLP
- Impairment
- Provision and contingent liability
- Business combinations
- Deferred tax
- Revenue recognition
- Liability or equity
- Foreign currency transaction and translation
- HKFRS 9 – New hedge accounting model
- Expected credit loss provisioning

# Notes to the Financial Statements

## 1. General Information

The Company is a limited liability company incorporated in Hong Kong and listed on the Stock Exchange of Hong Kong. The principal activity of the Company is investment holding, and the principal activities of the subsidiaries are the generation and supply of electricity in Hong Kong, India and Australia, and investment holding of power projects in Mainland China, Southeast Asia and Taiwan.

The financial operations of the Company's major subsidiaries, CLP Power Hong Kong Limited (CLP Power Hong Kong) and CAPCO (collectively referred as SoC Companies), are governed by a SoC entered into with the Hong Kong Government. Our electricity business in Hong Kong is therefore also referred to as the SoC business. The main features of the existing SoC Agreement are summarised on pages 261 and 262. The SoC Statement on page 263 is unaudited.

On 25 April 2017, the SoC Companies signed a new SoC Agreement with the Hong Kong Government. The term of the new SoC will be for a period of over 15 years beginning on 1 October 2018, immediately following the expiry of the current SoC, and ending on 31 December 2033. The new SoC contains key principles that are similar to the existing SoC. The annual permitted return under the new SoC is at the rate of 8% on the average net fixed assets of the SoC Companies.

These financial statements have been approved for issue by the Board of Directors on 26 February 2018.

## 2. Revenue

### Accounting Policy

Revenue primarily represents sales of electricity and gas, engineering and maintenance service fees, other electricity related revenue such as temporary electricity supply works and reconnection fees and adjustments stipulated under the SoC. It is measured at the fair value of the consideration received or receivable, net of applicable tax, discounts and rebates.

Sales of electricity and gas are based on actual and accrued consumption or the amount billed in accordance with the terms of the contractual agreements where applicable during the year. Other revenue is recognised when services are rendered or sales are completed.

Lease payments under power purchase agreements which are variable and depend on operation parameters are recognised as operating lease income when they are earned. Lease service income comprises servicing income and fuel costs received from lessees with respect to the leased assets. Finance lease income represents the interest element of the lease receipts on lease receivables and is recognised over the lease period using the effective interest method.

### Critical Accounting Estimates and Judgments: Unbilled Revenue

The Group records revenues from retail and wholesale energy sales using the accrual accounting method. Retail electricity and gas revenues are recognised when electricity and gas are supplied to and consumed by the customers. The revenues are measured on the basis of periodic cycle meter readings and include an estimated accrual for the value of electricity and gas consumed from the meter reading date to the end of the reporting period (the "unbilled revenue"). In Hong Kong, the unbilled revenue is calculated using estimates including consumption quantity based on electricity sent-out adjusted by loss factor, pattern of residential and non-residential consumption, weather and certain other factors. In Australia, the unbilled revenue is calculated based on the electricity purchased and applicable tariffs for the mass market customer segment, as well as actual meter readings and contracted rates for commercial and industrial customers. The amount is adjusted for physical energy loss and other measurable factors. Unbilled retail revenue of the Group (included in trade and other receivables) totalled HK\$4,319 million at 31 December 2017 (2016: HK\$3,588 million).

## 2. Revenue (continued)

An analysis of the Group's revenue is as follows:

	2017 HK\$M	2016 HK\$M
Sales of electricity	78,751	68,053
Sales of gas	8,251	7,382
Operating lease income under Power Purchase Agreement (PPA)	3,142	2,138
Lease service income under PPA	487	533
Finance lease income under PPA	114	117
Other revenue	1,230	951
	91,975	79,174
Transfer for SoC to revenue (Note 22)	98	260
	92,073	79,434

The operating lease income under PPA relates to Jhajjar's PPA which has been accounted for as an operating lease.

The lease service income and finance lease income under PPA relate to Paguthan. In accordance with HK(IFRIC)-Int 4 and HKAS 17, servicing income and fuel costs received by Paguthan from the lessee with respect to the leased assets are not part of the minimum lease payments and are recognised as lease service income.

## 3. Segment Information

### Accounting Policy

Operating segments are reported in a manner consistent with the internal reporting provided to the Chief Executive Officer, who is the chief operating decision-maker of the Group. In accordance with the Group's internal organisation and reporting structure, the operating segments are based on geographical regions.

Segment revenue is based on the geographical region in which the electricity is generated and/or services are rendered. Segment capital additions represent the total costs incurred during the year to acquire fixed assets and other segment assets that are expected to be used for more than one year. Unallocated items comprise mainly corporate expenses, corporate assets, and the Company's liquid funds and borrowings.

The Group operates, through its subsidiaries, joint ventures and associates, in five major geographical regions – Hong Kong, Mainland China, India, Southeast Asia and Taiwan, and Australia. In accordance with the Group's internal organisation and reporting structure, the operating segments are based on geographical regions. Substantially all the principal activities of the Group in each region are for the generation and supply of electricity which are managed and operated on an integrated basis.



### 3. Segment Information (continued)

Information about the Group's operations by geographical region is as follows:

	Hong Kong HK\$M	Mainland China HK\$M	India HK\$M	Southeast Asia & Taiwan HK\$M	Australia HK\$M	Unallocated Items HK\$M	Total HK\$M
<b>For the year ended 31 December 2017</b>							
Revenue	39,965	1,305	4,887	14	45,895	7	92,073
EBITDAF of subsidiaries	18,053	1,212	2,110	(15)	5,416	(572)	26,204
Share of results, net of income tax							
Joint ventures	(18)	339	-	171	16	-	508
Associates	-	961	-	-	(11)	-	950
EBITDAF of the Group	18,035	2,512	2,110	156	5,421	(572)	27,662
Depreciation and amortisation	(4,761)	(638)	(599)	-	(1,335)	(35)	(7,368)
Fair value adjustments	44	-	-	-	(182)	-	(138)
Finance costs	(1,049)	(241)	(713)	-	(140)	(37)	(2,180)
Finance income	-	39	57	4	16	35	151
Profit/(loss) before income tax	12,269	1,672	855	160	3,780	(609)	18,127
Income tax expense	(1,951)	(151)	(209)	-	(469)	-	(2,780)
Profit/(loss) for the year	10,318	1,521	646	160	3,311	(609)	15,347
Earnings attributable to							
Perpetual capital securities holders	(249)	-	-	-	-	-	(249)
Other non-controlling interests	(837)	(13)	1	-	-	-	(849)
Earnings/(loss) attributable to shareholders	9,232	1,508	647	160	3,311	(609)	14,249
Excluding: Items affecting comparability	(369)	-	-	-	(573)	-	(942)
Operating earnings	8,863	1,508	647	160	2,738	(609)	13,307
Capital additions	8,073	630	868	-	3,062	13	12,646
Impairment provisions							
Receivables and others	4	-	32	-	407	-	443
<b>At 31 December 2017</b>							
Fixed assets, leasehold land and land use							
rights and investment properties	112,270	8,522	11,698	-	11,138	110	143,738
Goodwill and other intangible assets	5,545	4,698	29	-	18,815	-	29,087
Interests in and loan to joint ventures	34	8,417	-	1,848	84	-	10,383
Interests in associates	-	8,050	-	-	31	-	8,081
Deferred tax assets	-	97	67	-	765	-	929
Other assets	11,157	3,894	5,081	121	13,239	2,441	35,933
Total assets	129,006	33,678	16,875	1,969	44,072	2,551	228,151
Bank loans and other borrowings	40,361	5,573	6,785	-	234	4,388	57,341
Current and deferred tax liabilities	13,232	1,228	282	-	295	-	15,037
Other liabilities	21,145	1,526	1,002	2	10,213	378	34,266
Total liabilities	74,738	8,327	8,069	2	10,742	4,766	106,644

EBITDAF = Earnings before interest, taxes, depreciation and amortisation, and fair value adjustments. For this purpose, fair value adjustments include fair value gains or losses on derivative financial instruments relating to transactions not qualifying as hedges and ineffectiveness of cash flow hedges.

Items affecting comparability refer to significant unusual and infrequent events such as acquisition/disposal, impairment of non-current assets, property valuation gain/loss, and change in law or natural catastrophe. They are considered irrelevant for assessing the underlying performance of the Group and are separately disclosed to allow a better understanding and comparison of the financial results. Details of the items affecting comparability can be found on page 31.

### 3. Segment Information (continued)

	Hong Kong HK\$M	Mainland China HK\$M	India HK\$M	Southeast Asia & Taiwan HK\$M	Australia HK\$M	Unallocated Items HK\$M	Total HK\$M
<b>For the year ended 31 December 2016</b>							
Revenue	37,968	1,197	3,808	13	36,441	7	79,434
EBITDAF of subsidiaries	17,703	951	1,954	(12)	3,796	(678)	23,714
Share of results, net of income tax							
Joint ventures	(12)	461	-	283	5	-	737
Associates	-	907	-	-	(3)	-	904
EBITDAF of the Group	17,691	2,319	1,954	271	3,798	(678)	25,355
Depreciation and amortisation	(4,432)	(583)	(571)	-	(1,284)	(39)	(6,909)
Fair value adjustments	(26)	-	-	-	367	-	341
Finance costs	(1,020)	(200)	(802)	-	(215)	(24)	(2,261)
Finance income	-	44	25	3	8	57	137
Profit/(loss) before income tax	12,213	1,580	606	274	2,674	(684)	16,663
Income tax expense	(1,880)	(67)	(137)	-	(771)	-	(2,855)
Profit/(loss) for the year	10,333	1,513	469	274	1,903	(684)	13,808
Earnings attributable to							
Perpetual capital securities holders	(247)	-	-	-	-	-	(247)
Other non-controlling interests	(831)	(19)	-	-	-	-	(850)
Earnings/(loss) attributable to shareholders	9,255	1,494	469	274	1,903	(684)	12,711
Excluding: Items affecting comparability	(497)	174	-	-	(54)	-	(377)
Operating earnings	8,758	1,668	469	274	1,849	(684)	12,334
Capital additions	8,498	918	115	-	943	27	10,501
Impairment provisions							
Fixed assets	-	-	-	-	38	-	38
Receivables and others	3	-	20	-	336	-	359
<b>At 31 December 2016</b>							
Fixed assets, leasehold land and land use							
rights and investment properties	112,014	7,679	10,854	-	8,746	128	139,421
Goodwill and other intangible assets	5,545	4,945	28	-	17,135	-	27,653
Interests in and loan to joint ventures	50	8,127	-	1,764	30	-	9,971
Interests in associates	-	786	-	-	27	-	813
Deferred tax assets	-	86	-	-	895	-	981
Other assets	4,846	5,528	4,839	100	9,839	2,242	27,394
Total assets	122,455	27,151	15,721	1,864	36,672	2,370	206,233
Bank loans and other borrowings	37,814	4,973	7,591	-	1,268	-	51,646
Current and deferred tax liabilities	12,895	1,270	182	-	264	-	14,611
Other liabilities	24,892	1,454	377	2	7,168	310	34,203
Total liabilities	75,601	7,697	8,150	2	8,700	310	100,460

Our investments in Mainland China are mainly through joint ventures and associates, whereby under equity method of accounting, CLP shares its proportionate earnings but not the revenues and expenses.

The difference between total assets and total liabilities represents shareholders' financing.

#### 4. Operating Profit

Operating profit is stated after charging / (crediting) the following:

	2017 HK\$M	2016 HK\$M
<b>Charging</b>		
Retirement benefits costs <sup>(a)</sup>	421	334
Auditors' remuneration		
Audit services		
PricewaterhouseCoopers	39	39
Other auditor <sup>(b)</sup>	1	-
Permissible audit related and non-audit services		
PricewaterhouseCoopers <sup>(c)</sup>	9	9
Other auditor <sup>(b)</sup>	-	-
Operating lease expenditure on the agreement with Ecogen	255	204
Net loss / (gain) on disposal of fixed assets	407	(386)
Impairment of		
Fixed assets	-	38
Inventories – stores and fuel	3	10
<b>Crediting</b>		
Net exchange (gain) / loss	(143)	228
Revaluation (gains) / losses on investment properties	(369)	146
Net fair value (gains) / losses on non-debt related derivative financial instruments		
Reclassified from cash flow hedge reserve and costs of hedging reserves to		
Purchases of electricity, gas and distribution services	(144)	(267)
Fuel and other operating expenses	56	(36)
Transactions not qualifying as hedges	138	(341)
Rental income from investment properties	(48)	(35)
Dividends from equity investments	(9)	(43)
Reversal of provision for onerous contract	-	(78)

Notes:

- (a) Retirement benefits costs for the year amounted to HK\$561 million (2016: HK\$440 million), of which HK\$140 million (2016: HK\$106 million) was capitalised.
- (b) According to the Companies Act of India, CLP India group (CLP India Private Limited (CLP India) and its subsidiaries) is required to rotate its statutory auditor if the auditor has been appointed for a period of 10 or more consecutive years. To comply with the regulation, KPMG India (audit arm in India, BSR & Co LLP) was appointed as the statutory auditor of CLP India group to replace PricewaterhouseCoopers for the financial year commencing on 1 April 2017. The Group does not regard KPMG India as a principal auditor of the Group given the relative small quantum of the audit fees, which reflect the scale of operation in CLP India group. Our policy with regard to non-principal auditors for providing non-audit services is to ensure that, within country, the non-audit fees are not paid out of proportion to the audit fees so as to compromise in-country independence. The figure of audit related and non-audit services represented KPMG India's non-audit fees charged to CLP India group from 1 April 2017 to 31 December 2017. Other KPMG offices have also provided services to our businesses in other regions which amounted to HK\$5 million during the period.
- (c) Permissible audit related and non-audit services provided by PricewaterhouseCoopers comprised Sustainability Report assurance, Continuing Connected Transactions limited assurance, audits of CLP's provident funds, auditor's attestation and tax advisory services.

#### 5. Finance Costs and Income

##### Accounting Policy

Borrowing costs are recognised as an expense in the year in which they are incurred, except to the extent that they are capitalised when they are directly attributable to the acquisition, construction or production of an asset which necessarily takes a substantial period of time to get ready for its intended use.

Interest income is recognised on a time proportion basis using the effective interest method.

	2017 HK\$M	2016 HK\$M
Finance costs		
Interest expenses on		
Bank loans and overdrafts	760	924
Other borrowings	1,056	893
Tariff Stabilisation Fund <sup>(a)</sup>	4	2
Customers' deposits and fuel clause over-recovery	128	151
Finance charges under finance leases	2	2
Other finance charges	279	281
Net fair value (gain) / loss on debt related derivative financial instruments		
Reclassified from cash flow hedge reserve	(313)	(84)
Reclassified from costs of hedging reserves	104	118
Fair value hedges	(58)	(9)
Transactions not qualifying as hedges	148	(70)
Ineffectiveness of cash flow hedges	7	7
Ineffectiveness of fair value hedges	(3)	6
Loss on hedged items in fair value hedges	58	9
Other net exchange loss on financing activities	270	268
	2,442	2,498
Less: amount capitalised <sup>(b)</sup>	(262)	(237)
	2,180	2,261
Finance income		
Interest income on short-term investments, bank deposits and loan to a joint venture	151	137

Notes:

- (a) In accordance with the provisions of the SoC Agreement, CLP Power Hong Kong is required to credit, to a Rate Reduction Reserve in its financial statements, a charge of the average of one-month Hong Kong interbank offered rate on the average balance of the Tariff Stabilisation Fund (Note 22(B)).
- (b) Finance costs have been capitalised at average interest rates of 1.34% – 2.94% (2016: 1.13% – 3.03%) per annum.



## 6. Income Tax Expense

Income tax in the consolidated statement of profit or loss represents the income tax of the Company and subsidiaries and is analysed below:

	2017 HK\$M	2016 HK\$M
Current income tax	2,094	2,032
Deferred tax	686	823
	<b>2,780</b>	2,855

Hong Kong profits tax has been provided at the rate of 16.5% (2016: 16.5%) on the estimated assessable profits for the year. Income tax on profits assessable outside Hong Kong has been provided at the rates prevailing in the respective jurisdictions.

The income tax on the Group's profit before income tax differs from the theoretical amount that would arise using the Hong Kong profits tax rate as follows:

	2017 HK\$M	2016 HK\$M
Profit before income tax	18,127	16,663
Less: Share of results of joint ventures and associates, net of income tax	(1,458)	(1,641)
	<b>16,669</b>	15,022
Calculated at an income tax rate of 16.5% (2016: 16.5%)	2,750	2,479
Effect of different income tax rates in other countries	646	460
Income not subject to tax	(237)	(184)
Expenses not deductible for tax purposes	219	238
Revenue adjustment for SoC not subject to tax (Note 22(A))	(16)	(43)
Over-provision in prior years	(11)	(98)
Utilisation of previously unrecognised tax losses	(573)	–
Tax losses not recognised	2	3
Income tax expense	<b>2,780</b>	2,855

Utilisation of previously unrecognised tax losses represented the tax losses on derivatives acquired in a previous business combination in Australia. These tax losses were utilised in 2017 after the confirmation of the tax treatment by the Australian Taxation Office.

## 7. Dividends

	2017		2016	
	HK\$ per Share	HK\$M	HK\$ per Share	HK\$M
First to third interim dividends paid	1.77	4,472	1.71	4,320
Fourth interim dividend declared	1.14	2,880	1.09	2,754
	<b>2.91</b>	<b>7,352</b>	2.80	7,074

At the Board meeting held on 26 February 2018, the Directors declared the fourth interim dividend of HK\$1.14 per share (2016: HK\$1.09 per share). The fourth interim dividend is not reflected as dividends payable in the financial statements.

## 8. Earnings per Share

The earnings per share are computed as follows:

	2017	2016
Earnings attributable to shareholders (HK\$M)	<b>14,249</b>	12,711
Weighted average number of shares in issue (thousand shares)	<b>2,526,451</b>	2,526,451
Earnings per share (HK\$)	<b>5.64</b>	5.03

Basic and fully diluted earnings per share are the same as the Company did not have any dilutive equity instruments throughout the year ended 31 December 2017 (2016: nil).

## 9. Fixed Assets, Leasehold Land and Land Use Rights under Operating Leases and Investment Properties

### Accounting Policy

#### (A) Fixed assets and leasehold land and land use rights under operating leases

Fixed assets are stated at cost less accumulated depreciation and accumulated impairment losses. Cost includes expenditure that is directly attributable to the acquisition of the fixed asset. Cost may also include transfer from equity of any gains/losses on qualifying cash flow hedges of foreign currency purchases of fixed assets. Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. For any asset replacement, the carrying amount of the replaced part is derecognised. All other repairs and maintenance are recognised as expenses in the period in which they are incurred.

Amortisation of leasehold land and depreciation of fixed assets are calculated, using the straight-line method, to allocate their costs to their estimated residual values over the unexpired term of the lease or their estimated useful lives, as appropriate. The estimated useful lives of the fixed assets are set out below:

	SoC fixed assets	Non-SoC fixed assets
Freehold land	not applicable	not depreciable
Leasehold land	unexpired term of the lease	unexpired term of the lease
Cable tunnels	100 years	30 years
Buildings and civil structures at power stations	35 years	20 – 50 years
Ash lagoon	35 years	20 – 40 years
Other buildings and civil structures	60 years	10 – 60 years
Generating plants	25 years *	15 – 40 years
Overhead lines (33 kV and above)	60 years	20 years
Overhead lines (below 33 kV)	45 years	18 – 30 years
Cables	60 years	10 – 30 years
Switchgear and transformers	50 years	15 – 45 years
Substation miscellaneous	25 years	10 – 20 years
Meters	15 years	10 – 15 years
Other equipment, furniture and fittings, motor vehicles and marine crafts	5 – 10 years	3 – 30 years

\* Useful lives of the generating plants have previously been extended by 5 – 15 years to 30 – 40 years after mid-life refurbishments.

## 9. Fixed Assets, Leasehold Land and Land Use Rights under Operating Leases and Investment Properties (continued)

### Accounting Policy (continued)

#### (A) Fixed assets and leasehold land and land use rights under operating leases (continued)

The assets' residual values and useful lives are reviewed and adjusted, if appropriate, at the end of each reporting period. For plant under construction, no depreciation is provided until the construction is completed and the assets are ready for their intended use. Leasehold land commences amortisation from the time when the land interest becomes available for its intended use. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount. The gain or loss on disposal of a fixed asset is the difference between the net sales proceeds and the carrying amount of the relevant asset, and is recognised in profit or loss.

#### (B) Investment Properties

Investment properties include properties that are being constructed or developed for future use as investment properties. Land held under operating leases is accounted for as an investment property when the rest of the definition of an investment property is met. In such cases, the operating leases concerned are accounted for as if they were finance leases. Investment properties are measured initially at cost, including related transaction costs. Subsequent to initial recognition, investment properties are measured at fair value, unless they are still in the course of construction or development at the end of the reporting period and their fair value cannot be reliably measured at that time. Fair value is based on active market prices, adjusted, if necessary, for any difference in the nature, location or condition of the specific asset. If the information is not available, the Group uses alternative valuation methods such as recent prices on less active markets or discounted cash flow projections. Any gains and losses arising from changes in the fair value or from the retirement or disposal of an investment property are recognised in profit or loss in the period in which they arise.

### Critical Accounting Estimates and Judgments

#### (A) Assessment of the Carrying Value of Generation Assets in Australia

Given the continued structural changes in the National Electricity Market (NEM) in Australia and changes in the supply and demand equilibrium, risk is introduced in market modelling which heightens the criticality of this judgment area. As part of making these critical judgments, risks do exist in the assumptions made around supply and demand in regard to the Group's generation assets in Australia. In certain circumstances, where contraction of demand and supply side response vary substantially from the assumptions made, significant changes in the value of the assets could eventuate.

Key estimates and assumptions for assessing the carrying value of the generation assets are as follows:

- Critical judgment exists in estimating forward electricity pool prices (the forward curve), generation volumes, retail volumes and gas prices. The forward curve has a significant impact on the accounting for certain items including value in use calculations for impairment purposes.
- Operating costs are escalated by relevant cost drivers using activity-based costing principles. Non-contracted fuel costs are based on management's estimate of future fuel prices.

Changes to the estimates and assumptions and other inputs could impact the assessed recoverable amounts of assets and CGUs and consequently impact the Group's financial performance and position. Management believes that no reasonably foreseeable change would result in an impairment of generation assets, in view of the long-term nature of the key assumptions and the headroom by which the estimated recoverable amount exceeds the carrying amount.

## 9. Fixed Assets, Leasehold Land and Land Use Rights under Operating Leases and Investment Properties (continued)

### Critical Accounting Estimates and Judgments (continued)

#### (B) Assessment of the Carrying Values of Assets in Other Regions

The Group has also made substantial investments in fixed assets, leasehold land and land use rights in other regions. The Group conducts impairment reviews of these assets whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable.

Determining whether an asset or a CGU is impaired requires an estimation of the recoverable amount, which requires the Group to estimate the future cash flows, a growth rate (that reflects the economic environments in which the Group operates) and a pre-tax discount rate (that reflects the current market assessments of the time value of money and the risks specific to the asset) in order to calculate the present value. Where the expected cash flows are less than the asset's carrying amount, an impairment loss may arise. During 2017, after reviewing the business environment as well as the Group's strategies and past performance of the investments, management concluded that there was no impairment loss for fixed assets and leasehold land and land use rights.

The latest annual impairment models for these assets indicated that sufficient headroom (meaning the excess of the recoverable amount over carrying value) existed. Management believes that any reasonably possible changes in the assumptions used in the models would not affect management's view on impairment at 2017 year end.

#### (C) Fair Value Estimation of Investment Properties

The investment properties were valued by Knight Frank Petty Limited (Knight Frank), an independent qualified valuer, who holds recognised relevant professional qualification and have recent experience in the locations and segments of the investment properties valued. Details of the fair value estimation of the properties are as follows:

- Knight Frank has valued the retail portion of Laguna Mall at 31 December 2017 by using the income capitalisation approach, cross-referenced with comparable market transactions. The income capitalisation approach is based on the capitalisation of the existing rental / licence income and potential reversionary income over the remaining tenure of the property from the date of valuation at appropriate capitalisation rates that by reference to the yields achieved in analysed market sales transactions and as expected by investors. The significant unobservable input is the capitalisation rate adopted for the valuation which is 4.25% (2016: 4.25%). The fair value measurement is negatively correlated to the capitalisation rate.
- On the date of transfer to property under development (Note 15), Knight Frank has taken into account the development constraints stipulated on the covenants of the Government Leases and subsequent modifications in formulating the optimal development of the Argyle Street site. Knight Frank has adopted the residual valuation method by making reference to the development potential of the property after deduction of costs for completion of development. Comparable transactions of similar development in the locality were gathered for gross development value assessment. The significant unobservable inputs are discount rate, cost of development and estimated return in the future for the property. The discount rate used is 5% (31 December 2016: 5%). The fair value measurement is negatively correlated to the discount rate.

The recurring fair value measurement of the Group's investment properties is categorised within Level 3 of the fair value hierarchy at 31 December 2017 and 2016.



## 9. Fixed Assets, Leasehold Land and Land Use Rights under Operating Leases and Investment Properties (continued)

Fixed assets, leasehold land and land use rights under operating leases and investment properties totalled HK\$143,738 million (2016: HK\$139,421 million) which included assets under construction with book value of HK\$9,919 million (2016: HK\$12,966 million). Movements in the accounts are as follows:

	Fixed Assets					Leasehold Land and Land Use Rights under Operating Leases	Investment Properties <sup>(a)</sup>
	Land Freehold HK\$M	Leased HK\$M	Buildings HK\$M	Plant, Machinery and Equipment HK\$M	Total HK\$M	HK\$M	HK\$M
Net book value at 1 January 2016	642	473	19,606	107,080	127,801	5,542	2,669
Acquisition of subsidiaries	31	-	1	1,025	1,057	2	-
Additions	11	-	838	7,910	8,759	81	1,265
Revaluation losses	-	-	-	-	-	-	(146)
Transfers and disposals	77	(43)	(121)	(411)	(498)	-	-
Depreciation/amortisation	-	(13)	(622)	(5,338)	(5,973)	(174)	-
Impairment charge	-	-	-	(38)	(38)	-	-
Exchange differences	(16)	-	(201)	(702)	(919)	(7)	-
Net book value at 31 December 2016	745	417	19,501	109,526	130,189	5,444	3,788
Cost/valuation	842	539	31,629	195,507	228,517	6,344	3,788
Accumulated depreciation/amortisation and impairment	(97)	(122)	(12,128)	(85,981)	(98,328)	(900)	-
Net book value at 31 December 2016	745	417	19,501	109,526	130,189	5,444	3,788
Net book value at 1 January 2017	745	417	19,501	109,526	130,189	5,444	3,788
Additions	17	-	792	10,049	10,858	74	-
Adjustment for decommissioning assets <sup>(b)</sup>	-	-	-	1,165	1,165	-	-
Revaluation gains	-	-	-	-	-	-	369
Transfer to property under development (Note 15)	-	-	-	-	-	-	(2,971)
Transfers and disposals	(35)	(19)	23	(677)	(708)	-	-
Depreciation/amortisation	-	(12)	(647)	(5,847)	(6,506)	(184)	-
Exchange differences	59	-	274	1,876	2,209	11	-
<b>Net book value at 31 December 2017</b>	<b>786</b>	<b>386</b>	<b>19,943</b>	<b>116,092</b>	<b>137,207</b>	<b>5,345</b>	<b>1,186</b>
Cost/valuation	892	517	32,754	208,912	243,075	6,441	1,186
Accumulated depreciation/amortisation and impairment	(106)	(131)	(12,811)	(92,820)	(105,868)	(1,096)	-
<b>Net book value at 31 December 2017</b>	<b>786</b>	<b>386</b>	<b>19,943</b>	<b>116,092</b>	<b>137,207</b>	<b>5,345</b>	<b>1,186</b>

Notes:

(a) Investment property at 31 December 2017 represented the commercial interest of the retail portion of the Laguna Mall in Hong Kong.

(b) The discount rate used to calculate the asset retirement obligations was revised which resulted in an uplift of the provision estimate, and associated asset value, by A\$198 million (HK\$1,165 million). The impact is not material to the Group, hence no adjustment to prior year financial statements is made.

## 10. Goodwill and Other Intangible Assets

### Accounting Policy

#### (A) Goodwill

Goodwill arises on the acquisition of subsidiaries and represents the excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets acquired.

For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each of the CGUs, or groups of CGUs, that is expected to benefit from the synergies of the combination. Each CGU or group of CGUs to which the goodwill is allocated represents the lowest level within the entity at which the goodwill is monitored for internal management purposes. Goodwill is monitored at the operating segment level.

Goodwill impairment reviews are undertaken at least annually or if events or changes in circumstances indicate a potential impairment. The carrying value of the CGU containing the goodwill is compared to the recoverable amount, which is the higher of value in use and the fair value less costs of disposal. Any impairment is recognised immediately as an expense and is not subsequently reversed.

#### (B) Other intangible assets

Intangible assets other than goodwill are measured initially at cost or, if acquired in a business combination, fair value at the acquisition date. An intangible asset with a finite useful life is amortised on a straight-line basis over its useful life and carried at cost less accumulated amortisation and accumulated impairment losses.

### Critical Accounting Estimates and Judgments: Goodwill Impairment

The Group has assessed the recoverable amount of the CGU with allocated goodwill and concluded that goodwill has not been impaired.

The recoverable amounts of the CGUs with allocated goodwill have been determined based on value in use calculations, which use cash flow projections as at 31 December 2017. These cash flow projections are derived from the approved Business Plan which has a forecast covering a period of ten years and have incorporated necessary updates. Projections for a period of greater than five years have been used on the basis that a longer projection period represents the long dated nature of our generation and electricity supply assets and a more appropriate reflection of future cash flows from anticipated legislative, regulatory and structural changes in the industry.

The key assumptions used in the value in use calculations are as follows:

#### Energy retail business in Australia

- Retail prices are sensitive to regulatory changes including regulation and deregulation of retail tariffs. In the absence of any known or expected changes to the current pricing structure, the retail price path assumptions are based on management estimates and expectations on current market conditions and the expectation of regulatory outcomes.
- The electricity and gas volumes for purchases and sales represent the forecast projections in the Business Plan of EnergyAustralia Holdings Limited (EnergyAustralia). External information is used to verify and align internal estimates.
- The number of customer accounts for electricity and gas aligns with the EnergyAustralia Business Plan.
- Electricity and gas network (distribution) cost assumptions are based on published regulated price paths. When no estimates are available, network costs are assumed to escalate by the relevant consumer price index.
- Electricity pool prices, generation volumes, dispatch levels and gas prices were derived using modelling of the electricity wholesales market. NEM modelling is prepared internally, where possible, using observable inputs. The modelling used for the electricity wholesale and gas markets is based on past experience and observable market activity.

## 10. Goodwill and Other Intangible Assets (continued)

### Critical Accounting Estimates and Judgments: Goodwill Impairment (continued)

#### Energy retail business in Australia (continued)

- The cash flow projections are discounted using a pre-tax discount rate of 12.0% (2016: 11.8%). The discount rates reflect the current market assessments of the time value of money and are based on the estimated cost of capital.
- A terminal growth rate has been used in estimating cash flows beyond a period of ten years. A nominal rate of 1.2% (2016: 0.4%) has been used.

#### Hong Kong electricity business

- Goodwill arising from the CAPCO acquisition has been allocated to the CLP Power Hong Kong and CAPCO as a combined CGU as the acquisition is considered beneficial to the whole SoC business.
- The electricity tariff for the supply of electricity in meeting the demand of customers in Hong Kong over the forecast periods is determined with reference to the rate-setting mechanism under the SoC.
- The forecast for electricity demand is based on the load forecast to support local infrastructure development and meeting customer load requirements, maintaining safety and supply reliability, and meeting environmental requirements.
- Expenditures for the supply of electricity in meeting the forecast demand are based on committed purchase contracts where applicable, and inputs on costs trend as specific to the electricity business in Hong Kong. Such forecast aligns with the projection in the Business Plan for our Hong Kong electricity business, with capital expenditures for the periods to September 2018 aligned with those forecasted in the approved development plan.
- Terminal value of the CGU is adopted to estimate the cash flows to be generated for the periods beyond ten years. This is expressed as a multiple of net asset values which corresponds to our return model based on fixed assets investment. The terminal value is a multiple of 1.2 times of the net asset values forecasted as at the end of 2027.
- The cash flow projections are discounted using a pre-tax discount rate of 9.81% (2016: 11.87%), or a post-tax return of 8.00% (2016: 9.99%) which reflects the SoC return rate applicable to the electricity business in Hong Kong.

It is considered that there are no reasonably possible changes that could occur in any of the key assumptions above that would cause the recoverable amounts to be less than the carrying values at 31 December 2017.

	Goodwill <sup>(a)</sup> HK\$M	Capacity Right <sup>(b)</sup> HK\$M	Others HK\$M	Total HK\$M
Net carrying value at 1 January 2016	21,087	5,173	1,997	28,257
Additions	–	13	383	396
Amortisation	–	(273)	(489)	(762)
Disposals	–	–	(1)	(1)
Exchange differences	(213)	–	(24)	(237)
Net carrying value at 31 December 2016	20,874	4,913	1,866	27,653
Cost	21,003	5,639	7,845	34,487
Accumulated amortisation and impairment	(129)	(726)	(5,979)	(6,834)
Net carrying value at 31 December 2016	20,874	4,913	1,866	27,653

## 10. Goodwill and Other Intangible Assets (continued)

	Goodwill <sup>(a)</sup> HK\$M	Capacity Right <sup>(b)</sup> HK\$M	Others HK\$M	Total HK\$M
Net carrying value at 1 January 2017	20,874	4,913	1,866	27,653
Additions	–	24	525	549
Amortisation	–	(274)	(404)	(678)
Exchange differences	1,391	–	172	1,563
<b>Net carrying value at 31 December 2017</b>	<b>22,265</b>	<b>4,663</b>	<b>2,159</b>	<b>29,087</b>
Cost	22,406	5,663	7,947	36,016
Accumulated amortisation and impairment	(141)	(1,000)	(5,788)	(6,929)
<b>Net carrying value at 31 December 2017</b>	<b>22,265</b>	<b>4,663</b>	<b>2,159</b>	<b>29,087</b>

Notes:

- (a) Goodwill arose from the acquisitions of energy retail business in Australia of HK\$16,656 million (2016: HK\$15,269 million) and the acquisition of CAPCO under Hong Kong electricity business of HK\$5,545 million (2016: HK\$5,545 million) in 2014.
- (b) Capacity right represents the right to use 50% of the pumped storage capacity of Phase 1 of the Guangzhou Pumped Storage Power Station in Conghua, Guangzhou and the corresponding right to use the associated transmission facilities until 2034.

## 11. Interests in and Loan to Joint Ventures Accounting Policy No. 3(B)

The table below lists the material joint ventures of the Group at 31 December 2017:

Name	% of Ownership Interest at 31 December 2016 and 2017	Place of Incorporation / Business	Principal Activity
CSEC Guohua International Power Company Limited (CSEC Guohua) <sup>(a)</sup>	30	Mainland China	Generation of Electricity
CLP Guangxi Fangchenggang Power Company Limited (Fangchenggang) <sup>(b)</sup>	70 <sup>(c)</sup>	Mainland China	Generation of Electricity
ShenGang Natural Gas Pipeline Company Limited (SNGPC) <sup>(b)</sup>	40	Mainland China	Natural Gas Transportation
OneEnergy Taiwan Ltd (OneEnergy Taiwan) <sup>(d)</sup>	50	British Virgin Islands / Taiwan	Investment Holding
Shandong Zhonghua Power Company, Ltd. (SZPC) <sup>(e)</sup>	29.4	Mainland China	Generation of Electricity

Notes:

- (a) Registered as Sino-Foreign Joint Stock Company under People's Republic of China (PRC) law.
- (b) Registered as Sino-Foreign Equity Joint Venture Enterprise under PRC law.
- (c) Under the joint venture agreement, none of the joint venture partners has unilateral control over the economic activities of Fangchenggang and hence, the Group's interest is accounted for as a joint venture.
- (d) OneEnergy Taiwan indirectly owns 40% interest in Ho-Ping Power Company.
- (e) Registered as Sino-Foreign Cooperative Joint Venture Enterprise under PRC law.

More detailed information of our joint ventures can be found on "Our Portfolio" on pages 8 to 13 of the Annual Report.



## 11. Interests in and Loan to Joint Ventures (continued)

Summarised financial information of significant joint ventures and the Group's share of results and net assets are as follows:

	CSEC Guohua HK\$M	Fang- chenggang <sup>(note)</sup> HK\$M	SNGPC HK\$M	OneEnergy Taiwan HK\$M	SZPC HK\$M	Others HK\$M	Total HK\$M
<b>For the year ended 31 December 2017</b>							
Revenue	12,448	1,896	964	–	6,509	1,692	23,509
Depreciation and amortisation	(1,479)	(251)	(129)	–	(922)	(614)	(3,395)
Interest income	2	2	2	–	2	14	22
Interest expense	(352)	(255)	(72)	–	(191)	(191)	(1,061)
Other expenses	(9,918)	(1,485)	(236)	(3)	(5,080)	(358)	(17,080)
Share of results of joint ventures	–	–	–	285	–	(27)	258
Profit/(loss) before income tax	701	(93)	529	282	318	516	2,253
Income tax expense	(223)	(1)	(136)	–	(127)	(98)	(585)
Profit/(loss) for the year	478	(94)	393	282	191	418	1,668
Non-controlling interests	(249)	–	–	–	–	–	(249)
Profit/(loss) for the year attributable to shareholders	229	(94)	393	282	191	418	1,419
Profit/(loss) for the year	478	(94)	393	282	191	418	1,668
Other comprehensive income	–	–	–	(1)	–	1	–
Total comprehensive income	478	(94)	393	281	191	419	1,668
<b>Group's share</b>							
Profit/(loss) for the year attributable to shareholders	69	(66)	157	141	56	151	508
Other comprehensive income	–	–	–	(1)	–	1	–
Total comprehensive income	69	(66)	157	140	56	152	508
Dividend income from joint ventures	154	–	122	233	128	166	803
<b>For the year ended 31 December 2016</b>							
Revenue	11,409	1,148	979	–	6,770	1,695	22,001
Depreciation and amortisation	(1,506)	(178)	(130)	–	(923)	(564)	(3,301)
Interest income	2	3	4	–	3	10	22
Interest expense	(375)	(127)	(89)	–	(194)	(226)	(1,011)
Other expenses	(8,235)	(1,098)	(209)	(2)	(4,424)	(447)	(14,415)
Share of results of joint ventures	–	–	–	497	–	(11)	486
Profit/(loss) before income tax	1,295	(252)	555	495	1,232	457	3,782
Income tax expense	(425)	(7)	(142)	–	(358)	(88)	(1,020)
Profit/(loss) for the year	870	(259)	413	495	874	369	2,762
Non-controlling interests	(480)	–	–	–	–	–	(480)
Profit/(loss) for the year attributable to shareholders	390	(259)	413	495	874	369	2,282
Profit/(loss) for the year	870	(259)	413	495	874	369	2,762
Other comprehensive income	–	–	–	–	–	2	2
Total comprehensive income	870	(259)	413	495	874	371	2,764
<b>Group's share</b>							
Profit/(loss) for the year attributable to shareholders	117	(181)	165	247	257	132	737
Other comprehensive income	–	–	–	–	–	1	1
Total comprehensive income	117	(181)	165	247	257	133	738
Dividend income from joint ventures	39	–	131	212	541	148	1,071

Note: In 2016, the Group's share of results of Fangchenggang included an impairment of HK\$199 million.

## 11. Interests in and Loan to Joint Ventures (continued)

	CSEC Guohua HK\$M	Fang- chenggang HK\$M	SNGPC HK\$M	OneEnergy Taiwan HK\$M	SZPC HK\$M	Others HK\$M	Total HK\$M
<b>At 31 December 2017</b>							
Non-current assets	23,655	8,432	3,459	3,212	6,406	8,766	53,930
Current assets							
Cash and cash equivalents	61	412	11	3	12	454	953
Other current assets	2,991	1,006	52	1	978	837	5,865
	3,052	1,418	63	4	990	1,291	6,818
Current liabilities							
Financial liabilities	(5,400)	(552)	(325)	–	(3,144)	(652)	(10,073)
Other current liabilities <sup>(a)</sup>	(1,373)	(1,005)	(32)	–	(885)	(564)	(3,859)
	(6,773)	(1,557)	(357)	–	(4,029)	(1,216)	(13,932)
Non-current liabilities							
Financial liabilities	(3,336)	(5,489)	–	–	(1,332)	(3,098)	(13,255)
Shareholders' loans	–	–	(1,136)	–	–	(28)	(1,164)
Other non-current liabilities <sup>(a)</sup>	(1,669)	(57)	(31)	–	(35)	(35)	(1,827)
	(5,005)	(5,546)	(1,167)	–	(1,367)	(3,161)	(16,246)
Non-controlling interests	(6,423)	–	–	–	–	–	(6,423)
Net assets	8,506	2,747	1,998	3,216	2,000	5,680	24,147
Group's share of net assets	2,552	1,923	799	1,608	588	2,401	9,871
Goodwill	–	–	–	–	–	44	44
Interests in joint ventures	2,552	1,923	799	1,608	588	2,445	9,915
Loan to a joint venture <sup>(b)</sup>	–	–	455	–	–	13	468
	2,552	1,923	1,254	1,608	588	2,458	10,383
<b>At 31 December 2016</b>							
Non-current assets	22,691	8,098	3,329	3,102	6,685	8,822	52,727
Current assets							
Cash and cash equivalents	450	158	224	2	147	384	1,365
Other current assets	3,169	679	49	1	604	578	5,080
	3,619	837	273	3	751	962	6,445
Current liabilities							
Financial liabilities	(7,471)	(477)	(376)	–	(2,327)	(873)	(11,524)
Other current liabilities <sup>(a)</sup>	(1,358)	(1,233)	(80)	–	(1,077)	(438)	(4,186)
	(8,829)	(1,710)	(456)	–	(3,404)	(1,311)	(15,710)
Non-current liabilities							
Financial liabilities	(1,983)	(4,587)	–	–	(1,867)	(3,073)	(11,510)
Shareholders' loans	–	–	(1,355)	–	–	(60)	(1,415)
Other non-current liabilities <sup>(a)</sup>	(1,467)	(43)	(17)	–	(38)	(57)	(1,622)
	(3,450)	(4,630)	(1,372)	–	(1,905)	(3,190)	(14,547)
Non-controlling interests	(5,858)	–	–	–	–	–	(5,858)
Net assets	8,173	2,595	1,774	3,105	2,127	5,283	23,057
Group's share of net assets	2,452	1,817	710	1,553	625	2,231	9,388
Goodwill	–	–	–	–	–	41	41
Interests in joint ventures	2,452	1,817	710	1,553	625	2,272	9,429
Loan to a joint venture <sup>(b)</sup>	–	–	542	–	–	–	542
	2,452	1,817	1,252	1,553	625	2,272	9,971

## 11. Interests in and Loan to Joint Ventures (continued)

Notes:

(a) Including trade and other payables and provisions

(b) Loan to a joint venture is unsecured, carries interest at 90% (2016: 90%) of the over five years Renminbi benchmark lending rate of the People's Bank of China and with final maturity in June 2022. The current portion of the loan of HK\$130 million (2016: HK\$151 million) was included in the Group's trade and other receivables (Note 16). There was no impairment recognised on the loan at 31 December 2017 and 2016.

	2017 HK\$M	2016 HK\$M
Share of capital commitments	475	490
Share of contingent liabilities	58	55

## 12. Interests in Associates Accounting Policy No. 3(B)

The table below lists the associates of the Group at 31 December 2017:

Name	% of Ownership Interest 2017	2016	Place of Incorporation / Business	Principal Activity
Guangdong Nuclear Power Joint Venture Company, Limited (GNPJVC) <sup>(a)</sup>	25	25	Mainland China	Generation of Electricity
Yangjiang Nuclear Power Co., Ltd. (Yangjiang Nuclear) <sup>(b)</sup>	17	–	Mainland China	Generation of Electricity
Redback Technologies Limited (Redback)	21	18	Hong Kong	Development of Solar Technologies

Notes:

(a) Registered as Sino-Foreign Equity Joint Venture Enterprise under PRC law.

(b) In December 2017, the Group completed the acquisition of 17% equity interest in Yangjiang Nuclear at a consideration which included the bid price of HK\$5.9 billion (RMB5.0 billion) and a Completion Payment (subject to completion audit) as defined under the Equity Transfer Agreement. Yangjiang Nuclear, a company registered as Sino-Foreign Equity Joint Venture Enterprise under PRC law, owns and operates the Yangjiang Nuclear Power Station located in Guangdong Province. The Group has significant influence over Yangjiang Nuclear's financing and operating policies through representation on its board of directors.

More detailed information of our associates can be found on "Our Portfolio" on pages 8 to 13 of the Annual Report.

Summarised financial information of associates and the Group's share of results and net assets are as follows:

	GNPJVC HK\$M	Yangjiang Nuclear <sup>(note)</sup> HK\$M	Redback HK\$M	Total HK\$M
<b>For the year ended 31 December 2017</b>				
Revenue	7,735	703	14	8,452
Profit/(loss) and total comprehensive income	3,695	232	(50)	3,877
Group's share of profit/(loss) and total comprehensive income	924	37	(11)	950
Dividend income from associates	10	–	–	10

Note: The share of results of Yangjiang Nuclear related to the period from acquisition to 31 December 2017 and after amortisation of fair value adjustments on fixed assets.

## 12. Interests in Associates (continued)

	GNPJVC HK\$M	Yangjiang Nuclear HK\$M	Redback HK\$M	Total HK\$M
For the year ended 31 December 2016				
Revenue	7,722	–	–	7,722
Profit/(loss) and total comprehensive income	3,628	–	(12)	3,616
Group's share of profit/(loss) and total comprehensive income	907	–	(3)	904
Dividend income from associates	905	–	–	905
<b>At 31 December 2017</b>				
Non-current assets	3,491	108,003	3	111,497
Current assets	8,979	9,520	14	18,513
Current liabilities	(1,959)	(17,435)	(12)	(19,406)
Non-current liabilities	(3,682)	(62,778)	–	(66,460)
Net assets	6,829	37,310	5	44,144
Group's share of net assets and goodwill	1,707	6,343	31	8,081
At 31 December 2016				
Non-current assets	3,308	–	1	3,309
Current assets	8,662	–	25	8,687
Current liabilities	(5,535)	–	(5)	(5,540)
Non-current liabilities	(3,292)	–	–	(3,292)
Net assets	3,143	–	21	3,164
Group's share of net assets and goodwill	786	–	27	813

At 31 December 2017, the Group's share of capital commitments of its associates was HK\$1,310 million (2016: HK\$101 million).

The Group's capital commitments in relation to its interests in associates are disclosed in Note 28(B).

## 13. Finance Lease Receivables Accounting Policy No. 10

	2017 HK\$M	2016 HK\$M	Present Value 2017 HK\$M	2016 HK\$M
Minimum lease payments receivables				
Within one year	168	153	148	136
After one year but within five years	–	153	–	119
Unguaranteed residual value of leased assets *	703	306	148	255
Gross investment	871	655	620	509
Less: unearned finance income	(103)	(197)		
Net investment	768	764		764

\* The plant will be transferred to fixed assets upon the expiry of the PPA and therefore the amount was classified as non-current asset at 31 December 2017.

The finance lease receivables are related to the 20-year PPA under which CLP India sells all of its electricity output of Paguthan Plant (Paguthan) to its offtaker, Gujarat Urja Vikas Nigam Limited (GUVNL). The arrangement is accounted for as a finance lease in accordance with HK(IFRIC) Int 4 and HKAS 17. The effective interest rate implicit in the finance lease was approximately 13.4% for both 2017 and 2016. The PPA will expire in December 2018.



## 14. Derivative Financial Instruments

### Accounting Policy

A derivative is initially recognised at fair value on the date a derivative contract is entered into and is subsequently remeasured at its fair value. The method of recognising the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. The Group designates certain derivatives as either fair value hedges, which are hedges of the fair value of recognised financial assets or financial liabilities or firm commitments (e.g. fixed interest rate loans and foreign currency trade receivables) or cash flow hedges, which are hedges of the cash flows of recognised financial assets or financial liabilities or highly probable forecast transactions (e.g. floating interest rate loans and future purchases of fuels denominated in US dollar).

The Group documents at the inception of the transaction the intended relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedge transactions. The Group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the hedging relationship meets the hedge effectiveness requirements.

#### (A) Fair value hedges

Changes in the fair values of derivatives that are designated and qualify as fair value hedges are recognised in profit or loss, which offset any changes in the fair values recognised in profit or loss of the corresponding hedged asset or liability that are attributable to the hedged risk and achieve the overall hedging result.

#### (B) Cash flow hedges

The effective portion of changes in the fair values of derivatives that are designated and qualify as cash flow hedges is recognised in other comprehensive income. The ineffective portion is recognised immediately in profit or loss.

Amounts accumulated in equity are reclassified to profit or loss in the periods when the hedged items affect profit or loss. Such reclassification from equity will offset the effect on profit or loss of the corresponding hedged item to achieve the overall hedging result. However, when the highly probable forecast transaction that is hedged results in the recognition of a non-financial asset (for example, inventory or fixed assets), the gains and losses previously deferred in equity are transferred from equity and included in the initial measurement of the cost of the asset at the time of acquisition. The deferred amounts are ultimately recognised in fuel costs in the case of inventory or in depreciation in the case of fixed assets.

When a hedging instrument expires, or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, hedge accounting is discontinued prospectively, any cumulative gain or loss remains in equity at that time is accounted for according to the nature of the underlying transactions (as discussed above) once the hedged cash flow occurs. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that has been reported in equity is reclassified to profit or loss immediately.

#### (C) Derivatives not qualifying for hedge accounting or held for trading purposes

Certain derivative financial instruments do not qualify for hedge accounting or are held for trading purposes. Changes in the fair values of these derivative financial instruments are recognised immediately in profit or loss.

#### (D) Costs of hedging

Time value of options, forward element of forward contracts and foreign currency basis spread of financial instruments may be separated and excluded from the designated hedging instruments. In such case, the Group treats the excluded elements as costs of hedging. The fair value changes of these elements are recognised in a separate component of equity to the extent that the contract terms are aligned with the attributes of the hedged exposure. For time-period related hedged items, these elements at the date of designation (to the extent that it relates to the hedged item) are amortised on a systematic and rational basis to profit or loss over the period. For transaction related hedged items, the cumulative change of these elements is included in the initial carrying amount of any non-financial asset recognised when the hedged transaction occurs or is recognised in profit or loss if the hedged transaction affects profit or loss.

## 14. Derivative Financial Instruments (continued)

### Accounting Policy (continued)

#### (E) Rebalancing of hedge relationships

If the hedge ratio for risk management purposes is no longer optimal but the risk management objective remains unchanged and the hedge continues to qualify for hedge accounting, the hedge relationship will be rebalanced by adjusting either the volume of the hedging instrument or the volume of the hedged item so that the hedge ratio aligns with the ratio used for risk management purposes. Any hedge ineffectiveness is calculated and accounted for in profit or loss at the time of the hedge relationship rebalancing.

	2017		2016	
	Assets HK\$M	Liabilities HK\$M	Assets HK\$M	Liabilities HK\$M
Cash flow hedges				
Forward foreign exchange contracts	224	113	180	34
Foreign exchange options	18	–	37	–
Cross currency interest rate swaps	300	727	462	973
Interest rate swaps	93	84	127	92
Energy contracts	442	36	837	94
Fair value hedges				
Cross currency interest rate swaps	9	352	31	407
Interest rate swaps	–	84	–	118
Not qualifying as accounting hedges or held for trading				
Forward foreign exchange contracts	225	46	299	45
Foreign exchange options	–	–	1	–
Interest rate swaps	28	1	34	9
Energy contracts	754	986	793	785
	<b>2,093</b>	<b>2,429</b>	<b>2,801</b>	<b>2,557</b>
Current	<b>1,137</b>	<b>789</b>	1,282	977
Non-current	<b>956</b>	<b>1,640</b>	1,519	1,580
	<b>2,093</b>	<b>2,429</b>	<b>2,801</b>	<b>2,557</b>

Although termed “not qualifying as accounting hedges or held for trading” above, these derivatives are used as “economic hedges” or for the purpose of understanding energy price movements.

At 31 December 2017, the contractual maturity profile of the hedging instruments from the end of the reporting period is summarised below:

Forward foreign exchange contracts	Up to 7 years
Foreign exchange options	Up to 5 years
Cross currency interest rate swaps	Up to 13 years
Interest rate swaps	Up to 10 years
Energy contracts	Up to 12 years

## 15. Property under Development

### Accounting Policy

Property under development comprises leasehold lands and construction-in-progress and is carried at the lower of cost and net realisable value. Property under development is included in the current assets when it is expected to be realised or is intended for sale in the normal operating cycle.

	2017 HK\$M
Transfer from investment properties (Note 9)	<b>2,971</b>

On 18 December 2017, the Group and Sino Land Company Limited (Sino Land) agreed to collaborate on redeveloping the Group's former headquarters at Argyle Street for residential purposes and to preserve the Clock Tower building for community use. While site preparation works have been largely completed, the redevelopment is still undergoing government procedures and finalisation of project details.

The arrangement entered into by the Group and Sino Land does not involve an establishment of a separate legal entity and is considered as a joint operation under HKFRS 11 Joint Arrangements. Under the development arrangement, Sino Land is fully responsible for all development costs such as land premium, construction costs, professional fees etc. and paid a non-refundable upfront payment of HK\$3 billion to the Group. When the property is completed and sold, the Group is entitled to share a percentage of the sale proceeds.

The balance of the account represented the fair value of the development site at Argyle Street on the date of the transfer from investment properties. The non-refundable upfront payment approximates to its fair value.

The non-refundable upfront payment forms part of the proceeds from the property development and is recorded as deferred revenue (Note 19(d)). When legal titles of the units in the developed property are passed to the purchasers, deferred revenue and the percentage share of the sale proceeds which the Group is entitled will be credited to the profit or loss as revenue, while property under development will be charged to the profit or loss as cost of development.

## 16. Trade and Other Receivables

### Accounting Policy

Trade and other receivables are recognised initially at transaction price and are subsequently stated at amortised cost using the effective interest method, less allowances for expected credit losses. The Group measures the loss allowance for its trade receivables at an amount equal to the lifetime expected credit losses. The amount of expected credit losses (or reversal) that is required to adjust the loss allowance at the reporting date to its recognised amount is recognised in profit or loss, as an impairment loss or a reversal of an impairment loss. Trade and other receivables are written off (either partially or in full) when there is no reasonable expectation of recovery.

Expected credit losses are a probability-weighted estimate of credit losses (i.e. the present value of all cash shortfalls) over the expected life of the trade receivables. Expected credit losses on trade receivables are calculated by using the provision matrix approach. Trade receivables are categorised by common risk characteristics that are representative of the customers' abilities to pay all amounts due in accordance with the contractual terms. The provision matrix is determined based on historical observed default rates over the expected life of the trade receivables and is adjusted for forward-looking estimates. At every reporting date the historical observed default rates are updated and changes in the forward-looking estimates are analysed.

Impairment on other receivables is measured as either 12-month expected credit losses or lifetime expected credit losses, depending on whether there has been a significant increase in credit risk since initial recognition. If a significant increase in credit risk of a receivable has occurred since initial recognition, then impairment is measured as lifetime expected credit losses.

## 16. Trade and Other Receivables (continued)

### Critical Accounting Estimates and Judgments: Recoverability of Trade Receivables

Provision for expected credit losses is made when the Group will not collect all amounts due. The provision is determined by grouping together trade debtors with similar risk characteristics and collectively or individually assessing them for likelihood of recovery. The provision reflects lifetime expected credit losses i.e. possible default events over the expected life of the trade receivables, weighted by the probability of that default occurring. Judgment has been applied in determining the level of provision for expected credit losses, taking into account the credit risk characteristics of customers and the likelihood of recovery assessed on a combination of collective and individual basis as relevant. While the provision is considered appropriate, changes in estimation basis or in economic conditions could lead to a change in the level of provision recorded and consequently on the charge or credit to profit or loss.

	2017 HK\$M	2016 HK\$M
Trade receivables <sup>(a)</sup>	<b>12,228</b>	9,772
Deposits, prepayments and other receivables <sup>(b)</sup>	<b>2,930</b>	2,479
Dividend receivables from		
Joint ventures	<b>68</b>	105
Associates	–	895
Loan to and current accounts with <sup>(c)</sup>		
Joint ventures	<b>200</b>	212
Associates	<b>1</b>	1
	<b>15,427</b>	13,464

Notes:

(a) Trade receivables

The ageing analysis of the trade receivables at 31 December based on invoice date is as follows:

	2017 HK\$M	2016 HK\$M
30 days or below *	<b>9,465</b>	6,832
31 – 90 days	<b>882</b>	763
Over 90 days	<b>1,881</b>	2,177
	<b>12,228</b>	9,772

\* Including unbilled revenue

### Credit risk management

The Group has no significant concentrations of credit risk with respect to the trade receivables in Hong Kong and Australia as their customer bases are widely dispersed in different sectors and industries. The Group has established credit policies for customers in each of its retail businesses.

In Hong Kong, customers are allowed to settle their electricity bills within two weeks after issue. To limit the credit risk exposure, customers' receivable balances are generally secured by cash deposits or bank guarantees from customers for an amount not exceeding the highest expected charge for 60 days of consumption. At 31 December 2017, such cash deposits amounted to HK\$5,218 million (2016: HK\$4,998 million) and the bank guarantees stood at HK\$798 million (2016: HK\$818 million). For all the deposits held, customers are paid a floating market interest rate equivalent to the HSBC bank savings rate. The customers' deposits are treated on the statement of financial position as current liabilities on the basis that they are repayable on demand.

In Australia, customers are allowed to settle their electricity bills in no more than 45 days after issue. EnergyAustralia has policies in place to ensure that sales of products and services are made to major retail customers of an appropriate credit quality and collectability is reviewed on an ongoing basis.

Trade receivables arising from sales of electricity to the offtakers in India and Mainland China are due for settlement within 15 to 60 days and 30 to 90 days after bills issue respectively. The offtakers of these regions are mainly state-owned enterprises. Management has closely monitored the credit qualities and the collectability of these trade receivables and consider that the expected credit risks of them are close to zero.



## 16. Trade and Other Receivables (continued)

Notes (continued):

(a) Trade receivables (continued)

### Expected credit losses

For trade receivables relating to accounts which are long overdue with significant amounts or known insolvencies or non-response to collection activities, they are assessed individually for impairment allowance. CLP Power Hong Kong and EnergyAustralia determine the provision for expected credit losses by grouping together trade receivables with similar credit risk characteristics and collectively assessing them for likelihood of recovery, taking into account prevailing economic conditions.

#### CLP Power Hong Kong

CLP Power Hong Kong classifies its trade receivables by nature of customer accounts. These include active accounts and terminated accounts.

	Lifetime Expected Credit Loss Rate	Gross Carrying Amount HK\$M	Lifetime Expected Credit Loss HK\$M	Net Carrying Amount HK\$M
<b>At 31 December 2017</b>				
Active accounts				
Provision on individual basis	100%	2	(2)	–
Provision on collective basis	0% *	1,954	–	1,954
Terminated accounts				
Provision on individual basis	100%	5	(5)	–
Provision on collective basis	25%	6	(2)	4
		<u>1,967</u>	<u>(9)</u>	<u>1,958</u>
<b>At 31 December 2016</b>				
Active accounts				
Provision on individual basis	100%	1	(1)	–
Provision on collective basis	0% *	1,949	–	1,949
Terminated accounts				
Provision on individual basis	100%	5	(5)	–
Provision on collective basis	26%	7	(2)	5
		<u>1,962</u>	<u>(8)</u>	<u>1,954</u>

\* Expected credit loss is close to zero as these trade receivables are mostly secured by cash deposits or bank guarantees from customers and have no recent history of default.

#### EnergyAustralia

EnergyAustralia categorises its trade receivables based on the ageing. EnergyAustralia recognises lifetime expected credit losses for receivables by assessing future cash flows for each group of trade receivables including a probability weighted amount determined by evaluating a range of possible outcomes based on twelve month rolling historical credit loss experience by customer segment, geographical region, tenure and type of customer and applying to the receivables held at year end. The determining factor impacting collectability is customer attributes. The impact of economic factors both current and future is considered in assessing the likelihood of recovery from customers.

	Weighted Average Lifetime Expected Credit Loss Rate	Gross Carrying Amount HK\$M	Lifetime Expected Credit Loss HK\$M	Net Carrying Amount HK\$M
<b>At 31 December 2017</b>				
Current	1%	5,737	(32)	5,705
1 – 30 days	7%	609	(45)	564
31 – 60 days	17%	307	(51)	256
61 – 90 days	27%	211	(56)	155
Over 90 days	62%	1,304	(810)	494
		<u>8,168</u>	<u>(994)</u>	<u>7,174</u>

## 16. Trade and Other Receivables (continued)

Notes (continued):

(a) Trade receivables (continued)

### Expected credit losses (continued)

#### EnergyAustralia (continued)

	Weighted Average Lifetime Expected Credit Loss Rate	Gross Carrying Amount HK\$M	Lifetime Expected Credit Loss HK\$M	Net Carrying Amount HK\$M
<b>At 31 December 2016</b>				
Current	1%	4,076	(35)	4,041
1 – 30 days	9%	510	(45)	465
31 – 60 days	20%	234	(48)	186
61 – 90 days	20%	223	(44)	179
Over 90 days	62%	1,193	(740)	453
		<u>6,236</u>	<u>(912)</u>	<u>5,324</u>

#### India and Mainland China

At 31 December 2017, CLP India's wind projects have trade receivables of HK\$482 million (2016: HK\$596 million) of which HK\$446 million (2016: HK\$563 million) were past due. These amounts were not considered impaired as there are no recent history of default and continuous payments received. Trade receivables in dispute are assessed individually for impairment allowance in order to determine whether specific provisions are required. Further information about disputed trade receivables of CLP India group is disclosed in Note 30.

The Group's Mainland China renewable projects are experiencing delays in receipt of the Renewable National Subsidy. As at 31 December 2017, the Group had total receivables of HK\$611 million (2016: HK\$417 million) relating to the unpaid Renewable National Subsidies. These amounts were not considered impaired because the subsidy settlement and renewable project accreditation are regulated by the Central Government. Furthermore, there have been continuous payments and no history of default.

#### Movements in Provision for Impairment

	2017 HK\$M	2016 HK\$M
Balance at 1 January	1,288	1,474
Provision for impairment	441	350
Receivables written off during the year as uncollectable	(411)	(516)
Amounts reversed	(1)	(1)
Exchange differences	110	(19)
Balance at 31 December	<u>1,427</u>	<u>1,288</u>

- (b) At 31 December 2017, other receivables included the consideration receivable from the sale of our entire 15.746% equity interest in CGN Wind Power Company Limited (CGN Wind) of HK\$913 million (RMB773 million). On 15 December 2017, the Group completed the sale of CGN Wind according to the provisions of a Share Transfer Agreement and the payment is subject to certain administrative procedures which is expected to complete in the first quarter of 2018. The disposal of CGN Wind has no impact to the Group's profit or loss as the Group has made an irrevocable election to present all the changes in the fair value of this equity investment through other comprehensive income.
- (c) The current accounts with joint ventures and associates are unsecured, interest free and have no fixed repayment terms.

## 17. Bank Balances, Cash and Other Liquid Funds

### Accounting Policy

Cash and cash equivalents comprise cash at banks and on hand, demand deposits with banks and other financial institutions, short-term highly liquid investments that are readily convertible to cash, subjected to insignificant risk of change in value and with a maturity of three months or less from date of investment, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities on the statement of financial position.

## 17. Bank Balances, Cash and Other Liquid Funds (continued)

	2017 HK\$M	2016 HK\$M
Trust accounts restricted under TRAA <sup>(a)</sup>	347	198
Bank deposits	7,257	2,789
Bank balances and cash	2,326	1,680
Bank balances, cash and other liquid funds <sup>(b)</sup>	9,930	4,667
Less: Short-term deposits and restricted cash		
Cash restricted for specific purposes <sup>(a)</sup>	(347)	(198)
Bank deposits with maturities over three months	(3,054)	(2)
	(3,401)	(200)
Cash and cash equivalents	6,529	4,467

Notes:

- (a) Pursuant to Trust and Retention Account Agreements (TRAA) of CLP India group with their corresponding lenders, various trust accounts are set up for designated purposes.
- (b) The Group's bank balances, cash and other liquid funds denominated in the currencies other than the functional currency of the respective entities amounted to HK\$673 million (2016: HK\$1,374 million) which was mostly denominated in Renminbi (2016: Renminbi).

## 18. Fuel Clause Account

Cost of fuel consumed by CLP Power Hong Kong is passed on to customers. The variations between the actual cost of fuel and the fuel cost billed are captured in the fuel clause account. The balance of the account (inclusive of interest) represents amounts over-recovered or under-recovered and is treated as an amount due to or from customers. Interest charged to customers on the amount under-recovered is based on the actual borrowing cost of CLP Power Hong Kong, while interest is credited to customers at prime rate on the amount over-recovered.

In accordance with the new SoC effective 1 October 2018, CLP Power Hong Kong may adjust fuel related tariff from time to time, including on a monthly basis, to reflect changes in the cost of fuels consumed by the SoC Companies for the generation of electricity. As a result, the fuel clause account was reclassified as a current liability as at 31 December 2017.

## 19. Trade and Other Payables

### Accounting Policy

Trade and other payables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method.

	2017 HK\$M	2016 HK\$M
Trade payables <sup>(a)</sup>	7,092	6,019
Other payables and accruals	6,991	6,767
Advances from non-controlling interest <sup>(b)</sup>	1,514	6,692
Current accounts with <sup>(c)</sup>		
Joint ventures	1	1
Associates	271	606
Deferred revenue <sup>(d)</sup>	3,109	91
	18,978	20,176

## 19. Trade and Other Payables (continued)

Notes:

- (a) The ageing analysis of trade payables at 31 December based on invoice date is as follows:

	2017 HK\$M	2016 HK\$M
30 days or below	6,507	5,632
31 – 90 days	146	188
Over 90 days	439	199
	7,092	6,019

At 31 December 2017, trade payables denominated in a currency other than the functional currency of the corresponding Group entities amounted to HK\$625 million (2016: HK\$704 million), of which HK\$501 million (2016: HK\$532 million) were denominated in US dollar.

- (b) The advances from non-controlling interest represented the advances from CSG HK to CAPCO. Pursuant to the agreement between the shareholders of CAPCO, both CLP Power Hong Kong and CSG HK are required to provide shareholders' advances pro rata to their shareholdings in CAPCO. The advances are unsecured, interest free and repayable on demand. The advances are mainly denominated in Hong Kong dollar (2016: US dollar).
- (c) The amounts payable to joint ventures and associates are unsecured, interest free and have no fixed repayment terms.
- (d) Deferred revenue included the non-refundable upfront payment for the property development at Argyle Street of HK\$3 billion (2016: nil) (Note 15) and payments received in advance for other services. Non-current deferred revenue of HK\$1,171 million (2016: HK\$1,239 million) was included under other non-current liabilities.

## 20. Bank Loans and Other Borrowings

### Accounting Policy

Borrowings are recognised initially at fair value of proceeds received, net of transaction costs incurred. Transaction costs are incremental costs that are directly attributable to the acquisition or issue of a financial liability. Borrowings are subsequently stated at amortised cost. Any difference between the proceeds (net of transaction costs) and the redemption value is amortised to profit or loss or capitalised as cost of the qualifying assets over the period of the borrowings using the effective interest method. Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period.

At 31 December 2017, the Group's bank loans and other borrowings were repayable as follows:

	Bank Loans		Other Borrowings *		Total	
	2017 HK\$M	2016 HK\$M	2017 HK\$M	2016 HK\$M	2017 HK\$M	2016 HK\$M
Within one year	8,181	9,123	291	1,528	8,472	10,651
Between one and two years	7,186	4,563	1,588	231	8,774	4,794
Between two to five years	6,526	6,516	9,173	8,972	15,699	15,488
Over five years	4,427	4,699	19,969	16,014	24,396	20,713
	26,320	24,901	31,021	26,745	57,341	51,646

- \* Other borrowings mainly included Medium Term Notes of HK\$28,503 million (2016: HK\$24,955 million) and bonds of HK\$2,141 million (2016: HK\$1,701 million).

Another presentation of the Group's liquidity risk is set out on pages 252 and 253.



## 20. Bank Loans and Other Borrowings (continued)

Total borrowings included secured liabilities of HK\$12,153 million (2016: HK\$12,275 million), analysed as follows:

	2017 HK\$M	2016 HK\$M
CLP India group <sup>(a)</sup>	6,785	7,589
Subsidiaries in Mainland China <sup>(b)</sup>	5,368	4,686
	<b>12,153</b>	<b>12,275</b>

Notes:

(a) Bank loans and bonds for CLP India group are secured by fixed and floating charges over their immovable and movable properties and current assets with total carrying amounts of HK\$14,033 million (2016: HK\$13,854 million).

(b) Bank loans for subsidiaries in Mainland China are secured by rights of receipt of tariff and by fixed assets and land use rights with carrying amounts of HK\$7,881 million (2016: HK\$7,397 million).

At 31 December 2017 and 2016, all of the Group's borrowings are either in the functional currencies of the corresponding Group entities or hedged into those currencies.

At 31 December 2017, the Group had undrawn bank loans and overdraft facilities of HK\$25,924 million (2016: HK\$23,986 million).

## 21. Deferred Tax

### Accounting Policy

Deferred tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the end of the reporting period and are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled. Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised. Deferred tax is also provided on temporary differences arising on investments in subsidiaries, joint ventures and associates, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax assets and liabilities are netted off when the taxes relate to the same tax authority and where offsetting is legally enforceable. The following amounts, determined after appropriate offsetting, are shown separately on the consolidated statement of financial position:

	2017 HK\$M	2016 HK\$M
Deferred tax assets	929	981
Deferred tax liabilities	(14,275)	(13,819)
	<b>(13,346)</b>	<b>(12,838)</b>

Deferred tax asset = income tax recoverable in the future

Deferred tax liability = income tax payable in the future

## 21. Deferred Tax (continued)

The gross movement on the deferred tax account is as follows:

	2017 HK\$M	2016 HK\$M
At 1 January	(12,838)	(11,786)
Charged to profit or loss (Note 6)	(686)	(823)
Credited / (charged) to other comprehensive income	110	(230)
Acquisition of subsidiaries	–	(1)
Exchange differences	68	2
At 31 December	<b>(13,346)</b>	<b>(12,838)</b>

The movement in the deferred tax assets and liabilities (prior to offsetting of balances within the same tax jurisdiction) during the year is as follows:

### Deferred tax assets (prior to offset)

	Tax Losses <sup>(a)</sup>		Accruals and Provisions		Others <sup>(b)</sup>		Total	
	2017 HK\$M	2016 HK\$M	2017 HK\$M	2016 HK\$M	2017 HK\$M	2016 HK\$M	2017 HK\$M	2016 HK\$M
At 1 January	824	730	787	860	558	453	2,169	2,043
Credited / (charged) to profit or loss	23	114	526	(43)	18	129	567	200
(Charged) / credited to other comprehensive income	–	–	(39)	(14)	7	(20)	(32)	(34)
Acquisition of subsidiaries	–	–	–	–	–	4	–	4
Exchange differences	61	(20)	71	(16)	33	(8)	165	(44)
At 31 December	<b>908</b>	<b>824</b>	<b>1,345</b>	<b>787</b>	<b>616</b>	<b>558</b>	<b>2,869</b>	<b>2,169</b>

### Deferred tax liabilities (prior to offset)

	Accelerated Tax Depreciation		Withholding / Dividend Distribution Tax		Intangibles		Others <sup>(b)</sup>		Total	
	2017 HK\$M	2016 HK\$M	2017 HK\$M	2016 HK\$M	2017 HK\$M	2016 HK\$M	2017 HK\$M	2016 HK\$M	2017 HK\$M	2016 HK\$M
At 1 January	(13,089)	(12,202)	(68)	(72)	(1,120)	(1,215)	(730)	(340)	(15,007)	(13,829)
(Charged) / credited to profit or loss	(1,102)	(910)	(52)	8	87	93	(186)	(214)	(1,253)	(1,023)
Credited / (charged) to other comprehensive income	–	–	–	–	–	–	142	(196)	142	(196)
Acquisition of subsidiaries	–	–	–	(5)	–	–	–	–	–	(5)
Exchange differences	(27)	23	(1)	1	(16)	2	(53)	20	(97)	46
At 31 December	<b>(14,218)</b>	<b>(13,089)</b>	<b>(121)</b>	<b>(68)</b>	<b>(1,049)</b>	<b>(1,120)</b>	<b>(827)</b>	<b>(730)</b>	<b>(16,215)</b>	<b>(15,007)</b>

Notes:

(a) The deferred tax asset arising from tax losses related to the electricity business in India of HK\$906 million (2016: HK\$823 million). There is no expiry on tax losses recognised.

(b) Others mainly related to temporary differences arising from derivative financial instruments, lease accounting adjustments and inventory.

## 22. SoC Reserve Accounts

### Critical Accounting Estimates and Judgments: Classification of SoC-related Accounts

As stipulated in the SoC, the balances in the Tariff Stabilisation Fund and the Rate Reduction Reserve shall represent liabilities in the financial statements of CLP Power Hong Kong and shall not accrue to the benefit of its shareholders save as provided for by the SoC. CLP Power Hong Kong also has the obligation to maintain the Fuel Clause Account, which represents the difference between an agreed standard cost of fuel and the actual fuel costs. The Group considers that CLP Power Hong Kong is required under the SoC to discharge its obligations arising from the SoC upon the expiry of the SoC Agreement such that these account balances meet the definition of a financial liability.

The Tariff Stabilisation Fund, Rate Reduction Reserve and Rent and Rates Interim Refunds of the Group's major subsidiary, CLP Power Hong Kong, are collectively referred to as SoC reserve accounts. The respective balances at the end of the year are:

	2017 HK\$M	2016 HK\$M
Tariff Stabilisation Fund (A)	746	786
Rate Reduction Reserve (B)	4	2
Rent and Rates Interim Refunds (C)	227	72
	<b>977</b>	<b>860</b>

The movements in SoC reserve accounts during the year are shown as follows:

#### (A) Tariff Stabilisation Fund

	2017 HK\$M	2016 HK\$M
At 1 January	786	935
Transfer from Rate Reduction Reserve	2	2
Transfer under the SoC <sup>(a)</sup>		
– transfer for SoC to revenue (Note 2)	(98)	(260)
– charge for asset decommissioning <sup>(b)</sup>	56	109
At 31 December	<b>746</b>	<b>786</b>

Notes:

(a) Under the SoC Agreement, if the gross tariff revenue in a period is less than or exceeds the total of the SoC operating costs, permitted return and taxation charges, such deficiency shall be deducted from, or such excess shall be added to, the Tariff Stabilisation Fund. In any period, the amount of deduction from or addition to the Tariff Stabilisation Fund is recognised as revenue adjustment to the extent that the return and charges under the SoC are recognised in profit or loss (Note 2).

(b) Under the SoC, a periodic charge to accrue for asset decommissioning is made with corresponding deferred liabilities recognised in the statement of financial position of the SoC Companies. The balance of the asset decommissioning liabilities account of HK\$860 million (2016: HK\$916 million) (Note 23) recognised under the SoC represents a liability of the Group.

#### (B) Rate Reduction Reserve

	2017 HK\$M	2016 HK\$M
At 1 January	2	2
Transfer to Tariff Stabilisation Fund	(2)	(2)
Interest expense charged to profit or loss (Note 5)	4	2
At 31 December	<b>4</b>	<b>2</b>

## 22. SoC Reserve Accounts (continued)

#### (C) Rent and Rates Interim Refunds

CLP Power Hong Kong is challenging the amount of Government rent and rates levied dating back to the year of assessment 2001/02. While in March 2017, the Court of Final Appeal found in favour of the Hong Kong Government on a point of law, this did not impact the original Lands Tribunal judgment, and the subsequent judgment on the review of valuation matters, which were in CLP Power Hong Kong's favour. Final resolution of the matter is now subject to the application of the Lands Tribunal judgments to the rent and rates amounts for all rating years under appeal.

Interim refunds totalling HK\$1,868 million were received by CLP Power Hong Kong from the Hong Kong Government during 2012 to 2014 and in 2017. These interim refunds were made by the Hong Kong Government without prejudice to the final outcome of the appeals which means that these amounts will be adjusted by reference to the decisions of the Lands Tribunal and their application to all rating years under appeal.

Based on the latest development of the case, CLP Power Hong Kong maintains that it would recover no less than interim refunds received to date in the final outcome of these appeals. The interim refunds continue to be classified within the SoC reserve accounts. The Rent and Rates Special Rebate provided to customers during 2012 and 2013 with the amounts of interim refunds received in 2012 and 2013 of HK\$1,641 million have been offset against the interim refunds received.

In the event that the final amount recovered on conclusion of these appeals is less than the total amount rebated to customers, CLP Power Hong Kong will seek to recover any shortfall in the amounts of Rent and Rates Special Rebate already paid to customers. Similarly, if the final amount recovered exceeds the special rebates paid out, these additional amounts will be returned to customers.

## 23. Asset Decommissioning Liabilities and Retirement Obligations

### Accounting Policy

When the Group has a legal and / or constructive obligation for remediation, provisions for asset retirement obligations are recorded for estimated remediation costs of reclamation, plant closure, dismantling and waste disposal. A provision for asset retirement costs is determined by estimating the expected costs associated to remediate the site based on the current legal requirements and technologies and is discounted to its present value with an unwind adjustment recognised in finance costs. An asset is recognised on initial recognition of the provision and is depreciated over the useful life of the facility. The asset retirement costs are reviewed annually and adjustments are made to the carrying amount of the assets to reflect changes made to these estimated discount rates or future costs.

### Critical Accounting Estimates and Judgments

Estimating the amount and timing of the obligation to be recorded requires significant judgment. Management has assessed the Group's obligations for each asset based on the local regulatory environment and expected closure dates.

CLP Power Hong Kong has been investing in the transmission and distribution network to supply electricity to the customers in its supply area in Hong Kong. As CLP Power Hong Kong expects that the land sites being used for the transmission and distribution network will continue to be used for the distribution of electricity supply to its customers, CLP Power Hong Kong currently considers it remote that the network would be removed from the existing land sites. In accordance with applicable accounting standards, asset retirement obligations have not been recognised by CLP Power Hong Kong.



## 23. Asset Decommissioning Liabilities and Retirement Obligations (continued)

### Critical Accounting Estimates and Judgments (continued)

The Hong Kong Government has published in 2017 the Climate Action Plan 2030+ with a tightened carbon reduction target by 2030. CAPCO envisages that with the Government's continued commitment to reduce carbon intensity, the removal of its fossil-fuel generation units from the existing land sites may be possible at some point of time in the future. Under the SoC, CAPCO makes a periodic charge to accrue in the statement of financial position a liability balance which would be utilised in discharging asset decommissioning costs if and when incurred. While asset retirement obligations have not been recognised upfront by CAPCO under the applicable accounting standards, CAPCO expects that should such obligation be incurred, it will be met by the deferred liability accrued and the cost recovery mechanism under the SoC.

Asset retirement obligations of EnergyAustralia amounted to HK\$2,182 million (2016: HK\$415 million) which mainly related to the provision for land remediation of generation assets. The provisions are largely based on estimates by external and internal experts that are discounted using internally determined end of plant lives.

As part of the Hazelwood Mine Fire Board of Inquiry undertaken towards the end of 2015, cost to remediate brown coal mines in the Latrobe Valley (including the Group's Yallourn mine) and an assessment of the adequacy of the current financial assurance held by the Victorian Government in respect of those remediation costs was reviewed. The method employed was to establish a base cost of known works required that are almost certain to be incurred before adding a risk cost on the balance of probabilities of risk events that may occur in carrying out rehabilitation work.

While there is currently limited visibility over the calculations and assumptions behind the remediation provisions of the other mine operators within the Latrobe Valley, the Group recognises that there are points of difference between these sites which are likely to drive significant variations in the estimated costs to rehabilitate, including the size and condition of the mine. The estimate of Yallourn's base cost liability determined as part of the review is largely in line with our assumptions. A difference in such costs arises from the inclusion of the risk of significant water supply costs whereas our estimate assumes that water will be available at minimal cost. This approach is subject to further research and government approvals. The view remains that its assessment of the rehabilitation liability for the approved remediation plan is appropriate, and the provision in the financial statements reflects this.

	2017 HK\$M	2016 HK\$M
Asset decommissioning liabilities (Note 22(A)(b))	860	916
Provisions for land remediation and restoration costs (note)	2,127	352
	<b>2,987</b>	1,268

Note: The movement of the balances, including the current portion of HK\$55 million (2016: HK\$63 million) under "Trade and other payables", is as below.

	2017 HK\$M	2016 HK\$M
Balance at 1 January	415	367
Additional provision	346	55
Effect of changes in discount rate	1,306	-
Amounts used	(15)	(35)
Unwinding of discount	63	35
Exchange differences	67	(7)
	<b>2,182</b>	415

In addition, performance bonds (in the form of bank guarantees) of HK\$903 million (A\$148 million) were executed during the year for the mining licence at Yallourn Power Station after the review of the remediation costs of brown coal mines by the Hazelwood Mine Fire Board of Inquiry.

## 24. Share Capital

	2017 Number of Ordinary Shares	Amount HK\$M	2016 Number of Ordinary Shares	Amount HK\$M
Issued and fully paid, at 31 December	2,526,450,570	23,243	2,526,450,570	23,243

## 25. Reserves

	Translation Reserves HK\$M	Cash Flow Hedge Reserve HK\$M	Costs of Hedging Reserves HK\$M	Other Reserves HK\$M	Retained Profits HK\$M	Total HK\$M
Balance at 1 January 2016	(6,221)	162	268	2,783	72,883	69,875
Earnings attributable to shareholders	-	-	-	-	12,711	12,711
Other comprehensive income						
Exchange differences on translation of						
Subsidiaries	(857)	-	-	-	-	(857)
Joint ventures	(577)	-	-	-	-	(577)
Associates	(2)	-	-	-	-	(2)
Cash flow hedges						
Net fair value gains	-	1,388	-	-	-	1,388
Reclassification to profit or loss	-	(289)	-	-	-	(289)
Tax on the above items	-	(261)	-	-	-	(261)
Costs of hedging						
Net fair value losses	-	-	(251)	-	-	(251)
Amortisation / reclassification to profit or loss	-	-	20	-	-	20
Tax on the above items	-	-	44	-	-	44
Fair value losses on equity investments	-	-	-	(115)	-	(115)
Remeasurement gains on defined benefit plans	-	-	-	34	-	34
Share of other comprehensive income of joint ventures	19	1	-	-	-	20
Total comprehensive income attributable to shareholders	(1,417)	839	(187)	(81)	12,711	11,865
Revaluation reserve realised due to depreciation of fixed assets	-	-	-	(2)	2	-
Appropriation of reserves	-	-	-	76	(76)	-
Dividends paid						
2015 fourth interim	-	-	-	-	(2,653)	(2,653)
2016 first to third interim	-	-	-	-	(4,320)	(4,320)
Balance at 31 December 2016	(7,638)	1,001	81	2,776	78,547 <sup>(a)</sup>	74,767

## 25. Reserves (continued)

	Translation Reserves HK\$M	Cash Flow Hedge Reserve HK\$M	Costs of Hedging Reserves HK\$M	Other Reserves HK\$M	Retained Profits HK\$M	Total HK\$M
Balance at 1 January 2017	(7,638)	1,001	81	2,776	78,547	74,767
Earnings attributable to shareholders	-	-	-	-	14,249	14,249
Other comprehensive income						
Exchange differences on translation of						
Subsidiaries	3,453	-	-	-	-	3,453
Joint ventures	754	-	-	-	-	754
Associates	118	-	-	-	-	118
Cash flow hedges						
Net fair value losses	-	(64)	-	-	-	(64)
Reclassification to profit or loss	-	(398)	-	-	-	(398)
Tax on the above items	-	125	-	-	-	125
Costs of hedging						
Net fair value losses	-	-	(262)	-	-	(262)
Amortisation / reclassification to profit or loss	-	-	103	-	-	103
Tax on the above items	-	-	25	-	-	25
Fair value losses on equity investments	-	-	-	(280)	-	(280)
Remeasurement gains on defined benefit plans	-	-	-	-	91	91
Share of other comprehensive income of joint ventures	-	1	-	(1)	-	-
Total comprehensive income attributable to shareholders	4,325	(336)	(134)	(281)	14,340	17,914
Contribution from non-controlling interest of a subsidiary	-	-	-	-	(4)	(4)
Transfer to fixed assets	-	3	-	-	-	3
Disposal of an equity investment	-	-	-	277	(277)	-
Revaluation reserve realised due to depreciation of fixed assets	-	-	-	(2)	2	-
Appropriation of reserves	-	-	-	83	(83)	-
Dividends paid						
2016 fourth interim	-	-	-	-	(2,754)	(2,754)
2017 first to third interim	-	-	-	-	(4,472)	(4,472)
<b>Balance at 31 December 2017</b>	<b>(3,313)</b>	<b>668</b>	<b>(53)</b>	<b>2,853</b>	<b>85,299<sup>(a)</sup></b>	<b>85,454</b>

Note:

(a) The fourth interim dividend declared for the year ended 31 December 2017 was HK\$2,880 million (2016: HK\$2,754 million). The balance of retained profits after the fourth interim dividend of the Group was HK\$82,419 million (2016: HK\$75,793 million).

## 26. Perpetual Capital Securities and Other Non-controlling Interests

A total of US\$750 million perpetual capital securities was issued by the wholly owned subsidiary, CLP Power HK Finance Ltd. in 2014. The securities are perpetual, non-callable in the first 5.5 years and entitle the holders to receive distributions at a distribution rate of 4.25% per annum in the first 5.5 years, floating thereafter and with fixed step up margins at year 10.5 and at year 25.5, payable semi-annually in arrears, cumulative and compounding. The distributions are at the Group's discretion, if the issuer and CLP Power Hong Kong, as guarantor of the securities, do not (a) declare or pay dividends to their shareholders or (b) cancel or reduce their share capitals within each distribution payment period.

On 21 April 2017, CAPCO and its shareholders executed a Shareholder Capital Agreement in which an amount of advances from shareholders was reclassified into redeemable shareholder capital of CAPCO. The redeemable shareholder capital is subordinated, unsecured, interest free and has no fixed terms of repayment. CAPCO can, at its sole discretion, redeem all or part of the redeemable shareholder capital at any time after 31 December 2032. The redeemable shareholder capital attributable to CSG HK's pro rata share of HK\$5,115 million was reclassified from advances from non-controlling interest included under "Trade and other payables" to "Other non-controlling interests".

As the perpetual capital securities and redeemable shareholder capital do not contain any contractual obligation to pay cash or other financial assets, in accordance with HKAS 32, they are classified as equity and for accounting purpose regarded as a part of non-controlling interests.

## 27. Notes to the Consolidated Statement of Cash Flows

(A) Reconciliation of profit before income tax to net cash inflow from operations

	2017 HK\$M	2016 HK\$M
Profit before income tax	<b>18,127</b>	16,663
Adjustments for:		
Finance costs	<b>2,180</b>	2,261
Finance income	<b>(151)</b>	(137)
Dividend income from equity investments	<b>(9)</b>	(43)
Share of results of joint ventures and associates, net of income tax	<b>(1,458)</b>	(1,641)
Depreciation and amortisation	<b>7,368</b>	6,909
Impairment charge	<b>443</b>	397
Reversal of provision for onerous contract	<b>-</b>	(78)
Net loss / (gain) on disposal of fixed assets	<b>407</b>	(386)
Revaluation (gains) / losses on investment properties	<b>(369)</b>	146
Fair value gain of non-debt related derivative financial instruments and net exchange difference	<b>(416)</b>	(211)
SoC items		
Special fuel rebate to customers	<b>(786)</b>	-
Increase in customers' deposits	<b>220</b>	169
(Decrease) / increase in fuel clause account	<b>(782)</b>	1,275
Increase in rent and rates interim refunds	<b>155</b>	-
Transfer for SoC	<b>(98)</b>	(260)
	<b>(1,291)</b>	1,184
(Increase) / decrease in trade and other receivables	<b>(2,263)</b>	145
Decrease in finance lease receivables	<b>56</b>	45
(Increase) / decrease in cash restricted for specific purposes	<b>(149)</b>	34
Changes in non-debt related derivative financial instruments	<b>443</b>	(30)
Increase in trade and other payables	<b>3,917</b>	63
(Decrease) / increase in current accounts due to joint ventures and associates	<b>(329)</b>	32
<b>Net cash inflow from operations</b>	<b>26,506</b>	25,353



## 27. Notes to the Consolidated Statement of Cash Flows (continued)

(B) Reconciliation of liabilities arising from financing activities

	Bank Loans and Other Borrowings HK\$M	Interest and Other Finance Costs Payables HK\$M	Debt- related Derivative Financial Instruments HK\$M	Advances from Non- controlling Interest HK\$M	Total HK\$M
Balance at 1 January 2017	51,646	263	483	6,692	59,084
Changes from financing cash flows					
Proceeds from long-term borrowings	20,290	-	-	-	20,290
Repayment of long-term borrowings	(16,183)	-	-	-	(16,183)
Increase in short-term borrowings	459	-	-	-	459
Interest and other finance costs paid	-	(1,784)	-	-	(1,784)
Settlement of derivative financial instruments	-	-	(152)	-	(152)
Decrease in advances from other non-controlling interest	-	-	-	(79)	(79)
Total changes from financing cash flows	4,566	(1,784)	(152)	(79)	2,551
Non-cash changes					
Fair value loss of derivative financial instruments to equity	-	-	191	-	191
Net exchange and translation difference	1,096	10	7	16	1,129
Interest and other finance costs charged to profit or loss	-	1,847	152	-	1,999
Reclassification from trade and other payable (Note 26)	-	-	-	(5,115)	(5,115)
Other non-cash movements	33	(26)	-	-	7
<b>Balance at 31 December 2017</b>	<b>57,341</b>	<b>310</b>	<b>681</b>	<b>1,514</b>	<b>59,846</b>

## 28. Commitments and Operating Lease Arrangements

(A) Capital expenditure contracted for at the end of the year but not yet incurred is as follows:

	2017 HK\$M	2016 HK\$M
Fixed assets	5,367	5,099
Investment properties	2	3
Intangible assets	28	14
	<b>5,397</b>	<b>5,116</b>

(B) At 31 December 2017, equity contribution to be made for an associate was HK\$15 million (2016: equity contribution of HK\$24 million and outstanding commitment of HK\$5.0 billion (RMB4.5 billion) for the acquisition of Yangjiang Nuclear).

Except the above, contribution required to be made for a private equity partnership at 31 December 2017 was HK\$64 million (2016: nil).

## 28. Commitments and Operating Lease Arrangements (continued)

(C) The future aggregate minimum lease payments under non-cancellable operating leases are as follows:

	2017 HK\$M	2016 HK\$M
Within one year	475	440
Later than one year but not later than five years	630	914
Over five years	1,242	1,344
	<b>2,347</b>	<b>2,698</b>

Of the above amount, HK\$1,692 million (2016: HK\$1,792 million) relates to a Capacity Purchase Contract between PSDC and Guangdong Pumped Storage Company, Limited with fixed annual payments for 26 years up to 2034 for the use of the land, other resources and infrastructural facilities at Guangzhou Pumped Storage Power Station in Conghua, Guangzhou; and HK\$344 million (2016: HK\$551 million) relates to a 20-year Master Hedge Agreement between EnergyAustralia and Ecogen which ends in 2019. Under the latter Agreement, EnergyAustralia has the right to call upon electricity from the power stations at predetermined charging rates over the life of the Agreement.

(D) The 25-year power purchase arrangements between Jhajar Power Limited (JPL) and its offtakers are accounted for as operating leases. Under the agreements, the offtakers are obliged to purchase the output of Jhajar power plant at predetermined prices. The future aggregate minimum lease receipts under non-cancellable operating leases are as follows:

	2017 HK\$M	2016 HK\$M
Within one year	827	723
Later than one year but not later than five years	2,714	2,842
Over five years	6,192	6,230
	<b>9,733</b>	<b>9,795</b>

## 29. Related Party Transactions

### Accounting Policy

Related parties are individuals and companies, including subsidiaries, fellow subsidiaries, joint ventures, associates and key management personnel, where the individual or company has the ability, directly or indirectly, to control or jointly control the other party or exercise significant influence over the other party in making financial and operating decisions. A close family member of any such individual is considered to be a related party.

### Related Parties ≠ Connected Parties

They sometimes overlap but should not be confused. Accounting standards define related parties, while the Listing Rules of the Hong Kong Stock Exchange define connected parties.

Below are the more significant transactions with related parties for the year:

(A) CLP Power Hong Kong is obliged to purchase 70% of the output from Guangdong Daya Bay Nuclear Power Station (GNPS). The price paid by CLP Power Hong Kong for electricity generated by GNPS throughout the terms of the power purchase agreements is determined by a formula based on GNPS's operating costs and a calculation of profits with reference to the capacity factors. The purchase of nuclear electricity under the arrangement was HK\$5,380 million (2016: HK\$5,198 million).

Under a separate purchase arrangement with GNPJVC and its shareholder, Guangdong Nuclear Investment Company Limited, CLP Power Hong Kong would purchase approximately 10% of additional nuclear electricity from GNPS on a best endeavour basis from October 2014 to end of 2018, at the same unit price as that under the above purchase arrangement which amounted to HK\$768 million (2016: HK\$742 million).

## 29. Related Party Transactions (continued)

- (B) The loan to a joint venture is disclosed under Note 11. Other amounts due from and to the related parties at 31 December 2017 are disclosed in Notes 16 and 19 respectively. At 31 December 2017, the Group did not have any guarantees which were of a significant amount given to or received from these parties (2016: nil).

- (C) Emoluments of key management personnel

Under HKAS 24 Related Party Disclosures, key management personnel are defined as those persons having authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly, including any directors (whether executive or otherwise) of the Group. The total remuneration of the key management personnel shown below comprises the Non-executive Directors and the Senior Management Group. Members of the Senior Management Group include two (2016: two) Executive Directors and nine (2016: nine) senior management personnel.

	2017 HK\$M	2016 HK\$M
Fees	11	11
Recurring remuneration items (note)		
Base compensation, allowances & benefits	65	61
Performance bonus		
Annual incentive	61	59
Long-term incentive	30	13
Provident fund contribution	12	9
Non-recurring remuneration items (note)		
Other payments	–	7
	<b>179</b>	<b>160</b>

Note: Refer to recurring and non-recurring remuneration items on page 151 of Human Resources & Remuneration Committee Report.

At 31 December 2017, the CLP Holdings' Board was composed of twelve Non-executive Directors and two Executive Directors. Remuneration of all Directors for the year totalled HK\$52 million (2016: HK\$46 million). With respect to the emoluments of the highest paid employees, the five highest paid individuals in the Group during the year included two Directors (2016: two Directors) and three members (2016: three members) of Senior Management. The total remuneration of these five highest paid individuals amounted to HK\$98 million (2016: HK\$92 million). Further details of the remuneration of the Directors and Senior Management, on a named basis, and remuneration paid to the five highest paid individuals by bands are disclosed in highlighted sections of the Human Resources & Remuneration Committee Report on pages 150 to 153 and 158 to 160. These sections form the "auditable" part of the Human Resources & Remuneration Committee Report and are part of the financial statements.

- (D) Interest of Directors

There are no loans, quasi-loans or other dealings in favour of directors, their controlled bodies corporate and connected entities (2016: nil).

During the year and at the year end, no director of the Company had or has a material interest, directly or indirectly, in any significant transactions, arrangements and contracts in relation to the Group's business to which the Group was or is a party (2016: nil).

## 30. Contingent Liabilities

### Accounting Policy

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation, and the amount has been reliably estimated. Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to the passage of time is recognised as interest expense.

Contingent liabilities are possible obligations that arise from past events and whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events not wholly within the control of the Group. Where it is not probable that an outflow of economic benefits will be required, or the amount cannot be estimated reliably, the obligation is disclosed as a contingent liability, unless the probability of outflow of economic benefits is remote.

### Critical Accounting Estimates and Judgments

The Group is exposed to the risk of litigation, regulatory judgments and contractual disputes in the course of its normal operations. The Group considers each instance separately in accordance with legal advice and will make provision and/or disclose information as appropriate. Changes in the assumptions around the likelihood of an outflow of economic resources or the estimation of any obligation would change the values recognised in the financial statements.

- (A) CLP India – Deemed Generation Incentive Payment and Interest on Deemed Loans

This is a dispute between CLP India and its offtaker GUVNL under the power purchase agreement for Paguthan. GUVNL is required to make a "deemed generation incentive" payment to CLP India when plant availability is above a set threshold. GUVNL has been making such payments since December 1997.

In September 2005, GUVNL filed a petition before the Gujarat Electricity Regulatory Commission (GERC) claiming that the "deemed generation incentive" payment should not be paid for periods when Paguthan is declared with availability to generate on "naphtha" as fuel rather than on "gas". GUVNL's contention is based on a 1995 Government of India notification which disallowed "deemed generation incentive" for naphtha-based power plants. The total amount of the claim plus interest calculated up to June 2005 amounts to about Rs.7,260 million (HK\$888 million). CLP India's position, amongst other arguments, is that Paguthan is not naphtha-based and therefore the Government of India notification does not apply to disallow the payments of the "deemed generation incentive".

GUVNL also claimed that CLP India has wrongly received interest on "deemed loans" under the existing power purchase agreement. GUVNL's claim rests on two main grounds: (i) CLP India had agreed that interest paid by GUVNL for the period from December 1997 to 1 July 2003 was to be refunded; and (ii) interest was to be calculated on a reducing balance rather than on the basis of a bullet repayment on expiry of the loan term. The total amount of the claim plus interest for the "deemed loans" amounts to a further Rs.830 million (HK\$102 million) (2016: Rs.830 million (HK\$95 million)).

In February 2009, the GERC found in favour of GUVNL on the "deemed generation incentive" but held that GUVNL's claim up to 14 September 2002 was time-barred under the Limitations Act of India. The GERC also dismissed GUVNL's claim to recover interest on the "deemed loans". CLP India appealed the GERC's decision to the Appellate Tribunal for Electricity (APTEL). GUVNL also filed an appeal against the orders of the GERC which went against GUVNL. In January 2010, the APTEL upheld the decisions of the GERC. Both CLP India and GUVNL have filed further appeals in the Supreme Court of India. The appeal petitions have been admitted but the next date of hearing has not yet been fixed by the court.

At 31 December 2017, the total amount of the claim plus interest and tax with respect to the "deemed generation incentive" amounted to Rs.8,543 million (HK\$1,045 million) (2016: Rs.8,543 million (HK\$975 million)). On the basis of legal advice obtained, the Directors are of the opinion that CLP India has a strong case on appeal to the Supreme Court. In consequence, no provision has been made in the financial statements at this stage in respect of these matters.



### 30. Contingent Liabilities (continued)

#### (B) Indian Wind Power Projects – WWIL's Contracts

CLP India group has invested in around 533MW of wind power projects to be developed with Wind World India Limited (WWIL). WWIL's major shareholder, Enercon GmbH, has commenced litigation against WWIL claiming infringement of intellectual property rights. CLP India group, as a customer of WWIL, has been named as a defendant. Enercon GmbH is also seeking an injunction restraining CLP India group's use of certain rotor blades acquired from WWIL. As at 31 December 2017, the Group considered that CLP India group has good prospects of defending these claims and the legal proceedings are unlikely to result in any material outflow of economic benefits from the Group.

#### (C) JPL – Disputed Charges with Offtakers

JPL has disputes with its offtakers over applicable tariff of capacity charges and energy charges relating to transit loss. Total disputed amounts were Rs.2,117 million (HK\$259 million) at 31 December 2017 (2016: Rs.1,917 million (HK\$219 million)). The Group considers that JPL has a strong case and hence, no provision has been made.

JPL filed a petition to Central Electricity Regulatory Commission (CERC) against its offtakers in September 2013. On 25 January 2016, CERC pronounced its judgment in favour of JPL, which supports the Group's decision that no provision should be made. JPL and its offtakers have filed appeals to APTEL.

#### (D) EnergyAustralia – Disposal of Iona Gas Plant

In December 2015, EnergyAustralia completed the disposal of its entire interest in the Iona Gas Plant for a total consideration of A\$1,780 million (HK\$9,991 million). On 19 May 2017, EnergyAustralia received a Statement of Claim issued by Lochard Energy (Iona Operations Holding) Pty Ltd, the purchaser of the Iona Gas Plant, and certain related entities, commencing formal legal proceedings seeking A\$967 million (approximately HK\$5,899 million) or alternatively A\$780 million (approximately HK\$4,758 million) in damages. The claims allege that certain information regarding the technical performance of the Iona Gas Plant, and on which the consortium claims to have relied to make its offer, were incomplete or misleading. EnergyAustralia has rejected the claims and is vigorously defending the legal proceedings. On the basis of currently available information, the Directors' view is that a material outflow of economic benefits is unlikely and no provision has been made in the financial statements.

### 31. Statement of Financial Position of the Company

	2017 HK\$M	2016 HK\$M
Non-current assets		
Fixed assets	110	128
Investments in subsidiaries	53,074	51,695
Advance to a subsidiary	39	39
Other non-current assets	3	4
	53,226	51,866
Current assets		
Trade and other receivables	49	63
Dividend receivable	2,710	–
Bank balances and cash	12	4
	2,771	67
Current liabilities		
Trade and other payables	(422)	(350)
Net current assets / (liabilities)	2,349	(283)
Total assets less current liabilities	55,575	51,583
Financed by:		
Equity		
Share capital	23,243	23,243
Retained profits	27,944	28,340
Shareholders' funds	51,187	51,583
Non-current liabilities		
Bank and other borrowings	4,388	–
Equity and non-current liabilities	55,575	51,583
The movement of retained profits is as follows:		
Balance at 1 January	28,340	28,138
Profit and total comprehensive income for the year	6,830	7,175
Dividends paid		
2016 / 2015 fourth interim	(2,754)	(2,653)
2017 / 2016 first to third interim	(4,472)	(4,320)
Balance at 31 December	27,944	28,340

The fourth interim dividend declared for the year ended 31 December 2017 was HK\$2,880 million (2016: HK\$2,754 million). The balance of retained profits after the fourth interim dividend of the Company was HK\$25,064 million (2016: HK\$25,586 million).



**William Mocatta**  
Vice Chairman  
Hong Kong, 26 February 2018



**Richard Lancaster**  
Chief Executive Officer



**Geert Peeters**  
Chief Financial Officer

### 32. Subsidiaries

The table below lists the principal subsidiaries of the Group at 31 December 2017:

Name	Issued Share Capital / Registered Capital	% of Ownership Interest at 31 December 2016 and 2017	Place of Incorporation / Business	Principal Activity
CLP Power Hong Kong Limited	HK\$20,400,007,269.65 divided into 2,488,320,000 ordinary shares	100	Hong Kong	Generation and Supply of Electricity
Castle Peak Power Company Limited	HK\$50,000,000 divided into 500,000 ordinary shares	70 <sup>(a)</sup>	Hong Kong	Generation and Sale of Electricity
Hong Kong Pumped Storage Development Company, Limited	HK\$10,000,000 divided into 100,000 ordinary shares	100 <sup>(a)</sup>	Hong Kong	Provision of Pumped Storage Services
Hong Kong Nuclear Investment Company Limited	HK\$300,000,000 divided into 300,000 ordinary shares	100	Hong Kong / Mainland China	Power Projects Investment Holding
CLP Nuclear Investment Company Limited	1 ordinary share of US\$1 each	100	Hong Kong / British Virgin Islands	Power Projects Investment Holding
CLP Engineering Limited	HK\$49,950,000 divided into 4,995 ordinary shares	100	Hong Kong	Engineering Services
CLP Power Asia Limited	1,000 ordinary shares of US\$1 each	100	British Virgin Islands / International and Mainland China	Power Projects Investment Holding
CLP Power International Limited	692,000 ordinary shares of US\$1,000 each	100 <sup>(a)</sup>	British Virgin Islands / International	Power Projects Investment Holding
CLP Power China Limited	192,000,000 ordinary shares of US\$1 each	100 <sup>(a)</sup>	British Virgin Islands / Mainland China and Hong Kong	Power Projects Investment Holding
CLP Properties Limited	HK\$150,000,000 divided into 15,000,000 ordinary shares	100	Hong Kong	Property Investment Holding
CLP Research Institute Limited	1 ordinary share of US\$1 each	100	British Virgin Islands / Hong Kong	Research and Development
CLP Innovation Enterprises Limited	1 ordinary share of HK\$1 each	100	Hong Kong	Innovation Projects Investment Holding
EnergyAustralia Holdings Limited	1,585,491,005 ordinary shares of A\$1 each	100 <sup>(a)</sup>	Australia	Energy Business Investment Holding
EnergyAustralia Yallourn Pty Ltd	15 ordinary shares of A\$1 each	100 <sup>(a)</sup>	Australia	Generation and Supply of Electricity
EnergyAustralia Pty Ltd	3,368,686,988 ordinary shares of A\$1 each	100 <sup>(a)</sup>	Australia	Retailing of Electricity and Gas
EnergyAustralia NSW Pty Ltd	2 ordinary shares of A\$1 each	100 <sup>(a)</sup>	Australia	Generation of Electricity
CLP India Private Limited	2,842,691,612 equity shares of Rs.10 each	100 <sup>(a)</sup>	India	Generation of Electricity and Power Projects Investment Holding

### 32. Subsidiaries (continued)

Name	Issued Share Capital / Registered Capital	% of Ownership Interest at 31 December 2016 and 2017	Place of Incorporation / Business	Principal Activity
Jhajjar Power Limited	20,000,000 equity shares of Rs.10 each; 2,324,882,458 compulsory convertible preference shares of Rs.10 each	100 <sup>(a)</sup>	India	Generation of Electricity
CLP Sichuan (Jiangbian) Power Company Limited <sup>(b)</sup>	RMB496,380,000	100 <sup>(a)</sup>	Mainland China	Generation of Electricity
Guangdong Huaiji Changxin Hydro-electric Power Company Limited <sup>(c)</sup>	RMB69,098,976	84.9 <sup>(a)</sup>	Mainland China	Generation of Electricity
Guangdong Huaiji Gaotang Hydro-electric Power Company Limited <sup>(c)</sup>	RMB249,430,049	84.9 <sup>(a)</sup>	Mainland China	Generation of Electricity
Guangdong Huaiji Weifa Hydro-electric Power Company Limited <sup>(c)</sup>	US\$13,266,667	84.9 <sup>(a)</sup>	Mainland China	Generation of Electricity
Guangdong Huaiji Xinlian Hydro-electric Power Company Limited <sup>(c)</sup>	RMB141,475,383	84.9 <sup>(a)</sup>	Mainland China	Generation of Electricity

Notes:

(a) Indirectly held through subsidiaries of the Company

(b) Registered as a Wholly Foreign Owned Enterprise under PRC law

(c) Registered as Sino-Foreign Cooperative Joint Ventures under PRC law

Summarised financial information of CAPCO, which has material non-controlling interests, is set out below:

	2017 HK\$M	2016 HK\$M
Results for the year		
Revenue	16,105	15,176
Profit for the year	3,168	3,149
Other comprehensive income for the year	44	–
Total comprehensive income for the year	3,212	3,149
Dividends paid to non-controlling interests	952	942
Net assets		
Non-current assets	30,000	29,122
Current assets	8,966	5,238
Current liabilities	(11,364)	(28,139)
Non-current liabilities	(9,563)	(5,275)
	18,039	946
Cash flows		
Net cash inflow from operating activities	3,235	4,099
Net cash outflow from investing activities	(3,795)	(198)
Net cash inflow / (outflow) from financing activities	688	(3,901)
Net increase in cash and cash equivalents	128	–



1. Financial Risk Factors

The Group’s activities expose it to a variety of financial risks: market risk (including foreign exchange risk, fair value and cash flow interest rate risks, and energy portfolio risk), credit risk and liquidity risk. The Group’s overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise the impact of exchange rate, interest rate and energy price fluctuations on the Group’s financial performance. The Group uses different derivative financial instruments to manage its exposure in these areas. Other than limited energy trading activities engaged by EnergyAustralia for the purpose of understanding price movements, all derivative financial instruments are employed solely for hedging purposes.

Risk management for Hong Kong operations is carried out by the Company’s central treasury department (Group Treasury) under policies approved by the Board of Directors or the Finance & General Committee of relevant Group entities. Overseas subsidiaries conduct their risk management activities in accordance with policies approved by their respective Boards. Group Treasury identifies, evaluates and monitors financial risks in close co-operation with the Group’s operating units. The Group has written policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, use of derivative financial instruments and cash management.

Foreign exchange risk

The Group operates in the Asia Pacific region and is exposed to foreign exchange risk arising from future commercial transactions, and from recognised assets and liabilities and net investments in foreign operations. This is primarily with respect to Australian dollar, Renminbi and Indian rupee. Additionally, CLP Power Hong Kong group (i.e. CLP Power Hong Kong and CAPCO) has significant foreign currency obligations relating to its foreign currency denominated debts, US dollar denominated nuclear power purchase offtake commitments, other fuel related payments and major capital projects payments. The Group uses forward contracts and currency swaps to manage its foreign exchange risk arising from future commercial transactions, and from recognised assets and liabilities which are denominated in a currency that is not the functional currency of the respective Group entity. Hedging is only considered for firm commitments and highly probable forecast transactions.

CLP Power Hong Kong group

Under the SoC, the SoC Companies are allowed to pass-through foreign exchange gains and losses arising from future non-capital projects related commercial transactions and recognised liabilities which are denominated in a currency other than Hong Kong dollar, thus retaining no significant foreign exchange risk over the long term. CLP Power Hong Kong group uses forward contracts and currency swaps to hedge all its debt repayment obligations denominated in foreign currencies for the full tenor, and a significant portion of its US dollar obligations on fuel and nuclear power purchases, provided that for US dollar the hedging can be accomplished at rates below the Hong Kong Government’s historical target peg rate of HK\$7.8: US\$1. The objective is to reduce the potential impact of foreign exchange movement on electricity tariffs. CLP Power Hong Kong group also uses forward contracts to manage the foreign exchange risks of non-Hong Kong dollar payment obligations for major capital projects, for which the exchange gains and losses are capitalised.

At the end of the reporting period, the fair value movement of the derivative financial instruments in a cash flow hedge relationship is recorded in equity. The extent of the impact to the cash flow hedge reserve under equity due to exchange rate movements, with all other variables held constant, is as follows:

	2017 HK\$M	2016 HK\$M
Increase / (decrease) in the cash flow hedge reserve		
Hong Kong dollar against US dollar		
If Hong Kong dollar weakened by 0.6% (2016: 0.6%)	70	118
If Hong Kong dollar strengthened by 0.6% (2016: 0.6%)	(70)	(118)
Hong Kong dollar against Euro		
If Hong Kong dollar weakened by 3%	21	N/A
If Hong Kong dollar strengthened by 3%	(21)	N/A

This fluctuation in equity is a timing difference as when the exchange gain or loss is realised in profit or loss, the amount is recoverable under the SoC or is capitalised in fixed assets.

1. Financial Risk Factors (continued)

Foreign exchange risk (continued)

The Group’s Asia Pacific Investments

With respect to the power project investments in the Asia Pacific region, the Group is exposed to both foreign currency translation and transaction risks.

The Group closely monitors translation risk using a Value-at-Risk (VaR) approach but does not hedge foreign currency translation risk because translation gains or losses do not affect the project company’s cash flow or the Group’s annual profit until an investment is sold. At 31 December 2017, the Group’s net investment subject to translation exposure was HK\$69,454 million (2016: HK\$56,859 million), arising mainly from our investments in Mainland China, India, Southeast Asia and Taiwan and Australia. This means that, for each 1% (2016: 1%) average foreign currency movement, our translation exposure will vary by about HK\$695 million (2016: HK\$569 million). All the translation exposures are recognised in other comprehensive income and therefore have no impact on our profit or loss.

We consider that the non-functional currency transaction exposures at the individual project company level, if not managed properly, can lead to significant financial distress. Our primary risk mitigation is therefore to ensure that project-level debt financings are implemented on a local currency basis to the maximum extent possible. Each overseas subsidiary and project company has developed its own hedging programme into local currency taking into consideration any indexing provision in project agreements, tariff reset mechanisms, lender requirements and tax and accounting implications.

Most foreign currency exposures of the Group entities are hedged and / or their transactions are predominantly conducted through the functional currency of the respective entity. The following analysis presents the Group’s (apart from CLP Power Hong Kong group) sensitivity to a reasonably possible change in the functional currencies of the Group entities against the US dollar and Renminbi, with all other variables held constant. The sensitivity rates in US dollar and Renminbi used are considered reasonable given the current level of exchange rates and the volatility observed in the different functional currencies of the Group entities. These are both on a historical basis and market expectations for future movement at the end of the reporting period and under the economic environments in which the Group operates. The extent of the impact to post-tax profit or equity due to exchange rate movements of US dollar and Renminbi against different functional currencies of Group entities, with all other variables held constant, is as follows:

	2017 HK\$M	2016 HK\$M
US dollar		
If US dollar strengthened by 5% (2016: 5%)		
Post-tax profit for the year	48	60
Equity – cash flow hedge reserve	58	70
If US dollar weakened by 5% (2016: 5%)		
Post-tax profit for the year	(48)	(60)
Equity – cash flow hedge reserve	(58)	(70)
Renminbi		
If Renminbi strengthened by 3% (2016: 4%)		
Post-tax profit for the year	29	101
Equity – cash flow hedge reserve	–	–
If Renminbi weakened by 3% (2016: 4%)		
Post-tax profit for the year	(29)	(101)
Equity – cash flow hedge reserve	–	–

## 1. Financial Risk Factors (continued)

### Energy portfolio risk

EnergyAustralia's activity in energy markets exposes it to financial risk.

The electricity market is a competitive power pool. In this market generation supply and retail demand are exposed to spot (half-hour) prices. EnergyAustralia enters into electricity spot-price-linked derivative financial instruments to hedge these exposures.

The gas market is a balancing market. To meet retail demand, EnergyAustralia procures gas supply agreements from various gas producers. Increasingly these agreements are not at a fixed price but rather have the supply price linked to oil spot prices on the global markets. EnergyAustralia enters into oil-price-linked derivative financial instruments (forward contracts) to manage this oil price risk component.

Energy portfolio exposure is managed through an established risk management framework. The framework consists of policies which place appropriate limits on overall energy market exposures, hedging strategies and targets, delegations of authority on trading, approved product lists, regular exposure reporting, and segregation of duties. Risk monitoring includes physical position reporting, stress testing of the portfolios and analyses of earnings (Earnings-at-Risk, EaR). The EaR is derived from modelling, through Monte Carlo simulations and scenarios, potential variability in spot and forward market prices and supply and demand volumes across the wholesale energy portfolio for the coming financial year. The EaR measure is drawn from the resulting earnings distribution and is chosen at a 1 in 4 probability downside (2016: 1 in 4 probability downside).

The corporate governance process also includes oversight by an Audit & Risk Committee (ARC – EA) which acts on behalf of EnergyAustralia's Board.

Based on the methods explained above, the energy portfolio risk exposure for EnergyAustralia at 31 December 2017 was HK\$397 million (2016: HK\$247 million). The change in the risk measure is the result of higher forward prices and increased volatility compared to prior year.

### Interest rate risk

The Group's interest rate risk arises from debt borrowings. Borrowings issued at variable rates expose the Group to cash flow interest rate risk, and borrowings issued at fixed rates expose the Group to fair value interest rate risk. The risks are managed by monitoring an appropriate mix between fixed and floating rate borrowings, and by the use of interest rate swaps.

The appropriate level of the fixed / floating mix is determined for each operating company subject to a regular review. For instance, CLP Power Hong Kong conducts an annual review to determine a preferred fixed / floating interest rate mix appropriate for its business profile. Each overseas subsidiary and project company has developed its own hedging programme taking into consideration project debt service sensitivities to interest rate movements, lender requirements, tax and accounting implications.

The sensitivity analysis below presents the effects on the Group's post-tax profit for the year (as a result of change in interest expense on floating rate borrowings and impact of shift in yield curve on energy contracts) and equity (as a result of change in the fair value of derivative instruments which qualify as cash flow hedges). Such amounts accumulated in equity are reclassified to profit or loss in the periods when the hedged items affect profit or loss, and offset one another in the profit or loss.

The analysis has been determined based on the exposure to interest rates for both derivative and non-derivative financial instruments at the end of the reporting period. For floating rate borrowings, the analysis is prepared assuming the amount of liability outstanding at the end of the reporting period was outstanding for the whole year. The sensitivity to interest rates used is considered reasonable given the market forecasts available at the end of the reporting period and under the economic environments in which the Group operates, with all other variables held constant.

## 1. Financial Risk Factors (continued)

### Interest rate risk (continued)

	2017 HK\$M	2016 HK\$M
Hong Kong dollar		
If interest rates were 0.7% (2016: 0.4%) higher		
Post-tax profit for the year	(95)	(49)
Equity – cash flow hedge reserve	–	–
If interest rates were 0.7% (2016: 0.4%) lower		
Post-tax profit for the year	95	49
Equity – cash flow hedge reserve	–	–
Indian rupee		
If interest rates were 1% (2016: 1%) higher		
Post-tax profit for the year	(11)	(16)
Equity – cash flow hedge reserve	–	–
If interest rates were 1% (2016: 1%) lower		
Post-tax profit for the year	11	16
Equity – cash flow hedge reserve	–	–
US dollar		
If interest rates were 0.7% (2016: 0.2%) higher		
Post-tax profit for the year	–	–
Equity – cash flow hedge reserve	33	17
If interest rates were 0.7% (2016: 0.2%) lower		
Post-tax profit for the year	–	–
Equity – cash flow hedge reserve	(33)	(17)

### Credit risk

The Group's approach to managing credit risk for trade receivables is discussed in Note 16.

On the treasury side, all finance-related hedging transactions and deposits of the Group entities are made with counterparties with good credit quality in conformance to the Group treasury policies to minimise credit exposure. Good credit ratings from reputable credit rating agencies and scrutiny of the financial position of non-rated counterparties are two important criteria in the selection of counterparties. The credit quality of counterparties will be closely monitored over the life of the transaction. The Group further assigns mark-to-market limits to its financial counterparties to reduce credit risk concentrations relative to the underlying size and credit strength of each counterparty. In an attempt to forestall adverse market movement, the Group also monitors potential exposures to each financial institution counterparty, using VaR methodology. All derivatives transactions are entered into at the sole credit of the respective subsidiaries, joint ventures and associates without recourse to the Company.



## 1. Financial Risk Factors (continued)

### Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash and making available an adequate amount of committed credit facilities with staggered maturities to reduce refinancing risk in any year and to fund working capital, debt servicing, dividend payments, new investments and close out market positions if required. The Group maintains significant flexibility to respond to opportunities and events by ensuring that committed credit lines are available to meet future funding requirements. Management also monitors rolling forecasts of the Group's undrawn borrowing facilities and cash and cash equivalents on the expected cash flows.

The table below analyses the remaining contractual maturities at the end of the reporting period of the Group's non-derivative financial liabilities, derivative financial liabilities (both net settled and gross settled) and derivative financial assets (gross settled) based on the contractual undiscounted cash flows.

	Within 1 year HK\$M	Between 1 and 2 years HK\$M	Between 2 to 5 years HK\$M	Over 5 years HK\$M	Total HK\$M
<b>At 31 December 2017</b>					
Non-derivative financial liabilities					
Bank loans	9,039	3,379	7,979	5,333	25,730
Other borrowings	1,401	2,694	11,444	22,874	38,413
Customers' deposits	5,221	–	–	–	5,221
Fuel clause account	2,212	–	–	–	2,212
Trade and other payables	18,978	–	–	–	18,978
SoC reserve accounts	–	–	–	977	977
Asset decommissioning liabilities	–	–	–	860	860
	<b>36,851</b>	<b>6,073</b>	<b>19,423</b>	<b>30,044</b>	<b>92,391</b>
Derivative financial liabilities – net settled					
Interest rate swaps	38	27	43	30	138
Energy contracts	940	284	293	214	1,731
	<b>978</b>	<b>311</b>	<b>336</b>	<b>244</b>	<b>1,869</b>
Derivative financial instruments – gross settled					
Gross contractual amounts payable					
Forward foreign exchange contracts	17,335	6,337	1,929	342	25,943
Cross currency interest rate swaps	1,751	814	9,536	15,429	27,530
	<b>19,086</b>	<b>7,151</b>	<b>11,465</b>	<b>15,771</b>	<b>53,473</b>
Gross contractual amounts receivable					
Forward foreign exchange contracts	(17,499)	(6,346)	(2,109)	(414)	(26,368)
Cross currency interest rate swaps	(1,845)	(852)	(9,053)	(15,072)	(26,822)
	<b>(19,344)</b>	<b>(7,198)</b>	<b>(11,162)</b>	<b>(15,486)</b>	<b>(53,190)</b>
Net (receivable) / payable	<b>(258)</b>	<b>(47)</b>	<b>303</b>	<b>285</b>	<b>283</b>

## 1. Financial Risk Factors (continued)

### Liquidity risk (continued)

	Within 1 year HK\$M	Between 1 and 2 years HK\$M	Between 2 to 5 years HK\$M	Over 5 years HK\$M	Total HK\$M
<b>At 31 December 2016</b>					
Non-derivative financial liabilities					
Bank loans	9,897	5,213	7,656	5,605	28,371
Other borrowings	2,558	1,209	11,544	19,163	34,474
Customers' deposits	4,999	–	–	–	4,999
Trade and other payables	20,176	–	–	–	20,176
Fuel clause account	–	2,867	–	–	2,867
SoC reserve accounts	–	860	–	–	860
Asset decommissioning liabilities	–	916	–	–	916
	<b>37,630</b>	<b>11,065</b>	<b>19,200</b>	<b>24,768</b>	<b>92,663</b>
Derivative financial liabilities – net settled					
Forward foreign exchange contracts	3	–	–	–	3
Interest rate swaps	68	38	82	70	258
Energy contracts	690	167	209	265	1,331
	<b>761</b>	<b>205</b>	<b>291</b>	<b>335</b>	<b>1,592</b>
Derivative financial instruments – gross settled					
Gross contractual amounts payable					
Forward foreign exchange contracts	21,263	9,640	7,465	496	38,864
Cross currency interest rate swaps	2,649	1,667	8,954	11,558	24,828
	<b>23,912</b>	<b>11,307</b>	<b>16,419</b>	<b>12,054</b>	<b>63,692</b>
Gross contractual amounts receivable					
Forward foreign exchange contracts	(21,233)	(9,698)	(7,710)	(490)	(39,131)
Cross currency interest rate swaps	(2,483)	(1,707)	(8,577)	(11,083)	(23,850)
	<b>(23,716)</b>	<b>(11,405)</b>	<b>(16,287)</b>	<b>(11,573)</b>	<b>(62,981)</b>
Net payable / (receivable)	<b>196</b>	<b>(98)</b>	<b>132</b>	<b>481</b>	<b>711</b>

## 2. Hedge Accounting

The Group seeks to apply, wherever possible, hedge accounting to present its financial statements in accordance with the economic purpose of the hedging activity. The Group determines the economic relationship between the hedged items and the hedging instruments by reviewing their critical terms. As a result the Group concludes that the risk being hedged for the hedged items and the risk inherent in the hedging instruments are sufficiently aligned. There is no inherent mismatch in the hedging relationships. Certain ineffectiveness can arise during the hedging process. The main sources of hedge ineffectiveness are considered to be the effects of re-designation of the hedging relationships and the counterparty credit risks on the hedging instruments.

### Hedges on debt related transactions

The Group applies various types of derivative financial instruments (forward foreign currency contracts, foreign currency options, cross currency interest rate swaps and interest rate swaps) to mitigate exposures arising from the fluctuations in foreign currencies and / or interest rates of debt. In most of the cases, the hedging instruments have a one-to-one hedge ratio with the hedged items. In view of the nature of the hedging activities, no significant ineffectiveness is expected at inception.

## 2. Hedge Accounting (continued)

### Hedges on non-debt related transactions

CLP Power Hong Kong group uses forward contracts to manage its foreign exchange risk arising from fuel and nuclear purchases obligations, and payments for major capital projects. CLP Power Hong Kong group hedges a high portion of committed and highly probable forecast transactions.

EnergyAustralia purchases and sells the majority of its electricity through a competitive power pool at spot (half-hour) market prices. EnergyAustralia enters into forward electricity contracts to manage the spot electricity price risk against forecast retail and generation exposures. The gas market is a balancing market. EnergyAustralia procures gas supply agreements from various gas producers to meet retail demand. Increasingly these agreements are not at a fixed price but rather have the supply price linked to oil spot prices on the global markets. EnergyAustralia enters into oil-price-linked derivative financial instruments (forward contracts) to manage this oil price risk component.

### Effects of hedge accounting

The tables below summarise the effect of the hedge accounting on financial position and performance of the Group for the year ended 31 December 2017 and 2016.

			Favourable / (Unfavourable) changes in fair value used for measuring ineffectiveness		Hedging (gains) / losses recognised in cash flow hedge reserve	Hedge ineffectiveness charged to profit or loss <sup>(a)</sup>	Amount reclassified from cash flow hedge reserve and credited / (charged) to profit or loss	
	Notional amount of hedging instruments HK\$M	Carrying amount of hedging instrument assets / (liabilities) HK\$M	Hedging instruments HK\$M	Hedged items HK\$M			Hedged items affected profit or loss <sup>(a)</sup> HK\$M	Hedged future cash flows no longer expected to occur <sup>(a)</sup> HK\$M
Cash Flow Hedges								
At 31 December 2017								
Debt related transactions								
Interest rate risk <sup>(b)</sup>	26,882	(418)	217	(214)	(224)	7	463	-
Foreign exchange risk	2,211	(35)	(151)	151	151	-	(150)	-
Non-debt related transactions								
Foreign exchange risk	16,980	164	137	(141)	(137)	-	(43)	-
Energy portfolio risk – electricity	4,046	175	(162)	162	162	-	129	-
Energy portfolio risk – gas	3,510	231	(69)	69	69	-	-	-
At 31 December 2016								
Debt related transactions								
Interest rate risk <sup>(b)</sup>	27,242	(476)	591	(599)	(594)	3	116	(5)
Foreign exchange risk	2,202	172	(40)	36	36	4	(27)	-
Non-debt related transactions								
Foreign exchange risk	24,912	70	143	(145)	(143)	-	(21)	-
Energy portfolio risk – electricity	3,054	466	402	(402)	(402)	-	226	-
Energy portfolio risk – gas	2,682	277	285	(285)	(285)	-	-	-

Notes:

(a) Hedge ineffectiveness and amounts reclassified from cash flow hedge reserve on non-debt and debt related transactions were recognised in fuel and other operating expenses and finance costs respectively.

(b) Also include foreign exchange risk in case of foreign currency debts

## 2. Hedge Accounting (continued)

### Effects of hedge accounting (continued)

Fair Value Hedges	Notional amount of hedging instruments HK\$M	Carrying amount of hedged items (included accumulated fair value hedge adjustments) HK\$M	Accumulated fair value hedge adjustments		Favourable / (Unfavourable) changes in fair value used for measuring ineffectiveness		Hedge ineffectiveness (credited) / charged to finance costs HK\$M
			Continuing hedges HK\$M	Discontinued hedges HK\$M	Hedging instruments HK\$M	Hedged items HK\$M	
At 31 December 2017							
Debt related transactions							
Interest rate risk <sup>(b)</sup>	5,981	(10,494)	156	(13)	61	(58)	(3)
At 31 December 2016							
Debt related transactions							
Interest rate risk <sup>(b)</sup>	6,131	(10,532)	214	(25)	3	(9)	6

An analysis of other comprehensive income by risk category and the reconciliation of the components in equity that arises in connection with hedge accounting are as follows:

Cash Flow Hedge Reserve	Interest rate risk <sup>(b)</sup>	Foreign exchange risk	Energy portfolio risk	Total
	HK\$M	HK\$M	HK\$M	HK\$M
Balance at 1 January 2016	(39)	(119)	256	98
Hedging gains	594	107	687	1,388
Reclassification to profit or loss				
Hedged items affected profit or loss	(116)	48	(226)	(294)
Hedged items were no longer expected to occur	5	-	-	5
Related deferred tax	(87)	(35)	(139)	(261)
Balance at 31 December 2016	357	1	578	936
Balance at 1 January 2017	357	1	578	936
Hedging gains / (losses)	225	(15)	(231)	(21)
Reclassification to profit or loss				
Hedged items affected profit or loss	(463)	193	(129)	(399)
Amount transferred to hedged assets	-	4	-	4
Related deferred tax	39	(29)	108	118
<b>Balance at 31 December 2017</b>	<b>158</b>	<b>154</b>	<b>326</b>	<b>638</b>



## 2. Hedge Accounting (continued)

### Effects of hedge accounting (continued)

	Time value of options reserve HK\$M	Forward element reserve HK\$M	Foreign currency basis spread reserve HK\$M	Total HK\$M
<b>Costs of Hedging Reserves</b>				
Balance at 1 January 2016	4	19	245	268
Changes due to transaction related hedged items				
Fair value losses	-	-	(13)	(13)
Amount reclassified to the costs of the hedged items	-	-	(99)	(99)
Changes due to time-period related hedged items				
Fair value losses	(23)	(83)	(132)	(238)
Amount amortised to profit or loss	20	71	28	119
Related deferred tax	2	7	35	44
Balance at 31 December 2016	3	14	64	81
Balance at 1 January 2017	3	14	64	81
Changes due to transaction related hedged items				
Fair value losses	-	-	(24)	(24)
Amount reclassified to the costs of the hedged items	-	-	(3)	(3)
Changes due to time-period related hedged items				
Fair value losses	(9)	(72)	(182)	(263)
Amount amortised to profit or loss	15	72	18	105
Related deferred tax	(2)	-	31	29
<b>Balance at 31 December 2017</b>	<b>7</b>	<b>14</b>	<b>(96)</b>	<b>(75)</b>

## 3. Fair Value Estimation and Hierarchy of Financial Instruments

The fair value of financial instruments traded in active markets (such as publicly traded derivatives) is based on quoted market prices at the end of the reporting period.

The fair value of financial instruments that are not traded in an active market (for example, over-the-counter derivatives) is determined by using appropriate valuation techniques and making assumptions that are based on market conditions existing at the end of each reporting period.

For the Group's financial instruments that are not measured at fair value, their carrying values approximate their fair values.

Financial instruments measured at fair value are analysed into the following fair value measurement hierarchy:

Level 1 – quoted prices (unadjusted) in active markets for identical assets or liabilities

Level 2 – inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices)

Level 3 – inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs)

## 3. Fair Value Estimation and Hierarchy of Financial Instruments (continued)

The following table presents the Group's financial instruments that are measured at fair value at 31 December:

	Level 1 HK\$M	Level 2 <sup>(a)</sup> HK\$M	Level 3 <sup>(a), (b)</sup> HK\$M	Total HK\$M
<b>At 31 December 2017</b>				
Financial assets				
Equity investments	302	-	47	349
Forward foreign exchange contracts	-	449	-	449
Foreign exchange options	-	18	-	18
Cross currency interest rate swaps	-	309	-	309
Interest rate swaps	-	121	-	121
Energy contracts	-	957	239	1,196
	<b>302</b>	<b>1,854</b>	<b>286</b>	<b>2,442</b>
Financial liabilities				
Forward foreign exchange contracts	-	159	-	159
Cross currency interest rate swaps	-	1,079	-	1,079
Interest rate swaps	-	169	-	169
Energy contracts	232	578	212	1,022
	<b>232</b>	<b>1,985</b>	<b>212</b>	<b>2,429</b>
<b>At 31 December 2016</b>				
Financial assets				
Equity investments	303	-	1,225	1,528
Forward foreign exchange contracts	-	479	-	479
Foreign exchange options	-	38	-	38
Cross currency interest rate swaps	-	493	-	493
Interest rate swaps	-	161	-	161
Energy contracts	590	910	130	1,630
	<b>893</b>	<b>2,081</b>	<b>1,355</b>	<b>4,329</b>
Financial liabilities				
Forward foreign exchange contracts	-	79	-	79
Cross currency interest rate swaps	-	1,380	-	1,380
Interest rate swaps	-	219	-	219
Energy contracts	-	690	189	879
	<b>-</b>	<b>2,368</b>	<b>189</b>	<b>2,557</b>

3. Fair Value Estimation and Hierarchy of Financial Instruments (continued)

Notes:

(a) The valuation technique and inputs used in the fair value measurements within Level 2 and Level 3 are as follows:

Financial Instruments	Valuation Technique	Significant Inputs
Equity investments	Dividend model	Discount rate
Forward foreign exchange contracts	Discounted cash flow	Observable exchange rates
Foreign exchange options	Garman Kohlhagen Model	Observable exchange rates, interest rates and volatility levels
Cross currency interest rate swaps	Discounted cash flow	Observable exchange rates and swap rates of respective currency
Interest rate swaps	Discounted cash flow	Observable swap rates of respective currency
Energy contracts	Discounted cash flow	Brokers' quotes and observable exchange traded swap and cap price curve; and long term forward electricity price and cap price curve

(b) Fair value measurements using significant unobservable inputs (Level 3):

Financial Instruments	Significant Unobservable Inputs
Equity investments <sup>(i)</sup>	Discount rate
Energy contracts <sup>(ii)</sup>	Long term forward electricity price and cap price curve

(i) The valuations are performed and reported twice each year, in line with the Group's reporting dates, to Group management.

(ii) The finance department of EnergyAustralia includes a team that performs the valuations of non-property assets required for financial reporting purposes, including Level 3 fair values. This team reports directly to EnergyAustralia's Chief Financial Officer (CFO – EA) and ARC – EA. The valuation of Level 3 forward energy contracts involves the use of a short term forward curve which is observable in the liquid market and an internally generated long term forward electricity and cap price curve which is derived using unobservable inputs. This short term forward curve is reviewed at least once every six months, in line with the Group's half-yearly reporting dates. Review of the long term forward curve is performed by the CFO – EA and ARC – EA annually due to the lack of market liquidity. Analysis of fair value changes is performed on a monthly basis for reasonableness.

The Group's policy is to recognise transfers into / out of fair value hierarchy levels as of the date of the event or change in circumstances that caused the transfer.

During 2017 and 2016, there were no transfers between Level 1 and Level 2, the movements of Level 3 financial instruments for the years ended 31 December are as follows:

	Equity Investments HK\$M	2017 Energy Contracts HK\$M	Total HK\$M	Equity Investments HK\$M	2016 Energy Contracts HK\$M	Total HK\$M
Opening balance	1,225	(59)	1,166	1,227	(631)	596
Total gains / (losses) recognised in						
Profit or loss and presented in fuel and other operating expenses *	-	108	108	-	656	656
Other comprehensive income	(280)	(4)	(284)	-	(29)	(29)
Purchase	15	-	15	-	-	-
Sales (Note 16(b))	(913)	-	(913)	-	-	-
Settlements	-	(18)	(18)	-	(18)	(18)
Transfer out of Level 3	-	-	-	(2)	(37)	(39)
Closing balance	47	27	74	1,225	(59)	1,166

\* Out of which, unrealised gains recognised in profit or loss relating to the assets and liabilities held at the end of the reporting period was HK\$204 million (2016: HK\$617 million).

At 31 December 2017 and 2016, the valuation of long tenure energy contracts is sensitive to electricity pool price assumptions. A favourable and unfavourable change of 15% (2016: 15%) would cause the fair values to rise by HK\$547 million (2016: HK\$511 million) and decline by HK\$548 million (2016: HK\$509 million) respectively, with all other variables held constant.

4. Offsetting Financial Assets and Financial Liabilities

The following financial assets and liabilities are subject to offsetting, enforceable master netting arrangements or similar agreements:

	Effect of offsetting in the consolidated statement of financial position			Related amounts not offset in the consolidated statement of financial position		
	Gross amounts recognised HK\$M	Gross amounts offset HK\$M	Net amounts included in the respective line HK\$M	Financial instruments HK\$M	Financial collateral received / pledged HK\$M	Net <sup>(a)</sup> amount HK\$M
At 31 December 2017						
Financial assets						
Bank balances, cash and other liquid funds	347	-	347	(347)	-	-
Trade and other receivables	4,884	-	4,884	(3,000)	(1,884)	-
Derivative financial instruments	2,270	(634)	1,636	(307) <sup>(b)</sup>	-	1,329
	7,501	(634)	6,867	(3,654)	(1,884)	1,329
Financial liabilities						
Customers' deposits	5,218	-	5,218	(1,884)	-	3,334
Bank loans and other borrowings	11,512	-	11,512	-	(3,347)	8,165
Derivative financial instruments	2,905	(634)	2,271	(307) <sup>(b)</sup>	-	1,964
	19,635	(634)	19,001	(2,191)	(3,347)	13,463
At 31 December 2016						
Financial assets						
Bank balances, cash and other liquid funds	198	-	198	(198)	-	-
Trade and other receivables	4,337	-	4,337	(2,431)	(1,906)	-
Derivative financial instruments	2,483	(367)	2,116	(438) <sup>(b)</sup>	-	1,678
	7,018	(367)	6,651	(3,067)	(1,906)	1,678
Financial liabilities						
Customers' deposits	4,998	-	4,998	(1,906)	-	3,092
Bank loans and other borrowings	11,487	-	11,487	-	(2,629)	8,858
Derivative financial instruments	2,851	(367)	2,484	(438) <sup>(b)</sup>	-	2,046
	19,336	(367)	18,969	(2,344)	(2,629)	13,996

Notes:

(a) Under HKFRS, amounts cannot be offset if the rights of set-off are conditional on a future event e.g. default of payment. "Net amount" column represents the net impact that would be shown on the consolidated statement of financial position if all set-off rights (e.g. master netting arrangements, collateral arrangements, etc.) were exercised. These items include (1) restricted cash of CLP India disclosed under Note 17 to the Financial Statements; (2) trade receivables related to Hong Kong electricity business where customers' deposits are served as security for payments; (3) trade receivables of subsidiaries in Mainland China and India which are pledged against their bank loans and other borrowings; and (4) bank loans and other borrowings of subsidiaries in Mainland China and India which are secured by charges over certain financial assets or rights to income.

(b) For derivative financial instruments, the Group enters into derivative transactions under International Swaps and Derivatives Association (ISDA) master agreements in which there is a set-off provision. Under certain circumstances, for example, when a credit event such as a default occurs, all outstanding transactions under the agreement are terminated, a termination value is then assessed and only a single net amount is payable in settlement of all transactions. The ISDA agreements do not meet the criteria for offsetting in the consolidated statement of financial position since the Group does not have any currently legally enforceable right to offset recognised amounts. The right to offset is enforceable only on the occurrence of future events such as a default on the bank transactions or other credit events.



5. Capital Management

The primary objective of the Group’s capital management is to safeguard the Group’s ability to continue as a going concern, maintain a strong credit rating and a healthy capital ratio to support the business and to enhance shareholder value.

The Group manages its capital structure and fine-tunes it in light of changes in economic conditions and business strategies. To maintain or adjust the capital structure, the Group may adjust the dividend payments to shareholders, issue new shares or change the level of debts. The Group’s capital management objectives, policies or processes were unchanged during 2017 and 2016.

The Group monitors capital using “total debt to total capital” and “net debt to total capital” ratios. These ratios are as follows:

	2017 HK\$M	2016 HK\$M
Total debt <sup>(a)</sup>	57,341	51,646
Net debt <sup>(b)</sup>	47,411	46,979
Total equity <sup>(c)</sup>	123,021	112,465
Total capital (based on total debt) <sup>(d)</sup>	180,362	164,111
Total capital (based on net debt) <sup>(e)</sup>	170,432	159,444
Total debt to total capital (based on total debt) ratio (%)	31.8	31.5
Net debt to total capital (based on net debt) ratio (%)	27.8	29.5

The reduction in net debt to total capital mainly related to higher Group earnings and cash inflows from Argyle Street Redevelopment Project which were partly offset by additional debt for capital investments.

Certain entities of the Group are subject to loan covenants. For both 2017 and 2016, there is no material non-compliance with those loan covenants.

Notes:

- (a) Total debt equals bank loans and other borrowings.
- (b) Net debt equals total debt less bank balances, cash and other liquid funds.
- (c) Total equity equals equity plus advances from non-controlling interests.
- (d) Total capital (based on total debt) equals total debt plus total equity.
- (e) Total capital (based on net debt) equals net debt plus total equity.

Scheme of Control Statement

CLP Power Hong Kong Limited and Castle Peak Power Company Limited

Overview

In Hong Kong, CLP Power Hong Kong Limited (CLP Power Hong Kong) operates a vertically integrated electricity generation, transmission and distribution business. The generating plants in Hong Kong are owned by Castle Peak Power Company Limited (CAPCO), in which CLP Power Hong Kong originally owned 40% and was further increased to 70% in May 2014. CLP Power Hong Kong builds and operates CAPCO’s power stations under contract and is the sole customer for CAPCO’s electricity which CLP Power Hong Kong transmits and distributes to its customers in Kowloon and the New Territories. CLP Power Hong Kong owns the transmission and distribution network.

Since financial year 1964, the electricity-related operations of CLP Power Hong Kong and CAPCO (the SoC Companies) have been governed by a Scheme of Control (SoC) Agreement with the Hong Kong Government. The SoC specifies the SoC Companies’ obligations to supply adequate and reliable electricity supplies to customers at the lowest reasonable cost and the mechanism for Hong Kong Government to monitor their financial affairs and operating performance. In return, CLP Power Hong Kong is allowed to charge tariffs designed to recover the operating costs (including tax) and allowed net return of the SoC Companies.

The current SoC took effect from 1 October 2008 and covers a period of 10 years to 30 September 2018. On 25 April 2017, the SoC Companies signed a new SoC Agreement with the Hong Kong Government. The term of the new SoC will be for a period of over 15 years beginning on 1 October 2018 and ending on 31 December 2033. The new SoC contains key principles that are similar to the existing SoC. The annual permitted return under the new SoC is at the rate of 8% on the average net fixed assets of the SoC Companies.

The SoC includes a provision to give the SoC Companies protection for stranded costs, which may arise as a result of future changes to the market structure which adversely impact on the SoC Companies’ ability to recover and to earn returns on existing investments made in good faith in accordance with the SoC. These costs will include the costs of investments, fuel and power purchase agreements previously approved by the Hong Kong Government. If stranded costs arise after the SoC Companies have implemented mitigation measures reasonably required by the Hong Kong Government, the SoC Companies are entitled to recover them from the market, consistent with international practice. Three years before market changes are introduced, the SoC Companies and the Hong Kong Government will agree on the amount of stranded costs and the mechanism for their recovery by the SoC Companies.

Tariff Setting Mechanism

For each year, CLP Power Hong Kong designs the net tariff it charges to cover the SoC Companies’ operating costs and allowed net return. The net tariff consists of the following components:

- (i) basic tariff rate which is derived by taking into account the annual forecast of (a), (b) and (c) below, using the formula “(a-b)/c”:
  - (a) the allowed net return and operating costs including the standard cost of fuel; generation, transmission, distribution and administration expenses; depreciation; interest expenses; and taxes;
  - (b) 80% of the profit on electricity sale to Mainland China; and
  - (c) local unit sales as determined by the load forecast.
- (ii) fuel clause charge or rebate (Fuel Cost Adjustment) which represents the difference between the costs of fuel (including natural gas, coal and oil) and the standard cost recovered through the basic tariff rate.

Any difference between the actual profit for SoC operations and the permitted return for the year is transferred to or from a Tariff Stabilisation Fund. The Tariff Stabilisation Fund does not form part of distributable shareholders’ funds and represents a liability in the accounts of CLP Power Hong Kong. A charge on the average balance of the Tariff Stabilisation Fund is credited to the Rate Reduction Reserve in the accounts of CLP Power Hong Kong, which balance as at the end of each year is to be transferred to the Tariff Stabilisation Fund in the following year.

## Permitted and Net Return

The permitted and net return that the SoC Companies are allowed under the current SoC are calculated as follows:

- The annual permitted return under the current SoC is 9.99% of the SoC Companies' average net fixed assets other than renewable energy investments; and 11% for renewable energy investments.
- The net return under the current SoC is the permitted return after the deduction or adjustment of the following items:
  - (a) interest up to a maximum of 8% per annum on borrowed capital arranged for financing fixed assets;
  - (b) a charge of the average one-month Hong Kong interbank offered rate on the average balance of the Tariff Stabilisation Fund under the SoC, which is credited to the Rate Reduction Reserve;
  - (c) an excess capacity adjustment of 9.99% under the SoC on the average excess capacity expenditure less an allowed interest charge up to 8% per annum on the average excess capacity expenditure;
  - (d) interest up to 8% per annum on the increase in average balance of the customers' deposits in excess of the balance as at 30 September 1998; and
  - (e) performance related incentives / penalties adjustments in the range of -0.03% to +0.1% on the average net fixed assets with respect to customer performance, energy efficiency and renewables performance for each applicable period under the SoC.
- The rate of return on average net fixed assets of the SoC Companies for the year ended 31 December 2017 was 9.14% (2016: 9.14%).

The net return is divided between the SoC Companies in accordance with the provisions of the agreements between the SoC Companies. These provisions state that each company will receive that proportion of the total net return represented by the net return that company would receive if it were the only company under the SoC and the net return were calculated solely on the basis of its own financial statements. In year 2017, 68% (2016: 68%) of the net return was allocated to CLP Power Hong Kong and 32% (2016: 32%) to CAPCO.

The calculations shown on next page are in accordance with the current SoC and the agreements between the SoC Companies.

## For the year ended 31 December

	2017 HK\$M	2016 HK\$M
<b>SoC revenue</b>	<b>39,259</b>	37,223
Expenses		
Operating costs	4,405	4,312
Fuel	11,901	10,978
Purchases of nuclear electricity	5,380	5,198
Provision for asset decommissioning	(56)	(109)
Depreciation	4,706	4,375
Operating interest	994	997
Taxation	1,989	1,895
	<b>29,319</b>	27,646
Profit after taxation	9,940	9,577
Interest on borrowed capital	976	952
Adjustment for performance incentives	(54)	(53)
Adjustment required under the SoC (being share of profit on sale of electricity to Mainland China attributable to the SoC Companies)	(79)	(69)
Profit for SoC	10,783	10,407
Transfer from Tariff Stabilisation Fund	42	151
Permitted return	<b>10,825</b>	10,558
Deduct interest on / Adjustment for		
Borrowed capital as above	976	952
Performance incentives as above	(54)	(53)
Tariff Stabilisation Fund to Rate Reduction Reserve	4	2
	<b>926</b>	901
<b>Net return</b>	<b>9,899</b>	9,657
Divisible as follows:		
CLP Power Hong Kong	6,778	6,547
CAPCO	3,121	3,110
	<b>9,899</b>	9,657
CLP Power Hong Kong's share of net return		
CLP Power Hong Kong	6,778	6,547
Interest in CAPCO	2,185	2,177
	<b>8,963</b>	8,724



## Five-year Summary: CLP Group Statistics

### Economic

	2017	2016	2015	2014	2013
<b>Consolidated Operating Results, HK\$M</b>					
Revenue					
Hong Kong electricity business	<b>39,485</b>	37,615	38,488	35,303	33,840
Energy businesses outside Hong Kong	<b>52,101</b>	41,459	41,757	56,633	70,352
Others	<b>487</b>	360	455	323	338
Total	<b>92,073</b>	79,434	80,700	92,259	104,530
Earnings <sup>(a)</sup>					
Hong Kong electricity business	<b>8,863</b>	8,640	8,260	7,777	6,966
Hong Kong electricity business related	<b>335</b>	203	206	71	125
Mainland China	<b>1,238</b>	1,521	1,977	1,579	2,131
India	<b>647</b>	469	614	270	184
Southeast Asia and Taiwan	<b>160</b>	274	312	297	241
Australia	<b>2,738</b>	1,849	836	756	126
Other earnings in Hong Kong	<b>(65)</b>	62	(60)	(66)	(17)
Unallocated net finance (costs)/income	<b>(2)</b>	33	17	(36)	(26)
Unallocated Group expenses	<b>(607)</b>	(717)	(643)	(586)	(423)
Operating earnings	<b>13,307</b>	12,334	11,519	10,062	9,307
Gains on acquisitions / sales of investments	<b>-</b>	-	6,619	1,953	525
Impairment and provision reversal	<b>-</b>	(203)	(1,723)	(1,736)	(3,696)
Property revaluation and transaction	<b>369</b>	497	99	245	-
Reversal of tax provision and tax credit	<b>573</b>	83	-	545	-
Other items affecting comparability from Australia	<b>-</b>	-	(858)	152	(76)
Total	<b>14,249</b>	12,711	15,656	11,221	6,060
Dividends	<b>7,352</b>	7,074	6,822	6,619	6,493
Depreciation and amortisation, owned and leased assets	<b>7,368</b>	6,909	6,765	6,791	7,592
<b>Consolidated Statement of Financial Position<sup>(b)</sup>, HK\$M</b>					
SoC fixed assets	<b>109,824</b>	106,886	104,479	101,420	67,057
Other fixed assets	<b>33,914</b>	32,535	31,533	34,963	63,846
Goodwill and other intangible assets	<b>29,087</b>	27,653	28,257	31,129	23,847
Interests in joint ventures	<b>10,383</b>	9,971	11,250	11,176	19,940
Interests in associates	<b>8,081</b>	813	785	786	1,675
Other non-current assets	<b>3,152</b>	4,837	5,385	9,664	8,601
Current assets	<b>33,710</b>	23,538	22,284	25,525	26,840
Total assets	<b>228,151</b>	206,233	203,973	214,663	211,806
Shareholders' funds	<b>108,697</b>	98,010	93,118	88,013	87,361
Perpetual capital securities	<b>5,791</b>	5,791	5,791	5,791	-
Other non-controlling interests	<b>7,019</b>	1,972	2,023	2,155	120
Equity	<b>121,507</b>	105,773	100,932	95,959	87,481
Bank loans and other borrowings	<b>57,341</b>	51,646	55,483	67,435	56,051
Obligations under finance leases	<b>-</b>	-	-	27	27,976
SoC reserve accounts	<b>977</b>	860	1,009	1,131	28
Other current liabilities	<b>27,962</b>	26,944	25,107	27,771	25,372
Other non-current liabilities	<b>20,364</b>	21,010	21,442	22,340	14,898
Total liabilities	<b>106,644</b>	100,460	103,041	118,704	124,325
Equity and total liabilities	<b>228,151</b>	206,233	203,973	214,663	211,806

Notes:

- (a) The 2015 figures have been restated in accordance with the transitional provision of HKFRS 9 (2014) Financial Instruments about certain requirements of hedge accounting.
- (b) The 2013 to 2016 figures have been reclassified to conform with current year's presentation of certain energy derivatives.

A [ten-year summary](#) is on our website 



	2017	2016	2015	2014	2013
<b>Consolidated Statement of Cash Flows, HK\$M</b>					
Funds from operations	<b>26,506</b>	25,353	20,994	23,431	21,798
Net cash inflow from operating activities	<b>24,417</b>	23,676	19,168	21,966	21,021
Net cash (outflow) / inflow from investing activities	<b>(16,735)</b>	(8,296)	1,066	(18,683)	(6,595)
Net cash outflow from financing activities	<b>(5,863)</b>	(14,288)	(20,505)	(3,904)	(21,444)
Capital expenditure, owned and leased assets	<b>(9,538)</b>	(9,756)	(10,871)	(9,192)	(8,462)
<b>Per Share Data, HK\$</b>					
Shareholders' funds per share	<b>43.02</b>	38.79	36.86	34.84	34.58
Earnings per share	<b>5.64</b>	5.03	6.20	4.44	2.40
Dividends per share	<b>2.91</b>	2.80	2.70	2.62	2.57
Closing share price					
Highest	<b>85.30</b>	83.90	69.75	68.00	69.85
Lowest	<b>72.55</b>	62.45	62.20	56.30	60.35
As at year-end	<b>79.95</b>	71.25	65.85	67.25	61.30
<b>Ratios</b>					
Return on equity, %	<b>13.8</b>	13.3	17.3	12.8	6.8
Operating return on equity, %	<b>12.9</b>	12.9	12.7	11.5	10.4
Total debt to total capital, %	<b>31.8</b>	31.5	34.0	39.6	39.1
Net debt to total capital, %	<b>27.8</b>	29.5	32.4	38.0	36.7
EBIT interest cover, times	<b>11</b>	10	10	6	3
Price / Earnings, times	<b>14</b>	14	11	15	26
Dividend yield, %	<b>3.6</b>	3.9	4.1	3.9	4.2
Dividend pay-out, %					
Total earnings	<b>51.6</b>	55.7	43.5	59.0	107.1
Operating earnings	<b>55.2</b>	57.4	59.2	65.8	69.8
Total returns to shareholders <sup>1</sup> , %	<b>8.4</b>	6.4	8.4	8.8	9.9
<b>Group Generation Capacity</b>					
(owned / operated / under construction) <sup>2</sup> , MW					
- by region					
Hong Kong	<b>7,483</b>	7,483	6,908	6,908	6,908
Mainland China	<b>7,985</b>	7,181	7,072	6,740	5,760
India	<b>2,948</b>	2,978	3,048	3,056	3,026
Southeast Asia and Taiwan	<b>285</b>	285	285	285	285
Australia	<b>4,505</b>	4,505	4,505	4,533	5,533
	<b>23,206</b>	22,432	21,818	21,522	21,512
- by status					
Operational	<b>22,118</b>	21,560	20,336	20,176	20,974
Construction	<b>1,088</b>	872	1,482	1,346	538
	<b>23,206</b>	22,432	21,818	21,522	21,512

Notes:

- 1 Total returns to shareholders represents the 10-year annualised rate of return from the combination of share price appreciation and dividend payments.
- 2 Group generation capacity (in MW) is incorporated on the following basis: (a) CAPCO on 100% capacity as stations operated by CLP Power Hong Kong; (b) PSDC (during 2013) and Ecogen on 100% as having right to use; and (c) other stations (including PSDC from 2014) on the proportion of the Group's equity interests.

Five-year Summary: CLP Group Statistics

Environmental<sup>1</sup>

Performance Indicators	Units	2017	2016	2015	2014	2013	GRI Standard	HKEx ESG Reporting Guide Reference
<b>Resource Use &amp; Emissions<sup>2</sup></b>								
Coal consumed (for power generation)	TJ	471,976	453,904	450,937	541,865	433,763	302-1	A2.1
Gas consumed (for power generation)	TJ	91,426	86,787	95,591	63,268	73,510	302-1	A2.1
Oil consumed (for power generation)	TJ	5,069	4,162	2,892	2,345	1,973	302-1	A2.1
Carbon dioxide equivalent (CO <sub>2</sub> e) emissions from power generation (Scopes 1 & 2)	kT	48,082	46,681	46,723	53,258	44,258	305-1, 305-2	A1.2
Carbon dioxide (CO <sub>2</sub> ) emissions from power generation (Scopes 1 & 2) <sup>3</sup>	kT	47,921	46,518	46,553	53,044	44,076		
Nitrogen oxides (NO <sub>x</sub> ) emissions	kT	59.3	58.1	56.3	74.6	50.2	305-7	A1.1
Sulphur dioxide (SO <sub>2</sub> ) emissions	kT	81.6	71.2	63.4	93.0	50.5	305-7	A1.1
Total particulates emissions	kT	8.3	8.5	9.8	11.5	5.5	305-7	A1.1
Water withdrawal							303-1	A2.2
from marine water resources	Mm <sup>3</sup>	4,421.7	4,202.3	4,447.6	4,774.5	4,987.9		
from freshwater resources	Mm <sup>3</sup>	52.6	48.2	48.8	52.9	37.2 <sup>4</sup>		
from municipal sources	Mm <sup>3</sup>	6.5	6.5	6.6	6.6	6.2 <sup>4</sup>		
Total	Mm <sup>3</sup>	4,480.8	4,257.0	4,503.0	4,834.0	5,031.3		
Water discharged							306-1	
cooling water to marine water bodies	Mm <sup>3</sup>	4,421.7	4,202.3	4,447.6	4,774.5	4,987.9		
treated wastewater to marine water bodies	Mm <sup>3</sup>	1.6	1.5	1.1	1.3	1.2		
treated wastewater to freshwater bodies	Mm <sup>3</sup>	12.3	13.6	12.6	14.5	10.1		
wastewater to sewerage	Mm <sup>3</sup>	1.9	1.6	1.6	1.8	1.5		
wastewater to other destinations	Mm <sup>3</sup>	0.2	0.2	0.1	0.1	0.1		
Total	Mm <sup>3</sup>	4,437.7	4,219.2	4,463.0	4,792.2	5,000.8		
Hazardous waste produced <sup>5</sup>	T (solid) / kl (liquid)	857 / 1,420	1,302 / 1,251	641 / 2,832	484 / 2,783	337 / 1,228	306-2	A1.3
Hazardous waste recycled <sup>5</sup>	T (solid) / kl (liquid)	469 / 1,384	260 / 1,149	203 / 1,176	89 / 1,463	34 / 981	306-2	
Non-hazardous waste produced <sup>5</sup>	T (solid) / kl (liquid)	20,334 / 103	8,317 / 84	11,455 / 199	21,142 / 78	7,700 / 0	306-2	A1.4
Non-hazardous waste recycled <sup>5</sup>	T (solid) / kl (liquid)	3,790 / 103	2,963 / 84	4,414 / 199	4,172 / 78	1,853 / 0	306-2	
Environmental regulatory non-compliances resulting in fines or prosecutions	number	0	0	1	1	0	307-1	
Environmental licence limit exceedances & other non-compliances	number	13	2	13	3	4	307-1	
<b>Climate Vision 2050 Target Performance (Equity Basis)<sup>6</sup></b>								
Total renewable energy generation capacity	% (MW)	14.2 (2,751)	16.6 (3,090)	16.8 (3,051)	14.1 (2,660)	16.3 (2,579)		
Non-carbon emitting generation capacity	% (MW)	22.4 (4,350)	19.2 (3,582)	19.5 (3,543)	16.7 (3,152)	19.4 (3,071)		
Carbon dioxide emissions intensity of CLP Group's generation portfolio	kg CO <sub>2</sub> / kWh	0.80 <sup>7</sup>	0.82 <sup>7</sup>	0.81 <sup>7</sup>	0.84 <sup>7</sup>	0.82 <sup>7</sup>	305-4	A1.2

- Notes:
- Environmental data rounded by facility before aggregation.
  - Covers operating facilities where CLP has operational control for the full calendar reporting year.
  - Includes CO<sub>2</sub>e emissions of Yallourn and Hallett facilities as CO<sub>2</sub> emissions data were not available.
  - Data updated to align with reporting definition.
  - Waste categorised in accordance with local regulations.
  - "Equity basis" includes all majority and minority share facilities in the CLP Group portfolio.
  - CGN Wind not included as per the Greenhouse Gas Protocol due to its accounting categorisation since 2013.

All 2017 data above have been independently verified by PricewaterhouseCoopers **except** those shaded in grey.

Packaging Material and Product Recalls:  
At CLP, our primary product is electricity, which requires no packaging for delivery to customers. Packaging material used for auxiliary products only accounts for an immaterial amount. The nature of electricity also does not allow recalls of our primary product.

For a detailed narrative on the "Environmental, Social and Governance" related performance indicators, please refer to the Capitals chapters and the Corporate Governance Report of this Annual Report.

Social

Performance Indicators	Units	2017	2016	2015	2014	2013	GRI Standard	HKEx ESG Reporting Guide Reference
<b>Employees</b>								
Employees based on geographical location							102-7	B1.1
Hong Kong	number	4,504	4,450	4,438	4,405	4,394		
Mainland China	number	577	560	527	480	469		
Australia	number	1,998	1,983	1,998	2,143	1,745		
India	number	463	435	397	359	360		
Total	number	7,542	7,428	7,360	7,387	6,968		
Employees eligible to retire within the next five years <sup>8</sup>							EU15	
Hong Kong	%	18.6%	17.3%	16.2%	15.4%	15.2%		
Mainland China	%	10.6%	12.1%	11.9%	11.1%	12.2%		
Australia	%	12.2%	11.4%	10.9%	9.2%	10.9%		
India	%	2.4%	0.9%	0.8%	1.4%	0.8%		
Total	%	15.1%	14.1%	13.3%	12.4%	13.0%		
Voluntary staff turnover rate <sup>9,10</sup>							401-1	B1.2
Hong Kong	%	1.9%	2.3%	2.8%	2.6%	1.9%		
Mainland China	%	3.0%	3.4%	2.6%	2.5%	2.6%		
Australia	%	13.8%	12.6%	13.7%	11.6%	9.4%		
India	%	3.5%	8.4%	9.8%	13.2%	10.1%		
Training per employee	average hours	46.9	49.2	57.2	43.4 <sup>11</sup>	5.5	404-1	B3.2
<b>Safety<sup>12</sup></b>								
Fatalities (employees only) <sup>13</sup>	number	0	0	0	0	0	403-2	B2.1
Fatalities (contractors only) <sup>13</sup>	number	4	3	0	1	1	403-2	B2.1
Fatality Rate (employees only) <sup>14</sup>	rate	0.00	0.00	0.00	0.00	0.00	403-2	B2.1
Fatality Rate (contractors only) <sup>14</sup>	rate	0.03	0.02	0.00	0.01	0.01	403-2	B2.1
Lost Time Injury (employees only) <sup>15</sup>	number	11	3	8	4	5	403-2	
Lost Time Injury (contractors only) <sup>15</sup>	number	16	10	8	19	28	403-2	
Lost Time Injury Rate (employees only) <sup>14,15</sup>	rate	0.13	0.04	0.10	0.05	0.06	403-2	
Lost Time Injury Rate (contractors only) <sup>14,15</sup>	rate	0.14	0.07	0.06	0.15	0.22	403-2	
Total Recordable Injury Rate (employees only) <sup>14,16</sup>	rate	0.21	0.11	0.18	0.26	0.23	403-2	
Total Recordable Injury Rate (contractors only) <sup>14,16</sup>	rate	0.36	0.19 <sup>18</sup>	0.28	0.51	0.50	403-2	
Days lost (employees only) <sup>15,17</sup>	number	252	9	199	105	29	403-2	B2.2
<b>Governance</b>								
Convicted cases of corruption	cases	0	0	0	0	0	205-3	B7.1
Breaches of Code of Conduct	cases	28	21	6	7	12		

- Notes:
- The percentages given refer to full-time permanent staff within each location, who are eligible to retire within the next five years.
  - Voluntary turnover is employees leaving the organisation voluntarily and does not include dismissal, retirement, separation under a separation scheme or end of contract.
  - In Mainland China, voluntary staff turnover rates refer to both permanent and short-term employees. In all other regions, voluntary staff turnover rates refer to permanent employees only.
  - Training per employee has been reported in average hours of training since 2014. Prior to 2014, training per employee is reported in average days of training.
  - The system of rules applied in recording and reporting accident statistics complies with the International Labour Organization (ILO) Code of Practice on Recording and Notification of Occupational Accidents and Diseases. Each year's safety data cover the incidents that happened in that calendar year and are based on the latest information available at the time of publication.
  - A fatality is the death of an employee or contractor personnel as a result of an occupational illness / injury / disease incident in the course of employment.
  - All rates are normalised to 200,000 worked hours, which approximately equals the number of hours worked by 100 people in one year.
  - An occupational illness / injury / disease sustained by an employee or contractor personnel causing him / her to miss one scheduled workday / shift or more after the day of the injury (including fatalities). A lost time injury does not include the day the injury incident occurred or any days that the injured person was not scheduled to work and it does not include restricted work injuries.
  - Total recordable injuries count all occupational injury incidents and illness other than first aid cases. They include fatalities, lost time injuries, restricted work injuries and medical treatment.
  - It refers to the number of working days lost when workers are unable to perform their usual work because of an occupational accident or disease. A return to limited duty or alternative work for the same organisation does not count as lost days.
  - A first aid case at CLP Power Hong Kong in 2016 was reclassified to a medical treatment case.

All 2017 data above have been independently verified by PricewaterhouseCoopers **except** those shaded in grey.



## Five-year Summary: Scheme of Control Financial & Operating Statistics

### CLP Power Hong Kong Limited and Castle Peak Power Company Limited

	2017	2016	2015	2014	2013
<b>SoC Financial Statistics</b>					
<b>Combined Profit &amp; Loss Statement, HK\$M</b>					
Profit for SoC	10,783	10,407	10,162	10,988	8,945
Transfer from / (to) Tariff Stabilisation Fund	42	151	124	(1,030)	693
Permitted return	10,825	10,558	10,286	9,958	9,638
Less: Interest on / Adjustment for					
Borrowed capital	976	952	920	856	887
Performance incentives	(54)	(53)	(51)	(49)	(48)
Tariff Stabilisation Fund	4	2	2	1	1
Net return	9,899	9,657	9,415	9,150	8,798
<b>Combined Balance Sheet, HK\$M</b>					
Net assets employed					
Fixed assets	109,824	106,886	104,479	101,420	97,918
Non-current assets	268	440	382	684	1,091
Current assets	7,606	4,061	5,327	6,770	6,778
	117,698	111,387	110,188	108,874	105,787
Less: current liabilities	22,565	21,474	18,565	18,518	17,142
Net assets	95,133	89,913	91,623	90,356	88,645
Exchange fluctuation account	(21)	(279)	113	(565)	(939)
	95,112	89,634	91,736	89,791	87,706
Represented by					
Equity	44,736	42,147	42,307	42,456	45,067
Long-term loans and other borrowings	34,251	28,885	30,730	28,340	26,873
Deferred liabilities	15,379	17,816	17,764	17,937	15,747
Tariff Stabilisation Fund	746	786	935	1,058	19
	95,112	89,634	91,736	89,791	87,706
<b>Other SoC Information, HK\$M</b>					
Total electricity sales	39,161	37,120	38,087	35,969	33,064
Capital expenditure	8,068	7,292	7,630	7,800	7,479
Depreciation	4,706	4,375	4,143	3,901	4,475
<b>SoC Operating Statistics</b>					
<b>Customers and Sales</b>					
Number of customers (thousand)	2,556	2,524	2,485	2,460	2,429
Sales analysis, millions of kWh					
Commercial	13,220	13,234	13,209	13,099	12,935
Manufacturing	1,740	1,751	1,791	1,791	1,832
Residential	9,217	9,394	9,228	9,450	8,658
Infrastructure and Public Services	8,987	8,858	8,805	8,585	8,358
Local	33,164	33,237	33,033	32,925	31,783
Export	1,341	1,205	1,187	1,226	1,650
Total Electricity Sales	34,505	34,442	34,220	34,151	33,433
Annual change, %	0.2	0.6	0.2	2.1	(1.2)
Local consumption, kWh per person	5,397	5,451	5,466	5,516	5,379
Local sales, HK¢ per kWh (average)					
Basic Tariff	91.8	88.9	87.1	88.6	84.0
Fuel Cost Adjustment <sup>1</sup>	21.0	24.3	27.0	22.4	22.4
Total Tariff	112.8	113.2	114.1	111.0	106.4
Rent and Rates Special Rebate <sup>2</sup>	–	–	–	–	(1.7)
Net Tariff <sup>3</sup>	112.8	113.2	114.1	111.0	104.7
Annual change in Basic Tariff, %	3.3	2.1	(1.7)	5.5	(0.2)
Annual change in Total Tariff, %	(0.4)	(0.8)	2.8	4.3	4.3
Annual change in Net Tariff, %	(0.4)	(0.8)	2.8	6.0	6.1

A [ten-year summary](#) is on our website. 

#### Generation (Including Affiliated Generating Companies)

	2017	2016	2015	2014	2013
Installed capacity, MW	8,913	8,913	8,888	8,888	8,888
System maximum demand					
Local, MW	7,155	6,841	6,878	7,030	6,699
Annual change, %	4.6	(0.5)	(2.2)	4.9	(1.0)
Local and Mainland China, MW	8,183	7,509	7,582	7,502	7,615
Annual change, %	9.0	(1.0)	1.1	(1.5)	2.5
System load factor, %	53.0	57.7	57.0	57.8	55.7
Generation by CAPCO stations, millions of kWh	25,032	26,056	25,739	27,533	26,994
Sent out, millions of kWh –					
From own generation	23,456	24,362	24,075	25,597	25,084
Net transfer from					
Landfill gas generation	2	4	4	3	4
GNPS / GPSPS / Others	12,426	11,501	11,612	10,084	9,757
Total	35,884	35,867	35,691	35,684	34,845
Fuel consumed, terajoules –					
Oil	3,894	3,452	2,160	1,785	1,491
Coal	148,065	160,661	161,988	215,367	205,198
Gas	75,807	74,559	71,406	42,465	47,545
Total	227,766	238,672	235,554	259,617	254,234
Cost of fuel, HK\$ per gigajoule – Overall	49.30	43.77	51.25	39.66	38.02
Thermal efficiency, % based on units sent out	37.1	36.7	36.8	35.5	35.5
Plant availability, %	84.6	84.1	85.0	83.7	85.2

#### Transmission and Distribution

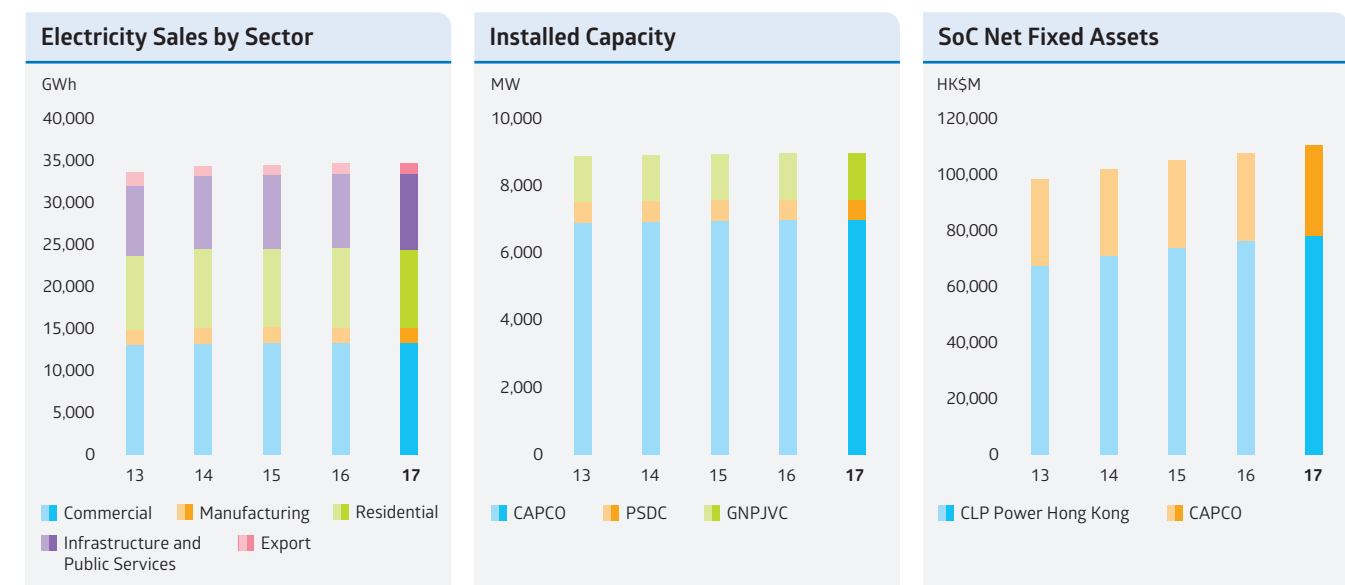
Network, circuit kilometres					
400kV	555	555	555	555	555
132kV	1,646	1,656	1,645	1,643	1,587
33kV	22	24	24	27	27
11kV	13,455	13,046	12,739	12,475	12,328
Transformers, MVA	66,938	65,834	63,373	61,450	60,430
Substations –					
Primary	232	230	226	224	218
Secondary	14,483	14,254	14,019	13,845	13,692

#### Employees and Productivity

Number of SoC employees	3,831	3,808	3,817	3,807	3,819
Productivity, thousands of kWh per employee	8,683	8,718	8,666	8,635	8,353



Notes:

- The Fuel Cost Adjustment has replaced the Fuel Clause Charge effective from October 2014.
- While the rent and rates appeals are still progressing, CLP Power Hong Kong provided customers with a Rent and Rates Special Rebate of 3.3 cents and 2.1 cents per unit in 2012 and January to mid-October 2013 respectively, rebating to customers all interim refunds received from the Government in 2012 and 2013 for overcharged rent and rates.
- Effective net tariffs including one-off special fuel rebates in 2015 and 2017 were 110.3 cents per unit and 110.5 cents per unit respectively.



# Contact Us

## Annual Report


- Online:  
CLP website: [www.clpgroup.com](http://www.clpgroup.com)   
Hong Kong Stock Exchange website: [www.hkexnews.hk](http://www.hkexnews.hk)  
  
We have uploaded the English and Chinese versions of this Report onto the above websites on 12 March 2018.  
For a direct access to this Report, please go to "[Investors Information](#)" on our website. 
- Hard copies:  
The Report will be posted to shareholders on 28 March 2018.

Shareholders may write to the Company or the Company's Registrars or email to [cosec@clp.com.hk](mailto:cosec@clp.com.hk) or [clp.ecom@computershare.com.hk](mailto:clp.ecom@computershare.com.hk) if they wish to:

- receive this Report in printed form or in a language version other than their existing choice; and/or
- change their choice of language (English and/or Chinese) and/or means of receipt (in printed form or by electronic means through our website) of the Company's future corporate communications, free of charge, at any time (with notice of not less than 7 days).

For those shareholders who have any difficulties in accessing the corporate communications electronically, they can ask the Company to send them the corporate communications in printed form free of charge.

## Information for American Depositary Receipts Holders

The Group's financial statements are prepared in accordance with Hong Kong Financial Reporting Standards (HKFRS). HKFRS differ in certain respects from United States Generally Accepted Accounting Principles. The Company's duty to file or submit reports under Sections 13(a) or 15(d) of the United States Securities Exchange Act of 1934, as amended (the Exchange Act), was terminated on 30 January 2008 after the Company filed a Form 15F with the United States Securities and Exchange Commission on 31 October 2007. The information contemplated in Rule 12g3-2(b)(1)(iii) under the Exchange Act is and will be published on the Company's [website](#). 

## Annual General Meeting

To be held on 4 May 2018. Details of the Annual General Meeting (AGM) including shareholders' right to demand a poll are set out in the Notice of AGM sent to shareholders together with a proxy form on 28 March 2018.

## Register of Shareholders

To be closed for the following corporate actions:

- 13 March 2018 – 2017 fourth interim dividend; and
- 30 April 2018 to 4 May 2018 (inclusive) – the 2018 AGM.

## Company's Registrars

Computershare Hong Kong Investor Services Limited

Address: 17M Floor, Hopewell Centre,  
183 Queen's Road East,  
Wanchai, Hong Kong

Telephone: (852) 2862 8628

Facsimile: (852) 2865 0990

Email: [hkinfo@computershare.com.hk](mailto:hkinfo@computershare.com.hk)

## Share Listing

Shares of CLP Holdings are:

- listed on the Stock Exchange of Hong Kong;
- eligible for Southbound trading through Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect; and
- traded over the counter in the United States in the form of American Depositary Receipts.

## Our Stock Code


The Stock Exchange of Hong Kong:	00002
Bloomberg:	2 HK
Reuters:	0002.HK
Ticker Symbol for ADR Code:	CLPHY
CUSIP Reference Number:	18946Q101

**Address:** 8 Laguna Verde Avenue, Hung Hom, Kowloon, Hong Kong  
**Telephone:** (852) 2678 8228 (Shareholders' hotline)  
**Facsimile:** (852) 2678 8390 (Company Secretary)  
**Email:** [cosec@clp.com.hk](mailto:cosec@clp.com.hk) (Company Secretary)  
[ir@clp.com.hk](mailto:ir@clp.com.hk) (Director – Investor Relations)





## Helping Our Community

Every year since 2003, we take the opportunity of the publication of our Annual Report and Sustainability Report to run a donation programme that supports various community initiatives and encourages electronic subscription of our Annual Report. In 2017, we raised funds and supported the Direction Association for the Handicapped and the Early Psychosis Foundation. 

Going forward, while CLP will continue to support community initiatives through other existing channels and programmes, we hope you will continue to provide us with your valuable feedback. As a token of appreciation, each shareholder who sends us feedback on our Annual Report, [Sustainability Report](#) and [online snapshot](#) on or before 30 June 2018 will receive a corporate souvenir from us.

### Recent Beneficiaries



#### Direction Association for the Handicapped

Direction Association for the Handicapped (DAH) is the first registered non-profit making association in Hong Kong that primarily serves severely physically handicapped individuals. The association's mission is to promote

mutual-help spirit among members, develop members' potential, enhance the social status and welfare of the severely physically disabled, and eventually encourage members to contribute to the society in a positive and proactive manner.



About 100 ambassadors join the U CAN campaign to spread positive energy

With the donation from CLP, DAH has launched the U CAN campaign in November 2017. Around 100 U CAN ambassadors from various sectors ranging from social welfare and education to political and business have been recruited to promote the U CAN spirit, spreading positive energy through sharing their experience in adversity management. Followed by the introduction of an online sharing platform and adversity quotient trainings, U CAN ambassadors will further promote the U CAN spirit in the workplace, family and the community as a whole in the future.



Early Psychosis Foundation  
思覺基金

#### Early Psychosis Foundation

Funded by CLP, Early Psychosis Foundation (EPISO) has launched CLP Mindshift Educational Program 2017 / 2018 on a one-year basis, offering mental health education activities to teachers and students from 3 secondary schools with an aim to strengthen their mental health condition and their capabilities to handle mental health-related issues, promote positive mental health culture in schools through establishing inter-school mental health network and an amiable learning environment.

CLP Mindshift Educational Program provides an opportunity for participants to have interaction with patients suffering from psychosis through volunteer services. Students can learn how to express care and love to the patients by communicating and walking with them.

# CLP welcomes your views...

Send us your feedback and receive a souvenir\*!



## Section A – Feedback on 2017 Annual Report

The Annual Report is a key document in communicating with our shareholders and other stakeholders.

1. To enhance the quality of our annual reporting, please let us have your views by circling the appropriate number below.

		Is the report easy to understand?				Does the report provide helpful information?			
Page		strongly disagree		strongly agree		strongly disagree		strongly agree	
A Snapshot of CLP in 2017									
2	About CLP Group	1	2	3	4	1	2	3	4
3	Financial Highlights	1	2	3	4	1	2	3	4
4	Our Business Model	1	2	3	4	1	2	3	4
5	2017 In Figures	1	2	3	4	1	2	3	4
8	Our Portfolio	1	2	3	4	1	2	3	4
14	Chairman's Statement	1	2	3	4	1	2	3	4
17	CEO's Strategic Review	1	2	3	4	1	2	3	4
22	Shareholder Value	1	2	3	4	1	2	3	4
28	Financial Review	1	2	3	4	1	2	3	4
Performance and Business Outlook									
38	Hong Kong	1	2	3	4	1	2	3	4
45	Mainland China	1	2	3	4	1	2	3	4
51	India	1	2	3	4	1	2	3	4
57	Southeast Asia and Taiwan	1	2	3	4	1	2	3	4
59	Australia	1	2	3	4	1	2	3	4
Capitals									
68	Financial Capital	1	2	3	4	1	2	3	4
73	Manufactured Capital	1	2	3	4	1	2	3	4
78	Intellectual Capital	1	2	3	4	1	2	3	4
81	Human Capital	1	2	3	4	1	2	3	4
87	Social and Relationship Capital	1	2	3	4	1	2	3	4
90	Natural Capital	1	2	3	4	1	2	3	4
Governance									
96	Board of Directors	1	2	3	4	1	2	3	4
100	Senior Management	1	2	3	4	1	2	3	4
102	Corporate Governance Report	1	2	3	4	1	2	3	4
127	Risk Management Report	1	2	3	4	1	2	3	4
136	Audit & Risk Committee Report	1	2	3	4	1	2	3	4
142	Sustainability Committee Report	1	2	3	4	1	2	3	4
146	Human Resources & Remuneration Committee Report	1	2	3	4	1	2	3	4
161	Directors' Report	1	2	3	4	1	2	3	4
Financials									
181	Approaching Our Financial Statements	1	2	3	4	1	2	3	4
182	Accounting Mini-series	1	2	3	4	1	2	3	4
185	Independent Auditor's Report	1	2	3	4	1	2	3	4
192	Financial Statements	1	2	3	4	1	2	3	4
264	Five-year Summaries	1	2	3	4	1	2	3	4
A Snapshot of 2017 Annual Report (Online Version)									
		1	2	3	4	1	2	3	4

2. Your overall rating of this Annual Report is: (Please "✓" the appropriate circle)

Poor ☐ Fair ☐ Good ☐ Very Good ☐ Excellent ☐

... / cont'd

3. Was there any additional information you expected to receive in the Annual Report? Please specify.

4. Are there any questions that you would like to be addressed in next year's Annual Report or answered on the "Frequently Asked Questions" section of the Company's website? If so, please ask.

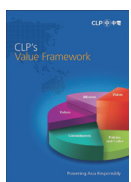
5. Please feel free to add any other comments or suggestions you may have.

## Section B – Request for Additional Information

Our Annual Report identifies areas where additional information is available on our website ([www.clpgroup.com](http://www.clpgroup.com)) or in other printed publications. If you would like hard copies of that web information and/or printed copies of other publications, please tick the appropriate circle(s):

☐ Web Information Required  
(Please specify)

☐ CLP's Value Framework



☐ CLP Code on Corporate Governance



To facilitate the arrangements on souvenir\* and/or delivery of hard copies of the requested information, please fill in the information set out below.

Type of Shareholder(s) ☐ Registered Shareholder(s) ☐ Non-registered Shareholder(s)  
(shares held through bank or other intermediaries)

Name of Shareholder(s) \_\_\_\_\_

Registered Address \_\_\_\_\_

Contact Number \_\_\_\_\_

### \* Souvenir

As a token of appreciation, each shareholder who sends us feedback on or before 30 June 2018 will receive a corporate souvenir from us (subject to availability).

We will contact you to make arrangements for you to pick up your souvenir from our Hung Hom Head Office.

Please send your feedback or requests for additional information to CLP Holdings Limited by:

- (i) POST – please cut and stick the freepost label below on an envelope and mail to:  
CLP Holdings' Registrars, Computershare Hong Kong Investor Services Limited  
(ii) FAX at (852) 2678 8390  
(iii) E-MAIL at [cosec@clp.com.hk](mailto:cosec@clp.com.hk)

### PERSONAL INFORMATION COLLECTION STATEMENT

"Personal Data" in this statement has the same meaning as "personal data" in the Personal Data (Privacy) Ordinance, Cap 486 (PDPO), which will include your name, mailing address, contact number and your opinion.

The Personal Data provided in this form may be used in connection with our management of your request, inquiry, comments and suggestions or conducting and publishing statistical and data analysis. Your supply of Personal Data is on a voluntary basis. However, we may not be able to follow up your request or inquiry unless you provide us with your Personal Data.

Your Personal Data will be transferred to CLP Holdings' Registrars if necessary for any of the above purposes. Your Personal Data will be retained for such period as may be necessary for the above purposes and its directly related purpose(s) and will be destroyed within two years from the date of publication of the 2017 Annual Report.

You have the right to request access to and/or correction of your Personal Data in accordance with the provisions of the PDPO. Any such request for access to and/or correction of your Personal Data should be in writing by either of the following means:

By mail to: Personal Data Privacy Officer  
Computershare Hong Kong Investor Services Limited  
17M Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong

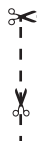
By e-mail to: [hkinfo@computershare.com.hk](mailto:hkinfo@computershare.com.hk)

You can find out more about CLP's policies on privacy and personal data protection by accessing our privacy policy statement available on the CLP website at <https://www.clpgroup.com/en/Pages/Privacy.aspx>.

### MAILING LABEL

Please cut out the mailing label and stick it on an envelope when returning your feedback to us.

**No postage is necessary if posted in Hong Kong.**



Computershare Hong Kong Investor Services Limited  
Freepost No. 37  
Hong Kong





CLP Holdings Limited  
中電控股有限公司

8 Laguna Verde Avenue  
Hung Hom, Kowloon, Hong Kong

Tel : (852) 2678 8111

Fax : (852) 2760 4448

[www.clpgroup.com](http://www.clpgroup.com)

Stock Code: 00002

