



# Independent practitioner's limited assurance report To the board of directors of CLP Holdings Limited

We have undertaken a limited assurance engagement in respect of the selected sustainability information of CLP Holdings Limited (the "Company") listed below and identified as the numbers shaded in orange in the Key Performance Indicators table appended to this report (the "Identified Sustainability Information").

# **Identified Sustainability Information**

The Identified Sustainability Information for the year ended 31 December 2018 is summarised below:

#### **Climate Vision 2050 Target Resource use and Emissions** Performance Coal consumed (for power generation) (TJ) Gas consumed (for power generation) (TJ) (On equity basis) Oil consumed (for power generation) (TJ) Total renewable energy generation CO2e emissions from power generation capacity (% (MW)) (Scopes 1 and 2) (kT) Non-carbon emitting generation CO<sub>2</sub> emissions from power generation capacity (%(MW)) (Scopes 1 and 2) (kT) Carbon dioxide emissions intensity of Nitrogen oxides emissions (NO<sub>x</sub>) (kT) CLP Group's generation portfolio (kg Sulphur dioxide emissions (SO<sub>2</sub>) (kT) CO2 /kWh) Total particulates emissions (kT) (On equity & long-term capacity and Water discharged (Mm3) energy purchase basis) Water withdrawal (Mm3) Total renewable energy generation Hazardous waste produced capacity (% (MW)) (T(solid)/kl(liquid)) Non-carbon emitting generation Hazardous waste recycled (T(solid)/kl(liquid)) capacity (%(MW)) Non-hazardous waste produced Carbon dioxide emissions intensity of (T(solid)/kl(liquid)) CLP Group's generation portfolio (kg Non-hazardous waste recycled CO2 /kWh) (T(solid)/kl(liquid)) **Environmental Compliance** Governance Convicted cases of corruption (cases) Environmental regulatory non-compliances resulting in fines or prosecutions (number) Breaches of Code of Conduct (cases) Environmental licence limit exceedances and other non-compliances (number) **Employees**

#### Safety

- Fatalities [employees only] (number)
- Fatalities [contractors only] (number)
- Fatality Rate [employees only] (number per 200,000 manhour)
- Fatality Rate [contractors only] (number per 200,000 manhour)
- Lost Time Injury [employees only] (number)
- Lost Time Injury [contractors only] (number)
- Lost Time Injury Rate [employees only] (number per 200,000 manhour)
- Lost Time Injury Rate [contractors only] (number per 200,000 manhour)
- Days lost [employees only] (number)

- Total employees (number)
- Total employees eligible to retire within the next five years (%)
- Voluntary staff turnover rate by region

### **Carbon Intensity in Hong Kong**

- CO2 emission intensity of total electricity sold for CLP Power Hong Kong (kg CO2 /kWh)
- CO2e emission intensity of total electricity sold for CLP Power Hong Kong (kg CO2 /kWh)





Our assurance was with respect to the year ended 31 December 2018 information only and we have not performed any procedures with respect to earlier periods or any other elements included in the 2018 Sustainability Report and, therefore, do not express any conclusion thereon.

#### Criteria

The criteria used by the Company to prepare the Identified Sustainability Information is set out in the Reporting Period and Scope (the "Criteria") appended to this report.

# The Company's Responsibility for the Identified Sustainability Information

The Company is responsible for the preparation of the Identified Sustainability Information in accordance with the Criteria. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of Identified Sustainability Information that is free from material misstatement, whether due to fraud or error.

### **Inherent limitations**

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities. In addition, greenhouse gas ("GHG") quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the values needed to combine emissions of different gases.

# **Our Independence and Quality Control**

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Our firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

# **Our Responsibility**

Our responsibility is to express a limited assurance conclusion on the Identified Sustainability Information based on the procedures we have performed and the evidence we have obtained. We conducted our limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised), Assurance Engagements other than Audits or Reviews of Historical Financial Information, and, in respect of greenhouse gas emissions, International Standard on Assurance Engagements 3410, Assurance Engagements on Greenhouse Gas Statements, issued by the International Auditing and Assurance Standards Board. These standards require that we plan and perform this engagement to obtain limited assurance about whether the Identified Sustainability Information is free from material misstatement.

A limited assurance engagement involves assessing the suitability in the circumstances of the Company's use of the Criteria as the basis for the preparation of the Identified Sustainability Information, assessing the risks of material misstatement of the Identified Sustainability Information whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the Identified Sustainability Information. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

The procedures we performed were based on our professional judgment and included inquiries, observation of processes performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records.



Given the circumstances of the engagement, in performing the procedures listed above we:

- made inquiries of the persons responsible for the Identified Sustainability Information;
- understood the process for collecting and reporting the Identified Sustainability Information;
- performed limited substantive testing on a selective basis of the Identified Sustainability Information; and
- considered the disclosure and presentation of the Identified Sustainability Information.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement. Accordingly, we do not express a reasonable assurance opinion about whether the Company's Identified Sustainability Information has been prepared, in all material respects, in accordance with the Criteria.

### **Limited Assurance Conclusion**

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Company's Identified Sustainability Information for the year ended 31 December 2018 is not prepared, in all material respects, in accordance with the Criteria.

Our report has been prepared for and only for the board of directors of CLP Holdings Limited and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the content of this report.

**PricewaterhouseCoopers** 

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Certified Public Accountants Hong Kong, 25 February 2019

Appendix I: Key Performance Indicators

Governance	2018	2017	2016	2015	2014	Notes	GRI/ HKEx
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		
Financial Information	2018	2017	2016	2015	2014	Notes	GRI/ HKEx
Economic value generated (HK\$M)							
Revenue	91,425	92,073	79,434	80,700	92,259		201-1
Share of profits of non-wholly owned entities	1,509	609	791	10,299	3,820	(1)	
Economic value distributed (HK\$M)							
Fuel costs	17,187	15,473	12,785	15,446	14,736		
Other operating costs	43,604	46,325	38,689	41,705	53,870		201-1
Staff expenses	4,449	4,195	3,892	3,649	3,980	(2)	201-1
Finance costs	2,107	2,278	2,371	4,183	4,201	(3)	201-1
Dividends	7,630	7,352	7,074	6,822	6,619		201-1
Taxes	3,565	2,094	2,032	1,818	1,571	(4)	201-1
Donations	18	14	13	15	12		201-1
Economic value retained (HK\$M)	14,374	14,951	13,369	17,361	11,090	(5)	201-1

Safety	2018	2017	2016	2015	2014	Notes (6)	GRI/ HKEx
Fatalities [employees only] (number)	1	0	0	0	0	(7)	403-2 / B2.1
Fatalities [contractors only] (number)	1	4	3	0	1	(7)	403-2 / B2.1
Fatality Rate [employees only] (number per 200,000 manhour)	0.01	0.00	0.00	0.00	0.00	(8)	403-2 / B2.1
Fatality Rate [contractors only] (number per 200,000 manhour)	0.01	0.03	0.02	0.00	0.01	(8)	403-2 / B2.1
Lost Time Injury [employees only] (number)	11	11	3	8	4	(9)	403-2
Lost Time Injury [contractors only] (number)	11	16	10	8	19	(9)	403-2
Lost Time Injury Rate [employees only] (number per 200,000 manhour)	0.13	0.13	0.04	0.10	0.05	(8), (9)	403-2
Lost Time Injury Rate [contractors only] (number per 200,000 manhour)	0.09	0.14	0.07	0.06	0.15	(8), (9)	403-2
Total Recordable Injury Rate [employees only] (number per 200,000 manhour)	0.19	0.21	0.11	0.18	0.26	(8), (10)	403-2
Total Recordable Injury Rate [contractors only] (number per 200,000 manhour)	0.29	0.36	0.19	0.28	0.51	(8), (10), (12)	403-2
Days lost [employees only] (number)	253	252	9	199	105	(9), (11)	403-2 / B2.2
Employees	2018	2017	2016	2015	2014	Notes	GRI/ HKEx
Total employees based on geographical location (number)	7,634	7,542	7,428	7,360	7,387		102-7 / B1.1
Hong Kong	4,538	4,504	4,450	4,438	4,405		
Mainland China	596	577	560	527	480		
Australia	2,042	1,998	1,983	1,998	2,143		
India	458	463	435	397	359		
Total Employees eligible to retire within the next five years (%)	16.4	15.1	14.1	13.3	12.4	(13)	EU15
Hong Kong	20	18.6	17.3	16.2	15.4		
Mainland China	13.2	10.6	12.1	11.9	11.1		
Australia	12.8	12.2	11.4	10.9	9.2		
India	4.0	2.4	0.9	0.8	1.4		
Voluntary staff turnover rate (%)						(14),(15)	401-1 / B1.2
Hong Kong	2.3	1.9	2.3	2.8	2.6		
Mainland China	4.7	3	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 (average hours)	46.1	46.9	49.2	57.2	43.4	(16)	404-1 / B3.2

Environment	2018	2017	2016	2015	2014	Notes (17)	GRI/ HKEx
Climate Vision 2050 Target Performance						(18)	
On equity basis						(19)	
Carbon dioxide emissions intensity of CLP Group's generation portfolio (kg CO <sub>2</sub> / kWh)	0.74	0.80	0.82	0.81	0.84		305-4 / A1.2
Total renewable energy generation capacity (% (MW))	12.5 (2,387)	14.2 (2,751)	16.6 (3,090)	16.8 (3,051)	14.1 (2,660)		
Non-carbon emitting generation capacity (% (MW))	20.9 (3,987)	22.4 (4,350)	19.2 (3,582)	19.5 (3,543)	16.7 (3,152)		
On equity & long-term capacity and energy purchase basis						(19), (20)	
Carbon dioxide emissions intensity of CLP Group's generation portfolio (kg CO <sub>2</sub> / kWh)	0.66	0.69	0.72	N/A	N/A		305-4 / A1.2
Total renewable energy generation capacity (% (MW))	12.8 (3,039)	13.1 (3,211)	14.9 (3,551)	N/A	N/A		
Non-carbon emitting generation capacity (% (MW))	24.1 (5,724)	23.2 (5,699)	20.7 (4,931)	N/A	N/A		
Carbon Emissions Intensity of CLP Power Hong Kong Electricity Sold						(21)	
$CO_2$ e emissions intensity of electricity sold by CLP Power Hong Kong (kg $CO_2$ e/ kWh)	0.51	0.51	0.54	0.54	0.64		
$CO_2$ emissions intensity of electricity sold by CLP Power Hong Kong (kg $CO_2$ / kWh)	0.51	0.50	0.54	0.54	0.63		
Resource Use and Emissions						(22)	
Coal consumed (for power generation) (TJ)	521,568	471,976	453,904	450,937	541,865	,	302-1 / A2.1
Gas consumed (for power generation) (TJ)	83,359	91,426	86,787	95,591	63,268		302-1 / A2.1
Oil consumed (for power generation) (TJ)	3,774	5,069	4,162	2,892	2,345		302-1 / A2.1
CO <sub>2</sub> e emissions from power generation (Scopes 1 & 2) (kT)	52,304	48,082	46,681	46,723	53,258		305-1, 305-2 / A1.2
${\rm CO_2}$ emissions from power generation (Scopes 1 & 2) (kT)	52,048	47,921	46,518	46,553	53,044	(18)	305-1, 305-2 / A1.2
Nitrogen oxides emissions (NO <sub>x</sub> ) (kT)	60.9	59.3	58.1	56.3	74.6		305-7 / A1.1
Sulphur dioxide emissions (SO₂) (kT)	76.1	81.6	71.2	63.4	93.0		305-7 / A1.1
Total particulates emissions (kT)	8.5	8.3	8.5	9.8	11.5		305-7 / A1.1

Environment (Continued)	2018	2017	2016	2015	2014	Notes (17)	GRI/ HKEx
Resource Use and Emissions (Continued)						(22)	
Water withdrawal (Mm3)	5153.7	4,480.8	4,257.0	4,503.0	4,834.0		303-1 / A2.2
from marine water resources	5,087.3	4,421.7	4,202.3	4,447.6	4,774.5		
from freshwater resources	59.3	52.6	48.2	48.8	52.9		
from municipal sources	7.1	6.5	6.5	6.6	6.6		
Water discharged (Mm3)	5103.1	4,437.7	4,219.2	4,463.0	4,792.2		306-1
cooling water to marine water bodies	5,087.3	4,421.7	4,202.3	4,447.6	4,774.5		
treated wastewater to marine water bodies	1.6	1.6	1.5	1.1	1.3		
treated wastewater to freshwater bodies	12.3	12.3	13.6	12.6	14.5		
wastewater to sewerage	1.8	1.9	1.6	1.6	1.8		
wastewater to other destinations	0.1	0.2	0.2	0.1	0.1		
Hazardous waste produced (T (solid) /kl (liquid))	1,435/ 1,685	857/ 1,420	1,302/ 1,251	641/ 2,832	484/ 2,783	(23)	306-2 / A1.3
Hazardous waste recycled (T (solid) /kl (liquid))	631/ 1,648	469/ 1,384	260/ 1,149	203/ 1,176	89/ 1,463	(23)	306-2
Non-hazardous waste produced (T (solid) /kl (liquid))	11,471/- 52	20,334/ 103	8,317/ 84	11,455/ 199	21,142/ 78	(23)	306-2 / A1.4
Non-hazardous waste recycled (T (solid) /kl (liquid))	3,990/52	3,790/ 103	2,963/ 84	4,414/ 199	4,172/ 78	(23)	306-2
Environmental Compliance						(22)	
Environmental regulatory non-compliances resulting in fines or prosecutions (number)	0	0	0	1	1		307-1
Environmental licence limit exceedances & other non-compliances (number)	2	13	2	13	3		307-1

#### Notes to the KPI table:

- 1 Includes share of results (net of income tax) from joint ventures and associates netted with earnings attributable to other non-controlling interests, which represented our share of economic value created together with our business partners.
- 2 Another HK\$1,338 million of staff costs incurred were capitalised.
- 3 Finance costs are netted with finance income and include payments made to perpetual capital securities holders. In addition, finance costs of HK\$278 million were capitalised.
- 4 Represents current income tax but excluding deferred tax for the year.
- 5 Represents earnings attributable to shareholders (before depreciation, amortisation and deferred tax) for the year retained.
- 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.
- 7 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.
- 8 All rates are normalised to 200,000 worked hours, which approximately equals to the number of hours worked by 100 people in one year.
- An occupational illness/ injury/ disease sustained by an employee or contractor personnel causing him/ her to miss one scheduled workday/ shift or more after the day of the injury (including fatalities). A lost time injury does not include the day the injury incident occurred or any days that the injured person was not scheduled to work and it does not include restricted work injuries.
- Total recordable injuries count all occupational injury incidents and illness other than first aid cases. They include fatalities, lost time injuries, restricted work injuries, and medical treatment.
- It refers to the number of working days lost when workers are unable to perform their usual work because of an occupational accident or disease. A return to limited duty or alternative work for the same organisation does not count as lost days.
- 12 A first aid case at CLP Power Hong Kong in 2016 was reclassified as a medical treatment case.
- 13 The percentages given refer to full-time permanent staff within each location, who are eligible to retire within the next five years.
- Voluntary turnover is employees leaving the organisation voluntarily and does not include dismissal, retirement, separation under a separation scheme or end of contract.
- In Mainland China, voluntary staff turnover rates refer to both permanent and short-term employees. In all other regions, voluntary staff turnover rates refer to permanent employees only.
- Training per employee has been reported in average hours of training since 2014. Prior to 2014, training per employee is reported in average days of training.
- 17 Environmental data rounded by asset before aggregation.
- 18 CO2 emissions of Yallourn and Hallet assets were used in 2018. Prior to 2018, CO2e emissions data of these assets were used.
- 19 "Equity basis" includes all majority and minority share assets in the CLP Group portfolio.
- 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.
- 21 "Electricity sold" includes the units of renewable energy sold in the form of Renewable Energy Certificates (REC) to Hong Kong customers.
- 22 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.
- 23 Waste categorised in accordance with local regulations.

# Appendix II: Criteria

# Reporting Period and Scope

This report covers the CLP Group's sustainability performance for the calendar year ending 31 December 2018. It is published at the same time as our Integrated Annual Report. Our previous report was published in March 2018.

As our business needs evolve, scenarios have arisen where our previously defined reporting scope was not able to fully capture the material impact of our overall portfolio. For example, a fossil-fuel based power station divested during the year would fall out of our environmental scope, and the generation capacity sourced from the power purchase agreements (PPA) would be out of the carbon emission intensity's scope. To better reflect the material impacts of our portfolio, we have adjusted the reporting scopes of the following data points in 2018:

- Health and Safety, Environmental: the scope is expanded to include more assets, i.e. from including those which have been operating for a full calendar year to those which have been operating at some point during the year. As a result, Lingyuan solar farm, which commenced operation in July 2018, is included in the scope and Paguthan, the PPA of which expired in December 2018, is retained. The environmental data of Jeeralang and Newport power stations, acquired in April 2018 by EnergyAustralia, were not included in the 2018 data points, but will be included in the 2019 reporting cycle. Similarly, Tornado solar farm, acquired in November 2018, will report its data starting in 2019. In addition, CLP will start reporting verified environmental data for its Indian wind farms in 2019.
- **Climate Vision 2050**: while we still report on the longstanding equity-based scope, the equity-based scope is added with long-term capacity and energy purchases to reflect more holistically on the developments of our generation capacity from other sources.

Below is the definition of the company boundary for each of the main categories of data included in this Report. Please refer to our <u>2018 Annual Report</u> for more details on the entities included in our consolidated financial statements.

Covomonos	Includes all mapple applead by CID antition at the including It
Governance	Includes all people employed by CLP entities or their subsidiaries. It
	does not include non-CLP employees in our Joint Ventures, Joint
	Operations or Associates.
Finance	Selected financial figures are extracted from our Annual Report and the consolidated financial statements of CLP Holdings Limited and its subsidiaries (the Group) in accordance with Hong Kong Financial Reporting Standards (HKFRS) issued by the Hong Kong Institute of Certified Public Accountants (HKICPA). For a detailed description of the financial reporting scope, please refer to the Significant Accounting Policies – Consolidation on pages 218-219 of our 2018 Annual Report.
Employees	Includes all people employed by CLP entities or their subsidiaries
Employees	(cycludes an people employed by CLP entities or their subsidiaries
	(excluding part-time staff unless otherwise specified). It does not
	include employees of our joint ventures, joint operations, associates or
	contractors.
<b>Health and Safety</b>	Includes all power assets/ projects, transmission and distribution
	infrastructure, fuel storage facilities or regional office areas:
	That are majority owned by CLP or under CLP's operational
	control, defined as full authority to implement CLP's operating
	policies; and
	• That are under construction or in operation at some point during the reporting year.
	100% of the performance data for in-scope assets is reported without
	adjustment based on our equity share, unless otherwise stated.

Includes all power assets, transmission and distribution infrastructure or
fuel storage facilities:
• That are majority owned by CLP or under CLP's operational control,
defined as full authority to implement CLP's operating policies; and
• That have been in operation at some point during the reporting year;
and
<ul> <li>That pose material impact to the environment.</li> </ul>
100% of the performance data for in-scope assets is reported without
adjustment based on our equity share, unless otherwise stated.
Data are consolidated on an equity basis with two variations:
1.Equity ownership
Includes all power generation assets/ projects where CLP has an equity share.
<ul> <li>Assets are included on an equity ownership basis (i.e. performance</li> </ul>
data for in-scope assets are reported based on the portion of our
shareholding), meaning CLP's operational control over the asset is not considered; and
• The scope includes all projects (committed/ under construction), and
assets that were in operation at some point during the reporting year.
2.Equity ownership & long-term capacity and energy purchase
In addition to (1) above, this scope also includes the additional
capacity and energy purchased by CLP to meet customer demand where:
<ul> <li>Purchase agreement duration is at least 5 years; and</li> </ul>
<ul> <li>Capacity or energy purchased is no less than 10MW.</li> </ul>
Some statistical data derived from our overseas operations may not be
strictly comparable because local and / or regulatory definitions may vary.
Includes all power generation assets involved with the delivery of
electricity to CLP Power Hong Kong customers, and:
• The total annual CO₂ and CO₂e emissions are from all assets in Hong
Kong only (as nuclear power does not result in significant carbon
emissions); and
<ul> <li>The GWh is from our Total Electricity Sales for CLPP HK and includes generation from Daya Bay Nuclear Power Station.</li> </ul>