



# 2018 Annual Report

Welcome to CLP's 2018 Annual Report. Amid rapidly evolving market conditions and the impact brought by climate change, we seek to transform into a Utility of the Future through decarbonisation and digitalisation so that we can continue to provide reliable, clean and affordable electricity to our customers. CLP's goal is to create long-term value for our stakeholders through our operational, financial, environmental, social and governance efforts.

Our 2018 Annual Report aims to offer a comprehensive view of our performance in these areas during the year, with a cover design that affirms our brand promise to create Brighter Tomorrows in a sustainable way.

This 2018 Annual Report again follows the guidelines of the International Integrated Reporting Council (IIRC), and complies with applicable statutory and regulatory (Hong Kong Listing Rules) requirements and accounting standards.

While we continue to structure the Annual Report around the six capitals recommended by the IIRC, it also complements our online <u>Sustainability Report</u>, which this year has taken a new approach to focus on issues that have been identified by our stakeholders as most important through a robust materiality assessment. By doing so, it advances our integrated reporting journey that we embarked on in 2011. Stakeholders may refer to the <u>Sustainability Report</u> for more indepth discussions of the material topics.





A Snapshot of 2018 Annual Report



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# A Snapshot of CLP in 2018

# **About CLP Group**

We are an investor and operator in the energy sector of the Asia-Pacific region. For more than 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 99.995% to 2.60 million customer accounts.

# Mainland China

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





## India

We are one of the largest foreign investors in India's renewable energy sector. After entering the market more than a decade ago, we have built a responsible, technologically-advanced and diversified generation portfolio powered by wind, solar, supercritical coal and gas.

# Southeast Asia and Taiwan

We entered the Southeast Asia power market in the 1990s. Currently, we have interests in a solar project in Thailand and a coal-based generation plant in Taiwan.





## Australia

EnergyAustralia operates a customer-focused energy business serving 2.55 million customer accounts across southeast Australia, supported by competitively-priced energy from a generation portfolio comprising coal, gas, wind and solar assets.

# **Financial Highlights**

Group operating earnings increased 5.1% to HK\$13,982 million driven by higher earnings from Australia and Mainland China partially offset by lower permitted rate of return in Hong Kong since October; total earnings decreased 4.9% to HK\$13,550 million.

			Increase / (Decrease)
	2018	2017	%
For the year (in HK\$ million)			
Revenue			
Hong Kong electricity business	40,872	39,485	3.5
Energy businesses outside Hong Kong	49,793	52,101	(4.4)
Others	760	487	
Total	91,425	92,073	(0.7)
Earnings			
Hong Kong electricity business	8,558	8,863	(3.4)
Hong Kong electricity business related <sup>1</sup>	227	335	
Mainland China	2,163	1,238	74.7
India	572	647	(11.6)
Southeast Asia and Taiwan	162	160	1.3
Australia	3,302	2,738	20.6
Other earnings in Hong Kong	(92)	(65)	
Unallocated net finance costs	(54)	(2)	
Unallocated Group expenses	(856)	(607)	
Operating earnings	13,982	13,307	5.1
Items affecting comparability			
Property revaluation	18	369	
Impairment provision	(450)	-	
Reversal of tax provision	-	573	
Total earnings	13,550	14,249	(4.9)
Net cash inflow from operating activities	23,951	24,417	(1.9)
At 31 December (in HK\$ million)			
Total assets	230,514	228,151	1.0
Total borrowings	55,298	57,341	(3.6)
Shareholders' funds	109,053	108,697	0.3
Per share (in HK\$)			
Earnings per share	5.36	5.64	(4.9)
Dividends per share	3.02	2.91	3.8
Shareholders' funds per share	43.16	43.02	0.3
Ratios			
Return on equity <sup>2</sup> (%)	12.4	13.8	
Net debt to total capital <sup>3</sup> (%)	25.5	27.8	
EBIT interest cover <sup>4</sup> (times)	10	11	
Price / Earnings <sup>₅</sup> (times)	17	14	
Dividend yield <sup>6</sup> (%)	3.4	3.6	

Notes:

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

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

3 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.

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

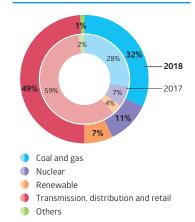
5 Price / Earnings = Closing share price on the last trading day of the year / Earnings per share

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





#### Operating Earnings (Before Unallocated Expenses) by Asset Type



# **Building a Utility of the Future**



# ......

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Read about our

Chairman's Statement and the CEO's Strategic

Review on pages 14

Read www.ww transformation strategy in the

# Customers

Develop and deproy customer or retriction technology-enabled energy services that help customers become active participants of a power system



#### Building an agile, inclusive and sustainable workforce

We maintain a workforce with the skills, mindset and agility to thrive in an ever-changing operating environment.



Poto 95 in OUR ANNUAL Report

# How CLP Creates Value for Stakeholders

2018 In Figures

\$

**Financial Capital** 

HK\$ 109.053 million

HK\$ 55,298 million

Manufactured

**19,108** equity MW

of generation capacity

4,597 MW of long-term capacity and energy purchase arrangements

Equity and

Long-term Purchase

**23,705** мw

Note: Figures include rounding adjustments

Read about our Capitals on pages 70 to 95

Capital

Shareholders' Funds

Total Borrowings

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 shareholders, customers, employees and the wider community. The following diagram shows the key capitals we used and the value we created for different stakeholders in 2018.

TIS

ALL CON

Natural

Capital

**521,568**тл

**83,359** т. J

Nuclear **11**%

Wind 9%

– Solar **2**%

Others 4% Coal **51**%

and other capex

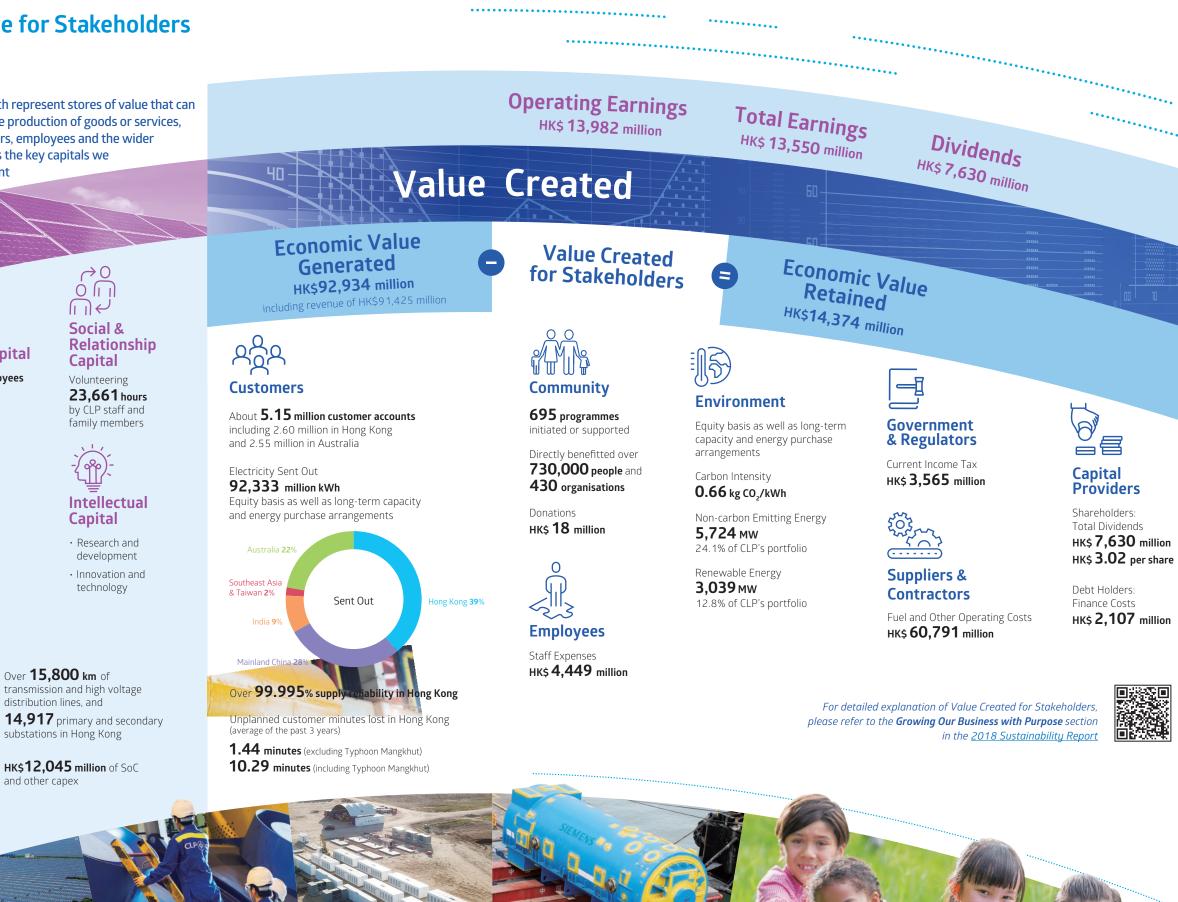
Fuel Use

Coal

Gas

**Human Capital** 

7,634 employees





#### Capital **Providers**

Shareholders: Total Dividends HK\$ 7,630 million HK\$ 3.02 per share

Debt Holders: Finance Costs HK\$ 2,107 million

in the 2018 Sustainability Report

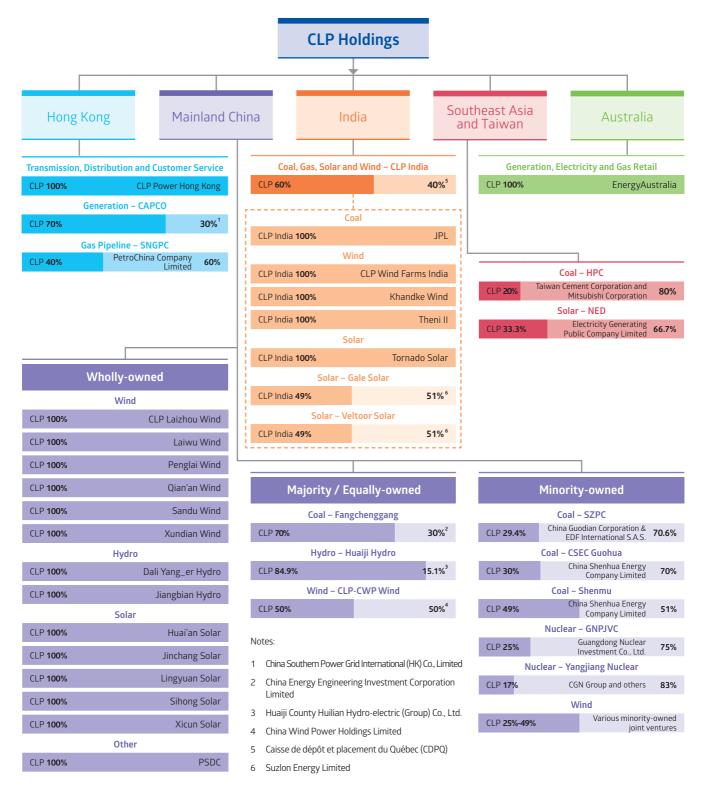




# **Our Portfolio**

#### as at 31 December 2018

CLP's business comprises over 15,800 kilometres of transmission and distribution lines, energy retail activities that serve about 5.15 million electricity and gas customer accounts, and 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 capacity and energy purchase arrangements. As at 31 December 2018, our equity generation capacity that was in operation and under construction stood at 19,108MW, while our long-term capacity and energy purchases amounted to 4,597MW. Among them, renewable energy accounted for 2,387MW and 652MW respectively.





#### Generation capacity by market

(equity basis as well as long-term capacity and energy purchase arrangements)

Hong Kong	7,543MW
Mainland China	8,954MW
India	1,796MW
Southeast Asia and Taiwan	285MW
Australia	5,128MW
Total	23,705MW

Note: Minor discrepancies may result from rounding.

Coal	0	Gas		Wind	Hydro Hydro	🚫 Solar	Other
Hong Kong		Gross MV	V/CLP Equity M	N			
Equity	Fuel type	Investments	5				
100%		<ul> <li>CLP Power Hong Kong Limited (CLP Power Hong Kong)         Assets include:         <ul> <li>Electricity and customer services for about 2.6 million customer accounts in Kowloon, the New Territories and most of Hong Kong's outlying islands</li> <li>Transmission and distribution infrastructure comprising:                 <ul> <li>555 km of 400kV lines, 1,642 km of 132kV lines, 22 km of 33kV lines and 13,643 km of 11kV lines</li> <li>67,607 MVA transformers, 232 primary and 14,685 secondary substations in operation</li> </ul> </li> </ul></li></ul>					
70%		Assets inclu Black Po 312.5M operatio Castle P 677MW Penny's West Ne of energ	de: <b>int Power Station</b> (3, <i>N</i> units and three 337 in before 2020 <b>eak Power Station</b> (4 units can use gas as a <b>Bay Power Station</b> (3 <b>iv Territories Landfil</b> y from waste for gen	2.5MW units, with anoth 108MW), comprising for a backup fuel. All units of 00MW), comprising thr I (10MW), comprising fi	rld's largest gas-fired co ner new 550MW unit un our 350MW coal-fired un an use oil as a backup fi ee 100MW diesel-fired ve new 2MW units whic	der construction and ex nits and another four 67 uel gas turbine units mainly	xpected to commence 77MW units. Two of the y for backup purpose
40%	•	Assets inclu The Hon transpor	de: <b>g Kong Branch Line</b> , c	etroChina's Second We	<b>C)</b> eline and the associated st-East Gas Pipeline in S		

Mainla	and China		Gross MW/CLP Equity MW			
Equity Fuel type			Investments			
25%	•	<	<ul> <li>Guangdong Nuclear Power Joint Venture Company, Limited (GNPJVC) 1,968 / 492MW</li> <li>Assets include:</li> <li>Guangdong Daya Bay Nuclear Power Station (1,968MW) is equipped with two 984MW Pressurised Water Reactors. Through long-term capacity purchase, 70% (1,380MW) of electricity generated is supplied to Hong Kong, with the remaining 30% sold to Guangdong province 1</li> <li>Co-investor: Guangdong Nuclear Investment Co., Ltd. (75%)</li> </ul>			
17%	•	<u></u>	<ul> <li>Yangjiang Nuclear Power Co., Ltd. (Yangjiang Nuclear) 6,516 / 1,108MW</li> <li>Assets include:</li> <li>Yangjiang Nuclear Power Station (6,516MW), comprising six 1,086MW generating units<sup>2</sup></li> <li>Co-investors: CGN Power Co., Ltd. (34%), Guangdong Nuclear Investment Co., Ltd. (25%), Guangdong Energy Group Co., Ltd. <sup>3</sup> (17%) and CGN Industry Investment Fund Phase I Co., Ltd. (7%)</li> </ul>			
70%		G	CLP Guangxi Fangchenggang Power Company Limited (Fangchenggang) 2,580 / 1,806MW         Assets include coal-fired power stations in Guangxi:         • Phase I of Fangchenggang Power Station (1,260MW)         • Phase I of Fangchenggang Power Station (1,320MW)         Co-investor: China Energy Engineering Investment Corporation Limited (30%)			
49%		G	<ul> <li>CLP Guohua Shenmu Power Company Limited (Shenmu)</li> <li>Assets include:</li> <li>Shenmu Power Station<sup>4</sup> in Shaanxi province</li> <li>Co-investor: China Shenhua Energy Company Limited (51%)</li> </ul>			
30%		G	<ul> <li>CSEC Guohua International Power Company Limited (CSEC Guohua) 7,470 / 1,248MW<sup>5</sup></li> <li>Assets include:         <ul> <li>Beijing Yire Power Station<sup>6</sup></li> <li>65% of Panshan Power Station (1,060MW) in Tianjin</li> <li>55% of Sanhe I and II Power Stations (1,330MW) in Hebei province</li> <li>55% of Sanhe I and II Power Stations (1,330MW) in Hebei province</li> <li>65% of Zhungeer II and III Power Stations (1,320MW) in Inner Mongolia</li> </ul> </li> </ul>			

Notes:

Agreements have been reached to increase the proportion of energy supply to Hong Kong to slightly above 70% in 2014 and to about 80% from 2015 to 1 2023, with the remainder continuing to be sold to Guangdong province.
2 The fifth unit was commissioned in July 2018 and the sixth unit is targeted to be commissioned in 2019.

Formerly known as Guangdong Yudean Group Co., Ltd. 3

- 4 Shenmu Power Station ceased operation on 28 February 2018.
- 5 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.
  6 The Beijing Yire Power Station ceased operation on 20 March 2015.

Mainland China (cont'd)		(cont'd)	Gross MW/CLP Equity MW				
Equity Fuel type			Investments				
29.4%			Shandong Zhonghua Power Company, Ltd. (SZPC) 3,060 / 900MW         Assets include coal-fired power stations in Shandong province:         • Heze II Power Station (600MW)         • Liaocheng I Power Station (1,200MW)         Co-investors: China Guodian Corporation (51%) and EDF International S.A.S. (19.6%)				
50%			CLP-CWP Wind Power Investment Limited (CLP-CWP Wind) 99 / 24MW?         Assets include wind farms in Liaoning province:         • 49% of Qujiagou Wind Farm (49.5MW)         • 49% of Mazongshan Wind Farm (49.5MW)         Co-investor: China Wind Power Holdings Limited (50%)				
100%			CLP (Kunming) Renewable Energy Co., Ltd. (Xundian Wind) 50 / 50MW Assets include: • Xundian I Wind Farm (49.5MW) in Yunnan province				
100%			CLP (Laiwu) Renewable Energy Limited (Laiwu Wind) 149 / 149MW         Assets include wind farms in Shandong province:         • Laiwu I Wind Farm (49.5MW)         • Laiwu III Wind Farm (50MW) <sup>8</sup> • Laiwu II Wind Farm (49.5MW)				
100%			CLP (Laizhou) Renewable Energy Limited (CLP Laizhou Wind) 99 / 99MW         Assets include wind farms in Shandong province:         • CLP Laizhou I Wind Farm (49.5MW)         • CLP Laizhou II Wind Farm (49.5MW)				
100%			<ul> <li>CLP (Penglai) Wind Power Limited (Penglai Wind) 48 / 48MW</li> <li>Assets include:</li> <li>Penglai I Wind Farm (48MW) in Shandong province</li> </ul>				
100%			CLP (Sandu) Renewable Energy Limited (Sandu Wind) 99 / 99MW Assets include: • Sandu I Wind Farm (99MW) in Guizhou province				
45%			<ul> <li>Huadian Laizhou Wind Power Company Limited (Huadian Laizhou Wind) 41 / 18MW</li> <li>Assets include:</li> <li>Huadian Laizhou I Wind Farm (40.5MW) in Shandong province</li> <li>Co-investor: Huadian Power International Corporation Limited (55%)</li> </ul>				
25%			Huaneng Shantou Wind Power Company Limited (Nanao Wind) 60 / 15MW         Assets include wind farms in Guangdong province:         • Nanao II Wind Farm (45MW)         • Nanao III Wind Farm (15MW)         Co-investors: Huaneng Renewables Corporation Limited (50%) and Guangdong Wind Power Company Limited (25%)				
49%			Jilin Datang Wind Joint Ventures (Jilin Datang Wind) 148 / 73MW         Assets include wind farms in Jilin province:         • Datong Wind Farm (49.5MW)         • Shuangliao I Wind Farm (49.3MW)         Co-investor: China Datang Corporation Renewable Power Company Limited (51%)				
100%			Qian'an IW Power Company Limited (Qian'an Wind) 99 / 99MW         Assets include wind farms in Jilin province:         • Qian'an I Wind Farm (49.5MW)         • Qian'an II Wind Farm (49.5MW)				
49%		<b></b>	Shandong Guohua Wind Joint Ventures (Shandong Guohua Wind) 395 / 194MW         Assets include wind farms in Shandong province:         • Dongying Hekou Wind Farm (49.5MW)         • Lijin I Wind Farm (49.5MW)         • Lijin I Wind Farm (49.5MW)         • Lijin I Wind Farm (49.5MW)         • Rongcheng II Wind Farm (49.5MW)         • Convestor: Shenhua Renewable Company Limited (51%)				
45%			Shandong Huaneng Wind Joint Venture (Shandong Huaneng Wind) 69 / 31MW         Assets include wind farms in Shandong province:         • Weihai I Wind Farm (19.5MW)         • Or investor: Huaneng Renewables Corporation Limited (55%)				
29%		<b>(</b>	<ul> <li>Shanghai Chongming Beiyan Wind Power Generation Company Limited (Chongming Wind) 48 / 14MW</li> <li>Assets include:</li> <li>Chongming Wind Farm (48MW) in Shanghai</li> <li>Co-investors: Shanghai Green Environmental Protection Energy Co., Ltd. (51%) and CPI New Energy Holding Company Limited (20%)</li> </ul>				

Notes:

7 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.

8 Construction is expected to commence in the first half of 2019.

Mainland China (cont'd)			Gross MW / CLP Equity MW			
Equity Fuel type			Investments			
45%			Sinohydro CLP Wind Power Company Limited (Changling Wind) 50 / 22MW Assets include: Changling II Wind Farm (49.5MW) in Jilin province Co-investor: Sinohydro Renewable Energy Company Limited (55%)			
100%			CLP Sichuan (Jiangbian) Power Company Limited (Jiangbian Hydro) 330/330MW Assets include: • Jiangbian Hydropower Station (330MW) in Sichuan province			
100%			Dali Yang_er Hydropower Development Co., Ltd. (Dali Yang_er Hydro) 50 / 50MW Assets include: • Dali Yang_er Hydropower Station (49.8MW) in Yunnan province			
84.9%			Huaiji Hydropower Joint Ventures (Huaiji Hydro) 129 / 110MW Assets include hydropower stations in Guangdong province with combined gross capacity of 129MW Co-investor: Huaiji County Huilian Hydro-electric (Group) Co., Ltd. (15.1%)			
100%		Ø	CLP (Lingyuan) Hejiagou New Energy Company Limited (Lingyuan Solar) 17 / 17MW <sup>9</sup> Assets include: • Lingyuan Solar Power Station (17MW) in Liaoning province <sup>10</sup>			
100% 🔿 Kasets include			CLP Dali (Xicun) Solar Power Co., Ltd. (Xicun Solar) 84/84MW <sup>11</sup> Assets include solar power stations in Yunnan province:         • Xicun I Solar Power Station (42MW)         • Xicun I Solar Power Station (42MW)			
100%		0	Huai'an Gangfa PV Power Company Limited (Huai'an Solar) 13 / 13MW <sup>12</sup> Assets include: • Huai'an Solar Power Station (12.8MW) in Jiangsu province			
100% 13	6 <sup>13</sup> O Jinchang Zhenxin PV Power Company Limited (Jinchang Solar) 85 / 85MW <sup>14</sup> Assets include: • Jinchang Solar Power Station (85MW) in Gansu province					
100%	Sihong Tianganghu PV Power Co., Ltd. (Sihong Solar) 93 / 93MW <sup>15</sup> Assets include: • Sihong Solar Power Station (93.4MW) in Jiangsu province					
100%	00% Hong Kong Pumped Storage Development Company, Limited (PSDC) Assets include: • Right to use 50% (600MW, until 2034) of Phase I of Guangzhou Pumped Storage Power Station (1,200MW, non-equit interest), for serving our Hong Kong business under long-term capacity purchase agreement					

Gross MW / CLP Equity MW

Equity	Fuel type	Investments	
60%		<ul> <li>CLP India Private Limited (CLP India) 705 / 423MW</li> <li>Assets include two projects in Gujarat state:</li> <li>Paguthan Power Station (655MW), a combined-cycle gas-fired power plant designed to run on natural gas with naphtha as alternate fuel</li> <li>Co-investor: CDPQ (40%)</li> </ul>	• Samana I Wind Farm (50.4MW)
60% 16		<ul> <li>CLP Wind Farms (India) Private Limited (CLP Wind Farms India Assets include:</li> <li>Andhra Lake Wind Farm (106.4MW) in Maharashtra state</li> <li>Bhakrani Wind Farm (102.4MW) in Rajasthan state</li> <li>Chandgarh Wind Farm (92MW) in Madhya Pradesh state</li> <li>Harapanahalli Wind Farm (39.6MW) in Karnataka state</li> <li>Jath Wind Farm (60MW) in Maharashtra state</li> <li>Mahidad Wind Farm (50.4MW) in Gujarat state</li> </ul>	<ul> <li>) 774 / 464MW</li> <li>Samana II Wind Farm (50.4MW) in Gujarat state</li> <li>Saundatti Wind Farm (72MW) in Karnataka state</li> <li>Sipla Wind Farm (50.4MW) in Rajasthan state</li> <li>Tejuva Wind Farm (100.8MW) in Rajasthan state</li> <li>Theni I Wind Farm (49.5MW) in Tamil Nadu state</li> </ul>

#### Notes:

India

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

10 Lingyuan Solar Power Station commenced operation in July 2018.

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

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

13 In May 2018, CLP acquired the remaining 49% shareholding in Jinchang Solar, making it a wholly owned subsidiary of CLP.

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

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

16 CLP's indirect equity ownership held through CLP India. CDPQ indirectly owns the remaining 40% through its equity stake in CLP India.

India (co	<b>India</b> (cont'd)		Gross MW/CLP Equity MW			
Equity		Fuel type	Investments			
60% 16			CLP Wind Farms (Khandke) Private Limited (Khandke Wind) 50 / 30MW Assets include: • Khandke Wind Farm (50.4MW) in Maharashtra state			
60% <sup>16</sup>			CLP Wind Farms (Theni – Project II) Private Limited (Theni II) 50 / 30MW Assets include: • Theni II Wind Farm (49.5MW) in Tamil Nadu state			
60% <sup>16</sup>		G	Jhajjar Power Limited (JPL) 1,320/792MW         Assets include:         Jhajjar Power Station (1,320MW) in Haryana state, with two 660MW supercritical coal-fired units			
60% <sup>16</sup>	•		Tornado Solarfarms Limited (Tornado Solar) 20 / 12MW Assets include: • Tornado Solar Farm (20MW) <sup>17</sup> in Maharashtra state			
29.4% <sup>18</sup>		0	Gale Solarfarms Limited (Gale Solar) 50 / 15MW Assets include: • Gale Solar Farm (50MW) <sup>17</sup> in Maharashtra state			
29.4% <sup>18</sup>		0	SE Solar Limited (Veltoor Solar) 100 / 29MW Assets include: • Veltoor Solar Farm (100MW) <sup>19</sup> in Telangana state			

#### Southeast Asia and Taiwan Gross MW / CLP Equity MW

Equity		Fuel type	Investments
20%		$\bigcirc$	<ul> <li>Ho-Ping Power Company (HPC) 1,320/264MW</li> <li>Assets include:</li> <li>Ho-Ping Power Station (1,320MW) in Taiwan</li> <li>Co-investors: Taiwan Cement Corporation (60%) and Mitsubishi Corporation (20%)</li> </ul>
33.3% Assets include: • Lopburi Solar Farm (63MW) in Central Thailand		0	

#### Australia Gross MW / CLP Equity MW

Equity Fuel type Investments		Investments	
100% 21		<ul> <li>EnergyAustralia 5,251/4,478MW</li> <li>Assets include:</li> <li>Electricity and gas services for 2.55 million customer accounts in Victoria, South Australia, New South Wales and Queensland</li> <li>Hallett Gas-fired Power Station (203MW)</li> <li>Mount Piper Coal-fired Power Station (1,400MW)</li> <li>Tallawarra Gas-fired Power Station (420MW)</li> <li>Yallourn Coal-fired Power Station (1,480MW) and Brown Coal Open-cut Mine</li> </ul>	<ul> <li>Newport Gas-fired Power Station (500MW)<sup>22</sup></li> <li>Jeeralang Gas-fired Power Station (440MW)<sup>22</sup></li> <li>Pine Dale Black Coal Mine</li> <li>50% of Cathedral Rocks Wind Farm (64MW)</li> <li>20% of Wilga Park Gas-fired Power Station (16MW)</li> <li>20% of Narrabri (2C contingent resource of up to 1,795PJ)</li> </ul>
Long-term Offtake <sup>23</sup>		<ul> <li>Boco Rock Wind Farm (113MW) 100% offtake</li> <li>Gullen Range Wind Farm (165.5MW) 100% offtake</li> <li>Mortons Lane Wind Farm (19.5MW) 100% offtake</li> <li>Taralga Wind Farm (107MW) 100% offtake</li> </ul>	<ul> <li>Waterloo Wind Farm Stage 1 (111MW) 50% offtake</li> <li>Gannawarra Solar Farm (50MW) 100% offtake</li> <li>Manildra Solar Farm (46MW) 100% offtake</li> <li>Ross River Solar Farm (116MW) 80% offtake</li> </ul>

#### Notes:

- 17 Gross MW are expressed on an AC basis. If converted to DC, Tornado Solar Farm and Gale Solar Farm are equivalent to 27.6MW and 69MW respectively.
- 18 CLP's indirect equity ownership held through CLP India. CDPQ indirectly owns 19.6% through its equity stake in CLP India while Suzlon Energy Limited is shareholder of the remaining 51%.
- 19 Gross/CLP Equity MW are expressed on an AC basis. If converted to DC, they are equivalent to 120/58.8MW.
- 20 Gross/CLP Equity MW are expressed on an AC basis. If converted to DC, they are equivalent to 84/28MW.
- 21 Except those specified without 100% equity interest.
- 22 EnergyAustralia acquired Ecogen Energy in April 2018, which included the Newport and Jeeralang Gas-fired Power Stations.
- 23 Relates to long-term power purchase from power stations in which CLP has neither equity nor operational control.

# Chairman's Statement

The electricity supply industry is at the early stages of an exciting period of innovation and technological change. Improved technologies create new possibilities for electric utilities to deliver our products and services in a clean, reliable and affordable fashion, and to give our customers greater choice and control over the way they use electricity.

The Honourable Sir Michael Kadoorie Chairman

Alex Shacheller

I have the pleasure of reporting excellent annual results of the CLP Group for 2018. Our strong performance is a testament to our strategy to provide secure, affordable and sustainable energy to our customers and create value for our shareholders by investing for the long term.

The Group's operating earnings for the year increased 5.1% to HK\$13,982 million. Total earnings decreased by 4.9% to HK\$13,550 million, largely due to favourable one-off items in 2017. These figures reflected the combination of continued robust performance in our overseas businesses and dependable earnings from our Hong Kong base. They also allowed the Board to approve a fourth interim dividend of HK\$1.19 a share. Total dividends per share for 2018 are HK\$3.02, a 3.8% increase from 2017.

2018 saw changes to our Board with the retirement of Ms Irene Lee and the appointment of Ms May Tan and my son, Mr Philip Kadoorie. I would like to thank Ms Lee for her excellent contribution to the Board and I look forward to working closely with May and Philip. While the Board continues to serve the Company very well, this year we introduced some changes to our governance practices designed to ensure the gradual refresh of skills and experience on the Board over time so we can continue to have the best Board for the Company in the years ahead. More details on these changes can be found in the Corporate Governance Report.

CLP Holdings 2018 Annual Report 15

Our success in building a diversified business across the Asia-Pacific region again proved its worth in 2018. In our home market of Hong Kong, the new 15-year Scheme of Control (SoC) Agreement took effect in October, which has enabled us to move forward with our long-term investment plans in support of the Hong Kong Government's low-carbon policy. In the near future, we will have two new gas-fired power generation units at Black Point Power Station which are much more energy and carbon efficient than coal-fired units. We are also constructing an offshore LNG terminal that will improve Hong Kong's energy security with access to international sources of natural gas supplies. These initiatives are key to achieving the Government's objectives of generating about half of Hong Kong's electricity from natural gas by 2020 and reducing carbon intensity by 65-70% by 2030, compared to 2005 levels.

Towards the end of 2018, the Group took an important step in the development of our India business with the addition of Caisse de dépôt et placement du Québec (CDPQ), one of Canada's largest pension fund managers, as a 40% shareholder. The introduction of CDPQ as a partner brings the long-term strategic backing and additional resources that will support CLP India's growth primarily through the opportunities arising from the decarbonisation and consolidation of India's power sector. The transaction also underscores the underlying value of the assets and reputation we have built in India, where we are one of the country's largest renewable power producers as well as one of the largest foreign investors in the electricity sector. In Mainland China, our investment in the Yangjiang nuclear power plant contributed full-year earnings for the first time in 2018. With the expected completion of the sixth and final unit at Yangjiang in 2019 and the growing importance of nuclear energy under the country's carbon reduction policy, we look forward to many years of contributions from Yangjiang in addition to the stable earnings CLP has enjoyed over the last two decades from our first nuclear investment, Daya Bay. The regulatory reform process in China continues as the economy develops and the energy transition progresses. We continue to follow these developments closely as we look for ways that CLP can support China's transition to a lower-carbon future.

We have worked with our customers and the Governments in Australia, where more coordinated planning and stable energy policies are needed to ensure that the stated objective of reducing reliance on coal-fired electricity is realised without compromising reliability and affordability. To assist the transition we have not only contracted for new renewable energy projects, but are focusing our efforts on projects that will help stabilise and support the system as more intermittent sources of renewable energy come in. These include batteries, pumped storage, and gas plants that can be used at times of peak demand.



Shareholders receive latest business updates and learn about our strategy from Board members (left and second left: Mr Philip Kadoorie, Director, and our Chairman) through our Shareholders' Visit programme.

CLP is keenly aware of the important role that electric utilities have in moving to a lower-carbon world. We were pleased to see that the climate talks at the COP24 held in Poland in December 2018 resulted in consensus on the rulebook required for the implementation of the Paris Agreement. Recent scientific research makes it clear that the world needs to accelerate decarbonisation efforts if we are to avoid even more destabilising climate change. With that objective in mind, we encourage a further tightening of the pledges made under the Paris Agreement. On our part, in 2018 we strengthened the commitments originally made more than a decade ago in our Climate Vision 2050 pledge and with the aim of ensuring we continue to do our part to meet these challenges, we undertake to review our targets at least every five years.

The electricity supply industry is at the early stages of an exciting period of innovation and technological change. Improved technologies create new possibilities for electric utilities to deliver our products and services in a clean, reliable and affordable fashion, and to give our customers greater choice and control over the way they use electricity. The need to move more quickly towards a low-carbon future provides a further spur to action. We have seen an increased interplay between powerful digital technologies and more rapid adoption of renewable sources of energy. The Group is well positioned to make best use of these technological changes in building a sustainable business. A number of projects pursued during the year are discussed by the Chief Executive Officer in his Strategic Review.

Safety is the Group's top priority. It is with sadness that I must acknowledge the deaths of one of our employees and one of our contractors' workers in separate accidents in 2018. On behalf of the full Board, I wish to extend my deepest condolences to the families of those who lost their lives. We have been dedicating great effort to safety. Unfortunately these fatal accidents are a sad reminder that no matter how much efforts we deploy, risks will never be nil and our pursuit of progress in this field should be continuous and relentless. Our endeavour is to make sure everybody, whether an employee or a contractor, goes home safely at the end of the day.

**The Honourable Sir Michael Kadoorie** Hong Kong, 25 February 2019

Our strategy is to transform into a Utility of the Future which engages directly with our customers and progressively decarbonises our portfolio. We do this by leveraging new and emerging technologies so that we can continue to deliver on our purpose and grow the business.

**Richard Lancaster** Chief Executive Officer 9906

CLP's solid operating performance in 2018 is all the more pleasing to report amid rapidly evolving international conditions and the new realities brought by climate change. The widespread power interruptions caused by Super Typhoon Mangkhut in the region in September is a case in point that we will have to be increasingly vigilant in ensuring that our systems are sufficiently robust.

At the same time, we have seen further reduction in the cost of producing zero- and low-carbon energy and the emergence of increasingly sophisticated digital tools which enable us to manage a system that is becoming more and more complex.

Against this backdrop, CLP has continued to deliver on our purpose which is to provide reliable, clean and affordable electricity to our customers. Our strategy is to transform into a Utility of the Future which engages directly with our customers and progressively decarbonises our portfolio. We do this by leveraging new and emerging technologies so that we can continue to deliver on our purpose and grow the business. I am pleased to report that, in the past year, we made further strides in this direction.

#### Hong Kong

The new SoC Agreement took effect on 1 October with a lower permitted rate of return, as did the first 5-year Development Plan under the Agreement that provides for a capital spending of HK\$52.9 billion. The investments contemplated under the plan will help us support Hong Kong in meeting its carbon reduction goals and ensure supply security. Expansion of our Black Point Power Station with the two advanced combined-cycle gas turbine generation units enables the gradual retirement of the four oldest coal-fired units at Castle Peak Power Station. Meanwhile, we are constructing an offshore LNG terminal that will guarantee the diversity, and thus the security and cost competitiveness, of future gas supplies. We will also increase the transmission capacity of the existing cross-border transmission overhead line circuits connecting Hong Kong and Mainland China. The new SoC Agreement is our greenest so far and includes important initiatives to promote local renewable energy development, energy efficiency, and conservation. A Feed-in Tariff scheme, Renewable Energy Certificates, and a new CLP Eco Building Fund were launched to support these goals.

Hong Kong, one of the world's most densely populated and vertical cities, is an ideal laboratory for developing technologies that will improve our customers' experiences. Among other measures, we began a general rollout of smart meters for our customers. This technology not only enables our customers to better manage their electricity consumption, but also helps CLP improve supply reliability and the efficiency of our operations.

In 2018, electricity sales in Hong Kong grew by 1.5%, underpinning the need to continue investing in energy security, capacity, and reliability. Our basic tariff was cut 3.7% on 1 October, in line with the lower return under the new SoC Agreement.

During the year, operating earnings from our Hong Kong electricity business decreased 3.4% to HK\$8,558 million.

#### **Mainland China**

We continued to support Mainland China's transition to a low-carbon economy through our investments in nuclear and renewable energy sources, which contributed the bulk of our earnings in the country. Yangjiang Nuclear Power Station in Guangdong for the first time made a meaningful contribution to our earnings, following the completion of the acquisition of our 17% equity interest in the facility in December 2017. The operation of Daya Bay Nuclear Power Station remained strong and our long-term investment in the plant continued to constitute a stable component of the Group's earnings.

In 2018 our Mainland China renewables portfolio benefitted from ample wind and sun resources and lower grid curtailment. Our solar portfolio expanded to 292MW after the purchase in May 2018 of the remaining 49% of a project in Gansu Province and the commencement of commercial operation of a new plant in Liaoning Province in July 2018. New wind projects in Shandong Province, one preparing for connection to the grid and one committed to construction, will further strengthen our wind portfolio going forward. Our renewable portfolio now amounts to over 1,700MW while zero-carbon generating capacity (including nuclear) is more than 4,200MW.

Performance of Fangchenggang Power Station improved, reporting a higher output as it benefitted from the economic growth in Guangxi Autonomous Region and less competition from hydro generation. However, our coal projects continued to face the triple challenge of high coal cost, low tariffs and low utilisation.

Operating earnings for the year were up 74.7% to HK\$2,163 million, driven by the growth and strong operating performance of our zero-carbon assets.

#### India

In 2018, energy produced by our renewable energy assets in India was the highest ever, as resources were more favourable than usual, the availability of our assets had been high and the Veltoor solar project made its first full-year contribution.

Our coal-fired Jhajjar facility performed well despite a longer-than-projected planned outage. Utilisation rate and sent-out reached new records, reflecting the importance of our asset in responding to growing demand. Unfortunately, we continued to be affected by coal shortage and quality issues in connection with the industry's logistic challenges at large. The Power Purchase Agreement for our gas-fired Paguthan power plant expired in December 2018. This is an excellent asset and we continue to explore long-term options for the project, although the lack of affordable natural gas makes this challenging.

Meanwhile, our new partnership with CDPQ will allow us to grow our zero-carbon electricity generating portfolio in one of the world's largest and fastest-growing economies at a time when the industry is ripe for consolidation. During the year, operating earnings of our India business dropped 11.6% to HK\$572 million.

#### Southeast Asia and Taiwan

Our operations in Taiwan returned to normal after the completion of a planned major overhaul at the Ho-Ping coal-fired power plant. The Lopburi solar plant in Thailand recorded stable and satisfactory operations.

In the past decade, Vietnam's policy has, consistent with its pledges under the Paris Agreement, called for coal-fired generation to support its economic growth. In 2018, we continued negotiations with Vietnamese authorities regarding the commercial and financial arrangements for the Vung Ang II and the Vinh Tan III projects. Looking forward, CLP will continue to assist Vietnam explore options to meet its energy needs.

In 2018, operating earnings in Southeast Asia and Taiwan reached HK\$162 million, reflecting the good performance of our projects and higher coal costs.

#### Australia

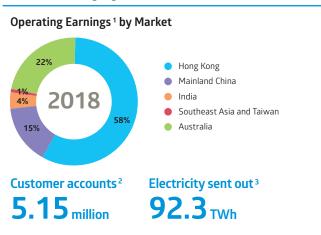
2018 was again a year of very tight supply-demand balance, resulting in high wholesale prices while our generating assets continued to perform well. On the other hand, fierce competition and our restraint in passing through higher costs to customers led to lower sales and margins.

While wholesale electricity prices were high during most of 2018, pricing is expected to soften in 2019 as a large number of wind and solar projects come online. Now more than ever, careful planning will be required to ensure stable and reliable electricity supply. EnergyAustralia's initiatives to help the country transition to clean energy include pumped hydro, battery storage, and gas-fired generation, which will provide the flexible and affordable capacity for meeting peak demand. Fundamentally, a national energy policy is required along with comprehensive planning to help ensure adequate electricity supply and to stabilise prices as Australia moves towards a low-carbon electricity generation.

Volatile electricity prices are not in the interests of either the country or its electricity supply companies. They also brought about high retail prices which caused difficulties for customers. To ease cost pressures, EnergyAustralia rolled out a range of programmes to lower the cost of energy and put our customers in control of the energy they use.

In 2018, operating earnings from EnergyAustralia increased 20.6% from a year earlier to HK\$3,302 million.

#### **Performance Highlights**



Notes:

- 1 Before unallocated expenses.
- 2 Including 2.60 million in Hong Kong and 2.55 million in Australia.
- 3 Equity basis as well as long-term capacity and energy purchase arrangements.

#### Safety

Safety always comes first at CLP. As the Chairman noted, during the year we were saddened by the deaths of one employee and one worker of our contractor in Australia. I reported previously that in 2017 we carried out a thorough review of our health and safety practices under the supervision of the Board, which approved a new Health, Safety and Environment Improvement Plan in May 2018. Our goal is to raise our safety culture, rethink our risks, and build a healthy and engaged workforce. The fatal accidents remind us that we must continue to relentlessly develop our efforts to understand the cause of such tragic accidents and prevent them because, as I have said before, a job is not done well if it is not done safely.

#### Innovation

Recognising what the digital evolution means to the world and our industry, we have made innovation a priority in our long-term goals for the Group. Seeing it as a key enabler for our transition, we have made direct investments to bring in the best-of-breed technologies for optimising our existing operations and developing new products and services for our customers. We are also committed to developing the right tools for our customers so that they can have more visibility and control of their energy usage. And we have teamed up with new partners including start-ups and universities to speed up the development of smarter and cleaner energy services.

During the year we invested in AutoGrid, an energy management software developer based in Silicon Valley. Along with Alibaba Entrepreneurs Fund, we also made an investment in En-trak, a Hong Kong-based energy management and smart lighting solutions provider. Our collaboration with TUS-Holdings Co., Ltd., which is affiliated with Tsinghua University in Beijing, will focus on new energy and smart city technologies throughout the Greater Bay Area, building on our decades of investment in the Pearl River Delta and continuing our collaboration with leading Chinese institutions. To tap into the capability of the world's most dynamic innovators, we joined Free Electrons, a global accelerator programme bringing utility companies and start-ups together to develop digital energy technologies with commercial potential. In Australia, EnergyAustralia formed a partnership with Startupbootcamp to scout for new ideas for the energy industry from start-ups around the world.

#### Outlook

In spite of the challenges in the rapidly-changing energy sector, our business continued to grow steadily in the last few years as we have focused on managing our operations professionally and delivering a dependable, increasing return to our shareholders. Looking ahead, our transformation pathways through decarbonisation and digitalisation are clear and they provide us with good opportunities to grow.

Electricity will play a growing role in a zero-carbon economy. The Energy Transitions Commission, an international industry organisation of which CLP is a member, projects that the world must achieve net zero emissions around 2060 to avoid potentially catastrophic climate change. To achieve that in a cost-effective way will require electricity's share of the total energy mix to rise from 20% to 60%, with annual generation quintupling from 20,000 TWh to 100,000 TWh.

By the sheer size of their population, the impact of the energy transition will be very material in Mainland China and India, CLP's major growth markets. Nuclear power can contribute to this transition, but most of the new generating capacity will come from renewable sources – wind, solar and water. While the economics of renewable energy have changed in recent years such that renewables can increasingly compete against conventional sources of power without subsidies, the market place is also becoming more competitive. Based on our strong foundations in China and India, we will continue to strengthen our capabilities as a regional renewable energy developer and operator to seize the opportunities amid this growing competition.

In Hong Kong, our focus will be on delivering the investments and initiatives under the 5-year Development Plan which all aim at contributing to the city's cleaner, smarter and less carbon-intensive future. CLP will continue to support the Hong Kong Government's future clean energy policies including the recommendations arising from the upcoming public consultation on long-term decarbonisation strategy. In Australia, we will continue to invest in clean and flexible capacity to ensure the reliability and affordability of power supply as the country moves away from fossil fuels towards renewable energy sources.

As power grids become increasingly decarbonised, customers both produce and consume power and assets become increasingly distributed across the grids, the task to build and operate power grids becomes more complex. We expect to see an accelerated development of a diverse range of products including transmission, storage, distributed energy as well as digital and customer-facing solutions, making decarbonisation and digitalisation interdependent. We have the ambition to become a Utility of the Future capable of managing the additional complexity, developing new products, services and solutions along the entire value chain, and empowering customers to become active participants of a power system.

By combining our extensive experience, capability and partnership network developed through various innovation initiatives over the past few years, the Group has already laid a solid foundation for developing customer-oriented and technology-enabled energy solutions. CLP is well-positioned to take advantage of the accelerating pace of technological advance and respond to climate change in an industry with positive growth prospects.

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**Richard Lancaster** Hong Kong, 25 February 2019

As one of Asia's biggest investor-owned power businesses, how does CLP see its role in contributing to the smart city development in regions where you operate?



A smart city is about deploying data and technology to make a city more liveable and to function more efficiently. We are in an exciting era where digitalisation is reshaping the energy sector. Power no longer moves from centralised generation plants through bulk transmission and distribution systems to end customers, but now flows both ways as customers produce and manage their own energy needs. This opens up new possibilities but at the same time creates a more complex electricity grid that needs more sophisticated tools to manage. The launch last year of our plan to install smart meters for our customers in Hong Kong is an example of what we are doing in this regard. It underlines our efforts to provide the necessary infrastructure to help the development of a smart grid and encourage smart living.

In addition to deploying smart technologies, we are working with partners such as TUS-Holdings to provide integrated energy solutions and smart energy services for customers in industrial parks in Mainland China. Within CLP, we have set up an Innovation Hub that focuses on creating new applications that can be used for smart lighting, smart offices, battery storage and microgrids in Hong Kong and our other markets.

Electricity plays a pivotal role in a smart city. CLP aims to leverage innovation and technology to improve our operational performance and reliability, enhance our customer relationship and introduce new products and services that can offer better solutions to the communities where we operate. Through data insights, we can assist customers to better manage their energy needs and help create smarter cities.

Richard Lancaster Chief Executive Officer

# Shareholder Value

#### **Our Goal:**

 Create long-term and sustainable value for shareholders, the Company's ultimate owners.

#### How We Achieve This:

- Investing in businesses and projects which leverage our core capabilities and provide long-term returns.
- Maintaining a healthy financial position, upholding our values in managing our businesses, and communicating with our shareholders on important issues.
- Recognising that we are the stewards of our shareholders' investments in the Company and we value their trust and confidence.

#### **Our Track Record:**

- Annual dividends have not decreased since 1960.
- Annualised rate of total shareholder return of 9.59% over the 10-year period (2009 to 2018).

#### **Our Shareholders**

The table below shows how the CLP shares are held:

#### Shareholding as at 31 December 2018

Size of Registered Shareholding	No. of Shareholders	% of Shareholders	No. of Shares	% of Issued Share Capital	Shareholding by Category <sup>4</sup>
500 or below	2,508	12.78	768,416	0.03	
501 - 1,000	3,619	18.44	2,896,680	0.11	29% 35%
1,001 - 10,000	9,040	46.07	38,441,607	1.52	
10,001 - 100,000	3,959	20.18	113,781,058	4.50	
100,001 - 500,000	416	2.12	86,937,805	3.44	
Above 500,000	80 <sup>1</sup>	0.41	2,283,625,004	90.40	36%
Total	<b>19,622</b> <sup>2</sup>	100.00	<b>2,526,450,570</b> <sup>3</sup>	100.00	30%
					<ul> <li>Interests associated with the Kadoorie Family</li> </ul>

Notes:

- Information on <u>the 10 largest registered shareholders</u> in the Company is set out on our website.
- 2 Actual number of investors is much greater as many shares are held through intermediaries including Central Clearing and Settlement System of Hong Kong (CCASS).
- $3\quad$  54.14% of all our issued shares were held through CCASS.
- 4 The Listing Rules required 25% public float was maintained throughout the year and up to 25 February 2019.

HK\$96.95

HK\$84.75

The scale of our shareholders' investment is reflected in the market capitalisation of CLP Holdings which stood at HK\$224 billion as at 31 December 2018; this represented 1.98% by weighting of the Hang Seng Index (HSI), Hong Kong's leading listed companies index.

#### **Delivering Value to Shareholders**

Through Share Price Performance – 2018

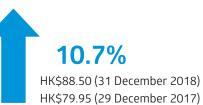
Highest closing price (13 September 2018)

> Average closing price (increase of 5.3% over 2017)

> > **Lowest closing price** (13 February 2018)

HK\$75.35

**Movement for 2018** 



America, UK, Europe and Asia Retail investors – mostly based in Hong Kong

our single largest shareholder group

Institutional investors – many based in North

CLP Holdings' shares experienced a period of fairly steady trading during the first half of 2018. The share price increased significantly during the middle of the year before declining moderately at the end of the third quarter and again trading in a fairly constant range for the balance of the year. Amongst other factors, the strong performance in the middle of the year was influenced by announcement of the five-year Development Plan for the Hong Kong business and the strong first half financial performance of the Company. At other times the share price seems to have followed generally market influences including the cycle of news regarding trade tensions between China and the United States and volatile market conditions around the globe.

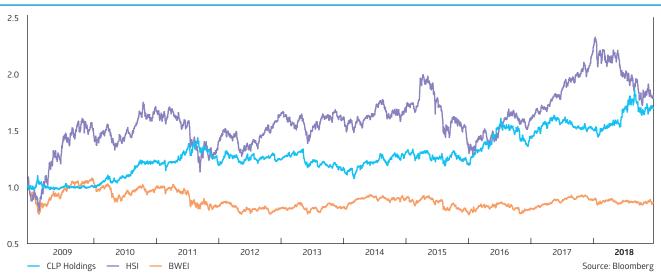
CLP Holdings' share price finished the year up by 10.7% relative to the start of the year. By comparison, the HSI and the Bloomberg World Electric Index (BWEI) were down by 13.6% and 3.3% respectively.

This comparison is shown in the chart below.

#### 1-year Relative Performance - CLP vs HSI and BWEI (1 Jan 2018 - 31 Dec 2018) (Base: 31 December 2017 = 1.0)



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



10-year Relative Performance - CLP vs HSI and BWEI (1 Jan 2009 - 31 Dec 2018) (Base: 31 December 2008 = 1.0)

#### Through Dividend Payments – Our Dividends Policy

CLP's Dividends Policy, adopted by the Board in February 2019, aims to provide reliable and consistent ordinary dividends with steady growth when supported by our earnings whilst ensuring that a solid financial position can be maintained to fund our business growth. In line with our established practice, our ordinary dividends are paid four times a year in each of the quarters.

<u>CLP's Dividends Policy</u> is available on the CLP website.

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 58 years. The following chart demonstrates that we have maintained a stable dividend stream, despite fluctuations in earnings over the period.



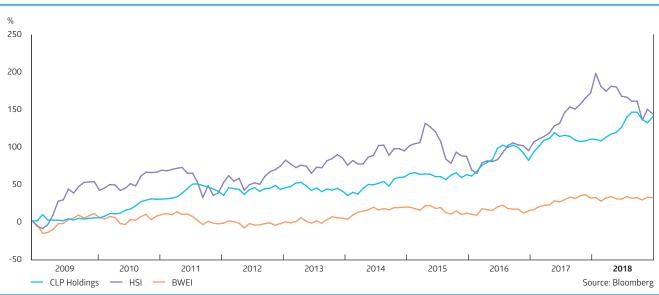
#### Past 10 years (2009-2018)

CLP has provided reliable and consistent ordinary dividend payments over the past 10-year period. Supported by increase in earnings, there was a steady growth in our dividend payments over the last five years where the average year to year growth was around 3.3%. For the past 10 years, the average year to year growth was approximately 2% and the dividend payouts were in the range of 55% to 66% of operating earnings, except for 2009 and 2013 when our payout ratio rose to 70% of operating earnings.

The total dividends declared for 2018 were HK\$3.02 per share representing an increase of 3.8% over the total dividends for 2017. The dividend payout ratio for 2018 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 2009 to 2018, CLP provided an annualised rate of return of 9.59%, as compared with 9.79% for the HSI and 2.95% for the BWEI.



#### Total Returns - CLP vs HSI and BWEI (2009 - 2018) (Base: 31 December 2008 = 0%)

#### **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 2018, 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 Investme	Total Investment Worth at 31 December 2018				
	1-Year Period HK\$	5-Year Period HK\$	10-Year Period HK\$			
CLP	1,147	7,254	17,519			
Tracker Fund of Hong Kong	899	6,038	14,694			
Hong Kong and China Gas	1,188	7,280	19,494			
Power Assets Holdings	952	5,728	15,520			
HK Electric Investments	1,163	N/A	N/A			
HK\$1-Year Fixed Deposits	1,013	5,174	10,561			
		Adapted from Bloomberg				

Given the continued buoyancy of Hong Kong's real-estate market, is CLP considering plans to develop property projects to provide a new income stream?



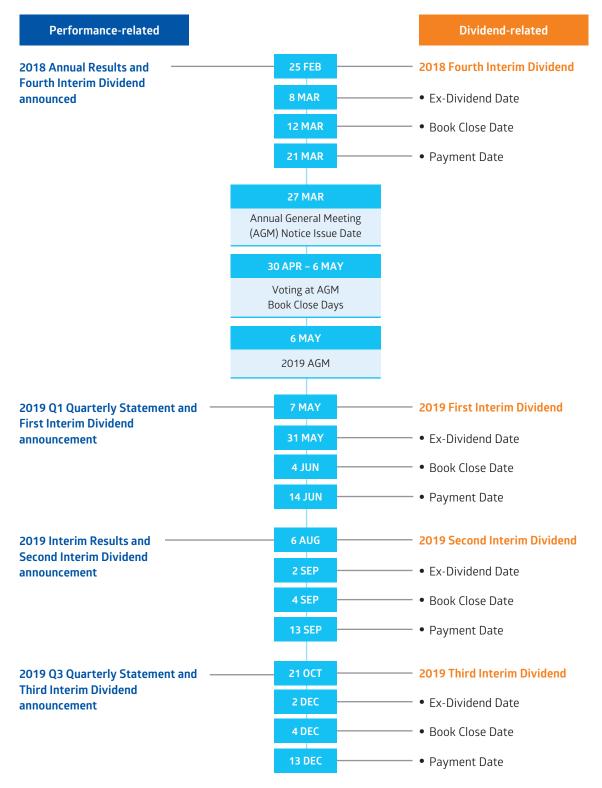
CLP's goal is to meet Asia Pacific's energy challenge in a sustainable manner from one generation to the next. To do this, we remain focused – as we have been throughout our history of more than 100 years – on our core energy business and investments. Meeting the evolving energy needs of the communities we serve in Hong Kong, Mainland China, India, Southeast Asia & Taiwan, and Australia is and will remain our priority. While we occasionally undertake some property redevelopment projects, these are auxiliary to our core business.

David Simmonds Group General Counsel & Chief Administrative Officer Company Secretary



#### Key Dates for 2019

The following are the key shareholder-related dates and events:



Any changes to these dates will be published on our <u>website</u>.

Any shareholders who have questions or comments are most welcome to contact us by calling our shareholders' hotline on (852) 2678 8228 from 9 a.m. to 5 p.m. (Monday to Friday, excluding Hong Kong public holidays) or email to cosec@clp.com.hk (Company Secretary) or ir@clp.com.hk (Director – Investor Relations).

# **Financial Review**

We invest for the long-term development of our business and manage our operations with discipline to deliver sustainable growth.





Develop DISCIPLINE

# **Financial Review**

# 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. We seek to transform into a Utility of the Future through decarbonation and digitalisation.

#### How Well We Execute Our Strategy

Hong Kong electricity business continued to be the major earnings contributor although its earnings dropped by 3.4% with a lower permitted rate of return since 1 October 2018. Robust performance in Australia accounted for around a quarter of Group operating earnings. Our investment in Yangjiang Nuclear brought in significant earnings contribution in Mainland China. Earnings from India, Southeast Asia and Taiwan remained stable. During the year, we grew the business by completing the acquisitions of Ecogen gas-fired power stations in Australia, Jinchang Solar in Mainland China and Gale and Tornado Solar in India.

#### Last Year's Statement of Financial Position

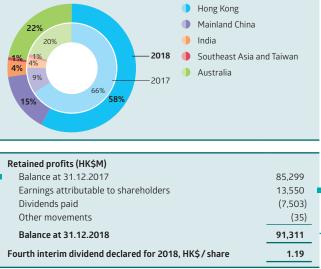
	2017
Working capital	HK\$M
Trade and other receivables	15,427
Trade and other payables	(18,978)
Cash and cash equivalents	6,529
Others	2,770
	5,748
Non-current assets	
Fixed assets, leasehold land and land use rights and	
investment property	143,738
Interests in joint ventures and associates	18,464
Others	32,239
	194,441
Debts and other non-current liabilities	
Bank loans and other borrowings *	(57,341)
Others	(21,341)
	(78,682)
Net assets	121,507
Equity	
Share capital and reserves	23,398
Retained profits	85,299
Non-controlling interests and perpetual capital securities	12,810
	121,507
* Including current and non-current portions	
Closing exchange rate	
A\$/HK\$	6.1000
INR/HK\$	0.1224
RMB/HK\$	1.1994
2-Year Net Assets by Region	
Hong Kong	
Mainland China	
26%	
27% <b>2018</b> Southeast Asia	and Taiwan
43% <b>44%</b>	
2% 2% Australia	

2017

#### **Statement of Profit or Loss**

	2018 HK\$M	2017 HK\$M	Increase / (Decrease)	
			%	
Revenue	91,425	92,073	(0.7)	
EBITDAF of the Group	26,235	26,204		-
Share of results of joint ventures				
and associates, net of tax	2,336	1,458		
Consolidated EBITDAF	28,571	27,662	3.3	
Depreciation and amortisation	(8,005)	(7,368)	8.6	
Fair value losses	(68)	(138)	(50.7)	
Net finance costs	(1,857)	(2,029)	(8.5)	
Income tax expense	(4,014)	(2,780)	44.4	
Attributable to non-controlling				
interests and perpetual capital				
securities holders	(1,077)	(1,098)		
Earnings attributable to shareholders	13,550	14,249	(4.9)	6
Excluding: Items affecting				
comparability	432	(942)		
Operating earnings	13,982	13,307	5.1	
Average exchange rate				
A\$/HK\$	5.8376	5.9958	(2.6)	
INR/HK\$	0.1146	0.1200	(4.5)	
RMB/HK\$	1.1825	1.1571	2.2	
2-Year Operating Earnings (Before	Unalloca	ted Expense	s) by Region	

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



21%

19%

# Adequate Resources Generated to Support Our Strategy

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

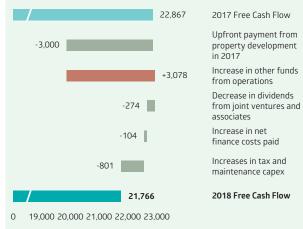
Free cash flow in 2018 was in line with strong financial performance which was used to finance various acquisitions and upgrade our assets in current year. Our strong cash flows and abundant cash reserve provide adequate financial resources to grow the business. Free cash flow for the last five years can be found in the Broader Perspective (page 37).

#### **Statement of Cash Flows**

	2018 HK\$M
<ul> <li>EBITDAF of the Group</li> <li>SoC related movements</li> <li>Working capital movements</li> <li>Non-cash items</li> </ul>	26,235 (985) 627 707
Funds from operations Tax paid and interest received	26,584 (2,633)
Cash inflow from operating activities Cash outflow from investing activities Cash outflow from financing activities	23,951 (11,259) (11,505)
Net increase in cash and cash equivalents Cash and cash equivalents at 31.12.2017 Effect of exchange rate changes	1,187 6,529 (351)
Cash and cash equivalents at 31.12.2018	7,365
Free Cash Flow Funds from operations Less: tax paid Less: net finance costs paid ^ Less: maintenance capital expenditure Add: dividends from joint ventures and ass	26,584 (2,819) (2,243) (1,210) sociates 1,454
	21,766

^ Includes distributions paid to perpetual capital securities holders

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



#### Where We Stand

- Diversified portfolio delivered robust financial performance in 2018
- New Development Plan lays foundation for investments in cleaner and smarter energy systems in Hong Kong
- Expansion of our renewable generating capacity through acquisitions of solar projects in Mainland China and India
- Contributions from the non-carbon emitting portfolio increased to HK\$2,687 million and represented 19.2% of Group operating earnings
- Strong investment grade credit ratings maintained
- Provided a total shareholders' return (share price appreciation and dividend payments) of 14.6% in 2018

#### This Year's Statement of Financial Position

		2018 HK\$M
Working capital		
Trade and other receivables		15,917
Trade and other payables Cash and cash equivalents		(19,061) 7,365
Others		3,180
odicio		7,401
Non-current assets		
Fixed assets, leasehold land and land u	se rights and	
investment property		147,945
Interests in joint ventures and associat	es	17,420
Others		29,649
		195,014
Debts and other non-current liabilities		
Bank loans and other borrowings *		(55,298)
Others		(22,185)
		(77,483)
Net assets		124,932
Equity		
Share capital and reserves		17,742
Retained profits		91,311
Non-controlling interests and perpetua	al capital securities	15,879
		124,932
Closing exchange rate		F F474
A\$/HK\$ INR/HK\$		5.5171 0.1120
RMB/HK\$		1.1380
Capital Assets # by Asset Type		1.1500
	Coal and gas	
2%	Nuclear	
2% 33%	Renewable	
33%2018	<ul> <li>Transmission, dis</li> </ul>	tribution
	and retail	cribation
50% 50%2017	Others	
11% <b>4%</b>		
11%		
# Capital assets represent the year end bala	ances of fixed assets. le	asehold
land and land use rights, investment prop	erty, goodwill and othe	

assets, and interests in joint ventures and associates

# Analysis on Financial Results

#### Total Earnings (2018: HK\$13,550 million; 2017: HK\$14,249 million; ◆ 4.9%) Operating Earnings (2018: HK\$13,982 million; 2017: HK\$13,307 million; ▲ 5.1%)



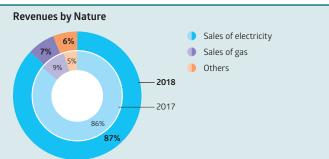
#### Revenue (2018: HK\$91,425 million; 2017: HK\$92,073 million; 🕈 0.7%)

	2018 HK\$M	2017 HK\$M	Increase / (Decrease) HK\$M %		
Hong Kong	41,623	39,965	1,658	4.1	
Australia	43,013	45,895	(2,882)	(6.3)	
India	5,269	4,887	382	7.8	
Mainland China and others	1,520	1,326	194	14.6	
	91,425	92,073	(648)		

 Hong Kong: Higher fuel cost recovery revenue due to higher fuel costs, higher basic tariff for nine months ended 30 September 2018 with stable sales volume

Hong Kong		
	2018	2017
Electricity sales (GWh)		
Local sales	33,662	33,164
Total sales	34,218	34,505
Average net tariff (HK cents per unit)		
January to September	115.4	113.2
October to December	117.7	113.2

- India: Higher energy charges on higher generation and higher capacity charges at Jhajjar; higher renewable revenue due to full year revenue from Veltoor Solar since its partial commissioning in August 2017; Paguthan's operation remained stable
- Mainland China: Higher revenue as a result of additional revenue brought in by acquisition of Jinchang Solar in May 2018, more wind resources and lower grid curtailment, and more renewable projects commissioned since the second half of 2017



 Australia: Impact from lower AUD average exchange rate, lower generation revenue on lower pool prices and lower gas sales on lower availability of gas supply, partly compensated by higher retail electricity revenue on higher tariffs, despite higher discounts and lower customer accounts

	Aus	tralia					
	201	<b>2018</b> 2017					
	Electricity	Gas	Electricity	Gas			
Customers	TWh	PJ	TWh	PJ			
Mass Market	10.4	33.3	10.9	34.7			
Commercial &							
Industrial	8.7	10.2	8.0	23.1			
		Mount		Mount			
Energy	Yallourn	Piper	Yallourn	Piper			
Generations (GWh)	9,371	8,193	9,946	6,880			
Average pool prices							
(A\$/MWh)*	90.5	82.3	92.2	96.1			
<ul> <li>Represented the 12-month average pool price published by Australian Energy Market Operator (AEMO) applicable to Victoria (Yallourn) and New South Wales (Mount Piper)</li> </ul>							

#### Consolidated EBITDAF (2018: HK\$28,571 million; 2017: HK\$27,662 million; 🛖 3.3%)

	2018	2017	Increase / (D	ecrease)	
	HK\$M	HK\$M	HK\$M	%	2018 Item Affecting Comparability
Hong Kong	17,559	18,035	(476)	(2.6)	A provision of HK\$450 million (Rs3,796 million) was made for the
Mainland China	3,563	2,512	1,051	41.8	deemed generation dispute in India. While CLP India has not altered its
India	1,543	2,110	(567)	(26.9) •	view regarding the legal merits of the claim, in view of the expiry of the
Australia	6,566	5,421	1,145	21.1	Paguthan's PPA and uncertainty on the timing of recoverability, it is
Corporate and others	(660)	(416)	(244)		appropriate to make a provision against the amounts withheld by the
	28,571	27,662	909		offtaker. Details are set out in Note 30(A) to the Financial Statements.

Hong Kong: Lower permitted rate of return partly compensated by higher return on higher average net fixed assets

 Mainland China: Nuclear contributed more than half of EBITDAF as a result of first full year contribution from Yangjiang Nuclear; renewables benefitted from more resources with less grid curtailment and more majority-owned projects in operation since the second half 2017; coal-fired projects negatively impacted by higher coal prices despite higher outputs mainly from Fangchenggang

- India: Lower Jhajjar's contribution due to lower operational efficiency (due to coal supply issue and planned outage) and higher
  operating and maintenance costs; higher contribution from renewable projects driven by full year operation from Veltoor Solar,
  more wind resources in 2018 and inclusion of one-off losses in 2017; excluding the provision for deemed generation dispute (see
  above), Paguthan's operation remained stable
- Australia: Higher gross margin from energy (wholesale) segment benefitted from higher prices at Yallourn, Mount Piper and Ecogen and increased generation from Mount Piper; higher discounts and lower customer accounts in a competitive market resulted in lower gross margin from customer (retail) segment
- Corporate and others: Exchange loss (2017: gain) from Renminbi-denominated deposits and higher innovation and corporate development expenses

# Depreciation and Amortisation (2018: HK\$8,005 million; 2017: HK\$7,368 million; 🛧 8.6%)

- Hong Kong: Higher depreciation on continuous investments in SoC fixed assets
- Mainland China: Additional depreciation from Jinchang Solar acquisition since May and commissioning of projects since second half 2017
- India: Increase in depreciation from Veltoor Solar after full year commissioning largely offset by lower average INR exchange rate in 2018
- Australia: Increase in depreciation on higher decommissioning assets arising from higher asset remediation costs and additional depreciation from Ecogen and higher amortisation from customer related assets

#### Depreciation and Amortisation by Region (HK\$M)



# Fair Value Losses (2018: HK\$68 million; 2017: HK\$138 million; **▼** 50.7%)

- Hong Kong: Loss in 2018 (2017: gain) on forward foreign exchange contracts, mainly Euro and British Pound, for procurement related payments
- Australia: Less unfavourable fair value movement on energy contracts due to roll off of out-of-money contracts during the year

# Net Finance Costs (2018: HK\$1,857 million; 2017: HK\$2,029 million; 8.5%)

- Hong Kong: Fair value gain (2017: loss) on currency-related derivative contracts for perpetual capital securities
- India: Continuous repayments of debts and refinancing at lower interest rates
- Australia: Minimal net finance costs after repayment of all external debts in 2018 and interest income from surplus funds
- Corporate: Full year interest on borrowings for financing Yangjiang acquisition since late 2017

#### Net Finance Costs by Region



# Income Tax Expense (2018: HK\$4,014 million; 2017: HK\$2,780 million; **4**44.4%)

- India: Despite lower recurring profits, higher tax due to recognition of tax credit on previous years' losses in 2017
- Mainland China: Higher withholding tax in line with improved results
- Australia: Provision on acquired derivatives of HK\$573 million reversed in 2017 and higher tax on improved performance

# Analysis on Financial Position

Fixed Assets, Leasehold Land and Land Use Rights and Investment Property (2018: HK\$147,945 million; 2017: HK\$143,738 million; 🔶 2.9%)

Goodwill and Other Intangible Assets (2018: HK\$26,910 million; 2017: HK\$29,087 million; 븆 7.5%)

	Fixed Assets,				
	Leasehold Land and	Goodwill and		Breal	down
	Land Use Rights and Investment Property	Other Intangible Assets	Total	SoC Assets	Non-SoC Assets
	HK\$M	HK\$M	HK\$M	HK\$M	HK\$M
Balance at 1.1.2018	143,738	29,087	172,825	109,824	63,001
Acquisitions of subsidiaries # and transfer					
from finance lease receivables	3,393	-	3,393	-	3,393
Additions	11,133	565	11,698	8,922	2,776
Depreciation and amortisation	(7,056)	(949)	(8,005)	(4,931)	(3,074)
Translation difference and others *	(3,263)	(1,793)	(5,056)	(520)	(4,536)
Balance at 31.12.2018	147,945	26,910	174,855	113,295	61,560

\* Fixed assets brought in by acquisitions of Ecogen (April), Jinchang Solar (May), Gale and Tornado Solar (November)

\* Mainly depreciation of Australian dollar, Indian rupee and Renminbi and disposal of fixed assets

- Major capital additions for the year including:
  - SoC: Continuous improvement of transmission and distribution networks and various enhancement works at Black Point Power Station, such as upgrade of gas turbines and construction of Combined Cycle Gas Turbine (CCGT)
  - Non-SoC: Construction of wind and solar projects in Mainland China of HK\$525 million; and power station enhancement works mainly at Yallourn, higher decommissioning assets on higher remediation costs and enhancement of customer service facilities in Australia totalling HK\$2,221 million
- Upon the expiry of the Paguthan's PPA, the residual value of the plant was transferred from finance lease receivables to fixed assets

#### Analysis of Total Balances at Year Ends



# Trade and Other Receivables (2018: HK\$15,917 million; 2017: HK\$15,427 million; **1**3.2%) Trade and Other Payables (2018: HK\$19,061 million; 2017: HK\$18,978 million; **1**0.4%)

- Hong Kong: Stable trade debtors, higher capex creditors in line with more capital works at 2018 year end
- Mainland China: Higher national subsidy receivables after Jinchang Solar acquisition and more renewable projects commissioned since the second half of 2017; dividend receivable from GNPJVC offset by receipt of consideration from CGN Wind divestment; payable balances remained at similar level
- India: Remaining consideration receivable from the sale of CLP India (HK\$1,452 million) included in other receivables and a provision made for deemed generation trade receivable in 2018; lower creditors balances due to settlement of construction cost payable of Veltoor Solar
- Australia: Decreases in balances from lower AUD closing rate; lower receivable and payable balances in line with lower sales despite higher pool purchases payable at year end 2018 on higher prices



#### Interests in Joint Ventures and Associates (2018: HK\$17,420 million; 2017: HK\$18,464 million; 🕈 5.7%)

- Renminbi translation losses on our investments in Mainland China;
- Reclassification of Jinchang Solar of HK\$216 million from joint venture to subsidiary upon acquisition of remaining 49% interest;
- Scheduled repayment of shareholder's loan by ShenGang Pipeline; partly offset by
- Further equity injection for project development in Vietnam.

#### Derivative Financial Instruments

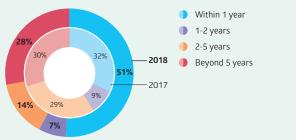
#### Liabilities: 2018: HK\$2,809 million; 2017: HK\$2,429 million; 15.6%

As at 31 December 2018, the Group had gross outstanding derivative financial instruments which amounted to HK\$103.4 billion. The fair value of these derivative instruments was a net deficit of HK\$1,010 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.

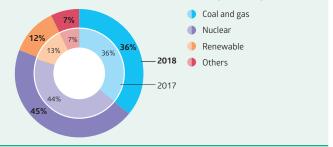
The increase in net fair value losses were mainly because of unfavourable mark-to-market movements of cross-currency interest rate swaps under fair value hedges (due to increase in HKD floating rates) and changes from net gain to net loss of energy contracts (due to unfavourable movements in forward electricity and oil prices).

		otional nount	Fair Value Gain / (Loss)		
	<b>2018</b> 2017 <b>HK\$M</b> HK\$M		2018 HK\$M	2017 HK\$M	
Forward foreign exchange contracts and foreign exchange options	26,898	27,203	267	308	
Interest rate swaps and cross currency interest rate swaps	32,922	34,902	(1,056)	(818)	
Energy contracts	43,561	18,878	(221)	174	
	103,381	80,983	(1,010)	(336)	

#### Maturity Profile



Interests in Joint Ventures and Associates by Asset Type



#### 

- Major financing activities during the year including:
  - Hong Kong: Issued a HK\$1 billion 15-year fixed rate Medium Term Note and arranged a RMB800 million bank loan for refinancing existing debts at more competitive rates
  - India: Scheduled repayments by existing projects offset by arrangement of new USD bank loans for Veltoor Solar during the year
  - Australia: Early repayment of US\$30 million (HK\$235 million) private placement bond to reduce finance cost and cancellation of certain bank loan facilities

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



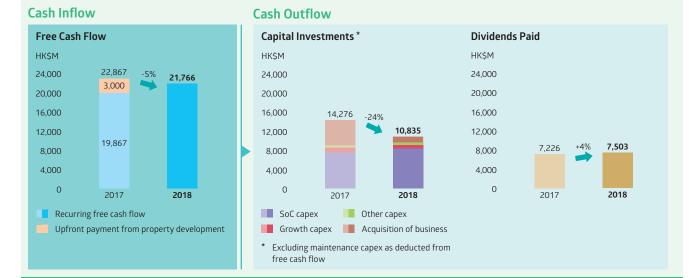
- The net debt to total capital ratio was reduced from 27.8% to 25.5% with strong operating cash flows and receipt of proceeds from the sale of interests in CLP India and CGN Wind
- In May and June, Standard & Poor's (S&P) and Moody's affirmed all the credit ratings of CLP Holdings, CLP Power Hong Kong and CAPCO with stable outlooks. In addition, S&P affirmed the credit rating of EnergyAustralia with stable outlook in August.

More details can be found on "Financial Capital".

# Cash Flow Analysis

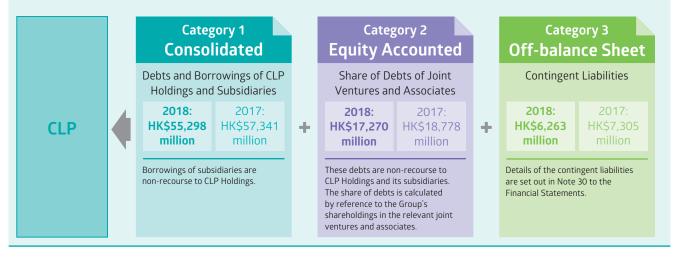
Free Cash Flow (2018: HK\$21,766 million; 2017: HK\$22,867 million; 🖶 4.8%)

- Excluding the one-off receipt of HK\$3 billion from Argyle Street joint development project in 2017, free cash flow increased HK\$1,899 million because of:
  - Hong Kong: Favourable working capital movements in 2018 offset by higher fuel cost under-recovery from customers
  - Australia: Strong operating cash inflows driven by improved EBITDAF offset by higher income tax paid
- Capital investments include additions to fixed assets, leasehold land and land use rights, investment property and intangible assets, investments in and advances to joint ventures and associates, and acquisition of business. Major items include:
  - HK\$8.4 billion of SoC capital expenditure (SoC capex) to enhance transmission and distribution networks, generation facilities and customer services in Hong Kong
  - HK\$687 million of growth capital expenditure (growth capex) related to our renewable projects in India and Mainland China
  - Acquisition of business mainly related to acquisitions of Ecogen and Jinchang Solar (2017: Yangjiang Nuclear)



# 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:



# A Broader Perspective

	2018	2017	2016	2015	2014
Performance Indicators					
EBITDAF 1, HK\$M	28,571	27,662	25,355	31,267	23,442
ACOI², HK\$M	20,998	19,925	18,128	17,929	17,232
Operating earnings, HK\$M	13,982	13,307	12,334	11,519	10,062
Total earnings, HK\$M	13,550	14,249	12,711	15,656	11,221
Return on equity, %	12.4	13.8	13.3	17.3	12.8
Operating return on equity <sup>3</sup> , %	12.8	12.9	12.9	12.7	11.5
Financial Health Indicators					
Undrawn facilities, HK\$M	24,059	25,924	23,986	29,685	32,533
Total borrowings, HK\$M	55,298	57,341	51,646	55,483	67,435
Fixed rate borrowings to total					
borrowings, %	53	52	57	57	58
FFO interest cover <sup>4</sup> , times	13.4	14.6	14.0	9.2	9.1
FFO to debt⁵, %	47.2	48.6	47.3	34.2	37.9
Net debt to total capital, %	25.5	27.8	29.5	32.4	38.0
Debt/Capitalisation <sup>6</sup> , %	24.7	28.4	28.7	33.3	39.7
Shareholders' Return Indicators					
Dividends per share, HK\$	3.02	2.91	2.80	2.70	2.62
Dividend yield, %	3.4	3.6	3.9	4.1	3.9
Dividend cover <sup>7</sup> , times	1.8	1.8	1.7	1.7	1.5
Total returns to shareholders <sup>8</sup> , %	9.6	8.4	6.4	8.4	8.8

Readers can refer to "Shareholder Value" on pages 23 to 27 for more analysis on shareholders' return.

#### **Cash Flows and Capital Investments**

·					
FFO <sup>4</sup> , HK\$M	26,584	26,506	25,353	20,994	23,431
Free cash flow <sup>9</sup> , HK\$M	21,766	22,867	22,485	17,290	19,027
Capital investments, HK\$M	12,045	15,270	10,866	11,967	25,824

#### Notes:

1 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.

2 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.

3 Operating return on equity = Operating earnings / Average shareholders' funds

4 FFO (Funds from operations) = Cash inflow from operations. FFO interest cover = FFO / (Interest charges + capitalised interest).

5 FFO to debt = FFO / Average debt. Debt = Bank loans and other borrowings.

6 Capitalisation = Closing share price on the last trading day of the year x number of issued shares at the end of the year

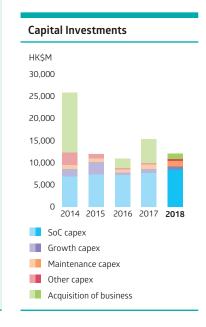
7 Dividend cover = Operating earnings per share / Dividend per share

- 8 Total returns to shareholders represents the 10-year annualised rate of return from the combination of share price appreciation and dividend payments.
- 9 Free cash flow = FFO income tax paid + interest received interest and other finance costs paid maintenance capital expenditure paid + dividends received from joint ventures and associates







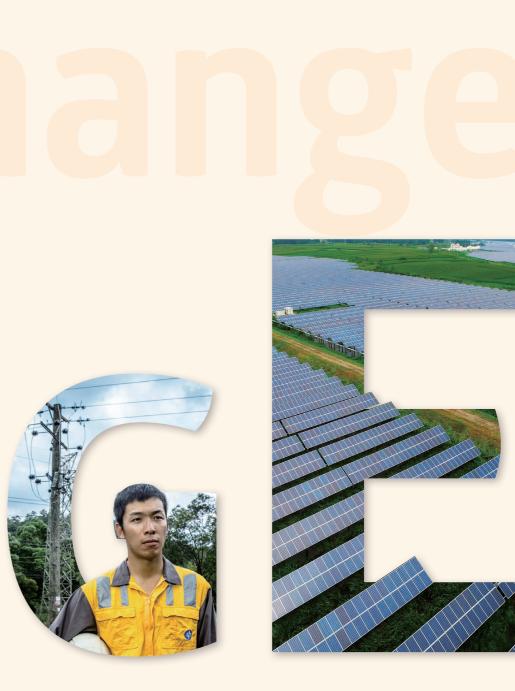


# **Business Performance and Outlook**

We continue to transform into a Utility of the Future to capitalise on changes resulting from the decarbonisation and digitalisation of energy.







# Transform FUTURE

# Hong Kong



Deploying advanced technology to enhance performance of our expanding power system and deliver SUPERIOF customer services

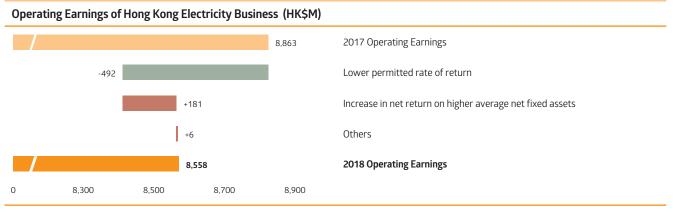
#### **Financial and Operational Performance**

#### **Overview**

CLP continued to deliver a dependable, safe, and environmentally responsible service in 2018, a year in which the number of customer accounts increased from approximately 2.56 million to 2.60 million.

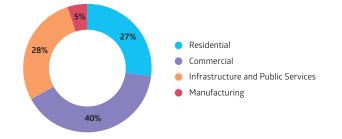
Sales of electricity within Hong Kong rose slightly by 1.5% to 33,662 gigawatt hours (GWh) compared with the previous year. The increase was driven mainly by demand from the commercial, and infrastructure and public services sectors. Sales to Mainland China decreased 58.5% to 556GWh as our contract to supply electricity to Shekou in southern China expired in June 2018. As a result, total electricity sales in 2018 saw a marginal decrease of 0.8% to 34,218GWh.

Our performance in Hong Kong is summarised below:



#### Local Electricity Sales in 2018 Year-on-Year Change Increase / (Decrease) GWh % Residential (0.3)(26)Commercial 205 4 1.6 Infrastructure and Public Services 355 4 4.0 Manufacturing (36) (2.1)

#### Share of Total Local Sales



In 2018, operating earnings from our electricity business decreased 3.4% from the previous year to HK\$8,558 million as the new Scheme of Control (SoC) Agreement came into effect from October with a permitted rate of return set at 8.00% compared with 9.99% previously. The Agreement provides a clear and certain regulatory framework for

the future development of the electricity sector in Hong Kong, enabling us to plan ahead and make the appropriate investments to meet the Government's energy policy objectives.

#### **Overcoming a Severe Test of Our Resilience**

Our power system experienced one of the biggest challenges in its history in September when Hong Kong was battered by Typhoon Mangkhut, the most powerful storm to hit the city for decades. Although our generation units and power grid remained intact and power supplies to the majority of our customers were maintained, the severity of the storm and its consequential damage to our network in rural areas were unprecedented. Power supplies to some of our customers were affected, in particular those in remote areas where roads were blocked by fallen trees and debris, making access and repair work extremely difficult.

Despite the enormous challenges, our employees and contractor workers carried out the restoration work safely and efficiently, with an aim to bring power back to the affected customers in the shortest time possible. The effectiveness of the response was testament to the investment we have made in strengthening our infrastructure over the years, and underscored our commitment to serve customers reliably in the most extreme situations. With the frequency and intensity of extreme weather events expected to increase because of the impact of climate change, CLP is allocating more resources to further enhance the resilience of our network and the coordination with other stakeholders and the Government on vegetation management and response during these critical periods.

#### **Investing for a Cleaner Tomorrow**

We are increasing our investments to integrate more clean energy into the power system in support of Hong Kong's transition to a low-carbon future. In July, the Government's Executive Council approved CLP's Development Plan for October 2018 to December 2023 which includes provisions for significant investment to address and mitigate the effects of climate change.

The HK\$52.9 billion of capital projects planned over the period include the construction of a second gas-fired generating unit of around 550MW at Black Point Power Station. The new unit, expected to be ready by 2022/2023, will adopt an advanced combined-cycle gas turbine (CCGT) design. With the first 550MW advanced CCGT due to go into operation in 2020, the two new units will support the Government's environmental and fuel mix objectives, allowing the gradual phaseout of the four oldest coal-fired units at Castle Peak Power Station when they reach the end of their operating life in mid-2020s.

Another important project necessary to support the increase in gas within our fuel mix is the construction of an offshore LNG terminal, which will allow us to purchase competitivelypriced LNG directly from more diversified global sources. An environmental permit has been granted after a thorough review of the project's Environmental Impact Assessment Study by the Environmental Protection Department. We have commenced preparation for site investigation and front-end engineering design, while good progress has also been made in finalising the contractual arrangement for the supply of LNG and the chartering of the Floating Storage and Regasification Unit (FSRU) vessel for the project.

Under the SoC Agreement, a number of green initiatives have been introduced to encourage community's participation in moving Hong Kong towards a smarter, greener future. The Feed-in Tariff (FiT) scheme, which enables customers to generate their own renewable energy, received over 1,400 applications up to the end of 2018. For those customers who want to support the development of renewable energy but do not have the opportunity to build their own system, they can purchase Renewable Energy Certificates (RECs) which represent locally generated renewable energy starting from January 2019. Other initiatives include the new CLP Eco Building Fund, the Community Energy Saving Fund (CESF) and energy audits to help our customers save energy and to raise public awareness about the need for power conservation.



Our new combined-cycle gas turbine generator at Black Point Power Station will help support the Hong Kong Government's carbon reduction goals.

#### Transforming into a Utility of the Future

Innovation and technology are the driving forces behind Hong Kong's transformation into a smart city. In 2018, CLP implemented a range of significant initiatives to support this vision.

One of the most broad-reaching programmes is the introduction of smart meters across our supply area to replace 2.3 million conventional meters in phases from now to 2025. Smart meters provide customers with a range of digitalised services and solutions to encourage energy saving. They also give CLP greater end-to-end visibility of conditions in the power system, enabling improved fault detection, reduced repair times during critical events, and faster power restoration. Their introduction will enhance overall supply reliability and power safety for customers.

As part of our innovation journey, we deployed the best available technology and ideas in our operation to make sure our assets perform at the highest standard. These included using robots to inspect boilers to enhance safety and operational efficiency, and adopting the airborne Light Detection and Ranging (LiDAR) scanning technology for overhead line and tower maintenance. Analytics models on operational data such as emission analysis and meter irregularity detection have also been developed to improve asset performance.

#### **Powering Hong Kong's Growth**

CLP is fully committed to meeting the development needs of Hong Kong through supporting a large number of territorywide development and infrastructure projects with our expanding power supply network. Major projects include the Kai Tak redevelopment, the West Kowloon Cultural District, the Lok Ma Chau Loop, and landmark transport development schemes such as the Hong Kong-Zhuhai-Macao Bridge, the Hong Kong Boundary Crossing Facilities Island and the Guangzhou-Shenzhen-Hong Kong Express Rail Link. In addition, as Hong Kong becomes a data centre hub, we will ensure highly reliable power supplies to support and facilitate the development of this energy-intensive industry. In December 2018, we signed a Power Supply Collaborative Agreement with the Hong Kong Airport Authority, under which CLP will build new substations and provide power supply facilities for the three-runway system.

#### **Reinforcing Our Safety Culture**

Safety is our utmost priority. Throughout 2018, we continually improved our safety performance and have reduced our injury rates. To reinforce our safety culture, we took steps to strengthen our safety management system through safety leadership training, work processes streamlining and work practice review with worldwide benchmarking. More details can be found in the Human Capital chapter on pages 81 to 87.

#### **Environmental Performance**

#### Air Emissions

Improving air quality is a critical step in creating a greener and healthier living environment in Hong Kong. We deploy a comprehensive and robust system for our generation portfolio and continuously monitor our environmental performance to ensure full compliance and explore opportunities for further improvement.

We complied with all the emission caps set by the Government in 2018 while maintaining supply reliability and a reasonable tariff level by optimising our diversified fuel mix, and maintaining the effectiveness of our emissions control facilities.

Although the power sector is no longer the largest emitter of air pollutants in Hong Kong, we will continue to look for cleaner fuel and new technologies to help us reduce emissions further.

#### **Environmental Regulatory Compliance**

All Hong Kong assets under our operational control maintained full compliance with environmental regulations in 2018.

#### **Social Performance**

#### **Stakeholder Engagement**

As CLP prepared to implement the initiatives under the new SoC Agreement, we sought stakeholders' views before their launch. The FiT scheme was of particular interest to the community as it was a new concept. More than 4,400 members of the public and industry practitioners attended 40 roadshows, seminars and workshops that we organised to explain the details of the scheme.

The CESF went into operation in January 2019 with around HK\$70 million in the first year to carry out the CLP Power Connect programme and Electrical Equipment Upgrade Scheme to promote energy saving and to support around 40,000 underprivileged households including elderlies, disabled, low-income families and tenants of subdivided flats.

To deepen stakeholders' understanding of our plan for an offshore LNG terminal, briefings and meetings were held, and educational animated videos were produced. Comments from stakeholders about the potential environmental impact and mitigation measures were gathered and adopted where possible during the Environmental Impact Assessment period.

Taking advantage of Hong Kong's emergence as a centre for technology and innovation, we hosted a Smart Energy Symposium in June to discuss smart technology and the latest energy saving solutions with other businesses and organisations. The ideas brainstormed at the symposium will help us design products and services to allow customers to manage their energy use more efficiently.

We also became a collaborator for the STARS Programme organised by the Federation of Hong Kong Industries and the Hong Kong Startup Council to nurture a new breed of entrepreneurs. Our colleagues served as mentors for the participating start-up companies and introduced their products to potential customers. And to promote e-sports and smart gaming, we set up the CLP x e-Sports Academy at the Hong Kong e-Sports & Music Festival in August.

Hong Kong International Airport (HKIA) has been applying innovation and technology to become a smart and one of the world's greenest airports for better passenger experience and operation efficiency. CLP as our close business partner, could you tell us how CLP would support Hong Kong Airport Authority (AA) to become smarter and greener?



At CLP, it has been our ongoing commitment to adopt technology and use innovation to improve our operational efficiency and deliver better customer experience. Likewise, we are always doing our utmost to support customers to deploy innovative technologies.

CLP will provide our full support to AA to make our very own HKIA, one of the world's main hub airports, the smartest and greenest. Under the Power Supply Collaborative Agreement we signed in December 2018, CLP will build new substations and power supply facilities for the three-runway system and related infrastructure to ensure reliable power supply. In addition, we will collaborate with AA on innovative technologies such as the Battery Energy Storage System (BESS). The BESS will be the largest commercial battery system in Hong Kong and will help HKIA increase backup power supply to support future developments. It will also enable many innovative energy management applications, such as peak demand management and integration of renewable energy within the HKIA. We will continue to explore new technologies and provide the latest energy saving tools to support the growth of AA in the long term.

Mr Alex Kwan Executive Director Engineering & Technology, Airport Authority Hong Kong Managing Director CLP Power Hong Kong



#### **Community Initiatives**

CLP has grown hand-in-hand with Hong Kong through the decades and we treasure our bond with the community. Youth engagement and caring for the needy have been our focuses in recent years. We continued to work with the community in 2018 through rolling out and supporting 398 initiatives aimed at creating a more caring and harmonious society.

## **Community Wellbeing**

- Continued to operate 3 CLP Hotmeal Canteens with our charity partners and provided over 540,000 hot meals to underprivileged individuals since 2011.
  - More than 3,750 elderly people and people in need have celebrated festivities with CLP volunteers since the Sharing the Festive Joy programme began in 2014.

• Over 650,000 residential

customers have saved **32GWh** of electricity through the Power Your Love programme since its launch in 2015, relieving the electricity costs of some

**20,000 underprivileged households** every year.

# Education and Development

 CLP Power Academy worked in partnership with other education institutions to offer part-time programmes ranging from certificate to bachelor's honours degree, attracting more than 840 applications for around

#### **200** available places.

 CLP's Energy for Brighter Tomorrows scholarship scheme offered scholarships with a one-year mentorship programme to 20 secondary students. Some of our 2018 programmes are outlined below. For more details, please also refer to the Social and Relationship Capital chapter of this report on pages 88 to 92.

## Environment

 Green Elites Campus Accreditation Programme has reached over **51,000** students since
 2014, educating primary school students to develop green living habits.

> Green Studio, a mobile classroom to educate the public on climate change and environmental protection, has received more than

**160,000** school children and visitors since 2009.

## Volunteering

 More than 1,600 CLP volunteers contributed over 16,200 hours of services to the community.

Since 2017, CLP engineers have shared basic knowledge about energy saving and power journey with **21,400** kindergarten pupils through the POWER YOU Kindergarten Visitation Programme.

A team of cartoon characters *POWER FOUR* was created to help children explore the world of electricity and acquire energy saving knowledge in a fun way.

#### Outlook

Hong Kong is our home and CLP's core market. In October 2018, the new SoC Agreement came into effect, providing many benefits to our customers and shareholders. The coming years will reflect both the lower permitted rate of return and the growth in asset base resulting from the investments agreed with the Government. We will work tirelessly to deliver our 2018-2023 Development Plan in support of the Government's carbon reduction targets and environmental policies, while providing the vital electricity infrastructure needed to ensure a reliable and stable electricity supply for Hong Kong's continuing dynamic development.

As part of a broad-ranging series of measures to meet those environmental goals, we are pressing ahead to develop the offshore LNG terminal and to construct the two new CCGT units. We are also committed to playing a leading role in the development of renewable energy in Hong Kong by connecting the Government's large-scale waste-to-energy projects along with other smaller-scale projects to our grid, while exploring other utility-scale renewable energy opportunities.

We will implement the improvement measures and work closely with relevant government departments to prepare

CLP for managing the challenges of adverse weather due to climate change including the increasingly serious typhoons with the objective to minimise the impact to our customers and to our systems.

As Hong Kong transforms itself into a smart city, we will play our part by providing a greener, smarter, and highly reliable energy system whether through direct investments, such as in smart meters, or by acting as a coordinator for others, such as accelerating power supply service for data centre operations; assisting elderly home operators with innovative solutions to ease their operations and help improve the quality of life of senior citizens; supporting wet market modernisation and central kitchen transformation. We will connect different trades and industries and help them adopt smart, green solutions that meet their business needs.

The Council for Sustainable Development is planning a public consultation in 2019 on a decarbonisation strategy for Hong Kong in the coming years. We fully support the development of a low-carbon economy and will provide our professional insights on the options for decarbonising our energy supply while maintaining the world-class reliability Hong Kong depends upon.

# **Mainland China**



Seizing the

Yangjiang Nuclear Power Station

**growth opportunities** generated by the country's

low-carbon transformation

#### **Financial and Operational Performance**

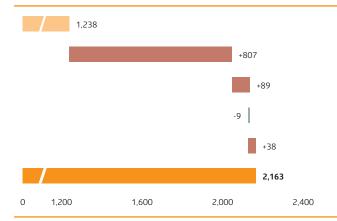
#### **Overview**

Electricity demand remained strong in Mainland China in 2018, growing 8.5% from 2017. At the same time, the country moved forward with its transformation to a low-carbon economy. With our diversified generating portfolio and a focus on nuclear and renewable energy projects, CLP was able to participate in the growth opportunities in the energy sector.

Our operating earnings rose 74.7% to HK\$2,163 million over the course of the year. Earnings from our nuclear projects, the biggest contributor to the total, saw an increase of 88.4%. This was achieved through a full-year earnings contribution from Yangjiang Nuclear Power Station and the commissioning of a new generating unit at the plant.

Our performance in Mainland China is summarised below:

Operating Earnings of Mainland China	2018 HK\$M	2017 HK\$M	Change %
Nuclear	1,720	913	88.4
Renewables	530	441	20.2
Thermal	36	45	(20.0)
Operating and Development Expenditure	(123)	(161)	(23.6)
Total	2,163	1,238	74.7



2017 Operating Earnings

Nuclear: Full year contribution from Yangjiang

Renewables: Lower curtailments, more natural resources and contributions from new projects

Thermal: Higher coal costs and unfavourable one-off items, partially offset by more generation

Others

2018 Operating Earnings

#### **Nuclear Projects**

The operations of our two nuclear projects in Guangdong Province were excellent with both plants maintaining good safety performances and achieving record outputs.

In July, the fifth generating unit at Yangjiang was commissioned ahead of schedule. Construction of the sixth and final unit is progressing well and it is expected to go into operation in the second half of 2019. Meanwhile, the Daya Bay plant achieved a utilisation rate of 95%.

#### **Renewable Projects**

Our renewable energy portfolio achieved another year of strong growth in 2018, largely due to the better performance of our wind and solar projects on the back of more natural resources and supportive Government policies, reducing grid curtailments. The Government plans to establish renewable portfolio standard in 2019 and set renewable consumption targets for each province. It slowed down new approvals to curb excess capacity growth. In addition, we benefitted from an expanded high-voltage transmission system that allows cross-regional power supply from regions where most wind and solar projects are located to high-consumption coastal areas. During the year, we continued to add new renewable energy generation capacity by acquiring the remaining 49% share in the Jinchang solar plant in Gansu Province from our partner in May and commencing commercial operation of the Lingyuan solar plant in Liaoning Province in July. In Shandong Province, we completed construction of the CLP Laizhou II wind plant in November to prepare for its connection to the grid, and we committed to the construction of the Laiwu III wind project.

As a result of lower grid curtailments in Gansu and northeastern provinces, more natural resources, and contributions from new projects, the output of our solar and wind projects increased 20% and 12% respectively in 2018. Meanwhile, generation of our hydro projects remained steady.

#### **Thermal Projects**

Despite the pressures of high coal costs and coal import restrictions at certain ports, Fangchenggang Power Station reported a solid performance in 2018. This was mainly because of higher production in response to strong demand powered by Guangxi's economic growth, and reduced competition from hydro plants.

The Fangchenggang project also made strong efforts to secure guaranteed generation hours by deepening cooperation with the Fangchenggang City Government, as we reposition the plant to be an integrated energy provider. As part of a strategic cooperative framework agreement CLP signed with the Government in July, we support Guangxi's policy to promote a circular economy through buying white clay, a by-product from a nearby paper mill, to replace some of the limestone used in our flue gas desulphurisation (FGD) facility. Our project also supplies steam and carbon dioxide to a neighbouring high-technology factory that grows microalgae for use in its products. These ecological initiatives have been recognised by the Government, which in turn has granted us higher minimum loading.

Contributions by our minority-owned coal-fired projects were very modest, reflecting the impact of an unfavourable combination of lower utilisation, lower tariffs and high coal prices.



Chairman Sir Michael Kadoorie led a group of senior management to visit Yangjiang Nuclear Power Station in May 2018.

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

	Installed Capacity Equity MW	Electricity S GW		Availa %	•	Utilisa %	
		2018	2017	2018	2017	2018	2017
Renewable Projects – Performance							
Wind	835.1	1,771	1,582²	97.0	99.1²	24.9	22.9
Wholly-owned	444	983	838	95.5	99.4	25.5	23.8
Qian'an I and II	99	231	180	98.2	98.5	26.5	20.8
Penglai I	48	98	88	99.7	99.8	23.6	20.
Laiwu I	49.5	76	69	99.2	99.8	18.0	16.
Laiwu II <sup>3</sup>	49.5	108	25	99.6	98.9	24.4	25.
Xundian I	49.5	135	127	99.6	99.4	31.8	29.
Sandu I	99	209	238	82.5	99.8	24.1	27.
CLP Laizhou I	49.5	127	112	99.8	99.6	30.1	26.
Minority-owned	391.1	788	744	98.8	98.7	24.3	22.0
Solar <sup>4</sup>	292.2	458	382	99.9	99.8	19.9	18.
Jinchang	85	124	66	99.9	99.9	21.4	17.4
Sihong	93.4	133	138	99.9	99.7	16.3	17.
Xicun	84	166	166	100.0	100.0	22.6	22.
Huai'an⁵	12.8	20	12	100.0	98.7	17.6	17.
Lingyuan <sup>6</sup>	17	15	n/a	100.0	n/a	21.4	n/
Hydro	489.3	1,604	1,533	90.6	87.8	39.0	37.
Dali Yang_er	49.8	182	183	92.6	80.3	41.9	42.
Huaiji	109.5	278	341	88.9	87.4	29.9	36.
Jiangbian	330	1,144	1,009	90.9	89.1	41.6	36.

#### **Thermal Projects – Performance**

Majority-owned							
Fangchenggang I & II	1,806	5,787	3,248	86.7	80.6	38.8	21.9
Minority-owned	2,255	9,954	10,216	90.0	95.4	55.4	55.5
Shiheng I & II	370.4	1,511	1,843	83.6	91.8	50.7	61.3
Heze II	176.4	973	735	92.9	88.2	67.7	50.9
Liaocheng I	352.8	1,731	1,779	78.8	95.9	59.2	60.9
Panshan	206.7	930	938	96.6	93.8	54.9	55.4
Sanhe I and II <sup>7</sup>	219.5	1,048	1,005	94.5	97.2	58.4	57.2
Suizhong I and II	564	2,473	2,555	91.9	95.9	53.3	55.0
Zhungeer II and III	257.4	1,258	984	95.4	98.6	61.8	48.5
Shenmu <sup>8</sup>	107.8	30	376	100.0	100.0	29.2	45.5

Any minor discrepancies in totals are due to rounding up of figures

Notes:

1 Indicates CLP's equity sent-out.

2 Restated to reflect the divestment of CGN Wind JV in December 2017.

3 The project went into commercial operation in October 2017.

4 Alternate Current (AC) capacity is used to align with the calculation method for other power plants in the CLP portfolio.

5 The project went into commercial operation in June 2017.

6 The project went into commercial operation in July 2018.

7 A 30MW retrofit expansion was completed in 2017.

8 The project ceased operations on 28 February 2018.

#### Innovation

In line with the Group's strategy to transform into a Utility of the Future, resources have been dedicated to expand our innovation capability. One of our focus locations is the Guangdong-Hong Kong-Macao Greater Bay Area (GBA) in southern China, which aspires to become a globally leading innovation and technology centre.

In July, we formed a joint venture with a subsidiary of TUS-Holdings Co., Ltd., a company affiliated to China's prestigious Tsinghua University, to develop and deploy new energy and smart city technologies amid growing demand for digitalised energy infrastructure and services in Mainland China, particularly in the GBA. One area of opportunity being pursued is integrated energy systems for industrial parks on the Mainland as park owners switch to systems that combine the supply to customers of electricity, heating and airconditioning services.

In addition, the CLP-TUS joint venture, together with the Guangxi subsidiary of China Southern Power Grid Co., Ltd. and a unit of the local government, was selected as the successful bidder to invest in and operate the Fangchenggang High-tech Zone incremental distribution network project.

Under a 30-year franchise agreement, we will provide integrated energy solutions including electricity distribution and other value-added smart energy services for customers in the park. This investment fits our strategy to take advantage of the opportunities offered by digitalisation and market reform, and gives us an entry point into the energy distribution and retail business in South China.

#### **Environmental Performance**

#### **Air Emissions**

Following the completion of the Fangchenggang emission control retrofit project in 2018, the plant now meets the Government's stringent new energy saving and air emissions requirements. Despite an increase of nearly 80% in output compared with 2017, total air emissions at Fangchenggang were lower than a year earlier. This is a testament to the effectiveness of the retrofit.

#### Water

At Fangchenggang, a water recycling system has been installed to collect used water from the coal yard. The water is used for damping down the dust from coal piles and general cleaning after sewage treatment.

Our reporter had the pleasure to visit Sihong Solar Power Station in Jiangsu in November 2018, and was hugely impressed by the use of robots for the cleaning of solar panels. In recent years, new technologies such as artificial intelligence (AI) and big data are being rapidly adopted by businesses. How are these technologies applied at CLP? What is CLP doing to promote the use of these technologies in the wider energy industry?

CLP welcomes the wider adoption of new technologies in the energy industry. Robots deployed in our Sihong solar plant in Jiangsu for cleaning photovoltaic (PV) panels have enhanced operations and improved generation efficiency by up to 3%, while lowering labour costs and optimising management. We are also exploring the deployment of drones in security management of CLP China's sites.

Our efforts on new technologies including AI and big data reflect our view on the importance of digitalisation in facilitating the transformation of the energy sector. As different parts of the energy infrastructure are digitalised, both efficiency and reliability of power generation will be improved, leading to a greener and smarter grid.

Al and big data analytics will optimise energy consumption and management for next-generation renewable energy and intelligent power grids. To further drive digitalisation, we are gaining access to the latest smart energy technologies from all around the world by collaborating with and investing in innovative solution providers. Our partnerships with these companies are mutually beneficial as we work together to pilot new products and services that can potentially be deployed in CLP's businesses throughout the Asia-Pacific region.



Deputy Editor-in-Chief

SH Chan Managing Director - China

#### **Environmental Regulatory Compliance**

All China assets under our operational control maintained full compliance with environmental regulations in 2018.

#### **Social Performance**

#### **Stakeholder Engagement**

We met regularly with Government officials and business partners in 2018 to reinforce our relationship with them and promote CLP's standards of corporate governance and operational excellence.

Following the acquisition of a 17% stake in Yangjiang Nuclear in Guangdong in late 2017, Chairman Sir Michael Kadoorie led a delegation of senior management to visit the plant. CLP and China General Nuclear Power Corporation (CGNPC), our partner at both the Yangjiang and Daya Bay power stations, took the opportunity to renew our Strategic Partnership Agreement which was first forged in 2007. The move strengthened our relationship with CGNPC and allowed us to explore further cooperation opportunities in low-carbon energy.

#### **Community Initiatives**

Community initiatives were conducted at our sites around Mainland China in 2018 with an emphasis on promoting education, environmental protection, and community wellbeing. Some of our key projects are highlighted below while more details can be found in the Social and Relationship Capital chapter on pages 88 to 92.

# Education and Development

 Around 1,400 students from 20 schools benefitted from CLP's Supporta-Student and Support-a-School programmes.

 Sponsored 8 schools in Guangdong, Guangxi, Sichuan and Yunnan to upgrade their facilities and promote environmental awareness, benefitting some

#### 4,200 students.

## Environment

 Organised environmental protection campaigns including talks, leaflet distribution and power station visits in Jilin, Shandong, Jiangsu, Guangdong, Guangxi, Yunnan, Guizhou, Sichuan and Gansu, attracting nearly

#### 10,000 participants.

## Community Wellbeing

 Donated daily necessities to over 6,200 underprivileged villagers, elderly home residents and children in need in Shandong, Yunnan, Sichuan, Jiangsu, Guangdong, Guangxi, Jilin and Guizhou.

> Improved the living conditions of over 4,800 villagers through providing water purification device in Shandong, as well as road construction and water pipe restoration in Guangdong.

## Volunteering

 CLP volunteers contributed around 1,400 hours to help organise charity events and visit schools and elderly homes.

#### Outlook

Mainland China is one of CLP's key growth markets. Looking forward, our focus will continue to be the expansion of our low-carbon portfolio. The recent announcement of air quality targets confirms the Central Government's commitment to shift its energy mix towards cleaner sources. The Government has also set three-year targets for allowing more renewable energy onto the grid. These new policies provide a supportive environment for us to expand our renewable energy portfolio.

We will continue to pursue new projects in a disciplined and selective manner. With the planned commissioning of the whole of the Yangjiang plant by 2019, we expect lowcarbon projects to remain the key drivers for our business in Mainland China. At the same time, we will continue our efforts to increase utilisation of the Fangchenggang plant. In late 2019, a centralised heat supply system in the Economic Development Zone of Fangchenggang is expected to start. We expect this to help us secure a better dispatch order and higher minimum loading. These assurances will help the plant achieve higher utilisation, especially during the wet season when there is more hydro output.

As our innovation initiatives in Hong Kong and Australia begin to reap results, we hope to apply the experiences to Mainland China, particularly in the GBA. We will seek to explore further partnerships in independent decentralised generation and distribution to deliver more technology-enabled energy solutions to our business partners and customers.

# <u>India</u>



# **Expanding investment**

to meet growing demand

for **clean** energy

#### **Financial and Operational Performance**

#### **Overview**

2018 was a significant year for CLP India. We introduced Caisse de dépôt et placement du Québec (CDPQ) as our strategic shareholder to focus on jointly expanding our green energy investment at a time when energy demand continues to be strong, growing 6% year-on-year. Operationally, the business continued to report a stable performance.

While operating earnings decreased 11.6% to HK\$572 million, earnings from our renewable energy portfolio grew, helped by higher output. Although load factor and sent-out of Jhajjar Power Station set new records, demonstrating its importance to the system, the plant reported lower earnings largely because of coal supply issues. Its financial performance was also affected by higher operation and maintenance (0&M) costs and the absence of one-off items that benefitted 2017's results.

Our performance in India is summarised below:

Operating I	Earnings o	f India				2018 HK\$M	2017 HK\$M	Change %
Renewable Thermal <b>Total</b>	S					244 328 572	110 537 647	121.8 (38.9) (11.6)
			647	2017 Ope	rating Earnings			
			+134	Renewabl	es: Yermala cancellati	on cost in 2017 and	l lower interest exp	oenses
		-209		Thermal: 9 2017's res	Stable performance bu sults	ut absence of one-o	ff items that benef	ïtted
		572	2	2018 Ope	rating Earnings			
0	300	600	90	)				

#### **Renewable Projects**

We continued to expand our renewable energy portfolio throughout the year. In February, our first solar project at Veltoor, Telangana state, was commissioned and the plant has been operating steadily since. The farm was awarded the world's first solar project quality certification from DNV GL, a global quality assurance and risk management company, in recognition of its high standards of safety and technical compliance. Veltoor is one of the CLP Group's most advanced solar assets, deploying best-in-class tracking technologies that are capable of following the sun's path through the day to maximise efficiency.

We also added two new solar projects to our portfolio after acquiring the Tornado project and a 49% stake in the Gale

project from our long-term partner Suzlon. Both plants are fully operational and located in Dhule, Maharashtra state. Following the takeover, CLP India's health, safety, security and environment, and O&M systems are being implemented. CLP has an option to acquire the remaining 51% stake in the Gale project in future.

Our wind farms reported the highest-ever output on a combined basis as improved availability of our machines allowed us to capitalise on higher wind resources.

To gain better operational control of our assets, we took over O&M responsibility for the Khandke wind project in the state of Maharashtra from our current partner. The move allowed us to ensure that the operation is in line with CLP's safety and operational standards and is expected to yield higher generation and revenues in the long run. The performance of our renewable energy projects is summarised in the table below.

	Installed Capacity Equity MW	Electricity S GW		Availability %		Utilisa %	
	_quity	2018	2017	2018	2017	2018	2017
Wind	554.5	1,723	1,693	95.4	94.5	21.3	20.9
Andhra Lake	63.8	229	200	93.6	92.6	24.6	21.4
Bhakrani	61.4	130	144	95.6	91.3	14.6	16.0
Chandgarh	55.2	190	177	96.8	97.3	23.7	22.0
Harapanahalli	23.8	90	93	99.1	99.6	25.9	26.7
Jath	36	112	105	97.0	97.7	21.3	20.1
Khandke	30.2	88	79	85.5	88.1	20.0	17.9
Mahidad	30.2	99	91	97.2	90.7	22.6	20.7
Samana I	30.2	90	96	95.7	93.3	20.4	21.7
Samana II	30.2	100	104	96.3	93.9	22.7	23.6
Saundatti	43.2	129	132	97.2	97.0	20.5	20.9
Sipla	30.2	73	71	94.0	89.5	16.6	16.2
Tejuva	60.5	206	185	97.8	98.1	23.3	20.9
Theni I	29.7	99	114	94.5	94.1	22.8	26.4
Theni II	29.7	88	102	93.0	98.0	20.3	23.5
Solar	56.1	112	23	98.8	99.6	23.1	18.9
Veltoor <sup>2</sup>	29.4	101	23 <sup>3</sup>	99.2	99.6	23.7	18.9
Gale	14.7	<b>6</b> <sup>4</sup>	n/a	<b>98.4</b> <sup>4</sup>	n/a	<b>22.2</b> <sup>4</sup>	n/a
Tornado	12	<b>5</b> <sup>4</sup>	n/a	<b>98.6</b> <sup>4</sup>	n/a	<b>22.7</b> <sup>4</sup>	n/a

Notes:

1 Indicates CLP's equity sent out.

2 Veltoor was fully commissioned in February 2018.

3 Based on the capacity that was operational as at 31 December 2017.

4 Based on operations after the completion of CLP India's investments in November 2018.

#### **Thermal Projects**

The Jhajjar plant maintained high utilisation in 2018 after most of the technical issues affecting its performance over the last few years were resolved. With a low cost basis and high efficiency, we were able to deliver a high dispatch. However, our performance was constrained by an industry-wide issue of limited coal supply. Although coal delivery to Jhajjar reached a record high, we still didn't have enough coal to meet all the demand from our customers. As a result, commercial availability did not reach the 80% requirement to allow the plant to fully recover all capacity charges.

Our Paguthan plant also performed well. Since its power purchase agreement (PPA) ended in December, we continue to explore long-term alternatives for this excellent asset but acknowledge that our options could be limited given the current gas shortages. We also made a provision against the amount withheld by our previous customer Gujarat Urja Vikas Nigam Limited regarding an ongoing deemed generation dispute, due to the expiry of the PPA and uncertainty over the timing of recoverability.

The table below shows the performance of our thermal projects in India.

	Installed Capacity Equity MW	Electricity GW		Availat %	oility	Utilisa %	tion
		2018	2017	2018	2017	2018	2017
Coal							
Jhajjar	792	6,691	5,463	<b>90.1</b> <sup>2</sup>	82.5 <sup>2</sup>	62.1	50.4
Gas							
Paguthan	393	365	376	96.2	95.5	6.5	6.7

Notes:

1 Indicates CLP's equity sent out.

2 For the sake of consistency, technical availability is reported in the table. Jhajjar's commercial availability was 77.2% in 2018 and 78.9% in 2017.

#### **Environmental Performance**

#### **Air Emissions**

Emissions of all major pollutants including particulate matter (PM), sulphur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) at Jhajjar were lower in 2018 compared with the previous year. PM emissions decreased from 0.24 kg/MWh in 2017 to 0.14 kg/MWh in 2018 because of improved operations, the replacement of fabric filters and the FGD units that started trial operation in the second half of 2018 to meet India's new compliance requirements with effect from 31 January 2019. We also reduced NO<sub>x</sub> emission from 1.27 kg/MWh in 2017 to 0.81 kg/MWh in 2018 due to combustion optimisation. In addition, the FGD units brought the level of SO<sub>2</sub> down from 4.71 kg/MWh in 2017 to 2.63 kg/MWh in 2018.

#### Water

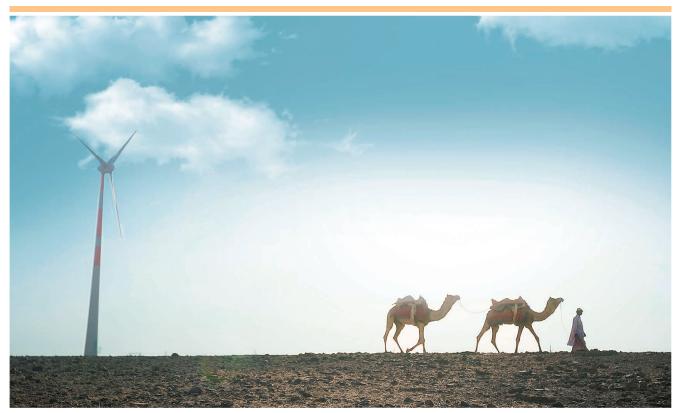
We launched a number of initiatives to improve water reuse at Jhajjar, resulting in an increase in the cooling water cycle of concentration from 5.57 in 2017 to 6.05 in 2018, despite additional water being required for the FGD in the second half of the year. The plant's water consumption was 2.14 m<sup>3</sup>/MWh in 2018 with the FGD in operation, compared with 2.11 m<sup>3</sup>/MWh in 2017 before the FGD was operational and the statutory limit of water use is 3.5 m<sup>3</sup>/MWh.

#### **Environmental Regulatory Compliance**

We reported two environmental non-compliance incidents at Jhajjar over the course of the year:

In January 2018, due to power interruption impacting coal feed into boiler, oil firing was initiated and fabric filter was bypassed. This resulted in PM exceedance for three hours, with average PM value reaching 463.16 mg/Nm<sup>3</sup> against a limit of 50 mg/Nm<sup>3</sup>. For the full year, the plant's average PM value was 26.16 mg/Nm<sup>3</sup>.

In November 2018, the National Green Tribunal (NGT) passed an order directing all thermal power stations which had failed to dispose of all fly ash to pay a penalty, and in January 2019 the Haryana State Pollution Control Board requested that Jhajjar pay Rs 50 million. However, we are of the view that Jhajjar is compliant with the requirements and have sought guidance from the Central Pollution Control Board on the interpretation. Jhajjar collaborated with the Association of Power Producers and filed a petition before the Supreme Court, pursuant to which the Supreme Court has stayed the NGT order and directed the thermal power stations to approach the NGT.



Renewable energy plays an increasingly important role in India's energy mix, supporting the country's sustainable development.

#### **Social Performance**

Education remains a key area of focus for our community initiatives in India. In 2018, the CLP India Scholarship scheme, our flagship education initiative, supported 395 students including 203 girls from villages near eight of our business locations. We plan to expand the programme to cover 1,000 students in 2019. Furthermore, we plan to introduce special incentive for the top 20% students with a special focus on girls' education.

Some of the other key projects we conducted in 2018 are highlighted below while more details can be found in the Social and Relationship Capital chapter on pages 88 to 92.

Environment

 Installed 17 solar street lights in villages near Veltoor and distributed 140 home

solar lanterns in Veltoor and Tejuva.

## Education and – Development

- More than **350** youngsters joined the Digital Literacy programme in Jhajjar and Paguthan.
  - Initiated skill development programme in Jath, Andhra Lake and Khandke to train
    - **450** young people by 2021.
- Continued to train 73 young adults at the Wrestling Academy at Jhajjar where 9 wrestlers including 5 girls won 23 titles at different competitions.

#### • 395 students

(including **203** girls) across **8 business locations** received financial assistance under the CLP India Scholarship Scheme.

## • Community Wellbeing

 Treated more than 22,000 cattle in the veterinary camps conducted in villages around Jhajjar and Tejuva, benefitting about 550 families. Our primary healthcare services and health awareness programmes benefitted more than **69,000 people** across **7** sites.

> More than 3,700 women are participating in our livelihood enhancement programmes in Jath, Chandgarh, Samana, Mahidad and Veltoor.

## Volunteering

• CLP volunteers and their families contributed more than

**1,300 hours** of community services.

• 5,000 students joined the Mid Day Meal Scheme in 27 schools near Saundatti.

Undertook drinking and service water initiatives in Khandke, Samana, Mahidad, Theni and Jhajjar, benefitting

over 7,000 people.

#### **Outlook**

The Indian electricity market is expected to report sustained growth in the coming years on the back of healthy economic expansion nationwide and continued efforts to achieve access to electricity for all citizens. This provides a sound foundation for CLP in one of our major growth markets.

We believe renewable energy presents the biggest growth opportunities as India has set an ambitious goal of reaching 175GW of clean energy generation by March 2022. In agreement with our new partner CDPQ, we intend to focus on growing CLP India's non-carbon generating business, particularly in renewable energy and transmission. The partnership provides strong financial resources for growth from the business existing platform. We will be evaluating both greenfield and brownfield opportunities, and we are currently working on a number of opportunities in each of these segments. These opportunities include participating in auctions conducted by the central and state Government

agencies to develop utility scale wind and solar projects. We are also exploring potential acquisition targets of wind and solar projects.

In 2019, we plan to assume control of more wind projects to optimise our operational performance.

In Jhajjar, we will continue to work with the Government to resolve the coal supply issue to improve the plant's availability.

As mentioned earlier, we will explore other longer-term commercial possibilities for Paguthan amid the challenge posed by gas shortages.

India is set to hold general elections in the second quarter of 2019. We will monitor the situation and continue to work with the Government to raise the availability of electricity for customers across India while meeting the country's clean energy objectives.

CLP has previously indicated that India is a growth market for the group – how does the recent partial sell down in India fit with this strategy?

India is a promising market and has seen many positive changes in the power sector in the last few years. With the Government's focus on providing uninterrupted electricity to all the households, long-term and capital-intensive investment is required to expand and enhance its power infrastructure. In this context, India provides an opportunity for us to create capacities across the value chain of the power sector, especially on the generation front and therefore, it remains a primary growth market for CLP.

Further, there has been a focal shift towards increasing the current contribution of renewables to India's energy mix. India is reputed as the second most attractive renewable energy market in the world and the Government of India has set an ambitious goal to generate 175GW of clean energy by March 2022. This aligns well with CLP's focus on expanding investments in low-carbon areas. We believe that having a partner with a similar vision will help us further develop the business. CDPQ shares CLP's commitment to expand clean energy investments in India to support the country's economic development. Additionally, CDPQ's strong track record in acquisitions complements CLP's traditional strength in greenfield development. Taken together, the partnership will help CLP India capture the significant growth opportunities currently available in India.



Ir Simon Powell Executive Director, UBS Investment Research Head of Asian Utilities Research, UBS AG

**Rajiv Mishra** Managing Director - India



# Southeast Asia and Taiwan



# Strengthening operations and performance

#### **Financial and Operational Performance**

#### **Overview**

Ho-Ping Power Station in Taiwan saw good operational performance in 2018 after a strengthened permanent transmission tower was completed in the first quarter to replace the one damaged by a typhoon the previous year. However, the financial performance of the plant was adversely impacted by high coal prices. Sadly, a contractor employee passed away while working on a lighting fixture in August. To prevent serious injuries and fatalities in future, senior safety professionals from CLP engaged with Ho-Ping's management to enhance the plant's safety training and system.

In Thailand, the Lopburi solar project operated smoothly throughout the year, producing steady power generation and sound financial results.

In Vietnam, we continued our negotiations with authorities regarding the commercial and financial arrangements for our two legacy coal-fired projects – Vung Ang II and Vinh Tan III.

Our performance in Southeast Asia and Taiwan is summarised below:

Operat	ing Earnings	of Southeast A	Asia and Taiwa	an		2018 HK\$M	2017 HK\$M	Change %
Renewa						69	65	6.2
Therma		lopment Exper	adituro			131 (38)	142 (47)	(7.7) (19.1)
Total	ing and Deve	ортенстуре	luiture			162	160	(19.1)
				160 +4	2017 Operating Earning Lopburi: Stable perform			
			-11		Ho-Ping: Deferred tax ac offset by more generation		rease in tax rate, p	artially
				+9	Others			
/				162	2018 Operating Earning	S		
0	60	100	140	180				

#### **Outlook**

Our key target in 2019 will be to make investment decisions with respect to our entry into Vietnam. We will meanwhile continue to enhance our existing operations in Taiwan and Thailand.

# **Australia**



Supporting transition to a cleaner and

Cathedral Rocks Wind Farm

# modern energy system

#### **Financial and Operational Performance**

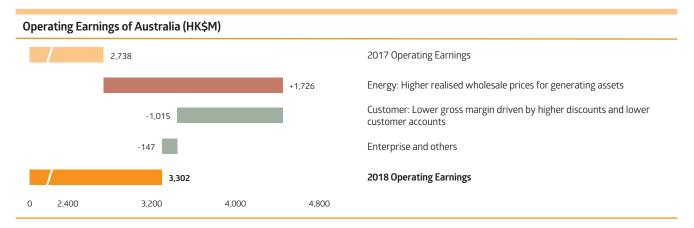
#### **Overview**

While uncertainty about energy and emissions policy in Australia was not resolved in 2018, EnergyAustralia continued to play its part in contributing to a cleaner and modern energy system. We also engaged in public debate to express support for a national approach to policy to create a more investment-friendly environment.

In the absence of a clear policy, retail and wholesale markets remained volatile amid a tight supply-demand balance and intense public scrutiny of the energy sector.

Overall, operating earnings from EnergyAustralia increased 20.6% from a year earlier to HK\$3,302 million, reflecting the strong operating performance of our generation portfolio in a tight market with high wholesale prices. Improved profitability from our generation assets allowed EnergyAustralia to commit around A\$320 million in 2018 to measures aimed at lowering or maintaining prices for customers in the short run, and investments, acquisitions and projects to help make energy affordable and reliable over the long term.

Our performance in Australia is summarised below:



#### Customer

The Australian retail market in 2018 was very competitive. Market churn was high across all the states in which EnergyAustralia operates with Government intervention and media attention stimulating heightened competition for mass-market customers and increased market transfer activity. While EnergyAustralia's churn remained below the market average, we made fewer sales and margins were put under pressure. Customer accounts decreased by 73,300 or 2.8%.

To ease pressure on customer bills, EnergyAustralia decided not to pass on around A\$55 million of rising costs in parts of the energy chain. These costs paid by EnergyAustralia include higher costs from some networks, increased costs of environmental compliance schemes, the costs of a programme to install smart meters, and a new payment difficulty framework.

From the beginning of 2018, we removed fees for paper bills and over-the-counter transactions. From 1 January 2019, we are providing an automatic 15% discount for concession customers on "standing offer" tariffs including pensioners, veterans, and customers with healthcare cards.

We extended our *Secure Saver* programme, which provides customers with certainty by capping their electricity and gas rates for two years. We also launched a new *No Frills* plan for those who prefer simple, every-day low rates for electricity and gas.

*Go Neutral*, a Government-certified carbon neutral offset programme launched in 2016, was extended to the end of 2020. To date, 206,000 customers have signed up for the scheme.

EnergyAustralia continued to apply a previously announced A\$10 million additional investment in hardship support measures, including waiving energy debts for around 1,000 vulnerable customers.

#### **Energy Production**

Our generation fleet continued to support Australia's transition to a cleaner, modern energy system as renewable power and storage projects are integrated into the National Electricity Market (NEM). However, wholesale electricity prices remained relatively high in 2018 following the previous sudden closure of large coal-fired plants in Victoria and South Australia. During the year EnergyAustralia acquired additional flexible capacity, in the Newport and Jeeralang gas-fired plants, for an enterprise value of A\$205 million and invested around A\$144 million in maintenance and upgrades to our generation assets.

Mount Piper Power Station in New South Wales produced substantially more energy in 2018 than in the previous year on the back of greater certainty of the fuel supply. Work is progressing on a water treatment plant to support operations at Mount Piper and is expected to be completed by mid-2019.

Gas-fired power facilities in New South Wales, Victoria and South Australia maintained high reliability throughout the year, shielding customers from extreme pricing events caused by extreme weather and system constraints. The Yallourn power station in Victoria, meanwhile, produced less energy than in 2017 because of unscheduled maintenance.

The table below shows the performance of our generation projects.

#### **Renewable and Thermal Projects – Performance**

	Installed Capacity Equity MW	Electricity GV		Availa %	,	Utilis %	
		2018	2017	2018	2017	2018	2017
Wind							
Cathedral Rocks	32	84	81	90.2	91.5	30.8	29.4
Gas	1,566	1,487	2,631	85.8	90.1	11.3	19.6
Newport	500	502	966 <sup>2</sup>	89.0	92.1 <sup>2</sup>	12.3	12.22
Jeeralang	440	107	900-	95.3	92.1-	2.8	12.2
Hallett	203	23	20	85.4	91.5	1.4	1.2
Tallawarra	420	855	1,644	72.4	84.9	23.8	45.5
Wilga Park <sup>3</sup>	3	n/a	n/a	n/a	n/a	n/a	n/a
Coal	2,880	17,565	16,826	81.2	79.5	75	72.4
Mount Piper	1,400	8,193	6,880	85.4	75.8	71.2	60.1
Yallourn	1,480	9,371	9,946	77.2	83.0	78.6	84.1

Any minor discrepancies in totals are due to rounding up of figures

Notes:

1 Indicates CLP's equity sent out and capacity purchase.

2 Performance of Newport and Jeeralang was jointly reported as Ecogen in 2017 before EnergyAustralia acquired the plants in 2018.

3 The Wilga Park power station, operated by Santos, is fired by exploration gas from the Narrabri coal seam gas project, in which EnergyAustralia has a 20% equity stake.

#### **Towards a Low-Carbon Future**

EnergyAustralia is continuing to invest in new electricity supplies and projects to ensure reliability of the electricity system.

In 2018, we completed a programme to help financially underpin the development of 500MW of new renewable projects across eastern Australia. The table below lists the projects supported by the programme.

Projects	Installed Capacity / Offtake for EnergyAustralia MW	Commission date
Coleambally Solar Farm (NSW)	150/105	January 2019
Manildra Solar Farm (NSW)	46/46	December 2018
Ross River Solar Farm (Queensland)	116/93	November 2018
Gannawarra Solar Farm (Victoria)	50/50	April 2018
Bodangora Wind Farm (NSW)	113/68	April 2019 (expected)

With these projects progressively going into operation along with our previous commitments to renewable generation, EnergyAustralia continued power purchase agreements with existing renewable energy operations during the year, as shown in the table below.

	Offtake for		
	EnergyAustralia MW	Electricity Sent Ou GWh	
		2018	2017
Wind			
Boco Rock	113	<b>367</b> <sup>1</sup>	347
Gullen Range	166	481	451
Mortons Lane	20	<b>66</b> <sup>1</sup>	59
Taralga	107	<b>299</b> <sup>1</sup>	282
Waterloo Stage 1	56	166	147
Solar			
Gannawarra	50	69	n/a
Ross River	93	21	n/a
Manildra	46	2	n/a

#### Note:

1 Publicly available data from the Australian Energy Market Operator

We also committed A\$50 million to two commercial-scale battery projects in Victoria and have the rights to charge and dispatch energy from the projects into the NEM until 2030 and 2033. The two projects have a combined storage of 80MWh, giving EnergyAustralia the largest battery storage portfolio of any retailer in the NEM. The first project is already in operation.

We are now assessing potential investments to accelerate the integration of solar and wind power into the national grid by adding capacity to help mitigate the intermittency of renewable generation. These include new gas-fired power plants in New South Wales, pumped hydro projects, and the expansion of our demand response capability.

#### **New Business**

EnergyAustralia has joined an Australian Government initiative to deliver 200MW of energy reserve or "demand response" by 2020 through 10 pilot projects in New South Wales, Victoria, and South Australia. This is an innovative programme which deploys underutilised assets and involves both large commercial and industrial customers as well as residential customers curtailing demand at critical peak periods. We are managing two of the 10 projects and contributing 50MW to the programme.

In 2018 we completed the first year of our partnership with the Startupbootcamp Accelerator programme, which is aimed at fast tracking new energy-related start-up businesses. The inaugural programme ended with 10 start-ups from around the world pitching their ideas to potential investors and members of the business community. EnergyAustralia has committed to be the major sponsor for the Startupbootcamp Accelerator programme for three consecutive years and is currently working closely with three start-ups from the 2018 programme to develop new products and services.

#### **Environmental Performance**

#### **Air Emissions**

Overall, emissions from our Australian power stations have remained consistent compared to 2017. Yallourn achieved a 5% decrease in emissions in 2018 due to a drop in generation. Mount Piper, meanwhile, saw a 16% increase in emissions with a 19% rise in energy output. Emissions at each of our gas-fired generators decreased following lower generation in 2018.

#### **Environmental Regulatory Compliance**

EnergyAustralia was not subject to any fines or prosecutions arising from environmental-related regulatory non-compliances in 2018. In July, Yallourn exceeded its carbon monoxide emission limits for three brief periods. We assessed there was no harm to the environment and the Environment Protection Agency in Victoria was notified. Corrective action has been taken to prevent a repeat of this incident.

#### **Social Performance**

EnergyAustralia made it easier for employees to participate in a widening selection of community activities in 2018. As a result, we were encouraged to see a 154% increase in our volunteering hours from 2017.

In October, we launched our Workplace Giving programme with nine charity partners, with employee donations commencing in 2019. As a demonstration of our commitment to the programme, EnergyAustralia donated A\$1 per week per employee from 1 October to 31 December 2018. In addition, the Executive Management Team and Board have donated 1% of their salaries since 1 October 2018.

We continued to support our partners Sydney Opera House and the Melbourne Cricket Ground (MCG), working with the

Opera House to make it carbon neutral five years ahead of schedule. In September, which is the busiest month for the MCG due to the AFL Final Series, we fully offset the carbon emissions at the ground including the impact of over 400,000 people who travelled to and from the venue.

As part of our Reconciliation Action Plan to increase engagement with Aboriginal and Torres Strait Islander people and communities, EnergyAustralia actively supported initiatives to raise awareness of the economic challenges and the steps needed to ensure economic opportunities for Aboriginal people while strengthening and preserving their culture. These include changes to procurement and recruitment policies to support greater participation in the wider workforce.

# Education and Development

- Gave A\$10,000 to a primary school in Yallourn, equipping it with new STEM (science, technology, engineering, and maths) learning resources.
- Funded the Musica Viva in School programme to provide music training to 34 school teachers, benefitting almost 900 students in schools in low-socio-economic areas around Tallawarra.
  - Continued to collaborate with the Aboriginal AFL Academy, supporting 40 indigenous students to complete their schooling.

# **Community Wellbeing**

- Removed A\$2.4 million of debt for more than
   5,000 customers with financial hardship through new partnerships with VincentCare, ICAN, the
   Queen's Fund and the Thriving Communities Partnership.
  - **5** employees attended the Garma Festival to learn about the economic challenges facing indigenous communities and the steps needed to ensure economic opportunities for Aboriginal people.

## Environment

 Helped the Sydney Opera House to become carbon neutral five years earlier than planned and offset the carbon emissions of Melbourne Cricket Ground in September, its busiest month.

## Volunteering

740 volunteers contributed more than
 4,700 hours of charity work. Both numbers in volunteers and service hours increased by over 100% from 2017.

Our LGBTI (Lesbian, Gay, Bisexual, Transgender, and Intersex) network PRISM expanded in 2018 to include more than a third of our workforce. PRISM was named Australian LGBTIQ+ Network of the Year from the Australian Workplace Equality Index and was a finalist for the Michael Kirby LGBTIQ+ Inclusion award by the Australian Human Resource Institute.

Our major community initiatives are highlighted on page 66. Please also refer to the Social and Relationship Capital chapter on pages 88 to 92 for more details.

#### **Ensuring a Safe Workplace**

Safety is our utmost priority. We were therefore deeply saddened by two fatal workplace incidents in 2018. Detailed investigations, both independent and internal, are in progress for Yallourn. Investigations into the NSW solar installation incident have been completed and we are in the process of implementing the recommendations. We are also completing risk assessments and reviewing safety controls. Details can be found in the Human Capital chapter on pages 81 to 87.

#### Outlook

In the absence of a durable and sustainable energy policy, market conditions are expected to remain tight. Operationally, our focus will remain on optimising our generation portfolio, enhancing asset reliability and exploring the integration of flexible capacity options, including pumped hydro and gas-fired generation.

We expect competition in the retail market to remain intense. Against this background, we will continue our focus on improving customer experience and easing pressure on household budgets.

It will remain our priority to work with Federal and State Governments and advocate for a clear and stable national energy policy. This will provide the confidence for the investment required to transition Australia to a more reliable, affordable and sustainable energy system. We are committed to contributing to those investments to safeguard the reliability and affordability of power supply in Australia as the country moves towards a low-carbon future.

EnergyAustralia has partnered with Startupbootcamp in a 13-week accelerator programme, aimed at supporting entrepreneurs scale their industry changing businesses. How important are new technologies and innovations to the Australian energy industry? How can these help your customers?



The transition to a cleaner, modern Australian energy system has already started. Long-term success means delivering reliable, affordable and cleaner power for families and businesses, wherever they are.

The question is how it's delivered.

We have some brilliant minds at EnergyAustralia. But we don't have a mortgage on pioneering new technology and approaches. The talented, bright people at the start-ups in our Startupbootcamp Accelerator programme are applying their minds to renewable energy, electric mobility, the Internet of Things, data monetisation, artificial intelligence and machine learning. Right now, we're facing some great challenges in energy and the Accelerator programme participants have chosen to be part of the solution. I've spent three decades in the energy industry and rarely – if ever – have I been so optimistic that the pieces of the puzzle are falling into place. It's exciting to think that the next great idea, the next great advance in energy, might be one that comes from our programme.

The Accelerator programme is helping bring great ideas out of workshops and garages around the world.

Catherine Tanna Managing Director EnergyAustralia



# Capitals

To build a sustainable business, we take a connected view in the management of our Capitals, comprising our most critical resources and relationships, to create value for our stakeholders and maximise synergies.



Synergy Connection



## **Financial Capital**

2018 was a year full of surprises with heightened financial market volatility and less synchronised geopolitical policies combined with Sino-US trade tensions, resulting in a highly unpredictable macroeconomic environment. It was also a year that further distinguished eminent corporations from other companies as a lack of well-defined and prudent policies and practices would in some cases cause material adversities to the financial position of less disciplined companies.

CLP remained vigilant in weathering the market turbulence and emerged with an even more solid capital structure and greater financial flexibility, continuously applying effective risk management measures to mitigate its exposures in a diversified, expanding portfolio.

#### Proven and Tested Financial and Treasury Governance

The huge swings in financial market in 2018 started with a sharp adjustment in stock markets in the first quarter which was followed by a spike in interest rates and depreciation of emerging market currencies.

The rate of 10-year US treasury note rose from 2.5% in January to 3.2% in November 2018, while three-month USD London Interbank Offered Rate rose from 1.7% in January to 2.8% in December and three-month Hong Kong Interbank Offered Rate (HIBOR) rose from 1.3% to 2.4% in the same period. Surveys found 60% of a group of 200 CFOs reported an earnings impact from the shifting interest rate environment and 70% of CFOs in the US admitted their companies had suffered from rising rates.

Regional currencies also moved erratically. The Renminbi (RMB) and the Indian Rupee (Rs) fell by up to 10% and 17% respectively against the US dollar.

Even though CLP has a long track record of adopting a very prudent financial philosophy and applying comprehensive risk management policies, we know we cannot afford to be complacent.

The finance and treasury team not only formulated and implemented a cost-efficient, diversified financing plan but also remained highly committed in performing regular, diligent reviews of risk exposures to identify mitigations and actions where and when needed. Moreover, we have continued to enhance the functionality and capability of the Group Treasury Management System (GTMS) and further strengthened operational arrangements. CLP believes these efforts contributed to delivering a high level of reassurance to our stakeholders including governments, customers, shareholders, funds providers, and our business and non-business partners.

#### **Imperative Financing Activities**

CLP strives for sustainable, diversified, cost-efficient funding that encompasses multiple tenures to match business needs, ranging from sizable working capital and fuel payments to the long-term (more than a decade) funding of fixed asset investment.

All major CLP entities completed key financing activities for 2018 at preferential terms by the second quarter before the interest rate hike and market tightening, notably CLP Power Hong Kong and CAPCO which entered an expansionary phase of capital spending and corresponding higher borrowing under the SoC Agreement.

These included:

- HK\$2.5 billion bank loan facilities for CLP Holdings in May and June
- HK\$1 billion 15-year fixed rate private placement bond for CLP Power Hong Kong in March and HK\$2.7 billion bank loan facilities for SoC business
- RMB1.1 billion (HK\$1.3 billion) offshore bank loans for multiple entities with the majority amount used for SoC business by swapping back to HK\$1 billion (RMB800 million) at a sub-HIBOR rate
- A\$500 million (HK\$2.9 billion) syndicated guarantee facility for EnergyAustralia in March, US\$30 million (HK\$235 million) early repayment of legacy private bonds, and a 3-year extension in the maturity of a A\$300 million (HK\$1.7 billion) working capital facility
- RMB450 million (HK\$512 million) 14- and 15-year project loan facilities for two renewable energy projects by CLP China to fund business growth
- US\$19.5 million (HK\$153 million) and Rs7.1 billion (HK\$795 million) bank loan facilities of between 1 to 18 years in tenor for CLP India to refinance the existing debt of renewable projects. The US dollar loan proceeds were swapped back to Indian Rupees to mitigate foreign exchange rate risk

To facilitate easy access to debt funding worldwide, CLP Power Hong Kong and CAPCO have Medium Term Note programmes in place under which bonds in aggregate amounts of up to US\$4.5 billion and US\$2 billion may be issued respectively. As of 31 December 2018, notes with an aggregate nominal value of about HK\$26.5 billion and HK\$3.9 billion had been issued respectively by the two entities.

#### **Our Material Topic**

#### **(I)** Responding to Climate Change

Strong financing capability and effective risk management are key prerequisites for energy companies in meeting the large capital needs of the transition to a lower-carbon future. This section discusses our strategies to manage our financial resources to give us the wherewithal and flexibility to fund low-carbon investments.

#### **Successfully Financing Energy Transition**

To help fund a lower-carbon trajectory for our business, CLP Holdings launched the Climate Action Finance Framework (CAFF) in July 2017 to diversify our financing for projects with lower-carbon intensity and higher energy efficiency. The US\$500 million (HK\$3.9 billion) Energy Transition Bond issued by CAPCO in 2017 to finance the construction of the new CCGT project at Black Point Power Station in Hong Kong was the first energy transition bond in the market and an inaugural financing under CAFF. We are contemplating more issuances under CAFF, and the landfill gas power generation project at the West New Territories Landfill site is one option being considered.

CLP's strong credentials in financing were recognised when the arrangement of CAPCO's HK\$5.7 billion term loan facilities for funding the CCGT project was awarded the Hong Kong Power Deal of the Year at the Asset Triple A Asia Infrastructure Awards 2018 organised by *The Asset* magazine. This self-arranged financing in 2017 comprised a HK\$1.4 billion 15-year export credit facility, and a HK\$4.3 billion five-year commercial loan facility which was partially refinanced by the US\$500 million inaugural Energy Transition Bond.

The 2018 Climate Action Finance Report, published in the <u>Sustainability Report</u>, contains disclosures as set out in CAFF including effective evaluation of projects, close monitoring of bond proceeds, and undertakings on environmental benefit.



The 2018 Climate Action Finance Report can be found in the appendix of 2018 Sustainability Report.

#### Implementing Comprehensive, Mandatory Risk Management

CLP operates in different geographical regions and regulatory regimes. We apply stringent and sensible policies to identify, evaluate, and mitigate exposures in foreign currency, interest rate and counterparty. We ensure adequate control and compliance.

Management exercises caution with close monitoring, frequent evaluation, and persistent application of policies, combined with carefully selected hedging, pursuing hedge effectiveness accounting when possible, in order to achieve optimal economic hedge without undue profit and loss impact.

These efforts paid off as CLP went through the foreign exchange, liquidity, and interest rate turbulence with nearto-nil impact. Our policy to apply either natural hedging or economic hedging positions, which are accounting effective for Renminbi and Indian Rupee denominated items, and to achieve a high level of fixed rate borrowings to cover long-term capital expenditure, has preserved our strong financial position and superior credit standing.

CLP Holdings received a strong endorsement of its comprehensive risk management policy when it was named overall winner of the Best Risk Management Solution Award in the Adam Smith Awards Asia 2018. The award was granted in the context of CLP Holdings' successful performance of comprehensive risk management oversight for CLP Group business which was further complemented by effective solutions, including the adoption of the "GTMS" tool.

#### Embracing Advanced Treasury Technology and High Operation Integrity

CLP is committed to continuous improvement, including the application of innovative technology to enhance treasury governance, monitoring, management, compliance, and reporting. The deployment of a cloud-based GTMS since May 2016 has significantly strengthened CLP's ability to monitor the CLP Group's financing and treasury portfolio with enhanced scrutiny and monitoring of position, faster and useful evaluation, and higher levels of accuracy and efficiency. These are essential factors for effective treasury management against a backdrop of greater market volatility and increased complexity.

After the successful implementation of GTMS in the first phase, management is now shifting its focus to stronger functionality and scalability, faster connection and response to market and regulatory changes, better analytical and reporting capability, and higher cost-efficiency of the treasury system. Further enhancement to the GTMS to reinforce CLP's treasury governance, control, compliance, and analytical power will deliver long-term benefits to the Group.

#### **Managing Debt and Credit Ratings**

CLP always strives to maintain strong investment grade credit ratings. In May and June 2018, both Standard & Poor's (S&P) and Moody's affirmed their credit ratings with stable outlook for CLP Holdings, CLP Power Hong Kong, and CAPCO. In August 2018, S&P affirmed the credit rating with stable outlook for EnergyAustralia.

	S&P	Moody's
CLP Holdings CLP Power Hong Kong CAPCO EnergyAustralia	A/Stable A+/Stable AA-/Stable BBB+/Stable	A2/Stable A1/Stable A1/Stable n/a
Positives	<ul> <li>Expected growth in cash flow and debt reduction due to contributions from EnergyAustralia and Yangjiang Nuclear Power Station</li> <li>Transparent regulatory regime of SoC business with timely pass-through of costs to end user</li> <li>EnergyAustralia secured long-term fuel supply at Mount Piper to support stable operation</li> </ul>	
Negatives	<ul> <li>Lowered permitted rate of return under the new SoC Agreement has a moderate impact on CLP Holdings' financials</li> <li>Uncertainty from legal proceedings against EnergyAustralia on sale of Iona Gas Storage</li> </ul>	



Updated information of our <u>credit ratings</u> can be found on our website.

#### Our Debt Profile as at 31 December 2018

	CLP Holdings HK\$M	CLP Power Hong Kong HK\$M	CAPCO HK\$M	Other Subsidiaries HK\$M	CLP Group HK\$M
Available Facility <sup>1</sup>	11,290	37,647	11,957	18,463	79,357
Loan Balance	4,400	28,596	10,040	12,262	55,298
Undrawn Facility	6,890	9,051	1,917	6,201	24,059

Note:

1 For the Medium Term Note Programmes, only the amounts of the bonds issued as at 31 December 2018 were included in the total amount of Available Facility. The Available Facility in EnergyAustralia excluded a facility set aside for guarantees.

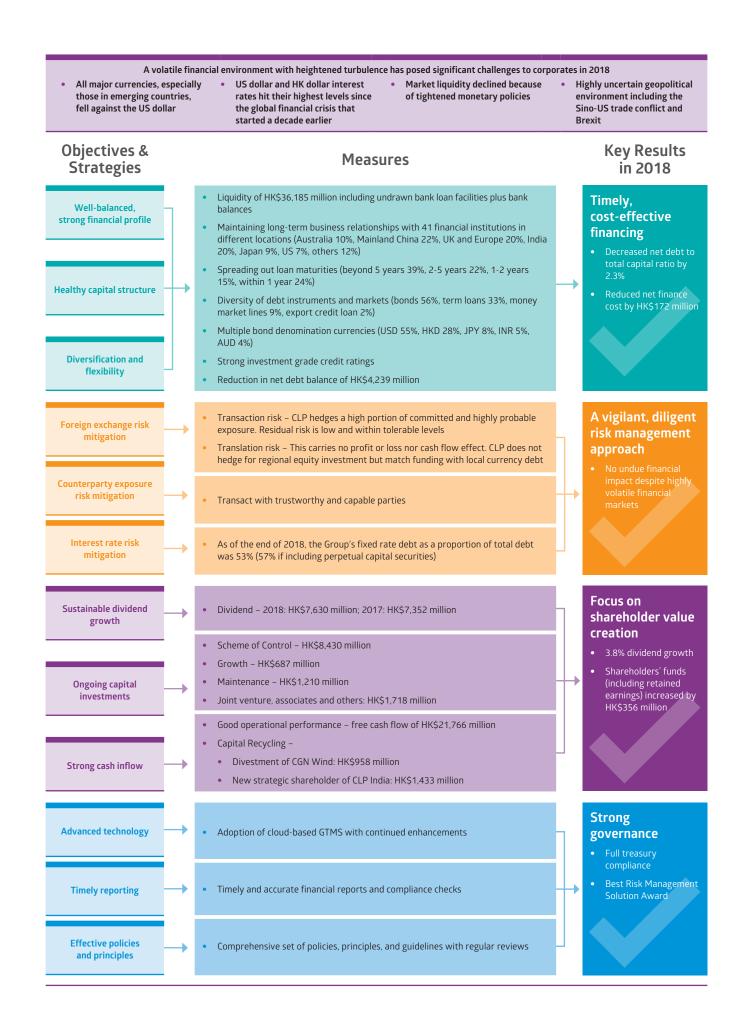


More information about major financing activities in 2018 and our debt profile can be found on pages 34 and 35 of CLP Holdings 2018 Annual Results Analyst Briefing Presentation.



Analyses of loan balance by types and bond funding by currencies can be found on page 47 of <u>Investor Presentation</u> <u>Introductory Pack</u>.

Strong investment grade credit ratings have enabled CLP to solicit funding in the most competitive terms – covering elements such as pricing, tenor, diversity, market, and currency matching – so as to capture investment opportunities consistent with our business strategies. We strive to maintain a strong balance sheet, a robust financial structure, and healthy cash flow along with strong investment grade credit ratings for unrestricted access to global capital market and bank funding to support our business operations, sustain long-term growth, and guard against contingencies. The diagram on page 74 gives a brief overview of how CLP fended off high uncertainty in financial markets and took swift action to seize opportunities as they emerged.



### **Manufactured Capital**

At CLP, we manage our diverse operating assets in the Asia-Pacific region according to the highest standards of performance, availability, and efficiency. The continuing excellence of our operations provides a strong foundation for the ongoing transition of our business towards a low-carbon and digitalised future.

In 2018, the Group continued to invest in our renewable energy operations, deploying new technologies and processes to optimise their performance. We also applied innovations to our thermal assets across the Group to upgrade their capabilities and efficiency while lowering emissions. These assets serve a vital role in assuring supply reliability in our markets with the integration of more wind, solar, and hydro energy resources into the grid.

#### **Decarbonising Our Generation Portfolio**

As part of our efforts to reduce the carbon intensity of our generation in Hong Kong, we made continued progress on the construction of the additional 550MW gas-fired generation unit at Black Point Power Station in 2018. Scheduled for completion in 2020, the new unit deploys advanced CCGT technology capable of efficiency of around 60%, resulting in lower fuel consumption and reduced emissions.

The new CCGT generation unit will allow the gradual phasing out of older coal-fired capacity. Natural gas is expected to account for about 50% of our fuel mix in Hong Kong by 2020 in support of the Government's objectives of reducing carbon and environmental pollutants. Since 1990, our emissions in Hong Kong have fallen by over 80%, while electricity demand has grown by more than 80% over the same period. The carbon intensity of our operations in Hong Kong has been reduced from 0.94kg  $CO_2$ /kWh in 1990 to 0.51kg  $CO_2$ /kWh in 2018.

CLP's Lingyuan Solar Power Station, located in a mountainous part of Liaoning province in northeast China, was successfully commissioned in July. The completion of the new 17MW greenfield project further expanded our renewable energy portfolio in Mainland China.

In India, Veltoor Solar Farm in the southern state of Telangana was fully commissioned in the first quarter of 2018, adding to our renewable energy business in one of the Group's primary growth markets. The 100MW plant, CLP's first solar asset in India, deploys advanced tracking technologies to maximise operating performance and was completed without any lost-time incidents, despite taking more than one million man hours to build. The farm received the world's first project certificate for PV power plants from DNV GL, a global quality assurance company, in recognition of its high standards for safety and technical compliance. CLP transitioned to a new operating model of wind power assets in India in 2018, phasing out some external contractors to gain increased control over the maintenance and management of plants as well as their health, safety, and environmental performance. Khandke Wind Farm in the western state of Maharashtra was first to adopt the new operating model, and we plan to exercise greater operational control of more wind assets to optimise performance and output. This new operating model paves the way for further growth in India, where we are one of the largest foreign investors in renewable energy.

#### **Enhancing Supply Reliability**

Reliable, dispatchable baseload power generation continues to play an important role in supporting the integration of intermittent renewable resources in Australia's energy market. Yallourn Power Station completed a scheduled maintenance programme of one of its four generation units in 2018. The programme, which involved replacement of large sections of high-pressure steam pipes, will improve the plant's reliability and safety.

To further optimise the performance of the Yallourn plant, new data analytics technologies are being trialled to improve monitoring of key generating equipment and to enable early identification of potential issues, further enhancing supply reliability.

The rising penetration of solar and wind energy is reshaping the electricity market in Australia and increasing the need to optimise generation to deal with supply volatility. In response to this, Tallawarra Gas-fired Power Station implemented new upgrades to reduce start-up times for the plant and increase the speed of supply to the electricity grid, as well as improving fuel efficiency and lowering emissions.

#### **Exploring New Technology**

New technologies and innovations are helping CLP improve the performance of renewable energy assets in Mainland China and India. CLP continued to explore new data analytics tools in 2018 to track the operations of several wind and solar power plants in the two markets. Performance data is transferred and managed on cloud-based systems for analysis, giving us greater insight into plant operations and potential issues.

As the rollout of the FiT scheme increases the use of clean energy in Hong Kong by households and businesses, CLP trialled new predictive analytics software to evaluate the potential impact on loading of transmission and distribution networks, facilitating the integration of more renewable energy resources into the grid. At Castle Peak Power Station, we tested new data analytics technologies to optimise boiler performance, tracking operating parameters including air flow and pressure. Al technologies have been introduced at Black Point Power Station to enable diagnosis of potential performance issues through the tracking of equipment noise emissions, further enhancing the plant's reliability.

#### Rising to the Challenge of Climate Change

In the face of an increasing number of powerful storms and unusual extreme weather events caused by climate change, we need to strengthen our operations and increase our resilience to safeguard supply reliability to customers.

CLP's generation, grid, and interconnection infrastructure in Hong Kong sustained the impact of Typhoon Mangkhut in September, the most powerful storm to hit the city in decades. Our earlier efforts to strengthen major infrastructure, including 400kV overhead line systems and flood management measures, proved effective. Despite this, some customers in remote areas supplied by overhead lines suffered from prolonged supply interruptions as fallen trees and debris made supply restoration challenging.

In a review of our response efforts conducted in the wake of Typhoon Mangkhut, we drew up measures designed to improve our preparations for future storms, including new tree management programmes to mitigate the risk of interference to our overhead line systems.

#### **Our Material Topic**

#### ( Reinforcing Cyber Resilience

This section discusses how we manage operations and procurement for increased efficiencies and reliability, as we continue to decarbonise our assets portfolio. The section also addresses our efforts to improve our performance using new technologies and strengthen our operations against cyber security risks.

#### Standing Firm against Cyber Security Threats

Cyber threats continue to proliferate worldwide and we continue to strengthen our cyber security efforts in a coordinated group-wide approach to mitigate risks and minimise the impact of any potential breaches of our systems. This is particularly important given that our operations comprise critical infrastructure, including power generation and distribution assets.

As cyber attacks become increasingly sophisticated and severe, an effective cyber security strategy needs to encompass three aspects: people, processes, and technology. Our employees need to be more alert to cyber risks, and we must establish and follow clear processes, coordinating our threat monitoring across the Group. In addition, we must also increase our investment in threat protection and detection technologies.

We conduct regular workshops and internal trainings to improve cyber threat awareness among employees. We are stepping up recruitment of cyber security experts within individual business units to enable knowledge to percolate throughout the organisation. We also organise simulations to ensure employees across the Group can respond effectively to cyber-attack scenarios.

We continue to upgrade our monitoring efforts across the Group, strengthening coordination between business units to provide increased visibility of risks and activities throughout the organisation. We are also introducing streamlined processes to allow for regular and timely software upgrades to be performed reliably on our information technology systems to reduce their vulnerability to attack.

New technologies are also being deployed to improve our capabilities to protect our systems against cyber attacks, as well as to detect suspected abnormalities and allow potential threats to be more effectively contained. In this context we work closely with cyber security start-ups while also leveraging global insights from established technology providers and cyber risk mitigation professionals.

#### **Promoting Strategic Procurement**

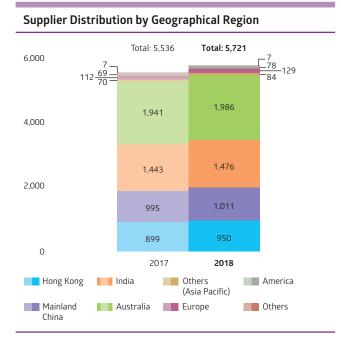
The CLP Group has embarked on a transition to a strategic procurement approach to create additional value for stakeholders and to generate commercial synergies.

For critical purchases such as coal, power equipment, information technology, and engineering services, procurement and business units work in close partnership to formulate supplier and sourcing strategies for the Group, providing enhanced insights into supply market and pricing trends. This collaborative Category Management approach has helped increase the Group's ability to negotiate improved terms and commitments from suppliers, resulting in tangible commercial benefits for our businesses.

Building from initial efforts undertaken in 2017, we have continued to develop a common Group Procurement Standard to help us implement industry-leading practices and capabilities across our businesses. We have further expanded the adoption of core components of our standard, including responsible procurement and supplier management.

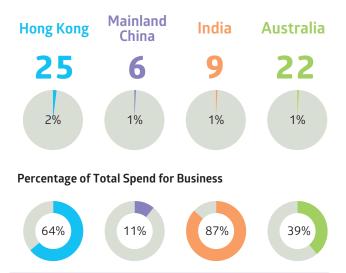
#### **Enhancing Supply Management**

We have implemented a group-wide Supplier Risk Management process to identify, assess, and mitigate delivery risks with critical suppliers, supported by management reviews conducted on a quarterly basis consistent with our Corporate Risk Management practices. We have also enhanced our Supplier Relationship Management process for our strategic suppliers to allow us to consistently measure their delivery performance, drive continuous improvements, and ensure supplier alignment through year-round operational, business, and executive reviews.



#### **Overview of Strategic Suppliers by CLP Regional Subsidiary**

Number of Strategic Suppliers and Percentage among Total Suppliers for Business



#### **Championing Responsible Policies**

We have pursued collaborative engagement with suppliers in relation to our Responsible Procurement Policy Statement, covering regulatory compliance, safe working environment and conditions, business conduct and code of ethics, and environmental stewardship. We promote greater awareness and adoption of responsible practices by our suppliers to further enhance the sustainability of our supply chain.

Suppliers under consideration for project awards are assessed on their sustainability practices through a combination of questionnaires, tender evaluations, site visits, audits, and performance reviews.

We have also conducted periodical risk assessments on existing contracted suppliers to evaluate improvements in their responsible procurement practices. Our overall assessment and monitoring mechanisms have confirmed there were no significant risk findings in 2018 related to our Responsible Procurement Policy Statement.

Following the publishing of ISO Guide on Sustainable Procurement (ISO 20400:2017), we have completed a review and benchmarking of our Responsible Procurement practices against those of other industry leaders. We have defined and are implementing a roadmap of measures to further enhance our practices and improve the sustainability and risk management capabilities throughout our supply chain.

We are also committed to protecting the company's intellectual property rights and safeguarding data privacy. This is reflected in our procurement policy, as we mandate that our suppliers comply with all applicable laws and regulations in relation to intellectual property rights and data protection.

# **Intellectual Capital**

#### **Our Material Topic**

#### Harnessing the Power of Technology

Digital technologies including artificial intelligence, Internet of Things (IoT) and big data offer energy companies new ways to enhance performance and serve customer needs. This section discusses how innovation and new technologies are creating new opportunities for our business.

Digitalisation is reshaping the energy industry at an unprecedented pace. To achieve our goal of becoming a Utility of the Future, we must harness innovation in technology and explore new business models, building on the deep reserves of intellectual capital and capabilities that have powered our growth for more than 100 years.

To capture business opportunities in the evolving energy market, we have continued to invest in the development of new skillsets and expertise, and broaden our cooperation with a growing network of partners around the world. We are channelling innovation in our business to create sustainable value for stakeholders in the communities we serve, deploying digital technologies to offer smarter and more connected energy services and generate new efficiencies and improvements in our operations.

#### **Expanding our Creative Capacity**

We have combined our data science capabilities with the power of big data and artificial intelligence to tackle complex engineering and operational challenges in the energy industry over the past year. We piloted new software tools using big data technology to identify potential cable failures in Hong Kong and avoid outages. We tested machine learning software algorithms to forecast emissions from the combustion of different types of fuel, and to predict wind speed and intensity to improve our preparations for typhoons. We also used data analytics to help detect meter irregularities and conduct short-term load forecasts so as to better plan and manage electricity generation and consumption. While most of the trials were conducted in Hong Kong, many of the new tools can potentially be used in our other markets.

Our growing technology capabilities and the continuing strengths of our core electricity business mean we are well-positioned to play a leading role in building Hong Kong's digital energy infrastructure, supporting the Government's strategies on smart city development. The launch of the FiT scheme for renewable energy generation in 2018 and the programme to install smart meters for all CLP customers by 2025 are important catalysts for the development of data-driven applications and services. These applications will enable consumers and organisations to become more energy-efficient, creating more digitally-connected homes, public spaces, and workplaces to support Hong Kong's emergence as a smart city.

#### **Building the Foundations for a Smart City**

We set up the CLP Innovation Hub in 2018, a new centre at Hong Kong Science Park focused on smart energy applications for consumers and businesses. Engineers and developers at the centre create innovative services for customers, such as energy management, consumption forecasting, and operations of battery storage systems. One of the products developed at the hub is Solarhawk, an application that allows users to track and control the output of their rooftop solar installations and other renewable energy systems using their mobile devices.

We opened our Smart Energy@Mong Kok flagship store, offering new products and services for smart homes, including voice-controlled appliances, smart mirror, under-the-floor-heating systems, showing new digitally-enabled lifestyle possibilities for customers.

In 2018, Smart Charge, a joint venture between CLP and HKT Limited, continued to expand its network of electric vehicle charging infrastructure to cover key residential buildings and estates in the New Territories, Kowloon and Hong Kong Island. This strengthens our long-term commitment to support the continued adoption of electric vehicles in Hong Kong's ongoing development as a smart city. We are also strengthening our partnerships with other organisations including the Hong Kong Science and Technology Parks Corporation and the Airport Authority Hong Kong on smart energy innovations.

Beyond Hong Kong, we also deepened our cooperation with public and private sector partners in Thailand in the development of new energy technologies for industrial parks and smart city environments. CLP signed agreements in June with Amata Corporation, one of Thailand's largest industrial park developers, to jointly explore smart energy and microgrid solutions for industrial estates, devising solutions such as utility-scale floating solar systems. In the same month, CLP signed an agreement with the Industrial Estate Authority of Thailand and Provincial Electricity Authority to study new public private partnership models for smart energy infrastructure in industrial estates.

# Exploring Opportunities in the Greater Bay Area

On the back of growing demand for renewable energy, distributed energy systems, and energy management technologies, the GBA region will see the ongoing rollout of smart city programmes to sustain economic development and create a greener environment for the region. Covering Hong Kong, Macao, and nine southern Chinese cities including Shenzhen and Guangzhou, the GBA aims to become a global leader in industries such as new energy technologies, advanced manufacturing, transportation, and finance. Our alliances with Chinese partners are opening up new opportunities for CLP in this dynamic economic and technological centre.

To help CLP capture opportunities in the GBA, we began a new joint venture in 2018 with a subsidiary of TUS-Holdings to focus on the development of smart energy technologies for businesses. The venture will focus on providing solutions including microgrids and smart buildings, as well as energy management systems for businesses.

Our plans in the GBA have been further strengthened by our new strategic partnership with Guangdong Energy Group Co., Ltd. on smart energy and smart city technologies. Formerly known as Guangdong Yudean Group Co., Ltd., Guangdong Energy is the largest electricity generation conglomerate in the province, with a diverse portfolio of conventional and renewable energy assets.

# Tapping into Capabilities of Innovative Start-Ups

CLP is working with a growing number of innovators around the world by participating in start-up accelerator programmes to keep pace with the rapid evolution in energy digitalisation. In 2018, CLP joined Free Electrons, a global accelerator for start-up companies focused on digital energy technologies with commercial potential. The programme gave CLP first access to advanced digital energy technologies that can be quickly piloted and deployed in our operations. Free Electrons also helped facilitate knowledge-sharing between CLP and other member utility companies, including American Electric Power, TEPCO, Innogy, and SP Group.

CLP participated in STARS, a programme run by the Federation of Hong Kong Industries and the Hong Kong Startup Council to support start-up companies focused on smart homes, microgrid controls, and data analytics. As the programme collaborator, we provided mentorship and business partnership opportunities, and connected start-up companies with potential customers. CLP is also a sponsor of JUMPSTARTER, a Hong Kong start-up accelerator programme organised by the Alibaba Entrepreneurs Fund.



Our partnership with TUS-Holdings will help us capture opportunities in the Greater Bay Area's energy transition.

EnergyAustralia began a three-year partnership with London-based Startupbootcamp in 2018 to organise start-up accelerator programmes for companies focused on digital energy technologies. The inaugural programme which concluded in April supported innovators from Australia, Europe, the Americas, and Asia, generating funding opportunities and facilitating the deployment of new smart energy solutions.

# Investing in New Business Models and Technologies

Along with our growing network of industry partnerships, we have continued to selectively invest in companies offering best-of-breed technologies in digitalised energy and sustainability to drive growth and differentiation. CLP completed an investment in AutoGrid, a California-based leading provider in demand response and energy analytics. The deal is CLP's first direct investment in a start-up, and will see us working with the US company to provide energy management solutions for customers across the Asia-Pacific region.

Working with the Alibaba Entrepreneurs Fund, CLP completed an investment in En-trak, a Hong Kong energy management and smart lighting solutions provider. The investment will help support the further growth of En-trak's business in Hong Kong and other Asia-Pacific markets.

CLP has also invested in Israel Cleantech Ventures, a Tel Aviv-based venture capital fund that invests in companies offering digital energy and transportation technologies. Our investments and partnerships are creating opportunities for CLP to work with some of the world's most dynamic innovators in digital energy technologies and create exciting new growth opportunities.

As policies for the development of the Greater Bay Area (GBA) are promulgated, Hong Kong will benefit from many new economic opportunities. How will CLP participate in the GBA's development? As a key national strategic initiative, the GBA will add fresh impetus to the region's economy, creating demand for reliable supply of clean energy. CLP is ready to explore new frontiers, and we are well-positioned to work with our partners to support the GBA's development, as we were an early champion of cross-border collaboration between Hong Kong and Guangdong Province in the 1970s.

A reliable energy supply is key to the GBA's development as a new engine of economic growth. To promote smart city development in the region, an energy infrastructure that is robust, efficient and clean is required, so are innovative customers services. To achieve this mission, CLP would like to collaborate with various partners with common goals and complementary skills. We are continuing to deepen our long-standing partnership with key energy companies in the region including China Southern Power Grid, China General Nuclear Power Corporation and Guangdong Energy Group.

The evolution of energy landscape also requires new capabilities in digital technologies, Internet of Things and smart energy, therefore we will also work with non-energy companies with innovative technologies and business approaches. This is where our new TUS-CLP joint venture comes in. The partnership is focused on the development of new clean energy and smart city technologies, addressing the evolving energy needs and ongoing digital transformation in the GBA region.

We are also looking for opportunities in clean energy technologies including solar power in GBA. We are excited about opportunities to contribute to the region's sustainable growth.

Mr Wen Hui Vice President, TUS-Holdings Co., Ltd. Chairman, Beijing TUS-Clean Energy Co., Ltd. Group Director & Vice Chairman CLP Power Hong Kong

## **Human Capital**

The digitalisation of the energy sector – combined with the transition to a low-carbon future – has made an agile workforce more important than ever. This is being compounded by broader social and demographic changes creating challenges on the labour supply side. Competition for STEM (science, technology, engineering and mathematics) qualified individuals will intensify as all sectors of the economy digitalise. This has reinforced the need for CLP to maintain an inclusive and sustainable workforce. In all parts of our business, we remain committed to attracting diverse and high-quality talent, and to fostering open communication, mutual understanding, trust and respect.

#### **Ensuring High Safety Standards**

We remain committed to ensuring the highest standards of safety at every level of our operations and to continually improve our safety performance to look after our people. However, tragically we had two fatal incidents resulting in the deaths of one employee and one contractor in Australia in 2018.

We have conducted thorough investigations into the fatal incidents and all other incidents over the course of the year with the potential to cause serious injuries. An internal panel has looked into their root causes and reviewed our safety standards and procedures in order to guide future Health, Safety, Security and Environmental (HSSE) policies. While our injury rates have declined by more than a third in the past four years, the number of fatal incidents has plateaued and we are focusing our strategy on reducing the potential for harm and eliminating risks wherever possible. We are also committed to understanding how behaviour affects our safety performance and will continue to support behavioural-safety observation programmes.

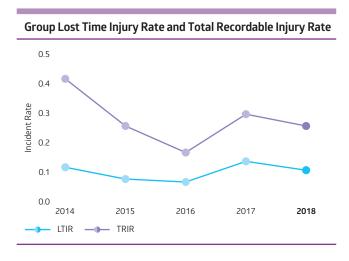
We regularly review how each of our assets and regions addresses safety risks. We continue to implement comparable standards across the Group for our risk framework, which includes identifying generic environmental risks. Quarterly HSSE risk reviews are conducted to provide detailed information for the Group HSSE Committee.

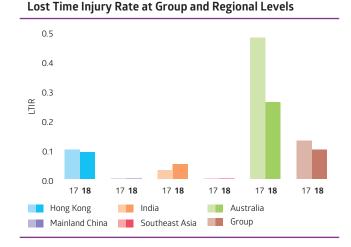
We established a group-wide Health, Safety and Environment (HSE) Improvement Strategy in 2018 under which each region has developed its own action plan. We are committed to working towards a goal of zero harm to all employees, contractors, and the public in all our activities and operations. Our HSE Improvement Strategy is based around five pillars, each of which emphasises a key fundamental principle of effective HSE management. The critical theme across all pillars is a focus to reduce the number of serious incidents. The strategy will be implemented over a three-year period.

Uplifting Our Safety Culture	We will focus on involving both employees and contractors to build on the existing safety culture across all regions in which we operate. The enhanced safety culture will support more effective intervention by managers, promote questioning attitudes, and encourage vigilance against complacency.
Rethinking Risk	We will rethink our risks to move beyond considering compliance alone as the end goal. We will demonstrate that we learn from incidents both within our own company and in other industries. Our actions will generate a shift towards a proactive culture where risk exposure is continuously analysed and reduced.
Involving Our Stakeholders	Employees, partners, contractors, and local authorities all play important roles in driving HSE performance improvements. Engagement with these stakeholders will be critical for success and we will include contractors as well as all employees in safety culture surveys.
Maintaining a Healthy and Engaged Workforce	Physical and mental wellbeing are central to helping people stay motivated and valued. Occupational health management has so far largely concentrated on regulatory compliance, but this pillar of our HSE Improvement Strategy provides an opportunity to go beyond compliance and support more positive attitudes and innovative thinking in health and wellbeing.
Ensuring Environmental Sustainability	Environmental non-compliance is an emerging risk area for us, particularly with the changing regulatory landscape. We are committed to ensuring we support sustainability by operating in an environmentally-responsible manner.

#### Five Pillars of Our HSE Improvement Strategy

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 2018. Our injury rates saw a slight reduction in 2018.





1.0 0.8 0.6 TRIR 0.4 0.2 0.0 17 18 18 17 **18** 17 **18** 17 **18** 17 18 Hong Kong India Australia Group Mainland China Southeast Asia

Total Recordable Injury Rate at Group and Regional Levels

#### Note:

The LTIR and the TRIR are the number of lost time injuries or recordable injuries measured over 200,000 working hours, which is equivalent to around 100 persons working for one year.

#### **Our Material Topic**

# ( Building an Agile, Inclusive and Sustainable Workforce

As decarbonisation and digitalisation offer new opportunities for business growth, we need to continually attract and develop diverse and high quality talent. This section discusses our strategies to expand the capabilities and skillsets of our employees, and develop a work environment that attracts and retains the best talent.

#### Building an Agile, Inclusive, and Sustainable Workforce

Compared to most other industrial sectors, the utility industry is unusual in that for many years it has not been exposed to the competitive and technological pressures that have driven change in other sectors. A long period of stability has now come to an end as the combined impact of energy policy changes, the low-carbon transition, and digitalisation of the energy sector creates a wave of disruptive change throughout the industry.

Consequently our core task of attracting, developing and retaining a skilled technical workforce has become more complex as we address multiple challenges:

- Managing the skills transition from conventional energy
- Building capabilities and strengthening resources to support the expansion of renewable energy
- Building digital and commercial capabilities to support the increasing digital intensity of all aspects of our business, and resource the new business models emerging from our investments in innovation

The impact of the energy transition and digitalisation on our skills profile is compounded by challenges on the labour supply side.

The first challenge is the impact of demographic changes in the countries in which we operate, although the impact of these changes differs from country to country. In Hong Kong, the population is ageing and the percentage of working age individuals is reducing. However within this the percentage of females of working age is increasing. India on the other hand has a relatively much younger labour force, but conversely a very low rate of female participation in the economy due to cultural factors.

The second supply-related challenge is the increase in demand for STEM-qualified individuals as all sectors of the economy digitalise. This creates more competition for the same talent pool who are our future technicians and engineers.

We are also mindful that we operate in a social context where there is growing concern over inclusive growth and equality of income and opportunity. Consequently employees and other stakeholders expect us to demonstrate valuesbased management in dealing with potentially divisive social issues.

There is no single solution to maintaining an agile, inclusive, and sustainable workforce in the face of these challenges – it requires a coordinated and integrated range of strategic initiatives.

#### **Building Capability and Our Future Supply of Skills**

The transition to renewable energy presents a number of challenges. Whilst some skills are transferrable from the conventional energy business, we also need to build new skills and capabilities. For example any venture into offshore wind will present new technical challenges for us, and will require new capabilities.

We are allocating more resources to our innovation-related teams. There has been a significant expansion in resources allocated over the past two years, and in 2018 we reviewed resource allocation to ensure it was efficient, effective, and aligned with our innovation priorities. We are also strengthening our subsidiary CLPe Solutions, formerly-named CLP Engineering, in preparation for it being the vehicle for commercialisation of our innovation business.

The development of our employees to prepare them for the digital economy is important. A key aspect of this is ensuring an adequate level of executive awareness of the challenges presented by the energy transition and digitalisation to prepare them for an increasingly volatile, uncertain, complex, and ambiguous business environment. We continued to work with our partners Chatham House, the International Institute for Management Development (IMD), and École polytechnique fédérale de Lausanne (EPFL) in 2018 to deliver topical industry briefings to key executives.

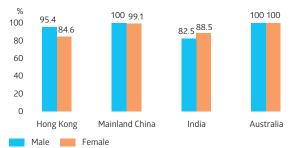
We also delivered a number of targeted training programmes on digital skills. These programmes included managing digital disruption with IMD, and an intensive data analytics programme that will be delivered by technology educator Decoded. We have also introduced Design Thinking training into our Hong Kong business.

#### **Competitive and Sustainable Benefits**

At the end of 2018, the Group employed 7,634 people compared with 7,542 in 2017. A total of 4,264 were employed in the Hong Kong electricity and related businesses and 3,033 by our businesses in Mainland China, India, Southeast Asia, Taiwan and Australia, with the remaining 337 employed by CLP Holdings. Total remuneration for the year ended

#### Employee Training

#### % of Employees Trained by Region and Gender



#### % of Employees Trained by Region and Professional Category



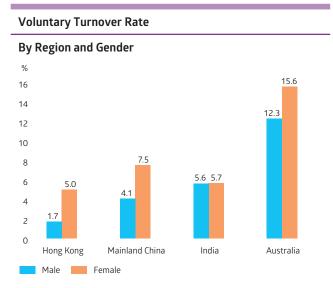
#### Average Training Hours per Employee By Gender

51.6
28.5
28.6
37.9
55.8
55.2
78.2
27.1
21.1

31 December 2018 was HK\$5,935 million compared with HK\$5,573 million in 2017, including retirement benefit costs of HK\$584 million compared with HK\$561 million in 2017.

We comply fully with any 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 competitive pay and benefits, reasonable and legally compliant working hours, and equal and non-discriminatory treatment regardless of gender, race, or other attributes recognised by the laws of the countries in which we operate. Competitive pay and sustainable benefits play a key role in attracting and retaining employees. We monitor pay carefully to ensure that it is competitive, and reward all employees in relation to individual and company performance. Our core benefits are also reviewed regularly to ensure they are fit for purpose and sustainable. We received the Fair Wage Certificate award from the independent Fair Wage Network for our Hong Kong wage practices in 2018. In recognition of our placing high value on sustainable retirement benefits, we also received a Good MPF Employer award from the Mandatory Provident Fund Schemes Authority in Hong Kong, and an award for the Best ORSO Scheme from the Asia Asset Management publication.

Our ability to retain employees is reflected in our voluntary turnover rates that are generally lower than local market averages.



#### By Region and Age Group (%)

	Below				50 &
	18	18 – 29	30 - 39	40 - 49	above
Hong Kong	-	5.9	4.3	1.7	1.1
Mainland China	-	16.4	5.2	1.5	-
India	-	6.4	7.2	2.9	2.5
Australia	-	18.7	15.2	10.5	10.6

#### **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, non-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 proactively 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 respect internationally-proclaimed human rights across our value chain. Our commitment is stated in our CLP's Value Framework. We recognise that our corporate responsibility to respect human rights extends to our network of suppliers and contractors.

2018 was the first year we have reported the number of contractors across regions. As contractors are not our direct employees, reporting of these numbers presents significant data collection and validation issues, and it will take more than one reporting cycle to be able to report fully and completely.

However from this first information we can see that the ratio of contractors to employees varies significantly between our regional operations, with 87% of our total workforce being made up of contractors in India, compared to 37% in Mainland China. In some regions the use of contractors reflects outsourcing of operations and maintenance activities, and in other cases it reflects temporary increases in manpower due to the resourcing of capital projects.

The highest utilisation of labour supply contractors (that is contractor staff under CLP direction and control) is in our Hong Kong business, where it is equivalent to 29% of our employees. Of these contractors, 71% have been working with CLP for one year or more as at the end of December 2018.

In 2018 we carried out an independent review of the wage practices of three major contractors in Hong Kong. We will follow up on the detailed results of this in 2019, but an early conclusion is that we need more transparency over labour practices in sub-contractors.

#### **Employees and Contractors by Region**

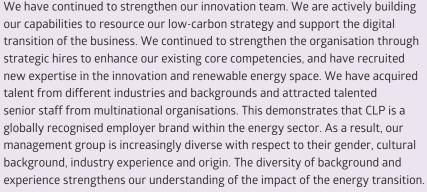
	Employees	Labour Supply <sup>1</sup>	Service Contractor and Sub- contractor <sup>2</sup>	Sub-total	Total Workforce
Hong Kong	4,538	1,316	3,993	5,309	9,847
Mainland China	596	14	342	356	952
India	458	80	2,872	2,952	3,410
Australia	2,042	167	1,247	1,414	3,456
Total	7,634	1,577	8,454	10,031	17,665

Notes:

1 Labour supply refers to manpower supplied by contractor companies under labour supply agreements for providing manpower to work under the direction and control of CLP or subsidiary staff. The figures above reflect the average of quarterly reported contractor numbers from our regions.

2 Service contractor refers to the full-time equivalent number of contractors in each region. The numbers above are converted from the number of man-hours incurred in 2018, assuming 48 hours of work per week.

Electricity networks and markets across the world are becoming increasingly complex – how is CLP growing the diversity of views, backgrounds and expertise within the organisation in order to understand this complexity and thrive within it?



We have also broadened and diversified our recruitment sources and channels, for example recruiting engineering graduates directly from a number of overseas universities, providing industrial placements for engineering students in Hong Kong from the Universities of Manchester and Aston, and offered internships to engineering students from EPFL and the University of New South Wales.

**lan Chisholm** Project Development Engineer Renewable Energy CLP Group Operations Chief Human Resources Officer



#### **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 taken steps to prevent such practices, including stringent checking and control procedures in selection and on-boarding processes, and training for our key contractors who provide manpower or services to our operations.

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 in 2018. There was no breach of the laws and regulations in relation to child and forced labour across our Group in 2018.

#### **Diversity and Equality of Opportunity**

We recognise that we operate in a culturally diverse region, each subsidiary has the freedom to respond appropriately to local diversity and inclusion priorities.

Our management team is increasingly diverse with respect to their backgrounds, experience, and origin. In 2018 we recruited 16 senior strategic hires from diverse locations and sectors. More information can be found in CLP's online <u>Sustainability Report</u>.

#### **Diversity of Management**

#### Group Executive Committee (GEC) members



Below 50 50-54 55-59



#### By Length of Service

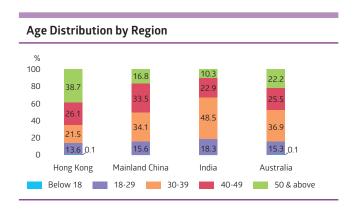
Below 5 years	5-9 years	10-14	years	15-19 years	25 years & above
43%		7%	7%	21.5%	21.5%

60-64

29%

#### Note:

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







#### **Gender Equality**

We have set a number of group-wide gender diversity targets, and continue to take initiatives to encourage more females into workforce. Details can be found in CLP's online <u>Sustainability Report</u>.

In Hong Kong we have progressively enhanced maternity related benefits, expanded flexible working possibilities, and are monitoring gender pay equity issues actively.

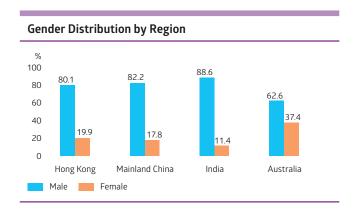
There are two concepts commonly used to identify and address gender pay issues. Gender Pay Equity is a measure of the median earnings of females compared to males and reflects the demographic profile of the organisation, in particular the percentage of females in senior roles. On the other hand Equal Pay for Work of Equal Value is a measure of relative pay for jobs at the same grade or level.

To assess Gender Pay Equity in our Hong Kong workforce we commissioned an independent audit using the UK gender pay equity disclosure methodology. The results of this confirmed that median actual earnings of our female employees are higher than male employees. This reflects the structure of our workforce, with relatively low percentage of females in operational roles, but conversely higher percentages in professional and managerial roles.

We ensure Equal Pay for Work of Equal Value by applying objective and non-discriminatory processes of job evaluation, grading and pay determination. We have confirmed that our processes comply with the Hong Kong Equal Opportunities Commission guidelines on equal pay between men and women under the Sex Discrimination Ordinance.

Our group-wide human resources policy guidelines also require all of our subsidiary businesses to have similarly objective and non-discriminatory processes in place. For example EnergyAustralia undertook a gender pay equity exercise in 2018 to address pay differentials between pay for men and women in salaried positions.

This year we received external recognition with the Family Friendly Employers awards in Hong Kong and were amongst the first signatories in Hong Kong of the Racial Diversity and Inclusion Charter.



#### **Discrimination and Harassment**

We state in our Value Framework that we are committed to providing a work environment free of harassment or discrimination. We have clear policies in place with respect to complaints about discrimination and harassment, supported by regular employee training. Our group-wide harassment-free policy sets a common framework of principles, and our detailed policies in each country are fully compliant with local legislation.



We are taking a coordinated range of initiatives to build an agile, inclusive and sustainable workforce.

#### **Our Material Topics**

Growing Our Business with Purpose
 Reinforcing Data Protection

In our commitment to the long-term sustainability of our business, we have always managed our operations to create value for different stakeholders. In this section, we discuss how we manage our social and relationship capital in meeting the growing expectation of companies to fulfil their broader business purposes and creating societal value in addition to delivering financial results. This section also discusses our efforts in safeguarding data privacy.

Our business powers the growth of not only this generation, but also the next. To strengthen the long-term viability of both our business and the communities we serve, we rely on our social and relationship capital to help build our reputation and the trust our stakeholders have in us. These multi-faceted stakeholder relationships in turn create the basis for strong partnerships to address pressing challenges central to the future of our society.

The increase in extreme weather events in recent years has highlighted the imminence of climate change and the urgency of decarbonisation. Coupled with globalisation and digitalisation, these trends have caused major disruption to economies and industries, leading to greater uncertainty and division in many societies.

#### **Improving Energy Efficiency**

To address climate challenges, we are strengthening our efforts to work with customers and the wider community to promote increased adoption of renewable energy and encourage efficient consumption. We organised a programme of seminars, roadshows and workshops in Hong Kong to engage more than 4,000 people and share information on our FiT scheme for renewable energy generation.

Timely electricity usage information is key to energy saving, empowering customers to pursue new low-carbon lifestyle options that contribute to a greener environment. As such, we began a plan in 2018 to install smart meters for all our customers in Hong Kong by 2025, which we hope could accelerate the development of new services and solutions to enable improved energy management, reliability and efficiency. To encourage customers to reduce their electricity consumption and adopt greener lifestyles, our new Power Connect programme allows them to earn rewards for energy saving throughout the year. Participating customers are able to designate the beneficiaries of electricity subsidies in the programme, including elderly people, low-income families, and people with disabilities. Each year, the programme will benefit an estimated 40,000 households in Hong Kong, including 10,000 tenants of subdivided units.

We also started our Electrical Equipment Upgrade Scheme to provide subsidies to commercial and industrial customers to replace or upgrade their lighting systems, air-conditioners and other electrical equipment to more energy-efficient models.

In 2018, we continued to hold our successful Power Your Love programme for the fourth consecutive year. The programme has encouraged customers to save energy during the summer, with the savings converted into donations for tens of thousands of underprivileged people. Power Your Love has led to cumulative savings of around 32GWh of electricity since its 2015 launch.

As part of our new initiatives to encourage adoption of clean energy under the new Development Plan, we began our REC programme in January 2019 to provide customers in Hong Kong with a new way to support the development of renewable energy locally, including solar and wind power and landfill gas projects. In addition, we introduced the new CLP Eco Building Fund to support projects which improve energy efficiency in residential and commercial and industrial buildings, including retrofitting projects, retro-commissioning services and the implementation of smart technology. With buildings consuming around 90% of electricity used in Hong Kong, the fund is an effective way to lower energy consumption and emissions. Since October 2018, the fund has received over 130 applications.

To recognise excellence in energy efficiency and the adoption of renewable energy by businesses and organisations, we organised an inaugural Smart Energy Award programme in Hong Kong in 2018. It was supported by the Government and hundreds of organisations, chambers of commerce, environmental groups, and academic and professional bodies.

#### **Committing to Carbon Neutrality**

EnergyAustralia has championed carbon-neutral electricity since 2016, when it introduced the *Go Neutral* initiative to enable customers to offset emissions from their electricity consumption at no extra cost. In September 2018, the programme gained further momentum when EnergyAustralia offset the emissions of the iconic MCG stadium and the surrounding Yarra Park precinct during the month. This included not only all electricity consumption, but also the carbon produced by the transportation and preparation of food and beverage for over 400,000 people who attended events at the popular stadium during September. The monthly emissions offset was the equivalent of taking 50,000 cars off the road for a month.

We continue to support efforts towards improved energy efficiency at the Sydney Opera House, which has reduced electricity consumption by 25% in the past three years. EnergyAustralia offset the remaining emissions allowing the Opera House to achieve carbon neutral certification in 2018, five years earlier than planned. The start of the CLP Carbon Credits programme in 2018 provides a new international e-commerce platform allowing customers to offset their emissions by purchasing credits created by generation from our wind farms in India. Purchasing carbon credits is a way of contributing to the development of renewable energy, supporting clean energy production, and enabling it to be used indirectly in other countries.

#### **Inspiring the Next Generation**

We are committed to working with young people to instil hope and positive outlook at a time when economies around the world face unsettling socioeconomic change. Since setting up a dedicated Youth Programme Office in 2017, we have strengthened our work in this important field.

We are stepping up our student outreach efforts, including the Engineer in School programme which aims to generate interest in power engineering among junior secondary school students in Hong Kong. In the last academic year, the programme reached out to some 10,000 students.



Veltoor Solar Farm not only provides renewable energy to India, but also improves the living conditions of local villagers.

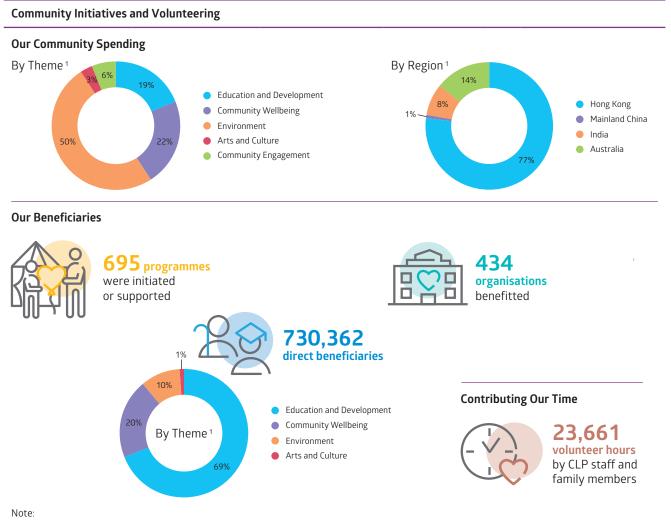
To nurture greater environmental awareness among younger children, we produced animated videos and teaching aids designed for kindergarten classes. Featuring the engaging POWER FOUR characters, these educational materials enable children to cultivate good habits and knowledge on energy efficiency in their formative years.

We teamed up with the Hong Kong Federation of Youth Groups for the CLP Energy for Brighter Tomorrows award programme, providing 20 scholarships for secondary school students who overcame challenging circumstances. With the aim of inspiring young people to adopt positive attitudes, the programme invited CLP employees to mentor students, providing individual coaching and guidance.

Under a new Government programme for tertiary students in Hong Kong, we offered internships at our operations in Mainland China and overseas markets including Thailand. Participants were given work placements in roles in engineering, information technology, and marketing, acquiring valuable work experience outside Hong Kong to increase their career prospects.

To promote STEM education, we organised workshops at the Maker Faire Hong Kong 2018 x Make Big event at the Hong Kong Polytechnic University in July, hosting around 2,000 visitors. We also partnered with St James' Settlement on a cable jointing workshop that has attracted more than 100 students since it was set up in the fourth quarter of 2018.

Our education sponsorship programme in India has since 2012 supported hundreds of high school and university students in their academic studies and professional development. The CLP India Scholarship Scheme continued to grow in 2018 as we worked with non-government organisations to offer financial assistance to almost 400 students.



1 Figures include rounding adjustments.

#### **Providing Training for Tomorrow's Challenges**

The CLP Power Academy has focused on professional training in power engineering for young people in Hong Kong to nurture talent for the electricity industry since its launch in 2017. In July 2018, the Academy and the Vocational Training Council jointly launched a new part-time diploma programme, providing an alternative career path for young people who are interested in joining the power engineering industry but lack the required academic qualifications.

It also worked with leading universities in Hong Kong and overseas to develop more advanced courses in 2018. We launched a new part-time post-graduate programme in power engineering in partnership with the Hong Kong University of Science and Technology and the University of Strathclyde in Scotland. We also teamed up with the College of Professional and Continuing Education, affiliated to Hong Kong Polytechnic University, to set up a new part-time degree programme in electrical engineering. Around 15,000 primary school students in 18 Hong Kong schools belonging to Sheng Kung Hui took part in our Green Elites Campus Accreditation programme in 2018, learning about climate change and the importance of green living. We continued to work with kindergartens, primary and secondary schools, colleges, and universities, engaging with young people at all stages of education in the communities we serve in Hong Kong, Mainland China, India, and Australia.

#### **Engaging Stakeholders**

In our efforts to build sustainable businesses in the communities we serve, we are committed to fostering trust and deepening our relationships with a growing universe of stakeholders to create positive societal impacts. To provide better understanding of our initiatives on energy conservation and clean generation under the new SoC agreement and the Development Plan, we value our continuous dialogue with stakeholders including members of the Energy Advisory Committee and District Councils in Hong Kong.

I understand CLP has rolled out some measures to help improve the safety and living conditions of subdivided units, including offering subsidies for the landlords to carry out rewiring work needed for the installation of individual electricity meters. How has the reception been? Do landlords support this? The living environment of tenants of subdivided units in Hong Kong is among our top-of-mind concerns in our continued efforts to support underprivileged groups. I am grateful to all our partners, including the Society for Community Organization, for working with us to help improve the living conditions in subdivided units. We believe electrical rewiring and the installation of individual meters will help enhance the safety of these flats. We now have 27 community partners who are making referrals to us, and this is helping us channel our resources more effectively to support people who are most in need.

We recognise the critical role of landlords in making this happen. This is why our new Power Connect programme offers one-stop service to assist landlords to undertake rewiring and electricity meter installations projects. Since the programme started on 1 January 2019, one of the first projects we completed was the installation of individual meters for four subdivided unit households. With wider awareness of the initiative, we look forward to receiving referrals by community partners for the applications of meter installation. Separately, we offer one-off HK\$500 electricity subsidies to 10,000 subdivided unit households to relieve their financial burden.

Power Connect builds on our longstanding efforts to support tenants of subdivided units and other underprivileged groups including elderly and disabled people. These initiatives are at the heart of our ongoing commitment to the long-term sustainability of the communities we serve.

Mr Ho Hei-Wah Director Society for Community Organization Quince Chong Chief Corporate Development Officer CLP Power Hong Kong We continue to engage with customers across multiple channels to obtain their feedback and opinions, including our Local Customer Advisory Committees (LCAC). Since they were set up in 1994, the LCACs have been a key conduit between the Company and our customers, enabling ongoing improvements in our services. We recently celebrated the 25th anniversary of the establishment of LCACs, which have served an important role in the development of our world-class energy services in Hong Kong.

#### **Promoting Community Wellbeing**

In 2018, we continued to deepen our efforts to promote community wellbeing and support people in need. EnergyAustralia created partnerships with groups including VincentCare, ICAN and the Thriving Communities Partnership to provide assistance to people experiencing financial difficulties, including with the costs of their energy.

In Mainland China, more than 4,800 villagers benefitted in 2018 from CLP-sponsored water purification projects in Shandong Province, as well as our road construction and water pipe restoration in Guangdong Province. We donated daily necessities to more than 6,000 people in need, including elderly home residents, underprivileged children and villagers in provinces across the country.

More than 5,800 people living near our Samana and Mahidad wind farms in India benefitted from water projects supported by CLP last year. The construction of new water structures at our Khandke Wind Farm improved water access to hundreds of farmers. We also supported projects to provide solar street lights and solar lanterns, and offered polio immunisations to 1,800 children near our Paguthan gas-fired plant.

Our colleagues across the region have continued to contribute thousands of hours of their time and expertise to support projects in their local communities. EnergyAustralia began new partnerships with charities including the Foodbank Breakfast Club and Sacred Heart Mission in 2018. In Mainland China, our volunteers participated in projects that benefitted the elderly and school children.

#### **Safeguarding Data Privacy of Customers**

To maintain the long-term sustainability of our business, we are guided by deep-rooted values that have driven our success for more than 100 years. Our commitment to protect the customer data entrusted to us is motivated by our value of respect for people and their privacy. In 2018, in our Hong Kong retail business, no customer privacy and data loss cases were reported or noted.

Our EnergyAustralia retail business received six privacy complaints relating to information being provided to unauthorised parties. Of these complaints, three were received from the Australian Privacy Commissioner regarding potential breaches of customer privacy (two of these relate to the same customer). Following investigation of the complaints, however, the Commissioner closed all files on the basis that EnergyAustralia had not interfered with the customer's privacy <sup>1</sup>. EnergyAustralia has resolved the remaining complaints.

EnergyAustralia had three notifiable breaches that have been reported to the Office of the Australian Information Commissioner (OAIC) and the affected individuals since the notifiable data breach reporting obligations came into effect<sup>2</sup>. Remediation has also been undertaken to prevent reoccurrence.

#### Notes:

- 1 One of these cases was reopened in December 2018 with the customer requesting further information.
- 2 As of 31 December 2018, there was also a potential notifiable data breach that was still under investigation. This was confirmed as notifiable and reported to the OAIC in January 2019.

#### **Our Material Topic**

#### **(I)** Responding to Climate Change

This section discusses our strategies to reduce carbon emissions and minimise other environmental impacts of our business, as part of our contributions to global efforts to mitigate the impact of climate change.

To build a sustainable future for our business and the communities we serve, we are committed to a path of decarbonisation as part of the global efforts to combat climate change. Progress at the United Nations Climate Change Conference in Poland in December 2018 delivered a "rule book" to provide guidance for countries on how to practically implement the Paris Agreement. This is a small but welcomed step forward.

#### Leading Asia towards a Low-Carbon Future

As the first power company in Asia to set carbon intensity reduction targets in 2007, we have continued to tighten our goals under Climate Vision 2050, our commitment to confront the challenges of climate change. In our latest review, conducted in 2017 and announced in 2018, we set a cornerstone target to reduce carbon intensity by 80% by 2050 compared with 2007 levels. We also set new clean energy targets for 2030, committing the Group to further diversify into renewable and zero carbon energy generation. Going forward, we will review the targets for Climate Vision 2050 at least every five years.

In Hong Kong, our new Development Plan covering the period from 2018 to 2023 includes key capital projects to aid our transition to gas generation and cleaner energy sources in support of the Government's environmental policy. Progress in our plans to build an offshore LNG terminal continued in 2018 with an environmental impact assessment completed and approved in October. The project will provide a long-term alternative gas supply to meet the fuel needs of Hong Kong and enhance the diversity and security of our gas supply. The Development Plan also includes plans for additional gas-fired generation capacity and cross-border transmission networks to facilitate the import of clean energy.

#### **Growing Our Renewable Energy Portfolio**

In India, a new strategic partnership with leading global institutional investor CDPQ marked an important step in CLP India's plans to expand investment in renewable energy operations as well as transmission, distribution, and other customer-focused services. The full commissioning of the 100MW Veltoor Solar Farm in the state of Telangana meanwhile further expanded CLP India's renewable energy portfolio. CLP India also acquired interests in two operational solar projects in the state of Maharashtra – the 50MW Gale Solar Farm and the 20MW Tornado Solar Farm.

In Mainland China, we acquired the remaining 49% equity stake in the 85MW Jinchang solar plant in Gansu province in May. We also commissioned the 17MW Lingyuan solar plant in Liaoning province and committed to Phase III of our Laiwu wind plant in Shandong province. This expansion will make Laiwu CLP's largest wind asset in China with a capacity of around 149MW.

EnergyAustralia expanded its renewable energy portfolio after entering into long-term offtake arrangements with solar and wind energy producers in eastern Australia as part of a programme to financially underpin 500MW of renewable energy projects. EnergyAustralia also agreed to operate two grid-connected battery projects in Victoria with a combined storage of 80MWh. The projects will charge and dispatch energy into the NEM, supporting the integration of more renewable energy sources into the grid.

These investments and initiatives across Asia Pacific are increasing the scale of the Group's renewable energy business and supporting our ongoing clean energy transition. However, renewable energy as a share of our generation portfolio (including equity generation in operation and under construction as well as long-term capacity and energy purchase) marginally decreased to 12.8% at the end of 2018, compared with 13.1% a year earlier. This reduction resulted from the accounting for the sale of a 40% equity interest to CDPQ in CLP India, which had a renewable portfolio of over 1,000MW as at 31 December 2018. CLP India continues to be responsible for the operation of these wind and solar assets following the transaction. Barring this adjustment, our renewable energy portfolio would have increased in 2018 by more than 300MW in equity generation and long-term energy and capacity purchases.

Nuclear power – currently the only commercially-viable zero carbon solution available to meet baseload demand – also plays a key role in our decarbonisation journey. Fullyear contributions from our investment in Yangjiang Nuclear Power Station, combined with higher output from our renewable assets in China and India, and the completion of new long-term purchase agreements in Australia, helped lower our carbon intensity to 0.66kg CO<sub>2</sub> / kWh (based on equity and long-term energy and capacity purchase). The share of non-carbon energy in our portfolio increased to 24.1% from 23.2% in 2017.

#### **Balancing Diverse Needs and Energy Targets**

In drawing up our decarbonisation strategies, we are keenly aware of the diverse needs in the different markets in which we operate. Electricity has been lifting millions of people out of poverty and will continue to play a pivotal role in economic growth and human development in India, Southeast Asia and Mainland China. Ensuring reliable and safe access to competitively-priced electricity remains a priority in these markets. In markets where fossil-fuel based generation assets remain essential to meet baseload demand in the short-term, we will work with Governments and industry stakeholders to develop tailored and appropriate decarbonisation strategies.

In more developed economies such as Hong Kong and Australia, transitioning from existing fossil-fuelled power plants requires careful planning. The differing needs of our operations in different parts of the world mean we will continue to calibrate the pace of energy transition against the goals of different jurisdictions as reflected in their pledges under the Paris Agreement.

#### **Raising Environmental Standards**

In CLP's Value Framework, we commit to continuously improve our environmental performance in line with technological advances and evolving stakeholder expectations. We have drawn up a Group Environmental Policy Statement supported by a range of standards and guidelines at the Group and business unit levels to address the environmental issues we face.

We require power generation facilities over which we have operational control to achieve third-party certified ISO 14001 environmental management certification within two years of acquisition or the beginning of operations. In 2018, all our assets in this category have successfully completed the upgrade from ISO 14001:2004 to ISO 14001:2015.

We continued to expand and strengthen 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.

#### **Air Emissions**

Regulatory requirements on air emissions are becoming more stringent in jurisdictions where we operate, and we continue to explore technological solutions to ensure we fulfil or exceed our compliance requirements.

Our total air emissions slightly decreased to 145.5kT in 2018 even though our total electricity generation increased. In Mainland China, our emissions control retrofit at Fangchenggang Power Station was completed in October. In India, we completed the enhancement of our FGD unit

Environmental Category	Aspect	Parameters	2018	2017
Emissions	Greenhouse gases	Total CO <sub>2</sub> emissions (from power generation) Carbon intensity	52,048kT 0.74kg CO <sub>2</sub> per kWh / 0.66kg CO <sub>2</sub> per kWh <sup>1</sup>	47,921kT 0.80kg CO <sub>2</sub> per kWh/ 0.69kg CO <sub>2</sub> per kWh <sup>1</sup>
	Air pollutants	Total SO <sub>2</sub> emissions Total NO <sub>x</sub> emissions Total particulate matter emissions	76.1kT 60.9kT 8.5kT	81.6kT 59.3kT 8.3kT
	Water discharged	Total water discharged	5,103 Mm <sup>3</sup>	4,437.7 Mm <sup>3</sup>
	Waste	Total solid waste produced Total liquid waste produced	12,906T 1,737kl	21,191T 1,523kl
Resource Use	Fuel	Total coal consumed Total gas consumed Total oil consumed Non-carbon % Renewable energy %	521,568TJ 83,359TJ 3,774TJ 20.9% / 24.1% <sup>1</sup> 12.5% / 12.8% <sup>1</sup>	471,976TJ 91,426TJ 5,069TJ 22.4%/23.2% 14.2%/13.1%
	Water	Total water withdrawal	5,154 Mm <sup>3</sup>	4,480.8 Mm <sup>3</sup>

Note:

1 Equity basis / Equity basis as well as long-term energy and capacity purchase arrangements

at Jhajjar Power Station in order to meet more stringent emissions requirements for 2019. This led to a reduction of sulphur dioxide  $(SO_2)$  emissions from Jhajjar.We are also conducting studies to enable us to improve our nitrogen oxides  $(NO_x)$  performance at Jhajjar to meet the new limits. In Hong Kong, a new emission limit on mercury will be imposed at Castle Peak Power Station in April 2019. In Australia, we continue to monitor the introduction of tightened new emissions requirements.

#### Waste

Waste management programmes and initiatives continued to be implemented across the Group in 2018. A plastic reduction campaign was launched in Hong Kong, for example, to avoid single-use plastic products to reduce plastic pollution. Meanwhile, we arranged for more than 1,000 damaged solar panels from our Jinchang Solar Power in Mainland China to be taken back by the manufacturer to reduce waste.

#### Water

We are committed to using water resources responsibly and sustainably in all our operations, and to ensure our assets withdraw water according to licence entitlements. In 2018, water supplies at Jhajjar Power Station in India were reduced because of water scarcity in the peak summer and winter seasons. The power station is currently exploring the possibility of building an additional reservoir to mitigate the effects of future water shortages.

The quantity of water withdrawal and discharge in CLP's operations is dominated by thermal plants where large quantities of seawater are used for cooling and returned to the sea with only a slight increase in temperature. As in previous years, the total water withdrawal and discharge were related to the total electricity generation of our operating assets.

We employ the World Business Council for Sustainable Development's global water tool to assess our operating assets and mitigate any risks identified. In 2018, we continued to participate in the CDP's Water Survey, consulting with industry peers to benchmark and share good practices in water resource management.

#### **Environmental Regulatory Compliance**

Our Jhajjar plant in India was notified by the Haryana State Pollution Control Board to pay Rs 50 million, after the National Green Tribunal (NGT) announced penalties in November 2018 on thermal power plants that did not meet ash disposal requirements. Our view is Jhajjar is compliant<sup>1</sup>. We continue to explore viable options for ash utilisation, which remains a key environmental challenge for the Jhajjar plant. There were two licence limit exceedance incidents in 2018. One licence limit exceedance was particulate emissions at Jhajjar, which was a minor incident related to operation that did not result in any penalties. The other was an exceedance of carbon monoxide for three brief periods at Yallourn in Australia. It was assessed that there was no harm to the environment and Environment Protection Authority Victoria was notified. Corrective action has been taken to prevent a repeat of this incident.

# Environmental Regulatory Non-Compliances and Licence Exceedances

**2018** 2017 2016 2015 2014

Environmental regulatory non-compliances resulting in fines or prosecutions	<b>0</b> <sup>1</sup>	0	0	1	1
Environmental licence limit exceedances & other non-compliances	<b>2</b> <sup>2</sup>	13	2	13	3

Notes:

- 1 Jhajjar collaborated with the Association of Power Producers and filed a petition before the Supreme Court, pursuant to which the Supreme Court has stayed the NGT order and directed the thermal power stations to approach the NGT.
- 2 The significant reduction of licence limit exceedance in 2018 was due to the enhancement of pollution control equipment at Jhajjar.

#### Rising to the Challenges of New Regulations

In India, coal-fired power stations face more stringent requirements on the emission of particulates,  $NO_x$ ,  $SO_2$ , and mercury, as well as new requirements on water use and the need for full ash utilisation. We comply with these new emission requirements through enhancement of the FGD unit and  $NO_x$  control. There are also new national guidelines in Australia for the regulation of per- and poly-fluoroalkyl substances (PFAS). Although the standards have not yet been incorporated into individual state legislation, several states have already introduced state based legislation to phase out the use of certain groups of per-fluorinated chemicals in our firefighting equipment. We are investigating the extent and risk profile of the chemicals used at our sites and establishing appropriate control process and replacement plans across the Group.

# Governance

We are committed to a high standard of corporate governance, reflecting a company culture that values transparency and celebrates excellence in all facets.







Transparency **Excellence** 

## **Board of Directors**

#### **Non-executive Directors**



The Honourable Sir Michael Kadoorie • Chairman 🕚

- Aged 77 Appointed on 19 January 1967\* Expertise
- Global market experience Other industries (Aviation/Travel & leisure) Other listed board roles
- Related industry experience (Power/Property)

#### 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 Honorary Doctor of Laws Honorary Doctor of Science

#### Other major offices

William Elkin Mocatta • Vice Chairman (F) (Chairman) (P) (Chairman) (H)

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

#### Aged 65 • Appointed on 16 January 1993\* 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. (Director)
- CK Hutchison Holdings Ltd. (Alternate Director)



#### John Andrew Harry Leigh

Aged 65 • Appointed on 10 February 1997\*

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, and member of Executive Committee and Finance Committee)
 Sir Elly Kadoorie & Sons Ltd. (Director)

Expertise

#### 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.

Audit & Risk Committee

- (F) Finance & General Committee
- (H) Human Resources & Remuneration Committee
- Nomination Committee
- P Provident & Retirement Fund Committee
- **S** Sustainability Committee
- \* 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)

Full particulars of <u>Directors</u>, 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.



#### Andrew Clifford Winawer Brandler (F) (S)

#### Aged 62 • Appointed on 6 May 2000

Expertise

- Company executive Global market experience Other listed board roles
  - Professional (Accounting/Banking & finance) Related industry experience (Power)

#### Titles, gualifications 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

CLP Holdings Ltd. (Alternate Director – Alternate to Mr William Mocatta) EnergyAustralia Holdings Ltd. (Director)

#### Other major offices

The Hongkong and Shanghai Hotels, Ltd. (Non-executive) Deputy Chairman, Chairman of Finance Committee, and member of Audit Committee, Remuneration Committee and Executive Committee) Sir Elly Kadoorie & Sons Ltd. (Chairman)

Tai Ping Carpets International Ltd. (Non-executive Director) ▲ MTR Corporation Ltd. (Independent Non-executive Director, Chairman of Risk Committee, and member of Audit Committee)

#### 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.



#### Lee Yui Bor

#### Aged 72 • Appointed on 4 August 2003

#### Expertise

CLP market experience (China) • Company executive • Professional (Engineering)

• Related industry experience (Power)

#### Titles, qualifications and education

Chartered Engineer

Member of the Institution of Engineering and Technology 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

Diploma, Imperial College, the University of London 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. (in creditors' voluntary winding up) (Non-executive 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.

#### Philip Lawrence Kadoorie Aged 27 • Appointed on 7 August 2018

Expertise

• Other industries (Aviation) • Other listed board roles Related industry experience (Property)

#### Titles, qualifications and education

Bachelor of Science in Communication, Boston University FAA Commercial Pilot's Licence (Helicopter) Intensive Putonghua course, Tsinghua University (Beijing)

#### Other major offices

The Hongkong and Shanghai Hotels, Ltd. (Non-executive Director)

Sir Elly Kadoorie & Sons Ltd. (Director) Heliservices (Hong Kong) Ltd. (Director) Metrojet Ltd. (Director)

#### Past experience

Prior to his appointment to the Board of The Hongkong and Shanghai Hotels, Ltd. in 2017, Mr Kadoorie completed various internships in commercial property companies, Schroders Bank in London and at CLP Group in Hong Kong.

#### **Relationships with Directors and substantial shareholders**

Mr Kadoorie is the son of The Hon Sir Michael Kadoorie, Chairman of CLP Holdings. He is a Director of Sir Elly Kadoorie & Sons Ltd., overseeing a number of Kadoorie family interests in Hong Kong and overseas and, as such, is associated with the substantial shareholders of CLP Holdings.

#### Independent Non-executive Directors



#### Vernon Francis Moore (A) (Chairman) (F) (H) Aged 72 • Appointed on 7 March 1997\*

Expertise

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

#### **Titles, qualifications and education** Bronze Bauhinia Star

Fellow of The Institute of Chartered Accountants in England and Wales

Fellow of The Hong Kong Institute of Certified Public Accountants

#### Other major offices

CITIC Ltd. (Personal advisor to the Chairman)
 CITIC Mining International Ltd. (Executive Director)
 CITIC Pacific Ltd. (Executive Director)

#### Western Harbour Tunnel Company Ltd. (Non-executive Chairman) Pacific Infrastructure Ltd. (Non-executive Chairman) Pacific Infrastructure Management 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.<sup>4</sup> from 1992 until 2009 (except June to September 1996).



#### Sir Roderick Ian Eddington (F) Aged 69 • Appointed on 1 January 2006

Expertise

- CLP market experience (Australia) 
   Company executive 
   Global market experience
- Other industries (Aviation) Other listed board roles Professional (Banking & finance/Engineering)

#### Titles, qualifications and education

Officer of the Order of Australia 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)

#### LION FLY LLC. (NON-executi

#### Past experience

Other major offices

 21st Century Fox (split from News Corporation) (listed on NASDAQ) (Non-executive Director)
 John Swire & Sons (Australia) Pty Ltd. (Non-executive Director) Sir Rod Eddington was the Chief Executive of British Airways plc from 2000 until he retired on 30 September 2005. He has maintained a connection with Hong Kong from his previous directorships with Cathay Pacific Airways Ltd.<sup>4</sup>, Swire Pacific Ltd.<sup>4</sup> and Hong Kong Aircraft Engineering Company Ltd. during the period from 1988 to 1996.

#### Nicholas Charles Allen (Chairman) (A F (H) (S Aged 63 • Appointed on 12 May 2009 Expertise

Global market experience
 Other listed board roles
 Professional (Accounting)

Related industry experience (Property/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 Nonexecutive Chairman, and Chairman of Nomination Committee and Finance and Investment Committee) ▲ Lenovo Group Ltd. (Independent Non-executive Director and Chairman of Audit Committee)

#### Public service

Vision 2047 Foundation (Chairman)

#### 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.



#### Cheng Hoi Chuen Vincent (Chairman) 🕞 🕚

#### Aged 70 • Appointed on 17 August 2011 Expertise

- CLP market experience (China) Company executive Other listed board roles
- Professional (Banking & 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 Doctor of Social Science (honoris causa), the Chinese
- University of Hong Kong
- Doctor of Business Administration (honoris causa), the Open University of Hong Kong

#### Other major offices

 CK Hutchison Holdings Ltd. (Independent Nonexecutive Director, and member of Audit Committee, Remuneration Committee and Nomination Committee)

 Great Eagle Holdings Ltd. (Independent Non-executive Director, Chairman of Audit Committee, and member of Remuneration Committee and Nomination Committee)

- ▲ Hui Xian Asset Management Ltd. (as manager of Hui Xian Real Estate Investment Trust) (Independent Non-executive Director and Chairman of Audit Committee)
- MTR Corporation Ltd. (Independent Non-executive Director, and member of Remuneration Committee and Corporate Responsibility Committee)
- Shanghai Industrial Holdings Ltd. (Independent Non-executive Director, Chairman of Audit Committee, and member of Remuneration Committee and Nomination Committee)
- Wing Tai Properties Ltd. (Independent Non-executive Director and Chairman of Nomination Committee)

#### **Past experience**

Mr Cheng was the Adviser to the Group Chief Executive of HSBC Holdings plc<sup>4</sup> (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 May 2005 and May 2011, an Executive Director of HSBC Holdings plc (February 2008 to May 2011), and a Non-executive Director of HSBC Bank (Vietnam) Ltd. (November 2008 to November 2010).



#### Law Fan Chiu Fun Fanny (A) (S)

Aged 66 • Appointed on 17 August 2011 and reappointed on 1 August 2012

#### 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 (outstanding alumnus of the Science Faculty)

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. (as the unlisted holding company for a number of China Resources listed group entities) (External Director)
- China Unicom (Hong Kong) Ltd. (Independent Nonexecutive Director, and member of Audit Committee and Nomination Committee)
- DTXS Silk Road Investment Holdings Company Ltd. (Independent Non-executive Director and member of Audit Committee)

- Minmetals Land Ltd. (Independent Non-executive Director, Chairman of Remuneration Committee, and member of Audit Committee and Nomination Committee)
- Nameson Holdings Ltd. (Independent Non-executive Director)

#### **Public service**

China-US Exchange Foundation (Special Advisor) 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.

#### Independent Non-executive Directors



#### Zia Mody (H) Aged 62 • Appointed on 2 July 2015

- ExpertiseCLP 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

AZB & Partners (AZB) (Senior Partner)

- Ascendas Property Fund Trustee Pte. Ltd. (as trusteemanager of Ascendas India Trust) (listed on Singapore Exchange Ltd.) (Independent Director and member of Audit and Risk Committee)
  - The Hongkong and Shanghai Banking Corporation Ltd. (Independent Non-executive Deputy Chairman and member of Risk Committee)

#### **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) Observer Research Foundation (Trustee)

#### **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.



#### May Siew Boi Tan A F S Aged 63 • Appointed on 7 August 2018

- Expertise
- Company executive Global market experience Other industries (Banking)
- Other listed board roles Professional (Accounting/Banking & finance)
- Related industry experience (Property)

#### Titles, qualifications and education

Member of The Institute of Chartered Accountants in England and Wales

Fellow of The Hong Kong Institute of Certified Public Accountants

Graduated from The University of Sheffield (UK)

#### Other major offices

- Link Asset Management Ltd. (as manager of The Link Real Estate Investment Trust) (Independent Nonexecutive Director, and member of Audit and Risk Management Committee, Nomination Committee and Remuneration Committee)
  - HSBC Insurance (Asia) Ltd. (Independent Non-executive Director)

HSBC Life (International) Ltd. (Independent Nonexecutive Director)

MSIG Insurance (Hong Kong) Ltd. (Director)

#### Public service

Hong Kong Youth Arts Foundation (Executive Committee member) Standing Committee on Judicial Salaries and Conditions of Service (Member)

#### **Past experience**

Ms Tan was an Executive Director of Standard Chartered Bank (Hong Kong) Ltd. and its Chief Executive Officer from July 2014 to February 2017. She joined Standard Chartered Bank in 2009 as Global Head, Equity Corporate Finance.

In public service, Ms Tan was the Chairman of The Hong Kong Association of Banks, the ex-officio member of Hong Kong Trade Development Council and a member of the Currency Board Sub-Committee of The Exchange Fund Advisory Committee of Hong Kong Monetary Authority. She was a member of the Listing Committee of The Stock Exchange of Hong Kong Ltd. (from 2012 to 2015) and a member of the Takeovers and Mergers Panel and the Takeovers Appeal Committee of the Securities and Futures Commission (from 2001 to 2013). Ms Tan was also a Council Member (from 2008 to 2017) and the Vice Chairman (from 2012 to 2017) of Oxfam Hong Kong.

#### **Executive Directors**



**Richard Kendall Lancaster** • Chief Executive Officer (CEO) (Chairman) (Chairman) (Chairman)

Expertise

CLP market experience (Australia/China/India) 
 Company executive 
 Global market experience
 Desfersional (Engineering) 
 Delated industry experience (Device)

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) (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) **(F)** P Aged 55 • Appointed on 1 January 2016



CLP market experience (Australia/China/India)
 Company executive
 Global market experience
 Professional (Engineering)
 Related industry experience (Power)

Titles, qualifications and education

Knight in the Order of King Leopold Chartered Engineer (Belgium) International Certified Professional Accountant Executive business training, INSEAD Paris, France Master of Science in electro mechanical engineering

(hons. RUG Gent, Belgium) Postgraduate degree in business and IT administration (HEC Brussels, Belgium)

#### **Public service**

CNBC Global CFO Council (Member) International Integrated Reporting Council (Member) Hong Kong Belgium–Luxembourg Chamber of Commerce (Member of Executive Committee)

#### Past experience

Prior to Mr Peeters' appointment as an Executive Director and CFO of CLP Holdings in January 2016, he was the Group Director & CFO (since 1 April 2014).

He has over 25 years of experience in the energy industry. Prior to joining CLP, he was the Deputy CFO 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.

# **Senior Management**



From left to right

Front row: David John Simmonds, Geert Herman August Peeters, Richard Kendall Lancaster, Yuen So Siu Mai Betty, Chiang Tung Keung Back row: Derek Parkin, Chong Wai Yan Quince, Roy Anthony Massey, Chan Siu Hung, Catherine Leigh Tanna, Rajiv Ranjan Mishra

### Richard Kendall Lancaster Chief Executive Officer

Mr Lancaster's biography is on page 103.

#### • Geert Herman August Peeters

**Executive Director & Chief Financial Officer** Mr Peeters' biography is on page 103.

#### Derek Parkin

#### Chief Operating Officer, aged 59

Titles, qualifications and education BSc(Hons), MPhil, MBA, CEng, Eur Ing, FEI, FIMM, MIoD

#### Major responsibilities held with the Group

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.

#### David John Simmonds

#### Group General Counsel & Chief Administrative Officer Company Secretary, aged 48

#### Titles, qualifications and education

Mr Simmonds holds a Bachelor of Laws (Honours) and a Bachelor of Commerce from the University of Melbourne.

Mr Simmonds is a Fellow of the Institute of Chartered Secretaries & Administrators in England, a Fellow of The Hong Kong Institute of Chartered Secretaries.

#### Major responsibilities held with the Group

Mr Simmonds 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.

Mr Simmonds was appointed as the Company Secretary of CLP Holdings on 1 January 2016 and he is responsible for the corporate secretarial affairs of CLP Holdings and its subsidiaries.

#### Chong Wai Yan Quince

#### Chief Corporate Development Officer, aged 55

Titles, qualifications and education JP, BSSc

#### Major responsibilities held with the Group

Ms Chong joined CLP Power Hong Kong on 1 September 2012 as Chief Corporate Development Officer and is a Director of CLP Power Hong Kong Limited. She is also a director of Smart Charge (HK) Limited, an affiliated company of the CLP Group. 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.

#### Roy Anthony Massey

#### Chief Human Resources Officer, aged 64

#### Titles, qualifications and education

Mr Massey holds an MBA degree from the Manchester Business School, and a degree in Law from Liverpool University.

#### Major responsibilities held with the Group

Mr Massey has been in Hong Kong since 1996, and joined CLP Power Hong Kong Limited in 2000. He is responsible for all human resource related matters across the Group.

#### • Yuen So Siu Mai Betty F

#### Group Director & Vice Chairman – CLP Power Hong Kong, aged 61 Titles, qualifications and education

#### JP, B.Comm., CPA

#### Major responsibilities held with the Group

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.

#### Chiang Tung Keung

Managing Director – CLP Power Hong Kong, aged 52 Titles, qualifications and education

#### BSc(Eng.), MSc, MBA, FHKIE, CEng, MIET

#### Major responsibilities held with the Group

Mr Chiang is the Managing Director of CLP Power Hong Kong Limited and holds overall responsibility for the operations of the Hong Kong business, which includes a vertically integrated electricity utility serving 2.6 million customers in Kowloon, the New Territories and Lantau Island.

#### • Chan Siu Hung

Managing Director – China, aged 60 Titles, qualifications and education

JP, BSc(Eng.), MSc, CEng, HonFEI, MIET, MHKIE

#### Major responsibilities held with the Group

Mr Chan is responsible for CLP's China business with projects encompassing a wide range of energy technologies from nuclear, coal-fired, hydro, wind and solar power.

#### • Rajiv Ranjan Mishra

Managing Director – India, aged 53

#### Titles, qualifications and education

Mr Mishra 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.

#### Major responsibilities held with the Group

Mr Mishra is responsible for running CLP's business in India. He joined the CLP Group in 2002 and has over 20 years' of experience in the power industry, both in India and internationally, mostly involved in project financing, investment appraisal, finance and accounting and general management.

#### • Catherine Leigh Tanna

Managing Director – EnergyAustralia, aged 57

#### Titles, qualifications and education

Ms Tanna studied at the University of Queensland and holds a Bachelor of Laws degree and Doctor of Business honoris causa.

#### Major responsibilities held with the Group

Appointed as Managing Director of EnergyAustralia on 1 July 2014, Ms Tanna holds overall responsibility for the asset management and business development of CLP's investments in Australia. EnergyAustralia is a customer-focused energy business serving 2.55 million accounts across southeast Australia supported by a generation portfolio comprising coal, gas, wind and solar assets.

#### (F) Finance & General Committee

Sustainability Committee

Full particulars of Senior Management, including their directorships in the subsidiary companies of CLP Holdings, other major appointments and past experience are available on our website.

### **Corporate Governance Report**

# Message from the Company Secretary

CLP has long been committed to a high standard of corporate governance and to adapt and improve our practices in light of our experience and the expectations of our investors and regulators. Consistent with this approach, we have again this year taken a number of steps to enhance our corporate governance practices.

A number of these changes can be found in our revised Board Diversity Policy. Our Board plays a critical role in ensuring that our corporate governance best serves the Company's interest in building a sustainable business. The Board evaluation process completed in 2018 confirms that the Board continues to perform at a high standard. We also recognise that the business environment globally, and our industry, is changing and we must not stand still.

We have recently made a number of changes to our Board Diversity Policy to ensure that the Board continues to possess a balance of skills and experience appropriate for the requirements of the Company. Among the changes introduced is a retirement age guideline for our Non-executive Directors designed with the specific needs of CLP in mind. Under the guideline, Non-executive Directors (other than the Chairman) will not be considered for re-election if they have reached the age of 72, except where a Director is considered by the Board to have certain skills, experience or capabilities that cannot be readily replaced.

We believe this guideline will help with Board succession planning and facilitate the gradual refreshment of the Board with an appropriate degree of flexibility to meet the needs of the Company. Most important of all, it will ensure that CLP can, in our Chairman's words, continue to have the best Board for the Company in the years ahead.

David Simmonds Company Secretary **Two new appointments –** Mr Philip Kadoorie (Non-executive Director) and Ms May Tan (Independent Non-executive Director) were appointed in August 2018. The appointments were made following the retirement of Ms Irene Lee (a former Independent Non-executive Director) in May 2018.

000 Board Refreshment

Revised Board Diversity Policy with a retirement age guideline for Non-executive Directors (other than the Chairman) – recognises the importance of Board refreshment in a gradual and orderly manner to ensure the Board continues to have the skills and

Onboarding Guidelines introduced – this serves as a "road map" to guide new Directors to engage with fellow Directors, management and other management personnel with insights into CLP and our business environment.

> CLP Value Framework

experience to meet the needs of the Company.

# Nomination Committee

Committee is now chaired by an Independent Non-executive Director – Mr Nicholas C. Allen is the Committee Chairman after the CLP Holdings Chairman stepped down as Chairman of this Committee and remained as a Member.

**New appointments and Board composition** – the Committee held an extra meeting this year to consider the replacement of Ms Irene Lee and the appointment of the new Directors, Mr Philip Kadoorie and Ms May Tan.

 Added focus on succession planning and
 Board Diversity Policy – The Committee spent a considerable amount of time during the Committee meetings as well as time between meetings to consider the issues related to succession planning and the Board Diversity Policy, in particular, the retirement age guideline applicable to CLP Holdings Non-executive Directors (other than the Chairman).

Code of

Conduct

#### Independent review of CLP's cyber security

**governance** – a comprehensive review was undertaken by a specialist cyber security consultant and involved detailed assessment of our cyber security policies, procedures, organisation, resourcing and business culture.

Cyber Security Governance Review

**Review and findings –** objective of the review was to enhance and strengthen CLP's cyber security governance. Detailed findings and recommendations were presented to the Audit & Risk Committee and a dedicated briefing was also presented to the CLP Holdings Directors.

#### Recommendations and implementation –

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all the recommendations made were accepted by management and an implementation plan was presented to and endorsed by the Board.

# CLP Code on Corporate Governance

ment

Management & Staff

# Highlights

 the above illustrates how our corporate governance framework and practices have advanced and supported the effective management of the CLP Group for 2018.

# Our CLP corporate governance framework

 identifies the key participants and defines the framework and process for monitoring the management of the CLP Group to ensure that it is run in the interests of our shareholders and meets the expectations of our stakeholders.

# A Fundamental "Do the Right Thing" Culture

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Review of CLP Code on Corporate Governance (CLP Code)



**Our unique CLP Code was updated –** key changes set out below.

# **Listing Rules related changes –** with a particular focus on the important role of the Independent Non-executive Directors (INEDs) and their election, a Chairman meeting with INEDs only, the promotion of board diversity and also the diversity of Senior Management and their direct reports.



#### Updates reflecting CLP's recent enhancements in corporate governance

**practices** – including the setting up of a Continuous Disclosure Committee, adoption of the Onboarding Guidelines for newly appointed Directors and amendments to the Board Committees' Terms of Reference and Company Management Authority Manual.

Whistleblowing Policy

Shareholde,

Externe

Board

#### The CLP Code: Compliance and more

The <u>CLP Code</u> 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 110.

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 2018** and some of these are highlighted in "2018 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 <u>summary</u> of the conclusions is published on the CLP website.
- We issue a formal letter of appointment for Non-executive Directors. The <u>model letter</u> is on our website and deals with a range of matters regarding a Director's appointment and responsibilities.
- The CLP Onboarding Guidelines for Directors have been adopted in 2018 with the key objective of assisting new Directors in their understanding of CLP's business, governance and Board and Committee dynamics. The <u>Guidelines</u> are available on the CLP website.

#### 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.
- Our disclosure of financial information on the CLP Group's joint ventures and associates are enhanced in various ways such as the inclusion of off-balance sheet contingent liabilities.
- We issue individual reports for the Audit & Risk Committee, Sustainability Committee, Nomination Committee and Human Resources & Remuneration Committee.
- We announce our financial results within two months after the end of the financial year. We publish our full
  Annual Report and our <u>Sustainability Report</u> on our website within the following fortnight; the Annual Report will
  also be sent to shareholders about two weeks after that.

#### Our unique policies and practices

- CLP has established its own Corporate Governance Framework, the 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.
- Shareholder visits to CLP's facilities in Hong Kong are held throughout the year with an annual attendance of around 3,000 shareholders and their guests. This gives shareholders the unique opportunity to have a face-to-face engagement with management and to exchange views and feedback with members of our CLP Holdings Board and management.
- We conduct a group-wide Business Practice Review for our staff on a periodic basis to foster employees' understanding of our Code of Conduct under CLP's Value Framework. An important aspect of this is ensuring that our employees maintain a good understanding of CLP's culture and values.
- Under our Value Framework, we also have a Responsible Procurement Policy Statement. This sets out our expectations of the suppliers and of their suppliers and subcontractors and we encourage them to follow the same standards of integrity and transparency in doing business with us.
- Our Audit & Risk Committee will regularly examine the audit activity reviews conducted by the Internal Auditors. The Internal Auditors will highlight the significant events and findings which require the Committee's attention and further examination, where appropriate.

# 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 2018 Annual Report:
  - Key Performance Indicators (KPIs) the ESG KPIs for 2018 along with the previous four years (2014-2017) are disclosed in the Five-year Summary: CLP Group Statistics on pages 288 and 289 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 68 to 95) and the Corporate Governance Report (pages 106 to 132) of this Annual Report; and
  - Scoping and Materiality the 2018 materiality assessment process has been enhanced to prioritise the material topics, which supported the development of a more focused <u>Sustainability Report</u>. §1
- Our 2018 Sustainability Report, which is published online at the same time, captures in detail our delivery of social and environmental value in a rapidly changing environment and reports, in an integrated manner, all aspects of our activities, prepared in accordance with the Core option of the 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 15 Directors with three female Directors and the Independent Non-executive Directors representing almost 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

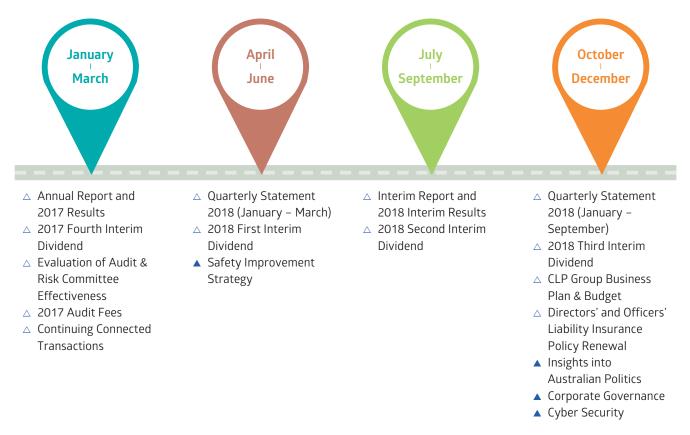
As highlighted in the "Message from the Company Secretary", our Board plays a critical role in ensuring that our corporate governance best serves the Company's interest in building a sustainable business. Under the leadership of our Chairman, the Board cultivates good governance as the cornerstone of 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 Group.

#### How the Board Spent its Time in 2018

The following shows a breakdown of the matters considered by, and briefings to, the Board in 2018.

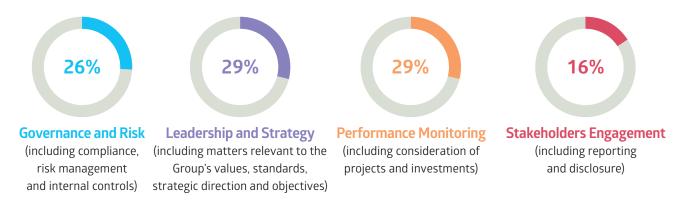


 $\triangle$  Annual recurring matters

▲ Briefings on selected topics

Key areas of focus	Commentary
Business related	The Board kept up-to-date 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.
	A dedicated Board session was also held to consider and approve the investment strategy for each of the Group's markets and businesses. In addition, the Board considered the following items:
	Hong Kong – 2018-2023 Development Plan and the associated Tariff Review under the New Scheme of Control Agreement 2018, the Hong Kong Government's proposed public consultation on long-term decarbonisation strategy as well as key updates on major infrastructure projects for the Hong Kong business.
	India – the completed transaction for the introduction of CDPQ as a strategic shareholder of CLP India.
<ul> <li>Briefings and reporting</li> <li>Corporate Governance</li> <li>Cyber security governance</li> <li>Safety improvement strategy</li> </ul>	In addition to the business market updates and briefings, the Board examined a number of selected topics. This included briefings on corporate governance proposed changes, governance of cyber security and the group-wide safety improvement strategy.





\* In determining the estimated time spent, we took into account the number of agenda items related to each category, 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:

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

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 section sets out and refers to the responsibilities and the work that each Board Committee undertook during 2018 and in 2019 up to the date of this Report (the Relevant Period).



<u>Terms of reference and membership of all Board Committees</u> 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) considers the nomination of qualified individuals for Director appointments and succession planning for Directors as well as reviews the contribution required from Directors and whether they are spending sufficient time performing their responsibilities to the Company (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 Finance & General Committee

Mr William Mocatta (Chairman), Mr Vernon Moore, Sir Rod Eddington, Mr Nicholas C. Allen, Mr Vincent Cheng, Ms May Siew Boi Tan (appointed in August 2018), Ms Irene Lee (until her retirement as Director at the conclusion of the 2018 AGM in May), Mr Andrew Brandler, Mr Richard Lancaster, Mr Geert Peeters and Mrs Betty Yuen.

#### **Responsibilities and Work Done**

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. In addition, 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:

- the Company's interim and annual results and the dividends payable to shareholders for the financial years ended 31 December 2017 and 2018;
- the CLP Group Business Plan and Budget 2019-2023;
- the 2019 tariff strategy and the 2018-2023 development plan for the Hong Kong business;
- potential investment in specific projects in Australia, China, India and Vietnam;
- the transaction which saw the introduction of CDPQ as a strategic shareholder of CLP India;
- progress on innovation activities;
- energy import from Daya Bay Nuclear Power Station;
- implementation of Group strategy for selected business units;
- the CLP Group cost of capital study; and
- CLP's foreign exchange translation risk and counterparty exposures.

The nature of the work of the Committee includes the consideration of transactional items which may arise from time to time and require the review and approval by the Committee via circulation of papers on a time sensitive basis. During the Relevant Period, the Committee convened one additional Committee meeting to consider a transactional item in January 2018.

#### 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.

# **Directors' Attendance and Development**

In 2018, six Board meetings were held and the overall attendance rate of Directors at Board meetings was 96.30% (2017: 90.24%).

Details of Directors' attendance at the AGM, Board and Board Committee meetings and development programmes in the year 2018 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	<b>AGM</b> <sup>2,4</sup>	Directors Development Programme*
Non-executive Directors									
The Hon Sir Michael Kadoorie	<b>5</b> /6 <sup>(C)</sup>				<b>2</b> /2 <sup>6</sup>			1	A, B, C
Mr William Mocatta	6/6 <sup>(VC)</sup>		<b>5</b> / 5 <sup>(C)</sup>	<b>3</b> /3		<b>2</b> /2 <sup>(C)</sup>		1	A, B, C
Mr J. A. H. Leigh	<b>6</b> /6							1	A, C
Mr Andrew Brandler	<b>6</b> /6		<b>5</b> /5				<b>3</b> /3	1	A, B, C
Dr Y. B. Lee	<b>6</b> /6							1	A, B, C
Mr Philip Kadoorie <sup>7</sup>	<b>2</b> /2							N/A	A, B, C
Independent Non-executive Dire	ectors								
Mr Vernon Moore	<b>6</b> /6	<b>6</b> /6 <sup>(C)</sup>	<b>4</b> /5	<b>2</b> /3				1	A, B, C
Sir Rod Eddington	<b>6</b> /6		<b>5</b> /5					1	А
Mr Nicholas C. Allen	<b>5</b> /6	<b>6</b> /6	<b>5</b> /5	<b>3</b> /3	<b>2</b> /2 <sup>(C)6</sup>		<b>3</b> /3	1	A, B, C
Mr Vincent Cheng	<b>6</b> /6		<b>5</b> /5	<b>3</b> /3 <sup>(C)</sup>	<b>2</b> /2			1	А
Mrs Fanny Law	<b>6</b> /6	<b>6</b> /6					<b>3</b> /3	1	A, B, C
Ms Irene Lee <sup>8</sup>	<b>1</b> /1	<b>3</b> /3	1/2				<b>1</b> /1	1	N/A <sup>8</sup>
Mrs Zia Mody	<b>5</b> /6			<b>3</b> /3				0	A, C
Ms May Siew Boi Tan <sup>9</sup>	<b>2</b> /2	<b>1</b> /1	<b>1</b> /1				<b>2</b> /2	N/A	A, B, C
Executive Directors									
Mr Richard Lancaster	<b>5</b> /5		<b>5</b> /5				<b>3</b> /3 <sup>(C)</sup>	1	A, B, C
Mr Geert Peeters	<b>5</b> /5		<b>5</b> /5			<b>2</b> /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. Starting from 2019, the Chairman will hold separate annual meetings with the Independent Non-executive Directors and Non-executive Directors (without the presence of other Directors and management).
- 2 Representatives of the independent auditor participated in every Audit & Risk Committee meeting and the AGM.
- 3 The Nomination Committee considered and reviewed the independence of Independent Non-executive Directors, Directors' time commitment and Directors' continuous professional development in 2018.
- 4 Mrs Zia Mody was unable to attend the 2018 AGM due to other overseas commitments. The other six 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.
- 6 With effect from 1 June 2018, Mr Nicholas C. Allen was appointed as the Chairman of the Nomination Committee and The Hon Sir Michael Kadoorie remained as a Member of the Nomination Committee.
- 7 Mr Philip Kadoorie was appointed as a Non-executive Director with effect from 7 August 2018.
- 8 Ms Irene Lee retired as an Independent Non-executive Director and a Member of the Audit & Risk Committee, the Finance & General Committee and the Sustainability Committee with effect from the conclusion of the 2018 AGM held on 4 May 2018.
- 9 Ms May Siew Boi Tan was appointed as an Independent Non-executive Director and a Member of the Audit & Risk Committee, the Finance & General Committee and the Sustainability Committee with effect from 7 August 2018.

\* Our Directors Development Programme includes:

- A reading regulatory and industry related updates;
- B meeting with local management and stakeholders, including hosting shareholders' visits (2017-2018 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.

#### Onboarding for new Directors

Our Onboarding Guidelines for Directors was adopted by the Board in August 2018 and components of our Onboarding Programme includes:

- an introduction session;
- face-to-face and one-on-one meetings with the Chairman of the Board, Chairmen of the Board Committees and the Senior Management who work closely with the Board and Board Committees;
- access to information that provides a broad overview of the CLP Group;
- invitation to attend Board Committee meetings to assist with the understanding of the work carried out by various Board Committees; and
- visits to the major facilities of CLP and / or special projects with CLP's involvement.

Our Onboarding Programme for the newly appointed Directors is individually designed with the specific Director in mind having regard to the Director's unique background, skills, experience and perspective. Following the appointment of Mr Philip Kadoorie and Ms May Tan in 2018, they participated in their respective bespoke programme. For instance, in the initial round of meeting sessions, Mr Philip Kadoorie met with the management team of the Hong Kong business before meeting with the Senior Management; whereas for Ms May Tan, her initial round of meeting sessions were with members of the Senior Management.

#### Visits

In December 2018, our Chairman, Mr William Mocatta (Non-executive Director and Chairman of CLP Power Hong Kong), Mr Philip Kadoorie (Non-executive Director), Ms May Tan (Independent Non-executive Director) and Mr Nicholas C. Allen (Independent Non-executive Director), along with other Senior Management, visited the newly established Group Information Technology Monitoring Centre and SmartHub@CLP centre. This was a good opportunity to exchange and interact with the frontline management in understanding the Group's monitoring on information technology systems including potential cyber attacks and CLP's vision of a smart city.

#### Monthly Management Reports

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. With the growing complexity of the business of the CLP Group and heightened regulatory and
  compliance requirements, Non-executive Directors are well aware that they are expected to have, and have devoted, a
  sufficient time commitment to the Board.
- 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: Save for Mr Vincent Cheng, none of our Directors, individually, held directorships in more than six public companies (including the Company) as at 31 December 2018. While Mr Vincent Cheng is an Independent Non-executive Director of seven public companies (including the Company) as at 31 December 2018, his experience in overseeing the affairs of various public companies across different industries provides unique and valuable contributions to the Board and the Board Committees that he sits on or chairs. It has been demonstrated to the satisfaction of the Company that Mr Cheng is able to devote sufficient time and attention to CLP affairs both inside and outside the boardroom context for the Company's Board and Committee level. This is especially the case having regard to his 100% attendance at the Company's meetings for the Board, the three Committees that he is a member of including one that he chairs and the AGM. Furthermore, in 2018, with the increased workload for the Nomination Committee, the Committee benefitted from his contribution inside and outside of the Committee meetings and this year saw an additional meeting for the Nomination Committee of which Mr Cheng attended.

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 election or re-election at the 2019 AGM, all their directorships and board committees membership held in listed public companies in the past three years are set out in the Notice of AGM. <u>Other details</u> of the Directors' biographies are set out under "Board of Directors" on pages 98 to 103 of this Annual Report and on CLP's website.

# **Board Evaluation**

In line with our CLP Code, we will undertake the performance evaluation of our Board and Committees on an ongoing basis. In 2018, the performance evaluation of the CLP Holdings Board was conducted internally with the assistance of a London-based specialist advisory firm, Lintstock Limited. Lintstock assisted in designing the survey questionnaire and facilitated the process to ensure the anonymity of the responses and feedback from the Directors.

The process involved each Director completing a confidential online questionnaire jointly prepared by management and the external facilitator. The completed questionnaires were only available to the facilitator, who prepared a report for the Board.

For this survey, the questionnaire focused on the following issues:

- Board expertise;
- Board dynamics;
- Management of meetings;
- Board support;
- Focus of meetings;
- Strategic oversight;
- Risk management and internal control; and
- Priorities for change.

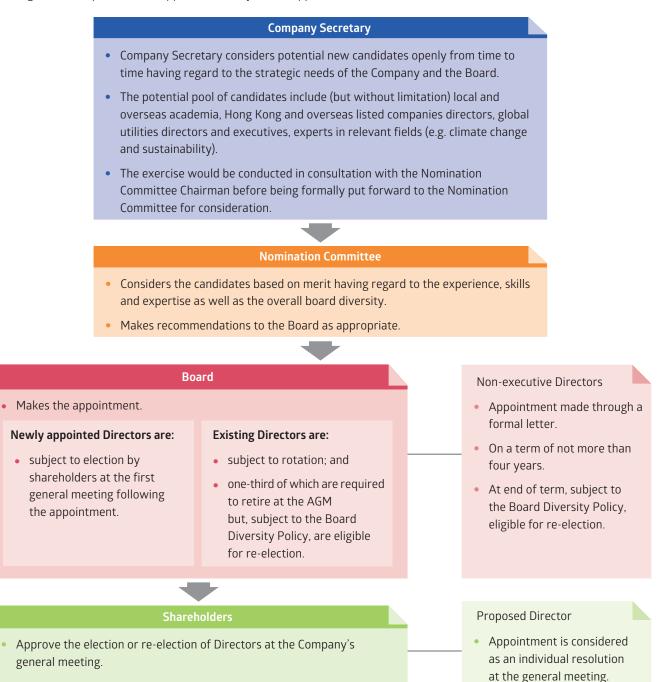
The Report of the 2018 Board Evaluation has been circulated to the Board. It provided a detailed analysis of the feedback on each of the above issues and confirmed that the Board continues to perform at a high standard; as a follow-up, the Board will discuss the findings of the Report in our Board meetings in 2019.

# Nomination and Appointment of Directors

CLP follows a formal, considered and transparent procedure for the appointment of new Directors. CLP's Nomination Policy is disclosed in the Nomination Committee Report on page 155.

#### 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

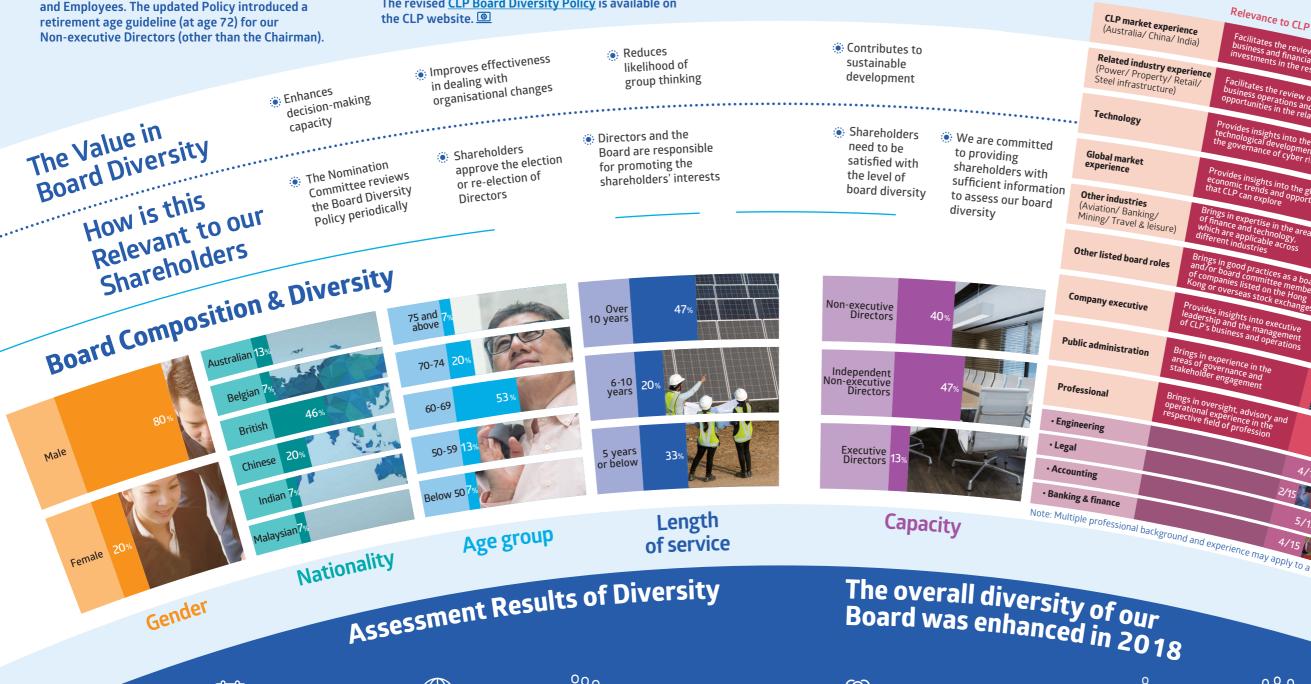
The CLP Board Diversity Policy was adopted by the Board in 2013 and incorporated Code Provisions of the Stock Exchange Code. A recently revised Policy was approved by the Board in February 2019.

The CLP Board Diversity Policy was updated with reference to the Guidance for Boards and Directors published by the Hong Kong Stock Exchange and incorporated the CLP Group Diversity and Inclusion Policy for Senior Management and Employees. The updated Policy introduced a

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.

Our Board Diversity Policy also recognises that board diversity can be achieved without increasing the size of the Board and that a reduction in board size due to retirements without replacement can also be a way to further diversity.

The revised CLP Board Diversity Policy is available on



The Board has witnessed a strengthening in the Board expertise in the areas of related industry experience (property), other industries (banking/ aviation), other listed board roles, and professional background (accounting and banking and finance)

Our respect for people

and diversity are embedded

in CLP's Value Framework.

# **20**%ដំ Gender diversity

(female representation) maintained at 20%

47% 💬

The percentage of Directors having served on the Board for over 10 years has slightly reduced to 47% from 50%

# < 50<sub>%</sub> ∰

The diversity level in terms of nationality has been enhanced and no single group is representing more than 50% of the total



# **Board Expertise**

An analysis of the skill set mix was considered by the Nomination An analysis of the skill set that was considered by the Nomination Committee and the Board continues to possess a balance of skills Committee and the board continues to possess a balance of skill, appropriate for the requirements of the business of the Group. The table below highlights the breakdown of the skill set mix of The table below IIIght gives the break to will or the skill set mix of our Directors and demonstrates the broad and diverse mix of our Directors and demonstrates the broad and diverse mix of experience and background relevant to CLP that the Directors

Relevance to CLP No. of Directors ew of CLP's 8/15 11/1 9/15



Representation of Executive Directors in the Board remained at a relatively low level of 13%

# **47**<sub>%</sub> 🖗

The independence of Directors maintained at a strong level of 47%

# **Disclosure of Conflict of Interest and Independence of Directors**

# Conflicts

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 2018, 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.

# Independence

As required under the Listing Rules, the Company received written confirmations from all of the Independent Non-executive Directors regarding their independence. Effective from 1 January 2019, these written confirmations also covered the immediate family members of each of the Independent Non-executive Directors.

Among the Independent Non-executive Directors of the Company, three of them hold cross-directorships with other Directors:

- Both Mr Vincent Cheng and The Hon Sir Michael Kadoorie serve on the boards of the Company and CK Hutchison Holdings Ltd.;
- Both Mr Vincent Cheng and Mr Andrew Brandler serve on the boards of the Company and MTR Corporation Ltd.; and
- Both Mr Nicholas C. Allen and Ms May Tan serve on the boards of the Company and Link Asset Management Ltd.

Given that each of Mr Vincent Cheng, Mr Nicholas C. Allen and Ms May Tan plays a non-executive role and holds less than 1% of the number of issued shares in each of the relevant companies, the Company considers that such cross-directorship would not undermine their independence with respect to their directorships at CLP Holdings.

Taking into account all of the circumstances described in this section, the Company considers all of the Independent Non-executive Directors to be independent.

# Our view on independence

The Company is of the view that a Director's independence is a question of fact and this is formally recognised in the Board Diversity Policy. The Board is committed to assessing this on an ongoing basis with regard to all relevant factors concerned. Some of these factors include: the ability to continually provide constructive challenge for management and other Directors and to express one's own views independent of management or other fellow Directors and the gravitas inside and outside the boardroom context. The Company has seen these attributes and behaviour having been demonstrated by our Independent Non-executive Directors as circumstances require.

Details of all <u>Directors</u> and their biographies including, if any, relationship between the members are disclosed on pages 98 to 103 and on our website.

# **Directors' Shareholding Interests**

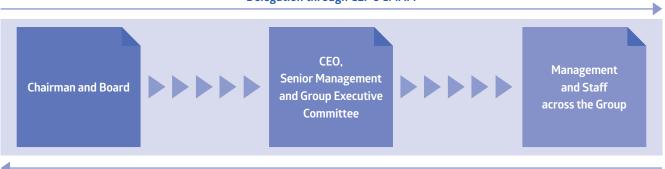
Directors' interests in CLP's securities as at 31 December 2018 are disclosed in the Directors' Report on page 175. All Directors have confirmed, following specific enquiry by the Company, that throughout the year ended 31 December 2018 they have complied with the required standard set out in the Model 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 "living" 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. CLP recognises the importance of diversity not just at the Board level but throughout the CLP Group. Under the Board Diversity Policy, we have recently made amendments to specifically acknowledge and incorporate the CLP Group Diversity and Inclusion Policy for Senior Management and Employees.

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).

# Role of Management and Staff in Promoting Good Corporate Governance Practices



# **Delegation through CLP's CMAM**

# Whistleblowing in confidence

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.
  - For a quicker response to Code of Conduct violations in Australia, EnergyAustralia (EA) has been delegated the responsibility to manage and take action on violations for EA employees. EA will inform the CLP Holdings Audit & Risk Committee of cases involving senior EA employees.
  - In 2018, there was no convicted cases of corruption at CLP (2017: nil).
  - 2018 there were 20 breaches (2017: 28) of the Code see also Audit & Risk Committee Report.
- Whistleblowing Policy
  - Applies to CLP Group with specific policy for each of CLP India and EA.
  - Allows employees and third parties to report suspected misconduct, malpractice or irregularity.
  - o 2018 there were 16 reported cases (2017: 11).

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 2018 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 190 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 2018.

# **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 online 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.

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		1	✓	1
Mr Geert Peeters	$\checkmark$	$\checkmark$	1	1
Mr Derek Parkin		1	1	$\checkmark$
Mr David Simmonds <sup>1</sup>	$\checkmark$	1	1	1
Ms Quince Chong	$\checkmark$	1	1	1
Mr Roy Massey		1	1	1
Mrs Betty Yuen		1	1	1
Mr Chiang Tung Keung	$\checkmark$	1	✓	1
Mr Chan Siu Hung		1	1	1
Mr Rajiv Mishra	$\checkmark$	1	1	1
Ms Catherine Tanna		1	✓	1

Participation in Training and Continuous Professional Development of Senior Management in 2018

Note:

1 During 2018, Mr David Simmonds, the Company Secretary, served as a Council member, the Vice-Chairman of the Membership Committee, 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.

# **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 to receive declared dividends and to vote and attend general meetings.
- Shareholders also have <u>the right to convene general</u> <u>meetings and to put forward proposals</u> – details of which can be found in our explanatory notes to the 2019 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 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 23
- coming important dates see page 27
- year-end CLP shares public float see page 23

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 2018 AGM held on 4 May 2018 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 2,100 shareholders; and
- a high level of votes approving the following major items:
  - the re-election of Directors ranging from over 93% to over 99%; 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 <u>Shareholders' Communication Policy</u>, which is published on our website. This Policy forms the basis for extensive and ongoing engagement with our shareholders and the investment community.

# **Multiple Channels of Communication and Engagement**

Our approach to shareholders communication and engagement:

Channels	Highlights
(Led by Chairman and attended by CLP Holdings Board, Senior Management and management team	<ul> <li>Chairman keynote speech</li> <li>Average attendance in the past five years: 1,571 shareholders</li> <li>2,100 shareholders attended in 2018</li> <li>High voting approval rate on resolutions considered</li> </ul>
(Led by CEO, CFO and Director – Investor Relations)	<ul> <li>Over 160 investor meetings</li> <li>Non-deal roadshows in Asia, Europe and North America</li> <li>ESG breakfast meeting plus direct engagement</li> </ul>
2017-2018 Shareholder Visits (Hosted by representatives of CLP Holdings Board, Senior Management and management team)	<ul> <li>83 visits</li> <li>2,993 shareholders and guests</li> <li>6 Family Day Visits</li> <li>66 Board and management lunch hosts</li> </ul>
Led by CEO, CFO and Director – Investor Relations and attended by investment community)	• Covering the Company's interim and annual results
Reports and Announcements	<ul> <li>Annual Reports, Interim Reports and <u>Sustainability Reports</u></li> <li>Quarterly Statements</li> <li>Announcements and media releases</li> </ul>
CLP Website	<ul> <li>AGM videos and minutes</li> <li>Policies and codes</li> <li>Updates of recent financial information and latest investor information</li> <li>Analyst briefings materials</li> </ul>

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 November 2018 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:

- additional disclosures under the new Listing Rules requirements effective from 1 January 2019 have been included in this Annual Report;
- for the 2019 Shareholders' Visit Programme, besides continuing with our "Family Day Tour" during the summer holidays, "Saturday Half Day Tour" will also be organised for shareholders to visit "Smart Energy@Mong Kok", where shareholders can learn more about the latest innovative household appliances and gain first-hand experience in IC Cooking and low carbon living; the 2019 programme will also see the inclusion of a visit to the new "SmartHub@CLP" which showcases CLP's latest developments for a greener and smarter city;
- communications with institutional investors A series of meetings were held where our CEO and/or CFO met with equity
  analysts and institutional investors; investor briefings for our 2017 Annual Results and 2018 Interim Results were well
  attended in person and through the webcast; in Hong Kong, we also conducted meetings with private banking client
  advisors to improve their ability to reach out to high net worth investors; and
- direct engagement with targeted stakeholders on ESG.

# **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 2018 to be included in our Annual Report. Given their significance, these topics are commented in the Chairman's Statement on page 14 and/or CEO's Strategic Review on page 18 and are also discussed in selected sections as highlighted below.

These cover the following topics:

Topics	Sections
1 The New Scheme of Control Agreement and the initial five-year Development Plan	<ul> <li>Business Performance and Outlook – Hong Kong (page 40)</li> <li>Risk Management Report (page 133)</li> <li>Scheme of Control Statement (page 283)</li> </ul>
2 Hong Kong – progress on construction of the new gas-fired generation unit and the floating offshore LNG Terminal in Hong Kong and the Feed-in Tariff Scheme	<ul> <li>Business Performance and Outlook – Hong Kong (page 40)</li> <li>Financial Capital (page 70)</li> </ul>
3 China – operational performance of Yangjiang nuclear power plant, possible further nuclear opportunities, pressure on performance of the coal-fired generation portfolio	<ul> <li>Business Performance and Outlook – Mainland China (page 47)</li> <li>Financial Capital (page 70)</li> <li>Risk Management Report (page 133)</li> </ul>
4 India – introduction of CDPQ as strategic partner, renewable energy development opportunities, operational performance of the generation assets, and optimisation of asset after the expiry of power purchase agreement	<ul> <li>Business Performance and Outlook – India (page 54)</li> <li>Financial Capital (page 70)</li> <li>Natural Capital (page 93)</li> </ul>
5 EnergyAustralia – progress of restoring value in the business, policy and regulation uncertainties, wholesale energy prices and retail customer competition, development of renewables generation projects, future opportunities for the business	<ul> <li>Business Performance and Outlook – Australia (page 62)</li> <li>Financial Capital (page 70)</li> <li>Risk Management Report (page 133)</li> </ul>
6 CLP's investment strategy to address climate change, exposure to coal-fired generation and mitigation measures	<ul> <li>Business Performance and Outlook – Hong Kong (page 40)</li> <li>Business Performance and Outlook – Mainland China (page 47)</li> <li>Business Performance and Outlook – Australia (page 62)</li> <li>Financial Capital (page 70)</li> <li>Natural Capital (page 93)</li> <li>Risk Management Report (page 133)</li> </ul>
7 Dividends, managing our financial and debt position as uncertainty in financial markets increases, use of cash generated in the business	<ul> <li>Financial Highlights (page 3)</li> <li>2018 In Figures (page 6)</li> <li>Financial Review (page 30)</li> <li>Financial Capital (page 70)</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 – GIA, leads a well-resourced department of 24 highly qualified professional staff. For detailed tasks of the department, please see the <u>CLP Code</u> on the CLP website.

# **External Auditor**

The Group's external auditor is PwC and we recognise their independence as an external auditor is a fundamental governance principle. Accordingly, the terms "independent auditor" and "external auditor" are used interchangeably.

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. The Senior Director – GIA 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 – GIA has the right to consult the Audit & Risk Committee without reference to management.

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

	2018 HK\$M	2017 HK\$M
Audit	39	39
Permissible audit related and non-audit services		
Audit related services (including Sustainability Report assurance, Continuing Connected Transactions limited assurance, audits of CLP's provident funds and auditor's attestation)	8	6
Non-audit services (including tax advisory and other services)	1	3
Total	48	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 5 to the Financial Statements.

For the year ended 31 December 2018, the fees for permissible audit related and non-audit services accounted for 17% and 2% of the total fees respectively.



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 <u>Sustainability Report</u>, 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 is the responsibility of, the Board, through its Audit & Risk Committee, and comprises four key elements:



Clear roles and responsibilities are assigned to multiple layers within the organisation. This structure facilitates risk identification and escalation.

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 133.

# **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 follow 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

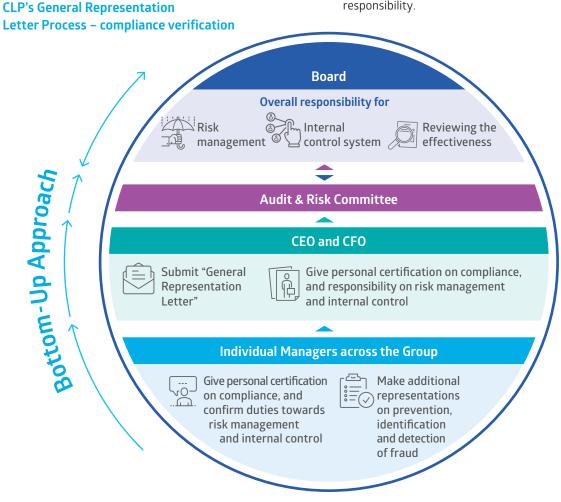
Management and our staff concerned evaluate the control environment and conduct risk assessments of the business and processes. Key risks and associated controls, including mitigation when needed, are continually reviewed and updated.

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 area of responsibility.



# 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 2018, 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.

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# **Inside Information**

We have our own <u>Continuous Disclosure Obligation Procedures</u> 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 109 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 <u>CLP Code</u> and the <u>Corporate</u> <u>Governance section</u> 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

Jammon

David Simmonds Company Secretary Hong Kong, 25 February 2019

# *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. Therefore risk management is integrated into all 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:

- 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, analyse, 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 our 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;
- Material damage to the Group's reputation and brand name;
- Business or supply interruptions leading to severe impact on the community; and
- Severe environmental incidents.

# **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:



# **Risk Governance Structure**

#### **Board Oversight**

The Audit & Risk Committee, acting on behalf of the Board:

- Evaluates and determines the nature and extent of the risks the Board is ready to endorse in pursuit of the Group's strategic objectives;
- · Ensures an appropriate and effective risk management framework is established and maintained; and
- Oversees management of risk identification, reporting and mitigation efforts.

#### **Independent Assurance**

# The Group Internal Audit:

• Carries out independent appraisal of the effectiveness of the risk management framework.

#### Management Oversight & Communication

#### The Chief Financial Officer and the Group Executive Committee:

- Provide leadership and guidance for the balance of risk and opportunity;
- Review and report to the Board through the Audit & Risk Committee on the material risks affecting the Group as well as their potential impact, their evolution, and the mitigating measures; and
- 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 & Risk Committee.

#### **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; and
- 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; and
- Appoint risk managers or coordinators to facilitate communication, experience sharing, and risk reporting.

#### **Group Risk Management**

Our Group Risk Management function is tasked with:

- Implementing the Group's Risk Management Framework, and assisting business units in implementing their own frameworks;
- Managing regular risk review and risk reporting processes of the Group;
- Facilitating independent risk appraisal for projects seeking endorsement by the CLP Holdings Investment Committee; and
- Facilitating risk communication, experience sharing, and risk reporting.

# **CLP's Risk Management Process**

- Integration is the key. The process 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.
- Starts with understanding the external environment and megatrends which may have significant implications to our business and markets.
- The core process involves:
  - ✓ Establishing scope, context, risk criteria;
  - ✓ Identifying risks based on relevant, appropriate and up-to-date information;
  - Analysing risks with detailed consideration of risk sources, consequences, likelihood, events, scenarios, existing controls and their effectiveness;
  - ✓ Evaluating risks against the established risk criteria to rank them and prioritise management efforts; and



- ✓ Developing control and mitigation plans.
- Communication and consultation: It is a continuous and interactive process involving communication and consultation with stakeholders.
- **Monitoring and review:** It is subject to regular monitoring and review according to the established risk governance structure and process.
- **Recording and reporting:** The risk management process and its outcomes are documented and reported to facilitate communication and provide information for decision-making.

# Megatrends

CLP recognises that certain external global trends could have a significant impact on our operating environment. These megatrends encompass significant political, economic, social, environmental and technological changes, and could rapidly evolve, changing the context in which the company operates, hence their importance in the process of identifying risks that could affect CLP strategy execution and operational performance.

Following a review of dozens of megatrends during 2018 the following five were considered the most relevant for the company.

- Increased expectations of business purpose
- Climate change mitigation and adaption
- Technology as enabler and disruptor
- Risks to cyber security and data privacy
- Ever-changing operating environments require an agile, inclusive and sustainable workforce

Details on their implications and CLP's responses are set out in the 2018 Sustainability Report. St

# Risk Management as an integral part of CLP's business and decision-making processes – Examples

## **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; and
- (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**

- 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, chaired by the CEO.

# **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 130 to 131.

# **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 strategy and objectives. Overarching strategic risks to the Group are also reviewed.
Identified risks are evaluated based on the same set of risk criteria as the quarterly risk review process and plans to
mitigate the identified risks are developed. The material risks listed on pages 138 to 142 have been laid out in our 2018
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 2018 business planning process has identified the following areas as material risks to the Group:

# **Regulatory Risk**

Following the conclusion of the new Scheme of Control Agreement, the short-term regulatory risk of the Hong Kong business has reduced. However, there remains a risk of adverse regulatory changes in the medium to longer term.	<ul> <li>We manage by:</li> <li>a) Close monitoring of regulatory development and market/public sentiments;</li> <li>b) Working constructively with governments to advocate our positions on regulatory changes;</li> </ul>
Our Australian business continues to face regulatory uncertainty on numerous fronts including carbon legislation, renewable energy targets, spot market rule changes, emissions reduction scheme, and retail pricing re-regulation. In Mainland China, the implementation of power sector reforms including market power sales, transmission and distribution pricing mechanism, and the spot electricity wholesales market and emission trading, is gathering pace. The practical implications may vary from province to province and may have adverse consequences for our existing operations.	<ul> <li>c) Implementing comprehensive stakeholder engagement plans to facilitate sensible and informed discussion on regulatory matters;</li> <li>d) Mobilising internal resources to ensure timely response to regulatory changes and maintaining regulatory compliance and oversight;</li> <li>e) Communicating and highlighting the importance of a balance between reliable and safe supply, care for the environment, and reasonable tariffs; and</li> <li>f) Reinforcing CLP's efforts in caring for the community and promoting energy efficiency.</li> </ul>

Group Top Tier Risk – Regulatory	Changes in 2018	Additional References
Uncertain regulatory changes impacting EnergyAustralia	<b>← →</b>	Pages 20, 63 – 67,146
Regulatory and political risk of Hong Kong business	<b>← →</b>	Pages 19, 41 – 46
Uncertain impacts of Mainland China power sector reforms	<b> </b>	Pages 48 – 53
Challenge of future tariff adjustments for Hong Kong business	<b></b>	Page 19

# Risk level increased

Risk level decreased

⊨ 🛑 Risk level remained broadly the same

Group Top Tier Risk – Financial	Changes in 2018	Additional References
Foreign currency risk associated with the Group's investments		Pages 70 – 74, 270 – 271, 276 – 278
Group's liquidity risk of adequate funding	$\leftarrow \rightarrow$	Pages 70 – 74, 273 – 275
Default of Group's financial counterparties		Pages 70 – 74, 273

# **Market Risk**

In Australia, the swings from oversupply to scarcity in the wholesale generation market as well as increasing retail competition continue to cause volatility in earnings for EnergyAustralia.

In Mainland China, changes in the structure of the economy, tighter environmental rules, oversupply and increasing market sales through competitive bidding have led to a reduction in the output and lower tariffs mostly affecting earnings of the thermal power plants, notably Fangchenggang, amid an increase in coal prices resulting from supply side intervention and restrictions on imported coal. We manage by:

- a) Managing market offers (e.g. pricing) and other service differentiators for customer acquisition and retention;
- b) Managing actively our wholesale energy portfolio and implementing strategies to align wholesale and retail positions;
- c) Implementing an approved energy risk policy, with energy market transactions subject to approved limits and controls;
- d) Exploring different revenue streams and value-added services for our customers. Continuing business innovations to meet evolving customer needs;
- e) Improving our current operations, fuel procurement, and development strategy while closely monitoring our operating cash flow in view of market volatility;
- f) Investing in plant reliability and upgrades; and
- g) Specific to Mainland China:
  - Proactively engaging with governments to advocate our positions on coal supply issues, tariff adjustment and dispatch;
  - Securing more market sales contracts with large industrial customers; and
  - Pursue steam sales to increase plant usage.

Group Top Tier Risk – Market	Changes in 2018	Additional References
Energy market volatilities impacting EnergyAustralia	$\leftarrow \rightarrow$	Pages 20, 63 – 67, 272
Volume risk and coal supply issues affecting Fangchenggang power station	<b> </b>	Pages 20, 49, 53

Commercial Risk	
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 abide by the contracts.	<ul> <li>We manage by:</li> <li>a) Diligently pursuing resolution of payment delays and disputes with offtakers;</li> <li>b) Monitoring the financial health of our counterparties including offtakers, fuel suppliers, equipment suppliers, engineering, procurement, construction (EPC) companies, and operation and maintenance contractors;</li> </ul>
Currently, commercial disputes with offtakers over the implementation of power purchase agreements (PPAs), the financial health of some of our counterparties, fuel supply security, reduced energy margins and price volatility are key commercial risks impacting CLP.	<ul> <li>c) Liaising with our fuel suppliers to mitigate ongoing sources of environmental, economic, operational, delivery and credit risks affecting fuel supply security. Pre-establish contingency planning for potential supply disruptions;</li> <li>d) Diversifying our fuel sources and fuel procurement strategy in order to secure a stable supply of fuel at competitive cost; and</li> </ul>
	<ul> <li>e) Reviewing the merit order of our plants and ensuring their competitiveness in the long run.</li> </ul>

Group Top Tier Risk – Commercial	Changes in 2018	Additional References
EnergyAustralia's Mount Piper coal supply risk	<b>~ →</b>	Page 64
Major commercial disputes with offtakers over PPAs in India	ţ	A provision was made in the financial statements. See contingent liability disclosure on pages 264 to 265
Hong Kong gas supply security		Pages 19, 42, 46
Counterparty risk of Indian EPC and O&M contractors	<b>~ →</b>	Pages 75, 265
Paguthan business repositioning risk	New	Pages 56, 59
Uncertainty in Jhajjar's plant performance	Ļ	Pages 20, 56 – 57,95
Litigation related to EnergyAustralia's lona gas plant disposal	<b></b>	Page 265

Industrial & Operational Risk	
CLP's operations are exposed to a variety of industrial and operational risks relating to Health, Safety, Security and Environment (HSSE) incidents, plant performance, human capital, data privacy, cyber attacks, and extreme weather events as a result of climate change.	We manage by: a) Implementing a HSSE improvement plan, involving all stakeholders, to
	rethink risks, and build and promote a sound safety culture across the Group and with contractors and sub-contractors. Group-wide initiative targeted on eliminating exposure to serious injuries and fatalities through specific interventions;
	<ul> <li>b) Planning and implementing operations and system reinforcements where necessary in order to maintain high operational and emissions performance;</li> </ul>
	<ul> <li>Maintaining emergency response and crisis management plans with regular drills;</li> </ul>
	<ul> <li>d) Implementing a group-wide Project Management Governance System to facilitate a consistently safe, timely and cost-effective delivery of high quality projects; and</li> </ul>
	e) 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, (iii) protect customer data privacy and prevent leakage of sensitive data, and (iv) comply with the necessary regulatory requirements.

Group Top Tier Risk – Industrial & Operational	Changes in 2018	Additional References
Major Health, Safety, Security and Environment (HSSE) incidents at construction or operating plants	<b>←→</b>	Pages 17, 21, 43, 57, 67, 81 – 82, 94 – 95, 146
Cyber attacks on business and power systems	1	Pages 76, 92, 147
Performance risk of wind power projects across the Group	<b>~ →</b>	Pages 48 – 50, 55 – 56
Extreme weather events	<b> </b>	Pages 41 – 42, 76
Delays in Hong Kong major projects delivery	New	Pages 42, 46
EnergyAustralia's commercial loss due to plant unavailability	New	Pages 64, 75

# 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 131 and the Audit & Risk Committee Report on page 146.

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, 25 February 2019

# Audit & Risk Committee Report

# Members

The Members of the Audit & Risk Committee are appointed from the Independent Non-executive Directors by CLP Holdings' Board of Directors. The Independent Non-executive Directors who served on the Committee during the reported period (full year 2018 and in 2019 up to the date of this Report) were:

- Mr Vernon Moore as the Chairman;
- Mr Nicholas C. Allen;
- Mrs Fanny Law;
- Ms May Siew Boi Tan, appointed in August 2018; and
- Ms Irene Lee, until her retirement as a Director at the conclusion of the 2018 AGM in May.

Biographies of the current Members are set out on pages 98 to 103 and on the CLP website.

In addition to the Members, regular attendees at the Committee's meetings were:

- Chief Executive Officer Mr Richard Lancaster;
- Chief Financial Officer Mr Geert Peeters;
- Group General Counsel & Chief Administrative Officer Mr David Simmonds;
- Senior Director Group Financial Control Mr Benjamin Lau;
- Senior Director Group Financial Planning & Control Mr Pablo Arellano;
- Senior Director Group Internal Audit Ms Kathy Liu; and
- Independent Auditor Mr Sean Tuckfield, the Engagement Partner, and others from PwC.

Other members of management attended the Committee meetings from time to time to present on matters in their areas of expertise.

# **Meetings and Attendance**

The Committee held six meetings during 2018 and another two meetings were held in 2019 up to the date of this Report. During the year, the Chairman met regularly and individually with each of PwC, the Senior Director – Group Internal Audit and the Chief Financial Officer. No private meeting with the Committee was requested by PwC during the reported period. Individual attendance of Members for the 2018 meetings is set out in the Corporate Governance Report on page 116.

The following table shows the topics the Committee considered at its meetings held during the period:

	2018				2019			
	Jan	Feb	Apr	Jun	Aug	Nov	Jan	Feb
Risk Management, Internal Control and Compliance								
Quarterly risk management report		1	1		1	1		~
In depth briefing on high risks and processes								
– health and safety			1				~	
– cyber security			1	1	1			
Internal control review update		1		1		1		~
Management's general representation letter		1			1			~
Outstanding internal audit issues		1	1	1	1	1		~
Legal and regulatory compliance		1			1			~

		2018			2019		19	
	Jan	Feb	Apr	Jun	Aug	Nov	Jan	Feb
Interim and Annual Financial Reports								
Annual and interim financial statements and reports		1			1			r
Assessment of critical accounting and judgemental issues	1			5			~	
Sustainability Report data assurance review		1				1		~
Internal and External Auditing			·					
Internal audit results and audit issues		1	1	1	1	1		~
Internal audit administered policies and practices				1		1		
Ethical and controls commitment surveys			1					
PwC's audit report, audit plan and audit progress	1	1	1	1	1	1	~	~
Audit fees and non-audit engagements by auditors		1			5			v
Corporate Governance								
Corporate governance trends, developments and related policies						1		
Code of Conduct and whistleblowing cases		1	1	1	1	1		V
Continuing connected transactions		1						~

# 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 a highly experienced EnergyAustralia ARC. There is an open invitation between this Committee and the EnergyAustralia ARC for members to attend the other committee's meetings. The Chairman, and other Members, also had the opportunity to meet the chairman of the EnergyAustralia ARC, and other members of the EnergyAustralia ARC, informally.

# Summary of Work Done

The Committee's key areas of focus for the full year 2018 and in 2019 up to the date of this Report are set out below. This illustrates the manner in which the Committee discharges its responsibilities.

Areas of focus				
Risk Management, Internal Control and Compliance				
Risk management and internal control	The Committee received and reviewed management's periodic internal control review updates and the Group's quarterly risk management reports.			
	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 131 for further details regarding the General Representation Letters).			
	The Committee's monitoring of the risk management and internal control systems were greatly assisted by the GIA and by the independent auditor's report of their testing of the control environment of the Group. During the period, no material internal control issues were identified.			
	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.			
	During the period, Health and Safety became the top risk of the Group and the Committee called for a detailed reporting from management, a briefing on the CLP Group strategy for Health and Safety focusing on the risk of potential serious injuries and fatalities was considered by the Committee. The proposed Safety Improvement Strategy was discussed and endorsed by the Committee and subsequently, this was also presented to, and approved by, the Board. In late 2018, the Committee evaluated the results of the safety culture survey that was completed for China and Australia and reported on the areas of focus in 2018.			
	At the recommendation of the Members, management presented on the potential implications and the associated risks of the implementation of the proposed retail price regulation in Australia. There was still a lot of uncertainty concerning the retail price regulation, so the briefing provided an opportunity for the Members to appreciate the complexity of the matter and to put into context of the preparation of the financial statements.			
	For 2019, it has been proposed that the Committee will examine in depth the implications of the actual and forecast extreme weather events on CLP's operations, and the operations' preparedness for a swift "disaster-like" recovery.			

Areas of focus					
Compliance	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.				
	The Committee acknowledged that the only exception to compliance with all the mandatory and recommended requirements is that CLP does not publish quarterly financial results (a recommendation). The Committee agreed with the considered reasons for this exception; please refer to the Corporate Governance Report, Compliance with the Stock Exchange Code and the ESG Reporting Guide, page 110.				
Cyber security	In recent years, cyber security was identified as a significant risk to the Group and the Committee considered the regular briefings on this area including the Group's readiness in response to a possible cyber-attack.				
	Members of the Committee attended a cyber security drill that was conducted at the Black Point Power Station (Hong Kong) where Members had the opportunity to see first hand the cyber security attack drill.				
	Members of the Committee also visited the information technology monitoring centre in Group Information Technology (Hong Kong). One of the key features of the centre was that potential cyber-attacks were monitored in real time and these included potential attacks that were not targeted at CLP.				
	During the year, management engaged external specialist cyber security consultants to conduct a review of the governance of cyber security and following the review, two briefings were reported to, and considered by, the Committee. The consultants reported that CLP was using some of the most advanced tools to detect and prevent cyber threats, and good work was being done in a number of parts of the Hong Kong business, but there was a need to coordinate the efforts to be fully effective.				
	The consultants' recommendations regarding CLP's future governance structure to respond to the increasing threats were accepted in full by management and were considered and endorsed by the Committee. An implementation plan has been put in place and implementation was ongoing. The Committee will continue to pay close attention to this.				
Interim and Annual Financial Reports					
Annual Reports and Interim Report	The Committee reviewed the 2017 and 2018 Annual Reports and the 2018 Interim Report and on the recommendations from the Committee, these were approved by the Board.				
2018 Financial Statements – judgemental issues	Management and PwC presented to the Committee the key judgemental issues with material accounting impact. These included the review of the carrying values of the Group's generation assets and EnergyAustralia's goodwill for retail business unit, and the disclosures and accounting treatments of material litigations and disputes. The Committee assessed and accepted the judgements made for each of the issues as presented.				
Sustainability Report data assurance	The Committee considered and acknowledged PwC's report on the sustainability assurance in respect of the 2017 and <u>2018 Sustainability Reports</u> . The process of gathering sustainability statistics has been strengthened in the year, and this was noted by the Committee.				

Areas of focus					
Internal and External Auditing					
Internal audit	The Committee received and considered reports from the Senior Director – GIA. GIA issues two types of reports. Opinion audit reports provide independent appraisal of the audit unit's compliance with prescribed policies and procedures, and evaluation of the effectiveness of the overall controls. Special review reports focus on new business areas and emerging risks, where control advisory is provided.				
	In 2018, GIA issued a total of 29 opinion audit and 10 special review reports. Two of the opinion audit reports carried an unsatisfactory audit opinion including one on a business unit's low maturity of controls over energy services, and another on a business unit's lack of management oversight over contractors' compliance on permit-to-work procedures.				
	The Committee and management had detailed discussions on the matters covered by all the reports. Unsatisfactory opinions received special attention, and in some cases, relevant business unit management attended Committee meetings to discuss with the Committee the issues, context, measures taken and being taken, and business implications. This included briefings on the CCGT project in Hong Kong and EnergyAustralia Customer Transformation Programme.				
	None of the control weaknesses identified had a material impact on the financial statements.				
Internal audit function	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.				
Financial Statements – auditor's opinion	For both the 2017 and 2018 financial statements, PwC presented the auditor's opinion on the financial statements, with emphasis on the Key Audit Matters that had material impacts to the financial results and position of the Group. The drafting of the Key Audit Matters was carefully considered and reviewed by the Committee.				
Fees to independent	The Committee reviewed the following fees payable to PwC:				
auditor and its reappointment	• audit fees for 2017 and 2018 for approval by the Board; and				
	<ul> <li>permissible audit related and non-audit services provided by PwC for 2017 and 2018 (please see page 129 for further details).</li> </ul>				
	PwC was reappointed as independent auditor for 2018 at the 2018 AGM and the reappointment was approved by over 99% of the shareholders' votes.				
	The Committee having considered and being satisfied with PwC's performance and independence as independent auditor through 2019, recommended to the Board that PwC be reappointed. The Company's shareholders will consider this at the forthcoming 2019 AGM.				
	PwC issued a letter of independence to the Audit & Risk Committee: for further details on the assessment of their independence, please see page 129.				
	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 five years and will serve no more than seven years in total, prior to rotation, according to PwC's policy.				

Areas of focus					
Corporate Governance					
Corporate Governance practices	The Committee received a report of Corporate Governance Policies and Practices Review. The Review covered shareholders' communication policy, Code of Conduct, whistleblowing policy, policy and guidelines on the provision of gifts and entertainment, anti-fraud policy and policy on making political contributions. The Committee considered that CLP was well in compliance with modern corporate governance standards.				
	The Committee appraised the new CLP corporate governance initiatives, as well as the new corporate governance requirements pursuant to the recent amendments of the Listing Rules, the Stock Exchange Code, and the recommendations under the Guidance for Boards and Directors published by the Stock Exchange.				
	The Committee was also updated with some corporate governance observations, including the growing demand from proxy advisors on the independence of directors.				
Continuing connected transactions	The Committee considered the work by PwC on the annual reporting and confirmation of continuing connected transactions required by the Listing Rules. The Members acknowledged that PwC had undertaken additional agreed upon procedures for the review of certain selected continuing connected transactions.				
Code of Conduct	The Committee received and considered the periodic updates on the breaches of the Code of Conduct. None of the 20 breaches in 2018 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.				
	The Committee noted that a Business Practice Review (BPR) was completed in 2018 for EnergyAustralia; this formed part of the current CLP Group BPR cycle which began in 2017. CLP Group BPR covered over 8,100 full-time employees and over 1,800 contractors. CLP Group BPR is an in-person training programme mandatory for all employees of the CLP group, and encouraged for contractors. It is carried out once every four years to refresh their understanding of the CLP Code of Conduct and other major corporate policies.				

# Responsibilities

#### **Primary Responsibilities**

The Committee's primary responsibilities are to:

- 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 primary responsibilities of all the business unit managers throughout the Group);
- assure that adequate risk management and internal control systems are in place and followed and appropriate remedial actions are taken where needed;
- assure that appropriate accounting principles and reporting practices are followed;
- perform the corporate governance duties described further in this Report and fulfil the functions conferred on the Committee by the CLP Code;
- satisfy itself that the scope and direction of external and internal auditing are adequate; and
- review, and to make sure that, the assurance of the sustainability data in the Sustainability Report is appropriate.

#### 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 and this is a practice that is greatly appreciated by fellow Directors who do not sit on this Committee as being able to get a better understanding of the work done by the Committee.

### **Terms of Reference**

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 <u>terms of reference</u> can be found on CLP's and the Hong Kong Stock Exchange's websites.

# Audit & Risk Committee Effectiveness

The Company Secretary evaluated the performance and effectiveness of the Committee during 2018 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 independent auditors. The CLP Holdings Board also endorsed the Company Secretary's evaluation.



Vernon Moore Chairman, Audit & Risk Committee Hong Kong, 25 February 2019

# **Sustainability Committee Report**

## Members

The Sustainability Committee is appointed by CLP Holdings' Board of Directors and the Members who served on the Committee during the reported period were:

- 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 May Siew Boi Tan (Independent Non-executive Director), appointed in August 2018;
- Mr Andrew Brandler (Non-executive Director);
- Ms Quince Chong (Chief Corporate Development Officer); and
- Ms Irene Lee, until her retirement as a Director at the conclusion of the 2018 AGM in May.

Biographies of the Members are set out on pages 98 to 105 and on the CLP website.

In addition to the Members, the regular attendees at the Committee's meetings include:

- Chief Financial Officer Mr Geert Peeters;
- Chief Operating Officer Mr Derek Parkin;
- Group General Counsel & Chief Administrative Officer Mr David Simmonds;
- Chief Human Resources Officer Mr Roy Massey; and
- Director Group Sustainability Mr Hendrik Rosenthal.

## **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 2018 and the date of this Report, the Committee met four times (including three times in 2018 and once in 2019). The following table provides an overview of how the Committee spent its time during the period:

	February	2018 August	December	2019 February
Sustainability Reporting / Indices performance	1		1	~
Community investment activities	1			~
Climate change and other sustainability risks		1	1	~
Health, Safety, Security and Environment		1	1	

## Summary of Work Done

The work performed by the Committee during this period is summarised below.

Areas of focus	How did the Committee address such areas?
Sustainability goals, priorit	ies, policies & frameworks
Climate Vision 2050 Review	Following the revision of the commitments in our Climate Vision 2050 in 2018, management continued work on updating the Climate Vision 2050 publication. The Committee discussed the proposed approach for the revision of the document and the objective to bring the document up-to-date with CLP's approach in managing climate change related risks and opportunities for the Group. In reviewing the draft publication, the Committee considered a number of climate change related topics including CLP's legacy coal investments and portfolio.
Operational Health, Safety, Security & Environment Standards	The Committee reviewed and considered the effectiveness of the Group's Health, Safety and Environment Improvement Strategy. The Committee acknowledged with sadness the recent fatalities and encouraged the sharing of the lessons learnt with the different business units across the Group.
Sustainability trends and ri	isks
Climate change related developments and risks	The Committee considered recent key developments on climate change issues including the recommended disclosures of the Task Force on Climate-related Financial Disclosures (TCFD). The Committee considered CLP's readiness and the feasibility of implementing these recommendations; preparatory and further feasibility work in this area were ongoing.
Vietnam projects	The Committee reviewed the progress of the Vinh Tan III and Vung Ang II power station projects in the context of the CLP's Climate Vision 2050 position and in the face of rising climate change and related sustainability risks. The matter was referred to the Finance & General Committee for further review and consideration in light of these issues.
Investor interest	The Committee discussed the increasing interest on ESG issues from institutional investors. The Committee also took note of the trend that the investment community was becoming more active on climate change related issues.
Sustainable procurement	The Committee considered CLP's responsible procurement approach as well as the key developing practices and emerging standards adopted by industry leaders. The main objective of CLP's approach was to develop and implement a consistent, systematic and aligned approach to identifying, assessing, mitigating and managing sustainability procurement risks.
	The Committee also reviewed the use of contractor labour in CLP's business in Hong Kong and India. Some of the risks associated with contractor labour were discussed; these included issues of safety performance, non-payment of wages and excessive working hours. A number of proposed actions to enhance CLP's policies, procedures and reporting in this area were also endorsed by the Committee.

Areas of focus	How did the Committee address such areas?									
Sustainability performance	2									
Performance on external sustainability indices	The Committee reviewed CLP's performance on objective of improving our sustainability perform		lity indices wit	n the ultimate						
	The Committee analysed the results of our susta rankings on the Dow Jones Sustainability Index. The Committee acknowledged the importance of and there was a constructive exchange of views sustainability performance could be achieved. Further details of selected 2018 sustainability ra performance is shown in the following table. The before.	(DJSI) and CDP in 2 of being well regard on how further im atings for CLP's 201	018 have been ed by the vario provements in 7 sustainability	maintained. us indices CLP's /						
	Index Name	2018 Score	2017 Score	2016 Score						
	וצנם	69*	70	73						
	CDP – Climate	В*	В*	A-						
	Hang Seng Corporate Sustainability Index	AA-	A+	AA						
	FTSE4Good	4.0	3.3	3.3						
	MSCI ESG Leaders Indexes	AA	А	А						
	* CDP and DJSI revised their questionnaire and / or the scor performance cannot be compared directly.	ing methodology in 2017	and 2018, hence y	ear-on-year						
Sustainability Reporting										
Sustainability Reporting Standards	The Committee considered the evolving approach in preparing the <u>Sustainability Report</u> both in terms of industry standards and regulatory compliance.									
	The Committee reviewed the 2018 materiality identification results and acknowledged that the assessment process had been enhanced to prioritise the material topics, which supported the development of a more focused Sustainability Report.									
	The Committee also considered and endorsed th 2018 Sustainability Report and how it meets the Guide "comply or explain" and "recommended di Global Reporting Initiative's Sustainability Repo	e Hong Kong Stock isclosure" requirem	Exchange's ES( ents, as well as	6 Reporting						
Sustainability data assurance	The continuing practice of commissioning independent to and acknowledged by the Committee.	endent assurance o	f selected KPIs	was reported						
Community, charitable and	l environmental partnerships and initiatives									
Community initiatives	The Committee reviewed management's report on the community initiatives undertaken by CLP in 2018 and supported the proposed overall strategy for 2019 as well as the specific initiatives in terms of the following:									
	• spending by country, theme and programme	,								
	<ul> <li>volunteering contributions; and</li> </ul>									

## Responsibilities

#### **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.

#### 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.

#### **Terms of Reference**

The current <u>terms of reference</u> were adopted in February 2015 and are set out on the CLP's and the Hong Kong Stock Exchange's websites.

## **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, 25 February 2019

## **Nomination Committee Report**

## Members

The Nomination Committee is appointed by CLP Holdings' Board of Directors and the Members of the Committee are:

- Mr Nicholas C. Allen (Independent Non-executive Director), appointed as Chairman in June 2018;
- The Hon Sir Michael Kadoorie (Non-executive Director); and
- Mr Vincent Cheng (Independent Non-executive Director).

Biographies of the Members are set out on pages 98 to 103 and on the CLP website.

- In addition to the Members, the regular attendees at the Committee's meetings include:
- Chief Executive Officer Mr Richard Lancaster; and
- Group General Counsel & Chief Administrative Officer Mr David Simmonds.

#### **Meetings and Attendance**

The Committee meets as frequently as required and between 1 January 2018 and the date of this Report, the Committee met twice.

#### **Summary of Work Done**

In 2018, this year was a busy year for this Committee, where the Committee saw the retirement of Ms Irene Lee earlier in the year, this was followed by the search for her replacement and an additional Non-executive Director. In June, the Committee Chair was changed with the appointment of an Independent Non-executive Director in Mr Nicholas C. Allen while the former Committee Chairman remained as a Member of the Committee.

An additional Committee meeting was convened in July to consider, amongst other things, the appointment of new Directors in Mr Philip Kadoorie as a Non-executive Director and Ms May Tan as an Independent Non-executive Director, the adoption of Onboarding Guidelines and the issue of Board succession.

The work performed by the Committee during the period included:

- examining the current Board structure and composition;
- reviewing candidates for appointment to the Board;
- reviewing the Board Diversity Policy;
- reviewing and considering Board succession planning;
- assessing the independence of all Independent Non-executive Directors;
- reviewing the training and continuous professional development of Directors; and
- evaluating Directors' time commitment and the contribution required from Directors to discharge their responsibilities.

Areas of focus	How did the Committee address such areas?
Appointment of new Directors	With Ms Irene Lee's retirement as an Independent Non-executive Director at the conclusion of the 2018 AGM, the Committee oversaw a search conducted by management for a replacement candidate.
	A search for suitable candidates was conducted and it covered the following: listed companies in Hong Kong, the UK, Singapore and Australia; constituent companies in the Dow Jones Sustainability Index and FTSE4Good; global utilities; engineering academia in Hong Kong and the UK; climate change and sustainability experts; energy regulators and women already on Boards of other listed companies.
	From this search, candidates with experience in Asia were shortlisted and this was further shortlisted to remove candidates with heavy workload commitments. Ms May Tan emerged as the preferred candidate having regard to her mix of skills and experience, especially her finance and audit background and the fact that she is based in Hong Kong.
	Following the Committee's consideration of her proposed appointment, the Committee endorsed the appointment for approval by the Board. She was then subsequently appointed by the Board in August as an Independent Non-executive Director and a Member of the Audit & Risk Committee, Finance & General Committee and Sustainability Committee.
	With Ms Lee's retirement, this had also prompted a review of the Board's composition by the Committee. With the view of demonstrating to CLP's stakeholders the ongoing involvement and support of CLP's major shareholder – the Kadoorie Family – it was considered by the Committee to be appropriate for the appointment of Mr Philip Kadoorie to be put forward to the Board. Mr Kadoorie is a Director of Sir Elly Kadoorie & Sons Ltd., CLP Holdings Chairman's son and a representative of the Kadoorie Family. Mr Kadoorie was appointed as a Non-executive Director in August at the same time as Ms May Tan's appointment.
	The Committee was satisfied that the appointments enhanced the diversity of the Board having regard to their expertise, background and experience.

Highlights of the work performed by the Committee during this period is summarised below.

Areas of focus	How did the Committee address such areas?
Retirement age for Non- executive Directors – board diversity	The Committee considered and reviewed CLP's approach on the issue of Board succession. Having regard to the existing Board composition and the composition that would continue to best meet the needs of the Company into the future, the Committee put forward a retirement age guideline for Non-executive Directors which would be a more structured approach to refresh the Board over time.
	The retirement age guideline was approved by the Committee and was also approved by the Board for adoption in the Board Diversity Policy.
	The retirement age guideline applies to all Non-executive Directors of CLP Holdings (other than the Chairman) and provides that where a Director has reached the age of 72 at the time of the Annual General Meeting at which he or she would retire by rotation, he or she will not be considered for re-election.
	In order to retain sufficient flexibility in the application of this guideline to meet the needs of the Company, where the Board considers a Director to possess certain skills, experience or capabilities, that cannot be readily replaced, this guideline can then be waived or relaxed.
	The Committee is of the view that the policy will assist with Board succession planning and will facilitate the refreshment of the Board with sufficient flexibility to ensure that the Board composition would be best suited to oversee the future development of CLP.
Board Diversity Policy – other key changes	The Committee approved other changes to the Board Diversity Policy and some of the key changes are:
	Independence
	It is expressly recognised in the Policy that the question of independence of a Director is a question of fact and the Board remains committed to assessing the issue of independence on an ongoing basis with regard to all factors concerned and not just limited to where a Director's service exceeds nine years.
	Board size
	The Policy provides that aspects of diversity included in the Policy can be achieved without increasing the size of the Board and that retirement without replacement can also be a way to greater diversity.
	Gender
	The Policy acknowledges that the proportion of women on the Board (currently 20%) is expected to increase over time.

## Responsibilities

#### **Primary Responsibilities**

The Committee's primary responsibilities include:

- reviewing the Board structure and composition and Board Diversity Policy on an annual basis;
- making recommendations to the Board on Directors appointment and reappointment and succession planning;
- assessing the independence of the Independent Non-executive Directors and whether Directors are spending sufficient time performing their duties; and
- reviewing and monitoring the training and continuous professional development of Directors.

#### 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 recommend to the Board on the structure, size and composition of the Board and on the nomination of Directors, having regard to the independence and quality of the nominees and ensuring that the nominations are fair and transparent.

#### **Terms of Reference**

The current <u>terms of reference</u> were adopted in January 2018 and are set out on the CLP's and the Hong Kong Stock Exchange's websites.

#### Nomination Policy

Embedded in the Committee's Terms of Reference is the Nomination Policy for Directors. The Policy (set out below) stipulates the key nomination criteria and principles of the Company for the nomination of Directors and provides what the Committee should do in order to give effect to this Policy:

- 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 individual shall be their ability to contribute to the effective carrying out by the Board of its responsibilities set out in the CLP Code on Corporate Governance in particular those described in paragraphs II.B.35 and 36 of the Code;
- 3 make recommendations to the Board on the appointment or re-appointment of Directors and succession planning for Directors, in particular, the Chairman and the Chief Executive Officer; 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.

## **Looking Ahead**

The Committee will continue to review its role of supporting the Board on the areas of Director nomination, Board succession and Board refreshment to ensure that the Board composition would be best suited to oversee the future development of CLP.

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Nicholas C. Allen Chairman, Nomination Committee Hong Kong, 25 February 2019

## **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 263, 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 2018";
- "Change of Remuneration Executive Directors and Senior Management";
- "Executive Directors Remuneration in 2018";
- "Total Directors' Remuneration in 2018";
- "Senior Management Remuneration in 2018"; and
- "The Five Highest Paid Individuals in 2018".

## 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).

Biographies of the Members are set out on pages 98 to 103 and on our website.

## **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 Nomination and Remuneration Committee.

The HR&RC held three meetings during 2018 and one meeting in 2019 up to 25 February 2019 (the date of this Report). Between 1 January 2018 and the date of this Report, the HR&RC approved the 2017 and 2018 HR&RC Reports, and reviewed the following:

#### Performance and Remuneration Review

- Group performance for 2017 and 2018 and Group targets for 2018 and 2019;
- 2017 and 2018 organisation performance for CLP Power Hong Kong and CLP India and targets for 2018 and 2019;
- Base pay for 2018 and 2019 for Hong Kong payroll staff, CLP India and China;
- Non-executive Directors' fees;
- CEO's remuneration;
- Remuneration of direct reports to the CEO, including annual incentive payments for 2017 and 2018 and pay review for 2018 and 2019;

#### **Training and Benefits Review**

- CLP Home Loan Scheme;
- Training and continuous professional development of Senior Management;

#### Succession Planning and Organisational Evolution

• Senior Management succession plan review 2018 and update on talent development initiatives;

#### Human Resources Trends and Development

- Update on remuneration disclosure trends and developments in the UK;
- Trends in Executive Remuneration Governance and Disclosure in the UK; and
- Update on Gender Pay Equity Disclosure.

## **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; and
- 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

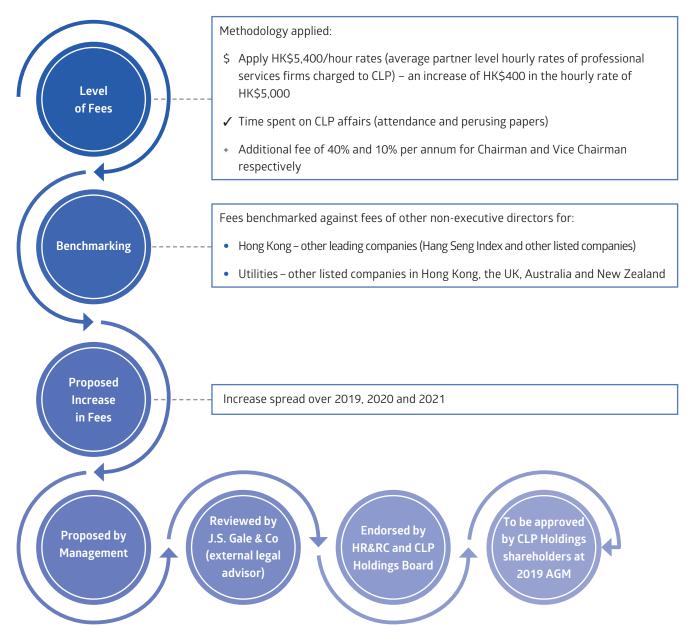
The above policies apply to the remuneration of the Non-executive Directors, with appropriate adjustments to reflect good corporate governance practices, the particular nature of their duties and that they are not employees of the Company.

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;
- The Financial Reporting Council's "The UK Corporate Governance Code" last published in July 2018; 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 highcalibre 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. Those fees were most recently reviewed at the beginning of 2019 (the 2019 Review). The methodology adopted in the 2019 Review in all material respects is the same as that used in the previous reviews and as explained to shareholders in the CLP Code.

The 2019 Review and methodology applied are summarised as follows:



The following is a highlight of the key observations from the 2019 workload review over the past three-year period as against the 2016 Review:

- there has been a slight increase in the working hours of the Board and the Sustainability Committee;
- substantial increases were recorded in the working hours of the Audit & Risk Committee, the Human Resources & Remuneration Committee and the Nomination Committee;
- the working hours of the Finance & General Committee reduced; and
- there was a slight decrease in the working hours of the Provident & Retirement Fund Committee.

The 2019 Review revealed that the overall time spent by Non-executive Directors in performing their duties on the Board and Board Committees during the period from 2016 to 2018 was broadly higher than the last review period (from 2007 to 2015). However, having regard to the possible year-to-year fluctuations in the time spent by Non-executive Directors (based on the data CLP has collected since 2004), it has been recommended to maintain the approach of the 2016 Review by taking an average time spent by Non-executive Directors over a longer duration of three periods (i.e. nine years), rather than over the three years immediately preceding the review, in order to smooth out the effect of short-term fluctuations in workload.

The methodology applied in determining those fees is unchanged from the last review in 2016, save for the following adjustments:

- 1 The indicative fees show a slight reduction in fees for the Finance & General Committee. This is driven by the reduction in the working hours of this Committee over the period. This reduction can be attributed to the delivery of more succinct board papers and enhanced efficiency in the Committee's work. Looking ahead, it is anticipated that the transaction opportunities for the Group and, by extension the workload of the Finance & General Committee, may increase over the next few years. In these circumstances, management considers it appropriate to maintain the current fees for the Finance & General Committee unchanged.
- 2 With the growing demand on the work of the Nomination Committee including the continuous review of the composition, refreshment and independence of the Board, the monitoring of the nomination criteria and the ongoing application of the Board Diversity Policy, it is proposed that the nominal fee now be discarded and the fees for the Nomination Committee should be determined by the application of our standard review methodology. This would result in a modest increase in absolute dollar value only.

The proposed fees represent a justifiable and measurable increase on those paid between 2016 and 2018. The proposed increase in the hourly rate of HK\$400 is broadly comparable with increases in Hong Kong's Consumer Price Index over the past three years. The increase is in line with an ongoing increase in the workload shouldered by the Board and some Board Committees in recent years, albeit now measured over a longer duration of three review periods.

We have applied the methodology in a conservative manner – the fee review takes place every three years and the methodology takes into account past and present data, rather than any forward-looking projections. In benchmarking fees against selected companies, we have not assumed that there will be any ongoing increases in directors' fees paid by those companies.

As with the 2013 and the 2016 reviews, it is recommended to spread the proposed increase over a period of three years from 2019 to 2021, as opposed to a single sharp increase in the first year.

In line with our policy that no individual or any of his or her close associates should determine his or her own remuneration, the level of fees set out in the following table was proposed by management, reviewed by J.S. Gale & Co (JSG), external legal advisor, and will be put for approval by our shareholders at the AGM on 6 May 2019. JSG have provided an opinion to the effect that the methodology adopted by CLP is reasonable and appropriate, has been fairly and consistently applied in all material respects and that the resulting proposed level of fees is reasonable and appropriate having regard to current corporate governance practices in Hong Kong and the UK. In this respect, CLP's approach goes beyond that required by law or regulation in Hong Kong or the provisions of the Stock Exchange Code. Further to CLP's commitment to the adoption of a transparent methodology for determining Non-executive Directors' remuneration, the 2019 Review and the opinion of JSG on that 2019 Review are placed on CLP's website.

	-	Proposed	Proposed	Proposed
	Current	Annual Fees	Annual Fees	Annual Fees
		(w.e.f. 7 May 2019)		
	HK\$	HK\$	HK\$	HK\$
Board				
Chairman	765,600	804,300	845,000	887,700
Vice Chairman	601,500	631,900	663,900	697,500
Non-executive Director	546,900	574,500	603,600	634,100
Audit & Risk Committee				
Chairman	477,100	535,100	600,100	673,100
Member	339,100	381,200	428,600	481,900
Finance & General Committee				
Chairman	449,900	449,900	449,900	449,900
Member	319,400	319,400	319,400	319,400
Human Resources & Remuneration Committee				
Chairman	86,800	101,900	119,800	140,700
Member	63,100	73,500	85,600	99,800
Sustainability Committee				
Chairman	112,500	121,400	131,000	141,500
Member	79,000	85,900	93,600	101,900
Nomination Committee				
Chairman	14,000	* 19,800	28,200	40,200
Member	10,000	* 14,200	20,100	28,700
Provident & Retirement Fund Committee **				
Chairman	14,000	14,000	14,000	14,000
Member	10,000	10,000	10,000	10,000

\* A nominal fee was previously maintained for the Chairman and Members of the Nomination Committee.

\*\* A nominal fee has been maintained for the Chairman and Members of the Provident & Retirement Fund Committee.

Note: Executive Directors and management serving on the Board and Board Committees are not entitled to any Directors' fees.

## Non-executive Directors - Remuneration in 2018 (Audited)

The fees paid to each of our Non-executive Directors in 2018 for their service on the CLP Holdings Board and, where applicable, on its Board Committees are set out below. Higher level of fees was 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.

						Provident &			
		Audit &		Finance &		Retirement			
		Risk	Nomination	General		Fund	Sustainability	Total	Total
In HK\$	Board	Committee	Committee	Committee	HR&RC	Committee	Committee	2018	2017
Non-executive Directors									
The Hon Sir Michael Kadoorie <sup>1</sup>	753,819.18 <sup>(C)</sup>	-	11,654.80	-	-	-	-	765,473.98	733,932.88
Mr William Mocatta <sup>2</sup>	592,253.43 <sup>(VC)</sup>	-	-	443,667.12 <sup>(C)</sup>	62,586.31	14,000.00 <sup>(C)</sup>	-	1,112,506.86	1,066,457.54
Mr J. A. H. Leigh	538,475.34	-	-	-	-	-	-	538,475.34	514,252.06
Mr Andrew Brandler	538,475.34	-	-	315,632.88	-	-	78,931.51	933,039.73	897,719.18
Dr Y. B. Lee	538,475.34	-	-	-	-	-	-	538,475.34	514,252.06
Mr Philip Kadoorie <sup>3</sup>	220,258.36	-	-	-	-	-	-	220,258.36	-
Independent Non-executive Directors									
Mr Vernon Moore	538,475.34	475,558.90 <sup>(C)</sup>	-	315,632.88	62,586.31	-	-	1,392,253.43	1,351,201.37
Sir Rod Eddington	538,475.34	-	-	315,632.88	-	-	-	854,108.22	818,987.67
Mr Nicholas C. Allen 1	538,475.34	338,586.30	12,345.20 <sup>(C)</sup>	315,632.88	62,586.31	-	78,931.51	1,346,557.54	1,305,926.03
Mr Vincent Cheng	538,475.34	-	10,000.00	315,632.88	86,628.76 <sup>(C)</sup>	-	-	950,736.98	915,116.44
Mrs Fanny Law	538,475.34	338,586.30	-	-	-	-	78,931.51	955,993.15	930,069.87
Mrs Zia Mody	538,475.34	-	-	-	62,586.31	-	-	601,061.65	575,372.61
Ms May Siew Boi Tan⁴	220,258.36	136,569.04	-	128,635.07	-	-	31,816.44	517,278.91	-
Ms Irene Lee <sup>5</sup>	177,438.90	114,691.51	-	104,771.51	-	-	26,770.41	423,672.33	1,234,805.48
							Total	11,149,891.82	10,858,093.19

Notes:

- 1 With effect from 1 June 2018, Mr Nicholas C. Allen was appointed as the Chairman of the Nomination Committee (the Committee) and The Hon Sir Michael Kadoorie stepped down as Chairman of the Committee and remained as a Member of the Committee.
- 2 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 2017 and 2018.
- 3 Mr Philip Kadoorie was appointed as a Non-executive Director with effect from 7 August 2018. The fee paid to Mr Kadoorie for his service was made on a pro rata basis from 7 August 2018.
- 4 Ms May Siew Boi Tan was appointed as an Independent Non-executive Director and a Member of the Audit & Risk Committee, the Finance & General Committee and the Sustainability Committee with effect from 7 August 2018. The fees paid to Ms Tan for her service were made on a pro rata basis from 7 August 2018.
- 5 Ms Irene Lee retired as an Independent Non-executive Director and a Member of the Audit & Risk Committee, the Finance & General Committee and the Sustainability Committee with effect from the conclusion of the 2018 AGM held on 4 May 2018. The fees paid to Ms Lee were made on a pro rata basis in respect of her service up to 4 May 2018.

There was an increase in total Directors' fees compared to 2017, primarily due to an increase in the level of Non-executive Directors' fees which took effect on 6 May 2018 and the appointment of additional Director during 2018.

## Change of Remuneration – Executive Directors and Senior Management (Audited)

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 2018 are set out in the tables on page 166 (Executive Directors) and pages 172 to 173 (Senior Management).

The amounts disclosed consist of remuneration accrued or paid for service in 2018 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, whilst non-recurring items relate primarily to the appointment or termination of Executive Directors and Senior Management.

In the tables on page 166 and pages 172 to 173 the "Total Remuneration" column for 2018 includes the following recurring items:

- (i) base compensation, allowances & benefits paid;
- (ii) 2018 annual incentive accrued based on previous year's Company performance and the 2017 annual incentive adjustment. The adjustment is the difference between the actual annual incentive paid in 2018 for 2017 performance and the annual incentive accrual for 2017;
- (iii) the 2015 long-term incentive award paid in January 2018 when the vesting conditions were satisfied (the comparative figures are the long-term incentive for 2014 paid in 2017). About 34% of the increase in the value of the phantom shares portion of 2015 long-term incentive payments results from the change in CLP Holdings' share price between 2015 and 2017, with dividends reinvested; and
- (iv) provident fund contribution made.

The "Other Payments" column includes any non-recurring items. In 2017 and 2018, there were no other payments made.

## Executive Directors - Remuneration in 2018 (Audited)

The remuneration paid to the Executive Directors of the Company in 2018 was as follows:

		Recurring Remu Performan				Non-recurring Remuneration Item	
	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	Other Payments HK\$M	Total HK\$M
<b>2018</b> CEO (Mr Richard Lancaster)	9.4	8.0	6.2	2.4	26.0	-	26.0
Executive Director & Chief Financial Officer (Mr Geert Peeters)	7.2	6.1	4.6	1.3	45.2		19.2 45.2

		Performan	ice Bonus <sup>2</sup>				
	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	Other Payments HK\$M	Total HK\$M
2017 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

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. Which of these benefits applies depends primarily on the location of the individual.
- 2 Performance bonus consists of (a) annual incentive (2018 accrual and 2017 adjustment) and (b) long-term incentive (payment for 2015 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 2018 performance will be made in March 2019. These payments and awards are subject to the prior approval of the HR&RC after 31 December 2018. Details of these will be published on the CLP website at the time that the 2018 Annual Report is published.

3 Mr Peeters joined the Company in February 2014. The Long-term Incentive (LTI) payment in 2017 was for a part year 2014 LTI award, and the LTI payment in 2018 was for the full year 2015 LTI award.

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 2018 (Audited)

The total remuneration of Non-executive and Executive Directors in 2018 was:

	2018 HK\$M	2017 HK\$M
Fees	11.1	10.9
Recurring Remuneration Items		
Base Compensation, Allowances & Benefits <sup>1</sup>	16.6	16.0
Performance Bonus <sup>2</sup>		
– Annual Incentive	14.1	14.0
– Long-term Incentive	10.8	7.7
Provident Fund Contribution	3.7	3.6
Non-recurring Remuneration Item		
Other Payments	-	
	56.3	52.2

Notes:

1 Refer to Note 1 on Base Compensation, Allowances & Benefits on page 166 for Executive Directors.

2 Refer to Note 2 on Performance Bonus on page 166 for Executive Directors.

Of the total remuneration paid to Directors, HK\$12.3 million (2017: HK\$11.8 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 105.

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 customer-focused energy business 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 170). 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.

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 2018.

#### **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 2018.

#### **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 2018. 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 business operations there are a large number of such measures, including both quantitative and qualitative factors.

Given the range of considerations there is not a formulaic mathematical determination of performance, rather it is a balanced judgement by the HR&RC taking all relevant factors into account.

In reaching their decision the HR&RC considers What was achieved and How it was achieved.

This includes:

- Performance achieved against Financial and Operational targets;
- How that performance was delivered from a Safety, Environment and Governance perspective;
- How well was the future strategic positioning of the business managed to ensure long-term value creation and sustainability?

Area of performance Measures WHAT Financial and **Operating EPS** Operational Operating earnings ROE Asset performance Customer Minutes Lost • HOW Safety Lost Time Injury Rate Total Recordable Injury Rate Fatalities Environmental Regulatory non-compliance cases • • CO<sub>2</sub> intensity Emissions • Renewable Energy capacity as a percentage of new generation portfolio • Internal control Number of Not Satisfactory Audits • Number of Code of Conduct cases

In assessing performance the quantitative financial and operational measures considered by the HR&RC include the following:

In addition to these measures the HR&RC also sets a number of additional objectives each year reflecting the strategic priorities of the Group. In 2018 these objectives included:

- Review safety culture, practices and processes. Address safety performance issues, with particular emphasis on contractors;
- Ensure we optimise the availability, reliability and resource efficiency standards of our asset portfolio;
- Drive the digital transformation of our existing business models;
- Strengthen data science capabilities and programmes, and create value by leveraging data to increase operational efficiency, enhance our predictive capabilities and obtain benefit from data driven customer insights;
- Continue to build strategic capabilities and strengthen diversity. Ensure management and human resources are allocated to areas of strategic focus;
- Continue to enhance ESG capability;
- Maintain an effective internal control environment; and
- Ensure cyber-resilience of business operations and data.

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; and
- 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 2018. The composition of the LTI award:

LTI opportunity set at the beginning of 2018 (50% of maximum)

Х

Performance multiplier (Organisational performance for the year preceding that in which the award is made) Actual LTI award:

- a) A minimum of 75% of the award is allocated to CLP Holdings phantom shares based on average closing share price for the December preceding the making of the LTI award
- b) At the choice of the individual, up to 25% of the award can be allocated to either a notional cash deposit or to CLP Holdings phantom shares

Payment of LTI award will be made in 2021

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.

#### Remuneration for Ms 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 2018. 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 2018. 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 2018 will be paid in 2019 with the remainder of the actual annual incentive deferred for two years, payable in 2021.

#### 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 2018.

The final value of the 2018 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 Nomination and Remuneration Committee of EnergyAustralia) will be paid to Ms Tanna in April 2021 (the Vesting Date).

## Senior Management – Remuneration in 2018 (Audited)

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 2018").

	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			
2018										
Chief Operating Officer										
(Mr Derek Parkin)	5.3	4.5	0.6	1.0	11.4	-	11.4			
Group Director & Vice Chairman										
– CLP Power Hong Kong										
(Mrs Betty Yuen)	4.4	3.8	3.0	1.1	12.3	-	12.3			
Managing Director – CLP Power										
(Mr Chiang Tung Keung)	5.2	5.2	1.8	1.3	13.5	-	13.5			
Managing Director – EnergyAustralia										
(Ms Catherine Tanna) <sup>3</sup>	11.4	13.3	9.1	0.1	33.9	-	33.9			
Managing Director – India										
(Mr Rajiv Mishra)⁴	4.2	3.5	2.1	1.0	10.8	-	10.8			
Managing Director – China										
(Mr Chan Siu Hung)	4.3	3.7	2.7	1.1	11.8	-	11.8			
Group General Counsel &										
Chief Administrative Officer										
(Mr David Simmonds)	5.2	4.3	3.3	1.3	14.1	-	14.1			
Chief Corporate Development Officer										
(Ms Quince Chong)	5.1	4.3	3.3	1.1	13.8	-	13.8			
Chief Human Resources Officer										
(Mr Roy Massey)	4.2	3.4	2.2	1.1	10.9	-	10.9			
Total	49.3	46.0	28.1	9.1	132.5		132.5			

Notes 1 to 4 are set out on page 173.

Of the total remuneration paid to Senior Management, HK\$40.4 million (2017: HK\$39.6 million) has been charged to the SoC operation.

		Recurring Remun	eration Items			Non-recurring Remuneration Item	
		Performance	e Bonus²				
	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
2017							
Chief Operating Officer	5.2	4.5	-	0.9	10.6	-	10.6
Group Director & Vice Chairman -							
CLP Power Hong Kong⁵	4.3	4.7	2.6	1.1	12.7	-	12.7
Managing Director – CLP Power							
(Mr Paul Poon)⁰	2.3	3.0	3.2	0.6	9.1	-	9.1
Managing Director – CLP Power							
(Mr Chiang Tung Keung) <sup>7</sup>	2.9	2.5	-	0.8	6.2	-	6.2
Managing Director –							
EnergyAustralia <sup>3</sup>	11.9	13.8	4.3	0.1	30.1	-	30.1
Managing Director – India <sup>4</sup>	4.0	3.1	1.8	1.0	9.9	-	9.9
Managing Director – China	4.1	3.5	2.4	1.1	11.1	-	11.1
Group General Counsel &							
Chief Administrative Officer	5.0	4.3	2.8	1.1	13.2	-	13.2
Chief Corporate Development							
Officer	4.9	4.3	3.0	0.9	13.1	-	13.1
Chief Human Resources Officer	4.0	3.8	1.7	1.0	10.5		10.5
Total	48.6	47.5	21.8	8.6	126.5	-	126.5

## Senior Management - Remuneration in 2018 (Audited) (continued)

Notes:

1 Refer to Note 1 on Base Compensation, Allowances & Benefits on page 166.

- 2 Refer to Note 2 on Performance Bonus on page 166. 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 Nomination and Remuneration Committee and Members of the HR&RC.
- 3 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.
- 4 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.
- 5 The annual incentive paid to Mrs Betty Yuen in 2017 included additional discretionary annual incentive of HK\$1.0 million for 2016 performance year.
- 6 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 year.
- 7 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.

## The Five Highest Paid Individuals in 2018 (Audited)

The five highest paid individuals in the Group included two Directors (2017: two Directors) and three members of Senior Management (2017: three members of Senior Management). The total remuneration of the five highest paid individuals in the Group is shown below:

	2018 HK\$M	2017 HK\$M
Recurring Remuneration Items		
Base Compensation, Allowances & Benefits <sup>1</sup>	38.3	37.8
Performance Bonus <sup>2</sup>		
– Annual Incentive	36.0	36.3
– Long-term Incentive	26.6	17.8
Provident Fund Contribution	6.2	5.8
Non-recurring Remuneration Item		
Other Payments	-	-
	107.1	97.7

Notes:

1 Refer to Note 1 on Base Compensation, Allowances & Benefits on page 166.

2 Refer to Note 2 on Performance Bonus on page 166.

The remuneration paid to these five individuals is within the following bands:

	Numbe 2018	r of Individuals 2017
	_	2
HK\$13,500,001 - HK\$14,000,000	1	-
HK\$14,000,001 – HK\$14,500,000	1	-
HK\$16,500,001 – HK\$17,000,000	-	1
HK\$19,000,001 – HK\$19,500,000	1	-
HK\$24,500,001 – HK\$25,000,000	-	1
HK\$26,000,001 – HK\$26,500,000	1	-
HK\$30,000,001 – HK\$30,500,000	-	1
HK\$33,500,001 – HK\$34,000,000	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.

th

Vincent Cheng Chairman, Human Resources & Remuneration Committee Hong Kong, 25 February 2019

## **Directors' Report**

The Directors have pleasure in submitting their Report together with the audited Financial Statements for the year ended 31 December 2018.

## **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 12 and 13 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\$1.83 (2017: HK\$1.77) per share totalling HK\$4,623 million (2017: HK\$4,472 million) during the year.

The Directors declared the fourth interim dividend of HK\$1.19 (2017: HK\$1.14) per share totalling HK\$3,007 million (2017: HK\$2,880 million).

This fourth interim dividend will be paid on 21 March 2019.

## **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 18, Financial Review on page 30, the Business Performance and Outlook section on page 38 and Financial Capital on page 70. 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 133. Particulars of important events affecting the Group that have occurred since the end of the financial year 2018, 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 18 and the Business Performance and Outlook section on page 38. An account of the Group's relationships with its key stakeholders is included in the Capitals section on page 68.

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 68, the Governance section on page 96 and the Five-year Summary: CLP Group Statistics – Environmental and Social on pages 288 and 289.

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\$27,133 million as at 31 December 2018 (2017: HK\$27,944 million).

## **Bank Loans and Other Borrowings**

The total borrowings (including debentures) of the Group as at 31 December 2018 amounted to HK\$55,298 million (2017: HK\$57,341 million). Particulars of borrowings are set out in Note 20 to the Financial Statements and on pages 70 to 74 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 0.2% of the Group's total assets as at 31 December 2018.

## **Equity-linked Agreements**

For the year ended 31 December 2018, the Company has not entered into any equity-linked agreement.

## Donations

Donations by the Group for charitable and other purposes amounted to HK\$18,311,000 (2017: HK\$14,465,000).

## **Five-year Summary**

A summary of the results for the year and of the assets and liabilities of the Group as at 31 December 2018 and for the previous four financial years are on pages 286 and 287. A <u>ten-year summary</u> 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 105. Details of their remuneration are set out in the Human Resources & Remuneration Committee Report on page 159.

## **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, in aggregate, accounted for 51.90% of the Group's total purchases during the year and a breakdown of the purchases (as a percentage of the Group's total purchases) from each of the five largest suppliers are set out below in descending order:

- 19.12% 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).
- 10.81% 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 80% of GNPS's output for supply of electricity to its customers in Hong Kong.
- 3. 9.88% from PetroChina International Guangdong Co., Ltd. (PCIGD) in which the Group has no interest. CAPCO purchases natural gas from PCIGD for its electricity generation.
- 4. 7.87% 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.
- 4.22% 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 Jhajjar Power Station.

As at 31 December 2018, none of the Directors, their close associates 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

With the exception of Mr Philip Kadoorie and Ms May Tan, the Directors of the Company as at the date of this Report, whose names appear on pages 98 to 103, were Directors for the whole year ended 31 December 2018. 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 159.

Ms Irene Lee retired as an Independent Non-executive Director of the Company at the conclusion of the 2018 AGM held on 4 May 2018. After having served on the Company's Board for over 5 years, Ms Lee decided to retire as a Director of the Company as she would like to devote more time to her other business commitments and engagements. Ms Lee confirmed that she had no disagreement with the Board and that she was not aware of any matter in relation to her retirement that should be brought to the attention of the shareholders of the Company.

With effect from 7 August 2018, Mr Philip Kadoorie was appointed as a Non-executive Director and Ms May Tan was appointed as an Independent Non-executive Director of the Company.

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 125 of the Company's Articles of Association, Mr Philip Kadoorie and Ms May Tan, appointed on 7 August 2018, will retire at the 2019 AGM. In accordance with Article 119 of the Company's Articles of Association, Mr J. A. H. Leigh, Mr Richard Lancaster, Mrs Zia Mody, Mr Geert Peeters and Dr Y. B. Lee will retire by rotation at the 2019 AGM.

Dr Y. B. Lee has confirmed to the Company that, pursuant to the retirement age guideline of the CLP Board Diversity Policy, he will not be seeking re-election at the 2019 AGM and will therefore retire at the conclusion of the 2019 AGM. After having served the CLP Group and the Company's Board for over 42 years, Dr Lee has decided that it is an appropriate time for him to step down from the Board.

All the other retiring Directors, being eligible, offer themselves for election or re-election. None of the Directors offering themselves for election or re-election at the 2019 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 2018, 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 2018 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 2018 or during the period from 1 January 2019 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 group-wide directors and officers liability insurance maintained by the Company in respect of potential liability and costs associated with legal proceedings that may be brought against the Directors of the Company.

## **Continuing Connected Transactions**

China Southern Power Grid International (HK) Co., Limited (CSG HK) (effectively China Southern Power Grid Co., Ltd. (CSG) 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 2018, this was HK\$1,461 million. The annual aggregate cap was approved by the Board of Directors and disclosed in the announcement dated 2 January 2018. The project level caps of the CCTs for 2018 set out in the table on pages 178 to 189 are for reference only and were used to derive the annual aggregate cap of HK\$1,461 million.

Other details of the CCTs, which are required to be disclosed pursuant to Rules 14A.49 and 14A.71 of the Listing Rules, together with those Power Exchange Sales which are subject to Rule 14A.60 of the Listing Rules, are also set out in the table on pages 178 to 189. The considerations for 2018 represented the actual transaction values of the relevant CCTs in the full twelve months of 2018.

	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 2018 HK\$M
1.	CLP Power Hong Kong electricity sales to Mainland China					
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 2018. On 28 December 2018, a supplemental agreement was entered into to further extend the term to 31 December 2019.	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.	67.18
1.2	Energy Economy Interchange Agreement Original agreement entered into on 25 December 2015 and extended by way of further agreements. The immediate preceding term was from 25 December 2017 to 24 December 2018. On 5 November 2018, a supplemental agreement was entered into to further extend the term to 24 December 2021.	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	1.39
	<b>Aggregated total consideration for CLP Power Hong Kong electricity sa</b> (Project level cap for 2018 was HK\$425.00 million)	les to Mainland China				68.57
2.	Huaiji hydro project					
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. On 24 September 2018, a new agreement with automatic renewal provision was signed for another one-year period to 23 September 2019.	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 which delegated the role of settlement to Zhaoqing Huaiji Power Bureau, another subsidiary of CSG.	Payment is based on the number of GWh sold multiplied by a tariff pre-determined by the Guangdong Provincial Development and Reform Commission (Guangdong PDRC). This tariff is published at the Guangdong PDRC YueJia [2013] No. 177 and is updated from time to time. The above pricing also applies to items 2.2-2.7.	4.08
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. On 25 December 2018, a new agreement with automatic renewal provision was signed for another one-year period to 24 December 2019.	CLP-GHX	CSG-ZPB	As in item 2.1 above	As in item 2.1 above	2.60
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 2019.	CLP-GHX	CSG-ZPB	CLP-GHX sells electricity to CSG-ZPB.	As in item 2.1 above	1.92
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 2019.	CLP-GHX	CSG-ZPB	As in item 2.3 above	As in item 2.1 above	6.53
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 2019.	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	30.70

	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 2018 HK\$M
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 2019.	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	127.16
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 2019.	CLP-GHX	CSG-ZPB	As in item 2.3 above	As in item 2.1 above	23.85
	<i>Aggregated total consideration for Huaiji hydro project</i> (Project level cap for 2018 was HK\$287.63 million)		·			196.84
3.	Yang_er hydro project					
3.1	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.	Dali Yang_er Hydropower Development Co., Ltd., a wholly-owned subsidiary of the Company (Dali Yang_er)	Yangbi Electricity Supply Co., Ltd., a subsidiary of CSG (CSG Yangbi)	CSG Yangbi supplies electricity to 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
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.	Dali Yang_er	CSG Yangbi	CSG Yangbi supplies electricity via a 10kV line to Dali Yang_er during overhaul related outages.	As in item 3.1 above	0.01
3.3	Yang_er Hydro Project High Voltage Electricity Supply Contract Continuingly valid since 4 November 2009 (being the date of the agreement).	Dali Yang_er	Dali Power Bureau of Yunnan Power Grid Company Limited (CSG Yunnan), a subsidiary of CSG (CSG-DPB)	CSG-DPB supplies electricity via a 110kV line to Dali Yang_er during overhaul related outages.	As in item 3.1 above	-
3.4	Interprovincial Electricity Sales to Guangdong Transactions entered into via Kunming Power Exchange Center Limited (Kunming Power Exchange) on various dates in 2018 for electricity sales for various durations.	Dali Yang_er	CSG Yunnan	Dali Yang_er was allocated additional electricity sales quota by Kunming Power Exchange where Dali Yang_er sold electricity to CSG Yunnan under the West- East Electricity Transfer Initiative implemented by the PRC Government.	Payment is based on the number of GWh sold multiplied by the tariffs set by Kunming Power Exchange from time to time.	5.80
	Aggregated total consideration for Yang_er hydro project (Project level cap for 2018 was HK\$2.61 million)					5.82

	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 2018 HK\$M
4.	Fangchenggang coal-fired project (Phases I and II)					
4.1	Fangchenggang Coal-fired Project PPA Agreement entered into on 12 February 2018 for a one-year period from 1 January to 31 December 2018 with automatic renewal by continued performance for another one-year period to 31 December 2019.	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 tariff pre-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.	326.05
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	0.15
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	0.01
4.4	Interprovincial Electricity Sales to Guangdong Transactions entered into via Guangxi Power Exchange Center Limited (Guangxi Power Exchange) on various dates in 2018 for electricity sales for various durations.	CLP-FCG	CSG-GPG	CLP-FCG sold electricity to CSG-GPG through market sales arrangements.	Payment is based on the number of GWh sold multiplied by the tariffs determined through competitive bidding processes conducted on the Guangxi Power Exchange.	232.53
	Aggregated total consideration for Fangchenggang coal-fired project ( (Project level cap for 2018 was HK\$411.91 million)	Phases I and II)			· · · · ·	558.74
5.	Xicun solar project (Phases I and II)					
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 2019.	CLP Dali (Xicun) Solar Power Co., Ltd, a wholly-owned subsidiary of the Company (CLP Xicun)	CSG Yunnan	CLP Xicun sells electricity to CSG Yunnan.	Payment is based on the number of GWh sold multiplied by a tariff pre-determined by the National Development and Reform Commission (NDRC) and subject to adjustment in accordance with the 2018 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.	59.90
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 3.1 above	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 2018 HK\$M
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 with automatic renewals for successive three-year periods.	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 3.1 above	0.39
5.4	Xicun Solar Project High Voltage Electricity Supply Contract (for pump station) Agreement entered into on 31 July 2015 for a three-year period to 30 July 2018 with automatic renewals for successive three-year periods. The latest renewal was for another three-year period to 30 July 2021.	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.	0.04
5.5	Interprovincial Electricity Sales to Guangdong Transactions entered into via Kunming Power Exchange on various dates in 2018 and for electricity sales for various durations.	CLP Xicun	CSG Yunnan	CLP Xicun was allocated additional electricity sales quota by Kunming Power Exchange where CLP Xicun sold electricity to CSG Yunnan under the West-East Electricity Transfer Initiative implemented by the PRC Government.	As in item 3.4 above	4.36
	<b>Aggregated total consideration for Xicun solar project (Phases I and II)</b> (Project level cap for 2018 was HK\$69.30 million)					64.70
6.	Xundian wind project					
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 2019.	CLP (Kunming) Renewable Energy Co., Ltd., a wholly- owned subsidiary of the Company (CLP Xundian)	CSG Yunnan	CLP Xundian sells electricity to CSG Yunnan.	As in item 5.1 above	20.71
6.2	Xundian Wind Project Electricity Supply Contract Agreement entered into on 30 November 2015 for a three-year period to 29 November 2018 with automatic renewals for successive three-year periods. The latest renewal was for another three-year period to 29 November 2021.	CLP Xundian	Kunming Power Bureau of CSG Yunnan, a subsidiary of CSG (CSG-KPB)	CSG-KPB supplies electricity via a 110kV line to CLP Xundian (for start up purposes).	As in item 3.1 above	0.10
6.3	Xundian Wind Project High Voltage Electricity Supply Contract (10kV) 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.	-
6.4	Interprovincial Electricity Sales to Guangdong Transactions entered into via Kunming Power Exchange on various dates in 2018 for electricity sales for various durations.	CLP Xundian	CSG Yunnan	CLP Xundian was allocated additional electricity sales quota by Kunming Power Exchange where CLP Xundian sold electricity to CSG Yunnan under the West-East Electricity Transfer Initiative implemented by the PRC Government.	As in item 3.4 above	4.06
	Aggregated total consideration for Xundian wind project (Project level cap for 2018 was HK\$23.59 million)					24.87

	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 fo
7.	Sandu wind project				
7.1	Sandu I Wind Project PPA Agreement entered into on 29 December 2017 for a two-year period from 1 January 2018 to 31 December 2019.	CLP (Sandu) Renewable Energy Limited, a wholly- owned subsidiary of the Company (CLP Sandu)	Guizhou Power Grid Company Limited, a subsidiary of CSG (CSG Guizhou)	CLP Sandu sells electricity to CSG Guizhou.	Paymer multipl The tar FaGaiJi time to
7.2	Sandu I Wind Project Electricity Supply Contract (220kV) Agreement entered into on 8 December 2015 for a three-year period to 7 December 2018. On 21 March 2018, a supplemental agreement was signed to extend the term for a one-year period from 18 August 2018 to 17 August 2019.	CLP (Sandu)	Duyun Sandu Power Bureau of CSG Guizhou (formerly known as Sandu Power Bureau), a subsidiary of CSG (CSG-DSPB)	CSG-DSPB supplies electricity to CLP Sandu (for power consumption at the project site).	Paymen multipl industr Provinc This tar
7.3	Sandu I Wind Project Electricity Supply Contract (10kV) New agreement entered into on 23 March 2018 for a three-year period to 22 March 2021.	CLP Sandu	CSG-DSPB	CSG-DSPB supplies electricity to CLP Sandu (for power consumption at the project site).	As in ite
	Aggregated total consideration for Sandu wind project			·	

(Project level cap for 2018 was HK\$146.02 million)

8.	Power Exchange Sales subject to Rule 14A.60 (by project) (see Note)				
8.1	Yang_er hydro project	Dali Yang_er	CSG Yunnan (as settlement agent as defined under the Kunming Power Exchange settlement rules)	Dali Yang_er sold electricity through the Kunming Power Exchange by competitive bidding or direct sales arrangements (as applicable) whereby CSG Yunnan was the settlement agent and assumed settlement risk for all these transactions.	Payme multip compe Kunmi agreed with a Exchar
8.2	Fangchenggang coal-fired project (Phases I and II)	CLP-FCG	CSG Guangxi (as settlement agent as defined under the Guangxi Power Exchange settlement rules)	CLP-FCG sold electricity through the Guangxi Power Exchange by competitive bidding or direct sales arrangements (as applicable) whereby CSG Guangxi was the settlement agent and assumed settlement risk for all these transactions.	Payme multip compe Guang agreed
8.3	Xicun solar project (Phases I and II)	CLP Xicun	CSG Yunnan (as settlement agent as defined under the Kunming Power Exchange settlement rules)	CLP Xicun sold electricity through the Kunming Power Exchange by competitive bidding or direct sales arrangements (as applicable) whereby CSG Yunnan was the settlement agent and assumed settlement risk for all these transactions.	As in it

is for determining the consideration	Consideration for 2018 HK\$M
rment is based on the number of GWh sold Itiplied by a tariff pre-determined by the NDRC. e tariff is published at the NDRC Document GaiJiaGe [2014] No. 3008 and is updated from e to time.	128.82
ment is based on the number of kWh sold Itiplied by the industrial use tariff for bulk ustrial users determined by the Guizhou vincial Development and Reform Commission. s tariff is updated from time to time.	0.29
n item 7.2 above	-
	129.11
Total Consideration for 2018	1,048.65
ment is based on the number of GWh sold ltiplied by the tariff determined through apetitive bidding processes conducted on the aming Power Exchange or an arm's length tariff eed between the parties (as applicable), together h a transaction fee charged by Kunming Power hange.	N/A
ment is based on the number of GWh sold Itiplied by the tariff determined through npetitive bidding processes conducted on the angxi Power Exchange or an arm's length tariff eed between the parties (as applicable).	N/A
in item 8.1 above	N/A

	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 2018 HK\$M
8.4	Xundian wind project	CLP Xundian	CSG Yunnan (as settlement agent as defined under the Kunming Power Exchange settlement rules)	CLP Xundian sold electricity through the Kunming Power Exchange by competitive bidding or direct sales arrangements (as applicable) whereby CSG Yunnan was the settlement agent and assumed settlement risk for all these transactions.	As in item 8.1 above	N/A

#### Note:

Power Exchange Sales were not regarded as CCTs prior to 28 December 2018 and therefore, they were not disclosed in the Company's announcement dated 2 January 2018. The Power Exchange Sales were disclosed in the Company's announcement dated 31 January 2019 and no annual cap was set for these transactions in 2018. Accordingly, Power Exchange Sales continuing as from 28 to 31 December 2018 were not subject to the annual aggregate cap for 2018 although they constituted CCTs of the Company. Nonetheless, they were subject to Rule 14A.60 of the Listing Rules in respect of the disclosure and annual review requirements.

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:

- (i) the transactions have not been approved by the Board of the Company;
- (ii) the transactions were not, in all material respects, in accordance with the pricing policies of the Group;
- (iii) the transactions were not entered into, in all material respects, in accordance with the relevant agreements governing the transactions; and
- (iv) the transactions have exceeded the annual aggregate cap (other than the Power Exchange Sales for which no annual cap was set for 2018 for the reasons set out below).

During 2018, Power Exchange Sales were entered into on various dates for electricity sales by the Company's generation projects in Mainland China for various durations. These relate to (i) the electricity sold under one form of the market sales regime, typically under an automated anonymous bidding and acceptance system conducted on various power exchange centres in Mainland China, and (ii) directly negotiated sales, with or without a CSG Group company as the purchaser (provided these are recorded on the power exchange centres and are made subject to the settlement rules of the power exchange centres whereby a CSG grid company assumes settlement risk in respect of the contract). Since 28 December 2018, the Company has taken the prudent view that Power Exchange Sales are CCTs. Therefore, where a CSG grid company has assumed settlement risks in respect of any Power Exchange Sales as from 28 December 2018, the transaction has been regarded a CCT of the Company. Power Exchange Sales continuing as at 28 December 2018 were disclosed in the Company's announcement dated 31 January 2019 and this report as required by Rule 14A.60. The Company's generation projects did not enter into any new Power Exchange Sales during the period from 28 to 31 December 2018.

Power Exchange Sales were not regarded as CCTs of the Company prior to 28 December 2018 and therefore, no annual cap was set for these transactions for the year ended 31 December 2018. The Auditor has included an emphasis of matter paragraph (without modification) in its letter on CCTs issued in accordance with the Listing Rules which states that: "We draw attention to the Power Exchange Sales Transactions (in Appendix B). These are conducted by certain of the Group's power project companies through power exchange centres operated by connected parties of the Group and for those entered into during the period from 28 December 2018 to 31 December 2018, these are regarded by the Company as Continuing Connected Transactions as disclosed in the Company's announcement dated 31 January 2019. As set out in the note to Appendix B, no annual cap was set for the Power Exchange Sales Transactions in 2018 nor were they included in the Annual Aggregate Cap. Accordingly, the Power Exchange Sales Transactions were not subject to our procedure relating to the Annual Aggregate Cap. Our conclusion is not modified in respect of this matter."

## **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 2018, 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 2018 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 Philip Kadoorie	Note 6	410,524,882	16.24908
Mr Nicholas C. Allen	Note 7	27,000	0.00107
Mrs Fanny Law	Personal	16,800	0.00066
Ms May Siew Boi Tan	Beneficial Owner	20,000	0.00079
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 Mr Philip Kadoorie was deemed (by virtue of the Securities and Futures Ordinance) to be interested in 410,524,882 shares in the Company. These shares were held in the following capacity:
  - a 233,044,212 shares were ultimately held by a discretionary trust, of which Mr Philip Kadoorie is one of the discretionary beneficiaries.
  - b 170,180,670 shares were ultimately held by a discretionary trust, of which Mr Philip Kadoorie is one of the discretionary beneficiaries.
  - c 1,300,000 shares were ultimately held by a discretionary trust, of which Mr Philip Kadoorie is one of the discretionary beneficiaries.
  - d 2,000,000 shares were ultimately held by a discretionary trust, of which Mr Philip Kadoorie is one of the discretionary beneficiaries.
  - e 2,000,000 shares were ultimately held by each of two discretionary trusts, both of which Mr Philip Kadoorie is one of the default beneficiaries.
- 7 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, 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 2018.

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 2018.

# 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 2018.

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.

## **Interests of Substantial Shareholders**

The interests / short positions of substantial shareholders in the shares and underlying shares of the Company as at 31 December 2018, 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 2018:

Substantial Shareholders	Capacity	in Numbe	Total Interests 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 Philip Kadoorie	Note 8	410,524,882	Note 8	16.25
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.
- 8 See Note 6 under "Interests of Directors and Chief Executive Officer".

As at 31 December 2018, 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 2018, 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 2018, 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 106 of this Annual Report, while our <u>Sustainability Report</u> 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

Willran Moratte

William Mocatta Vice Chairman Hong Kong, 25 February 2019

# **Financials**

Our objective is to present comprehensive, useful and reader-friendly financial statements to stakeholders to facilitate their clear understanding of our financial position and performance.





# Precise INTEGRATED

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#### **Financial Risk Management**

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The objective of financial statements is to communicate the Group's financial information to our stakeholders, especially shareholders, investors and lenders, for making economic decisions. To achieve this objective, it is always our aim to present the financial information of CLP as clearly and concisely as possible. This overview helps you understand how information is organised and presented in our financial statements. Hopefully, this will bring you a more insightful reading experience.

#### 1. Essential **Financial Statements**

Financial statements start with summaries of the financial position, performance and changes in resources of the Group. These summaries are presented in three essential financial statements with different objectives as shown in the diagram. The relationships between these statements and the interactions with the Group's stakeholders are set out in our <u>website</u>. 回

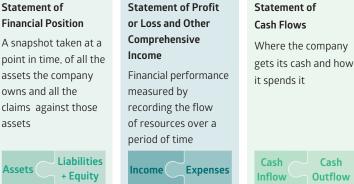
#### 2. Significant **Accounting Policies**

Financial statements are prepared in accordance with Hong Kong Financial Reporting Standards (HKFRS). You do not need to be familiar with all the requirements of HKFRS because the accounting policies which are significant and relevant to the Group are disclosed in the financial statements. The disclosures include specific

principles and procedures selected and applied by management in preparing the financial statements, as well as the methods, measurement basis and procedures to account for the transactions.

Look for the document clip

### Statement of



#### 3. Critical Accounting **Estimates and Judgments**

Management makes judgments and estimates in preparing the financial statements, some of which will have a significant effect on the reported results and financial position. HKAS 1 specifies that an entity shall disclose (1) the key judgments that have the most significant effect on amounts recognised; and (2) the assumptions and other sources of estimation uncertainty at period end that have a significant risk of material adjustment to the carrying amounts of assets or liabilities within the next financial year. You should pay attention to our disclosures under "critical accounting estimates and judgments" which help you assess CLP's financial position and performance and understand the sensitivities to changes in assumptions.

Look for the grey boxes

#### **5. Accounting Mini-series**

We believe 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 topical and difficult accounting concepts in a way that is easier to understand. A number of topics have been discussed since 2007, the content of which can be found in our website. 回



Read our previous accounting mini-series

#### 4. Tips & Hints

Tips & Hints are our initiatives to facilitate you to understand the content of a particular disclosure or complicated accounting concepts or terms.

CLP Holdings 2018 Annual Report

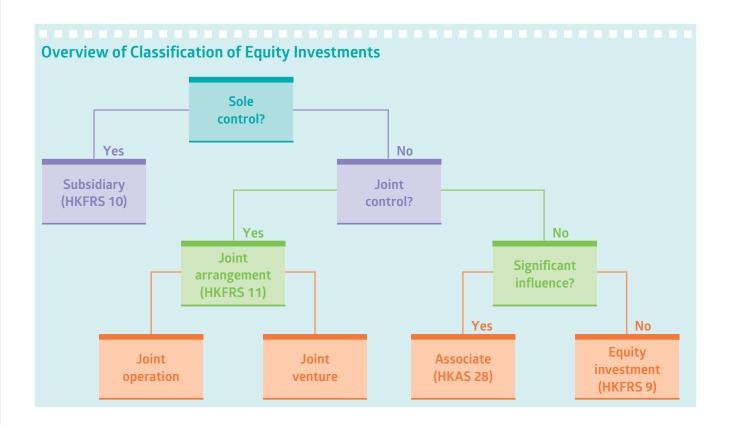


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# **Classification of Equity Investments**



Nowadays, it is common for a commercial entity to set up a holding company structure with its wholly or partially-owned entities engaging in different lines of business and/or operating in different geographical regions. This arrangement has the benefit of limiting the financial and legal liability of the holding company and its related entities. Under the accounting regime, these entities can be classified as subsidiaries, joint arrangements, associates or equity investments. They have different accounting treatments in the financial statements, and therefore, a proper classification of these entities is important for the presentation of the financial statements.



This year's accounting mini-series will tell you how to classify, measure and recognise the above group entities in the financial statements.

#### **Subsidiary**

HKFRS 10 Consolidated Financial Statements provides a single consolidation model that identifies control as the basis for consolidation for all types of entities. The control model of HKFRS 10 encompasses three distinct principles which, if present, identify the existence of control by an investor, hence forming a parent-subsidiary relationship. They are:

- power over an investee;
- exposure or rights to variable returns from the investee;
- ability to use its power to affect the amount of these returns.

All these three elements must be present for an investor to conclude that it has control over an investee.

Consolidated financial statements are prepared for the parent and subsidiaries to show the effect as if the parent and all the subsidiaries were one entity. Transactions within the Group are eliminated.

# Several considerations of the control model

#### Potential voting rights

Potential voting rights are voting power over an investee through the exercise or conversion of certain convertible debt or equity instruments and/or contractual arrangements. These rights should be considered when assessing investor's power over an investee.

#### Substantive rights vs protective rights

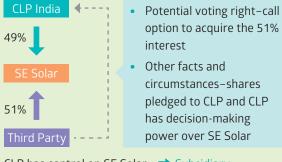
Substantive rights are rights that confer an investor the current ability to direct an investee's relevant activities. Protective rights are defined as rights to protect the interest of an investor under exceptional circumstances or relate to fundamental changes in an investee without giving power to the holder. When assessing whether an investor has power over an investee, protective rights are not relevant.

#### Variable returns

Variable returns include not only the conventional returns such as dividends and changes in investment value, but also synergistic returns such as economies of scale and cost savings. Returns shall have the potential to vary as a result of the performance of an investee, of which an investor is able to affect it by exercising its power over an investee.

#### **CLP Case Study**

CLP holds 49% interest in SE Solar Limited (SE Solar) through CLP India, with an option to acquire the remaining 51% interest one year after project commissioning.

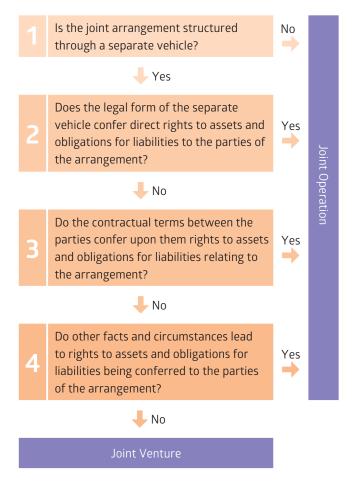


CLP has control on SE Solar Subsidiary

#### Joint Arrangement

HKFRS 11 Joint Arrangements specifies two types of joint arrangement, namely joint venture and joint operation. Classification of them is driven by the rights and obligations of the parties arising from the arrangement, rather than the legal form of the arrangement.

Determining the classification of joint arrangements can be set out as a four-step process.



The parties to a joint operation have rights to the assets and obligations for the liabilities. A joint operator accounts for assets, liabilities and corresponding revenues and expenses arising from the arrangement.

The parties to a joint venture have rights to the net assets. A joint venture partner accounts for an investment in the arrangement using the equity method. Equity method records the initial investment at cost which is adjusted periodically to reflect the changes in value due to the share of the joint venture's performance.

#### **CLP Case Study**

CLP and Sino Land Company Limited (Sino Land) executed a development agreement on redeveloping the Group's former headquarters at Argyle Street for residential purposes and to preserve the Clock Tower building for community use.

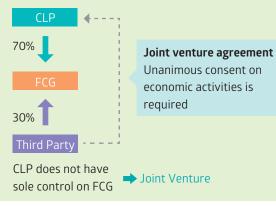


operate the project

Joint Operation

#### **CLP Case Study**

CLP holds 70% interest in CLP Guangxi Fangchenggang Power Company Limited (FCG). Under the joint venture agreement, none of the joint venture partners has unilateral control over the economic activities of FCG.



#### Associate

HKAS 28 Investment in Associates defines an associate as an entity over which the investor has significant influence but not control or joint control. Significant influence is the power to participate in the operating and financial policy decisions of an entity, but it has no control over those policies.

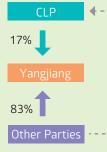
Usually, a holding of 20% or more of the voting power (directly or through subsidiaries) will indicate significant influence and

vice versa. Other factors like representation on the board of directors or participation in the policy-making process may also evident the existence of significant influence by an investor.

Similar to the accounting for a joint venture, an investor accounts for the investment in an associate by using the equity method.

#### **CLP Case Study**

CLP holds 17% interest in Yangjiang Nuclear Power Co. Ltd. (Yangjiang). CLP has a representative in both the Board of Directors and the Supervisory Committee.



#### Shareholders' agreement

• One seat in the Board of Directors

Associate

- One seat in the Supervisory
   Committee
- Right to assign management representative

CLP is able to participate in the policy making process

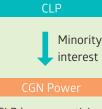
#### **Equity Investment**

Equity investments are financial assets under HKFRS 9 Financial Instruments. Investors of these investments have neither control, joint control nor significant influence over investees.

They are measured at fair value through profit or loss (FVTPL) but an irrevocable election at initial recognition may be made to present the fair value change to other comprehensive income (FVOCI) which are not held for trading.

#### **CLP Case Study**

CLP has invested in CGN Power Company Limited (CGN Power) as a minority shareholder for strategic purpose. CGN Power is principally engaged in the production and sale of electricity.



#### Quoted equity investment

- A minority shareholder
  - Have neither control, joint control nor significant influence over CGN Power

CLP has no participation rights in CGN Power

Equity Investment (FVOCI)

## **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 "Company") and its subsidiaries (the "Group") ("the Group Financial Statements") set out on pages 210 to 282, which comprise:

- the Consolidated Statement of Financial Position as at 31 December 2018;
- the Consolidated Statement of Profit or Loss for the year then ended;
- the Consolidated Statement of Profit or Loss and Other Comprehensive Income for the year then ended;
- the Consolidated Statement of Changes in Equity for the year then ended;
- the Consolidated Statement of Cash Flows for the year then ended; and
- the Significant Accounting Policies, Notes to the Financial Statements and Financial Risk Management.

#### 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 2018, 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 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.

The key audit matters identified in our audit are summarised as follows:

- Unbilled retail revenue;
- Fixed asset accounting, the calculation of the Scheme of Control permitted return and the carrying values of EnergyAustralia's generation assets and energy retail business;
- Recoverability of trade receivables;
- Asset retirement obligations; and
- Legal matters.

#### Key Audit Matter

#### Unbilled retail revenue

Refer to note 3 to the Group Financial Statements

Retail electricity and gas revenues are recognised when electricity and gas are supplied to and consumed by the customers. Revenues are measured on the basis of periodic 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\$3,877 million as at 31 December 2018.

For CLP Power Hong Kong Limited (CLP Power Hong Kong), unbilled retail revenue is calculated using estimates including consumption quantity based on the electricity sent-out adjusted by a loss factor, the pattern of residential and nonresidential consumption, weather and certain other factors.

For EnergyAustralia Holdings Limited (EnergyAustralia), unbilled retail revenue is calculated using the quantity of 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 loss and other factors.

#### How our audit addressed the Key Audit Matter

Our procedures in relation to unbilled revenue included:

- 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;
- Testing the volume of electricity sent-out by CLP Power Hong Kong to supporting information;
- Testing the volume of electricity purchased by EnergyAustralia from the wholesale electricity market to the underlying Australian Energy Market Operator invoices on a sample basis and reconciling the total purchase volumes to revenue volumes; and
- Understanding the estimates made relating to volumes, loss factors and tariffs used in determining the level of unbilled revenue for both CLP Power Hong Kong and EnergyAustralia and assessing their reasonableness by comparing them against historical trends and against the weighted average tariff for prices.

Based on the work performed, we found that the Group's unbilled retail revenue amount is supported by the available evidence.

Fixed asset accounting, the calculation of the Scheme of Control permitted return and the carrying values of EnergyAustralia's generation assets and energy retail business

Refer to notes 10 and 11 to the Group Financial Statements

*Fixed asset accounting and the calculation of the Scheme of Control permitted return* 

Consolidated fixed assets, leasehold land and land use rights were HK\$147 billion as at 31 December 2018. 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.

The annual permitted return under the SoC for the period from January to September 2018 was 9.99% of the SoC Companies' average net fixed assets other than renewable energy investments and 11% for renewable energy investments. From October to December 2018, the annual permitted return is 8% of the SoC Companies' average net fixed assets. 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.

The completeness and accuracy of SoC fixed asset additions, disposals and depreciation charges is important to ensure the SoC fixed asset balance is appropriate and the permitted return is calculated correctly.

How our audit addressed the Key Audit Matter

Our procedures in relation to the Group's fixed assets and the calculation of the SoC permitted return included:

- Assessing the control environment and testing controls over additions, disposals and depreciation charges;
- Testing the fixed asset additions in the year to supporting evidence on a sample basis and assessing whether the items have been appropriately capitalised in accordance with the Group's accounting policies;
- Assessing the estimated useful lives of the SoC Companies' fixed assets for compliance with the SoC;
- Testing depreciation charges by performing depreciation reasonableness tests;
- Reperforming the reconciliation of the SoC fixed asset records from the beginning of the financial year to the end of the financial year taking into account additions, disposals and depreciation;
- Recalculating the SoC permitted return for the nine months period ended 30 September 2018 and for the three months period ended 31 December 2018; and
- Recalculating the SoC adjustment to revenue for the year.

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.

Fixed asset accounting, the calculation of the Scheme of Control permitted return and the carrying values of EnergyAustralia's generation assets and energy retail business (continued)

# *The carrying values of EnergyAustralia's generation assets and energy retail business*

EnergyAustralia has goodwill of HK\$15,065 million relating to the energy retail business in Australia and HK\$11,922 million of generation fixed assets.

EnergyAustralia management has assessed the recoverable amount of EnergyAustralia's generation fixed assets and energy retail business at 31 December 2018 and concluded that:

- The latest impairment model for the generation assets indicates that sufficient headroom exists such that no impairment resulted. Management considers it would be inappropriate to reverse any previous impairment charges given the level of uncertainty.
- Management has assessed the recoverable amount of the energy retail business and concluded that the goodwill has not been impaired, however the valuation indicates that minimal headroom remains.

These conclusions are based on value in use models requiring significant management judgment in respect of forward electricity pool prices, annual retail tariffs, customer account growth rate assumptions and discount rate. Future regulatory policy decisions made by either the Australian State or Federal Government could significantly impact retail tariffs and the customer account growth assumptions used in the energy retail business value in use model, which would have a direct impact on the valuation.

#### How our audit addressed the Key Audit Matter

Our procedures in relation to management's assessment of the carrying values of EnergyAustralia's generation assets and energy retail business included:

- Assessing the appropriateness of the valuation methodology;
- Reconciling input data to supporting evidence, such as approved business plans;
- Considering the accuracy of the prior year forecasts against past results;
- Challenging the reasonableness of the key assumptions based on our knowledge of the business and the industry;
- Assessing the discount rate used, based on our knowledge of the industry with the involvement of our in-house valuation experts;
- Assessing the potential impact of reasonably possible downside changes in these key assumptions including possible future regulatory policy changes; and
- Considering whether the key assumptions used in the value in use calculations have been appropriately disclosed.

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 10 and 11 to the Group Financial Statements.

#### Recoverability of trade receivables

Refer to note 16 to the Group Financial Statements

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.

Management estimated 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.

EnergyAustralia has trade receivables of HK\$6,683 million at 31 December 2018 against which provisions for expected credit losses of HK\$669 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 them 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.

CLP India Private Limited's (CLP India) renewable projects have trade receivables of HK\$487 million of which HK\$437 million are past due at 31 December 2018. 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.

As at 31 December 2018, the Group has total receivables of HK\$972 million relating to unpaid Renewable National Subsidies in its Mainland China business. These amounts were not considered as impaired by management because the subsidy settlement and renewable project accreditation are regulated by Government agencies. Furthermore, there have been continuous payments and no history of default.

#### How our audit addressed the Key Audit Matter

Our procedures in relation to trade receivables included:

- Testing controls over the billing and collection cycle in CLP Power Hong Kong and EnergyAustralia;
- Testing the system calculated trade receivables ageing analysis used to assess the recoverability of receivables in CLP Power Hong Kong and EnergyAustralia;
- Assessing the appropriateness of the credit loss provisioning methodology used by the Group;
- Assessing the estimates used to determine the expected credit losses by considering cash collection performance against historical trends;
- Reviewing the accuracy of management's judgments by comparing historical provisions against actual write-offs;
- Reviewing minutes of the board of directors' meetings relating to the recoverability of trade receivables;
- Discussing with management to understand the nature and the judgment involved in estimating the expected credit loss provision on trade receivables from the state grid operators of CLP India's renewable projects and corroborating with correspondence with the customers; and
- Discussing with management to understand the nature and the judgment involved in their determination that there is no expected credit loss on unpaid Renewable National Subsidies, assessing the Group's previous renewable project accreditations by the Central Government and assessing the regulatory eligibility criteria has been satisfied by those projects not yet accredited. Further, we considered subsidies collected to-date.

Based on the work performed, we found that management's assessments of the recoverability of trade receivables are supported by the available evidence.

#### Asset retirement obligations (AROs)

Refer to note 23 to the Group Financial Statements

Provisions are held for estimated remediation costs, discounted to present value, where the Group has a legal or constructive obligation for remediation and the likelihood of an economic outflow is probable. 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.

Management's key ARO judgments are as follows:

- The Group's provision of HK\$2,630 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.
- CLP Power Hong Kong expects that the transmission and distribution network will continue to be used for the distribution of electricity supply to its customers and considers it remote that the network will be removed from the existing land sites. Therefore, asset retirement obligations have not been recognised for transmission and distribution assets.
- CAPCO will retire the coal-fired generation units at Castle Peak A Station (CPA) between 2022 to 2025. CAPCO considers that the dismantling obligation for the CPA units is covered by the asset decommissioning liability accrued under the SoC as at 31 December 2018.
- While no provision for asset retirement obligations for the other generation units of CAPCO has been recognised, it is expected that should such obligation be incurred, it will be met by the liability accrued and the cost recovery mechanism under the SoC.

#### How our audit addressed the Key Audit Matter

Our procedures in relation to AROs included:

- Assessing the appropriateness of the Group's accounting policy;
- Evaluating management's judgment that it is remote that the Hong Kong transmission and distribution network would be removed from the existing land sites; it is probable that the CPA units will be removed; and it is possible but not probable that CAPCO's other fossil-fuel generation units may be removed at some point in time in the future;
- 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;
- Assessing the independence, objectivity and competence of management's experts involved in respect of the future cost estimates for those assets where a provision has been recognised; and
- Testing the appropriateness of management's estimates of future costs, the timing and the discount rates for those assets where management has concluded that a legal or constructive obligation exists.

Based on the work performed, we found that the ARO provisions are supported by the available evidence.

#### Legal matters

Refer to note 30 to the Group Financial Statements

The Group is exposed to the risk of litigation, regulatory judgments and contractual disputes in the course of its normal operations. 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.

EnergyAustralia disposed of its entire interest in the Iona Gas Plant for a total consideration of A\$1,780 million (HK\$9,991 million) in December 2015. 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\$5,335 million) or alternatively A\$780 million (approximately HK\$4,303 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 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 Group Financial Statements.

#### How our audit addressed the Key Audit Matter

Our procedures on management's assessment of legal matters included:

- Assessing the processes and controls over identifying and monitoring legal matters;
- Reviewing the Group's significant legal matters and other contractual claims;
- Discussing with management any material developments and the latest status of the legal matters;
- Reviewing the minutes of board of directors' meetings in respect of discussions relating to legal matters;
- Obtaining written confirmation from external legal counsel on the status of the Lochard Energy legal claim;
- Reviewing written correspondence from both external and internal legal counsel documenting the status of the legal claims;
- Considering management's assessment of those matters that are not disclosed as the probability of material outflow is considered to be remote; and
- Reviewing the appropriateness of the Group's disclosures.

Based on the work performed, we found the provisions recorded and disclosures made are supported by the available evidence.

#### **Other Information**

The directors of the Company are responsible for the other information. The other information comprises all of the information included in the 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.

Pricewate have Coopers

**PricewaterhouseCoopers** Certified Public Accountants Hong Kong, 25 February 2019

# **Consolidated Statement of Profit or Loss**

for the year ended 31 December 2018

		2018	2017
	Note	HK\$M	HK\$M
Revenue	3	91,425	92,073
Expenses			
Purchases of electricity, gas and distribution services		(34,214)	(38,121)
Staff expenses		(4,449)	(4,195)
Fuel and other operating expenses		(26,595)	(23,691)
Depreciation and amortisation		(8,005)	(7,368)
		(73,263)	(73,375)
Operating profit	5	18,162	18,698
Finance costs	6	(2,049)	(2,180)
Finance income	6	192	151
Share of results, net of income tax			
Joint ventures	12	518	508
Associates	13	1,818	950
Profit before income tax		18,641	18,127
Income tax expense	7	(4,014)	(2,780)
Profit for the year		14,627	15,347
Earnings attributable to:			
Shareholders		13,550	14,249
Perpetual capital securities holders		250	249
Other non-controlling interests		827	849
		14,627	15,347
Earnings per share, basic and diluted	9	HK\$5.36	HK\$5.64

# Consolidated Statement of Profit or Loss and Other Comprehensive Income

for the year ended 31 December 2018

	2018 HK\$M	2017 HK\$M
Profit for the year	14,627	15,347
Other comprehensive income		
Items that can be reclassified to profit or loss		
Exchange differences on translation	(5,177)	4,329
Cash flow hedges	(284)	(300)
Costs of hedging	29	(157)
Share of other comprehensive income of joint ventures	1	
	(5,431)	3,872
Items that cannot be reclassified to profit or loss		
Fair value changes on equity investments	(37)	(280)
Remeasurement (losses) / gains on defined benefit plans	(8)	91
Share of other comprehensive income of an associate	4	
	(41)	(189)
Other comprehensive income for the year, net of tax	(5,472)	3,683
Total comprehensive income for the year	9,155	19,030
Total comprehensive income attributable to:		
Shareholders	8,035	17,914
Perpetual capital securities holders	250	249
Other non-controlling interests	870	867
	9,155	19,030

This statement of profit or loss and other comprehensive income includes not only conventional profit for the year, but also "other comprehensive income". Further details of other comprehensive income attributable to shareholders are presented in Note 25.

# **Consolidated Statement of Financial Position**

as at 31 December 2018

		2018	2017
	Note	HK\$M	HK\$M
Non-current assets			
Fixed assets	10	141,309	137,207
Leasehold land and land use rights under operating leases	10	5,432	5,345
Investment property	10	1,204	1,186
Goodwill and other intangible assets	11	26,910	29,087
Interests in and loans to joint ventures	12	9,674	10,383
Interests in associates	13	7,746	8,081
Finance lease receivables	10(b)	-	620
Deferred tax assets	21	835	929
Derivative financial instruments	14	1,000	956
Equity investments		300	349
Other non-current assets		604	298
		195,014	194,441
Current assets			
Inventories – stores and fuel		2,840	3,050
Renewable energy certificates		847	1,047
Property under development	15	2,971	2,971
Trade and other receivables	16	15,917	15,427
Finance lease receivables		_	148
Derivative financial instruments	14	799	1,137
Short-term deposits and restricted cash	17	4,761	3,401
Cash and cash equivalents	17	7,365	6,529
		35,500	33,710
Current liabilities			
Customers' deposits	16(a)	(5,476)	(5,221)
Fuel clause account	18	(901)	(2,212)
Trade and other payables	19	(19,061)	(18,978)
Income tax payable	12	(1,399)	(762)
Bank loans and other borrowings	20	(13,535)	(8,472)
Derivative financial instruments	14	(1,262)	(789)
		(41,634)	(36,434)
Net current liabilities		(6,134)	(2,724)
Total assets less current liabilities		188,880	191,717

	Note	2018 HK\$M	2017 HK\$M
Financed by:			
Equity			
Share capital	24	23,243	23,243
Reserves	25	85,810	85,454
Shareholders' funds		109,053	108,697
Perpetual capital securities	26	5,791	5,791
Other non-controlling interests	26	10,088	7,019
		124,932	121,507
Non-current liabilities			
Bank loans and other borrowings	20	41,763	48,869
Deferred tax liabilities	21	14,650	14,275
Derivative financial instruments	14	1,547	1,640
Scheme of Control (SoC) reserve accounts	22	998	977
Asset decommissioning liabilities and retirement obligations	23	3,558	2,987
Other non-current liabilities		1,432	1,462
		63,948	70,210
Equity and non-current liabilities		188,880	191,717

The Company's statement of financial position is presented in Note 31.

Willram Moratte

William Mocatta Vice Chairman Hong Kong, 25 February 2019

Rh Lah

**Richard Lancaster** Chief Executive Officer

**Geert Peeters** Chief Financial Officer

# **Consolidated Statement of Changes in Equity**

for the year ended 31 December 2018

	Attributable to Shareholders		Pernetual	rpetual Other Non-		
	Share Capital HK\$M	Reserves HK\$M	Total HK\$M	•	controlling Interests HK\$M	Total Equity HK\$M
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 Contributions from other non-controlling	-	3,665	3,665	-	18	3,683
interests of subsidiaries	-	(4)	(4)	-	5,146	5,142
Transfer to fixed assets Dividends paid	-	3	3	-	1	4
2016 fourth interim 2017 first to third interim	-	(2,754) (4,472)	(2,754) (4,472)	-	-	(2,754) (4,472)
Distributions to perpetual capital securities holders	-	-	-	(249)	-	(249)
Dividends paid to other non-controlling interests of subsidiaries					(967)	(967)
Balance at 31 December 2017	23,243	85,454	108,697	5,791	7,019	121,507
Balance at 1 January 2018, as previously reported Effect on adoption of HKFRS 15	23,243	85,454	108,697	5,791	7,019	121,507
(Note 3 of Significant Accounting Policies)		173	173			173
Balance at 1 January 2018, as restated Profit for the year	23,243	85,627 13,550	108,870 13,550	5,791 250	7,019 827	121,680 14,627
Other comprehensive income for the year	_	(5,515)	(5,515)	-	43	(5,472)
Transfer to fixed assets Dividends paid	-	(45)	(45)	-	(19)	(64)
2017 fourth interim	_	(2,880)	(2,880)	-	_	(2,880)
2018 first to third interim Distributions to perpetual capital securities	-	(4,623)	(4,623)	-	-	(4,623)
holders Dividends paid to other non-controlling	-	-	-	(250)	-	(250)
interests of subsidiaries Change in ownership interests in a subsidiary	-	-	-	-	(970)	(970)
(Note 26(B))	-	(304)	(304)	-	3,188	2,884
Balance at 31 December 2018	23,243	85,810	109,053	5,791	10,088	124,932

# **Consolidated Statement of Cash Flows**

for the year ended 31 December 2018

		201	18	201	7
	Note	HK\$M	HK\$M	HK\$M	HK\$M
Operating activities					
Net cash inflow from operations	27(A)	26,584		26,506	
Interest received		186		145	
Income tax paid		(2,819)		(2,234)	
Net cash inflow from operating activities			23,951		24,417
Investing activities					
Capital expenditure		(10,327)		(9,538)	
Capitalised interest and other finance costs paid		(262)		(256)	
Proceeds from disposal of fixed assets		97		120	
Additions of other intangible assets		(565)		(549)	
Acquisitions of subsidiaries	2	(1,203)		-	
Proceeds from disposal of an equity investment		958		_	
Increase in equity investments and other financial					
assets		(85)		(14)	
Repayment of advances from joint ventures		59		146	
Investments in associates		(9)		(5,329)	
Dividends received from		534		0.4.0	
Joint ventures		524		818	
Associates		930		910	
Equity investments		13		9	
Increase in bank deposits with maturities of more than three months		(1,389)		(3,052)	
		(1,565)	(	(3,052)	
Net cash outflow from investing activities			(11,259)	-	(16,735)
Net cash inflow before financing activities			12,692		7,682
Financing activities	27(B)				
Proceeds from long-term borrowings		3,906		20,290	
Repayment of long-term borrowings		(6,660)		(16,183)	
Increase in short-term borrowings		300		459	
Interest and other finance costs paid		(1,890)		(1,784)	
Settlement of derivative financial instruments		130		(152)	
Decrease in advances from non-controlling				()	
interests		(1)		(79)	
Contribution from other non-controlling interest				20	
of a subsidiary		-		28	
Distributions paid to perpetual capital securities holders		(250)		(249)	
Dividends paid to shareholders		(7,503)		(7,226)	
Dividends paid to other non-controlling interests		(7,505)		(7,220)	
of subsidiaries		(970)		(967)	
Proceeds from disposal of interest in a subsidiary		()/0/		(501)	
without loss of control	26(B)	1,433			
Net cash outflow from financing activities			(11,505)		(5,863)
Net increase in cash and cash equivalents			1,187		1,819
Cash and cash equivalents at beginning of year			6,529		4,467
Effect of exchange rate changes			(351)		243
				-	

# **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.

#### 2. Changes in Accounting Policies

(A) New HKFRS effective from 1 January 2018

The following new standard, interpretation, amendments and improvements to standards, which are relevant to the Group, are first effective from 1 January 2018.

- Annual Improvements to HKFRSs 2014 2016 Cycle
- Amendments to HKAS 40 Transfers of Investment Property
- HK(IFRIC) Int 22 Foreign Currency Transactions and Advance Consideration
- HKFRS 15 Revenue from Contracts with Customers

Except for HKFRS 15 as described in Note 3 below, the adoption of these interpretation and amendments to standards has had no significant impact on the results and the financial position of the Group.

(B) New HKFRS effective after 2018 and have not yet been adopted

The following new standard, interpretation, amendments and improvements to standards, which may be relevant to the Group, have been issued and are effective after 2018. The Group has not early adopted them for the year ended 31 December 2018.

- Annual Improvements to HKFRSs 2015 2017 Cycle
- Amendments to HKFRS 3 Definition of a Business
- Amendments to HKFRS 9 Prepayment Features with Negative Compensation
- Amendments to HKAS 1 and HKAS 8 Definition of Material
- Amendments to HKAS 19 Plan Amendment, Curtailment or Settlement
- Amendments to HKAS 28 Long-term Interests in Associates and Joint Ventures
- HK(IFRIC) Int 23 Uncertainty over Income Tax Treatments
- HKFRS 16 Leases

Except for Amendments to HKFRS 3 and HKFRS 16 as described below, the adoption of these interpretation and amended standards is not expected to have any significant impact on the results and the financial position of the Group.

#### 2. Changes in Accounting Policies (continued)

(B) New HKFRS effective after 2018 and have not yet been adopted (continued)

The amendments to HKFRS 3 clarify the definition of a business, with the objective of assisting entities to determine whether an acquisition is of a business or of a group of assets. This distinction is important because an acquirer recognises goodwill only when acquiring a business. A business must include, a minimum, an input and a substantive process that together have the ability to contribute to the creation of outputs. An optional concentration test is added that permits a simplified assessment of whether an acquired set of activities and assets does not satisfy the definition of a business. The amendments are effective for acquisitions that occur on or after the first annual reporting period beginning on or after 1 January 2020 with earlier application permitted. The Group elects to early apply the amendments for acquisitions occuring on or after 1 January 2019.

HKFRS 16 introduces a substantial change to lease accounting. HKFRS 16 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 Leases. 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.

The Group has reassessed all lease contracts as well as contracts which do not satisfy the lease definition under the current standard. There are no existing contracts that are not classified as a lease under HKAS 17 but will satisfy the definition of a lease under HKFRS 16. The Group has identified that an existing water treatment service contract meets the new lease definition and it will be accounted for according to HKFRS 16 upon commercial operation of the water treatment plant, which is expected in 2019.

For the existing lease contracts, the Capacity Purchase Contract entered into by Hong Kong Pumped Storage Development Company, Limited (PSDC) is identified as an operating lease under HKAS 17, however it does not meet the definition of a lease under HKFRS 16. 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 2018, the commitments related to the Capacity Purchase Contract of PSDC and other operating lease contracts amounted to HK\$1,592 million and HK\$745 million respectively.

HKFRS 16 requires the Group to recognise the right-of-use assets and lease liabilities for all lease contracts including those that are currently identified as operating leases. However, for operating leases that would expire within 12 months from 1 January 2019, the Group will apply the short-term lease exemption. The accounting for these short-term leases is similar to the accounting for an operating lease under HKAS 17.

The Group intends to adopt the modified retrospective application for the transition arrangement, which means that the cumulative impact on the adoption of HKFRS 16 will be adjusted to retained earnings at 1 January 2019 and the comparatives will not be restated.

#### 3. Adoption of HKFRS 15

The Group first adopted HKFRS 15 from 1 January 2018 which resulted in changes in accounting policies and adjustments to the amounts recognised in the financial statements. In accordance with the transition provisions of HKFRS 15, the Group has adopted the modified retrospective application, under which the cumulative effect of the initial application is adjusted to retained profits on 1 January 2018 and no comparative figures were restated.

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 to recognise revenue and at what amount. Under the model, revenue is recognised when control of goods or services is transferred to a customer and at the amount to which the entity expects to be entitled. Depending on the nature of the contracts, revenue is either recognised over time or at a point in time. The new standard also sets out new capitalisation criteria for contract acquisition costs which are incremental and the entity is expected to recover them.

#### 3. Adoption of HKFRS 15 (continued)

Considering the nature of the Group's principal activities (i.e. generation and supply of electricity and sales of gas), the adoption of HKFRS 15 does not have material impact on the Group's revenue recognition. The key impact to the Group is on the accounting for costs to obtain a contract with a customer.

Costs of HK\$247 million related to commissions paid to third parties for obtaining contracts with residential customers in Australia previously expensed were qualified for capitalisation as an asset under HKFRS 15 at 1 January 2018. The capitalised costs are amortised on a straight line basis over the expected benefit periods of the contracts and consistent with the recognition pattern of the associated revenue. The table below summarises the impact on the adoption of HKFRS 15:

	At 1 January 2018
	HK\$M
Increase in other non-current assets	247
Decrease in deferred tax assets	(74)
Increase in retained profits	173
	For the year
	ended
	31 December
	2018
	HK\$M
Increase in fuel and other operating expenses *	(6
Decrease in income tax expense	2
Decrease in earnings attributable to shareholders	(4)

\* Increase in amortisation offset by capitalisation of commissions paid

#### 4. 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.

#### 4. Consolidation (continued)

(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 that do not result in a loss of control are treated as transactions with equity owners of the Group. A change in ownership interest results in an adjustment between the carrying amounts of the controlling and non-controlling interests to reflect their relative interests in the subsidiary. Any difference between the amount of the adjustment to non-controlling interests and any consideration paid or received, and the reattribution of other comprehensive income to non-controlling interests are recognised in a separate reserve within equity attributable to owners of the Group.

When the Group ceases to consolidate or equity account for an investment because of a loss of control, joint control or significant influence, any retained interest in the entity is remeasured to its fair value, with the change in carrying amount recognised in profit or loss. This fair value becomes 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. Gains or losses on disposals are recognised in profit or loss.

If the ownership interest in a joint venture or associate is reduced, it is possible that joint control or significant influence is retained or a joint venture becomes an associate. As the Group continues to apply the equity method under both cases, the retained interest is not remeasured. However, a proportionate share of the amounts previously recognised in other comprehensive income of the investment is reclassified to profit or loss where appropriate.

#### A quick guide to the classification of equity investments:

Control  $\rightarrow$  Subsidiary Joint Control  $\rightarrow$  Joint Venture / Joint Operation Significant Influence  $\rightarrow$  Associate Less than Significant Influence  $\rightarrow$  Equity Investment

Please also read this year's accounting mini-series for more details on classification of CLP's equity interests.

#### 5. 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.

#### 6. 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.

#### 7. 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. Net realisable value is determined on the basis of anticipated sales proceeds less estimated selling expenses.

#### 8. 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.

#### 9. 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.

#### 10. 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 rates at the end of the reporting period; and income and expenses for each statement of profit or loss and other comprehensive income 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 may have to be reclassified to profit or loss. These reclassification adjustments are translated by using the exchange rate at the date of reclassification. The remaining reserve balances are translated using the closing rates at the end of the reporting period. Any exchange differences arising from these are taken to retained profits directly.

#### 10. Foreign Currency Translation (continued)

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 rates 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 is re-attributed to non-controlling interests and is 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 differences 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. An 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.

#### 11. 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.

#### 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 generation and supply of electricity in Hong Kong, Mainland China, 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 Castle Peak Power Company Limited (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 SoC Agreement which took effect from 1 October 2008 (2008 SoC) expired on 30 September 2018. A new SoC Agreement immediately became effective on 1 October 2018 (2018 SoC). The main features of these SoC Agreements are summarised on pages 283 and 284, which are unaudited.

These financial statements have been approved for issue by the Board of Directors on 25 February 2019.

#### 2. Acquisitions in 2018

During the year, the Group has acquired subsidiaries in Australia, Mainland China and India. Details of the acquisitions are listed below.

(A) Ecogen in Australia

In April 2018, the Group acquired all the shares of Ecogen Energy Pty Ltd (Ecogen) at a consideration of HK\$1,065 million (A\$174 million). Ecogen owns both the Newport and Jeeralang gas-fired power stations with a total capacity of 940MW in Victoria, Australia. Since 1999, EnergyAustralia Holdings Limited (EnergyAustralia) had the right to call upon electricity from these power stations till 2019. This offtake agreement was a pre-existing relationship that was effectively settled upon acquisition.

(B) Jinchang Solar in Mainland China

In May 2018, the Group acquired the remaining 49% interest in Jinchang Zhenxin PV Power Company Limited (Jinchang Solar), which owns and operates a 85MW solar farm in Gansu, China, from its joint venture partner for a consideration of HK\$206 million (RMB168 million). Jinchang Solar became the wholly-owned subsidiary of the Group since then.

(C) Gale Solar and Tornado Solar in India

In November 2018, the Group acquired 49% interest in Gale Solarfarms Limited (Gale Solar) and 100% interest in Tornado Solarfarms Limited (Tornado Solar), which owns and operates a 50MW and 20MW solar farm respectively in Maharashtra, India. Total consideration paid for this acquisition amounted HK\$59 million (Rs542 million). Gale Solar is treated as a subsidiary because the Group has control over this company. The Group is committed to purchase the remaining 51% interest in Gale Solar in future and a corresponding liability has been recognised.

No goodwill arose from these acquisitions.

#### 3. Revenue

#### **Accounting Policy**

(A) Revenue from contracts with customers

Revenue from contracts with customers primarily represents sales of electricity and gas.

(i) Policies in accordance with HKFRS 15 which are applicable from 1 January 2018

Revenues from sales of electricity and gas are recognised when electricity and gas are supplied to and consumed by the customers. Revenues are measured at the amounts billed to the customers based on the periodic cycle meter readings and the estimated accruals for the value of electricity and gas consumed from the meter reading date to the end of the reporting period (the "unbilled revenue").

Incremental costs to obtain a contract with a customer are capitalised if they are expected to be recoverable. Costs capitalised are amortised on a straight line basis over the expected benefit periods of the contracts. Non-incremental costs, i.e. costs that would have been incurred regardless of whether the contract is obtained, are expensed when incurred.

(ii) Policies in accordance with HKAS 18 which are applicable before 1 January 2018

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 applicable during the year. Other revenue from contracts with customers is recognised when services are rendered or sales are completed.

(B) Other revenue

Operating lease income represents lease payments which vary with operation parameters and are recognised as revenue 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 receivables and is recognised over the lease period using the effective interest method.

#### **Critical Accounting Estimates and Judgments: Unbilled Retail 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 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. In Hong Kong, the unbilled retail 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 retail 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\$3,877 million at 31 December 2018 (2017: HK\$4,319 million).

#### 3. Revenue (continued)

The Group's revenue primarily represents sales of electricity and gas, which is recognised over time, and is disaggregated as follows:

	2018	2017
	НК\$М	ΗK\$M
Revenue from contracts with customers		
Sales of electricity in Hong Kong	40,982	39,161
Transfer for SoC (from) / to revenue (Note 22(A))	(322)	98
SoC sales of electricity	40,660	39,259
Sales of electricity outside Hong Kong	39,121	39,532
Sales of gas in Australia	6,146	8,251
Others	1,132	899
	87,059	87,941
Other revenue		
Operating lease income under Power Purchase Agreement (PPA)	3,495	3,142
Lease service income under PPA	471	487
Finance lease income under PPA	100	114
Others	300	389
	4,366	4,132
	91,425	92,073

Adoption of HKFRS 15 from 1 January 2018 does not have material impact on the Group's revenue recognition. Details are described in Note 3 of Significant Accounting Policies.

The operating lease income under PPA relates to Jhajjar's PPA and the lease service income and finance lease income under PPA relate to Paguthan (which expired in December 2018).

The comparative figures have been updated to align with current presentation format under HKFRS 15. Another analysis of revenue from contracts with customers by segment is shown in Note 4.

#### 4. 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. The operating segments are based on geographical regions and 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.

#### 4. Segment Information (continued)

Information about the Group's operations by geographical region is as follows:

				Southeast			
		Mainland		Asia		Unallocated	
	Hong Kong	China	India	& Taiwan	Australia	ltems	Tota
	HK\$M	HK\$M	HK\$M	HK\$M	HK\$M	HK\$M	HK\$M
For the year ended 31 December 2018							
Revenue from contracts with customers	41,487	1,441	1,146	16	42,969	-	87,059
Other revenue	136	54	4,123		44	9	4,366
Revenue	41,623	1,495	5,269	16	43,013	9	91,425
BITDAF	17,580	1,346	1,543	(9)	6,596	(821)	26,235
Share of results, net of income tax							
Joint ventures	(21)	354	-	170	15	-	518
Associates	-	1,863	-		(45)		1,818
Consolidated EBITDAF	17,559	3,563	1,543	161	6,566	(821)	28,571
Depreciation and amortisation	(4,985)	(696)	(608)	-	(1,681)	(35)	(8,005
Fair value adjustments	(18)	-	-	-	(50)	-	(68
-inance costs	(1,011)	(269)	(582)	-	(97)	(90)	(2,049
inance income	-	34	48	1	73	36	192
Profit/(loss) before income tax	11,545	2,632	401	162	4,811	(910)	18,641
ncome tax expense	(1,971)	(267)	(267)	-	(1,509)	-	(4,014
Profit / (loss) for the year	9,574	2,365	134	162	3,302	(910)	14,62
Earnings attributable to							
Perpetual capital securities holders	(250)	-	-	-	-	-	(25
Other non-controlling interests	(805)	(10)	(12)	-	-		(827
Earnings / (loss) attributable to shareholders	8,519	2,355	122	162	3,302	(910)	13,550
Excluding: Items affecting comparability	(18)		450		-		432
Operating earnings	8,501	2,355	572	162	3,302	(910)	13,982
Capital additions	8,872	525	48	-	2,221	32	11,698
mpairment provisions							
Fixed assets	-	13	-	-	1	-	14
Receivables and others	3	-	496	-	399	-	898
At 31 December 2018							
ixed assets, leasehold land and land use							
rights and investment property	115,631	8,997	11,287	-	11,922	108	147,94
Goodwill and other intangible assets	5,545	4,453	27	-	16,885	-	26,910
nterests in and loans to joint ventures	42	7,689	-	1,866	77	-	9,674
nterests in associates	-	7,746	-	-	-	-	7,74
Deferred tax assets	-	94	130	-	611	-	83
Other assets	10,206	4,128	6,698	67	14,354	1,951	37,404
Fotal assets	131,424	33,107	18,142	1,933	43,849	2,059	230,514
Bank loans and other borrowings	38,636	6,080	6,182	-	-	4,400	55,298
Current and deferred tax liabilities	13,641	1,282	307	-	819	-	16,049
Other liabilities	21,088	1,494	552	18	10,643	440	34,23
– Fotal liabilities	73,365	8,856	7,041		11,462		

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.

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.

#### 4. Segment Information (continued)

For the year ended 31 December 2017 Revenue from contracts with customers	Hong Kong HK\$M	Mainland China HK\$M	India	Asia		Unallocated	
			IIIUId		Australia	ltomc	Tota
			HK\$M	& Taiwan HK\$M	HK\$M	ltems HK\$M	HK\$M
Revenue from contracts with customers							
	39,795	1,276	1,064	14	45,792	-	87,94
Other revenue	170	29	3,823	-	103	7	4,13
Revenue	39,965	1,305	4,887	14	45,895	7	92,07
BITDAF	18,053	1,212	2,110	(15)	5,416	(572)	26,20
hare of results, net of income tax							
Joint ventures	(18)	339	-	171	16	-	50
Associates	-	961	-		(11)		95
Consolidated EBITDAF	18,035	2,512	2,110	156	5,421	(572)	27,66
Depreciation and amortisation	(4,761)	(638)	(599)	-	(1,335)	(35)	(7,36
air value adjustments	44	-	-	-	(182)	-	(13
inance costs	(1,049)	(241)	(713)	-	(140)	(37)	(2,18
inance income	-	39	57	4	16	35	15
Profit/(loss) before income tax	12,269	1,672	855	160	3,780	(609)	18,12
ncome tax expense	(1,951)	(151)	(209)	-	(469)		(2,78
Profit / (loss) for the year Farnings attributable to	10,318	1,521	646	160	3,311	(609)	15,34
Perpetual capital securities holders	(249)	-	-	-	-	-	(24
Other non-controlling interests	(837)	(13)	1	-	-		(84
arnings / (loss) attributable to shareholders	9,232	1,508	647	160	3,311	(609)	14,24
xcluding: Items affecting comparability	(369)	-	-	-	(573)	-	(94
Operating earnings	8,863	1,508	647	160	2,738	(609)	13,30
apital additions	8,073	630	868	-	3,062	13	12,64
mpairment provisions Receivables and others	4	-	32	-	407	-	44
At 31 December 2017							
ixed assets, leasehold land and land use	112,270	8,522	11,698		11,138	110	143,73
rights and investment property Goodwill and other intangible assets	5,545	8,522 4,698	29	-	18,815	110	29,08
nterests in and loans to joint ventures	34	8,417	_	1,848	84	_	10,38
nterests in associates	-	8,050	_	-	31	_	8,08
leferred tax assets	-	97	67	_	765	-	92
ther assets	11,157	3,894	5,081	121	13,239	2,441	35,93
otal assets	129,006	33,678	16,875	1,969	44,072	2,551	228,15
ank loans and other borrowings	40,361	5,573	6,785	_	234	4,388	57,34
Current and deferred tax liabilities	13,232	1,228	282	-	295	-	15,03
)ther liabilities	21,145	1,526	1,002	2	10,213	378	34,26
otal liabilities	74,738	8,327	8,069	2	10,742	4,766	106,64

Items affecting comparability refer to significant unusual and infrequent events such as acquisition / disposal, impairment of non-current assets, property valuation gain / loss, provision for legal disputes 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. Items affecting comparability in 2018 included the provision for deemed generation disputes in India and fair value gain on investment property in Hong Kong.

#### 5. Operating Profit

Operating profit is stated after charging / (crediting) the following:

Auditors' remunerationInternationAuditors' remuneration39Audit services39PricewaterhouseCoopers2Permissible audit related and non-audit services9PricewaterhouseCoopers (*)9Other auditor (**)-Operating lease expenditure on the agreement with Ecogen (Note 2(A))83Net loss on disposal of fixed assets416Impairment of-Fixed assets14Trade receivables890Net exchange loss / (gain)87Crediting87Net fair value (gains) / losses on non-debt related derivative financial instrumentsReclassified from cash flow hedge reserve and costs of hedging reserves toPurchases of electricity, gas and distribution services(453)Purchases of electricity, gas and distribution services(77)Transactions not qualifying as hedges68Retal income from investment property(40)(440)(44)		2018 HK\$M	2017 HK\$M
Auditors' remunerationInternationAuditors' remuneration39Audit services39PricewaterhouseCoopers2Permissible audit related and non-audit services9PricewaterhouseCoopers (*)9Other auditor (**)-Operating lease expenditure on the agreement with Ecogen (Note 2(A))83Net loss on disposal of fixed assets416Impairment of-Fixed assets14Trade receivables890Net exchange loss / (gain)87Crediting87Net fair value (gains) / losses on non-debt related derivative financial instrumentsReclassified from cash flow hedge reserve and costs of hedging reserves toPurchases of electricity, gas and distribution services(453)Purchases of electricity, gas and distribution services(77)Transactions not qualifying as hedges68Retal income from investment property(40)(440)(44)	 Charging		
Audit services3933Other auditor (*)2Permissible audit related and non-audit services9PricewaterhouseCoopers (*)9Other auditor (*)-Operating lease expenditure on the agreement with Ecogen (Note 2(A))83Net loss on disposal of fixed assets416Impairment of-Fixed assets14Trade receivables890Net exchange loss / (gain)87Crediting87Net fair value (gains) / losses on non-debt related derivative financial instrumentsReclassified from cash flow hedge reserve and costs of hedging reserves toPurchases of electricity, gas and distribution services(453)Purchases of electricity, gas and distribution services(77)Transactions not qualifying as hedges68Rental income from investment property(40)(440)(44)	Retirement benefits costs <sup>(a)</sup>	437	421
PricewaterhouseCoopers3933Other auditor (b)2Permissible audit related and non-audit services9PricewaterhouseCoopers (a)9Other auditor (b)-Operating lease expenditure on the agreement with Ecogen (Note 2(A))83Net loss on disposal of fixed assets416Impairment of-Fixed assets14Trade receivables890Net cecivables890Net exchange loss/(gain)87Crediting87Net 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(453)Purchases of electricity, gas and distribution services(453)Retal income from investment property(40)(40)(44)	Auditors' remuneration		
Other auditor (b)2Permissible audit related and non-audit services9PricewaterhouseCoopers (c)9Other auditor (b)Operating lease expenditure on the agreement with Ecogen (Note 2(A))83Net loss on disposal of fixed assets416Impairment ofFixed assets14Trade receivables890Net core - stores and fuel8Net exchange loss / (gain)87Crediting87Net 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(453)Purchases of electricity as and distribution services68Atta13Rental income from investment property(40)	Audit services		
Permissible audit related and non-audit services PricewaterhouseCoopers <sup>(c)</sup> Other auditor <sup>(b)</sup> Operating lease expenditure on the agreement with Ecogen (Note 2(A)) Net loss on disposal of fixed assets Met loss on disposal of fixed assets Impairment of Fixed assets Trade receivables Net exchange loss / (gain) Net exchange loss / (gain) 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 Purchases of electricity, gas and distribution services Retal income from investment property (40) (40) (40)	PricewaterhouseCoopers	39	39
PricewaterhouseCoopers (c)9Other auditor (b)-Operating lease expenditure on the agreement with Ecogen (Note 2(A))83Net loss on disposal of fixed assets416Impairment of-Fixed assets14Trade receivables890Inventories - stores and fuel8Net exchange loss / (gain)87Crediting87Net 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(453)Purchases of electricity, gas and distribution services(77)Transactions not qualifying as hedges68Rental income from investment property(40)	Other auditor <sup>(b)</sup>	2	1
Other auditor (b)-Operating lease expenditure on the agreement with Ecogen (Note 2(A))83Net loss on disposal of fixed assets416Impairment of-Fixed assets14Trade receivables890Inventories - stores and fuel8Net exchange loss/(gain)87Crediting87Net 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(453)Fuel and other operating expenses(77)Transactions not qualifying as hedges68Rental income from investment property(40)	Permissible audit related and non-audit services		
Operating lease expenditure on the agreement with Ecogen (Note 2(A))8325Net loss on disposal of fixed assets416400Impairment of Fixed assets14400Trade receivables890440Inventories - stores and fuel8416Net exchange loss / (gain)87(140)Crediting 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(453)(144)Fuel and other operating expenses(77)5555Transactions not qualifying as hedges68133Rental income from investment property(40)(44)(44)	PricewaterhouseCoopers <sup>(c)</sup>	9	9
Net loss on disposal of fixed assets416400Impairment of Fixed assets1414Trade receivables890444Inventories - stores and fuel814Net exchange loss / (gain)87(144)CreditingNet fair value (gains) / losses on non-debt related derivative financial instrumentsReclassified from cash flow hedge reserve and costs of hedging reserves to(453)Purchases of electricity, gas and distribution services(453)Fuel and other operating expenses68Transactions not qualifying as hedges68Rental income from investment property(40)	Other auditor <sup>(b)</sup>	-	-
Impairment of Fixed assets14Fixed assets14Trade receivables890Inventories - stores and fuel8Net exchange loss / (gain)87Crediting 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(453)Fuel and other operating expenses(77)Transactions not qualifying as hedges68Rental income from investment property(40)	Operating lease expenditure on the agreement with Ecogen (Note 2(A))	83	255
Fixed assets14Trade receivables890Inventories - stores and fuel8Net exchange loss / (gain)87Crediting87Net 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(453)Fuel and other operating expenses(77)Transactions not qualifying as hedges68Rental income from investment property(40)	Net loss on disposal of fixed assets	416	407
Trade receivables89044Inventories - stores and fuel83Net exchange loss / (gain)87(14Crediting87(14Net 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(453)Fuel and other operating expenses(77)50Transactions not qualifying as hedges68133Rental income from investment property(40)(44)	Impairment of		
Inventories – stores and fuel8Net exchange loss / (gain)87Crediting87Net 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(453)Fuel and other operating expenses(77)Transactions not qualifying as hedges68Rental income from investment property(40)	Fixed assets	14	-
Net exchange loss / (gain)87(14)Crediting 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(453)(14)Fuel and other operating expenses(77)50Transactions not qualifying as hedges68133Rental income from investment property(40)(44)	Trade receivables	890	440
CreditingNet fair value (gains) / losses on non-debt related derivative financial instrumentsReclassified from cash flow hedge reserve and costs of hedging reserves toPurchases of electricity, gas and distribution services(453)Fuel and other operating expensesTransactions not qualifying as hedges68133Rental income from investment property(40)	Inventories – stores and fuel	8	3
Net fair value (gains) / losses on non-debt related derivative financial instruments Reclassified from cash flow hedge reserve and costs of hedging reserves to1Purchases of electricity, gas and distribution services(453)(14-Fuel and other operating expenses(77)5-Transactions not qualifying as hedges6813-Rental income from investment property(40)(4-	Net exchange loss/(gain)	87	(143)
Net fair value (gains) / losses on non-debt related derivative financial instruments Reclassified from cash flow hedge reserve and costs of hedging reserves to1Purchases of electricity, gas and distribution services(453)(14-Fuel and other operating expenses(77)5-Transactions not qualifying as hedges6813-Rental income from investment property(40)(4-	Crediting		
Reclassified from cash flow hedge reserve and costs of hedging reserves to(453)Purchases of electricity, gas and distribution services(453)(14Fuel and other operating expenses(77)50Transactions not qualifying as hedges6813Rental income from investment property(40)(44)			
Purchases of electricity, gas and distribution services(453)(14Fuel and other operating expenses(77)50Transactions not qualifying as hedges6813Rental income from investment property(40)(44)			
Fuel and other operating expenses(77)50Transactions not qualifying as hedges68130Rental income from investment property(40)(41)	6 6 6	(453)	(144)
Transactions not qualifying as hedges68132Rental income from investment property(40)(44)		• •	56
Rental income from investment property (40) (44)		• •	138
			(48)
	Revaluation gains on investment properties	(18)	(369)
			(9)

Notes:

(a) Retirement benefits costs for the year amounted to HK\$584 million (2017: HK\$561 million), of which HK\$147 million (2017: HK\$140 million) was capitalised.

- (b) KPMG India has been the statutory auditor of CLP India Private Limited (CLP India) and its subsidiaries (CLP India group) since 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 of 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. Other KPMG offices have also provided services to our businesses in other regions which amounted to HK\$6 million during the year (April-December 2017: HK\$5 million).
- (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 other advisory services.

#### 6. 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.

	2018 HK\$M	2017 HK\$M
Finance costs		
Interest expenses on		
Bank loans and overdrafts	787	760
Other borrowings	1,197	1,056
Tariff Stabilisation Fund (a)	11	4
Customers' deposits and fuel clause over-recovery	73	128
Finance charges under finance leases	2	2
Other finance charges	221	279
Net fair value (gain) / loss on debt related derivative financial instruments		
Reclassified from cash flow hedge reserve	(175)	(313)
Reclassified from costs of hedging reserves	82	104
Fair value hedges	143	(58)
Transactions not qualifying as hedges	(72)	148
Ineffectiveness of cash flow hedges	-	7
Ineffectiveness of fair value hedges	(2)	(3)
(Gain) / loss on hedged items in fair value hedges	(143)	58
Other net exchange loss on financing activities	203	270
	2,327	2.442
Less: amount capitalised <sup>(b)</sup>	(278)	(262)
	2,049	2,180
Finance income		
Interest income on short-term investments, bank deposits and loans to joint ventures	192	151

Notes:

(a) In accordance with the provisions of the SoC Agreements, 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 of the Group's general borrowings have been capitalised at an average interest rate of 3.23% (2017: 2.77%) per annum.

# 7. 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:

	2018 HK\$M	2017 HK\$M
Current income tax	3,565	2,094
Deferred tax	449	686
	4,014	2,780

Hong Kong profits tax has been provided at the rate of 16.5% (2017: 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:

	2018 HK\$M	2017 HK\$M
Profit before income tax	18,641	18,127
Less: Share of results of joint ventures and associates, net of income tax	(2,336)	(1,458)
	16,305	16,669
Calculated at an income tax rate of 16.5% (2017: 16.5%)	2,690	2,750
Effect of different income tax rates in other countries	925	646
Income not subject to tax	(154)	(237)
Expenses not deductible for tax purposes	420	219
Revenue adjustment for SoC not subject to tax (Note 22(A))	53	(16)
Under/(over)-provision in prior years	77	(11)
Utilisation of previously unrecognised tax losses	-	(573)
Tax losses not recognised	3	2
Income tax expense	4,014	2,780

### 8. Dividends

	2018	2018			
	НК\$	HK\$			
	per Share	HK\$M	per Share	HK\$M	
First to third interim dividends paid	1.83	4,623	1.77	4,472	
Fourth interim dividend declared	1.19	3,007	1.14	2,880	
	3.02	7,630	2.91	7,352	

At the Board meeting held on 25 February 2019, the Directors declared the fourth interim dividend of HK\$1.19 per share (2017: HK\$1.14 per share). The fourth interim dividend is not reflected as dividends payable in the financial statements.

### 9. Earnings per Share

The earnings per share are computed as follows:

	2018	2017
Earnings attributable to shareholders (HK\$M)	13,550	14,249
Weighted average number of shares in issue (thousand shares)	2,526,451	2,526,451
Earnings per share (HK\$)	5.36	5.64

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 2018 (2017: nil).

### 10. Fixed Assets, Leasehold Land and Land Use Rights under Operating Leases and Investment Property

### **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	unexpired term
	of the lease	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 (33kV and above)	60 years	20 years
Overhead lines (below 33kV)	45 years	18 – 20 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 been extended by 10 – 20 years to 35 – 45 years after mid-life refurbishments.

# 10. Fixed Assets, Leasehold Land and Land Use Rights under Operating Leases and Investment Property (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 estimated 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 under the accounting standard 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 continued 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 considers that no reasonably possible 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. Furthermore, given the level of uncertainty, management considers it would be inappropriate to reverse any previous impairment charges.

# 10. Fixed Assets, Leasehold Land and Land Use Rights under Operating Leases and Investment Property (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 present value of the expected cash flows are less than the asset's carrying amount, an impairment loss may arise. During 2018, after reviewing the business environment as well as the Group's strategies and past performance of the investments, management concluded that there was no material impairment loss for fixed assets and leasehold land and land use rights.

The latest impairment models for these assets indicated that sufficient headroom (meaning the excess of the recoverable amount over carrying value) existed. Management considers that any reasonably possible changes in the assumptions used in the models would not affect management's view on impairment at 2018 year end.

(C) Fair Value Estimation of Investment Property

Investment property was valued by Knight Frank Petty Limited (Knight Frank), an independent qualified valuer, who holds recognised relevant professional qualification and has recent experience in the locations and segments of the investment property valued.

Knight Frank has valued the property at 31 December 2018 by using the income capitalisation approach, crossreferenced 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% (2017: 4.25%). The fair value measurement is negatively correlated to the capitalisation rate.

The recurring fair value measurement of the Group's investment property is categorised within Level 3 of the fair value hierarchy at 31 December 2018 and 2017.

# 10. Fixed Assets, Leasehold Land and Land Use Rights under Operating Leases and Investment Property (continued)

Fixed assets, leasehold land and land use rights under operating leases and investment property totalled HK\$147,945 million (2017: HK\$143,738 million) which included assets under construction with book value of HK\$12,333 million (2017: HK\$9,919 million). Movements in the accounts are as follows:

	Fixed Assets					Leasehold Land and	
	Land			Plant, Machinery and		Land Use Rights under Operating	Investment
	Freehold HK\$M	Leased HK\$M	Buildings HK\$M	Equipment HK\$M	Total HK\$M	Leases HK\$M	Property <sup>(a)</sup> HK\$M
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	-	-	-	1,165	1,165	-	-
Revaluation gains	-	-	-	-	-	-	369
Transfer to property under development	-	-	-	-	-	-	(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	-
Net book value at 31 December 2017	786	386	19,943	116,092	137,207	5,345	1,186
Cost / valuation Accumulated depreciation /	892	517	32,754	208,912	243,075	6,441	1,186
amortisation and impairment	(106)	(131)	(12,811)	(92,820)	(105,868)	(1,096)	
Net book value at 31 December 2017	786	386	19,943	116,092	137,207	5,345	1,186
Net book value at 1 January 2018	786	386	19,943	116,092	137,207	5,345	1,186
Acquisitions of subsidiaries (Note 2)	155	-	301	2,294	2,750	-	-
Additions	-	-	1,370	9,488	10,858	275	-
Revaluation gains	-	-	-	-	-	-	18
Transfer from finance lease receivables $^{(b)}$	347	-	4	291	642	1	-
Transfers and disposals	-	(18)	(119)	(419)	(556)	-	-
Depreciation / amortisation	-	(11)	(681)	(6,184)	(6,876)	(180)	-
Impairment charge	-	-	-	(14)	(14)	-	-
Exchange differences	(85)	-	(256)	(2,361)	(2,702)	(9)	
Net book value at 31 December 2018	1,203	357	20,562	119,187	141,309	5,432	1,204
Cost / valuation Accumulated depreciation /	1,299	495	33,923	212,951	248,668	6,704	1,204
amortisation and impairment	(96)	(138)	(13,361)	(93,764)	(107,359)	(1,272)	-
Net book value at 31 December 2018	1,203	357	20,562	119,187	141,309	5,432	1,204

Notes:

(a) Investment property at 31 December 2018 represented the commercial interest of the retail portion of the Laguna Mall in Hong Kong.

(b) The residual value of the Paguthan Plant (Paguthan) was transferred to fixed assets upon the expiry of the PPA in December 2018.

# 11. 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 2018. 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 tariffs are sensitive to regulatory changes including regulation and deregulation. In the absence of any known or expected changes to the current pricing structure, the retail tariff assumptions are based on management estimates and expectations of current market conditions and regulatory outcomes.
- The electricity and gas volumes for purchases and sales represent the forecast projections in the Business Plan of 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. 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 and gas wholesale markets. 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.

# 11. 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 11% (2017: 12%). 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 2.3% (2017: 1.2%) has been used.

When undertaking a value in use calculation of our Retail CGU at year end, the results indicate that minimal headroom remains.

Regulatory and government policy decisions currently being contemplated at both a State and Federal level have the potential to significantly impact some of the assumptions used to underpin our value in use calculations. In particular, assumptions around retail tariffs and customer account growth would have a direct impact on our CGU valuation and may result in decreases in recoverable value for negative scenarios. Movements in discount rates, whilst driven by different assumptions, would also have an impact.

A 1% decrease in the retail tariff assumption would decrease the recoverable value by HK\$1,103 million (A\$200 million). Similarly, a 1% decrease in the annual customer account growth rate would decrease the recoverable amount by HK\$1,103 million (A\$200 million). An increase in the discount rate of 0.5% would decrease the recoverable amount by HK\$1,241 million (A\$225 million).

The sensitivities are based on a change in an assumption while holding other assumptions constant. In practice this is unlikely to occur and changes in some of the assumptions may be correlated. We expect that uncertainty around some of these assumptions may reduce as the outcomes of some of these policy decisions are announced, enacted or abandoned.

Up to the date of this report, there were no confirmed material changes in any of the key assumptions mentioned above that would have caused the recoverable amount of the Retail CGU to be less than its carrying value.

#### 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 year 2023 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 2028.
- The cash flow projections are discounted using a pre-tax discount rate of 9.73% (2017: 9.81%), or a post-tax return of 8.00% (2017: 8.00%) 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 2018.

# 11. 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
Net carrying value at 31 December 2017	22,265	4,663	2,159	29,087
Cost	22,406	5,663	7,947	36,016
Accumulated amortisation and impairment	(141)	(1,000)	(5,788)	(6,929)
Net carrying value at 31 December 2017	22,265	4,663	2,159	29,087
Net carrying value at 1 January 2018	22,265	4,663	2,159	29,087
Additions	-	31	534	565
Amortisation	-	(274)	(675)	(949)
Exchange differences	(1,595)	-	(198)	(1,793)
Net carrying value at 31 December 2018	20,670	4,420	1,820	26,910
Cost	20,798	5,694	6,505	32,997
Accumulated amortisation and impairment	(128)	(1,274)	(4,685)	(6,087)
Net carrying value at 31 December 2018	20,670	4,420	1,820	26,910

Notes:

(a) Goodwill arose from the acquisitions of energy retail business in Australia of HK\$15,065 million (2017: HK\$16,656 million) and the acquisition of CAPCO under Hong Kong electricity business of HK\$5,545 million (2017: 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.

### 12. Interests in and Loans to Joint Ventures Accounting Policy No. 4(B)

The table below lists the material joint ventures of the Group at 31 December 2018:

Name	% of Ownership Interest at 31 December 2017 and 2018	Place of Incorporation / Business	Principal Activity
CSEC Guohua International Power Company Limited (CSEC Guohua) (a)	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) $^{\mbox{\tiny (b)}}$	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) $^{(e)}$	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.

# 12. Interests in and Loans 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	Fang-	SNGPC	OneEnergy Taiwan	SZPC	Others	Total
	HK\$M	chenggang HK\$M	HK\$M	HK\$M	HK\$M	HK\$M	HK\$M
For the year ended 31 December 2018							
Revenue	12,578	3,333	997	-	6,590	1,691	25,189
Depreciation and amortisation	(1,497)	(240)	(132)	-	(939)	(522)	(3,330)
Interest income	2	11	2	-	2	6	23
Interest expense	(346)	(293)	(59)	-	(193)	(118)	(1,009)
Other expenses	(10,133)	(2,786)	(241)	(3)	(5,356)	(467)	(18,986)
Share of results of joint ventures	-		-	262		(9)	253
Profit before income tax	604	25	567	259	104	581	2,140
Income tax expense	(264)	(1)	(145)		(68)	(112)	(590)
Profit for the year	340	24	422	259	36	469	1,550
Non-controlling interests	(273)	-	-	-	-	-	(273)
Profit for the year attributable to							
shareholders	67	24	422	259	36	469	1,277
Profit for the year	340	24	422	259	36	469	1,550
Other comprehensive income	-	-	-	-	-	4	4
Total comprehensive income	340	24	422	259	36	473	1,554
Group's share							
Profit for the year attributable to							
shareholders	20	17	169	129	10	173	518
Other comprehensive income	-	-	-	-	-	1	1
Total comprehensive income	20	17	169	129	10	174	519
Dividend income from joint ventures	44	16	85	208	82	125	560
For the year ended 31 December 2017							
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		(54)	-	(1)	-	1	-
Total comprehensive income	478	(94)	393	281	191	419	1,668
Group's share Profit / (loss) for the year attributable to		V- 1/					.,
shareholders	69	(66)	157	141	56	151	508
Other comprehensive income	-	(00)	-	(1)	-	1	-
Total comprehensive income	69	(66)	157	140	56	152	508
		(00)					
Dividend income from joint ventures	154		122	233	128	166	803

# 12. Interests in and Loans to Joint Ventures (continued)

	CSEC Guohua	Fang- chenggang	SNGPC	OneEnergy Taiwan	SZPC	Others	Total
	HK\$M	HK\$M	HK\$M	HK\$M	HK\$M	HK\$M	HK\$M
At 31 December 2018							
Non-current assets	21,712	7,876	3,168	2,959	5,201	6,966	47,882
Current assets							
Cash and cash equivalents	116	622	144	8	48	399	1,337
Other current assets	2,684	1,083	55	1	710	967	5,500
	2,800	1,705	199	9	758	1,366	6,837
Current liabilities							
Financial liabilities	(3,517)	(492)	(308)	-	(3,215)	(588)	(8,120)
Other current liabilities (a)	(1,552)	(850)	(139)	-	(259)	(376)	(3,176)
	(5,069)	(1,342)	(447)	-	(3,474)	(964)	(11,296)
Non-current liabilities							
Financial liabilities	(3,759)	(5,551)	-	-	(859)	(1,866)	(12,035)
Shareholders' loans	-	-	(770)	-	-	-	(770)
Other non-current liabilities (a)	(1,651)	(59)	(41)		(27)	(28)	(1,806)
	(5,410)	(5,610)	(811)	-	(886)	(1,894)	(14,611)
Non-controlling interests	(6,033)					-	(6,033)
Net assets	8,000	2,629	2,109	2,968	1,599	5,474	22,779
Group's share of net assets	2,400	1,840	843	1,484	470	2,288	9,325
Goodwill			-		-	41	41
Interests in joint ventures	2,400	1,840	843	1,484	470	2,329	9,366
Loans to joint ventures <sup>(b)</sup>	_		308		-	-	308
	2,400	1,840	1,151	1,484	470	2,329	9,674
At 31 December 2017							
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 (a)	(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
Loans to joint ventures <sup>(b)</sup>	-		455		-	13	468
	2,552	1,923	1,254	1,608	588	2,458	10,383

# 12. Interests in and Loans to Joint Ventures (continued)

#### Notes:

- (a) Including trade and other payables and provisions
- (b) Loans to joint ventures mainly include the loan to SNGPC which is unsecured, carries interest at 90% (2017: 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\$123 million (2017: HK\$130 million) was included in the Group's trade and other receivables. There was no impairment recognised on the loan at 31 December 2018 and 2017.

	2018 HK\$M	2017 HK\$M
Share of capital commitments	422	475
Share of contingent liabilities	56	58

The Group's capital commitments in relation to its interest in a joint venture are disclosed in Note 28(B).

### 13. Interests in Associates Accounting Policy No. 4(B)

The table below lists the associates of the Group at 31 December 2018:

	% of Ow Interest 31 Dece	at	Place of Incorporation /	
Name	2018	2017	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) $^{\scriptscriptstyle (a)}$	17	17	Mainland China	Generation of Electricity
Redback Technologies Limited (Redback) $^{(b)}$	22.3	21	Hong Kong	Development of Solar Technologies

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 major associates and the Group's share of results and net assets are as follows:

		Yangjiang
	GNPJVC	Nuclear (c)
	HK\$M	HK\$M
For the year ended 31 December 2018		
Revenue	8,002	15,791
Profit and total comprehensive income	3,868	5,269
Group's share of profit and total comprehensive income	967	896
Dividend income from associates	1,878	
For the year ended 31 December 2017		
Revenue	7,735	703
Profit and total comprehensive income	3,695	218
Group's share of profit and total comprehensive income	924	37
Dividend income from associates	10	_

## 13. Interests in Associates (continued)

	GNPJVC HK\$M	Yangjiang Nuclear HK\$M
At 31 December 2018		
Non-current assets	2,879	101,545
Current assets	9,835	12,745
Current liabilities	(5,469)	(17,316)
Non-current liabilities	(4,045)	(56,115)
Net assets	3,200	40,859
Group's share of net assets	800	6,946
At 31 December 2017		
Non-current assets	3,491	108,003
Current assets	8,979	9,520
Current liabilities	(1,959)	(17,435)
Non-current liabilities	(3,682)	(62,778)
Net assets	6,829	37,310
Group's share of net assets	1,707	6,343

Notes:

(a) Registered as Sino-Foreign Equity Joint Venture Enterprise under PRC law.

- (b) Due to lower forecasted demand for battery storage in Australia, management has reassessed the carrying value of Redback and full provision was included in the share of result in 2018.
- (c) The share of results of Yangjiang Nuclear included amortisation of the fair value adjustment on fixed assets. The 2017 share of results related to the period from acquisition to 31 December 2017.

At 31 December 2018, the Group's share of capital commitments of its associates was HK\$1,526 million (2017: HK\$1,310 million).

### 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.

# 14. Derivative Financial Instruments (continued)

### **Accounting Policy (continued)**

#### (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

Certain derivative financial instruments do not qualify for hedge accounting and 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.

(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.

## 14. Derivative Financial Instruments (continued)

	20	2018		17
	Assets HK\$M	Liabilities HK\$M	Assets HK\$M	Liabilities HK\$M
Cash flow hedges				
Forward foreign exchange contracts	88	65	224	113
Foreign exchange options	31	-	18	-
Cross currency interest rate swaps	147	767	300	727
Interest rate swaps	97	19	93	84
Energy contracts	883	746	442	36
Fair value hedges				
Cross currency interest rate swaps	3	455	9	352
Interest rate swaps	-	86	-	84
Not qualifying as accounting hedges				
Forward foreign exchange contracts	237	24	225	46
Interest rate swaps	26	2	28	1
Energy contracts	287	645	754	986
	1,799	2,809	2,093	2,429
Current	799	1,262	1,137	789
Non-current	1,000	1,547	956	1,640
	1,799	2,809	2,093	2,429

At 31 December 2018, the contractual maturity profile of the hedging instruments from the end of the reporting period is summarised below:

Forward foreign exchange contracts	Up to 5 years
Foreign exchange options	Up to 3 years
Cross currency interest rate swaps	Up to 11.5 years
Interest rate swaps	Up to 9 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.

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. 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 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. 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.

### 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.

	2018 HK\$M	2017 HK\$M
Trade receivables <sup>(a)</sup>	11,229	12,228
Deposits, prepayments and other receivables <sup>(b)</sup>	3,547	2,930
Dividend receivables from		
Joint ventures	57	68
Associates	949	-
Loans to and current accounts with <sup>(c)</sup>		
Joint ventures	134	200
Associates	1	1
	15,917	15,427

# 16. Trade and Other Receivables (continued)

Notes:

#### (a) Trade receivables

The ageing analysis of the trade receivables at 31 December based on invoice date is as follows:

	2018 HK\$M	2017 HK\$M
30 days or below *	8,992	9,465
31 – 90 days	820	882
Over 90 days	1,417	1,881
	11,229	12,228

\* 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 2018, such cash deposits amounted to HK\$5,474 million (2017: HK\$5,218 million) and the bank guarantees stood at HK\$796 million (2017: HK\$798 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 most retail customers (including residential and commercial 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 Mainland China and India are due for settlement within 30 to 90 days and 15 to 60 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.

#### 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	Gross	Lifetime	Net
	Expected	Carrying	Expected	Carrying
	Credit Loss	Amount	Credit Loss	Amount
	Rate	HK\$M	HK\$M	HK\$M
At 31 December 2018				
Active accounts				
Provision on individual basis	100%	1	(1)	-
Provision on collective basis	0% *	2,105	-	2,105
Terminated accounts				
Provision on individual basis	100%	8	(8)	-
Provision on collective basis	18%	4	(1)	3
		2,118	(10)	2,108

### 16. Trade and Other Receivables (continued)

Notes (continued):

(a) Trade receivables (continued)

#### Expected credit losses (continued)

CLP Power Hong Kong (continued)

	Lifetime	Gross	Lifetime	Net
	Expected	Carrying	Expected	Carrying
	Credit Loss	Amount	Credit Loss	Amount
	Rate	HK\$M	HK\$M	HK\$M
At 31 December 2017				
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
		1,967	(9)	1,958

\* 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	Gross Carrying Amount	Lifetime Expected Credit Loss	Net Carrying Amount
	Rate	HK\$M	HK\$M	HK\$M
At 31 December 2018				
Current	1%	4,834	(37)	4,797
1 – 30 days	8%	435	(35)	400
31 – 60 days	16%	268	(44)	224
61 – 90 days	23%	190	(44)	146
Over 90 days	53%	956	(509)	447
		6,683	(669)	6,014
At 31 December 2017				
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
		8,168	(994)	7,174

#### Mainland China

The Group's Mainland China renewable projects are experiencing delays in receipt of the Renewable National Subsidy. As at 31 December 2018, the Group had total receivables of HK\$972 million (2017: HK\$611 million) relating to 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 with no history of default.

# 16. Trade and Other Receivables (continued)

Notes (continued):

(a) Trade receivables (continued)

#### Expected credit losses (continued)

<u>India</u>

At 31 December 2018, CLP India's renewable projects have trade receivables of HK\$487 million (2017: HK\$510 million) of which HK\$437 million (2017: HK\$466 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. Disputed trade receivables of Paguthan and Jhajjar totalling HK\$850 million (2017: HK\$420 million) were provided in full as there is no reasonable expectation of recovery. Further information about disputes with offtakers is disclosed in Note 30.

Movements in Provision for Impairment

	2018 HK\$M	2017 HK\$M
Balance at 1 January	1,427	1,288
Provision for impairment	892	441
Receivables written off during the year as uncollectable	(641)	(411)
Amounts reversed	(2)	(1)
Exchange differences	(144)	110
Balance at 31 December	1,532	1,427

(b) At 31 December 2018, other receivables included the remaining 50% consideration of Rs13.2 billion (HK\$1,452 million) receivable from the sale of 40% interest in CLP India (Note 26(B)).

(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.

	2018 HK\$M	2017 HK\$M
Trust accounts restricted under TRAA (a)	398	347
Deposits with banks	9,557	7,257
Cash at banks and on hand	2,171	2,326
Bank balances, cash and other liquid funds <sup>(b)</sup>	12,126	9,930
Excluding:		
Cash restricted for specific purposes <sup>(a)</sup>	(398)	(347)
Bank deposits with maturities of more than three months	(4,363)	(3,054)
Short-term deposits and restricted cash	(4,761)	(3,401)
Cash and cash equivalents	7,365	6,529

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\$963 million (2017: HK\$673 million) which was mostly denominated in Renminbi (2017: Renminbi).

### 18. Fuel Clause Account

Cost of fuel consumed by CLP Power Hong Kong is passed on to customers. Any 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. CLP Power Hong Kong may adjust fuel related tariff from time to time, including on a monthly basis, in accordance with the 2018 SoC 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 is classified as a current liability.

### 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.

	2018 HK\$M	2017 HK\$M
Trade payables (a)	6,653	7,092
Other payables and accruals	7,294	6,991
Advances from non-controlling interests <sup>(b)</sup>	1,522	1,514
Current accounts with <sup>(c)</sup>		
Joint ventures	1	1
Associates	517	271
Deferred revenue <sup>(d)</sup>	3,074	3,109
	19,061	18,978

#### Notes:

(a) The ageing analysis of trade payables at 31 December based on invoice date is as follows:

	2018 HK\$M	2017 HK\$M
30 days or below	6,404	6,507
31 – 90 days	145	146
Over 90 days	104	439
	6,653	7,092

At 31 December 2018, trade payables denominated in a currency other than the functional currency of the corresponding Group entities amounted to HK\$681 million (2017: HK\$625 million), of which HK\$569 million (2017: HK\$501 million) were denominated in US dollar.

- (b) The advances from non-controlling interests mostly represented the advances from China Southern Power Grid International (HK) Co., Limited (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. These advances are unsecured, interest free and repayable on demand. The advances are denominated in Hong Kong 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 (2017: HK\$3 billion) (Note 15) and payments received in advance for other services. Non-current deferred revenue of HK\$1,216 million (2017: HK\$1,171 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 2018, the Group's bank loans and other borrowings were repayable as follows:

	Bank	Bank Loans		Other Borrowings *		tal
	2018	<b>2018</b> 2017		2017	2018	2017
	HK\$M	HK\$M	HK\$M	HK\$M	HK\$M	HK\$M
Within one year	11,935	8,181	1,600	291	13,535	8,472
Between one and two years	3,858	7,186	4,183	1,588	8,041	8,774
Between two to five years	3,876	6,526	8,229	9,173	12,105	15,699
Over five years	4,364	4,427	17,253	19,969	21,617	24,396
	24,033	26,320	31,265	31,021	55,298	57,341

\* Other borrowings mainly included Medium Term Notes of HK\$29,405 million (2017: HK\$28,503 million) and bonds of HK\$1,558 million (2017: HK\$2,141 million).

Another presentation of the Group's liquidity risk is set out on pages 273 to 275.

Total borrowings included secured liabilities of HK\$11,709 million (2017: HK\$12,153 million), analysed as follows:

	2018 HK\$M	2017 HK\$M
CLP India group <sup>(a)</sup>	6,182	6,785
Subsidiaries in Mainland China <sup>(b)</sup>	5,527	5,368
	11,709	12,153

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\$12,740 million (2017: HK\$14,033 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\$9,002 million (2017: HK\$7,881 million).

At 31 December 2018 and 2017, 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 2018, the Group had undrawn bank loans and overdraft facilities of HK\$24,059 million (2017: HK\$25,924 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:

	2018 HK\$M	2017 HK\$M
Deferred tax assets	835	929
Deferred tax liabilities	(14,650)	(14,275)
	(13,815)	(13,346)

Deferred tax asset = income tax <u>recoverable</u> in the future Deferred tax liability = income tax <u>payable</u> in the future

The gross movement on the deferred tax account is as follows:

	2018 HK\$M	2017 HK\$M
Balance at 1 January, as previously reported	(13,346)	(12,838)
Effect on adoption of HKFRS 15 (Note 3 of Significant Accounting Policies) Balance at 1 January, as restated	(74)	(12,838)
Acquisition of subsidiaries (Note 2)	(19)	-
Charged to profit or loss (Note 7) Credited to other comprehensive income	(449) 116	(686) 110
Exchange differences	(43)	68
Balance at 31 December	(13,815)	(13,346)

# 21. Deferred Tax (continued)

### Deferred tax assets (prior to offset)

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:

	Tax L	Tax Losses <sup>(a)</sup>		Accruals and Provisions		Others (b)		otal
	2018 HK\$M	2017 HK\$M	2018 HK\$M	2017 HK\$M	2018 HK\$M	2017 HK\$M	2018 HK\$M	2017 HK\$M
Balance at 1 January	908	824	1,345	787	616	558	2,869	2,169
Acquisition of subsidiaries	11	-	80	-	-	-	91	-
Credited to profit or loss	2	23	101	526	297	18	400	567
Credited / (charged) to other								
comprehensive income	-	-	3	(39)	5	7	8	(32)
Exchange differences	(77)	61	(135)	71	(51)	33	(263)	165
Balance at 31 December	844	908	1,394	1,345	867	616	3,105	2,869

### Deferred tax liabilities (prior to offset)

		ated Tax ciation		g/Dividend Ition Tax	Intan	gibles	Oth	iers <sup>(b)</sup>	То	otal
	2018 HK\$M	2017 HK\$M	2018 HK\$M	2017 HK\$M	2018 HK\$M	2017 HK\$M	2018 HK\$M	2017 HK\$M	2018 HK\$M	2017 HK\$M
Balance at 1 January, as previously reported	(14,218)	(13,089)	(121)	(68)	(1,049)	(1,120)	(827)	(730)	(16,215)	(15,007)
Effect on adoption of HKFRS 15 (Note 3 of Significant Accounting Policies)							(74)		(74)	
Balance at 1 January, as							(74)		(74)	
restated Acquisition of subsidiaries	(14,218) (110)	(13,089) _	(121) –	(68) -	(1,049) –	(1,120) -	(901) –	(730) _	(16,289) (110)	(15,007) _
(Charged)/credited to profit or loss	(828)	(1,102)	(66)	(52)	101	87	(56)	(186)	(849)	(1,253)
Credited to other comprehensive income Transfer of finance lease	-	-	-	-	-	-	108	142	108	142
receivables to fixed	(120)						139			
assets Exchange differences	(139) 118	(27)	- 4	(1)	- 14	(16)	84	(53)	220	- (97)
Balance at 31 December	(15,177)	(14,218)	(183)	(121)	(934)	(1,049)	(626)	(827)	(16,920)	(16,215)

Notes:

(a) The deferred tax asset arising from tax losses related to the electricity business in India of HK\$843 million (2017: HK\$906 million). There is no expiry on tax losses recognised.

(b) Others mainly related to Minimum Alternate Tax credit in India and temporary differences arising from derivative financial instruments and deferred revenue.

# 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 (Note 18). 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 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:

	2018 HK\$M	2017 HK\$M
Tariff Stabilisation Fund (A)	941	746
Rate Reduction Reserve (B)	11	4
Rent and Rates Refunds (C)	46	227
	998	977

The movements in SoC reserve accounts during the year are shown as follows:

### (A) Tariff Stabilisation Fund

	2018 HK\$M	2017 HK\$M
At 1 January	746	786
Transfer from Rate Reduction Reserve	4	2
Transfer under the SoC <sup>(a)</sup>		
<ul> <li>transfer for SoC from / (to) revenue (Note 3)</li> </ul>	322	(98)
<ul> <li>charge for asset decommissioning<sup>(b)</sup></li> </ul>	(131)	56
At 31 December	941	746

Notes:

- (a) Under the SoC Agreements, 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 a revenue adjustment to the extent that the return and charges under the SoC are recognised in profit or loss (Note 3).
- (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\$991 million (2017: HK\$860 million) (Note 23) recognised under the SoC represents a liability of the Group.

# 22. SoC Reserve Accounts (continued)

(B) Rate Reduction Reserve

	2018 HK\$M	2017 HK\$M
At 1 January	4	2
Transfer to Tariff Stabilisation Fund	(4)	(2)
Interest expense charged to profit or loss (Note 6)	11	4
At 31 December	11	4

### (C) Rent and Rates Refunds

CLP Power Hong Kong has been challenging the amount of Government rent and rates levied dating back to the year of assessment 2001/02. In 2018, CLP Power Hong Kong reached a settlement with the Hong Kong Government in respect of the appeals for rating years from 2001/02 to 2007/08. For the remaining years under appeal, final resolution remains subject to the application of the Lands Tribunal judgments, which were in favour of CLP Power Hong Kong, to the rent and rates amounts for each of these years.

Refunds totalling HK\$2,054 million have been paid by the Hong Kong Government since 2012. These include interim refunds paid on a without prejudice basis for the appeal years 2008/09 to 2012/13 of HK\$757 million, and the refunds of HK\$1,297 million for the years 2001/02 to 2007/08 which have been settled (of which HK\$186 million was received in 2018).

Using the refunds received from the Hong Kong Government, CLP Power Hong Kong has provided customers with the Rent and Rates Special Rebate. Including the rebate of HK\$367 million paid in 2018, the Rent and Rates Special Rebate made by CLP Power Hong Kong has reached an aggregate of HK\$2,008 million.

For the remaining years under appeal, CLP Power Hong Kong maintains that it will recover no less than the interim refunds received to date for these years in the final outcome of these years.

The rent and rates refunds are classified within the SoC reserve accounts, and the Rent and Rates Special Rebate to customers was offset against these refunds received.

	2018 HK\$M	2017 HK\$M
Rent and Rates Refunds Received	2,054	1,868
Rent and Rates Special Rebate	(2,008)	(1,641)
	46	227

In the event that the final amount recovered on conclusion of the remaining appeals is less than the total amount rebated to customers in respect of these years, 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 for the remaining years 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. Therefore in accordance with applicable accounting standards, asset retirement obligations for these assets have not been recognised by CLP Power Hong Kong.

In 2017 the Hong Kong Government released the Climate Action Plan 2030+ with a tightened carbon reduction target by 2030. As part of the new development plan agreed with the Hong Kong Government during 2018, CAPCO will retire the coal-fired generation units at Castle Peak A Station (CPA) between 2022 to 2025. Following this retirement, the removal of CPA's coal-fired generation units has become probable. It is also envisaged that with the Hong Kong Government's continued commitment to reduce carbon intensity, the removal of CAPCO's other 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 to be utilised in discharging asset decommissioning costs if and when incurred. CAPCO considers that the dismantling obligation for the CPA units is covered under the asset decommissioning liability accrued under the SoC as at 31 December 2018. While no provision for asset retirement obligations for the other generation units of CAPCO has been recognised, it is expected that if such an obligation be incurred, it will be met by the liability accrued and the cost recovery mechanism under the SoC.

Asset retirement obligations of EnergyAustralia amounted to HK\$2,630 million (2017: HK\$2,182 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. On an ongoing basis, we continually review and update underlying assumptions relating to forward rehabilitation estimates and timelines.

The calculation of the provision requires management judgment with respect to estimating the timing of asset removal, costs to remove infrastructure, remediate soil and groundwater, water usage and technological developments.

# 23. Asset Decommissioning Liabilities and Retirement Obligations (continued)

	2018	2017
	HK\$M	HK\$M
Asset decommissioning liabilities (Note 22(A)(b))	991	860
Provisions for land remediation and restoration costs (note)	2,567	2,127
	3,558	2,987

Note: The movement of the balances, including the current portion of HK\$63 million (2017: HK\$55 million) under the Group's trade and other payables, is as follows:

	2018 HK\$M	2017 HK\$M
Balance at 1 January	2,182	415
Acquisition of subsidiaries (Note 2(A))	183	-
Additional provision	432	346
Effect of changes in discount rate	56	1,306
Amounts used	(36)	(15)
Unwinding of discount	68	63
Exchange differences	(255)	67
Balance at 31 December	2,630	2,182

# 24. Share Capital

	2018	2018		
	Number of		Number of	
	Ordinary	Ordinary Amount		Amount
	Shares	HK\$M	Shares	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 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)	-	-
Fotal comprehensive income attributable to						
shareholders	4.325	(336)	(134)	(281)	14.340	17.914
Contribution from non-controlling interest of	4,525	(550)	(154)	(201)	14,540	17,714
a subsidiary	_	_	_	_	(4)	(4)
Transfer to fixed assets	_	3			(4)	3
Disposal of an equity investment	_	-		277	(277)	
Appropriation of reserves	-	-	-	81	(81)	-
Dividends paid	-	-	-	01	(01)	-
2016 fourth interim				_	(2,754)	(2,754
2016 Tourth Interim 2017 first to third interim	-	-	-	-	(2,754) (4,472)	
						(4,472)
Balance at 31 December 2017	(3,313)	668	(53)	2,853	85,299 <sup>(a)</sup>	85,454

Translation reserve	<ul> <li>exchange rates movements arising from the consolidation of Group entities with different reporting currencies</li> </ul>
Cash flow hedge / Costs of hedging	- deferred fair value gains / losses on derivative financial instruments that qualify for hedge accounting; reclassify to profit or loss until settlement / amortisation of costs of hedging
Other reserves	<ul> <li>mainly comprise revaluation reserve, other consolidated reserve arising from change in ownership interests in a subsidiary, and other legal reserves allocated from retained profits to meet local statutory and regulatory requirements of Group entities</li> </ul>

# 25. Reserves (continued)

Balance at 1 January 2018, as previously reported         (3,313)         668         (53)         2,853         85,299           Effect on adoption of HKFRS 15 (net of tax)         -         -         -         -         173           Balance at 1 January 2018, as restated         (3,313)         668         (53)         2,853         85,472           Earnings attributable to shareholders         -         -         -         -         173           Other comprehensive income         Exchange differences on translation of         -         -         -         13,550           Subsidiaries         (4,411)         85         (15)         -         (70)           Joint ventures         (463)         -         -         -         -           Cash flow hedges         -         342         -         -         -           Net fair value gains         -         342         -         -         -           Costs of hedging         -         -         -         04         -         -           Net fair value losses         -         -         (70)         -         -         -           Share of other comprehensive income of joint ventures and an associate         -         -         - <th>Total HK\$M</th> <th>Retained Profits HK\$M</th> <th>Other Reserves HK\$M</th> <th>Costs of Hedging Reserves HK\$M</th> <th>Cash Flow Hedge Reserve HK\$M</th> <th>Translation Reserves HK\$M</th> <th></th>	Total HK\$M	Retained Profits HK\$M	Other Reserves HK\$M	Costs of Hedging Reserves HK\$M	Cash Flow Hedge Reserve HK\$M	Translation Reserves HK\$M	
(Note 3 of Significant Accounting Policies)       -       -       -       -       173         Balance at 1 January 2018, as restated       (3,313)       668       (53)       2.853       85.472         Earnings attributable to shareholders       -       -       -       -       13.550         Other comprehensive income       -       -       -       -       13.550         Exchange differences on translation of       -       -       -       -       -         Subsidiaries       (44.11)       85       (15)       -       (70)         Joint ventures       (463)       -       -       -       -         Associates       (352)       -       -       -       -       -         Reclassification to profit or loss       -       342       -       -       -       -         Reclassification to profit or loss       -       104       - <t< td=""><td>85,454</td><td>85,299</td><td>2,853</td><td>(53)</td><td>668</td><td>(3,313)</td><td>Balance at 1 January 2018, as previously reported</td></t<>	85,454	85,299	2,853	(53)	668	(3,313)	Balance at 1 January 2018, as previously reported
Earnings attributable to shareholders13,550Other comprehensive incomeExchange differences on translation of Subsidiaries(4.411)85(15)-(70)Joint ventures(463)Associates(352)Cash flow hedges-(723)Net fair value gains-342Tax on the above items-104Costs of hedging-104Net fair value losses(70)Tax on the above items-104Costs of hedging(6)Net fair value losses(37)Tax on the above items(37)Fair value losses on equity investments(37)Share of other comprehensive income of joint ventures and an associate-(3)-44Total comprehensive income attributable to shareholders(5,226)(195)13(33)13,476Transfer to fixed assets2017 fourth interim2(880)2013 first to third interim(4,623)Change in ownership interests in a subsidiary<	173	173	_	_	_	_	•
Other comprehensive income         Kathange differences on translation of         Subsidiaries         (4.411)         85         (15)         -         (70)           Joint ventures         (463)         -         -         -         -           Associates         (352)         -         -         -         -           Cash flow hedges         -         342         -         -         -           Net fair value gains         -         104         -         -         -           Tax on the above items         -         104         -         -         -           Costs of hedging         -         104         -         -         -         -           Net fair value losses         -         -         104         -         -         -           Amortisation / reclassification to profit or loss         -         -         104         -         -           Tax on the above items         -         -         104         -         -         -           Fair value losses on equity investments         -         -         (30)         -         4         4           Total comprehensive income of joint ventures and an associate         -         (33)	85,627	85,472	2,853	(53)	668	(3,313)	Balance at 1 January 2018, as restated
Subsidiaries         (4,411)         85         (15)         -         (70)           Joint ventures         (463)         -         -         -         -           Associates         (352)         -         -         -         -           Cash flow hedges         -         342         -         -         -           Net fair value gains         -         342         -         -         -           Reclassification to profit or loss         -         (723)         -         -         -           Tax on the above items         -         104         -         -         -         -           Costs of hedging         -         -         104         -         -         -         -           Net fair value losses         -         -         104         -	13,550	13,550	-	-	-	-	Other comprehensive income
Joint ventures         (463)         -         -         -         -           Associates         (352)         -         -         -         -           Cash flow hedges         -         342         -         -         -           Net fair value gains         -         342         -         -         -           Reclassification to profit or loss         -         (723)         -         -         -           Tax on the above items         -         104         -         -         -         -           Costs of hedging         -         -         104         -         -         -         -           Net fair value losses         -         -         104         -	(4,411)	(70)	_	(15)	85	(4,411)	5
Cash flow hedges-342Net fair value gains-342Reclassification to profit or loss-(723)Tax on the above items-104Costs of hedging(70)Net fair value losses104Amortisation / reclassification to profit or loss104Tax on the above items(6)Fair value losses on equity investments(37)Remeasurement losses on defined benefit plans(33)-44Share of other comprehensive income of joint ventures and an associate-(33)-44Total comprehensive income attributable to shareholders(5,226)(195)13(33)13,476Transfer to fixed assetsAppropriation of reserves134(134)Dividends paid(2,880)2017 fourth interim(2,880)2018 first to third interim(4,623)Change in ownership interests in a subsidiary(4,623)	(463)	-	_	-	-		
Net fair value gains         -         342         -         -         -           Reclassification to profit or loss         -         (723)         -         -         -           Tax on the above items         -         104         -         -         -           Costs of hedging         -         104         -         -         -           Amortisation / reclassification to profit or loss         -         -         104         -         -           Tax on the above items         -         -         104         -         -         -           Amortisation / reclassification to profit or loss         -         -         104         -         -         -           Tax on the above items         -         -         (6)         -         -         -           Fair value losses on equity investments         -         -         (37)         -         -           Remeasurement losses on defined benefit plans         -         -         -         (8)         -           Share of other comprehensive income of         -         -         -         (8)         -         -           shareholders         (5,226)         (195)         13         (33)	(352)	_	-	-	-		Associates
Net fair value gains         -         342         -         -         -           Reclassification to profit or loss         -         (723)         -         -         -           Tax on the above items         -         104         -         -         -           Costs of hedging         -         104         -         -         -           Amortisation / reclassification to profit or loss         -         -         104         -         -           Tax on the above items         -         -         104         -         -         -           Amortisation / reclassification to profit or loss         -         -         104         -         -         -           Tax on the above items         -         -         (6)         -         -         -           Fair value losses on equity investments         -         -         (37)         -         -           Remeasurement losses on defined benefit plans         -         -         -         (8)         -           Share of other comprehensive income of         -         -         -         (8)         -         -           shareholders         (5,226)         (195)         13         (33)							Cash flow hedges
Reclassification to profit or loss-(723)Tax on the above items-104Costs of hedging-104Net fair value losses(70)Amortisation / reclassification to profit or loss104Tax on the above items(6)Fair value losses on equity investments(6)Remeasurement losses on defined benefit plans(37)Share of other comprehensive income of joint ventures and an associate-(3)-44Total comprehensive income attributable to shareholders(5,226)(195)13(33)13,476Transfer to fixed assets-(44)(1)Appropriation of reserves134(134)Dividends paid(2,880)2017 fourth interim(4,623)Change in ownership interests in a subsidiaryCotage in ownership interests in a subsidiary	342	-	-	-	342	-	-
Tax on the above items-104Costs of hedgingNet fair value losses(70)Amortisation / reclassification to profit or loss104Tax on the above items(6)Fair value losses on equity investments(37)-Remeasurement losses on defined benefit plans(37)-Share of other comprehensive income of joint ventures and an associate-(3)-44Total comprehensive income attributable to shareholders(5,226)(195)13(33)13,476Transfer to fixed assets-(44)(1)Appropriation of reserves134(134)Dividends paid(2,880)2017 fourth interim(4,623)Change in ownership interests in a subsidiary	(723)	_	-	-	(723)	-	÷
Net fair value losses(70)Amortisation / reclassification to profit or loss104Tax on the above items(6)Fair value losses on equity investments(6)Remeasurement losses on defined benefit plans(8)Share of other comprehensive income of joint ventures and an associate-(3)-44Total comprehensive income attributable to shareholders(5,226)(195)13(33)13,476Transfer to fixed assets-(44)(1)Appropriation of reserves134(134)Dividends paid(2,880)2017 fourth interim(4,623)Change in ownership interests in a subsidiary(4,623)	104	-	-	-	104	-	
Amortisation / reclassification to profit or loss104Tax on the above items(6)Fair value losses on equity investments(37)-Remeasurement losses on defined benefit plans(37)-Share of other comprehensive income of joint ventures and an associate-(3)-44Total comprehensive income attributable to shareholders-(33)13,476-Transfer to fixed assets-(44)(1)Appropriation of reserves134(134)Dividends paid(2,880)2017 fourth interim(4,623)Change in ownership interests in a subsidiary(4,623)							Costs of hedging
Tax on the above items(6)Fair value losses on equity investments(37)-Remeasurement losses on defined benefit plans(8)Share of other comprehensive income of joint ventures and an associate-(3)-44Total comprehensive income attributable to shareholders-(3)-44Transfer to fixed assets-(44)(1)Appropriation of reserves134(134)Dividends paid(2,880)2017 fourth interim(4,623)Change in ownership interests in a subsidiary(4,623)	(70)	-	-	(70)	-	-	Net fair value losses
Fair value losses on equity investments(37)-Remeasurement losses on defined benefit plans Share of other comprehensive income of joint ventures and an associate(8)Total comprehensive income attributable to shareholders-(3)-44Total comprehensive income attributable to shareholders(5,226)(195)13(33)13,476Transfer to fixed assets-(44)(1)Appropriation of reserves134(134)Dividends paid(2,880)2017 fourth interim(4,623)Change in ownership interests in a subsidiary(4,623)	104	-	-	104	-	-	Amortisation/reclassification to profit or loss
Remeasurement losses on defined benefit plans Share of other comprehensive income of joint ventures and an associate(8)Total comprehensive income attributable to shareholders-(3)-44Total comprehensive income attributable to shareholders(5,226)(195)13(33)13,476Transfer to fixed assets-(44)(1)Appropriation of reserves134(134)Dividends paid(2,880)2017 fourth interim(4,623)Change in ownership interests in a subsidiary	(6)	-	-	(6)	-	-	Tax on the above items
Share of other comprehensive income of joint ventures and an associate-(3)-44Total comprehensive income attributable to shareholders(5,226)(195)13(33)13,476Transfer to fixed assets-(44)(1)Appropriation of reserves134(134)Dividends paid(2,880)2017 fourth interim(4,623)Change in ownership interests in a subsidiary	(37)	-	(37)	-	-	-	Fair value losses on equity investments
joint ventures and an associate-(3)-44Total comprehensive income attributable to shareholders(5,226)(195)13(33)13,476Transfer to fixed assets-(44)(1)Appropriation of reserves134(134)Dividends paid(2,880)2017 fourth interim(4,623)Change in ownership interests in a subsidiary	) (8)	(8)	-	-	-	-	
shareholders         (5,226)         (195)         13         (33)         13,476           Transfer to fixed assets         -         (44)         (1)         -         -           Appropriation of reserves         -         -         134         (134)           Dividends paid         -         -         -         134         (134)           2017 fourth interim         -         -         -         (2,880)           2018 first to third interim         -         -         -         (4,623)           Change in ownership interests in a subsidiary         -         -         -         -	5	4	4	-	(3)	-	
shareholders         (5,226)         (195)         13         (33)         13,476           Transfer to fixed assets         -         (44)         (1)         -         -           Appropriation of reserves         -         -         134         (134)           Dividends paid         -         -         -         134         (134)           2017 fourth interim         -         -         -         (2,880)           2018 first to third interim         -         -         -         (4,623)           Change in ownership interests in a subsidiary         -         -         -         -							Total comprehensive income attributable to
Appropriation of reserves134(134)Dividends paid134(134)2017 fourth interim(2,880)2018 first to third interim(4,623)Change in ownership interests in a subsidiary	8,035	13,476	(33)	13	(195)	(5,226)	•
Dividends paid2017 fourth interim2018 first to third interim	(45)	-	_	(1)	(44)	-	Transfer to fixed assets
Dividends paid2017 fourth interim2018 first to third interim	-	(134)	134		-	-	Appropriation of reserves
2018 first to third interim(4,623)Change in ownership interests in a subsidiary							
Change in ownership interests in a subsidiary	) (2,880)	(2,880)	_	-	-	-	2017 fourth interim
	(4,623)	(4,623)	_	-	-	-	2018 first to third interim
	(304)	_	(1.387)	(2)	(25)	1,110	
Balance at 31 December 2018         (7,429)         404         (43)         1,567         91,311 <sup>(a)</sup>		01 211(2)					

Note:

(a) The fourth interim dividend declared for the year ended 31 December 2018 was HK\$3,007 million (2017: HK\$2,880 million). The balance of retained profits after the fourth interim dividend of the Group was HK\$88,304 million (2017: HK\$82,419 million).

# 26. Perpetual Capital Securities and Other Non-controlling Interests

(A) Perpetual Capital Securities and Redeemable Shareholder Capital

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.

The other non-controlling interests included CSG HK's pro-rata share of HK\$5,115 million (2017: HK\$5,115 million) of 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.

As both 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.

(B) Disposal of Interest in a Subsidiary without Loss of Control

In September 2018, the Group entered into a conditional sales and purchase agreement with CDPQ Infrastructures Asia II Pte. Ltd (CDPQ Infrastructures) to transfer 40% shareholding in CLP India for a cash consideration of Rs26.4 billion (HK\$2,903 million). The transaction was completed in December and half of the consideration was received in 2018 with the remaining to be received in the first half 2019. CLP India remains as a subsidiary of the Group after the completion of the transaction. The effect of the partial disposal attributable to CLP's shareholders is summarised as follows:

	HK\$M
Consideration from non-controlling interest	2,903
Less: carrying amount of non-controlling interest disposed of	(3,188)
Less: transaction costs directly attributable to the disposal	(19)
Loss on disposal debited to other reserves (Note 25)	(304)

# 27. Notes to the Consolidated Statement of Cash Flows

(A) Reconciliation of profit before income tax to net cash inflow from operations

	2018 HK\$M	2017 HK\$M
	Πιξιιι	יייבָאויו
Profit before income tax	18,641	18,127
Adjustments for:		
Finance costs	2,049	2,180
Finance income	(192)	(151)
Dividend income from equity investments	(13)	(9)
Share of results of joint ventures and associates, net of income tax	(2,336)	(1,458)
Depreciation and amortisation	8,005	7,368
Impairment charge	912	443
Net loss on disposal of fixed assets	416	407
Revaluation gains on investment properties	(18)	(369)
Fair value gain of non-debt related derivative financial instruments and net exchange difference SoC items	(522)	(416)
Special fuel rebate to customers	_	(786)
Increase in customers' deposits	256	220
Decrease in fuel clause account	(1,382)	(782)
Net (decrease) / increase in rent and rates refunds	(181)	155
Transfer for SoC	322	(98)
	(985)	(1,291)
Increase in trade and other receivables	(688)	(2,263)
Decrease in finance lease receivables	64	56
Increase in cash restricted for specific purposes	(51)	(149)
Changes in non-debt related derivative financial instruments	694	443
Increase in trade and other payables	361	3,917
Increase / (decrease) in current accounts due to joint ventures and associates	247	(329)
Net cash inflow from operations	26,584	26,506

# 27. Notes to the Consolidated Statement of Cash Flows (continued)

(B) Reconciliation of liabilities arising from financing activities

	Bank Loans and Other	Interest and Other Finance Costs	Debt-related Derivative Financial	Advances from Non- controlling	
	Borrowings HK\$M	Payables HK\$M	Instruments HK\$M	Interests HK\$M	Total HK\$M
Balance at 1 January 2017	51,646	263	483	6,692	59,084
Cash flows changes					
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 non-controlling interest	-	-	-	(79)	(79)
Non-cash changes					
Fair value losses of derivative financial instruments to equity	-	-	152	-	152
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	-	-	-	(5,115)	(5,115)
Other non-cash movements	33	(26)	-	-	7
Balance at 31 December 2017	57,341	310	642	1,514	59,807
Balance at 1 January 2018 Cash flows changes	57,341	310	642	1,514	59,807
Proceeds from long-term borrowings	3.906	-	-	-	3.906
Repayment of long-term borrowings	(6.660)	-	-	-	(6,660)
Increase in short-term borrowings	300	-	-	-	300
Interest and other finance costs paid	-	(1,890)	-	-	(1.890)
Settlement of derivative financial instruments	-	( ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	130	-	130
Decrease in advances from non-controlling interests	_	_	_	(1)	(1)
Non-cash changes				( ' /	(1)
Acquisitions of subsidiaries (Note 2)	1.209	3	-	9	1.221
Fair value gains of derivative financial instruments to equity	-	-	(80)	-	(80)
Net exchange and translation difference	(849)	(9)	26	-	(832)
Interest and other finance costs charged to profit or loss	(01)	1.843	39	-	1.882
Other non-cash movements	51	6	-	-	57
Balance at 31 December 2018	55,298	263	757	1,522	57,840

### 28. Commitments and Operating Lease Arrangements

(A) Capital expenditure contracted for but not yet incurred at the end of the year is as follows:

	2018 HK\$M	2017 HK\$M
Fixed assets Investment property	5,226 9	5,367 2
Intangible assets	262	28
	5,497	5,397

(B) At 31 December 2018, equity contributions to be made for a joint venture and private equity partnerships were HK\$27 million (2017: equity contribution to an associate of HK\$15 million) and HK\$136 million (2017: HK\$64 million) respectively.

(C) The future aggregate minimum lease payments under non-cancellable operating leases are as follows:

	2018 HK\$M	2017 HK\$M
Within one year	198	475
Later than one year but not later than five years	500	630
Over five years	1,639	1,242
	2,337	2,347

Of the above amount, HK\$1,592 million (2017: HK\$1,692 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.

(D) The 25-year power purchase arrangements between Jhajjar Power Limited (JPL) and its offtakers are accounted for as operating leases. Under the agreements, the offtakers are obliged to purchase the output of Jhajjar power plant at predetermined prices. The future aggregate minimum lease receipts under non-cancellable operating leases are as follows:

	2018 HK\$M	2017 HK\$M
Within one year	753	827
Later than one year but not later than five years	2,176	2,714
Over five years	5,219	6,192
	8,148	9,733

### 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.

# 29. Related Party Transactions (continued)

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 PPAs 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\$5,543 million (2017: HK\$5,380 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\$791 million (2017: HK\$768 million). In December 2018, another contract with similar terms was signed for the purchase of approximately 10% of additional nuclear electricity for five years from January 2019 to end of 2023.

- (B) The loans to joint ventures are disclosed under Note 12. Other amounts due from and to the related parties at 31 December 2018 are disclosed in Notes 16 and 19 respectively. At 31 December 2018, the Group did not have any guarantees which were of a significant amount given to or received from these parties (2017: 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 (2017: two) Executive Directors and nine (2017: nine) senior management personnel.

	2018 HK\$M	2017 HK\$M
Fees	11	11
Base compensation, allowances & benefits	66	65
Performance bonus		
Annual incentive	60	61
Long-term incentive	39	30
Provident fund contribution	13	12
	189	179

Note: Refer to remuneration items on page 165 of Human Resources & Remuneration Committee Report.

At 31 December 2018, the CLP Holdings' Board was composed of thirteen Non-executive Directors and two Executive Directors. Remuneration of all Directors for the year totalled HK\$56 million (2017: HK\$52 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 (2017: two Directors) and three members (2017: three members) of Senior Management. The total remuneration of these five highest paid individuals amounted to HK\$107 million (2017: HK\$98 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 with a heading of "Audited" on pages 164 to 167 and 172 to 174. These sections form the "auditable" part of the Human Resources & Remuneration Committee Report and are part of the financial statements.

# 29. Related Party Transactions (continued)

### (D) Interest of Directors

There are no loans, quasi-loans or other dealings in favour of directors, their controlled bodies corporate and connected entities (2017: 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 (2017: 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 Gujarat Urja Vikas Nigam Limited (GUVNL) under the PPA 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 Rs7,260 million (HK\$813 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 PPA. 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 Rs830 million (HK\$93 million) (2017: Rs830 million (HK\$102 million)).

# 30. Contingent Liabilities (continued)

(A) CLP India - Deemed Generation Incentive Payment and Interest on Deemed Loans (continued)

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. Since the matter has been pending before the Supreme Court for a long period of time, an application of early hearing was filed before the court, which was allowed. The matter should be listed for hearing in the coming months.

The PPA term expired in December 2018 and GUVNL has formally declined extension of the PPA.

While CLP India has not altered its view regarding the legal merits of the claim, in view of the expiry of the PPA and uncertainty on the timing of recoverability, it is appropriate to make a provision of Rs3,796 million (HK\$450 million) in the profit or loss and against the amounts withheld by GUVNL. This will not prejudice the stance CLP India has taken all along and CLP India remains committed to pursuing this case and closing it successfully. If this is eventually achieved and the monies are recovered from GUVNL, the provision would be reversed.

At 31 December 2018, the time-barred portion of the claim plus interest and tax with respect to the "deemed generation incentive" amounted to Rs4,737 million (HK\$530 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 the time-barred portion of the claim plus interest and tax.

### (B) Indian Wind Power Projects – WWIL's Contracts

CLP India group has invested in approximately 533MW of wind power projects 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 2018, 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 Rs2,719 million (HK\$305 million) at 31 December 2018 (2017: Rs2,117 million (HK\$259 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\$5,335 million) or alternatively A\$780 million (approximately HK\$4,303 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

	2018	2017
	НК\$М	HK\$M
Non-current assets		
Fixed assets	108	110
Investments in subsidiaries	50,356	53,074
Advance to a subsidiary	39	39
Other non-current assets	3	3
	50,506	53,226
Current assets		
Trade and other receivables	47	49
Dividend receivable	4,700	2,710
Bank balances and cash	24	12
	4,771	2,771
Current liabilities		
Trade and other payables	(501)	(422)
Bank loans and other borrowings	(4,400)	( -== /
6	(4,901)	(422)
		(+++++)
Net current (liabilities)/assets	(130)	2,349
Total assets less current liabilities	50,376	55,575
Financed by:		
Equity		
Share capital	23,243	23.243
Retained profits	27,133	27,944
Shareholders' funds		
Shareholders fullus	50,376	51,187
Non-current liabilities		
Bank loans and other borrowings	-	4,388
Equity and non-current liabilities	50,376	55,575
Equity and non-current habilities	50,576	5,575
The movement of retained profits is as follows:		
Balance at 1 January	27,944	28,340
Profit and total comprehensive income for the year	6,692	6,830
Dividends paid	-,	-,-30
2017/2016 fourth interim	(2,880)	(2,754)
2018/2017 first to third interim	(4,623)	(4,472)
Balance at 31 December	27,133	27,944
	27,133	21,744

The fourth interim dividend declared for the year ended 31 December 2018 was HK\$3,007 million (2017: HK\$2,880 million). The balance of retained profits after the fourth interim dividend of the Company was HK\$24,126 million (2017: HK\$25,064 million).

Willran Moratte

William Mocatta Vice Chairman Hong Kong, 25 February 2019

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**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 2018:

Name	Issued Share Capital / Registered Capital		nership at mber 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	100	Hong Kong	Generation and Supply of Electricity	
Castle Peak Power Company Limited	HK\$50,000,000 divided into 500,000 ordinary shares	<b>70</b> <sup>(a)</sup>	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	<b>100</b> <sup>(a)</sup>	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	100	Hong Kong/ Mainland China	Power Projects Investment Holding	
CLP Nuclear Investment Company Limited	1 ordinary share of US\$1 each	100	100	Hong Kong / British Virgin Islands	Power Projects Investment Holding	
CLP <i>e</i> Solutions Limited (formerly known as CLP Engineering Limited)	HK\$49,950,000 divided into 4,995 ordinary shares	100	100	Hong Kong	Engineering Services	
CLP Power Asia Limited	1,000 ordinary shares of US\$1 each	100	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	<b>100</b> <sup>(a)</sup>	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	<b>100</b> <sup>(a)</sup>	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	100	Hong Kong	Property Investment Holding	
CLP Research Institute Limited	1 ordinary share of US\$1 each	100	100	British Virgin Islands / Hong Kong	Research and Development	
CLP Innovation Enterprises Limited	1 ordinary share of HK\$1 each	100	100	Hong Kong	Innovation Projects Investment Holding	
EnergyAustralia Holdings Limited	1,585,491,005 ordinary shares of A\$1 each	<b>100</b> <sup>(a)</sup>	100 <sup>(a)</sup>	Australia	Energy Business Investment Holding	
EnergyAustralia Yallourn Pty Ltd	15 ordinary shares of A\$1 each	<b>100</b> <sup>(a)</sup>	100 <sup>(a)</sup>	Australia	Generation and Supply of Electricity	
EnergyAustralia Pty Ltd	3,368,686,988 ordinary shares of A\$1 each	<b>100</b> <sup>(a)</sup>	100 <sup>(a)</sup>	Australia	Retailing of Electricity and Gas	
EnergyAustralia NSW Pty Ltd	2 ordinary shares of A\$1 each	<b>100</b> <sup>(a)</sup>	100 <sup>(a)</sup>	Australia	Generation of Electricity	

# 32. Subsidiaries (continued)

	Issued Share Capital /	% of Ow Interest 31 Dece	at	Place of Incorporation /	
Name	Registered Capital	2018	2017	Business	Principal Activity
CLP India Private Limited (Note 26(B))	2,842,691,612 equity shares of Rs10 each	<b>60</b> <sup>(a)</sup>	100 <sup>(a)</sup>	India	Generation of Electricity and Power Projects Investment Holding
Jhajjar Power Limited (Note 26(B))	20,000,000 equity shares of Rs10 each; 2,324,882,458 compulsory convertible preference shares of Rs10 each	<b>60</b> <sup>(a)</sup>	100 <sup>(a)</sup>	India	Generation of Electricity
CLP Sichuan (Jiangbian) Power Company Limited <sup>(b)</sup>	RMB496,380,000	<b>100</b> <sup>(a)</sup>	100 <sup>(a)</sup>	Mainland China	Generation of Electricity
Guangdong Huaiji Changxin Hydro-electric Power Company Limited <sup>(c)</sup>	RMB69,098,976	<b>84.9</b> <sup>(a)</sup>	84.9 <sup>(a)</sup>	Mainland China	Generation of Electricity
Guangdong Huaiji Gaotang Hydro-electric Power Company Limited <sup>(c)</sup>	RMB249,430,049	<b>84.9</b> <sup>(a)</sup>	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	<b>84.9</b> <sup>(a)</sup>	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>	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

# 32. Subsidiaries (continued)

Summarised financial information of CAPCO and CLP India, which have material non-controlling interests, is set out below:

	CLP India (note)	CAP	0	
	2018	2018	2017	
	HK\$M	HK\$M	HK\$M	
Results for the year				
Revenue	5,269	17,232	16,105	
Profit for the year	128	3,061	3,168	
Other comprehensive income for the year	(725)	(16)	44	
Total comprehensive income for the year	(597)	3,045	3,212	
Dividends paid to non-controlling interests	-	964	952	
Net assets				
Non-current assets	11,764	32,235	30,000	
Current assets	3,416	7,517	8,966	
Current liabilities	(2,244)	(10,366)	(11,364)	
Non-current liabilities	(4,721)	(11,579)	(9,563)	
Non-controlling interest	(99)	-	-	
	8,116	17,807	18,039	
		,		
Cash flows				
Net cash inflow from operating activities	1,638	3,502	3,235	
Net cash outflow from investing activities	(398)	(659)	(3,795)	
Net cash (outflow) / inflow from financing activities	(1,121)	(2,971)	688	
Net increase / (decrease) in cash and cash equivalents	119	(128)	128	
		(123)	120	

Note: CDPQ Infrastructures commenced to share the results of CLP India since 28 December 2018.

# 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. 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, the Group 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. The SoC Companies use 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. The SoC Companies also use 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:

	2018 HK\$M	2017 HK\$M
Increase / (decrease) in the cash flow hedge reserve		
Hong Kong dollar against US dollar		
If Hong Kong dollar weakened by 0.6% (2017: 0.6%)	83	70
If Hong Kong dollar strengthened by 0.6% (2017: 0.6%)	(83)	(70)
Hong Kong dollar against Euro		
If Hong Kong dollar weakened by 6% (2017: 3%)	16	21
If Hong Kong dollar strengthened by 6% (2017: 3%)	(16)	(21)

#### 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 2018, the Group's net investment subject to translation exposure was HK\$69,654 million (2017: HK\$69,454 million), arising mainly from our investments in Mainland China, India, Southeast Asia and Taiwan and Australia. This means that, for each 1% (2017: 1%) average foreign currency movement, our translation exposure will vary by about HK\$697 million (2017: HK\$695 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 the SoC Companies) 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:

	2018 HK\$M	2017 HK\$M
US dollar		
If US dollar strengthened by 5% (2017: 5%)		
Post-tax profit for the year	52	48
Equity – cash flow hedge reserve	46	58
If US dollar weakened by 5% (2017: 5%)		
Post-tax profit for the year	(52)	(48)
Equity – cash flow hedge reserve	(46)	(58)
Renminbi		
If Renminbi strengthened by 2% (2017: 3%)		
Post-tax profit for the year	19	29
Equity – cash flow hedge reserve	-	-
If Renminbi weakened by 2% (2017: 3%)		
Post-tax profit for the year	(19)	(29)
Equity – cash flow hedge reserve	-	

#### **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 purchases and sells the majority of its electricity through the pool, at the same time EnergyAustralia enters into electricity spot-price-linked derivative financial instruments (forward contracts) to manage the spot electricity price risk against forecast retail and generation exposures.

The gas market is a balancing market. To meet retail demand, EnergyAustralia procures gas supply agreements from various gas producers. The contract price of certain agreements comprising a fixed component, and a variable component that is 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 (2017: 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 2018 was HK\$640 million (2017: HK\$573 million). The change in the risk measure is the result of higher forward prices and increase in volatility of energy market.

#### Interest rate risk

The Group's interest rate risk arises from 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 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.

#### Interest rate risk (continued)

	2018 HK\$M	2017 HK\$M
Hong Kong dollar		
If interest rates were 1% (2017: 0.7%) higher		
Post-tax profit for the year	(110)	(95)
Equity – cash flow hedge reserve	-	-
lf interest rates were 1% (2017: 0.7%) lower		
Post-tax profit for the year	110	95
Equity – cash flow hedge reserve	-	
Indian rupee		
If interest rates were 1% (2017: 1%) higher		
Post-tax profit for the year	(10)	(11)
Equity – cash flow hedge reserve	-	-
If interest rates were 1% (2017: 1%) lower		
Post-tax profit for the year	10	11
Equity – cash flow hedge reserve	-	
US dollar		
lf interest rates were 0.5% (2017: 0.7%) higher		
Post-tax profit for the year	-	-
Equity – cash flow hedge reserve	31	33
If interest rates were 0.5% (2017: 0.7%) lower		
Post-tax profit for the year	-	-
Equity – cash flow hedge reserve	(27)	(33)

#### **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.

#### **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.

#### Liquidity risk (continued)

The table below analyses the remaining contractual maturities at the end of the reporting period of the Group's nonderivative 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	Between	Between	0	
		1 and	2 to	Over E voars	Total
	1 year HK\$M	2 years HK\$M	5 years HK\$M	5 years HK\$M	HK\$M
			Πιτφι-ι	Πιζι	They have been seen as the second sec
At 31 December 2018					
Non-derivative financial liabilities					
Bank loans	12,751	4,377	4,961	4,562	26,651
Other borrowings	2,691	5,110	10,321	19,894	38,016
Customers' deposits	5,476	-	-	-	5,476
Fuel clause account	901	-	-	-	901
Trade and other payables	15,987	-	-	-	15,987
SoC reserve accounts	-	-	-	998	998
Asset decommissioning liabilities				991	991
	37,806	9,487	15,282	26,445	89,020
Derivative financial liabilities – net settled					
Interest rate swaps	26	18	37	29	110
Energy contracts	1,132	380	276	301	2,089
	1,158	398	313	330	2,199
Derivative financial liabilities – gross settled					
Gross contractual amounts payable					
Forward foreign exchange contracts	13,312	238	570	9	14,129
Cross currency interest rate swaps	1,524	528	5,771	11,952	19,775
	14,836	766	6,341	11,961	33,904
Gross contractual amounts receivable					
Forward foreign exchange contracts	(13,283)	(230)	(582)	(9)	(14,104)
Cross currency interest rate swaps	(1,398)	(458)	(5,073)	(11,812)	(18,741)
closs carrency meres rate swaps	(14,681)	(688)	(5,655)	(11,821)	(32,845)
Net payable	155	78	686	140	1,059
Derivative financial assets – gross settled					
Gross contractual amounts payable					
Forward foreign exchange contracts	10,867	735	481	-	12,083
Cross currency interest rate swaps	250	4,017	2,431	370	7,068
	11,117	4,752	2,912	370	19,151
Gross contractual amounts receivable					
Forward foreign exchange contracts	(10,946)	(1,025)	(642)	-	(12,613)
Cross currency interest rate swaps	(299)	(4,089)	(2,443)	(467)	(7,298)
	(11,245)	(5,114)	(3,085)	(467)	(19,911)
Net receivable	(128)	(362)	(173)	(97)	(760)
Total payable / (receivable)	27	(284)	513	43	299

# Liquidity risk (continued)

		Between	Between		
	Within	1 and	2 to	Over	
	1 year	2 years	5 years	5 years	Total
	HK\$M	HK\$M	ΗK\$M	HK\$M	HK\$M
At 31 December 2017					
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	15,869	-	-	-	15,869
SoC reserve accounts	-	-	-	977	977
Asset decommissioning liabilities				860	860
	33,742	6,073	19,423	30,044	89,282
Derivative financial liabilities – net settled					
Interest rate swaps	38	27	43	30	138
Energy contracts	940	284	293	214	1,731
	978	311	336	244	1,869
Derivative financial liabilities – gross settled					
Gross contractual amounts payable					
Forward foreign exchange contracts	297	5,909	166	-	6,372
Cross currency interest rate swaps	462	498	3,033	14,598	18,591
	759	6,407	3,199	14,598	24,963
Gross contractual amounts receivable					
Forward foreign exchange contracts	(293)	(5,885)	(161)	-	(6,339)
Cross currency interest rate swaps	(436)	(437)	(2,417)	(14,222)	(17,512)
	(729)	(6,322)	(2,578)	(14,222)	(23,851)
Net payable	30	85	621	376	1,112
Derivative financial assets – gross settled					
Gross contractual amounts payable					
Forward foreign exchange contracts	17,038	428	1,763	342	19,571
Cross currency interest rate swaps	1,289	316	6,503	831	8,939
	18,327	744	8,266	1,173	28,510
Gross contractual amounts receivable					
Forward foreign exchange contracts	(17,206)	(461)	(1,948)	(414)	(20,029)
Cross currency interest rate swaps	(1,409)	(415)	(6,636)	(850)	(9,310)
	(18,615)	(876)	(8,584)	(1,264)	(29,339)
Net receivable	(288)	(132)	(318)	(91)	(829)
Total (receivable) / payable	(258)	(47)	303	285	283

## 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.

#### Hedges on non-debt related transactions

The SoC Companies use forward contracts to manage its foreign exchange risk arising from fuel and nuclear purchases obligations, and payments for major capital projects. The SoC Companies hedge a high portion of highly probable forecast transactions.

EnergyAustralia uses forward electricity contracts and oil-price-linked forward contracts to mitigate exposures arising from the fluctuations in electricity and oil spot price embedded in gas contracts. In most of the cases, the hedging instruments have a one-to-one hedge ratio with the hedged items.

# 2. Hedge Accounting (continued)

#### 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 2018 and 2017.

			Favoural	ble /	Undering		Amount recla: cash flow hedg credited / (cl profit o	e reserve and harged) to
	Notional amount of	Carrying amount of hedging instrument	(Unfavour changes in fa used for me ineffective	ir value asuring	Hedging (gains)/ losses recognised in cash flow	Hedge	Hedged items affected	Hedged future cash flows no longer
he instrur	hedging instruments HK\$M	assets / (liabilities) HK\$M	Hedging instruments HK\$M	Hedged items HK\$M	in cash flow i hedge reserve HK\$M	recognised in profit or loss <sup>(a</sup> HK\$M	profit or	expected to occur <sup>(a)</sup> HK\$M
At 31 December 2018								
Debt related transactions								
Interest rate risk <sup>(b)</sup>	24,259	(542)	(41)	38	41	-	34	-
Foreign exchange risk	1,608	35	145	(145)	(145)	-	141	-
Non-debt related transactions								
Foreign exchange risk	17,600	19	105	(105)	(105)	-	153	-
Energy portfolio risk – electricity	33,971	123	(40)	40	40	-	26	-
Energy portfolio risk – gas	2,244	14	166	(166)	(166)	-	373	-
At 31 December 2017								
Debt related transactions								
Interest rate risk (b)	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	-	-	-

	Notional	Carrying	Accumulated fair value hedge adjustments included in	Favourable / (Unf changes in fai used for mea ineffective	ir value Isuring	Hedge
Fair Value Hedges	amount of hedging instruments HK\$M	amount of hedged items HK\$M	carrying amount of hedged items HK\$M	Hedging instruments HK\$M	Hedged items HK\$M	ineffectiveness credited to finance costs HK\$M
At 31 December 2018 Debt related transactions Interest rate risk <sup>(b)</sup>	6,963	(6,639)	299	(141)	143	(2)
At 31 December 2017 Debt related transactions Interest rate risk <sup>(b)</sup>	5,981	(5,797)	156	61	(58)	(3)

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)

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> HK\$M	Foreign exchange risk HK\$M	Energy portfolio risk HK\$M	Total HK\$M
Balance at 1 January 2017	357	1	578	936
Hedging gains / (losses)	225	(15)	(231)	(21)
Reclassification to profit or loss				
Hedged items affect profit or loss	(463)	193	(129)	(399)
Transfer to hedged assets	-	4	-	4
Related deferred tax	39	(29)	108	118
Balance at 31 December 2017	158	154	326	638
Balance at 1 January 2018	158	154	326	638
Hedging (losses) / gains	(41)	250	126	335
Reclassification to profit or loss				
Hedged items affect profit or loss	(34)	(294)	(399)	(727)
Transfer to hedged assets	-	(74)	-	(74)
Related deferred tax	18	17	82	117
Exchange difference	136		(51)	85
Balance at 31 December 2018	237	53	84	374

Costs of Hedging Reserves	Time value of options reserve HK\$M	Forward element reserve HK\$M	Foreign currency basis spread reserve HK\$M	Total HK\$M
Balance at 1 January 2017	3	14	64	81
Changes due to transaction related hedged items				
Fair value losses	-	-	(24)	(24)
Reclassification to profit or loss	-	-	(3)	(3)
Changes due to time-period related hedged items				
Fair value losses	(9)	(72)	(182)	(263)
Amortisation to profit or loss	15	72	18	105
Related deferred tax	(2)	-	31	29
Balance at 31 December 2017	7	14	(96)	(75)
Balance at 1 January 2018	7	14	(96)	(75)
Changes due to transaction related hedged items				
Fair value losses	-	-	(40)	(40)
Reclassification to profit or loss	-	-	22	22
Transfer to hedged assets	-	-	(3)	(3)
Changes due to time-period related hedged items				
Fair value (losses) / gains	(8)	(60)	41	(27)
Amortisation to profit or loss	11	58	13	82
Related deferred tax	(1)	1	(5)	(5)
Exchange difference	(4)	(11)		(15)
Balance at 31 December 2018	5	2	(68)	(61)

#### 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)

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>(note)</sup> HK\$M	Level 3 <sup>(note)</sup> HK\$M	Total HK\$M
At 31 December 2018	יינאח	пқум	пқэм	пқам
Financial assets				
	265		35	300
Equity investments	205	325	22	300
Forward foreign exchange contracts Foreign exchange options	-	325	-	325
	-	150	-	150
Cross currency interest rate swaps	-	123	-	123
Interest rate swaps	-		-	
Energy contracts		468	702	1,170
	265	1,097	737	2,099
Financial liabilities				
Forward foreign exchange contracts	_	89	-	89
Cross currency interest rate swaps	_	1,222	-	1,222
Interest rate swaps	_	107	-	107
Energy contracts	625	403	363	1,391
	625	1,821	363	2,809
At 31 December 2017				
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
	302	1,854	286	2,442
Financial liabilities				
Forward foreign exchange contracts		159	_	159
Cross currency interest rate swaps	_	1.079	_	1.079
Interest rate swaps	_	169	_	1,079
Energy contracts	232	578	212	1,022
	232	1,985	212	2,429

# 3. Fair Value Estimation and Hierarchy of Financial Instruments (continued)

Note: The valuation technique and inputs used in the fair value measurements within Level 2 and Level 3 are as follows:

Valuation Technique	Significant Inputs
Discounted cash flow	Observable exchange rates
Garman Kohlhagen Model	Observable exchange rates, interest rates and volatility levels
Discounted cash flow	Observable exchange rates and swap rates of respective currency
Discounted cash flow	Observable swap rates of respective currency
Discounted cash flow	Brokers' quotes and observable exchange traded swap and cap price curve; and long term forward electricity price and cap price curve
	Discounted cash flow Garman Kohlhagen Model Discounted cash flow Discounted cash flow

The significant unobservable inputs of energy contracts used for fair value measurement included long term forward electricity price and cap price curve. 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 2018 and 2017, 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	2018 Energy Contracts HK\$M	Total HK\$M	Equity Investments HK\$M	2017 Energy Contracts HK\$M	Total HK\$M
Opening balance	47	27	74	1,225	(59)	1,166
Total gains/(losses) recognised in						
Profit or loss and presented in						
fuel and other operating expenses <sup>(a)</sup>	-	125	125	-	386	386
Other comprehensive income	-	633	633	(280)	(4)	(284)
Purchase	-	-	-	15	-	15
Sales	(12)	-	(12)	(913)	-	(913)
Settlements	-	(428)	(428)	-	(296)	(296)
Transfer out of Level 3 <sup>(b)</sup>		(18)	(18)			
Closing balance	35	339	374	47	27	74

Notes:

(a) 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\$77 million (2017: HK\$482 million).

(b) During 2018, the transfer of certain energy contracts out of Level 3 is because certain observable significant inputs are used in the fair value measurement instead of those unobservable ones used previously.

At 31 December 2018 and 2017, the valuation of long tenure energy contracts is sensitive to electricity pool price assumptions. A favourable and unfavourable change of 15% (2017: 15%) would cause the fair values to rise by HK\$596 million (2017: HK\$547 million) and decline by HK\$577 million (2017: HK\$548 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 presented in the respective line HK\$M	Financial instruments HK\$M	Financial instrument collateral HK\$M	Net amount <sup>(a)</sup> HK\$M	
At 31 December 2018							
Financial assets Bank balances, cash and other liquid funds Trade and other receivables Derivative financial instruments	398 4,766 	- (1,198) (1,198)	398 4,766 6,555	(398) (2,649) (206) <sup>(b)</sup> (3,253)	- (2,117) - (2,117)	- - 1,185 1,185	
Financial liabilities							
Customers' deposits Bank loans and other borrowings Derivative financial instruments	5,474 11,759 3,908	- - (1,198)	5,474 11,759 2,710	(2,117) - (206) <sup>(b)</sup>	_ (3,047) _	3,357 8,712 2,504	
	21,141	(1,198)	19,943	(2,323)	(3,047)	14,573	
At 31 December 2017 Financial assets							
Bank balances, cash and other liquid funds Trade and other receivables Derivative financial instruments	347 4,884 2,270	- - (634)	347 4,884 1,636	(347) (3,000) (307) <sup>(b)</sup>	- (1,884) -	- - 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 Derivative financial instruments	11,512 2,905	- (634)	11,512 2,271	(307) <sup>(b)</sup>	(3,347)	8,165 1,964	
	·		· · · ·		- (2.2.47)		
	19,635	(634)	19,001	(2,191)	(3,347)	13,463	

#### 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 group 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 2018 and 2017.

The Group monitors capital using "total debt to total capital" and "net debt to total capital" ratios. These ratios are as follows:

	2018 HK\$M	2017 HK\$M
Total debt <sup>(a)</sup>	55,298	57,341
Net debt <sup>(b)</sup>	43,172	47,411
Total equity <sup>(c)</sup>	126,454	123,021
Total capital (based on total debt) <sup>(d)</sup>	181,752	180,362
Total capital (based on net debt) <sup>(e)</sup>	169,626	170,432
Total debt to total capital (based on total debt) ratio (%)	30.4	31.8
Net debt to total capital (based on net debt) ratio (%)	25.5	27.8

Decrease in net debt to total capital mainly related to strong financial performance and proceeds received from the sale of interests in CLP India and CGN Wind Power Company Limited.

Certain entities of the Group are subject to loan covenants. For both 2018 and 2017, 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 SoC Agreement which took effect from 1 October 2008 (2008 SoC) expired on 30 September 2018. The new SoC Agreement signed on 25 April 2017 between the SoC Companies and the Hong Kong Government immediately became effective 1 October 2018 (2018 SoC) for a term of over 15 years ending on 31 December 2033.

The 2018 SoC contains key principles that are similar to the 2008 SoC, including the 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. The Fuel Cost Adjustment may be adjusted 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.

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 2008 SoC and 2018 SoC are calculated as follows:

- The annual permitted return under the 2008 SoC is 9.99% of the SoC Companies' average net fixed assets other than renewable energy investments and 11% for renewable energy investments. Under the 2018 SoC, the annual permitted return is 8% of the SoC Companies' average net fixed assets.
- The net return under the SoC is the permitted return after the deduction or adjustment of the following items:
  - (a) interest on borrowed capital arranged for financing fixed assets, up to a maximum of 8% per annum under 2008 SoC; and 7% per annum under 2018 SoC;
  - (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, which under the 2008 SoC is 9.99% less an allowed interest charge up to 8% per annum on the average excess capacity expenditure being 50% of related fixed asset value; and under the 2018 SoC is 8% less an allowed interest charge up to 7% per annum on the average excess capacity expenditure being 100% of related fixed asset value;
  - (d) interest on the increase in average balance of the customers' deposits in excess of the balance as at 30 September 1998, up to 8% per annum under the 2008 SoC; and up to 7% per annum under the 2018 SoC; and
  - (e) performance-linked incentives / penalties adjustments

	2008 SoC	2018 SoC
Operation performance related incentives / penalties	in the range of -0.03% to +0.03% on the average net fixed assets	in the range of -0.05% to +0.05% on average net fixed assets with more stringent targets and additional category for grid supply restoration
Energy efficiency and renewable performance incentives	a maximum of 0.07% on average net fixed assets	• a maximum of 0.315% on average net fixed assets
		<ul> <li>new incentive of 10% of renewable energy certificates sales revenue</li> </ul>
		<ul> <li>five-year energy saving and renewable energy connections incentives with a maximum of 0.11% on the average net fixed assets at the final year of the five year period</li> </ul>
Demand response reduction incentive	-	a maximum of 0.025% on average net fixe assets

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.

Starting from year 2014, non-refundable contributions were made by the SoC Companies from the energy efficiency incentives earned under the 2008 SoC to an Energy Efficiency Fund (EEF) to promote energy saving for buildings. Under the 2018 SoC, 65% of the energy efficiency incentives earned are to be contributed to a CLP Community Energy Saving Fund (CESF) to support programmes in promotion of energy efficiency, use of renewable energy, the disadvantaged groups and other programmes as agreed with the Hong Kong Government.

The calculations shown on next page are in accordance with the SoC and the agreements between the SoC Companies.

	Period from 1 October to 31 December 2018 HK\$M	9 months ended 30 September 2018 HK\$M	12 months ended 31 December 2017 HK\$M
SoC revenue	9,063	32,023	39,259
Expenses Operating costs Fuel Purchases of nuclear electricity Provision for asset decommissioning	1,149 3,081 979 (88)	3,385 10,021 4,564 219	4,405 11,901 5,380 (56)
Depreciation Operating interest Taxation	1,153 246 412	3,778 750 1,589	4,706 994 1,989
	6,932	24,306	29,319
Profit after taxation Interest on increase in customers' deposits Interest on borrowed capital Adjustment for performance incentives	2,131 1 266 (89)	7,717 - 789 (16)	9,940 - 976 (54)
Adjustment required under the SoC (being share of profit on sale of electricity to Mainland China attributable to the SoC Companies)	-	(43)	(79)
Profit for SoC Transfer (to) / from Tariff Stabilisation Fund	2,309 (56)	8,447 (135)	10,783 42
Permitted return	2,253	8,312	10,825
Deduct interest on / Adjustment for Increase in customers' deposits as above Borrowed capital as above Performance incentives as above Tariff Stabilisation Fund to Rate Reduction Reserve	1 266 (89) 4	- 789 (16) 7	- 976 (54) 4
	182	780	926
Net return CESF/EEF contribution	2,071 (48)	7,532 (16)	9,899 (22)
Net return after CESF / EEF contribution	2,023	7,516	9,877
Divisible as follows: CLP Power Hong Kong CAPCO	1,369 654 2,023	5,149 2,367 7,516	6,763 3,114 9,877
CLP Power Hong Kong's share of net return after CESF/EEF contribution CLP Power Hong Kong Interest in CAPCO	1,369 458 1,827	5,149 1,656 6,805	6,763 8,943

# Five-year Summary: CLP Group Statistics

# Economic

	2018	2017	2016	2015	2014
Consolidated Operating Results, HK\$M					
Revenue					
Hong Kong electricity business	40,872	39,485	37,615	38,488	35,303
Energy businesses outside Hong Kong	49,793	52,101	41,459	41,757	56,633
Others	760	487	360	455	323
Total	91,425	92,073	79,434	80,700	92,259
Earnings					
Hong Kong electricity business	8,558	8,863	8,640	8,260	7,777
Hong Kong electricity business related	227	335	203	206	71
Mainland China	2,163	1,238	1,521	1,977	1,579
India	572	647	469	614	270
Southeast Asia and Taiwan	162	160	274	312	297
Australia	3,302	2,738	1,849	836	756
Other earnings in Hong Kong	(92)	(65)	62	(60)	(66)
Unallocated net finance (costs) / income	(54)	(2)	33	17	(36)
Unallocated Group expenses	(856)	(607)	(717)	(643)	(586)
Operating earnings	13,982	13,307	12,334	11,519	10,062
Sales of investments / gains on acquisitions	-	-	-	6,619	1,953
Impairment and provision reversal	(450)	-	(203)	(1,723)	(1,736)
Property revaluation and transaction	18	369	497	99	245
Reversal of tax provision and tax credit	-	573	83	-	545
Other items affecting comparability from Australia	-			(858)	152
Total	13,550	14,249	12,711	15,656	11,221
Dividends	7,630	7,352	7,074	6,822	6,619
Depreciation and amortisation, owned and leased assets	8,005	7,368	6,909	6,765	6,791
Consolidated Statement of Financial Position, HK\$M					
SoC fixed assets	113,295	109,824	106,886	104,479	101,420
Other fixed assets	34,650	33,914	32,535	31,533	34,963
Goodwill and other intangible assets	26,910	29,087	27,653	28,257	31,129
Interests in joint ventures	9,674	10,383	9,971	11,250	11,176
Interests in associates	7,746	8,081	813	785	786
Other non-current assets	2,739	3,152	4,837	5,385	9,664
Current assets Total assets	35,500 230,514	<u> </u>	23,538	22,284	25,525 214,663
Shareholders' funds	109,053	108,697	98,010	93,118	88,013
Perpetual capital securities	5,791	5,791	5,791	5,791	5,791
Other non-controlling interests	10,088	7,019	1,972	2,023	2,155
Equity	124,932	121,507	105,773	100,932	95,959
Bank loans and other borrowings	55,298	57,341	51,646	55,483	67,435
SoC reserve accounts	998	977	860	1,009	1,131
Other current liabilities	28,099	27,962	26,944	25,107	27,772
Other non-current liabilities	21,187	20,364	21,010	21,442	22,366
Total liabilities	105,582	106,644	100,460	103,041	214 662
Equity and total liabilities	230,514	228,151	206,233	203,973	214,663

#### A <u>ten-year summary</u> is on our website.



	2018	2017	2016	2015	2014
Consolidated Statement of Cash Flows, HK\$M					
Funds from operations	26,584	26,506	25,353	20,994	23,431
Net cash inflow from operating activities	23,951	24,417	23,676	19,168	21,966
Net cash (outflow) / inflow from investing activities	(11,259)	(16,735)	(8,296)	1,066	(18,683)
Net cash outflow from financing activities	(11,505)	(5,863)	(14,288)	(20,505)	(3,904)
Capital expenditure, owned and leased assets	(10,327)	(9,538)	(9,756)	(10,871)	(9,192)
Per Share Data, HK\$					
Shareholders' funds per share	43.16	43.02	38.79	36.86	34.84
Earnings per share	5.36	5.64	5.03	6.20	4.44
Dividends per share	3.02	2.91	2.80	2.70	2.62
Closing share price					
Highest	96.95	85.30	83.90	69.75	68.00
Lowest	75.35	72.55	62.45	62.20	56.30
As at year-end	88.50	79.95	71.25	65.85	67.25
Ratios					
Return on equity, %	12.4	13.8	13.3	17.3	12.8
Operating return on equity, %	12.8	12.9	12.9	12.7	11.5
Total debt to total capital, %	30.4	31.8	31.5	34.0	39.6
Net debt to total capital, %	25.5	27.8	29.5	32.4	38.0
EBIT interest cover, times	10	11	10	10	6
Price/Earnings, times	17	14	14	11	15
Dividend yield, %	3.4	3.6	3.9	4.1	3.9
Dividend cover, times	1.8	1.8	1.7	1.7	1.5
Dividend pay-out, %					
Total earnings	56.3	51.6	55.7	43.5	59.0
Operating earnings	54.6	55.2	57.4	59.2	65.8
Total returns to shareholders <sup>1</sup> , %	9.6	8.4	6.4	8.4	8.8
Group Generation Capacity <sup>2</sup>					
(owned/operated/under construction), MW					
<ul> <li>by region</li> </ul>					
Hong Kong	7,543	7,483	7,483	6,908	6,908
Mainland China	7,869	7,985	7,181	7,072	6,740
India	1,796	2,948	2,978	3,048	3,056
Southeast Asia and Taiwan	285	285	285	285	285
Australia	4,478	4,505	4,505	4,505	4,533
	21,971	23,206	22,432	21,818	21,522
– by status					
Operational	21,127	22,118	21,560	20,336	20,176
Construction	844	1,088	872	1,482	1,346
	21,971	23,206	22,432	21,818	21,522
					-

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) Ecogen (2014 to 2017) on 100% as having right to use; and (c) other stations (including Ecogen in 2018) on the proportion of the Group's equity interests.

#### **Environmental**<sup>1</sup>

Performance Indicators	Units	2018	2017	2016	2015	2014	GRI Standard	HKEx ESG Reporting Guide Reference
Resource Use & Emissions <sup>2</sup> Coal consumed (for power generation) Gas consumed (for power generation) Oil consumed (for power generation)	TJ TJ TJ	521,568 83,359 3,774	471,976 91,426 5,069	453,904 86,787 4,162	450,937 95,591 2,892	541,865 63,268 2,345	302-1 302-1 302-1	A2.1 A2.1 A2.1
Carbon dioxide equivalent (CO <sub>2</sub> e) emissions from power generation (Scopes 1 & 2) Carbon dioxide (CO <sub>2</sub> ) emissions from power generation (Scopes 1 & 2) <sup>3</sup>	kT kT	52,304 52,048	48,082 47,921	46,681 46,518	46,723 46,553	53,258 53,044	305-1 305-2	A1.2
Nitrogen oxides (NO <sub>2</sub> ) emissions Sulphur dioxide (SO <sub>2</sub> ) emissions Total particulates emissions	kT kT kT	60.9 76.1 8.5	59.3 81.6 8.3	58.1 71.2 8.5	56.3 63.4 9.8	74.6 93.0 11.5	305-7 305-7 305-7	A1.1 A1.1 A1.1
Water withdrawal from marine water resources from freshwater resources from municipal sources	Mm <sup>3</sup> Mm <sup>3</sup> Mm <sup>3</sup>	5,087.3 59.3 7.1	4,421.7 52.6 6.5	4,202.3 48.2 6.5	4,447.6 48.8 6.6	4,774.5 52.9 6.6	303-1	A2.2
Total Water discharged cooling water to marine water bodies treated wastewater to marine water bodies treated wastewater to freshwater bodies wastewater to sewerage wastewater to other destinations	Mm <sup>3</sup> Mm <sup>3</sup> Mm <sup>3</sup> Mm <sup>3</sup> Mm <sup>3</sup> Mm <sup>3</sup>	5,153.7 5,087.3 1.6 12.3 1.8 0.1	4,480.8 4,421.7 1.6 12.3 1.9 0.2	4,257.0 4,202.3 1.5 13.6 1.6 0.2	4,503.0 4,447.6 1.1 12.6 1.6 0.1	4,834.0 4,774.5 1.3 14.5 1.8 0.1	306-1	
Total Hazardous waste produced⁴	Mm³ T (solid)/kl (liquid)	5,103.1 1,435/1,685	4,437.7 857/1,420	4,219.2	4,463.0 641/2,832	4,792.2 484/2,783	306-2	A1.3
Hazardous waste recycled <sup>4</sup> Non-hazardous waste produced <sup>4</sup> Non-hazardous waste recycled <sup>4</sup>	T (solid)/kl (liquid) T (solid)/kl (liquid) T (solid)/kl (liquid)	631/1,648 11,471/52 3,990/52	469/1,384 20,334/103 3,790/103	260/1,149 8,317/84 2,963/84	203/1,176 11,455/199 4,414/199	89/1,463 21,142/78 4,172/78	306-2 306-2 306-2	A1.4
Environmental regulatory non-compliances resulting in fines or prosecutions Environmental licence limit exceedances & other non-compliances Climate Vision 2050 Target Performance <sup>1,3</sup>	number number	0 2	0 13	0 2	1	1	307-1 307-1	
on equity basis <sup>5</sup> Carbon dioxide emissions intensity of CLP Group's generation portfolio Total renewable energy generation capacity Non-carbon emitting generation capacity on equity & long-term capacity and energy purchase basis <sup>5,6</sup>	kg CO2 / kWh % (MW) % (MW)	0.74 12.5 (2,387) 20.9 (3,987)	0.80 14.2 (2,751) 22.4 (4,350)	0.82 16.6 (3,090) 19.2 (3,582)	0.81 16.8 (3,051) 19.5 (3,543)	0.84 14.1 (2,660) 16.7 (3,152)	305-4	A1.2
Carbon dioxide emissions intensity of CLP Group's generation portfolio Total renewable energy generation capacity Non-carbon emitting generation capacity	kg CO₂/kWh % (MW) % (MW)	0.66 12.8 (3,039) 24.1 (5,724)	0.69 13.1 (3,211) 23.2 (5,699)	0.72 14.9 (3,551) 20.7 (4,931)	N/A N/A N/A	N/A N/A N/A	305-4	A1.2

Notes:

1 Environmental data rounded by asset before aggregation.

2 Covers operating assets where CLP has operational control at some point during the calendar year. Jeeralang and Newport, acquired by EnergyAustralia in April 2018, were not included in the 2018 data points. They will be included in the scope for 2019 reporting.

3 CO<sub>2</sub> emissions of Yallourn and Hallett assets were used in 2018. Prior to 2018, CO<sub>2</sub>e emissions of these assets were used.

4 Waste categorised in accordance with local regulations.

5 "Equity basis" includes all majority and minority share assets in the CLP Group portfolio.

6 Starting in 2018, "long-term capacity and energy purchase" is defined as a purchase agreement with duration of at least five years, and capacity or energy purchased being no less than 10MW.

#### All 2018 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 more detailed narrative on the "Environmental, Social and Governance" related performance indicators, please refer to Capitals chapters and the Corporate Governance Report of this Annual Report.

#### Social

Performance Indicators	Units	2018	2017	2016	2015	2014	GRI Standard	HKEx ESG Reporting Guide Reference
	011103	2018	2017	2010	2013	2014		Reference
Employees Employees based on geographical location							102-7	B1.1
Hong Kong	number	4,538	4.504	4.450	4.438	4,405	102-7	D I. I
Mainland China	number	4,556	4,504	4,450	4,430	4,405		
Australia	number	2,042	1,998	1,983	1,998	2,143		
India	number	458	463	435	397	359		
Total	number	7,634	7,542	7,428	7,360	7,387	-	
	number	1,004	1,542	1,420	1,500	1,501	-	
Employees eligible to retire within the next five years <sup>7</sup>	0/	20.0%	18.6%	17.3%	16 20/	45 40/	EU15	
Hong Kong Mainland China	%	20.0%	18.6%		16.2% 11.9%	15.4%		
Australia	% %	13.2% 4.0%	10.6%	12.1% 11.4%	10.9%	11.1% 9.2%		
India	%	4.0% 12.8%	2.4%	0.9%	0.8%	9.2% 1.4%		
							-	
Total	%	16.4%	15.1%	14.1%	13.3%	12.4%		
Voluntary staff turnover rate <sup>8,9</sup>							401-1	B1.2
Hong Kong	%	2.3%	1.9%	2.3%	2.8%	2.6%		
Mainland China	%	4.7%	3.0%	3.4%	2.6%	2.5%		
Australia	%	13.6%	13.8%	12.6%	13.7%	11.6%		
India	%	5.6%	3.5%	8.4%	9.8%	13.2%		
Training per employee 10	average hours	46.1	46.9	49.2	57.2	43.4	404-1	B3.2
Safety <sup>11</sup>							•	
Fatalities (employees only) <sup>12</sup>	number	1	0	0	0	0	403-2	B2.1
Fatalities (contractors only) <sup>12</sup>	number	1	4	3	0	1	403-2	B2.1
Fatality Rate (employees only)13	rate	0.01	0.00	0.00	0.00	0.00	403-2	B2.1
Fatality Rate (contractors only) <sup>13</sup>	rate	0.01	0.03	0.02	0.00	0.01	403-2	B2.1
Lost Time Injury (employees only) <sup>14</sup>	number	11	11	3	8	4	403-2	
Lost Time Injury (contractors only) <sup>14</sup>	number	11	16	10	8	19	403-2	
Lost Time Injury Rate (employees only) <sup>13,14</sup>	rate	0.13	0.13	0.04	0.10	0.05	403-2	
Lost Time Injury Rate (contractors only) 13, 14	rate	0.09	0.14	0.07	0.06	0.15	403-2	
Total Recordable Injury Rate (employees only) <sup>13,15</sup>	rate	0.19	0.21	0.11	0.18	0.26	403-2	
Total Recordable Injury Rate (contractors only) <sup>13,15</sup>	rate	0.29	0.36	0.1917	0.28	0.51	403-2	
Days lost (employees only) <sup>14, 16</sup>	number	253	252	9	199	105	403-2	B2.2
Governance								
Convicted cases of corruption	cases	0	0	0	0	0	205-3	B7.1
Breaches of Code of Conduct	cases	20	28	21	6	7		

Notes:

7 The percentages given refer to full-time permanent staff within each location, who are eligible to retire within the next five years.

8 Voluntary turnover is employees leaving the organisation voluntarily and does not include dismissal, retirement, separation under a separation scheme or end of contract.

9 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.

10 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.

11 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.

12 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.

13 All rates are normalised to 200,000 worked hours, which approximately equals to the number of hours worked by 100 people in one year.

14 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.

15 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.

16 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.

17 A first aid case at CLP Power Hong Kong in 2016 was reclassified to a medical treatment case.

All 2018 data on this page have been independently verified by PricewaterhouseCoopers **except** those numbers which are shaded in grey.

# Five-year Summary: Scheme of Control Financial & Operating Statistics CLP Power Hong Kong Limited and Castle Peak Power Company Limited

	2018	2017	2016	2015	2014
SoC Financial Statistics Combined Profit & Loss Statement, HK\$M					
Profit for SoC	10,756	10,783	10,407	10,162	10,988
Transfer (to) / from Tariff Stabilisation Fund	(191)	42	151	124	(1,030)
Permitted return	10,565	10,825	10,558	10,286	9,958
Less: Interest on / Adjustment for					
Borrowed capital Increase in customers' deposits	1,055 1	976	952	920	856
Performance incentives	(105)	(54)	(53)	(51)	(49)
Tariff Stabilisation Fund	11	4	2	2	1
Net return	9,603	9,899	9,657	9,415	9,150
Combined Balance Sheet, HK\$M					
Net assets employed					
Fixed assets	113,295	109,824	106,886	104,479	101,420
Non-current assets	198	268	440	382	684
Current assets	6,559	7,606	4,061	5,327	6,770
	120,052	117,698	111,387	110,188	108,874
Less: current liabilities	24,699	22,565	21,474	18,565	18,518
Net assets	95,353	95,133	89,913	91,623	90,356
Exchange fluctuation account	81	(21)	(279)	113	(565)
	95,434	95,112	89,634	91,736	89,791
Represented by					
Equity	46,569	44,736	42,147	42,307	42,456
Long-term loans and other borrowings Deferred liabilities	32,274 15,650	34,251 15,379	28,885 17,816	30,730 17,764	28,340 17,937
Tariff Stabilisation Fund	941	746	786	935	1,058
	95,434	95,112	89,634	91,736	89,791
Other SoC Information, HK\$M	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	23,TTE	07,051	51,150	0,171
Total electricity sales	40,982	39,161	37,120	38,087	35,969
Capital expenditure	8,922	8,068	7,292	7,630	7,800
Depreciation	4,931	4,706	4,375	4,143	3,901
SoC Operating Statistics					
Customers and Sales					
Number of customers (thousand)	2,597	2,556	2,524	2,485	2,460
Sales analysis, millions of kWh Commercial	12 425	13,220	13,234	13,209	13,099
Manufacturing	13,425 1,704	1,740	1,751	1,791	1,791
Residential	9,191	9,217	9,394	9,228	9,450
Infrastructure and Public Services	9,342	8,987	8,858	8,805	8,585
Local	33,662	33,164	33,237	33,033	32,925
Export	556	1,341	1,205	1,187	1,226
Total Electricity Sales	34,218	34,505	34,442	34,220	34,151
Annual change, %	(0.8)	0.2	0.6	0.2	2.1
Local consumption, kWh per person	5,433	5,397	5,451	5,466	5,516
Local sales, HK¢ per kWh (average)					
Basic Tariff	93.3	91.8	88.9	87.1	88.6
Fuel Cost Adjustment <sup>1</sup>	23.2	21.0	24.3	27.0	22.4
Total Tariff	116.5	112.8	113.2	114.1	111.0
Rent and Rates Special Rebate <sup>2</sup>	(1.1)				-
Net Tariff <sup>3</sup>	115.4	112.8	113.2	114.1	111.0
Annual change in Basic Tariff, %	1.6	3.3	2.1	(1.7)	5.5
Annual change in Total Tariff, %	3.3	(0.4)	(0.8)	2.8	4.3
Annual change in Net Tariff, %	2.3	(0.4)	(0.8)	2.8	6.0

#### A ten-year summary is on our website.



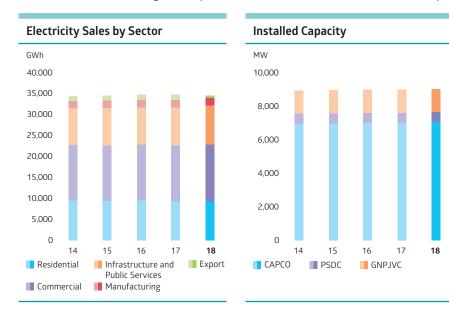
	2018	2017	2016	2015	2014
Generation (Including Affiliated Generating Companies)					
Installed capacity, MW	8,963	8.913	8,913	8.888	8.888
System maximum demand	-,	-,	_,	-,	-,
Local, MW	7,036	7,155	6,841	6,878	7,030
Annual change, %	(1.7)	4.6	(0.5)	(2.2)	4.9
Local and Mainland China, MW	7,316	8,183	7,509	7,582	7,502
Annual change, %	(10.6)	9.0	(1.0)	1.1	(1.5)
System load factor, %	58.8	53.0	57.7	57.0	57.8
Generation by CAPCO stations, millions of kWh	24,642	25,032	26,056	25,739	27,533
Sent out, millions of kWh –					
From own generation	23,032	23,456	24,362	24,075	25,597
Net transfer from					
Landfill gas generation	3	2	4	4	3
GNPS/GPSPS/Others	12,501	12,426	11,501	11,612	10,084
Total	35,536	35,884	35,867	35,691	35,684
Fuel consumed, terajoules –					
Oil	2,714	3,894	3,452	2,160	1.785
Coal	150,310	148,065	160,661	161,988	215,367
Gas	72,969	75,807	74,559	71,406	42,465
Total	225,993	227,766	238,672	235,554	259,617
Cost of fuel, HK\$ per gigajoule – Overall	54.79	49.30	43.77	51.25	39.66
Thermal efficiency, % based on units sent out	36.7	37.1	36.7	36.8	35.5
Plant availability, %	86.4	84.6	84.1	85.0	83.7
Thank availability, 70	00.4	04.0	04.1	05.0	05.7
Transmission and Distribution					
Network, circuit kilometres					
400kV	555	555	555	555	555
132kV	1,642	1,646	1,656	1,645	1,643
33kV	22	22	24	24	27
11kV	13,643	13,455	13,046	12,739	12,475
Transformers, MVA	67,607	66,938	65,834	63,373	61,450
Substations –					
Primary	232	232	230	226	224
Secondary	14,685	14,483	14,254	14,019	13,845
Employees and Productivity					
Number of SoC employees	3,798	3,831	3,808	3,817	3,807
Productivity, thousands of kWh per employee	8,825	8,683	8,718	8,666	8,635

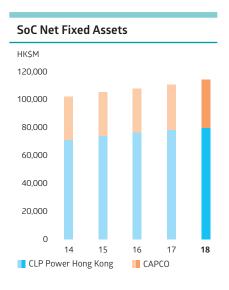
Notes:

1 The Fuel Cost Adjustment has replaced the Fuel Clause Charge effective from October 2014. Commencing 1 October 2018, the Fuel Cost Adjustment is automatically adjusted on a monthly basis to reflect changes in actual price of fuel used.

2 CLP Power Hong Kong provided customers with a Rent and Rates Special Rebate of 1.1 cents per unit from January 2018 to mid-February 2019, rebating to customers the refunds received from the Government in relation to CLP Power's claims against the Government's overcharged rent and rates.

3 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 (\*) (\*Investors Information" section) Hong Kong Stock Exchange website: www.hkexnews.hk

Hard copies posted to shareholders:

27 March 2019

# Choice of Language and Means of Receipt of Corporate Communications<sup>1</sup>

- Annual Report you can ask for this in printed form or in a language version other than your existing choice.
- The Company's future corporate communications
   you can ask to change<sup>2</sup> your choice of
  - (a) language (English and / or Chinese); and / or
  - (b) means of receipt (in printed form or by electronic means through our website).

You can make the above request(s) at any time, free of charge, by writing to the Company or the Company's Registrars, Computershare Hong Kong Investor Services Limited or email to cosec@clp.com.hk or clp.ecom@computershare.com.hk.

If your shares are held in joint names, such notice must be specified and signed by all joint holders whose names stand on the Register of Shareholders of the Company in respect of the joint holding in order to be valid.

Should you have any difficulties in accessing the corporate communications electronically, please ask us for a printed form and we will promptly send you the corporate communications free of charge.

Notes:

- 1 Corporate communications refer to Interim / Annual Reports, Quarterly Statements, notices, documents or other shareholder publications of the Company (including any "corporate communication" as defined in the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited).
- 2 Your change request applies to the next batch of corporate communications if we have at least 7 days written notice of your request, otherwise, it will apply to the subsequent batch of corporate communications.

#### 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 6 May 2019. 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 27 March 2019.

# **Register of Shareholders**

To be closed for the following corporate actions:

- 12 March 2019 2018 fourth interim dividend; and
- 30 April 2019 to 6 May 2019 (inclusive) the 2019 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

# **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 (Company Secretary)
	ir@clp.com.hk (Director – Investor Relations)

11 March 2019

# **CLP welcomes your views...** Send us your feedback and receive four carbon credits\*!



#### Feedback on 2018 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?					
		strongly strongly		strongly			strongly		
Page		disagree			agree	disagre			agree
A Sna	pshot of CLP in 2018								
2	About CLP Group	1	2	3	4	1	2	3	4
3	Financial Highlights	1	2	3	4	1	2	3	4
1	Building a Utility of the Future	1	2	3	4	1	2	3	4
5	How CLP Creates Value for Stakeholders	1	2	3	4	1	2	3	4
3	Our Portfolio	1	2	3	4	1	2	3	4
4	Chairman's Statement	1	2	3	4	1	2	3	4
18	CEO's Strategic Review	1	2	3	4	1	2	3	4
23	Shareholder Value	1	2	3	4	1	2	3	4
30	Financial Review	1	2	3	4	1	2	3	4
Busin	ess Performance and Outlook								
10	Hong Kong	1	2	3	4	1	2	3	4
17	Mainland China	1	2	3	4	1	2	3	4
54	India	1	2	3	4	1	2	3	4
50	Southeast Asia and Taiwan	1	2	3	4	1	2	3	4
52	Australia	1	2	3	4	1	2	3	4
apita	alc								
20 70	Financial Capital	1	2	3	4	1	2	3	4
'5	Manufactured Capital	1	2	3	4	1	2	3	4
'8	Intellectual Capital	1	2	3	4	1	2	3	4
81	Human Capital	1	2	3	4	1	2	3	4
88	Social and Relationship Capital	1	2	3	4	1	2	3	4
)3	Natural Capital	1	2	3	4	1	2	3	4
	mance		-	2			-	2	
98	Board of Directors	1	Ъ	С	1	1	С	С	1
' <sup>8</sup> 04	Senior Management	1 1	2 2	3 3	4	1	2 2	3	4 4
04 06	Corporate Governance Report	1	2	3	4 4	1	2	3	4
133	Risk Management Report	1	2	3	4	1	2	3	4
	Audit & Risk Committee Report	1			4	1			4
44 51	Sustainability Committee Report	1	2	3	4	1	2	3	4
155	Nomination Committee Report	1	2 2	3 3	4	1	2 2	3	4
59	Human Resources & Remuneration Committee Report	1	2	3	4	1	2	3	4
75	Directors' Report	1	2	3	4	1	2	3	4
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inan			-	-			_	-	
97	Approaching Our Financial Statements	1	2	3	4	1	2	3	4
98	Accounting Mini-series	1	2	3	4	1	2	3	4
201	Independent Auditor's Report	1	2	3	4	1	2	3	4
210	Financial Statements	1	2	3	4	1	2	3	4
286	Five-year Summaries	1	2	3	4	1	2	3	4

2.	Your overall	rating of this	Annual Rep	ort is? (Please	"✓"	the appro	priate c	ircle

D	
Poor	( )

Fair 🌔

Good 🔿

Very Good 🤇



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.

\*Carbon Credits

As a token of our appreciation, each stakeholder who sends us feedback on or before 30 June 2019 will receive **four carbon credits**, which can be used to offset your carbon footprint. For example, this amount of carbon credits is sufficient to offset emissions generated by:

- a family of four taking an economy return flight from Hong Kong to Tokyo (average duration of four hours per flight); or
- a passenger taking an economy return flight from Hong Kong to New York (average duration of 15 hours per flight).

#### **About CLP Carbon Credits**

CLP Carbon Credits is a carbon credits e-commerce platform through which customers located anywhere in the world can calculate their carbon emissions, purchase carbon credits online from CLP and obtain an e-certificate in recognition of their move. These carbon credits represent the carbon emissions avoided by generating electricity from CLP India's wind farms. The avoided emissions can be allocated to any individual or business through the purchase of a carbon credit and CLP completing a voluntary retirement of that credit on their behalf. Learn more at www.clpcarboncredits.com.

Yes, I would like to receive the carbon credits e-certificate 🗌

No, thanks 🗌

Name :

Email address :

#### Please send your feedback 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

#### 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, email address 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. CLP will disclose the Personal Data when required to do so by law and may

also disclose such Personal Data in response to requests from law enforcement agencies or regulatory authorities.

Your Personal Data will be retained for such period as may be necessary for the above purposes and its directly related purpose(s).

You have the right to request access to, the correction and/or erasure of your Personal Data in accordance with, where applicable, the provisions of the PDPO, and any other data protection law as applicable. Any such request for access to, the correction and/or erasure of your Personal Data, as well as withdrawal of consent, where applicable, 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

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 <a href="https://www.clpgroup.com/en/Pages/Privacy.aspx">https://www.clpgroup.com/en/Pages/Privacy.aspx</a>.

#### 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 Thank you for reading our Annual Report, which is one of our main channels to communicate with you and we would like to hear what you think. As a token of our appreciation, each stakeholder who sends us feedback on our Annual Report, <u>Sustainability Report</u> and <u>online snapshot</u> on or before 30 June 2019 will receive **four carbon credits**, which can be used to offset your carbon footprint. For example, this amount of carbon credits is sufficient to offset emissions generated by:

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individual or business through the purchase of a carbon credit and CLP completing a voluntary retirement of that credit on their behalf. Learn more at <a href="http://www.clpcarboncredits.com">www.clpcarboncredits.com</a>.



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

Stock Code: 00002





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