

## CLP Holdings 2022 Annual Results Presentation

27 February 2023

Energy for Brighter Tomorrows

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## Agenda

#### **Overview** Richard Lancaster, Chief Executive Officer

**Financial Performance and Outlook** Nicolas Tissot, Chief Financial Officer

**Strategy and Roadmap** Richard Lancaster, Chief Executive Officer

**Questions and answers** 

**Appendices** 



Installation of solar panel at the Hong Kong International Airport

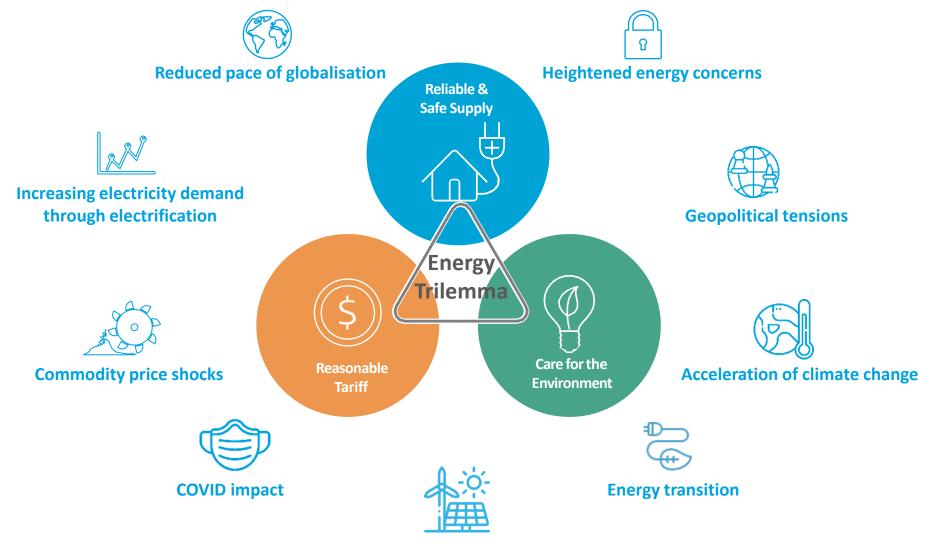






Offshore LNG Terminal, Hong Kong

## A fast-changing energy landscape



Changing mix of global energy supplies



## **Group summary and outlook**

Dependable earnings & resilient operations from core markets

**Strong performance from Hong Kong and China** 

Increased pace of renewables investments in China

Persistent market pressures and operational setbacks in Australia

Disciplined capital management and reliable dividends

Reallocation of capital and resources to HK & China growth

Consistent and reliable dividends

Solid balance sheet and liquidity with credit ratings affirmed

Positioned for energy and just transition

Delivered emissions reduction. Investing in clean energy

Hong Kong growth agenda for the 2024 Development Plan

Smart energy businesses in operation

## **2022** highlights

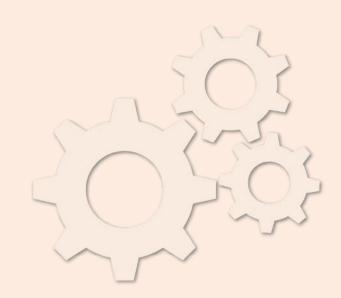
Financial Highlights			<b>Operational Highlights</b>		
Operating Earnings		Change	Safety & Customers		Chang
Core markets	HK\$10,895 million	8% 🕇	Total recordable injury rate <sup>(2)</sup>	0.25	0.02
(HK & Mainland China)			Unplanned customer minutes lost in	5.69 mins	4.70
Group operating earnings (Before EA fair value movements)	HK\$7,560 million	23% 🦊	Hong Kong <sup>(3)</sup>		
Group operating earnings	HK\$4,623 million	51%	Customer Accounts		
(After EA fair value movements)			Hong Kong	2.75 million	41k
Dividend & Yield			Australia	2.46 million	19k
4th interim dividend	HK\$1.21 per share	-	Generation		
Total 2022 dividend	HK\$3.10 per share	-	Electricity sent out <sup>(4)</sup>	87.4 TWh	4.2%
Dividend yield <sup>(1)</sup>	5.4%		Capacity <sup>(4)</sup>	23.1 GW	2.0
Decarbonisation Highlights					
Operating Earnings (before unallocated	expenses) <sup>(5)</sup>	Change	Emissions		Change
Non-carbon generating assets and transmissions, distribution and retail	HK\$9,010 million	4% 🕇	GHG Emissions Intensity <sup>(6)</sup>	0.55 kgCO <sub>2</sub> e/kWh	0.02

(1) Dividend Yield is calculated as dividend for the recent four quarters divided by closing share price on 31 December 2022.
 (2) Total recordable injury rate refers to the number of total recordable injuries per 200,000 work hours in the year.
 (3) Unplanned customer minutes lost is based on the average of the past 36 months.

On an equity plus long-term capacity and energy purchase basis. Covers CLP's generation and energy storage portfolio. (4)

(5) Operating earnings (before unallocated expenses) excludes fair value movements of energy forward contracts from EnergyAustralia.

(6) Greenhouse gas emissions intensity of generation and energy storage portfolio on an equity plus long-term capacity and energy purchase basis.



# Financial Performance and Outlook



Qian'an III Wind Farm, Jilin, Mainland China

## **Operating earnings by region**

HK\$M	2022	2021	Change	
Hong Kong energy and related activities	8,666	8,442	1 3%	Solid performance in core
Mainland China	2,229	1,660	<b>1</b> 34%	markets
EnergyAustralia – before fair value movements	(2,330)	251	📕 n/a 🚽	Lower generation and
Apraava Energy	193	221	J3%	increased costs to settle forward contracts in high spot
Southeast Asia and Taiwan	11	173	<b>9</b> 4% —	price environment
Other earnings and unallocated items	(1,209)	(896)	4 35%	Lower contribution from coal-
<b>Operating Earnings</b> (before EA Fair Value Movements)	7,560	9,851	<b>4</b> 23%	fired projects
EnergyAustralia's fair value movements	(2,937)	(334)		Fair value loss of forward energy contracts (after tax)
Operating Earnings	4,623	9,517	- <b>4</b> 51%	energy contracts (after tax)
Items affecting comparability	(3,699)	(1,026)		Sell down of Apraava Energy
Total Earnings	924	8,491	<b>4</b> 89%	and sale of Fangchenggang in 2022

Details on slide 28

## **Reconciliation of Operating Earnings to ACOI**

HK\$m	2022	2021	Change
<b>Operating Earnings</b> (Attributable to CLP)	4,623	9,517	4 51%
Exclude:			
Fair value adjustments	(4,250)	(497)	
Net finance costs <sup>(1)</sup>	(1,981)	(1,774)	
Income tax expense	(19)	(2,459)	
Non-controlling interests	(989)	(944)	
ACOI	11,862	15,191	<mark>–</mark> 22%

(1) Included the distribution to perpetual capital securities holders

#### Adjusted Current Operating Income or ACOI

 ACOI equals EBIT excluding items affecting comparability and fair value adjustments, and includes the Group's share in earnings from joint ventures and associates

#### Fair value adjustments

• Unfavourable fair value movement of EnergyAustralia's energy derivative contracts impacted by historical high forward electricity prices in 2022.

#### Net finance costs <sup>(1)</sup>

 Increase in net finance cost was mainly attributable to higher loan balance due to margin deposits for futures contracts and operational challenges in EnergyAustralia

#### Income tax expense

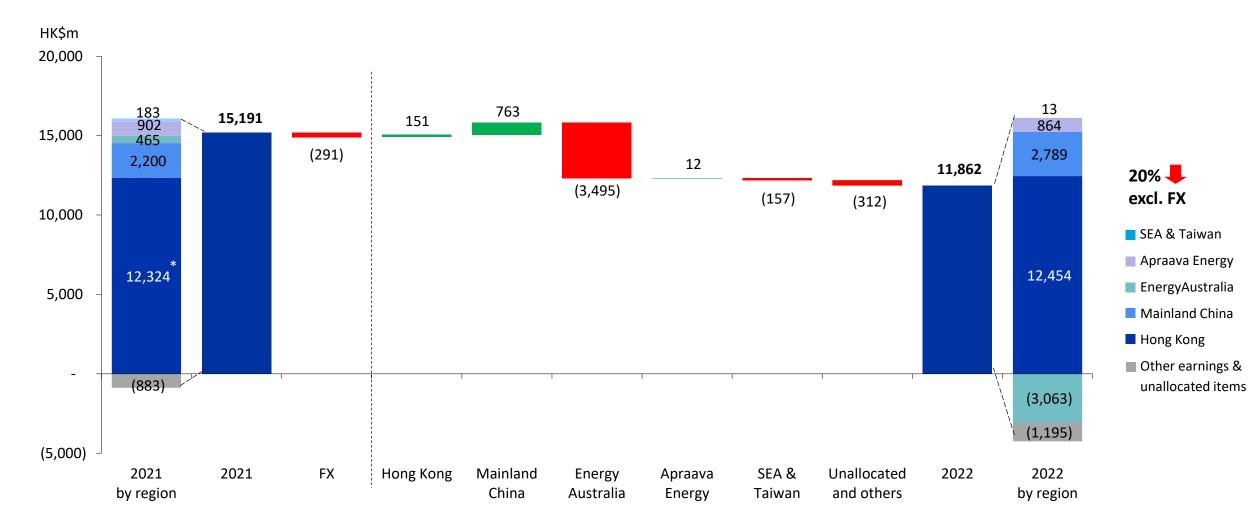
• Substantial tax credit recognised from EnergyAustralia's operating losses, including fair value loss

#### **Non-controlling interests**

- CSG's 30% share of CAPCO
- CDPQ's 40% share of Apraava Energy

## **Adjusted Current Operating Income (ACOI) by business unit**

Solid performances in core markets offset by EnergyAustralia losses

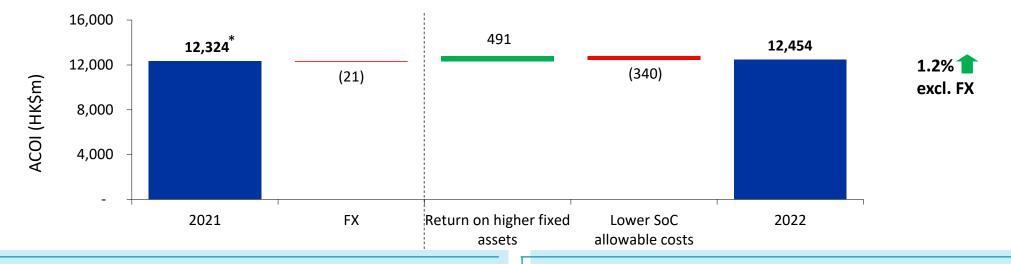




ACOI: Earnings before net finance costs, income tax expense, fair value adjustments and non-controlling interests \* 2021 earnings from Hong Kong has been restated to include contributions from CLPe. Details on slide 30

## Hong Kong

#### **Higher earnings reflect progress of major projects**



#### Performance

- ACOI up 1.2%: Return on higher fixed assets reflecting progress in major projects, partially offset by lower recovery of interest and tax (SoC allowable costs).
- SoC Capex progress: HK\$12.6b, up 12%: T&D HK\$6.0b; Generation HK\$6.6b.
- **2023 tariff package:** Maintain Basic Tariff (93.7¢/kWh) at the same level for three years in a row. Fuel Clause Recovery Account and Tariff Stabilisation Fund to minimize the magnitude of tariff adjustment.
- Energy-as-a-Service businesses in operation: centralised cooling offering, Solar- and Cooling-as-a-Service, building energy management, integrated energy services.
- Partnership between DBS bank (financing) and CLP (energy) for SME green financing.
- Smart city: Over 1.78 million smart meters installed and 336MW of feed-in tariff projects connected or approved.

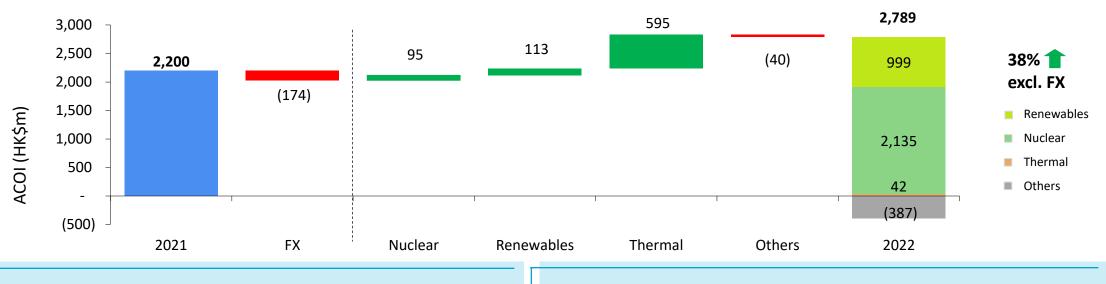
#### Outlook

- **Continued investment in current Development Plan** to meet Hong Kong's development and decarbonisation roadmap (HK\$44.4b / HK\$56.1b).
- Commissioning of offshore LNG terminal in 2023 and CCGT D2 in operation in 2024.
- 2024-2028 Development Plan submission to support Hong Kong government' policies to boost economic growth, attract talent and foster closer collaboration with the Greater Bay Area.
- **Developing Hong Kong's future low carbon infrastructure:** ports and LNG bunkering, data centres, transport, buildings.
- Manage fuel cost pressure from high international energy prices and global market volatility to alleviate tariff impact.
- Support for customers and communities: HK\$200m dedicated to community support programme.

\* 2021 earnings from Hong Kong has been restated to include contributions from CLPe. Details on slide 30

## **Mainland China**

#### Strong financial and strategic achievements and less exposure to coal



#### Performance

- ACOI up 38%: Strong nuclear results and higher renewables.
- Nuclear: Strong performance from Yangjiang achieved record electricity generation. Steady performance from Daya Bay.
- **Renewables:** Early commissioning of Qian'an III wind and higher hydro resources, offsetting less wind resources. Increased pace of investments.
- Thermal: One-off adjustment in 2021 for Shandong assets was not repeated. Fangchenggang's performance impacted by high coal costs despite higher tariff. Sold entire 70% stake in Fangchenggang to accelerate the phase-out of coal assets.
- Improved collection of national subsidies which resulted in lower national subsidies receivable.

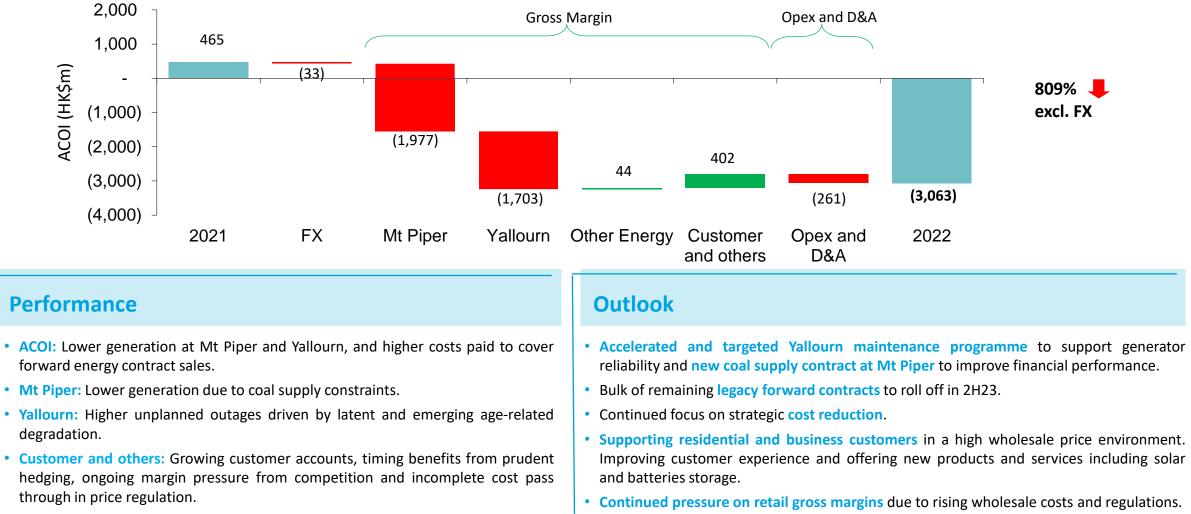
#### Outlook

- Healthy renewables pipeline: 50MW Xundian II wind in Yunnan, 80MW Gongdao solar in Jiangsu and a 100MW solar in Guangdong to commence operations.
- Scheduled major outage for Daya Bay which may affect output but nuclear projects are expected to remain main earnings driver.
- Expansion of Hong Kong's Energy-as-a-Service offerings to multi-national companies in the Greater Bay Area: Solar-as-a-Service, Cooling-as-a-Service, building energy management.
- Implementation of integrated energy partner strategy to develop industrial and technology parks.

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## EnergyAustralia

#### Earnings impact due to tight market supply and operational challenges at thermal plants

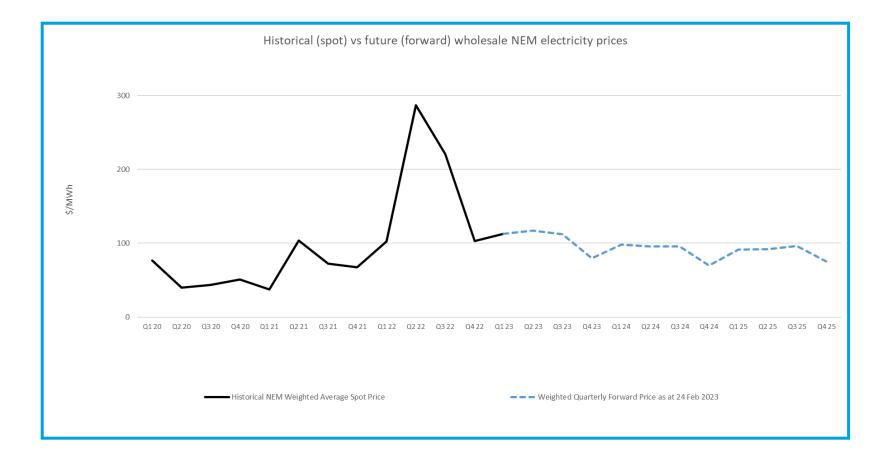


• **Opex and D&A:** Accelerated Yallourn depreciation.

• Optimise capital structure and continue investments in energy transition projects.

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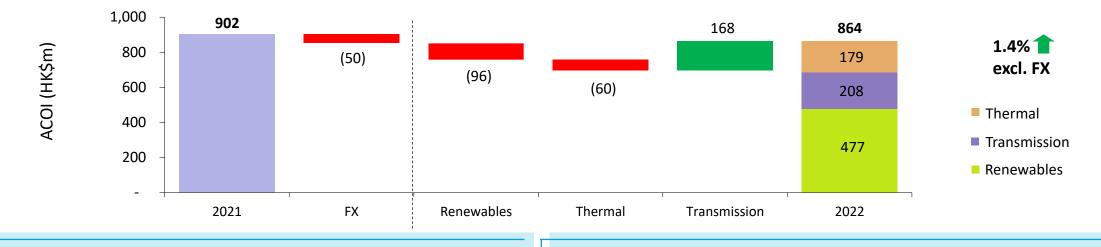
## EnergyAustralia





## **Apraava Energy**

#### Earnings from KMTL transmission off the back of strengthening of CDPQ partnership



#### Performance

- ACOI up 1.4%: Strong contribution from KMTL Transmission project partially offset by lower capacity charges for Jhajjar and lower renewables generation.
- **Renewables:** Lower wind resources, partially offset by higher interest received on delayed payment from debtors.
- Thermal: Lower capacity tariff for Jhajjar.
- Transmission: Solid performance from KMTL project acquired in December 2021.
- Significant reduction in overdue receivables on renewable projects due to the newly implemented 'Equated Monthly Instalments' (EMI) Government scheme.
- Completed sell down of an additional 10% to CDPQ to support growth, resulting in a HK\$3.5b disposal loss. Apraava Energy deconsolidated from the Group.

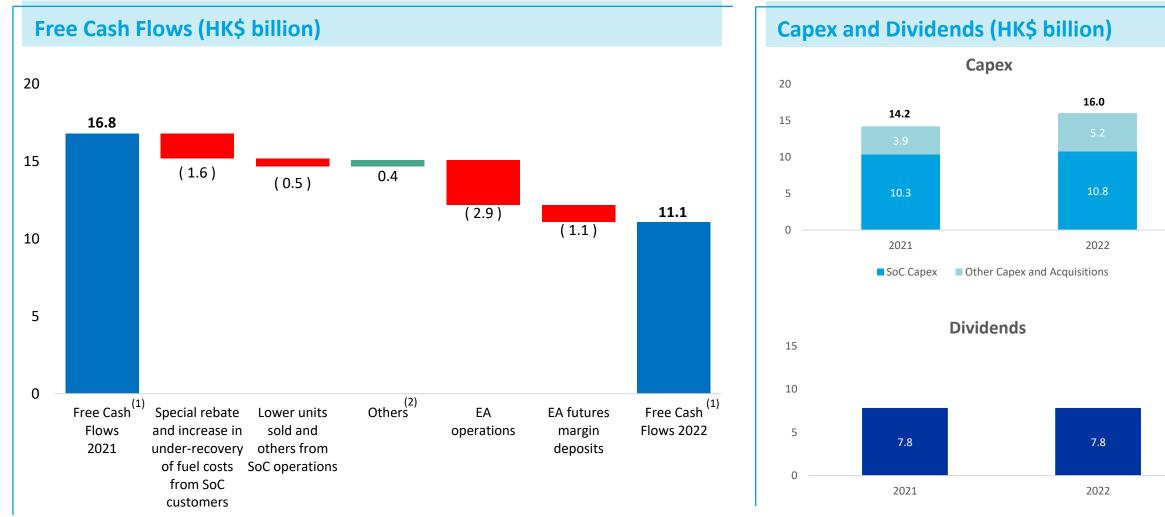
#### Outlook

- Apraava Energy will be accounted for as a Joint Venture going forward.
- Continue investments in non-carbon assets under the partnership with CDPQ.
- Completion of Sidhpur wind farm and continue to pursue collecting renewable receivables.
- Roll out of advanced metering infrastructure (AMI) in Assam State (700K meters) and Gujarat State (2.3m meters).

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## **Free cash flow**

#### Improvements in funds from operations and working capital movements in second half



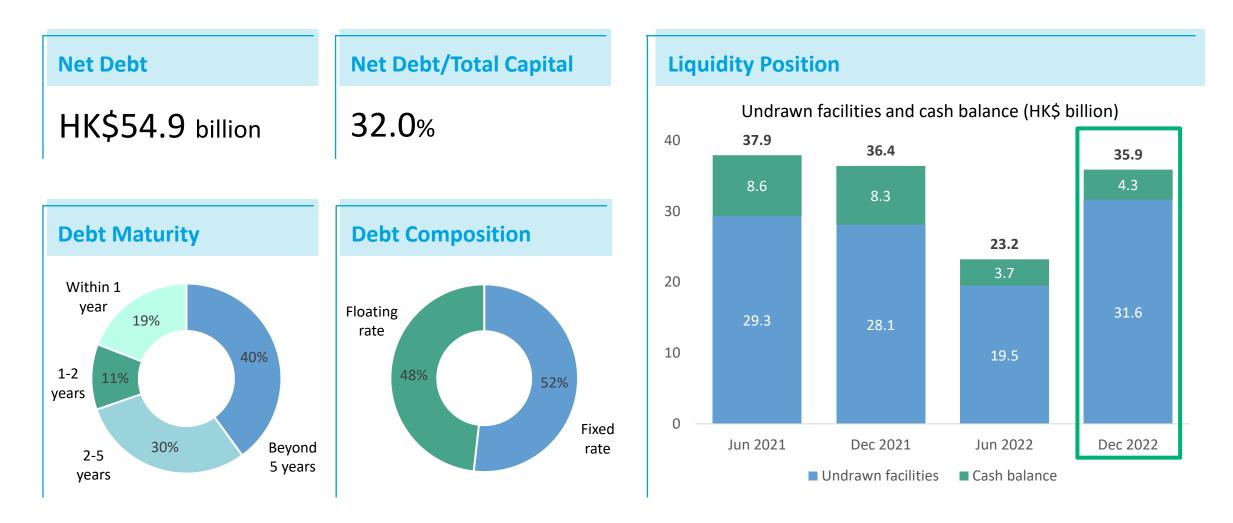
(1) Cash Flow is after deduction of Maintenance Capex.

(2) Mainly from improvement in collection of national subsidy receivables for renewable projects in Mainland China.



## **Healthy financial situation**

#### Healthy capital structure and liquidity position

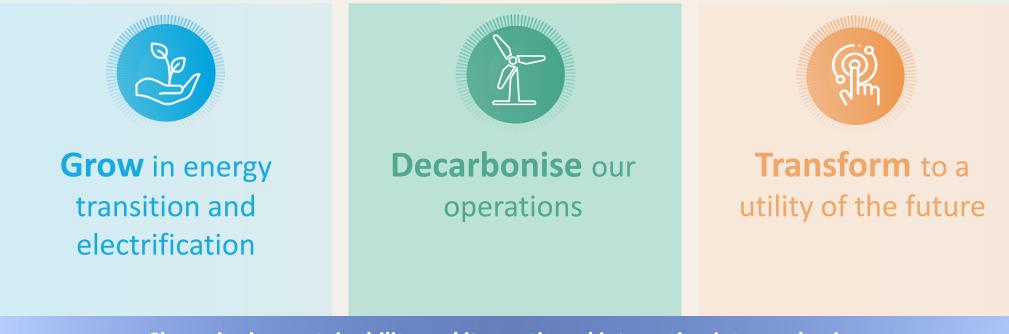


# Strategy and Roadmap





## **Areas of strategic focus**

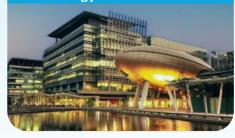


Championing sustainability and its continued integration into our business



## **Growing demand with major new developments in this decade**

**Development of Innovation & Technology & other industries** 

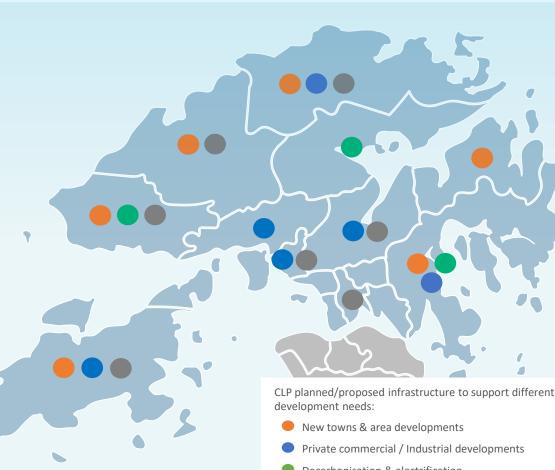


#### **Enable new infrastructure**

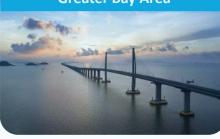


#### **Northern Metropolis and** other developments





Integration with **Greater Bay Area** 



Housing and land supply

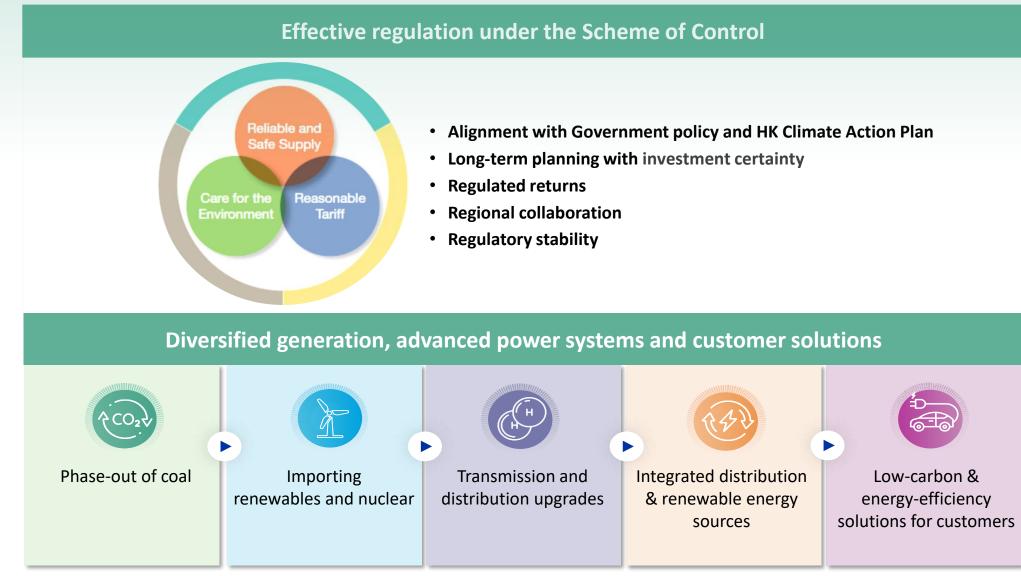
CLP planned/proposed infrastructure to support different types of

- Decarbonisation & electrification
- Public services & infrastructure



Note: Image shown above is indicative only.

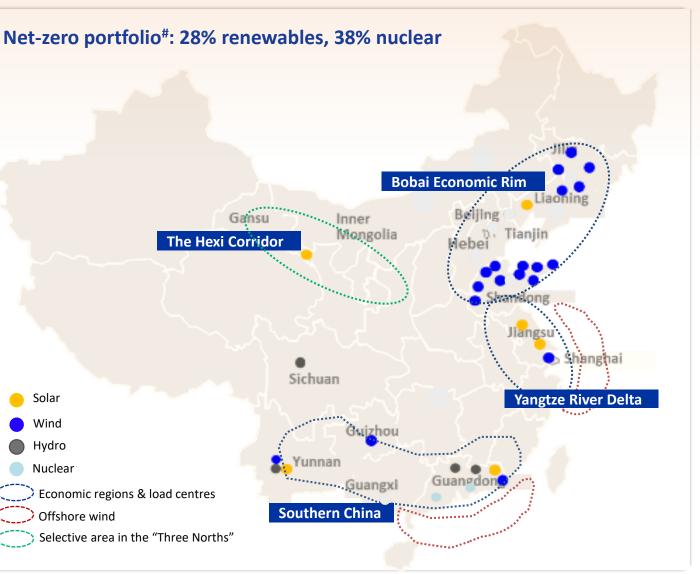
## **Energy security and decarbonisation in Hong Kong**



## **Building scale in Mainland China**



- CLP is the largest external investor in the energy sector on the Mainland.
- Product mix: zero-carbon electricity sales, Corporate Power Purchase Agreements (CPPA), green certificates, and carbon offsets.
- Relationships with corporate clients in economic load centres.
- Alignment with National Policy to focus on selective opportunities in the "Three Norths" and offshore wind.
- In support Hong Kong's decarbonisation target.



## Solutions to help our customers decarbonise



- Focus on customers and their energy transition
- Partner of choice for energy solutions
- Expanding energy offerings and diversifying customer base

#### Transport



Residential charging
 Depot charging for fleets
 Electrification of bus fleets
 Electric vehicle grid integration
 Electric vehicle charging networks in China

#### **Integrated Energy Solutions**



Bundled energy solutions for buildings, industrial parks, data centres, C&I and MNC customers:

- 🐇 Energy savings
- Green energy certificates
- Energy efficiency
- Senewable energy
- Smart technologies and Solar-as-a-Service

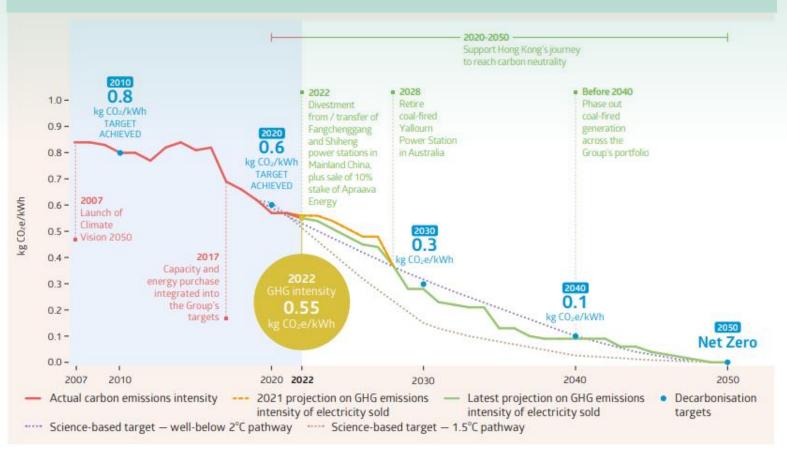
#### **Reducing carbon emissions**



Sustainability-linked financing for SMEs
 Carbon solutions: zero-carbon electricity sales, Corporate Power Purchase Agreements, renewable energy certificates and green energy certificates, carbon offsets

## **Decarbonising our operations**

#### CLP's Past and Projected Greenhouse Gas Emissions Intensity<sup>(2)</sup>

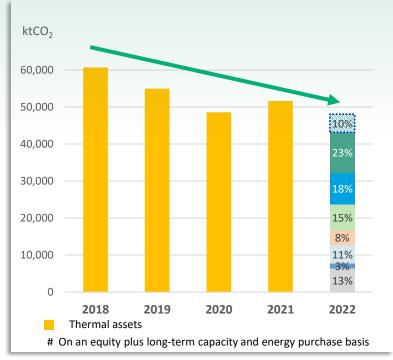


#### Notes:

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- 1 CLP's trajectory from 2007 to 2020 is based on the Group's carbon emissions intensity (kg CO<sub>2</sub>/kWh). Since 2021, in line with global best practices, CLP has reported its GHG emissions intensity based on kg CO2e/kWh.
- 2 CLP's trajectory from 2017 to 2050 is on an equity plus long-term capacity and energy purchase basis.

#### Absolute Scope 1 and Scope 2 emissions of CLP's thermal generation assets #



#### Schedule for thermal assets phase-out

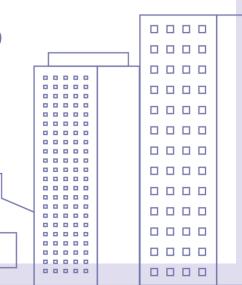
- Fangchenggang Power Station Divestment in Dec 2022 錋 8 ä
  - Yallourn Power Station To be phased out in mid-2028
  - Minority owned coal assets in Mainland China & Taiwan To be phased out before 2030
  - Castle Peak Power Station A Units to be phased out around mid-2020s and
  - B Units to cease using coal for daily power generation by 2035
  - Jhajjar Power Station To be phased out in mid-to-late 2030s
  - Mount Piper Power Station To be phased out by 2040 at the latest
  - EnergyAustralia's gas-fired assets Case by case analysis to meet net zero by 2050
  - Black Point Power Station Studying decarbonisation options including the use of zero-carbon hydrogen



The distributed solar project at the headquarters of the MTR Corporation (Shenzhen) Limited is the first one-stop energy project CLP*e* has launched in Longhua District, Shenzhen, Mainland China

# **Questions and**

Answers







With the help of an EnergyAustralia installed microgrid, a Melbourne residential community will see lower energy bills

## **CLP Group – Financial highlights**

	2022	2021	Change
Revenue (HK\$M)	100,662	83,959	+20%
Operating Earnings (before EA Fair Value Movements) (HK\$M)	7,560	9,851	-23%
Operating Earnings (HK\$M)	4,623	9,517	-51%
Total Earnings (HK\$M)	924	8,491	-89%
Operating Earnings per share (HK\$)	1.83	3.77	-51%
Total Earnings per share (HK\$)	0.37	3.36	-89%
Dividends per share (HK\$)			
First to third interim dividends	1.89	1.89	-
Fourth interim dividend	1.21	1.21	-
Total interim dividends	3.10	3.10	-
Capex (HK\$M) - Cash basis			
SoC Capex	10,786	10,347	+4%
Other Capex	5,223	3,851	+36%
Leverage	31 Dec 2022	31 Dec 2021	
Net Debt (HK\$M)	54,931	49,955	+10%
Net Debt/Total Capital (%)	32.0%	28.1%	+3.9pts

## **Items affecting comparability**

ΗΚ\$Μ	2022	2021
Hong Kong – Profit from sale of properties	80	-
Hong Kong – Revaluation loss on investment property	(57)	(34)
Mainland China – Loss on sale of Fangchenggang	(185)	-
Apraava Energy – Loss on sell down and related adjustment	(3,537)	-
Apraava Energy – Impairment provision for Jhajjar	-	(148)
EnergyAustralia – Litigation settlement	-	(777)
EnergyAustralia – Morwell River Diversion solution	-	(316)
SEA – Gain from sale of Vietnam Project	-	249
Items affecting comparability	(3,699)	(1,026)

Hong Kong	Profit from sale of properties
Sale of properties	relating to Argyle Street redevelopment
Hong Kong	Revaluation loss on investment property
Retail portion of th	ne Laguna Mall in Hong Kong
	Loss on sale of Fangchenggang
Sale of entire 70%	interest in Fangchenggang in November 2022
Apraava Energy	Loss on sell down and related adjustment
loss mainly represe	of Apraava Energy was completed in December. The ented measurement loss of HK\$1.0 billion reported in f translation loss of HK\$2.5 billion upon completion
•	Impairment Provision for Jhajjar ajjar Power Station as it is unlikely that Jhajjar's PPA Ild be renewed after their expiry in 2037
EnergyAustralia	Litigation settlement
Stock Exchange A	ent. For further details see page 33 of the Hong Kong Announcement "CLP Holdings Limited 2021 Annua ment" which can be found <u>here</u>
EnergyAustralia	Morwell River Diversion solution
<b>e</b> .	onal rainfall at Morwell River Diversion (MRD) which
•	Yallourn mine site, examination of the extent of the D along with potential rectification options
SEA	Gain on sale of Vietnam project
•	emaining consideration received in November 202 closing of Vung Ang II in Vietnam

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## **CLP Group – Operating highlights**

	2022	2021	Change
Safety (Total recordable injury rate) <sup>(1)</sup>	0.25	0.23	+0.02
Reliability in Hong Kong (minutes lost pa) <sup>(2)</sup>	5.69	0.99	+4.70
Customer accounts (Thousand)			
Hong Kong	2,752	2,711	+41
Australia	2,462	2,443	+19
Electricity sent out (TWh) <sup>(3)</sup>	87.4	91.2	-4.2%
Generation and energy storage capacity (GW) <sup>(3)</sup>			
Total in operation	21.9	24.3	-2.4
Non-carbon emitting <sup>(4)</sup>	6.0	6.0	-
Under construction	1.2	0.9	+0.3
Greenhouse gas emissions intensity (kgCO <sub>2</sub> e/kWh) <sup>(5)</sup>	0.55	0.57	-0.02

(1) Total recordable injury rate refers to the number of total recordable injuries per 200,000 work hours in the year

(2) Unplanned customer minutes lost is based on the average of the past 36 months. Increase in 2022 was mainly due to the fire at CLP cable bridge in Yuen Long

(3) On an equity plus long-term capacity and energy purchase basis

(4) Non-carbon emitting includes wind, hydro, solar and nuclear

(5) GHG emissions intensity of generation and energy storage portfolio on an equity plus long-term capacity and energy purchase basis

## **CLP Group – Reconciliation of Operating Earnings and ACOI**

нк\$М Н	ong Kong energy and related activities	Mainland China	EnergyAustralia	Apraava Energy	SEA & Taiwan	Other earnings & unallocated items	Group total
2022 Annual							
Operating Earnings	8,338	2,492	(5,267)	193	11	(1,144)	4,623
(as per Segment Information in Annual Report)	0,550	2,432	(5,207)	195	11	(1,144)	4,025
Reallocation of PSDC & HK Branch Line	263	(263)	-	-	-	-	-
Reallocation of Other earnings	65	-	-	-	-	(65)	-
Operating Earnings							
(as per Management Reporting in this presenta pack)	ition 8,666	2,229	(5,267)	193	11	(1,209)	4,623
Add back							
Non-controlling interests	848	9	-	132	-	-	989
Net finance costs <sup>(1)</sup>	977	235	311	452	-	6	1,981
Income tax expense/(credit)	1,909	316	(2,303)	87	2	8	19
Fair value adjustments <sup>(2)</sup>	54	-	4,196	-	-	-	4,250
ACOI	12,454	2,789	(3,063)	864	13	(1,195)	11,862
2021 Annual							
<b>Operating Earnings as previously reported</b> (as per Segment Information in Annual Report)	8,123	1,961	(83)	221	173	(878)	9,517
Reallocation of PSDC & HK Branch Line	301	(301)	-	-	-	-	-
Reallocation of Other earnings	66	-	-	-	-	(66)	-
Operating Earnings as previously reported							
(as per Management Reporting in this presenta pack)	ition <b>8,490</b>	1,660	(83)	221	173	(944)	9,517
Earnings of CLPe <sup>(3)</sup>	(48)	-	-	-	-	48	-
Operating Earnings as restated							
(as per Management Reporting in this presenta pack)	ition 8,442	1,660	(83)	221	173	(896)	9,517
Add back							
Non-controlling interests	789	3	-	152	-	-	944
Net finance costs <sup>(1)</sup>	999	246	126	394	-	9	1,774
Income tax expense/(credit)	2,074	291	(55)	135	10	4	2,459
Fair value adjustments <sup>(2)</sup>	20	-	477		-	-	497
ACOI as restated	12,324	2,200	465	902	183	(883)	15,191

(1) Including net fair value loss/(gain) on debt related derivative financial instruments, and other net exchange loss/(gain) on financing activities and distribution to perpetual capital securities holder

(2) Including net fair value loss/(gain) on non-debt derivative financial instruments relating to transactions not qualifying as hedges and ineffectiveness of cash flow hedges

(3) Reflecting our business initiatives in energy and infrastructure solutions in Hong Kong, 2021 earnings of CLPe have been reclassified from other earnings and unallocated items to Hong Kong energy and related activities to align with current year presentation.



## **CLP Group – Cash flow and financial structure**

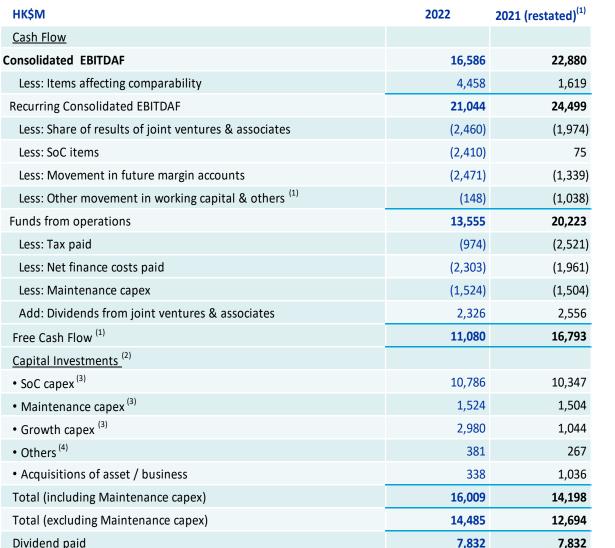
#### **Cash Flow**

- Lower free cash flow mainly reflected lower earnings from EnergyAustralia, unfavourable working capital movements and lower inflows from SoC operations in Hong Kong
  - Unfavourable working capital movements were mainly related to substantially higher payments made to the future margin accounts for EnergyAustralia
  - Lower inflows from SoC operations in Hong Kong mainly due to increase in under-recovery of fuel costs from customers, a special rebate to customers in 2022 and lower units sold (in the first half of the year).

#### **Capital Investments**

- HK\$10.8 billion SoC capex related to the construction of decarbonisation energy infrastructure and enhancement of transmission and distribution networks and customer-centric facilities
- Growth capex mainly included our investments in wind projects in India and Mainland China, as well as development of Tallawarra B in Australia
- Maintenance capex mainly represented works at Yallourn and Mt Piper in Australia
- Acquisitions of asset / business mainly related to the prepayment for the new head office at Kai Tak

- SoC capex capital expenditure related to the SoC business
- Growth capex capital expenditure for additional generation capacity
- Maintenance capex capital expenditure other than the above



<sup>(1) 2021</sup> figures have been revised to reflect the change in classification of TRAA deposits in India from restricted cash to cash and cash equivalent upon the implementation of IFRS Interpretations Committee agenda decision

<sup>(2)</sup> Capital investments include fixed assets, right-of-use assets, investment property, intangible assets, investments in and advances to joint ventures and associates, and acquisitions of asset / business

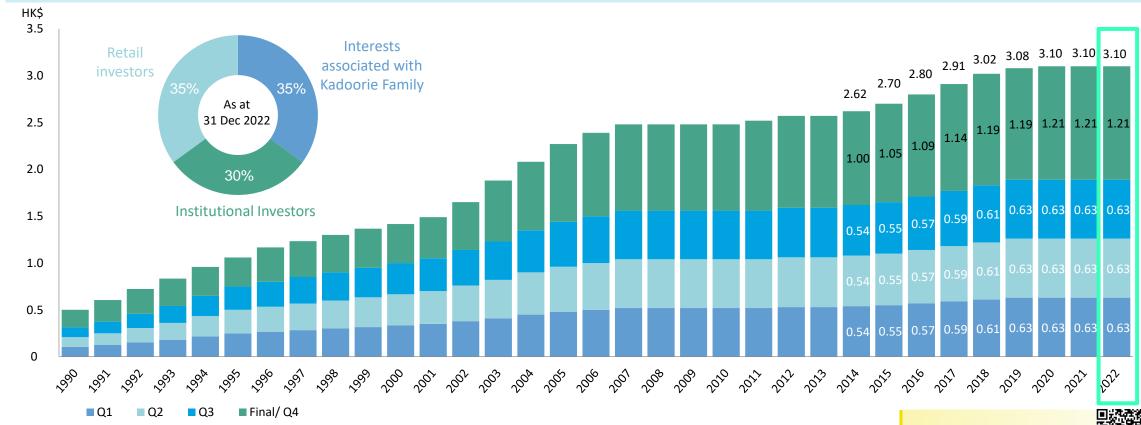
<sup>(3)</sup> Capital expenditure on fixed assets and right-of-use assets are analysed into

<sup>(4)</sup> Others include capital investments on intangible assets and investments in / advance to joint ventures

## **Dividends**

#### A history of returning cash to shareholders

CLP Ordinary Dividend 1990 – 2022 and Shareholding by Category



For more information:



## **CLP Group – Financial obligations at a glance**

нк\$м	31 Dec 2022	31 Dec 2021
HONG KONG		
Total borrowings of CLPH, CLPP, CAPCO & PSDC	48,702	46,534
Minus: Bank balances and liquid funds	(1,915)	(6,431)
Net debt – Hong Kong	46,787	40,103
OUTSIDE HONG KONG		
Total borrowings of subsidiaries (non-recourse to CLPH)	10,515	11,681
Minus: Bank balance and liquid funds	(2,371)	(1,829)
Net debt – Outside Hong Kong	8,144	9,852
CONSOLIDATED total borrowings	59,217	58,215
Minus: Consolidated bank balance and liquid funds	(4,286)	(8,260)
Consolidated Net Debt	54,931	49,955
Total Debt/Total Capital	33.7%	31.3%
Net Debt/Total Capital	32.0%	28.1%

Increase in the Group's net debt to total capital was driven by increased net debt to finance EnergyAustralia's cash flow requirements and reduced capital from the loss attributable to EnergyAustralia in 2022.

## **CLP Group – Credit ratings**

	CLP H	loldings	CLP Power		САРСО		EnergyAustralia	
	S&P	Moody's	S&P	Moody's	S&P	Moody's	Moody's	
Long-term Rating								
Foreign Currency	А	A2	A+	A1	AA-	A1	Baa2	
Outlook	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
Local Currency	А	A2	A+	A1	AA-	A1	Baa2	
Outlook	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
Short-term Rating								
Foreign Currency	A-1	P-1	A-1	P-1	A-1+	P-1	-	
Local Currency	A-1	P-1	A-1	P-1	A-1+	P-1	-	

The credit ratings and rating outlooks of CLP Hong Kong entities had remained unchanged in 2022.

In July 2022, S&P affirmed the A credit rating of CLP Holdings with stable outlook. In October 2022, Moody's opined that CLP Holdings has maintained adequate financial profile and sound liquidity within its current A2 credit rating profile.

Credit rating agencies opined that CLP Holdings will continue to have adequate financial profile and robust capital management to support business drives and meet liquidity needs.

In December 2022, Moody's assigned inaugural Baa2 credit rating to EnergyAustralia with stable outlook. At the same time, EnergyAustralia discontinued S&P's credit rating service which was assigned BBB- with negative outlook.

## **CLP Group – Highlights of financing activities**



For more information on CLP Climate Action Finance Framework

#### CLP Holdings: Ample liquidity in the Group at 31 December 2022

- Undrawn facilities HK\$31.6 billion, bank balances HK\$4.3 billion
- Arranged a total of HK\$4.7 billion new bank loan facilities at competitive terms for CLP Holdings

#### Scheme of Control: Sustainability financing

- Among the financing of CLP's SoC businesses in Hong Kong entered in 2022, 68% were met by sustainable sources of funding increasing from 22% in 2017 when Climate Action Finance Framework was established and 58% in 2021
- CLP Power arranged the JPY15 billion (HK\$1 billion), 3-year samurai cross-border syndicated loan facility which carries emission reduction-linked with a reduction on loan interest based on the performance targets linked to levels of air emission. The full JPY loan proceeds were swapped into Hong Kong dollar through a sustainability-linked derivative to match with the ESG-features embedded in the samurai loan, which the financial derivative was reported to be one of the first of its types arranged for a corporate in Hong Kong
- CLP Power executed three-year emission reduction-linked revolving loan facilities totalling HK\$1 billion at competitive terms
- CAPCO arranged a HK\$520 million two-year energy transition revolving loan facility, governed under the Climate Action Finance Framework, at an attractive interest margin to refinance an expired commercial loan tranche for D1 project at Black Point Power Station
- CAPCO executed short-to-medium-term emission reduction-linked revolving loan facilities totalling HK\$2.8 billion at competitive terms

#### Mainland China: Continued refinancing at competitive terms

 Arranged a total of RMB2.2 billion (HK\$2.5 billion) onshore project loan facilities on non-recourse basis to finance two renewable projects and refinance existing debt in four renewable projects, extending the tenor and lowering the interest rate

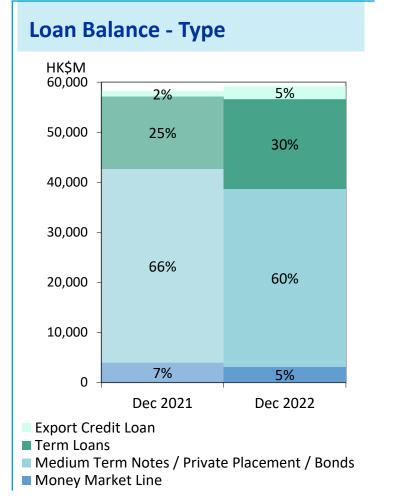
#### EnergyAustralia: Increasing liquidity and funding

- Executed a non-recourse A\$1 billion (HK\$5.5 billion) syndicated credit facility in July 2022. This credit facility was split into revolving cash advance loan and amortising term loan to cater for EnergyAustralia's fund flow requirements and enabled the business to replenish liquidity
- Upsized its revolving bank debt facility from A\$2.5 million (HK\$14 million) to A\$750 million (HK\$4 billion) in April 2022 and arranged A\$300m (HK\$1.6 billion) bank guarantee facilities in December 2022

#### Apraava Energy: Divestment completion to support future business expansion

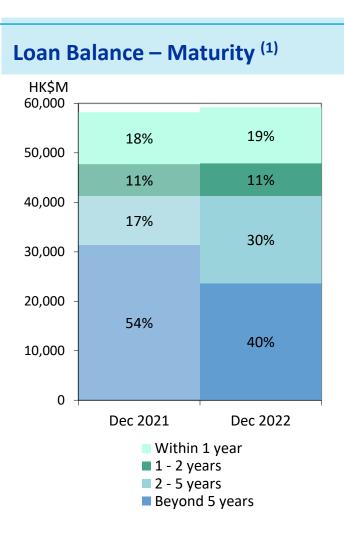
- Following CLP's strategic divestment of an additional 10% stake in Apraava Energy to CDPQ in December, Apraava Energy is accounted for as a joint venture and its debt balance has been excluded from the CLP's overall debt profile. This would further strengthen CLP's financing capability to invest in renewable energy and decarbonisation projects
- Arranged Rs55 billion (HK\$5.2 billion) of debt facilities at competitive interest rates mainly to refinance existing loans to fund power transmission and renewable energy projects

## CLP Group – Loan balances by type and maturity

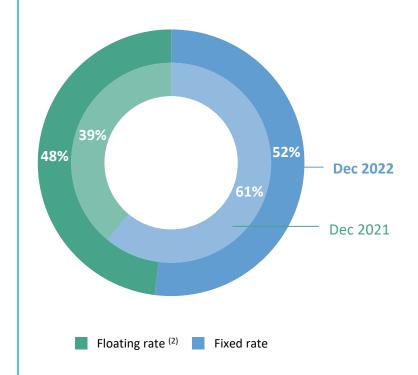


CLP

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### **Proportion of Debt on Fixed** and Floating Rate



(1) The maturity of revolving loans is in accordance with the maturity dates of the respective facilities instead of the current loan drawdown tenors

(2) For floating rate borrowings, if assuming 1% increase in interest rate and based on outstanding debt balance as at 31 December 2022, the additional interest payment is around HK\$282 million per annum (3) CLP continues to obtain debt (re)financing at very cost effective interest rates. Some representative examples in 2022 are highlighted on the previous slide ("CLP Group – Highlights of financing activities")

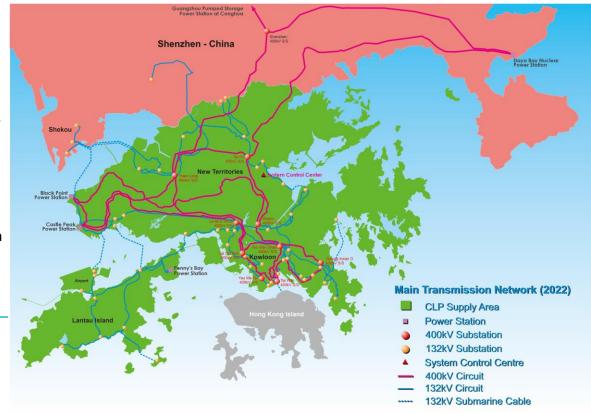
# Hong Kong – Growing business scale

Generation	Transmission	Distribution	Retail
10,445 MW	> 16,600 km of transmission and	240 primary and > 15,400	34,824 GWh sold and 2.752 million customer accounts
generation portfolio	high voltage distribution lines	secondary substations	

#### During 2022:

- Local electricity sales decreased 1.5% to 34,824GWh as compared with 2021
- No. of customer accounts increased by 41k to 2,752k as compared with 2021
- Major infrastructure projects ongoing
- From 1 June 2022 Castle Peak Unit A1 (350 MW) has been put in reserve with intention only to run in emergency situations
- Construction of a second CCGT unit at Black Point progressed with major construction milestones achieved. The new unit is scheduled for commissioning in 2024. Construction of the offshore LNG Terminal progressed and is scheduled to be in operation in mid 2023.
- The last unit of gas turbine upgrade project at Black Point completed with 25MW generation capacity added (200MW added in total by 1Q2022)
- Over 250 km of new transmission and high voltage distribution lines & 200 new substations added

We generate, transmit and distribute electricity to over 80% of Hong Kong's population supplying Kowloon, the New Territories and Lantau Island



### CLP 中電

## Hong Kong – Electricity sales, earnings and capex

#### **Electricity sales**

CLP **①**中電

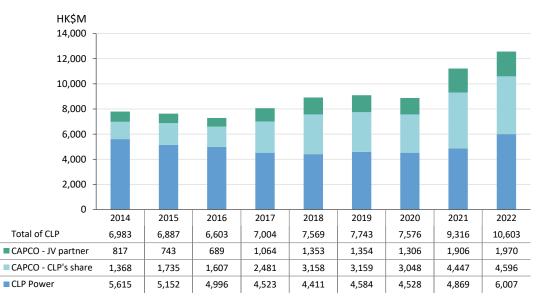
GWh	2022	2021	Change	Proportion
Residential	10,113	10,525	4 3.9%	29%
Commercial	13,233	13,423	<b>4</b> 1.4%	38%
Infrastructure & Public Services	9,863	9,742	1.2%	28%
Manufacturing	1,615	1,665	<b>4</b> 3.0%	5%
Total Local Sales	34,824	35,355	<b>4</b> 1.5%	100%

Operating Earnings for Hong Kong					
нк\$м	2022	2021	Change		
Hong Kong energy business	8,495	8,189	1 4%		
PSDC and Hong Kong Branch Line	263	301	<b>↓</b> 13%		
CLPe	(92)	(48)	<b>4</b> 92%		
Hong Kong energy & related activities	8,666	8,442	1 3%		

Note: The 2021 earnings of CLPe have been reclassified from other earnings and unallocated items to Hong Kong energy and related activities to align with current year presentation to reflect our business initiatives in energy and infrastructure solutions in Hong Kong

Capital expenditure (Accrual basis)				
нк\$м	2022	2021	Change	
CLP Power	6,007	4,869	123%	
CAPCO *	6,566	6,353	1 3%	
Total Capex	12,573	11,222	12%	

\* Including CAPCO's 70% share of fixed asset additions in Hong Kong LNG Terminal Limited

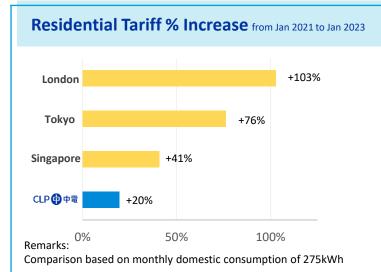


Total Capital Expenditure in line with Development Plan (DP) Capex incurred in 2018 DP from Oct 2018 to Dec 2022: HK\$44.4bn Capex approved under the 2018 DP from Oct 2018 to Dec 2023: HK\$56.1bn

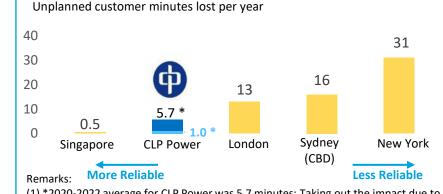
## Hong Kong – Tariff, reliability, fuel prices and environmental improvement



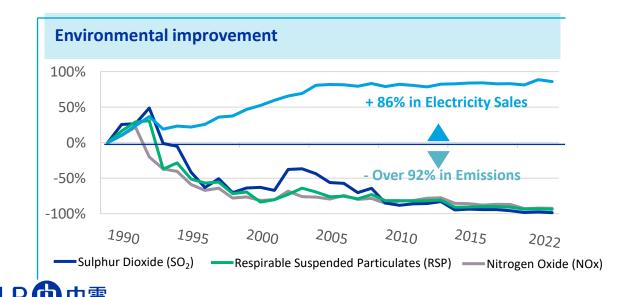
Comparison based on average monthly domestic consumption of 275kWh Tariff and exchange rate in Jan 2023

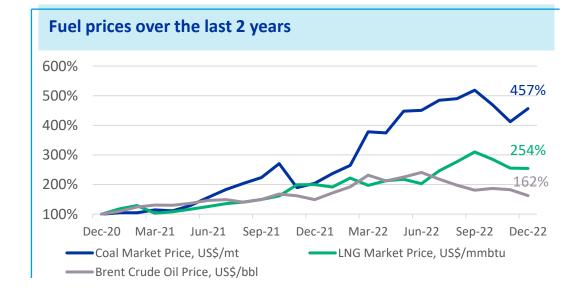


High reliability

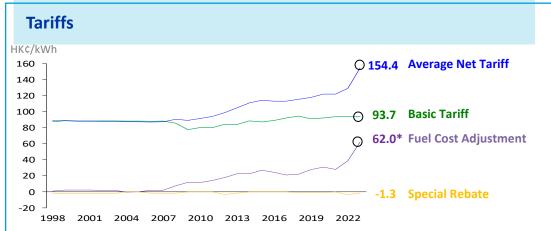


(1) \*2020-2022 average for CLP Power was 5.7 minutes; Taking out the impact due to cable bridge fire incident in Yuen Long, the three-year average was 1.0 minute
(2) 2019-2021 average for all other cities
(3) There are no overhead lines in Singapore

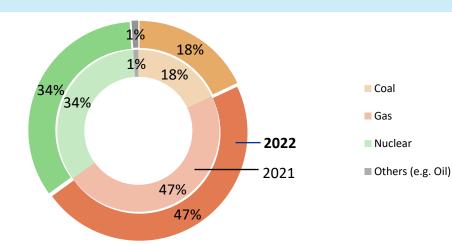


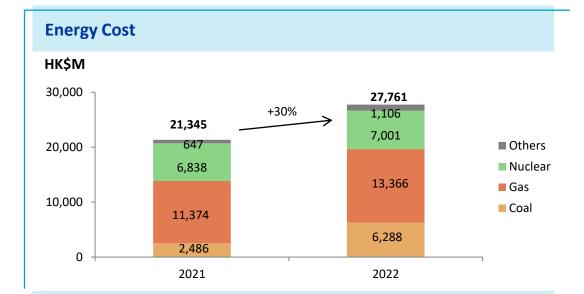


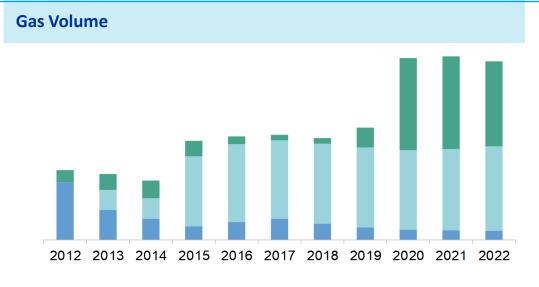
## Hong Kong – Tariff, Energy Cost, Fuel Mix and Gas Volume



\* The figure is based on the rate announced in the annual tariff review. Under the current SCA, the Fuel Cost Adjustment is automatically adjusted on a monthly basis to reflect changes in actual price of fuel used. This arrangement is more transparent and reacts to fuel price changes in a more timely manner.







■ Yacheng Gas ■ WEP II Gas ■ CNOOC Gas

#### Fuel Mix (based on MWh generated/purchased)

### CLP ① 中電

# Mainland China – Financials (HK\$)

CLP (中電

HK\$m	Operating/Te	otal Earnings	AC	OI
	2022	2021	2022	2021
Renewables	610	545	999	920
- Wind	313	305	475	457
- Hydro	112	45	210	129
- Solar	185	195	314	334
Nuclear	1,965	1,908	2,135	2,073
- Daya Bay	970	963	1,021	1,014
- Yangjiang	995	945	1,114	1,059
Thermal	45	(572)	42	(575)
- Shandong	7	(321)	7	(321)
- Guohua	98	(149)	101	(146)
- Fangchenggang	(60)	(102)	(66)	(108)
Operating & development expenditure	(343)	(221)	(341)	(218)
CLPe	(48)	-	(46)	-
Operating earnings / ACOI	2,229	1,660	2,789	2,200
Loss on sale of Fangchenggang	(185)	-	-	-
Total earnings	2,044	1,660		



**Mainland China** 

The average foreign exchange rates used to convert Mainland China Segment earnings to Hong Kong dollars are 1.20574 for 2021 and 1.15913 for 2022. Note that in the ACOI variance analysis presented in the body of the presentation 2021 earnings are adjusted for changes in foreign exchange before year on year variance in underlying performance is illustrated.

# Mainland China – Financials (RMB)

RMB'm	Operating/To	otal Earnings	ACOI	
	2022	2021	2022	2021
Renewables	526	452	862	763
- Wind	270	253	410	379
- Hydro	97	37	181	107
- Solar	159	162	271	277
Nuclear	1,695	1,583	1,842	1,719
- Daya Bay	837	799	881	841
- Yangjiang	858	784	961	878
Thermal	39	(475)	36	(477)
- Shandong	6	(266)	6	(266)
- Guohua	85	(124)	87	(121)
- Fangchenggang	(52)	(85)	(57)	(90)
Operating & development expenditure	(203)	(201)	(201)	(198)
CLPe	(41)	-	(40)	-
Operating earnings / ACOI	2,016	1,359	2,499	1,807
Loss on sale of Fangchenggang	(159)	-	-	-
Total earnings	1,857	1,359		



**Mainland China** 

### CLP (中電

# **Mainland China – Earnings, performance and opportunities**

#### **Earnings and performance**

- Higher earnings from Nuclear was mainly due to higher generation and higher market-based tariff of Yangjiang.
- Stable growth for overall renewable portfolio, mainly benefited from the early commercial operation of Qian'an III Wind and better performance in the hydro segment with higher water availabilities, offsetting by less wind resources.
- Fangchenggang Power Station recorded lower generation than last year due to the sustained high fuel prices and increased competition from renewable energy. In line with CLP's commitment to phase out coal-based assets by 2040, our 70% stake in Fangchenggang Power Station in Guangxi was sold to a central state-owned enterprise. Fangchenggang is one of the most efficient coal-fired projects in China and will continue to produce electricity to meet the country's rising demand.
- Total receivables relating to the unpaid renewables national subsidy from our subsidiaries decreased to HK\$2,111 million (Dec 2021: HK\$2,302 million).

#### **Business development opportunities**

- There are two grid-parity wind projects: the 50MW Xundian II project in Yunnan province, target grid connection in 1H2023; and the 150MW Bobai project in Guangxi Zhuang Autonomous Region, commenced preparation in 4Q2022 and target to commence site works in 1H2023.
- There are two grid-parity solar projects: 80MW Yangzhou Gongdao solar project in Jiangsu started construction in 4Q2022; and a build and transfer agreement for a 100MW solar project located in Guangdong was signed.

### CLP 中電

## Mainland China – Market sales in 2022



Market sales are prevailing in various forms in different provinces in Mainland China. Overall around 71% of our share of generation volumes were under market sales in 2022 (2021: 54%). Directionally market sales in Mainland China will continue to increase.

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Province	Projects with Market Sales (Equity MW)
Guangxi	FCG Thermal (1,806MW)
Yunnan	Xundian Wind (50MW) Xicun Solar (84MW) Dali Yang_er Hydro (50MW)
Inner Mongolia	Zhungeer Thermal (257MW)
Hebei	Sanhe Thermal (220MW)
Tianjin	Panshan Thermal (207MW)
Liaoning	Suizhong Thermal (564MW)
Sichuan	Jiangbian Hydro (330MW)
Gansu	Jinchang Solar (85MW)
Shandong	Penglai Wind (48MW) CLP Laizhou Wind (99MW) Laiwu Wind (149MW) Weihai Wind (31MW) Laizhou Wind (18MW) Guohua Wind (194MW) Heze Thermal (176MW) Liaocheng Thermal (353MW)
Jilin	Qian'an I II and III Wind (199MW) Changling II Wind (22MW) Datong Wind (24MW) Shuangliao Wind (48MW)
Guangdong	Yangjiang Nuclear (1,108MW)

Remark:

- 1. Projects not participating in market sales this year Sandu Wind, Huaiji Hydro, Nanao Wind, Meizhou Solar, Chongming Wind, Sihong Solar, Huai'an Solar, Lingyuan Solar
- 2. The data of FCG is as of Nov 2022

#### Note: Daya Bay Nuclear not included in the calculation of market sales ratio

## **EnergyAustralia – Financials**

	нк	\$m	Local (	Currency
	2022	2021	2022	2021
	НК\$М	HK\$M	A\$M	A\$M
EBITDAF (before items affecting comparability)	(695)	2,792	(128)	486
Depreciation & Amortisation	(2,368)	(2,327)	(437)	(399)
ACOI				
Customer (Retail) <sup>(1)</sup>	1,131	910	208	156
Energy (Wholesale) <sup>(1)</sup>	(2,879)	1,481	(531)	261
Enterprise (Corporate) <sup>(1)</sup>	(1,315)	(1,926)	(242)	(330)
Total	(3,063)	465	(565)	87
Fair value adjustments <sup>(2)</sup>	(4,196)	(477)	(774)	(82)
Net finance costs	(311)	(126)	(57)	(22)
Income tax credit	2,303	55	425	7
Operating earnings	(5,267)	(83)	(971)	(10)
Litigation Settlement	-	(777)	-	(130)
Morwell River Diversion solution	-	(316)	-	(54)
Total earnings	(5,267)	(1,176)	(971)	(194)



EnergyAustralia

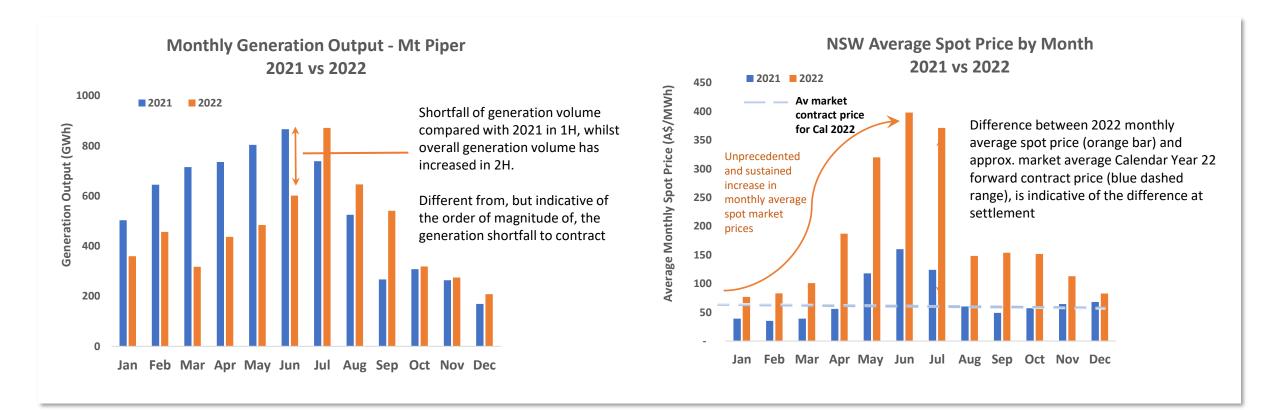
(1) 2021 segment results have been restated to reflect changes in business structure.

(2) Fair value adjustments have been mainly driven by substantial increases in forward prices compared to 2021 which unfavourably impact contracts to sell energy.

CLP (中電

The average foreign exchange rates used to convert EnergyAustralia earnings to Hong Kong dollars are 5.82859 for 2021 and 5.42336 for 2022. Note that in the ACOI variance analysis presented in the body of the presentation 2021 earnings are adjusted for changes in foreign exchange before period on period variance in underlying performance is illustrated.

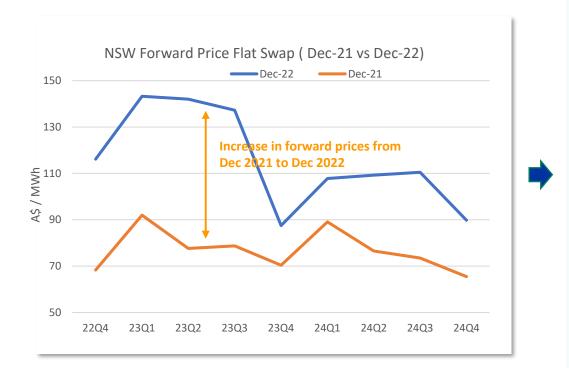
# **Impact of Mount Piper generation shortfall**



Losses from Mount Piper were driven by unexpectedly low output due to coal supply constraints, compounded by a shortfall of generation compared to the volume contracted on the market. This required the settlement of swaps (contracts-for-difference) at the prevailing price in the spot market, which had risen sharply during Q2 2022.

### CLP 中電

## **EnergyAustralia – fair value movements**



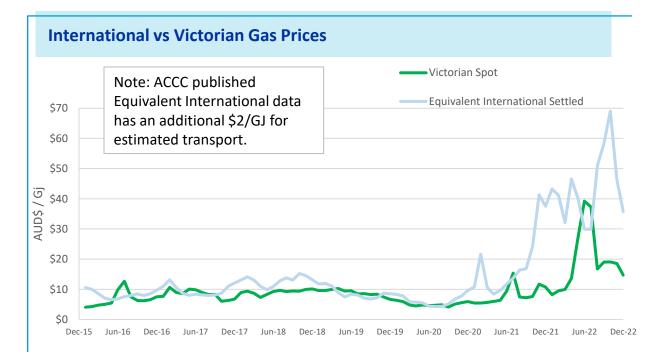
- The significant change in fair value movements of energy derivatives has resulted from a rapid escalation in forward prices.
- Derivative contracts are marked-to-market at the end of the period. As current market prices are much higher than at the end of 2021, this results in a large swing in the valuation of these contracts.
- In line with long-standing risk management and hedging policies, EnergyAustralia executes contracts at prevailing market prices over the prior two years, which were in line with the prices indicated here for December 2021.

## **EnergyAustralia – Wholesale market conditions**





- Australia had unprecedented increases in the cost of energy over the first half of 2022 (impacted by the war in Ukraine, extreme weather events aging domestic power stations and limitations on domestic coal and gas supply), following by a slight easing of prices in Q4, mainly driven by the government's proposed caps on coal and gas.
- Focus remains on asset availability, reliability, efficiency and flexibility of existing fleet whilst completing major outages, alongside new flexible generation ahead of major coal retirements including progressing construction of Tallawarra B and planning for Wooreen Battery.



## **EnergyAustralia – Customer operations**

#### **Customer Account Numbers**

Customer Account Numbers	2022			2021		
(000s)	Electricity	Gas	Total	Electricity	Gas	Total
Mass Market	1,602.3	851.2	2,453.5	1,587.4	848.1	2,435.5
Commercial & Industrial	8.5	0.2	8.7	7.0	0.2	7.2
Total Account Numbers	1,610.8	851.4	2,462.2	1,594.4	848.2	2,442.7
Weighted Average Mass Market <sup>(1)</sup>	1,591.8	848.1	2,439.9	1,586.2	846.2	2,432.4

#### Sales Volume & Revenue

	2022		2021	
Sales Volume & Revenue	Electricity (TWh)	Gas (PJ)	Electricity (TWh)	Gas (PJ)
Mass Market	9.3	32.9	9.1	33.0
Commercial & Industrial	7.4	4.5	7.0	4.2
Total Sales Volume	16.6	37.4	16.1	37.2
Sales Revenue (A\$m)	3,607.1	943.3	3,430.5	886.8

(1) Weighted Average Mass Market is the average accounts of our mass market customer base during the period

#### **Customer Churn and Accounts**



- Residential mass market customer accounts increased by +18.0k accounts (or 0.7%) since 2021
- Churn rates increased across the rest of the market since 2021, however EA's overall churn rate improved slightly year on year, mainly driven by lower churn rate in VIC and QLD
- EA's churn rate is now 4.4ppts lower than the rest of market, compared to 2.56ppts lower in 2021

## **EnergyAustralia – Customer operations**

Supporting customers experiencing hardship –



31k customers utilising EnergyAssist programme



- 19 Ombudsman complaints/10k
- accounts
- 69% reduction since 2015
- 13% increase since 2021

Go Neutral, largest certified carbon neutral programme for electricity customers



- 378k Go Neutral electricity customers, 15% increase on 2021
- 158k Go Neutral gas customers, which is 36% increase on 2021

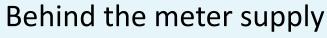
## 65% of bills issued in 2022 were E-bills

- Compared with 5% in 2015
- Improving 4pts since 2021



28.4pts improvement in customer satisfaction since 2015





- 215MW Demand Response capacity with Commercial & Industrial customers
- Scaling home energy transition offering

## **Apraava Energy – Financials**

	HK\$	m	Local Currency (Rs N		
	2022	2021	2022	2021	
Renewables	477	606	4,799	5,756	
Thermal (Jhajjar)	281	406	2,827	3,856	
Thermal (Paguthan & Corporate)	(102)	(152)	(1,026)	(1,444)	
Transmission	208	42	2,093	399	
ACOI	864	902	8,693	8,567	
Renewables	158	186	1,590	1,767	
Thermal (Jhajjar)	46	98	463	931	
Thermal (Paguthan & Corporate)	(49)	(70)	(493)	(665)	
Transmission	38	7	382	66	
Operating earnings	193	221	1,942	2,099	
Jhajjar impairment	-	(148)	-	(1,412)	
Loss on sell down of Apraava Energy and related adjustment	(3,537)	-	(35,587)	-	
Total earnings	(3,344)	73	(33,645)	687	



**Apraava Energy** 

The average foreign exchange rates used to convert Apraava Energy's earnings to Hong Kong dollars are 0.10528 for 2021 and 0.09939 for 2022. Note that in the ACOI variance analysis presented in the body of the presentation 2021 earnings are adjusted for changes in foreign exchange before period on period variance in underlying performance is illustrated.

## **Apraava Energy – Performance and projects**

#### Performance

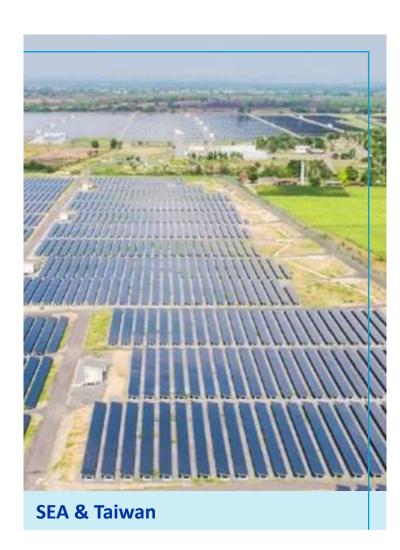
- Apraava Energy continued to sharpen its focus on the investment and development of clean energy and power transmission projects to support India's energy transition
- Earnings from Apraava Energy's transmission portfolio grew sharply in 2022 due to the stable operational performance and contribution from a new project
- Operating earnings decreased as renewable and thermal energy businesses were affected by a number of one-off issues and lower tariffs
- During the year, CLP and its partner CDPQ deepened their relationship with increasing its strategic participation in Apraava Energy from 40% to 50%. The transaction, which was completed in December 2022, highlighted the success of CLP's partnership with CDPQ since 2018

#### **Expanding our renewable generation portfolio**

- Construction of the new 251MW wind energy project in Sidhpur in Gujarat state continued to progress, with the plant expected to go into service in the 1H2023
- Total receivables relating to our renewable projects is HK\$564 million (Dec 2021: HK\$883 million). Aging of overdue receivables improved by receipt of long dated payments. While there are delays in collection, we continue to receive payments and there is no history of default
- With the backing of CLP and CDPQ, Apraava Energy is strongly positioned to grow its non-carbon portfolio as it seeks to contribute to India's energy transition. It will continue to focus on building a sustainable power company that will invest only in low-carbon growth areas, including renewable generation, transmission, distribution, as well as other customer-focused energy businesses

## **Southeast Asia and Taiwan – Financials**

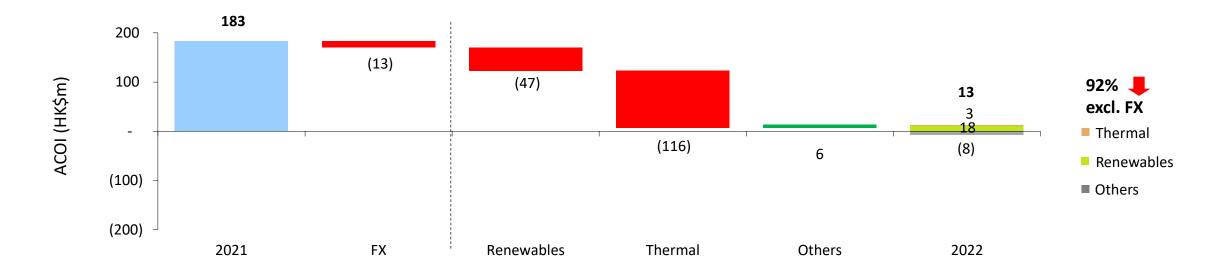
	H	K\$	Local C	Currency
	2022	2021	2022	2021
	HK\$M	HK\$M	М	м
Thermal	3	126	NT\$12	NT\$452
Renewables	18	71	THB80	THB290
Others	(8)	(14)		
ACOI	13	183		
Thermal	3	126	NT\$12	NT\$452
Renewables	16	61	THB72	THB251
Others	(8)	(14)		
Operating earnings	11	173		
Gain on sale of Vietnam project	-	249		
Total earnings	11	422		



The average foreign exchange rates used to convert SEA & Taiwan Segment earnings to Hong Kong dollars are 0.2423 and 0.2787 for 2021 and 0.2232 and 0.2626 for 2022 for Thai Baht and New Taiwan Dollars respectively. Note that in the ACOI variance analysis presented in the body of the presentation 2021 earnings are adjusted for changes in foreign exchange before period on period variance in underlying performance is illustrated

## **Southeast Asia and Taiwan**

### High coal costs at Ho-Ping compensated by revised tariff adjustment mechanism effective from 1 July 2022



#### Performance

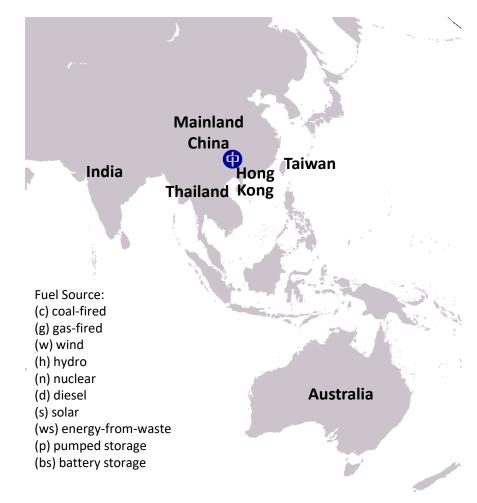
- Lower ACOI: Significantly reduced contributions from Ho-Ping & Lopburi
- Renewables: Tariff reduction under Lopburi PPA
- Thermal: Solid operational performance from Ho-Ping. Impact of high coal prices was mitigated by a new agreement to adjust the energy tariff reimbursement mechanism from 1 July 2022 which accelerates the indexation to coal market price evolution.

#### Outlook

• **Thermal**: Focus on managing fuel costs and supply as coal prices are expected to stay high. Continue to manage operations to deliver reliable return.

# CLP Group – Generation and energy storage portfolio<sup>(i)</sup> – 31 Dec 2022

### 17,970 Equity MW and 5,098 MW Long Term Purchase (total 23,068 MW)



ENERGYAUSTRALIA	total	5,7861	6MW*	
Operational				
Yallourn	1,480	/ 1,480	(c)	
Mount Piper	1,430	/ 1,430	(c)	
Hallett	235	/ 235	(g)	
Newport	500	/ 500	(g)	
leeralang	440	/ 440	(g)	
Tallawarra	420	/ 420	(g)	
Wind Projects	693	/616*	(w)	
Solar Projects #	362	/ 294*	(s)	
Battery Projects (ii)	55	/ 55*	(bs)	
Construction Projects				
Tallawarra – B	316	/ 316	(g)	
APRAAVA ENERGY (iii)	total	1,700	MW	
Operational				
Jhajjar	1,320	/ 660	(c)	
Paguthan	655	/ 328	(g)	
Wind Projects	924	/ 462	(w)	
Solar Projects #	250	/ 125	(s)	
Construction Projects				
Wind Project	251	/ 125	(w)	
TAIWAN	total	264	ww	
Operational				
Ho-Ping	1,320	/ 264	(c)	
THAILAND	total	21 N	1W	
Operational				
Lopburi Solar #	63	/ 21	(s)	

HONG KONG	total 8,268M	<b>W</b> *
Operational		
Castle Peak A&B	4,108 / 4,108*	(c)
Black Point – C & D1	3,250 / 3,250*	(g)
Penny's Bay	300 / 300*	(d)
Energy-from-Waste	10 / 10*	(ws)
Construction Projects		
Black Point – D2	600 / 600*	(g)
MAINLAND CHINA	total 7,029 M	W*
Operational (iii)		
Daya Bay	1,968 / 1,577*	(n)
Yangjiang	6,516 / 1,108	(n)
Pumped Storage	1,200 / 600*	(p)
SZPC	1,800 / 529	(c)
Guohua	7,470 / 1,248	(c)
Hydro Projects	509 / 489	(h)
Wind Projects	1,454 / 1,010	(w)
Solar Projects <sup>#</sup>	328 / 328	(s)
Battery Project <sup>(iv)</sup>	5 / 5	(bs)
<b>Construction Projects</b>		
Wind Project	50 / 50	
Solar Project #	80 / 80	
	5 / 5	

• Station Name Gross MW / CLP Equity MW \* including long-term capacity and energy purchase # Solar projects in AC output

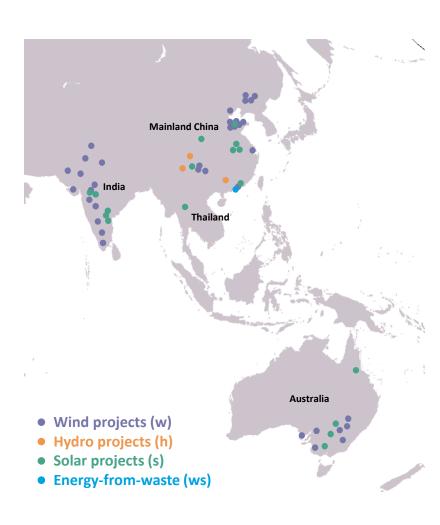
(i) On an equity plus long-term capacity and energy purchase basis(ii) Including Gannawarra (25MW/50MWh) and Ballarat (30MW/30MWh)

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(iii) Sell down of 10% of Apraava Energy and entire 70% interest in Fangchenggang completed in 4Q2022
 (iv) Including Qian'an III (5MW/5MWh) in operation and Xundian II (5MW/5MWh) under construction

# CLP Group – Renewable generation portfolio<sup>(i)</sup> – 31 Dec 2022

2,731 Equity MW and 881 MW Long Term Purchase (total 3,611MW) - 15.7% of CLP total generation portfolio



_P 🔂 中電	(i) On an equity plus long-term capacity and energy purchase basis
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MAINLAND CHINA	1,958 MW	ENERGYAUSTRALIA	910 MW*	APRAAVA ENERGY	713 MW
Operational		Operational		Operational	
Wind	1,010 MW			Wind	462 MW
Hydro	489 MW	Wind	616 MW		
Solar	328 MW	Solar	294 MW	Solar	125 MW
Weihai I & II	69/31	Waterloo	111 / 111*	Khandke	50/25
Nanao II & III Shuangliao I & II	60 / 15 99 / 48	Cathedral Rocks	64 / 32	Samana I & II	101/50
Datong	50 / 24			Saundatti	72/36
Laizhou I	41 / 18	Boco Rock	113 / 113*	Theni I & II	
Changling II	50 / 22	Taralga	107 / 107*		100/50
Guohua Wind	395 / 194	Mortons Lane	20/20*	Harapanahalli	40 / 20
Qian'an I, II & III	199 / 199	Gullen Range I	166 / 166*	Andhra Lake	106 / 53
Penglai I	48 / 48	-		Sipla	50/25
Chongming I	48 / 14	Bodangora	113/68*	Bhakrani	102/51
∟aiwu I, II & III	149 / 149	Gannawarra Solar #	50 / 50*	Mahidad	
Kundian I	50 / 50	Ross River Solar #	116/93*		50 / 25
Sandu I	99/99			Jath	60/30
CLP Laizhou I & II	99 / 99	Manildra Solar #	46 / 46*	Tejuva	101/50
Jiangbian Hydro	330/330	Coleambally Solar #	150 / 105*	Chandgarh	92/46
Huaiji Hydro Dali Yang_er Hydro	129 / 110 50 / 50			Veltoor Solar #	100 / 50
linchang Solar #	85 / 85	THAILAND 1	otal 21 MW	Gale Solar #	
Kicun I & II Solar #	84 / 84	Operational			50 / 25
Sihong Solar #	93 / 93	Lopburi Solar #	63 / 21	Tornado Solar #	20/10
Huai'an Solar #	13/13	Lopbarroolar	00721	CREPL Solar #	30 / 15
ingyuan Solar #	17 / 17	HONG KONG to	otal 10 MW	DSPL Solar #	50/25
Meizhou Solar #	36 / 36	Operational		Under Construction	
Jnder Construction		-		Wind	125 8414
Wind	50 MW	West New Territories	10/10*		125 MW
Solar	80 MW	Landfill	,	Sidhpur	251/125
Xundian II	50 / 50		. Chation Non		
Gongdao Solar #	80 / 80		Station Nan	ne Gross MW / CLP Ed	

\* including long-term capacity and energy purchase

# Solar projects in AC output

# CLP Group – Generation and energy storage capacity<sup>(i)</sup> by fuel mix

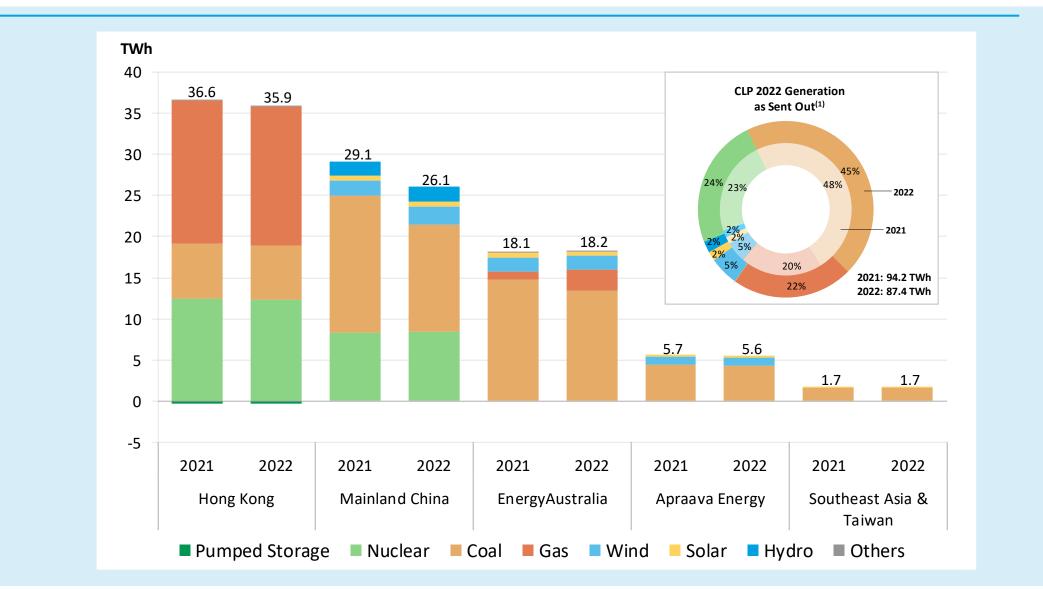
### 23,068 MW Attributable to CLP Group

Capacity by Energy Type	Total MW (a) + (b)	%	Operational MW (a)	%	Under construction MW (b)	%
Coal	9,719	42%	9,719	42%	-	-
Gas	6,089	26%	5,173	22%	916	4%
Nuclear	2,685	12%	2,685	12%	-	-
Wind	2,264	10%	2,088	9%	175	<1%
Hydro	489	2%	489	2%	-	-
Solar	848	4%	768	3%	80	<1%
Others	975	4%	970	4%	5	<1%
Total	23,068	100%	21,892	95%	1,176	5%

(i) On an equity plus long-term capacity and energy purchase basis.

Note: Individual items and totals are rounded to the nearest appropriate number. Some totals may not add down the page due to rounding of individual components

## CLP Group – Energy sent out – 2022



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## **Additional Resources**

### Scan or click on the QR codes to go to appropriate pages



Website: <u>www.clpgroup.com</u> Investor Relations contact: ir@clp.com.hk

\* To be published in early March 2023



Thank you

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