



2018
Sustainability Report
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Key Performance Data

We continually improve by managing, monitoring and reporting our performance. These tables present a quantitative overview of our 2018 non-financial performance. The indicators are selected from the Global Reporting Initiative (GRI) Standards as well as other key performance data. 2018 data shaded in orange have been independently verified by PricewaterhouseCoopers. The assurance scope of the past years' data can be found in the previous Sustainability Reports.

	2018	2017	2016	2015	2014	Notes	GRI/HKEx
Governance							
Convicted cases of corruption (cases)	0	0	0	0	0		
Breaches of Code of Conduct (cases)	20	28	21	6	7		
Financial Information							
	2018	2017	2016	2015	2014	Notes	

	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)	
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

	2018	2017	2016	2015	2014	Notes	GRI/HKEx
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)	102-48 / 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	
▼ 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

	2018	2017	2016	2015	2014	Notes	GRI/HKEx
Hong Kong	20.0	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	3.0	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 (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)	
Climate Vision 2050 Target Performance						(18)	
▼ On equity basis						(19)	
Carbon dioxide emissions intensity of CLP Group's generation portfolio (kg CO ₂ / kWh)	0.74	0.8	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)		

	2018	2017	2016	2015	2014	Notes	GRI/HKEx
▼ On equity & long-term capacity and energy purchase basis						(19), (20)	
Carbon dioxide emissions intensity of CLP Group's generation portfolio (kg CO ₂ / 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 (5724)	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	0.5	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

	2018	2017	2016	2015	2014	Notes	GRI/HKEx
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 ₂ 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
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 _x) (kT)	60.9	59.3	58.1	56.3	74.6		305-7 / A1.1
Sulphur dioxide emissions (SO ₂) (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
▼ Water withdrawal (Mm³)	5,153.7	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)	5,103.1	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		

	2018	2017	2016	2015	2014	Notes	GRI/HKEx
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.
- (6) 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.
- (9) 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.
- (10) 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.
- (11) 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.
- (14) Voluntary turnover is employees leaving the organisation voluntarily and does not include dismissal, retirement, separation under a separation scheme or end of contract.
- (15) 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.
- (16) 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.
- (20) 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.

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Corporate Governance

	2018	2017	2016	2015	2014	Notes
Code of Conduct & Anti-Corruption						
Convicted cases of corruption (cases)	0	0	0	0	0	
Breaches of Code of Conduct (cases)	20	28	21	6	7	

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Safety

	2018	2017	2016	2015	2014	Notes(1)
Occupational Health and Safety						
CLP Group Safety Performance by Region [Employees / Contractors]						
CLP Holdings						
Fatalities (number)	0/0	0/0	0/0	0/0	0/0	
Fatality Rate (number per 200,000 manhours)	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.00	
Lost Time Injuries (number of cases)	0/0	0/0	0/0	0/0	0/1	

	2018	2017	2016	2015	2014	Notes(1)
Lost Time Injury Rate [LTIR] (number per 200,000 manhours)	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.83	
Total Recordable Injury Rate [TRIR] (number per 200,000 manhours)	0.00/0.00	0.00/0.00	0.48/0.00	0.53/0.00	0.00/0.83	
Days Lost / Days Charged [Employees Only] (number)	0	0	0	0	N/A	
Occupational Disease [Employees Only] (number)	0	0	0	0	0	
Hong Kong						
Fatalities (number)	0/0	0/4	0/0	0/0	0/0	
Fatality Rate (number per 200,000 manhours)	0.00/0.00	0.00/0.07	0.00/0.00	0.00/0.00	0.00/0.00	
Lost Time Injuries (number of cases)	5/5	1/9	0/1	0/4	1/5	
Lost Time Injury Rate [LTIR] (number per 200,000 manhours)	0.10/0.08	0.02/0.16	0.00/0.02	0.00/0.07	0.02/0.08	
Total Recordable Injury Rate [TRIR] (number per 200,000 manhours)	0.15/0.20	0.08/0.29	0.00/0.10	0.07/0.17	0.11/0.21	
Days Lost / Days Charged [Employees Only] (number)	120	47	0	0	N/A	
Occupational Disease [Employees Only] (number)	0	0	0	0	0	
Mainland China						
Fatalities (number)	0/0	0/0	0/1	0/0	0/0	
Fatality Rate (number per 200,000 manhours)	0.00/0.00	0.00/0.00	0.00/0.03	0.00/0.00	0.00/0.00	
Lost Time Injuries (number of cases)	0/0	0/0	0/2	0/1	0/1	
Lost Time Injury Rate [LTIR] (number per 200,000 manhours)	0.00/0.00	0.00/0.00	0.00/0.06	0.00/0.02	0.00/0.04	
Total Recordable Injury Rate [TRIR] (number per 200,000 manhours)	0.00/0.07	0.00/0.06	0.00/0.06	0.00/0.16	0.44/0.26	
Days Lost / Days Charged [Employees Only] (number)	0	0	0	0	N/A	

	2018	2017	2016	2015	2014	Notes(1)
Occupational Disease [Employees Only] (number)	0	0	0	0	0	
India						
Fatalities (number)	0/0	0/0	0/2	0/0	0/1	
Fatality Rate (number per 200,000 manhours)	0.00/0.00	0.00/0.00	0.00/0.05	0.00/0.00	0.00/0.03	
Lost Time Injuries (number of cases)	0/2	0/1	0/4	2/1	0/7	
Lost Time Injury Rate [LTIR] (number per 200,000 manhours)	0.00/0.06	0.00/0.03	0.00/0.11	0.54/0.03	0.00/0.21	
Total Recordable Injury Rate [TRIR] (number per 200,000 manhours)	0.00/0.19	0.00/0.20	0.00/0.30	0.54/0.25	0.71/0.88	
Days Lost / Days Charged [Employees Only] (number)	0	0	0	34	N/A	
Occupational Disease [Employees Only] (number)	0	0	0	0	0	
Australia						
Fatalities (number)	1/1	0/0	0/0	0/0	0/0	
Fatality Rate (number per 200,000 manhours)	0.04/0.06	0.00/0.00	0.00/0.00	0.00/0.00	0.00/0.00	
Lost Time Injuries (number of cases)	6/4	10/6	3/3	6/2	3/5	
Lost Time Injury Rate [LTIR] (number per 200,000 manhours)	0.26/0.26	0.43/0.62	0.14/0.46	0.28/0.29	0.14/0.59	
Total Recordable Injury Rate [TRIR] (number per 200,000 manhours)	0.44/1.09	0.60/1.85	0.37/1.06	0.42/2.14	0.42/1.88	
Days Lost / Days Charged [Employees Only] (number)	133	205	9	165	N/A	
Occupational Disease [Employees Only] (number)	0	0	0	0	0	
CLP Group Safety Performance [Employees / Contractors]						
Fatalities (number)	1/1	0/4	0/3	0/0	0/1	(2)

	2018	2017	2016	2015	2014	Notes(1)
Fatality Rate (number per 200,000 manhours)	0.01/0.01	0.00/0.03	0.00/0.02	0.00/0.00	0.00/0.01	(3)
Lost Time Injuries (number of cases)	11/11	11/16	3/10	8/8	4/19	(4)
Lost Time Injury Rate [LTIR] (number per 200,000 manhours)	0.13/0.09	0.13/0.14	0.04/0.07	0.10/0.06	0.05/0.15	(3),(4)
Total Recordable Injury Rate [TRIR] (number per 200,000 manhours)	0.19/0.29	0.21/0.36	0.11/0.19	0.18/0.28	0.26/0.51	(3),(4),(5), (6)
Days Lost / Days Charged [Employees Only] (number)	253	252	9	199	105	(4),(7)
Occupational Disease [Employees Only] (number)	0	0	0	0	0	
CLP Group Safety Performance [Employees and Contractors Combined]						
Fatalities (number)	2	4	3	0	1	
Fatality Rate (number per 200,000 manhours)	0.01	0.02	0.01	0.00	0.01	
Lost Time Injuries (number of cases)	22	27	13	16	23	
Lost Time Injury Rate [LTIR] (number per 200,000 manhours)	0.10	0.13	0.06	0.07	0.11	
Total Recordable Injury Rate [TRIR] (number per 200,000 manhours)	0.25	0.29	0.16	0.25	0.41	(5)
Days Lost / Days Charged [Employees Only] (number)	253	252	9	199	105	
Occupational Disease [Employees Only] (number)	0	0	0	0	0	
Nuclear Safety						
Collective Radiation Dosage for Workers (man-mSv)	753	712	1,032	1,035	1,512	

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Notes:

- (1) 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.

- (2) 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.
- (3) All rates are normalised to 200,000 worked hours, which approximately equals to the number of hours worked by 100 people in one year.
- (4) 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.
- (5) A first aid case at CLP Power Hong Kong in 2016 was reclassified as a medical treatment case.
- (6) 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.
- (7) 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.

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Environment

	2018	2017	2016	2015	2014	Notes
Environmental Regulations & Compliance						(1)
Environmental regulatory non-compliances resulting in fines or prosecutions (number)	0	0	0	1	1	
Environmental licence limit exceedances & other non-compliances (number)	2	13	2	13	3	
Air Emissions						(1), (2)
Nitrogen oxides emissions (NO _x) (kT)	60.9	59.3	58.1	56.3	74.6	
Sulphur dioxide emissions (SO ₂) (kT)	76.1	81.6	71.2	63.4	93.0	
Total particulates emissions (kT)	8.5	8.3	8.5	9.8	11.5	

	2018	2017	2016	2015	2014	Notes
Waste	(1), (2)					
Hazardous Solid Waste (T)						
Produced	1,435	857	1,302	641	484	(3)
Recycled	631	469	260	203	89	(3)
Hazardous Liquid Waste (kl)						
Produced	1,685	1,420	1,251	2,832	2,783	(3)
Recycled	1,648	1,384	1,149	1,176	1,463	(3)
Non-Hazardous Solid Waste (T)						
Produced	11,471	20,334	8,317	11,455	21,142	(3)
Recycled	3,990	3,790	2,963	4,414	4,172	(3)
Non-Hazardous Liquid Waste (kl)						
Produced	52	103	84	199	78	(3)
Recycled	52	103	84	199	78	(3)
Levels of Ash and Gypsum By-Products Recycled and Sold (kT)						
Ash	2,263	1,745	1,111	1,587	1,663	
Gypsum	250	161	134	143	166	
Nuclear-related waste						
Spent Nuclear Fuel (T)	38	40	71	38	34	
Intermediate to Low Level Radioactive Nuclear Waste (m ³)	79.0	89.2	90.0	94.0	124.0	
Water	(1), (2)					
Annual Water Withdrawal and Discharge (Mm³)						
Water withdrawal (Mm³)	5,153.7	4,480.8	4,257.0	4,503.0	4,834.0	
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	

	2018	2017	2016	2015	2014	Notes
From Municipal Resources	7.1	6.5	6.5	6.6	6.6	
Water discharged (Mm³)	5,103.1	4,437.7	4,219.2	4,463.0	4,792.2	
Cooling Water to Marine 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	
Water Intensity						
Water Intensity of Our Power Generation Process (m ³ /MWh)	1.10	1.07	1.05	1.04	1.01	
Water Recycled						
Water Recycled Volume (Mm ³)	899	814	822	677	785	

2018 data shaded in orange have been independently verified by PricewaterhouseCoopers. The assurance scope of the past years' data can be found in the previous Sustainability Reports.

Notes:

- (1) 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.
- (2) Environmental data rounded by asset before aggregation
- (3) Waste categorised in accordance with local regulations.

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Climate Change

	2018	2017	2016	2015	2014	Notes
Climate Vision 2050 Target Performance						(1), (2)
On Equity Basis						(3)
Carbon dioxide emissions intensity of CLP Group's generation portfolio (kg CO ₂ /kWh)	0.74	0.80	0.82	0.81	0.84	
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)	

	2018	2017	2016	2015	2014	Notes
On Equity & Long-Term Capacity and Energy Purchase Basis						(3), (4)
Carbon dioxide emissions intensity of CLP Group's generation portfolio (kg CO ₂ /kWh)	0.66	0.69	0.72	N/A	N/A	
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	
Total Emissions (Scope 1 & 2) from Power Generation by CLP Group						(1), (2)
CO ₂ emissions from power generation (Scopes 1 & 2) (kT)	52,048	47,921	46,518	46,553	53,044	
CO ₂ e emissions from power generation (Scopes 1 & 2) (kT)	52,304	48,082	46,681	46,723	53,258	
Carbon Emissions Intensity of CLP Power Hong Kong Electricity Sold						(1), (5)
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	
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	

2018 data shaded in orange have been independently verified by PricewaterhouseCoopers. The assurance scope of the past years' data can be found in the previous Sustainability Reports.

Notes:

- (1) Environmental data rounded by asset before aggregation.
- (2) CO₂ emissions of Yallourn and Hallet assets were used in 2018. Prior to 2018, CO₂e emissions data of these assets were used.
- (3) "Equity basis" includes all majority and minority share assets in the CLP Group portfolio.
- (4) 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.
- (5) "Electricity sold" includes the units of renewable energy sold in the form of Renewable Energy Certificates (REC) to Hong Kong customers.

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Operations

	2018	2017	2016	2015	2014	Notes
Generation Portfolio						(1)
CLP Group Generation Capacity on an Equity Basis (MW)	19,108	19,395	18,622	18,180	18,885	(2)
Coal	10,765	11,401	11,396	11,396	12,492	
Gas	4,147	3,434	3,434	3,031	3,031	
Renewable total	2,387	2,751	3,090	3,051	2,660	
Nuclear	1,600	1,600	492	492	492	
Oil	210	210	210	210	210	

	2018	2017	2016	2015	2014	Notes
CLP Group Generation Capacity on Equity and Long-term Capacity and Energy Purchase Basis (MW)	23,705	24,554	23,781	22,706	23,472	(2), (3)
Coal	11,997	12,633	12,628	12,628	13,724	
Gas	5,084	5,322	5,322	4,747	4,747	
Renewable total	3,039	3,211	3,551	3,051	2,720	
Nuclear	2,685	2,488	1,380	1,380	1,380	
Oil	300	300	300	300	300	
Others	600	600	600	600	600	
CLP Group Renewable Generation Capacity on an Equity Basis (MW)	2,386	2,751	3,090	3,051	2,660	(2)
Wind	1,521	1,941	2,297	2,366	2,017	
Hydro	489	489	489	489	489	
Solar	369	321	304	196	154	
Other Renewables	7	N/A	N/A	N/A	N/A	
CLP Group Renewable Generation Capacity on Equity and Long-term Capacity and Energy Purchase Basis (MW)	3,039	3,211	3,551	N/A	N/A	(2), (3)
Wind	1,982	2,401	2,758	N/A	N/A	
Hydro	489	489	489	N/A	N/A	
Solar	558	321	304	N/A	N/A	
Other Renewables	10	N/A	N/A	N/A	N/A	
Renewable Generation Capacity - as % of CLP Group generation portfolio and in MW						(2), (3)
Equity Ownership (% / MW)	12.5/2,387	14.2/2,751	16.6/3,090	16.8/3,051	14.1/2,660	
Equity Ownership + Capacity and Energy Purchase (% / MW)	12.8/3,039	13.1/3,211	14.9/3,551	N/A	N/A	

	2018	2017	2016	2015	2014	Notes
Non-carbon Emitting Generation Capacity- as % of CLP Group generation portfolio and in MW						(2), (3)
Equity Ownership (% / MW)	20.9/3,987	22.4/4,350	19.2/3,582	19.5/3,543	16.7/3,152	
Equity Ownership + Capacity and Energy Purchase (% / MW)	24.1/5,724	23.2/5,699	20.7/4,931	N/A	N/A	
Generation Capacity (on Equity and Long-term Capacity and Energy Purchase Basis) by Fuel Type (%)						
Coal	51%	51%	53%	56%	57%	
Gas	21%	22%	22%	21%	21%	
Nuclear	11%	10%	6%	6%	6%	
Renewables	13%	13%	15%	13%	12%	
Others	4%	4%	4%	4%	4%	
Energy Sent out by Fuel Type (%)						
Coal	60%	61%	63%	63%	72%	
Gas	12%	15%	14%	16%	10%	
Nuclear	20%	15%	14%	15%	12%	
Renewables	8%	9%	9%	6%	6%	
Others	0%	0%	0%	0%	0%	
Revenue by Fuel Type (%)						
T&D/Retail	51%	52%	54%	N/A	N/A	
Coal	23%	23%	19%	N/A	N/A	
Gas	14%	14%	14%	N/A	N/A	
Nuclear	7%	7%	8%	N/A	N/A	
Renewables	3%	2%	3%	N/A	N/A	
Others	2%	2%	2%	N/A	N/A	
Availability and Reliability						(1)

	2018	2017	2016	2015	2014	Notes
Unplanned Customer Minutes Lost (CLP Power Hong Kong)						
System Average Interruption Frequency Index [SAIFI] (Minutes)	0.19	0.18	0.18	0.17	0.18	
System Average Interruption Duration Index [SAIDI] (Hours)	0.46	0.34	0.35	0.39	0.43	
Unplanned Customer Minutes Lost [CML] (Minutes)	10.29	1.57	1.48	1.51	2.30	(4)
Asset Management						(1)
Fuel Use						
Coal consumed (for Power Generation) (TJ)	521,568	471,976	453,904	450,937	541,865	
Gas consumed (for Power Generation) (TJ)	83,359	91,426	86,787	95,591	63,268	
Oil consumed (for Power Generation) (TJ)	3,774	5,069	4,162	2,892	2,345	

2018 data shaded in orange have been independently verified by PricewaterhouseCoopers. The assurance scope of the past years' data can be found in the previous Sustainability Reports.

Notes:

- (1) All numbers are rounded to nearest MW. Any minor discrepancies in totals is due to rounding.
- (2) "Equity basis" includes all majority and minority share assets in the CLP Group portfolio.
- (3) 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.
- (4) The 2018 figure would have been 1.44 minutes without the severe impact of Mangkhut in September 2018, which contributed 8.85 minutes unplanned CML to the 2018 figure.

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Stakeholder Engagement

	2018	2017	2016	2015	2014	Notes
Community Investment						
Community Programmes implemented (number)	695	647	574	620	N/A	
Community Spending by Theme (%)						(1)
Education and Development	19	13	15	20	N/A	
Community Wellbeing	22	23	32	46	N/A	
Environment	50	41	39	12	N/A	
Arts and Culture	3	9	2	4	N/A	

	2018	2017	2016	2015	2014	Notes
Community Engagement	6	14	12	18	N/A	
Community Spending by Region (%)						(1)
Hong Kong	77	81	77	76	N/A	
Mainland China	1	2	1	2	N/A	
India	8	8	13	3	N/A	
Australia	14	9	9	18	N/A	
Southeast Asia & Taian	N/A	N/A	N/A	1	N/A	(2)
Amount Donated for Charitable and Other Purposes (Excludes In-kind Donations) (HK\$M)	18.31	14.47	12.65	14.52	12.02	(1)
Contributing our Time and Expertise						(1)
Volunteer hours from CLP staff (hours)	23,661	19,945	13,302	11,675	17,500	(3)
Skill based (%)	2	4	6	13	N/A	(4)
Non Skill-based (%)	98	96	94	87	N/A	(4)
Our Beneficiaries (number)						
Direct Beneficiaries	730,000+	439,000+	359,000+	178,000+	82,000+	
Organisations benefitted	434	451	373	418	N/A	(5)
Our Beneficiaries By Theme (%)						(1)
Education and Development	69	42	60	36	N/A	
Community Wellbeing	20	35	31	54	N/A	
Environment	10	21	8	9	N/A	
Arts and Culture	1	2	1	1	N/A	

Notes:

- (1) Figures include rounding adjustments.
- (2) Starting from 2016, community spending on Southeast Asia and Taiwan was excluded as minority assets
- (3) 2017 and 2018 figures refer to volunteering hours by CLP staff and family members; the past figures refer to volunteering hours by CLP staff only.
- (4) Skill-based: Volunteering work that requires electrical engineering skills.
- (5) Organisations benefitted including professional bodies, academic institutes, NGOs and community groups.

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Employees

	2018	2017	2016	2015	2014	Notes
Employment Practice						(1)
Full-time and Part-time Employees by Region (number)						
Full-time Employees - Total (number)	7,634	7,542	7,428	7,360	7,387	
Part-time Employees - Total (number)	209	209	198	280	182	
Hong Kong						
Full-time Employees	4,538	4,504	4,450	4,438	4,405	
Part-time Employees	5	11	18	23	23	
Mainland China						

	2018	2017	2016	2015	2014	Notes
Full-time Employees	596	577	560	527	480	
Part-time Employees	0	0	0	0	0	
India						
Full-time Employees	458	463	435	397	359	
Part-time Employees	0	0	0	0	0	
Australia						
Full-time Employees	2,042	1,998	1,983	1,998	2,143	
Part-time Employees	204	198	180	257	159	
Contractors by Region (number)						
Labour Supply - Total (number)	1,577	N/A	N/A	N/A	N/A	(2)
Service Contractor and Sub-contractor- Total (number)	8,454	N/A	N/A	N/A	N/A	(3)
Hong Kong						
Labour Supply	1,316	N/A	N/A	N/A	N/A	
Service Contractor and Sub-contractor	3,993	N/A	N/A	N/A	N/A	
Mainland China						
Labour Supply	14	N/A	N/A	N/A	N/A	
Service Contractor	342	N/A	N/A	N/A	N/A	
India						
Labour Supply	80	N/A	N/A	N/A	N/A	
Service Contractor	2,872	N/A	N/A	N/A	N/A	
Australia						
Labour Supply	167	N/A	N/A	N/A	N/A	
Service Contractor	1,247	N/A	N/A	N/A	N/A	
Voluntary Turnover Rate by Region and Age Group (% of employees)						(4), (5)

	2018	2017	2016	2015	2014	Notes
Hong Kong	2.3	1.9	2.3	2.8	2.6	
Below 18	0.0	0.0	0.0	0.0	0.0	
18-29	5.9	2.3	5.4	5.3	5.1	
30-39	4.3	3.2	4.0	6.1	4.7	
40-49	1.7	2.0	1.6	2.0	1.6	
50 and above	1.1	1.2	1.5	1.7	2.0	
Mainland China	4.7	3.0	3.4	2.6	2.5	
Below 18	0.0	0.0	0.0	0.0	0.0	
18-29	16.4	8.8	12.0	5.9	7.7	
30-39	5.2	3.3	1.9	4.1	2.8	
40-49	1.5	1.5	1.4	0.5	1.0	
50 and above	0.0	0.0	1.2	1.3	0.0	
India	5.6	3.5	8.4	9.8	13.2	
Below 18	0.0	0.0	0.0	0.0	0.0	
18-29	6.4	4.6	10.5	9.9	17.3	
30-39	7.2	3.4	9.9	11.6	13.5	
40-49	2.9	3.0	3.4	6.5	10.1	
50 and above	2.5	2.9	6.5	8.3	3.5	
Australia	13.6	13.8	12.6	13.7	11.6	
Below 18	0.0	0.0	0.0	0.0	0.0	
18-29	18.7	22.7	18.3	15.6	14.6	
30-39	15.2	13.0	13.1	18.9	10.5	
40-49	10.5	10.6	10.9	11.2	10.8	
50 and above	10.6	10.5	7.1	5.5	9.1	
Voluntary Turnover Rate by Region and Gender (% of employees)						(4), (5)

	2018	2017	2016	2015	2014	Notes
Hong Kong	2.3	1.9	2.3	2.8	2.6	
Male	1.7	1.6	1.8	2.5	2.1	
Female	5.0	3.3	4.6	4.7	5.3	
Mainland China	4.7	3.0	3.4	2.6	2.5	
Male	4.1	2.4	3.6	2.7	2.4	
Female	7.5	5.3	2.6	1.9	2.9	
India	5.6	3.5	8.4	9.8	13.2	
Male	5.6	3.2	8.0	9.6	13.6	
Female	5.7	6.0	11.5	11.5	9.0	
Australia	13.6	13.8	12.6	13.7	11.6	
Male	12.3	12.9	11.2	12.6	11.1	
Female	15.6	15.1	14.6	15.2	11.8	
Employment Type by Region (% of employees)						
Permanent - Total	87.1	86.9	86.3	85.8	86.6	
Short-term Contract - Total	12.9	13.1	13.7	14.2	13.4	
Hong Kong						
Permanent	84.4	83.3	82.3	80.8	81.4	
Short-term Contract	15.6	16.7	17.7	19.2	18.6	
Mainland China						
Permanent	70.0	71.9	69.6	70.0	73.3	
Short-term Contract	30.0	28.1	30.4	30.0	26.7	
India						
Permanent	98.5	99.4	99.8	99.7	99.7	
Short-term Contract	1.5	0.6	0.2	0.3	0.3	
Australia						

	2018	2017	2016	2015	2014	Notes
Permanent	95.4	96.2	96.9	98.3	98.0	
Short-term Contract	4.6	3.8	3.1	1.7	2.0	
Total Employees Eligible to Retire in the Next Five Years (% of employees)	16.4	15.1	14.1	13.3	12.4	(6) ,(7)
Hong Kong	20.0	18.6	17.3	16.2	15.4	
Mainland China	13.2	10.6	12.1	11.9	11.1	
India	4.0	2.4	0.9	0.8	1.4	
Australia	12.8	12.2	11.4	10.9	9.2	
Diversity and Equal Opportunity						(1)
Group Executive Committee (GEC) members - Gender (% of GEC Members)						
Male	71	69	69	N/A	N/A	
Female	29	31	31	N/A	N/A	
Group Executive Committee (GEC) members - Nationality (% of GEC Members)						(8)
American / Canadian	14	15	15	N/A	N/A	
Australian/ New Zealander	29	31	31	N/A	N/A	
Chinese	21	23	23	N/A	N/A	
European	29	23	23	N/A	N/A	
Indian	7	8	8	N/A	N/A	
Employee Age Distribution (% of employees)						
Below 18 - Total	0.1	0.01	0.03	0.05	0.01	
18-29 - Total	14.5	15.6	16.6	17.3	17.4	
30-39 - Total	28.2	28.1	27.2	26.1	26.7	
40-49 - Total	26.3	25.6	25.4	25.8	27.0	
50 and above - Total	30.9	30.7	30.8	30.8	28.9	

	2018	2017	2016	2015	2014	Notes
Hong Kong						
Below 18	0.09	0.0	0.1	0.1	0.02	
18-29	13.6	13.7	13.2	12.3	12.4	
30-39	21.5	21.6	21.2	20.7	20.8	
40-49	26.1	25.6	26.1	27.4	29.2	
50 and above	38.7	39.1	39.4	39.5	37.6	
Mainland China						
Below 18	0.0	0.0	0.0	0.0	0.0	
18-29	15.6	17.0	17.7	18.8	17.7	
30-39	34.1	32.2	29.5	27.9	27.3	
40-49	33.6	34.3	37.1	38.3	40.8	
50 and above	16.8	16.5	15.7	15.0	14.2	
India						
Below 18	0.0	0.0	0.0	0.0	0.0	
18-29	18.3	22.9	23.9	32.0	27.6	
30-39	48.5	46.7	45.7	42.1	42.6	
40-49	22.9	22.2	22.1	19.4	22.0	
50 and above	10.3	8.2	8.3	6.5	7.8	
Australia						
Below 18	0.1	0.1	0.0	0.0	0.0	
18-29	15.3	17.8	22.2	25.0	27.1	
30-39	36.9	37.2	35.8	34.5	37.1	
40-49	25.5	23.8	21.2	20.0	19.2	
50 and above	22.2	21.1	20.8	20.5	16.7	
Gender Diversity Targets (% of employees)						

	2018	2017	2016	2015	2014	Notes
Women in Leadership	22.9	N/A	N/A	N/A	N/A	
Women in Engineering	10.9	N/A	N/A	N/A	N/A	
Gender Distribution by Region (% of employees)						
Male - Total	76.1	76.2	76.4	75.7	75.2	
Female - Total	23.9	23.8	23.6	24.3	24.8	
Hong Kong						
Male	80.1	81.0	81.5	82.2	82.5	
Female	19.9	19.0	18.5	17.8	17.5	
Mainland China						
Male	82.2	80.6	79.5	79.3	78.3	
Female	17.8	19.4	20.5	20.7	21.7	
India						
Male	88.6	88.8	88.7	90.2	91.1	
Female	11.4	11.2	11.3	9.8	8.9	
Australia						
Male	62.6	61.4	61.3	57.4	54.7	
Female	37.4	38.6	38.7	42.6	45.3	
Gender Distribution by Professional Category (% of employees)						
Hong Kong						
Managerial - Male	75.6	74.5	76.5	76.6	76.9	
Managerial - Female	24.4	25.5	23.5	23.4	23.1	
Professional - Male	76.7	78.0	78.4	79.3	80.1	
Professional - Female	23.3	22.0	21.6	20.7	19.9	
General & Technical Staff - Male	83.5	83.9	84.4	85.0	84.8	

	2018	2017	2016	2015	2014	Notes
General & Technical Staff - Female	16.5	16.1	15.6	15.0	15.2	
Mainland China						
Managerial - Male	76.5	73.3	83.3	90.0	78.3	
Managerial - Female	23.5	26.7	16.7	10.0	21.7	
Professional - Male	84.4	85.0	83.7	83.1	85.7	
Professional - Female	15.6	15.0	16.3	16.9	14.3	
General & Technical Staff - Male	81.1	78.2	76.9	77.1	75.5	
General & Technical Staff - Female	18.9	21.8	23.1	22.9	24.5	
India						
Managerial - Male	93.4	94.8	94.3	93.0	94.9	
Managerial - Female	6.6	5.2	5.7	7.0	5.1	
Professional - Male	89.0	89.4	89.9	92.8	93.7	
Professional - Female	11.0	10.6	10.1	7.2	6.3	
General & Technical Staff - Male	85.7	84.8	84.3	83.8	83.8	
General & Technical Staff - Female	14.3	15.2	15.7	16.2	16.2	
Australia						
Managerial - Male	72.4	73.0	74.2	71.0	73.8	
Managerial - Female	27.6	27.0	25.8	29.0	26.2	
Professional - Male	57.6	56.1	55.3	58.4	62.1	
Professional - Female	42.4	43.9	44.7	41.6	37.9	
General & Technical Staff - Male	67.1	65.1	65.4	55.0	47.2	
General & Technical Staff - Female	32.9	34.9	34.6	45.0	52.8	
Average Length of Service Years by Region (Number of Years)						
Hong Kong	17.3	17.5	17.7	17.9	18.2	
Mainland China	13.7	13.7	14.0	14.2	15.0	

	2018	2017	2016	2015	2014	Notes
India	6.8	6.1	5.7	11.5	5.7	
Australia	4.9	5.2	4.4	4.4	4.6	
Discrimination & Harassment						(1)
Substantiated Complaints						
Harassment	3	3	4	1	2	
Discrimination	0	2	0	0	0	
Human Rights Grievances	0	0	0	0	0	
Training and Development						(1)
Technical Trainees Intake (number)	85	117	N/A	N/A	N/A	
Male - Total (% of employees)	78.8	76.1	N/A	N/A	N/A	
Female - Total (% of employees)	21.2	23.9	N/A	N/A	N/A	
Hong Kong - Total (Number)	66	76	N/A	N/A	N/A	
Male (% of employees)	75.8	82.9	N/A	N/A	N/A	
Female (% of employees)	24.2	17.1	N/A	N/A	N/A	
Mainland China - Total (Number)	8	7	N/A	N/A	N/A	
Male (% of employees)	87.5	85.7	N/A	N/A	N/A	
Female (% of employees)	12.5	14.3	N/A	N/A	N/A	
India - Total (Number)	0	6	N/A	N/A	N/A	
Male (% of employees)	0	50	N/A	N/A	N/A	
Female (% of employees)	0	50	N/A	N/A	N/A	
Australia - Total (Number)	11	28	N/A	N/A	N/A	
Male (% of employees)	90.9	60.7	N/A	N/A	N/A	
Female (% of employees)	9.1	39.3	N/A	N/A	N/A	
Employee Training of Our Workforce - Total (Average Hours)	46.1	46.9	49.2	57.2	43.4	(9)
By Gender						

	2018	2017	2016	2015	2014	Notes
Male	51.6	52.4	55.9	59.5	48.7	
Female	28.5	29.5	27.7	49.7	27.1	
By Professional Category						
Managerial	28.6	28.3	29.4	45.2	24.1	
Professional	37.9	39.7	44.5	57.0	38.6	
General & Technical Staff	55.8	55.5	55.1	58.6	49.2	
By Region						
Hong Kong	55.2	57.5	62.9	55.1	51.3	
Mainland China	78.2	71.3	70.9	66.8	88.1	
India	27.1	36.4	39.6	34.3	31.6	
Australia	21.1	18.8	14.3	63.5	16.5	
Employee Training Gender and Professional Category (% of employees)						
Hong Kong	93.3	99.1	98.2	97.2	93.2	
Male	95.4	99.2	98.8	96.9	95.0	
Female	84.6	98.5	95.6	98.9	84.7	
Managerial	87.8	98.7	93.2	98.7	79.9	
Professional	92.3	99.2	98.4	99.3	92.8	
General & Technical Staff	94.7	99.0	98.6	95.4	94.9	
Mainland China	99.8	91.0	99.6	99.8	97.7	
Male	100.0	91.2	99.6	100.0	97.9	
Female	99.1	90.2	100.0	99.1	97.1	
Managerial	100	100	100	100	100	
Professional	100.0	100.0	100.0	99.4	92.9	
General & Technical Staff	99.7	85.1	99.4	100.0	99.4	

	2018	2017	2016	2015	2014	Notes
India	83.2	86.6	88.3	86.4	92.5	
Male	82.5	85.4	88.9	86.3	91.7	
Female	88.5	96.2	83.7	87.2	100.0	
Managerial	93.4	79.3	81.1	90.7	92.3	
Professional	95.8	91.6	93.5	86.1	91.0	
General & Technical Staff	53.4	79.5	81.3	85.5	96.0	
Australia	100	100	100	100	100	
Male	100	100	100	100	100	
Female	100	100	100	100	100	
Managerial	100	100	100	100	100	
Professional	100	100	100	100	100	
General & Technical Staff	100	100	100	100	100	

2018 data shaded in orange have been independently verified by PricewaterhouseCoopers. The assurance scope of the past years' data can be found in the previous Sustainability Reports.

Notes:

- (1) 2014 employee related data excluded Mount Piper and Wallerawang staff in Australia, except for the number of full time / part time employees, gender distribution, voluntary turnover rate and percentage of employees eligible to retire in the next five years.
- (2) 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.
- (3) 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.
- (4) Voluntary turnover is employees leaving the organisation voluntarily and does not include dismissal, retirement, separation under a separation scheme or end of contract.
- (5) 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.
- (6) Given our high retention rate, we have modelled that our retirement projection will continue to increase for a number of years. There will then be a transition as employees start to retire and are replaced with younger staff, and the projection will reduce.
- (7) The percentages given refer to full-time permanent staff within each location, who are eligible to retire within the next five years.
- (8) Nationality is based on passport, and does not necessarily reflected ethnic origin.
- (9) 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.

Data and downloads

[Data Table](#)
[Downloads](#)

Data Table

Customers

	2018	2017	2016	2015	2014	Notes
Customer Portfolio						
Hong Kong Customers	2,597,083	2,555,522	2,524,329	N/A	N/A	
Commercial	206,073	203,891	201,582	N/A	N/A	
Manufacturing	17,966	18,650	19,454	N/A	N/A	
Residential	2,265,151	2,228,438	2,200,009	N/A	N/A	
Infrastructure and Public Services	107,893	104,543	103,284	N/A	N/A	
Australian Customers	2,550,138	2,623,425	2,625,192	N/A	N/A	
Commercial and Industrial	12,526	13,234	15,238	N/A	N/A	

	2018	2017	2016	2015	2014	Notes
Mass Market	2,537,612	2,610,191	2,609,954	N/A	N/A	
Customer Satisfaction						
Customer Service -EnergyAustralia						
Customer Service - Calls Handled by EnergyAustralia (number)	2,364,731	2,421,816	2,590,868	2,843,495	3,372,654	
Customer Service - Complaints Received by EnergyAustralia (number)	23,373	29,180	23,536	33,339	37,495	
Customer Satisfaction Score - CLP Power Hong Kong						
CLP	73	71	70	68	69	
All Public Utilities in the Energy Sector	73	71	70	69	69	
Public Service Organisations	73	71	70	69	70	
Access to Electricity						
Disconnections for our Hong Kong Retail Business - Total (number)	6,722	7,888	9,103	10,197	6,015	
0 -2 days	6,319	7,426	8,545	8,128	5,519	
3 - 7 days	225	255	359	313	196	
8 -31 days	168	192	190	1,748	241	
≥ 32 days	10	15	9	8	59	

Data and downloads

[Data Table](#)
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Data Table

Supply Chain

	2018	2017	2016	2015	2014	Notes
Responsible Procurement						(1)
Suppliers by Region (Number)	5,721	5,536	5,248	5,424	5,203	
Australia	1,986	1,941	1,922	2,190	2,071	
India	1,476	1,443	1,366	1,311	969	
Mainland China	1,011	995	1,018	999	1,103	
Hong Kong	950	899	721	696	836	
Europe	129	112	95	100	101	
Other (Asia Pacific)	84	70	65	66	63	

	2018	2017	2016	2015	2014	Notes
America	78	69	54	60	56	
Rest of the world	7	7	7	2	4	
Payment to Suppliers by Region (HK\$M)	39,183	30,868	25,972	30,787	30,946	
Mainland China	10,339	8,343	8,872	12,547	7,249	
Australia	9,410	7,184	4,877	3,842	6,317	
Hong Kong	8,917	7,264	6,301	6,985	7,083	
India	4,597	2,527	2,355	2,990	3,466	
Other (Asia Pacific)	4,363	4,467	3,096	3,847	5,670	
Europe	1,170	830	415	514	1,081	
America	380	241	51	60	76	
Rest of the world	7	12	5	2	4	

Notes:

(1) Figures include rounding adjustments.

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 [2018 Annual Report](#) for more details on the entities included in our consolidated financial statements.

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 (excluding part-time staff unless otherwise specified). It does not include employees of our joint ventures, joint operations, associates or contractors.

Health and Safety	Includes all power assets/ projects, transmission and distribution infrastructure, fuel storage facilities or regional office areas: <ul style="list-style-type: none"> • 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.
Environment Resource Use GHG & Air Emissions Environmental Compliance	Includes all power assets, transmission and distribution infrastructure or fuel storage facilities: <ul style="list-style-type: none"> • 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 • That pose material impact to the environment. 100% of the performance data for in-scope assets is reported without adjustment based on our equity share, unless otherwise stated.
Climate Vision 2020	Data are consolidated on an equity basis with two variations: <ol style="list-style-type: none"> 1. Equity ownership Includes all power generation assets/ projects where CLP has an equity share. <ul style="list-style-type: none"> • Assets are included on an equity ownership basis (i.e. performance 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 style="list-style-type: none"> • Purchase agreement duration is at least 5 years; and • Capacity or energy purchased is no less than 10MW. Some statistical data derived from our overseas operations may not be strictly comparable because local and / or regulatory definitions may vary.
CLP Power Hong Kong Carbon Emissions Intensity of Electricity Sold	Includes all power generation assets involved with the delivery of electricity to CLP Power Hong Kong customers, and: <ul style="list-style-type: none"> • 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 • The GWh is from our Total Electricity Sales for CLPP HK and includes generation from Daya Bay Nuclear Power Station.

KPI Summary

We continually improve by managing, monitoring and reporting our performance. These tables present a quantitative overview of our 2018 non-financial performance. The indicators are selected from the Global Reporting Initiative (GRI) Standards as well as other key performance data. 2018 data shaded in orange have been independently verified by PricewaterhouseCoopers. The assurance scope of the past years' data can be found in the previous Sustainability Reports.

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
<u>Economic value generated (HK\$M)</u>							
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)	
<u>Economic value distributed (HK\$M)</u>							
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
<u>Economic value retained (HK\$M)</u>	14,374	14,951	13,369	17,361	11,090	(5)	201-1

KPI Summary

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
<u>Total employees based on geographical location (number)</u>	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		
<u>Total Employees eligible to retire within the next five years (%)</u>	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		
<u>Voluntary staff turnover rate (%)</u>						(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		
<u>Training per employee (average hours)</u>	46.1	46.9	49.2	57.2	43.4	(16)	404-1 / B3.2

KPI Summary

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 ₂ / 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 ₂ / 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 ₂ 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
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 _x) (kT)	60.9	59.3	58.1	56.3	74.6		305-7 / A1.1
Sulphur dioxide emissions (SO ₂) (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

KPI Summary

Environment (Continued)	2018	2017	2016	2015	2014	Notes (17)	GRI/ HKEx
Resource Use and Emissions (Continued)						(22)	
Water withdrawal (Mm ³)	5,153.7	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 (Mm ³)	5,103.1	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

KPI Summary

Notes to the KPI table:

- 1 Include 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 (2017: HK\$1,239 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 (2017: HK\$262 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.
- 6 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.
- 9 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.
- 10 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.
- 11 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.
- 14 Voluntary turnover is employees leaving the organisation voluntarily and does not include dismissal, retirement, separation under a separation scheme or end of contract.
- 15 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.
- 16 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.
- 20 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.

**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:

<p>Resource use and Emissions</p> <ul style="list-style-type: none"> • Coal consumed (for power generation) (TJ) • Gas consumed (for power generation) (TJ) • Oil consumed (for power generation) (TJ) • CO₂e emissions from power generation (Scopes 1 and 2) (kT) • CO₂ emissions from power generation (Scopes 1 and 2) (kT) • Nitrogen oxides emissions (NO_x) (kT) • Sulphur dioxide emissions (SO₂) (kT) • Total particulates emissions (kT) • Water discharged (Mm³) • Water withdrawal (Mm³) • Hazardous waste produced (T(solid)/kl(liquid)) • Hazardous waste recycled (T(solid)/kl(liquid)) • Non-hazardous waste produced (T(solid)/kl(liquid)) • Non-hazardous waste recycled (T(solid)/kl(liquid)) 	<p>Climate Vision 2050 Target Performance</p> <p>(On equity basis)</p> <ul style="list-style-type: none"> • Total renewable energy generation capacity (% (MW)) • Non-carbon emitting generation capacity (%(MW)) • Carbon dioxide emissions intensity of CLP Group's generation portfolio (kg CO₂ /kWh) <p>(On equity & long-term capacity and energy purchase basis)</p> <ul style="list-style-type: none"> • Total renewable energy generation capacity (% (MW)) • Non-carbon emitting generation capacity (%(MW)) • Carbon dioxide emissions intensity of CLP Group's generation portfolio (kg CO₂ /kWh)
<p>Environmental Compliance</p> <ul style="list-style-type: none"> • Environmental regulatory non-compliances resulting in fines or prosecutions (number) • Environmental licence limit exceedances and other non-compliances (number) 	<p>Governance</p> <ul style="list-style-type: none"> • Convicted cases of corruption (cases) • Breaches of Code of Conduct (cases)
<p>Safety</p> <ul style="list-style-type: none"> • 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) 	<p>Employees</p> <ul style="list-style-type: none"> • Total employees (number) • Total employees eligible to retire within the next five years (%) • Voluntary staff turnover rate by region (%) <p>Carbon Intensity in Hong Kong</p> <ul style="list-style-type: none"> • 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.

A handwritten signature in blue ink that reads 'PricewaterhouseCoopers'.

PricewaterhouseCoopers
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 ₂ / 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 ₂ / 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 ₂ 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
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 _x) (kT)	60.9	59.3	58.1	56.3	74.6		305-7 / A1.1
Sulphur dioxide emissions (SO ₂) (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.
- 6 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.
- 9 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.
- 10 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.
- 11 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.
- 14 Voluntary turnover is employees leaving the organisation voluntarily and does not include dismissal, retirement, separation under a separation scheme or end of contract.
- 15 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.
- 16 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.
- 20 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 [2018 Annual Report](#) for more details on the entities included in our consolidated financial statements.

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 (excluding part-time staff unless otherwise specified). It does not include employees of our joint ventures, joint operations, associates or contractors.
Health and Safety	<p>Includes all power assets/ projects, transmission and distribution infrastructure, fuel storage facilities or regional office areas:</p> <ul style="list-style-type: none">• 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. <p>100% of the performance data for in-scope assets is reported without adjustment based on our equity share, unless otherwise stated.</p>

Environment Resource Use GHG & Air Emissions Environmental Compliance	Includes all power assets, transmission and distribution infrastructure or fuel storage facilities: <ul style="list-style-type: none"> • 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 • That pose material impact to the environment. 100% of the performance data for in-scope assets is reported without adjustment based on our equity share, unless otherwise stated.
Climate Vision 2020	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 style="list-style-type: none"> • Assets are included on an equity ownership basis (i.e. performance 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 style="list-style-type: none"> • Purchase agreement duration is at least 5 years; and • Capacity or energy purchased is no less than 10MW. Some statistical data derived from our overseas operations may not be strictly comparable because local and / or regulatory definitions may vary.
CLP Power Hong Kong Carbon Emissions Intensity of Electricity Sold	Includes all power generation assets involved with the delivery of electricity to CLP Power Hong Kong customers, and: <ul style="list-style-type: none"> • 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 • The GWh is from our Total Electricity Sales for CLPP HK and includes generation from Daya Bay Nuclear Power Station.

2018 Climate Action Finance Report

Introduction

CLP Holdings Limited's (CLP) vision is to be the leading responsible energy provider in the Asia-Pacific region, from one generation to the next. As part of this endeavour, CLP is committed to taking action on climate change. In 2007, we were the first electric utility company headquartered in Asia to publish carbon intensity reduction targets out to 2050 in our Climate Vision 2050. In 2018, we published our updated decarbonisation roadmap with the reinforcement of our carbon intensity reduction target for 2050 from a 75% reduction in our carbon intensity to 80% reduction over 2007 levels, and the newly developed 30% renewable and 40% non-carbon emitting capacity targets for 2030.

To reinforce CLP's sustainability leadership and commitment to transition to a low carbon economy as manifested in our Climate Vision 2050 and to respond to the increasing investor awareness of the climate change imperative, CLP has established the Climate Action Finance Framework (CAFF) in July 2017 that sets out how CLP may raise Climate Action Bonds and use the proceeds of those bonds to invest in projects that are consistent with this strategy to respond to the climate change challenges.

Since the inception of the CAFF, Castle Peak Power Company Limited (CAPCO), a key subsidiary of CLP engaging in the electricity generation business in Hong Kong, has issued the inaugural Energy Transition Bond in July 2017 to finance the construction of a new 550MW combined cycle gas turbine generation unit (CCGT). This also supported Hong Kong's ambition to become a regional hub for green financing. CLP is contemplating more issuances under the CAFF and the landfill gas power generation project at the West New Territories Landfill site in Hong Kong is one of the options being considered.

CLP Climate Action Finance Framework

The objective of the CAFF is to support the transition to a low carbon economy by attracting socially responsible, sustainable financings, to support CLP's investments that reduce the carbon content of energy generated and increase the efficiency of energy usage.

The CAFF formalises and governs project evaluation, monitoring and reporting the use of proceeds for Climate Action Bond issuances. Two types of Climate Action Bonds can be issued under the CAFF, which are:

- Energy Transition / Emission Reduction Bonds whose use of proceeds is to develop gas fired power plants to support the transition from coal fired power generation in markets with limited renewable energy resources; and
- New Energy Bonds whose use of proceeds is to develop renewable energy, energy efficiency and low emissions transportation infrastructure projects.

The Green Bond Principles (GBP), updated as of June 2018, are voluntary process guidelines that recommend transparency and disclosure and promote integrity in the development of the Green Bond market by clarifying the approach for issuance of a Green Bond.

There are four core components of a Green Bond - Use of Proceeds, Process for Project Evaluation and Selection, Management of Proceeds and Reporting.

The table in the next page summarises how CLP Climate Action Bonds align with the GBP.

Components	Energy Transition / Emission Reduction Bonds	New Energy Bonds
Use of Proceeds	New natural gas fired power plants and conversion of coal fired power plants which will result in carbon emissions less than 450gCO ₂ /kWh at baseload	<ul style="list-style-type: none"> Renewable energy Energy efficiency Low carbon transport infrastructure
Process for Project Evaluation and Selection	<ul style="list-style-type: none"> Business units propose projects for eligible use of proceeds and Climate Action Bond issuance Climate Action Finance Committee reviews and approves the eligibility of proposed use of proceeds and Climate Action Bond issuance 	
Management of Proceeds	<ul style="list-style-type: none"> Proceeds of each Climate Action Bond are credited to dedicated bank accounts/deposits pending allocation to eligible projects Use of proceeds tracked through business units' internal information system with individual register established for each Climate Action Bond 	
Reporting	<ul style="list-style-type: none"> Climate Action Finance Report issued on an annual basis disclosing the below information of Climate Action Bonds not yet fully repaid: <ul style="list-style-type: none"> Identity of issuing business unit Type of Climate Action Bond issued Aggregate amounts of proceeds allocated Remaining balance of unallocated proceeds Estimation of beneficial impact of the use of proceeds Information on projects with allocation of bond proceeds The Climate Action Finance Report will be reviewed by the Climate Action Finance Committee and published within the Group Sustainability Report 	

It is noted that the use of proceeds of the Energy Transition / Emission Reduction Bond is not included in the indicative list of Green Project categories under the use of proceeds section in the Green Bond Principles, otherwise CLP Climate Action Bonds issued under the CAFF align with the Green Bond Principles.

GOVERNANCE OF THE CAFF

All eligible projects of the CAFF undergo a rigorous review and approval process within a robust, transparent framework and clear guidelines. CLP has established a Climate Action Finance Committee (the Committee) with the responsibility for governing the CAFF, including approval of Climate Action Bond issuance and determination of the eligibility of proposed use of proceeds. The Committee consists of CLP Executive Director and Chief Financial Officer and senior management from sustainability, finance and legal departments. The CLP Group Treasury & Project Finance acts as the secretariat of the Committee to provide the necessary support.

SECOND PARTY OPINION

DNV GL, an independent consultant and a leading provider of green bond independent assessment, has provided a second party opinion on the CAFF. It is DNV GL's opinion that there are environmental benefits for the investments to be funded under the CAFF.

CONCLUSION OF DNV GL SECOND PARTY OPINION

On the basis of the information provided by CLP and the work undertaken, it is DNV GL's opinion that the Climate Action Bonds meet the criteria established in the Protocol and there are environmental benefits for the investments to be funded under the CAFF.

DNV GL notes that the Use of Proceeds of the New Energy Bonds are included in the indicative list of sectors included in the section 1 of Green Bond Principles whilst the Use of Proceeds of Energy Transition Bonds are not. DNV GL concludes that the project selection, funds tracking and reporting procedures set out in the CAFF meet the criteria established in the Protocol and are aligned with sections 2, 3 and 4 of the Green Bond Principles 2017.



See CLP Climate Action Finance Framework



See DNV GL Second Party Opinion Report

Use of Proceeds Reporting

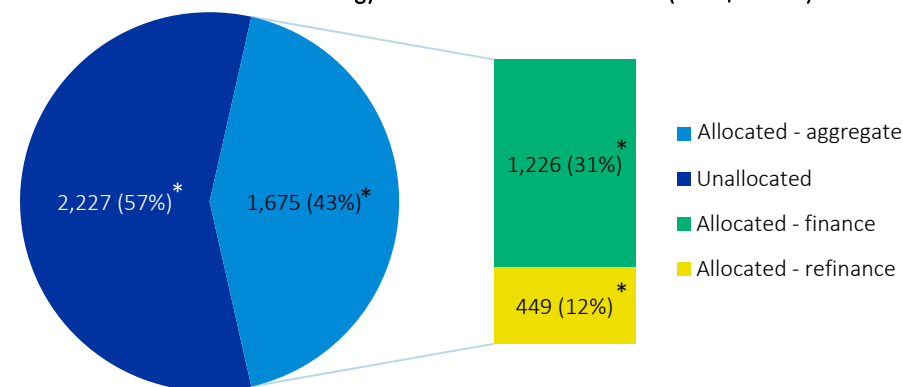
By the year end of 2018, the CAPCO US\$500 million Energy Transition Bond was the only issuance under the CAFF. Proceeds from this bond are for financing the construction of a new 550MW CCGT at CAPCO's Black Point Power Station in Hong Kong. The new unit will employ the latest gas turbine technology to achieve high thermal efficiency and a lower carbon emissions intensity than the average of the generation units currently used in Hong Kong. The construction of the new CCGT is a critical component of CLP's contribution to the implementation of Hong Kong Government's Climate Action Plan 2030+ to reduce Hong Kong's carbon intensity by 65% to 70% by 2030 compared with the 2005 level, which includes the policy of increasing the share of gas in the Hong Kong's fuel mix for power generation to around 50% in 2020.

CAPCO's Energy Transition Bond Details

Issuer	Castle Peak Power Finance Company Limited
Guarantor	Castle Peak Power Company Limited
Issue Date	25 July 2017
Tenor	10 years
Nominal Issued Amount	US\$500 million
Coupon	3.25% per annum
Listing	The Stock Exchange of Hong Kong
ISIN Code	XS1648263926

Bond proceeds were swapped into Hong Kong dollar of about HK\$3.9 billion to mitigate foreign exchange risk and the full amount is earmarked for the CCGT project. Bond proceeds were applied at the outset of the bond tenor to replace bank debt bridge facilities designated to the CCGT project and the remaining balance was credited to dedicated bank account/deposits pending settlement of future CCGT related payments. As at the reporting date of 31 December 2018, the use of the bond proceeds is illustrated in the chart below:

Allocation of CAPCO's Energy Transition Bond Net Proceeds (in HK\$ million)



* Information has been subject to independent limited assurance by PwC

Reporting Criteria

Following section 6 of the CAFF – “Reporting on Use of Proceeds”:

- a Climate Action Bond is added to this report when the bond was issued during the reporting period; and
- a Climate Action Bond is removed from this report when the bond has been fully repaid.

Assurance of Climate Action Finance Report

CLP has engaged PwC as an independent assurance provider to provide assurance that selected information in this report has been prepared in line with the CLP Climate Action Finance Framework.



See PwC Assurance Report

Project Updates



CAPCO's Combined Cycle Gas Turbine (CCGT) Generation Unit

Location	Black Point Power Station, Hong Kong
Total Investment Amount	HK\$5.5 billion
Amount to be financed by Energy Transition Bond	HK\$3.9 billion (US\$500 million equivalent)
Installed Capacity	550MW
Generation Efficiency	61% [#] , higher than any of the units currently in use in Hong Kong and being one of the most efficient gas-fired generation units in the world
Technology	The latest Siemens H-Class CCGT technology
Estimation of Beneficial Environmental Impact	<ul style="list-style-type: none"> 1 to 2 million tons of CO₂ emissions avoided per year expected to have emissions intensity less than the 2016 carbon intensity of the electricity used by CLP's customers in Hong Kong (540g CO₂/kWh) and meet the requirement (i.e. below 450g CO₂/kWh) for the qualification of an Energy Transition Bond potential reduction of annual NO_x emission up to 19% and Sulphur Dioxide (SO₂) and Respirable Suspended Particulates (RSP) emissions by around 10% in 2020 for CAPCO power generation system

[#] Provisional figure

Progress in 2018

- All major equipment has arrived at site on schedule.
- Turboset comprising of gas turbine, steam turbine and generator has been placed on foundation and is undergoing alignment. Installation of ancillary equipment has commenced.
- All steam generating modules and steam drums of the heat recovery steam generator (HRSG) have been installed and pipework installation has commenced.
- Installation of the 400kV transmission network connection equipment for the new generator has been completed.
- Circulating water system civil works are progressing.
- Construction methods to minimize off-site disposal of construction materials and prevent off-site waste water discharge are being effectively employed.
- Building Environmental Assessment Method (BEAM Plus) Provisional Platinum rating undergoing assessment by the Hong Kong Green Building Council (HKGBC). This highest rating would signify that the planning, design, construction and commissioning of the new CCGT project has adopted an affordable range of best practices in seeking to reduce the environmental impacts of the new building whilst also improving environmental quality and user satisfaction.
- Scheduled to have the new unit in commercial operation by 2020.



Storage on-site and re-use of excavated materials reducing off-site disposal of construction waste



Treatment of site waste water



Use of treated waste water preventing off-site discharge of dirt & dust



On-site noise monitoring

Independent Practitioner's Limited Assurance Report

To the Board of Directors of CLP Holdings Limited

We have been engaged to perform a limited assurance engagement on the selected information listed below and identified with the symbol * in the 2018 Climate Action Finance Report of CLP Holdings Limited (the "Company") and as appended to this opinion (the "Selected Information").

Selected Information

The scope of our work was limited to assurance over the Selected Information marked with the symbol * in the 2018 Climate Action Finance Report as summarised below:

- aggregate amounts of allocated proceeds;
- the split of allocated proceeds between amounts designated as financed and refinanced; and
- the remaining balance of unallocated proceeds at 31 December 2018.

Our assurance does not extend to information in respect of earlier periods or to any other information included in the 2018 Climate Action Finance Report.

Reporting Criteria

The criteria used by the Company to prepare the Selected Information is set out under the heading "Reporting Criteria" on page 3 of the 2018 Climate Action Finance Report and as appended to this opinion (the "Reporting Criteria").

Directors' Responsibilities

The directors of the Company are responsible for:

- designing, implementing and maintaining internal controls over information relevant to the preparation of the Selected Information that is free from material misstatement, whether due to fraud or error;
- establishing objective Reporting Criteria for preparing the Selected Information;
- measuring and reporting the Selected Information based on the Reporting Criteria; and
- the content of the Climate Action Finance Report.

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 Hong Kong Institute of Certified Public Accountants (the "HKICPA"), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Our firm applies Hong Kong Standard on Quality Control 1 issued by the HKICPA 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.

Independent Practitioner's Limited Assurance Report

To the Board of Directors of CLP Holdings Limited (Continued)

Our Responsibilities

It is our responsibility to express a conclusion on the Selected Information based on our work performed and to report our conclusion solely to you, as a body, in accordance with our agreed terms of engagement and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

We conducted our work in accordance with Hong Kong Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" issued by the HKICPA. This standard requires that we plan and perform our work to form the conclusion whether the Selected Information is free from material misstatement.

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 in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. The extent of procedures selected depends on the practitioner's judgment and our assessment of the engagement risk. Within the scope of our work we performed amongst others the following procedures:

- made enquiries of the Company's management, including those involved in providing information relating to the 2018 Climate Action Finance Report;
- checked the approval of the allocation of proceeds by the Climate Action Finance Committee to the Company's proposal for eligible use of proceeds relating to the transactions;
- checked the exchange rate on a sample basis used by management to independent external evidence and checked the mathematic accuracy of foreign exchange translation calculations;
- tested the mathematic accuracy of the remaining balance of unallocated proceeds; and
- checked the use of proceeds on a sample basis as approved by the Climate Action Finance Committee of CLP Holdings Limited to capital expenditure supporting payments documents (including allocation for finance and refinance transactions) and ensured that these are for approved Energy Transition projects.

Our work did not include evaluating the effectiveness of systems, processes and controls that generated the Selected Information. Thus, our work was not performed for the purposes of expressing an opinion on the effectiveness and performance of the Company's management systems, processes and controls, and not for the purposes of expressing an opinion on any statutory financial statements.

Inherent Limitation

The Selected Information needs to be read and understood together with the Reporting Criteria, which the Company is solely responsible for selecting and applying. The absence of a significant body of established practice on which to draw to evaluate and measure information allows for different, but acceptable, measurement techniques and can affect comparability between entities and over time. The Reporting Criteria used for the reporting of the Selected Information are as at 31 December 2018.

Independent Practitioner's Limited Assurance Report


To the Board of Directors of CLP Holdings Limited (Continued)

Conclusion

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the Selected Information as at 31 December 2018 is not prepared, in all material respects, in accordance with the Reporting Criteria.

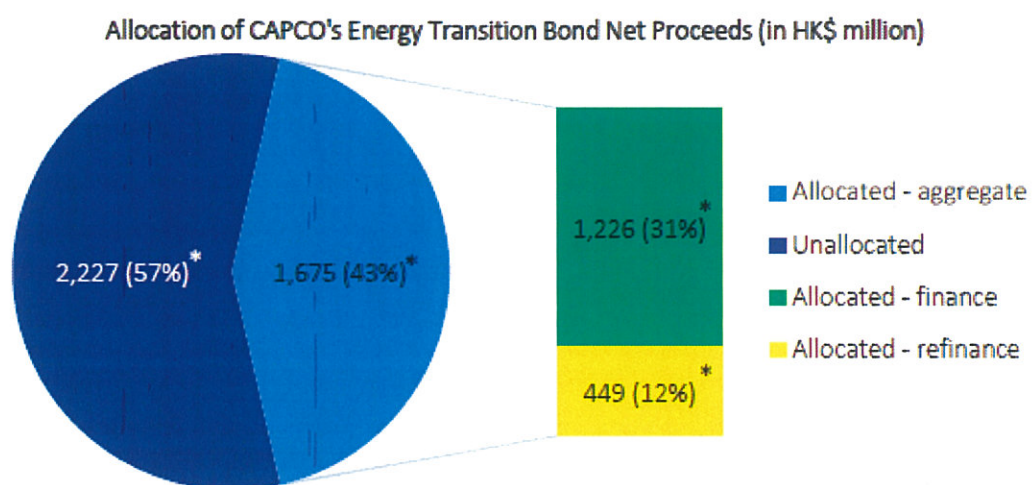
Restrictions on Use

Our report has been prepared for and only for the board of directors of the Company 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
Certified Public Accountants

Hong Kong, 25 February 2019

Appendix I – Selected Information



* Information has been subject to independent limited assurance by PwC

Appendix II: Reporting Criteria

Group will prepare a Climate Action Finance Report on an annual basis. For each CLP Climate Action Bond, the followings will be disclosed:

- Identity of CLP Group Business Unit issuing a CLP Climate Action Bond under the CAFF;
- Type of CLP Climate Action Bond issued (Energy Transition or Emissions Reduction Bond or New Energy Bond);
- Aggregate amounts of proceeds allocated;
- Estimation of beneficial impact of the use of proceeds;
- The remaining balance of unallocated proceeds at the reporting period end.

A CLP Climate Action Bond is added to and removed from the Climate Action Finance Report as below:

- A CLP Climate Action Bond is added to the Climate Action Finance Report when the CLP Climate Action Bond was issued during the reporting period;
- A CLP Climate Action Bond is removed from the Climate Action Finance Report when the CLP Climate Action Bond has been fully repaid.

The Climate Action Finance Report will provide further information on projects with allocations from proceeds of CLP Climate Action Bonds.

The Climate Action Finance Report will be reviewed by the CAFC. The Climate Action Finance Report will be published within the Group Sustainability Report.

Black Point

龍鼓灘

- Gas-fired power station 燃氣電廠
- 2,575MW (3 x 337.5MW & 5 x 312.5MW) 2,575兆瓦 (3 x 337.5兆瓦 和 5 x 312.5兆瓦)
- Plant commissioned between 1996 and 2006 電廠於1996年至2006年間投產
- Shareholding of 70% with operational control by CLP 中電擁有70%權益及營運控制權

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out 輸出電量	GWh 百萬度	9,304	9,550	9,175
Gas consumed 天然氣消耗量	TJ 兆兆焦耳	72,963	75,747	73,014
Oil consumed 燃油消耗量	TJ 兆兆焦耳	163	76	227
Thermal efficiency 發電效能	%	45.8	45.3	45.1
Equivalent availability factor (EAF) 等效可用率	%	87.7	86.2	81.4
2. Air Emissions 氣體排放				
CO ₂ e (Scope 1) ⁽¹⁾ 二氧化碳當量 (範疇一) ⁽¹⁾	kT 千公噸	3,776	3,923	3,761
CO ₂ (Scope 1) ⁽¹⁾ 二氧化碳 (範疇一) ⁽¹⁾	kT 千公噸	3,759	3,906	3,745
SO ₂ 二氧化硫	kT 千公噸	0.08	0.08	0.05
NO _x 氮氧化物	kT 千公噸	1.4	1.4	1.6
Particulate (Total) 粒狀物 (總量)	kT 千公噸	0.06	0.06	0.06
Particulate (Respirable) 粒狀物 (可吸入懸浮粒子)	kT 千公噸	0.06	0.06	0.06
3. Water 水				
Water Withdrawal - Total 水抽取量 - 總數	Mm ³ 兆立方米	943.9	923.7	934.9
from marine water resources 海水	Mm ³ 兆立方米	943.5	923.4	934.6
from freshwater resources ⁽²⁾ 淡水 ⁽²⁾	Mm ³ 兆立方米	-	-	-
from municipal sources 自來水	Mm ³ 兆立方米	0.4	0.3	0.3

Black Point

龍鼓灘

Parameter 統計事項	Unit 單位	2018	2017	2016
3. Water 水				
Water Discharged - Total 水排放量 - 總數	Mm ³ 兆立方米	943.6	923.5	934.7
cooling water discharged to sea 冷卻水(排放至海洋)	Mm ³ 兆立方米	943.5	923.4	934.6
treated wastewater discharged to sea 經處理的廢水(排放至海洋)	Mm ³ 兆立方米	0.1	0.1	0.1
treated wastewater discharged to freshwater bodies ⁽²⁾ 經處理的廢水(排放至淡水水體) ⁽²⁾	Mm ³ 兆立方米	-	-	-
wastewater discharged to sewerage ⁽³⁾ 未經處理的廢水(排放至污水系統) ⁽³⁾	Mm ³ 兆立方米	-	-	-
Water Reused / Recycled ⁽⁴⁾ 水回收/循環使用量 ⁽⁴⁾	Mm ³ 兆立方米	-	-	-
4. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
5. Waste Management 廢物管理 ⁽⁵⁾				
Hazardous waste 有害廢物				
produced 產量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	68 / 272	126 / 128	31 / 256
recycled 循環再造量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	57 / 242	110 / 100	11 / 224
disposed 棄置量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	11 / 30	16 / 28	20 / 32
Non-hazardous waste 一般廢物				
produced 產量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	956 / 0	12,025 / 0	895 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	285 / 0	360 / 0	233 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	671 / 0	11,665 / 0	661 / 0
6. Safety 安全 ⁽⁶⁾				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	50	0	0
Lost Time Injuries ⁽⁷⁾ 損失工時受傷事故 ⁽⁷⁾	Cases 宗數	2	0	0
Occupational Disease ⁽⁷⁾ 職業病 ⁽⁷⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁷⁾ 總工時 ⁽⁷⁾	Manhours 工時	1,908,921	1,968,165	1,870,155

Black Point

龍鼓灘

Parameter 統計事項	Unit 單位	2018	2017	2016
6. Safety 安全 ⁽⁶⁾				
Contractor 承辦商				
Fatalities ⁽⁷⁾ 死亡 ⁽⁷⁾	No. 人數	0	1	0
Lost Time Injuries ⁽⁷⁾ 損失工時受傷事故 ⁽⁷⁾	Cases 宗數	2	2	0
Total Work Hours ⁽⁷⁾ 總工時 ⁽⁷⁾	Manhours 工時	5,867,399	4,966,405	4,358,061

Notes:

- ⁽¹⁾ Scope 2 emissions are included in Scope 1 as electricity consumed was generated within CLP Power Hong Kong's own Organisational boundary.
使用的電力在中華電力的設施內生產, 因此範疇二的溫室氣體排放已包括在範疇一內。
- ⁽²⁾ Not applicable to Black Point.
不適用於龍鼓灘電廠。
- ⁽³⁾ Wastewater is mainly treated on site and discharged to sea. Data for small amount of wastewater from onsite mobile toilet are not routinely collected.
廢水於電廠內處理再排放到海洋。電廠內的流動廁所產生少量廢水, 但並無定期收集數據。
- ⁽⁴⁾ A portion of the treated wastewater is reused on site but measurement data are not routinely collected.
部分經處理的廢水在電廠內循環再用, 但並無定期收集數據。
- ⁽⁵⁾ Waste categorised in accordance with local regulations. Contractor waste is included.
有害廢物和一般廢物根據當地法例進行分類。數據已包括承辦商產生的廢物。
- ⁽⁶⁾ All safety data are combined for the three power stations under Castle Peak Power Company (CAPCO).
所有安全數據均為三間青山發電有限公司旗下的電廠之綜合數值。
- ⁽⁷⁾ Started reporting in 2014.
數據由2014年起匯報。

2018 data have been independently reviewed by the Hong Kong Quality Assurance Agency (HKQAA).
2018數據由香港品質保證局(HKQAA)獨立審查。

Castle Peak

青山

- Coal-fired power station 燃煤電廠
- 4,108MW (4 x 350MW, 4 x 677MW) 4,108兆瓦 (4 x 350兆瓦, 4 x 677兆瓦)
- Plant commissioned between 1982 and 1990 電廠於1982年至1990年間投產
- Shareholding of 70% with operational control by CLP 中電擁有70%權益及營運控制權

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out 輸出電量	GWh 百萬度	13,727	13,906	15,187
Coal consumed 煤消耗量	TJ 兆兆焦耳	150,310	148,065	160,661
Oil consumed 燃油消耗量	TJ 兆兆焦耳	2,530	3,808	3,207
Gas consumed 天然氣消耗量	TJ 兆兆焦耳	6	59	1,545
Thermal efficiency 發電效能	%	32.3	32.9	33.1
Equivalent availability factor (EAF) 等效可用率	%	85.5	83.7	85.8
2. Air Emissions 氣體排放				
CO ₂ e (Scope 1) ⁽¹⁾ 二氧化碳當量 (範疇一) ⁽¹⁾	kT 千公噸	13,719	13,581	14,834
CO ₂ (Scope 1) ⁽¹⁾ 二氧化碳 (範疇一) ⁽¹⁾	kT 千公噸	13,630	13,492	14,737
SO ₂ 二氧化硫	kT 千公噸	4.7	4.7	5.2
NO _x 氮氧化物	kT 千公噸	14.4	13.1	15.4
Particulate (Total) 粒狀物 (總量)	kT 千公噸	0.5	0.5	0.5
Particulate (Respirable) 粒狀物 (可吸入懸浮粒子)	kT 千公噸	0.4	0.4	0.3
3. Water 水				
Water Withdrawal - Total 水抽取量 - 總數	Mm ³ 兆立方米	2,827.2	2,632.1	2,742.1
from marine water resources 海水	Mm ³ 兆立方米	2,822.0	2,627.4	2,737.4
from freshwater resources ⁽²⁾ 淡水 ⁽²⁾	Mm ³ 兆立方米	-	-	-
from municipal sources 自來水	Mm ³ 兆立方米	5.2	4.7	4.7

Castle Peak

青山

Parameter 統計事項	Unit 單位	2018	2017	2016
3. Water 水				
Water Discharged - Total 水排放量 - 總數	Mm ³ 兆立方米	2,823.5	2,628.9	2,738.8
cooling water discharged to sea 冷卻水(排放至海洋)	Mm ³ 兆立方米	2,822.0	2,627.4	2,737.4
treated wastewater discharged to sea 經處理的廢水(排放至海洋)	Mm ³ 兆立方米	1.5	1.5	1.4
treated wastewater discharged to freshwater bodies ⁽²⁾ 經處理的廢水(排放至淡水水體) ⁽²⁾	Mm ³ 兆立方米	-	-	-
wastewater discharged to sewerage ⁽³⁾ 未經處理的廢水(排放至污水系統) ⁽³⁾	Mm ³ 兆立方米	-	-	-
Water Reused / Recycled ⁽⁴⁾ 水回收/循環使用量 ⁽⁴⁾	Mm ³ 兆立方米	-	-	-
4. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
5. By-products & Waste Management 副產品及廢物管理				
Ash produced 煤灰產量	kT 千公噸	271	237	257
Ash recycled / sold 煤灰循環再造/銷售量	kT 千公噸	271	232	258
Gypsum produced 石膏產量	kT 千公噸	91	73	92
Gypsum recycled / sold 石膏循環再造/銷售量	kT 千公噸	92	78	91
Hazardous waste 有害廢物 ⁽⁵⁾				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	491 / 202	213 / 364	790 / 309
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	11 / 201	26 / 362	55 / 308
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	480 / 1	187 / 2	735 / 1
Non-hazardous waste 一般廢物 ⁽⁵⁾				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	3,798 / 0	3,805 / 0	3,842 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	953 / 0	1,432 / 0	1,009 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	2,845 / 0	2,373 / 0	2,833 / 0

Castle Peak

青山

Parameter 統計事項	Unit 單位	2018	2017	2016
6. Safety 安全 ⁽⁶⁾				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	50	0	0
Lost Time Injuries ⁽⁷⁾ 損失工時受傷事故 ⁽⁷⁾	Cases 宗數	2	0	0
Occupational Disease ⁽⁷⁾ 職業病 ⁽⁷⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁷⁾ 總工時 ⁽⁷⁾	Manhours 工時	1,908,921	1,968,165	1,870,155
Contractor 承辦商				
Fatalities ⁽⁷⁾ 死亡 ⁽⁷⁾	No. 人數	0	1	0
Lost Time Injuries ⁽⁷⁾ 損失工時受傷事故 ⁽⁷⁾	Cases 宗數	2	2	0
Total Work Hours ⁽⁷⁾ 總工時 ⁽⁷⁾	Manhours 工時	5,867,399	4,966,405	4,358,061

Notes:

⁽¹⁾ Scope 2 emissions are included in Scope 1 as electricity consumed was generated within CLP Power Hong Kong's own Organisational boundary.
使用的電力在中華電力的設施內生產, 因此範疇二的溫室氣體排放已包括在範疇一內。

⁽²⁾ Not applicable to Castle Peak.
不適用於青山電廠。

⁽³⁾ Wastewater is mainly treated on site and discharged to sea. Small amount of wastewater from onsite mobile toilet are not routinely collected.
廢水於電廠內處理再排放到海洋。電廠內的流動廁所產生少量廢水, 但並無定期收集數據。

⁽⁴⁾ A portion of the treated wastewater is reused on site but measurement data are not routinely collected.
部分經處理的廢水在電廠內循環再用, 但並無定期收集數據。

⁽⁵⁾ Waste categorised in accordance with local regulations. Contractor waste is included.
有害廢物和一般廢物根據當地法例進行分類。數據已包括承辦商產生的廢物。

⁽⁶⁾ All safety data are combined for the three power stations under Castle Peak Power Company (CAPCO).
所有安全數據均為三間青山發電有限公司旗下的電廠之綜合數值。

⁽⁷⁾ Started reporting in 2014.
數據由2014年起匯報。

2018 data have been independently reviewed by the Hong Kong Quality Assurance Agency (HKQAA).
2018數據由香港品質保證局(HKQAA)獨立審查。

Penny's Bay

竹篙灣

- Diesel-fired power station (backup facility providing quick-start support) 柴油電廠 (提供快速啟動支援的後備設施)
- 300MW (3 x 100MW) 300兆瓦 (3 x 100兆瓦)
- Plant commissioned in 1992 電廠於1992年投產
- Shareholding of 70% with operational control by CLP 中電擁有70%權益及營運控制權

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out 輸出電量	GWh 百萬度	1.1	0.5	1.0
Oil consumed 燃油消耗量	TJ 兆兆焦耳	20	10	18
Thermal efficiency 發電效能	%	20.4	18.0	21.1
Equivalent availability factor (EAF) 等效可用率	%	98.4	96.2	98.9
2. Air Emissions 氣體排放				
CO ₂ e (Scope 1) ⁽¹⁾ 二氧化碳當量 (範疇一) ⁽¹⁾	kT 千公噸	1.5	0.9	1.3
CO ₂ (Scope 1) ⁽¹⁾ 二氧化碳 (範疇一) ⁽¹⁾	kT 千公噸	1.4	0.8	1.2
SO ₂ 二氧化硫	kT 千公噸	0.000008	0.000004	0.000005
NO _x 氮氧化物	kT 千公噸	0.0021	0.0010	0.0018
Particulate (Total) 粒狀物 (總量)	kT 千公噸	0.00004	0.00002	0.00003
Particulate (Respirable) 粒狀物 (可吸入懸浮粒子)	kT 千公噸	0.00004	0.00002	0.00003
3. Water 水				
Water Withdrawal - Total 水抽取量 - 總數	Mm ³ 兆立方米	0.0006	0.0005	0.0006
from marine water resources ⁽²⁾ 海水 ⁽²⁾	Mm ³ 兆立方米	-	-	-
from freshwater resources 淡水	Mm ³ 兆立方米	0	0	0.0001
from municipal sources 自來水	Mm ³ 兆立方米	0.0006	0.0005	0.0005

Penny's Bay

竹篙灣

Parameter 統計事項	Unit 單位	2018	2017	2016
3. Water 水				
Water Discharged - Total 水排放量 - 總數	Mm ³ 兆立方米	0	0	0
treated wastewater discharged to sea 經處理的廢水(排放至海洋)	Mm ³ 兆立方米	0	0	0
treated wastewater discharged to freshwater bodies ⁽²⁾ 經處理的廢水(排放至淡水水體) ⁽²⁾	Mm ³ 兆立方米	-	-	-
wastewater discharged to sewerage ⁽³⁾ 未經處理的廢水(排放至污水系統) ⁽³⁾	Mm ³ 兆立方米	-	-	-
Water Reused / Recycled 水回收/循環使用量	Mm ³ 兆立方米	0	0	0
4. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
5. Waste Management 廢物管理 ⁽⁴⁾				
Hazardous waste 有害廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 3	0 / 8	0 / 1
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 7	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 3	0 / 0	0 / 1
Non-hazardous waste 一般廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	3 / 0	7 / 0	10 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	3 / 0	7 / 0	10 / 0
6. Safety 安全 ⁽⁵⁾				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	50	0	0
Lost Time Injuries ⁽⁶⁾ 損失工時受傷事故 ⁽⁶⁾	Cases 宗數	2	0	0
Occupational Disease ⁽⁶⁾ 職業病 ⁽⁶⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁶⁾ 總工時 ⁽⁶⁾	Manhours 工時	1,908,921	1,968,165	1,870,155

Penny's Bay

竹篙灣

Parameter 統計事項	Unit 單位	2018	2017	2016
6. Safety 安全 ⁽⁵⁾				
Contractor 承辦商				
Fatalities ⁽⁶⁾ 死亡 ⁽⁶⁾	No. 人數	0	1	0
Lost Time Injuries ⁽⁶⁾ 損失工時受傷事故 ⁽⁶⁾	Cases 宗數	2	2	0
Total Work Hours ⁽⁶⁾ 總工時 ⁽⁶⁾	Manhours 工時	5,867,399	4,966,405	4,358,061

Notes:

⁽¹⁾ Scope 2 emissions are included in Scope 1 as electricity consumed was generated within CLP Power Hong Kong's own Organisational boundary.

使用的電力在中華電力的設施內生產, 因此範疇二的溫室氣體排放已包括在範疇一內。

⁽²⁾ Not applicable to Penny's Bay.
不適用於竹篙灣電廠。

⁽³⁾ Wastewater is collected by licenced collector to government sewage treatment facility for treatment and no measurement data is available.
廢水經由持牌收集商收集到政府污水處理廠處理, 但並無定期收集數據。

⁽⁴⁾ Waste categorised in accordance with local regulations. Contractor waste is included.
有害廢物和一般廢物根據當地法例進行分類。數據已包括承辦商產生的廢物。

⁽⁵⁾ All safety data are combined for the three power stations under Castle Peak Power Company (CAPCO).
所有安全數據均為三間青山發電有限公司旗下的電廠之綜合數值。

⁽⁶⁾ Started reporting in 2014.
數據由2014年起匯報。

2018 data have been independently reviewed by the Hong Kong Quality Assurance Agency (HKQAA).
2018數據由香港品質保證局(HKQAA)獨立審查。

Transmission & Distribution Network

輸電及配電系統

- Transmission and distribution system 輸電及供電網絡
- Over 15,862 kilometres of transmission and high voltage distribution lines 輸供電高壓線路總長度超過15,862公里
- 232 primary substations and 14,685 secondary substations 232個總變電站及14,685個副變電站
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Transmission & distribution loss 輸電及供電流失	GWh / % 百萬度 / %	1,262 / 3.6	1,321 / 3.8	1,365 / 3.9
Electricity used onsite 營運地點耗電量	GWh 百萬度	17	18	18
Petrol consumed 汽油消耗量	kl 千公升	1,032	1,059	1,068
Diesel consumed 柴油消耗量	kl 千公升	262	262	224
2. Greenhouse Gas Emissions 溫室氣體排放				
CO ₂ e (Scope 1) ⁽¹⁾ 二氧化碳當量 (範疇一) ⁽¹⁾	kT 千公噸	42	37	31
CO ₂ (Scope 1) ⁽¹⁾ 二氧化碳 (範疇一) ⁽¹⁾	kT 千公噸	3	3	3
SF ₆ 六氟化硫	kT CO ₂ e 千公噸二氧化碳當量	37	28	27
3. Water 水				
Water Withdrawal - Total 水抽取量 - 總數	Mm ³ 兆立方米	0.05	0.05	0.05
from marine water resources ⁽²⁾ 海水 ⁽²⁾	Mm ³ 兆立方米	-	-	-
from freshwater resources 淡水	Mm ³ 兆立方米	0 ⁽⁴⁾	0 ⁽⁴⁾	0 ⁽⁴⁾
from municipal sources 自來水	Mm ³ 兆立方米	0.05	0.05	0.05
Water Discharged - Total 水排放量 - 總數	Mm ³ 兆立方米	0.001	0.001	0.004
treated wastewater discharged to sea 經處理的廢水(排放至海洋)	Mm ³ 兆立方米	0.001	0.001	0.004
treated wastewater discharged to freshwater bodies ⁽²⁾ 經處理的廢水(排放至淡水水體) ⁽²⁾	Mm ³ 兆立方米	-	-	-
wastewater discharged to sewerage ⁽³⁾ 未經處理的廢水(排放至污水系統) ⁽³⁾	Mm ³ 兆立方米	-	-	-
Water Reused / Recycled ⁽³⁾ 水回收/循環使用量 ⁽³⁾	Mm ³ 兆立方米	-	-	-

Transmission & Distribution Network

輸電及配電系統

Parameter 統計事項	Unit 單位	2018	2017	2016
4. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
5. Waste Management 廢物管理 ⁽⁵⁾				
Hazardous waste 有害廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	111 / 980	89 / 687	100 / 278
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	91 / 980	70 / 686	83 / 276
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	20 / 0	18 / 1	16 / 2
Non-hazardous waste 一般廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	251 / 0	228 / 0	342 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	34 / 0	23 / 0	18 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	217 / 0	206 / 0	324 / 0
6. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	63	47	0
Lost Time Injuries ⁽⁶⁾ 損失工時受傷事故 ⁽⁶⁾	Cases 宗數	1	1	0
Occupational Disease ⁽⁶⁾ 職業病 ⁽⁶⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁶⁾ 總工時 ⁽⁶⁾	Manhours 工時	5,181,081	5,182,759	5,089,486
Contractor				
Fatalities ⁽⁶⁾ 死亡 ⁽⁶⁾	No. 人數	0	3	0
Lost Time Injuries ⁽⁶⁾ 損失工時受傷事故 ⁽⁶⁾	Cases 宗數	1	2	0
Total Work Hours ⁽⁶⁾ 總工時 ⁽⁶⁾	Manhours 工時	5,181,511	5,029,858	6,554,007

Transmission & Distribution Network

輸電及配電系統

Note:

⁽¹⁾ Scope 2 emissions are included in Scope 1 as electricity consumed was generated within CLP Power Hong Kong's own organisational boundary.

使用的電力在中華電力的設施內生產, 因此範疇二的溫室氣體排放已包括在範疇一內。

⁽²⁾ Not applicable to Power Systems.

不適用於輸電及供電業務部。

⁽³⁾ Measurement data are not routinely collected.

數據並無定期收集。

⁽⁴⁾ The quantity of water withdrawal from freshwater resources is negligible.

淡水抽取量的數量極少。

⁽⁵⁾ Waste categorised in accordance with local regulations. Contractor waste is excluded. Non-hazardous waste mainly includes construction waste, reporting scope expanded to include additional waste categories in 2014.

有害廢物和一般廢物根據當地法例進行分類。數據不包括承辦商產生的廢物。報告內的一般廢物主要為建築廢物。2014年起一般廢物的匯報範圍擴展至包括以前沒有定期統計的廢物類別。

⁽⁶⁾ Started reporting in 2014.

數據由2014年起匯報。

2018 data have been independently reviewed by the Hong Kong Quality Assurance Agency (HKQAA).

2018數據由香港品質保證局(HKQAA)獨立審查。

CLP Laizhou I

中電萊州一期

- Wind farm 風力發電場
- 49.5MW generation capacity 發電容量 49.5 兆瓦
- Station commissioned in 2016 於2016年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017
1. Operation 營運			
Electricity sent out 輸出電量	GWh 百萬度	127	112
Equivalent Availability factor (EAF) 等效可用率	%	99.8	99.6
Gross Capacity factor 總容量因子	%	30.1	26.5
2. Environmental Compliance 環保符規			
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0
3. Water & Waste 水及廢物 ^{(1) (2)}			
4. Safety 安全			
Employee 僱員			
Fatalities 死亡	No. 人數	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0
Lost Time Injuries 損失工時受傷事故	Cases 宗數	0	0
Occupational Disease 職業病	Cases 宗數	0	0
Total Work Hours 總工時	Manhours 工時	60,530	57,123
Contractor 承辦商			
Fatalities 死亡	No. 人數	0	0
Lost Time Injuries 總工傷損失日數	Cases 宗數	0	0
Total Work Hours 總工時	Manhours 工時	166,566	10,368

Notes:

⁽¹⁾ Water consumed and discharged is for domestic use only and the quantity is negligible.

水抽取及排放量為生活用水, 數量極少。

⁽²⁾ Waste produced is negligible.

產生的廢物數量極少。

Dali Yang_er

大理漾洱

- Hydro power station 水力發電廠
- 49.8MW generation capacity and 0.7Mm³ reservoir storage capacity 發電容量49.8兆瓦, 水庫庫容0.7兆立方米
- Station commissioned in 2009 於2009年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out ⁽¹⁾ 輸出電量 ⁽¹⁾	GWh 百萬度	182	183	183
Service Factor (SF) ⁽²⁾ 運行系數 ⁽²⁾	%	61.9	58.8	60.9
2. Water 水				
Water Withdrawal - Total 水抽取量 - 總數	Mm ³ 兆立方米	1,712.3	1,719.8	1,722.2
from marine water resources ⁽³⁾ 海水 ⁽³⁾	Mm ³ 兆立方米	-	-	-
from freshwater resources - for hydropower generation 淡水- 發電用途	Mm ³ 兆立方米	1,712.3	1,719.8	1,722.2
from freshwater resources - for non-generation 淡水- 非發電用途	Mm ³ 兆立方米	0.001	0.001	0.001
from municipal sources ⁽³⁾ 自來水 ⁽³⁾	Mm ³ 兆立方米	-	-	-
Water Discharged - Total 水排放量 - 總數	Mm ³ 兆立方米	1,712.3	1,719.8	1,722.2
freshwater returned from hydropower generation 發電用途 (排放至淡水水體)	Mm ³ 兆立方米	1,712.3	1,719.8	1,722.2
treated wastewater discharged to sea ⁽³⁾ 經處理的廢水(排放至海洋) ⁽³⁾	Mm ³ 兆立方米	-	-	-
treated wastewater discharged to freshwater bodies 經處理的廢水(排放至淡水水體)	Mm ³ 兆立方米	0.001	0.001	0.001
wastewater discharged to sewerage ⁽⁴⁾ 未經處理的廢水(排放至污水系統) ⁽⁴⁾	Mm ³ 兆立方米	-	-	-
Water Reused / Recycled 水回收/循環使用量	Mm ³ 兆立方米	0	0	0

Dali Yang_er

大理漾洱

Parameter 統計事項	Unit 單位	2018	2017	2016
3. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
4. Waste Management 廢物管理 ⁽⁵⁾				
Hazardous waste 有害廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	1 / 2
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	1 / 2
Non-hazardous waste 一般廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	4 / 0	2 / 0	1 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	4 / 0	2 / 0	1 / 0
5. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0	0
Lost Time Injuries ⁽⁶⁾ 損失工時受傷事故 ⁽⁶⁾	Cases 宗數	0	0	0
Occupational Disease ⁽⁶⁾ 職業病 ⁽⁶⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁶⁾ 總工時 ⁽⁶⁾	Manhours 工時	38,252	53,744	60,948

Dali Yang_er

大理漾洱

Parameter 統計事項	Unit 單位	2018	2017	2016
5. Safety 安全				
Contractor 承辦商				
Fatalities ⁽⁶⁾ 死亡 ⁽⁶⁾	No. 人數	0	0	0
Lost Time Injuries ⁽⁶⁾ 損失工時受傷事故 ⁽⁶⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁶⁾ 總工時 ⁽⁶⁾	Manhours 工時	28,136	23,868	27,648

Notes:

- ⁽¹⁾ Electricity sent out has been reported since 2017. Prior to 2017, electricity sold was reported.
2016年或之前的數據為上網電量。2017年起，匯報輸出電量。
- ⁽²⁾ Service Factor (SF) = Total hours of operation during the period / Total length of period (hours) x 100.
運行系數 = 報告期內總運作小時 / 報告期總長度(小時) x 100。
- ⁽³⁾ Not applicable to Dali Yang_er.
不適用於大理漾洱水電。
- ⁽⁴⁾ No discharge to sewerage as wastewater generated from domestic use is treated on site.
生活廢水在電廠內處理，並無排放至污水系統。
- ⁽⁵⁾ Waste categorised in accordance with local regulations. Contractor waste is excluded.
有害廢物和一般廢物根據當地法例進行分類。數據不包括承辦商產生的廢物。
- ⁽⁶⁾ Started reporting in 2014.
數據由2014年起匯報。

Fangchenggang I & II

防城港一期及二期

- Coal-fired power station 燃煤電廠
- 2,580MW (2 x 630MW, 2 x 660MW) 2,580兆瓦 (2 x 630兆瓦, 2 x 660兆瓦)
- Phase I commissioned between 2007 and 2008, and Phase II commissioned in 2016
電廠一期於2007至2008年投產，二期於2016年投產
- Shareholding of 70% with operational control by CLP 中電擁有70%權益及營運控制權

Parameter 統計事項	Unit 單位	2018	2017 ⁽¹⁾	2016 ⁽¹⁾
1. Operation 營運				
Electricity sent out ⁽²⁾ 輸出電量 ⁽²⁾	GWh 百萬度	8,267	4,640	2,787
Coal consumed 煤消耗量	TJ 兆兆焦耳	77,324	46,121	28,125
Oil consumed 燃油消耗量	TJ 兆兆焦耳	0	0	0
Thermal efficiency 發電效能	%	38.5	36.2	35.7
Equivalent availability factor (EAF) ⁽³⁾ 等效可用率 ⁽⁴⁾	%	86.7	80.6	97.0
2. Air Emissions 氣體排放				
CO ₂ e (Scopes 1 & 2) 二氧化碳當量 (範疇一及二)	kT 千公噸	7,023	4,019	2,542
CO ₂ (Scopes 1 & 2) 二氧化碳 (範疇一及二)	kT 千公噸	6,987	3,999	2,529
SO ₂ 二氧化硫	kT 千公噸	0.8	1.2	1.7
NO _x 氮氧化物	kT 千公噸	1.1	0.8	0.7
Particulate (Total) 粒狀物 (總量)	kT 千公噸	0.1	0.1	0.1
3. Water 水				
Water Withdrawal - Total 水抽取量 - 總數	Mm ³ 兆立方米	1,083.3	598.4	354.3
from marine water resources ⁽⁴⁾ 海水 ⁽⁴⁾	Mm ³ 兆立方米	1,080.6	596.5	352.5
from freshwater resources 淡水	Mm ³ 兆立方米	2.7	1.9	1.8
from municipal sources 自來水	Mm ³ 兆立方米	0.00	0.00	0.00

Fangchenggang I & II

防城港一期及二期

Parameter 統計事項	Unit 單位	2018	2017 ⁽¹⁾	2016 ⁽¹⁾
3. Water 水				
Water Discharged - Total 水排放量 - 總數	Mm ³ 兆立方米	1,080.6	596.5	352.5
cooling water discharged to sea ⁽⁴⁾ 冷卻水(排放至海洋) ⁽⁴⁾	Mm ³ 兆立方米	1,080.6	596.5	352.5
treated wastewater discharged 經處理的廢水排放	Mm ³ 兆立方米	0	0	0
Water Reused / Recycled 水回收/循環使用量	Mm ³ 兆立方米	0.8	0.7	- ⁽⁵⁾
4. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
5. By-products & Waste Management 副產品及廢物管理				
Ash produced 煤灰產量	kT 千公噸	292	146	50
Ash recycled / sold 煤灰循環再造/銷售量	kT 千公噸	292	146	50
Gypsum produced 石膏產量	kT 千公噸	140	83	43
Gypsum recycled / sold 石膏循環再造/銷售量	kT 千公噸	140	83	43
Hazardous waste 有害廢物 ⁽⁶⁾				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	448 / 19	252 / 20	96 / 14
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	448 / 19	252 / 20	96 / 14
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
Non-hazardous waste 一般廢物 ⁽⁶⁾				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	189 / 0	236 / 0	200 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	187 / 0	234 / 0	198 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	2 / 0	2 / 0	2 / 0

Fangchenggang I & II

防城港一期及二期

Parameter 統計事項	Unit 單位	2018	2017 ⁽¹⁾	2016 ⁽¹⁾
6. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0	0
Lost Time Injuries ⁽⁷⁾ 損失工時受傷事故 ⁽⁷⁾	Cases 宗數	0	0	0
Occupational Disease ⁽⁷⁾ 職業病 ⁽⁷⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁷⁾ 總工時 ⁽⁷⁾	Manhours 工時	813,745	827,440	806,320
Contractor 承辦商				
Fatalities ⁽⁷⁾ 死亡 ⁽⁷⁾	No. 人數	0	0	0
Lost Time Injuries ⁽⁷⁾ 損失工時受傷事故 ⁽⁷⁾	Cases 宗數	0	0	1
Total Work Hours ⁽⁷⁾ 總工時 ⁽⁷⁾	Manhours 工時	2,211,720	2,409,411	1,503,632

Notes:

(1) Fangchenggang Phase 1 data included in 2016 or before. Phase 1 & 2 data included since 2017.

2016年或之前的數據只包括防城港一期電廠。2017年起，數據包括防城港一期及二期電廠。

(2) Electricity sent out was reported since 2017. Prior to 2017, electricity sold was reported.

2016年或之前的數據為上網電量。2017年起，匯報輸出電量。

(3) EAF calculated in accordance with Chinese government definition.

數據為「等效可用率」，與中國內地部門的定義一致。

(4) Cooling water consumed and discharged estimated based on pump rates and pump operation hours.

冷卻水抽取量和排放量數據按標準泵率和總操作時間推算。

(5) All wastewater is treated and reused on site. However, data is not available due to measurement equipment failure.

所有廢水在電廠內處理及循環再用，但測量設備故障，沒有數據提供。

(6) Waste categorised in accordance with local regulations. Contractor waste is excluded.

有害廢物和一般廢物根據當地法例進行分類。數據不包括承辦商產生的廢物。

(7) Started reporting in 2014.

數據由2014年起匯報。

Huai'an

淮安

- Solar power station 太陽能發電廠
- 13MW generation capacity 發電容量 13 兆瓦
- Station commissioned in 2017 電廠於2017年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018
1. Operation 營運		
Electricity sent out 輸出電量	GWh 百萬度	20
Gross Capacity Factor 總容量因子	%	17.6
Service Factor (SF) ⁽¹⁾ 運行系數	%	46.1
2. Water 水 ⁽²⁾		
3. Environmental Compliance 環保符規		
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0
4. Waste Management 廢物管理 ⁽³⁾		
Hazardous waste 有害廢物		
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升(液體)	0 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升(液體)	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升(液體)	0 / 0
Non-hazardous waste 一般廢物		
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升(液體)	2 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升(液體)	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升(液體)	0 / 0

Huai'an

淮安

Parameter 統計事項	Unit 單位	2018
5. Safety 安全		
Employee 僱員		
Fatalities 死亡	No. 人數	0
Days lost / charged 總工傷損失日數	Days 日數	0
Lost Time Injuries 損失工時受傷事故	Cases 宗數	0
Occupational Disease 職業病	Cases 宗數	0
Total Work Hours 總工時	Manhours 工時	12,343
Contractor 承辦商		
Fatalities 死亡	No. 人數	0
Lost Time Injuries 總工傷損失日數	Cases 宗數	0
Total Work Hours 總工時	Manhours 工時	30,796

Notes:

⁽¹⁾ Service Factor (SF) = Total hours of operation during the period / Total length of period (hours) x 100

運行系數 = 報告期內總運作小時 / 報告期總長度(小時) x 100。

⁽²⁾ Water consumed and discharged is for domestic use only and the quantity is negligible.

水抽取及排放量為生活用水, 數量極少。

⁽³⁾ Waste categorised in accordance with local regulations. Contractor waste is excluded.

有害廢物和一般廢物根據當地法例進行分類。數據不包括承辦商產生的廢物。

Huaiji

懷集

- 12 Hydro power stations and 4 reservoirs 12個水力發電廠及4個水庫
- 129MW total generation capacity and 244.3Mm3 reservoir storage capacity 發電容量共129兆瓦, 水庫庫容共244.3兆立方米
- Stations commissioned between 1975 and 2008 電廠於1975年至2008年間投產
- Shareholding of 84.9% with operational control by CLP 中電擁有84.9%權益及營運控制權

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out ⁽¹⁾ 輸出電量 ⁽¹⁾	GWh 百萬度	328	402	548
Service Factor (SF) ⁽²⁾ 運行系數 ⁽²⁾	%	33.7	37.8	51.7
2. Water 水				
Water Withdrawal - Total 水抽取量 - 總數	Mm ³ 兆立方米	5,351.0	6,480.0	8,316.4
from marine water resources ⁽³⁾ 海水 ⁽³⁾	Mm ³ 兆立方米	-	-	-
from freshwater resources - for hydropower generation 淡水- 發電用途	Mm ³ 兆立方米	5,351.0	6,480.0	8,316.4
from freshwater resources - for non-generation ⁽⁴⁾ 淡水- 非發電用途 ⁽⁴⁾	Mm ³ 兆立方米	-	-	-
from municipal sources ⁽⁴⁾ 自來水 ⁽⁵⁾	Mm ³ 兆立方米	-	-	-
Water Discharged - Total 水排放量 - 總數	Mm ³ 兆立方米	5,351.0	6,480.0	8,316.4
freshwater returned from hydropower generation 發電用途 (排放至淡水水體)	Mm ³ 兆立方米	5,351.0	6,480.0	8,316.4
treated wastewater discharged to sea ⁽³⁾ 經處理的廢水(排放至海洋) ⁽³⁾	Mm ³ 兆立方米	-	-	-
treated wastewater discharged to freshwater bodies ⁽⁴⁾ 經處理的廢水(排放至淡水水體) ⁽⁴⁾	Mm ³ 兆立方米	-	-	-
wastewater discharged to sewerage ⁽⁵⁾ 未經處理的廢水(排放至污水系統) ⁽⁵⁾	Mm ³ 兆立方米	0	0	0
Water Reused / Recycled 水回收/循環使用量	Mm ³ 兆立方米	0	0	0
3. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0

Huaiji

懷集

Parameter 統計事項	Unit 單位	2018	2017	2016
4. Waste Management 廢物管理 ⁽⁶⁾				
Hazardous waste 有害廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 3	1 / 3	0 / 3
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 3	1 / 3	0 / 3
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
Non-hazardous waste 一般廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	52 / 0	109 / 0	101 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	52 / 0	109 / 0	101 / 0
5. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0	0
Lost Time Injuries ⁽⁷⁾ 損失工時受傷事故 ⁽⁷⁾	Cases 宗數	0	0	0
Occupational Disease ⁽⁷⁾ 職業病 ⁽⁷⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁷⁾ 總工時 ⁽⁷⁾	Manhours 工時	517,484	520,593	532,416
Contractor 承辦商				
Fatalities ⁽⁷⁾ 死亡 ⁽⁷⁾	No. 人數	0	0	0
Lost Time Injuries ⁽⁷⁾ 損失工時受傷事故 ⁽⁷⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁷⁾ 總工時 ⁽⁷⁾	Manhours 工時	117,361	95,614	72,226

Notes:

⁽¹⁾ Electricity sent out has been reported since 2017. Prior to 2017, electricity sold was reported.
2016年或之前的數據為上網電量。2017年起，匯報輸出電量。

⁽²⁾ Service Factor (SF) = Total hours of operation during the period / Total length of period (hours) x 100.
運行系數 = 報告期內總運作小時 / 報告期總長度(小時) x 100。

⁽³⁾ Not applicable to Huaiji.
不適用於懷集水電。

⁽⁴⁾ Measurement data are not routinely collected.
沒有定期收集數據。

⁽⁵⁾ No discharge to sewerage as wastewater generated from domestic use is treated on site.
生活廢水在電廠內處理，並無排放至污水系統。

⁽⁶⁾ Waste categorised in accordance with local regulations. Contractor waste is excluded.
有害廢物和一般廢物根據當地法例進行分類。數據不包括承辦商產生的廢物。

⁽⁷⁾ Started reporting in 2014.
數據由2014年起匯報。

Jiangbian

江邊

- Hydro power station 水力發電廠
- 330MW generation capacity and 1.1Mm³ reservoir storage capacity 發電容量330兆瓦, 水庫庫容1.1兆立方米
- Station commissioned in 2011 電廠於2011年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out ⁽¹⁾ 輸出電量 ⁽¹⁾	GWh 百萬度	1,144	1,009	1,114
Service Factor (SF) ⁽²⁾ 運行系數 ⁽²⁾	%	59.0	52.5	56.8
2. Water 水				
Water Withdrawal - Total 水抽取量 - 總數	Mm ³ 兆立方米	1,577.0	1,414.8	1,567.0
from marine water resources ⁽³⁾ 海水 ⁽³⁾	Mm ³ 兆立方米	-	-	-
from freshwater resources - for hydropower generation 淡水- 發電用途	Mm ³ 兆立方米	1,577.0	1,414.8	1,567.0
from freshwater resources - for non-generation 淡水- 非發電用途	Mm ³ 兆立方米	0.00	0.02	0.03
from municipal sources ⁽³⁾ 自來水 ⁽³⁾	Mm ³ 兆立方米	-	-	-
Water Discharged - Total 水排放量 - 總數	Mm ³ 兆立方米	1,577.0	1,414.8	1,567.0
freshwater returned from hydropower generation 發電用途 (排放至淡水水體)	Mm ³ 兆立方米	1,577.0	1,414.8	1,567.0
treated wastewater discharged to sea ⁽³⁾ 經處理的廢水(排放至海洋) ⁽³⁾	Mm ³ 兆立方米	-	-	-
treated wastewater discharged to freshwater bodies 經處理的廢水(排放至淡水水體)	Mm ³ 兆立方米	0.02	0.02	0.03
wastewater discharged to sewerage ⁽⁴⁾ 未經處理的廢水(排放至污水系統) ⁽⁴⁾	Mm ³ 兆立方米	-	-	-
Water Reused / Recycled 水回收/循環使用量	Mm ³ 兆立方米	-	-	-
3. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0

Jiangbian

江邊

Parameter 統計事項	Unit 單位	2018	2017	2016
4. Waste Management 廢物管理 ⁽⁵⁾				
Hazardous waste 有害廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	3 / 1	0 / 0	0 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	3 / 1	0 / 0	0 / 0
Non-hazardous waste 一般廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	21 / 0	22 / 0	23 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	1 / 0	1 / 0	1 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	20 / 0	21 / 0	22 / 0
5. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0	0
Lost Time Injuries ⁽⁶⁾ 損失工時受傷事故 ⁽⁶⁾	Cases 宗數	0	0	0
Occupational Disease ⁽⁶⁾ 職業病 ⁽⁶⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁶⁾ 總工時 ⁽⁶⁾	Manhours 工時	121,864	124,416	126,416
Contractor 承辦商				
Fatalities ⁽⁶⁾ 死亡 ⁽⁶⁾	No. 人數	0	0	0
Lost Time Injuries ⁽⁶⁾ 損失工時受傷事故 ⁽⁶⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁶⁾ 總工時 ⁽⁶⁾	Manhours 工時	157,760	157,656	211,712

Notes:

⁽¹⁾ Electricity sent out has been reported since 2017. Prior to 2017, electricity sold was reported.
2016年或之前的數據為上網電量。2017年起，匯報輸出電量。

⁽²⁾ Service Factor (SF) = Total hours of operation during the period / Total length of period (hours) x 100.
運行系數 = 報告期內總運作小時 / 報告期總長度(小時) x 100。

⁽³⁾ Not applicable to Jiangbian.
不適用於江邊水電。

⁽⁴⁾ Domestic wastewater only and is treated on site before discharged to freshwater bodies.
主要為生活廢水，在電廠內經污水處理系統處理後，再排放到淡水水體。

⁽⁵⁾ Waste categorised in accordance with local regulations. Contractor waste is excluded.
有害廢物和一般廢物根據當地法例進行分類。數據不包括承辦商產生的廢物。

⁽⁶⁾ Started reporting in 2014.
數據由2014年起匯報。

Jinchang

金昌

- Solar power station 太陽能發電廠
- 85MW generation capacity 發電容量85 兆瓦
- Station commissioned in 2013 電廠於2013年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out ⁽¹⁾ 輸出電量 ⁽¹⁾	GWh 百萬度	156	130	119
Gross Capacity factor ⁽²⁾ 總容量因子 ⁽²⁾	%	21.4	17.4	15.9
Service Factor (SF) ⁽³⁾ 運行系數 ⁽³⁾	%	48.0	48.1	99.6
2. Water 水⁽⁴⁾				
3. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
4. Waste Management 廢物管理⁽⁵⁾				
Hazardous waste 有害廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
Non-hazardous waste 一般廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	24 / 0	11 / 0	3 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	20 / 0	0 / 0	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	4 / 0	11 / 0	3 / 0

Jinchang

金昌

Parameter 統計事項	Unit 單位	2018	2017	2016
5. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0	0
Lost Time Injuries 損失工時受傷事故	Cases 宗數	0	0	0
Occupational Disease 職業病	Cases 宗數	0	0	0
Total Work Hours 總工時	Manhours 工時	45,072	53,224	32,292
Contractor 承辦商				
Fatalities 死亡	No. 人數	0	0	0
Lost Time Injuries 總工傷損失日數	Cases 宗數	0	0	0
Total Work Hours 總工時	Manhours 工時	25,388	5,872	58,880

Notes:

- ⁽¹⁾ Electricity sent out has been reported since 2017. Prior to 2017, electricity sold was reported.
2016年或之前的數據為上網電量。2017年起，匯報輸出電量。
- ⁽²⁾ Gross capacity factor has been reported since 2017. Prior to 2017, capacity factor was reported.
2016年或之前的數據為容量系數。2017年起，匯報總容量因子。
- ⁽³⁾ Service Factor (SF) = Total hours of operation during the period / Total length of period (hours) x 100.
運行系數 = 報告期內總運作小時 / 報告期總長度(小時) x 100。
- ⁽⁴⁾ No discharge to sewerage as wastewater generated from domestic use is treated on site.
生活廢水在電廠內處理，並無排放至污水系統。
- ⁽⁵⁾ Waste categorised in accordance with local regulations. Contractor waste is excluded.
有害廢物和一般廢物根據當地法例進行分類。數據不包括承辦商產生的廢物。

Laiwu I & II

萊蕪一期及二期

- Wind farm 風力發電場
- 99MW generation capacity 發電容量 99 兆瓦
- Phase I commissioned in 2014, Phase II in 2017 一期於2014年投產, 二期於2017年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out ⁽¹⁾ 輸出電量 ⁽¹⁾	GWh 百萬度	183	69	75
Equivalent availability factor (EAF) ⁽²⁾ 等效可用率 ⁽²⁾	%	99.4	99.8	99.7
Gross Capacity Factor ⁽³⁾ 總容量因子 ⁽³⁾	%	21.6	16.5	17.1
2. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
3. Water & Waste 水及廢物 ^{(4) (5)}				
4. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0	0
Lost Time Injuries 損失工時受傷事故	Cases 宗數	0	0	0
Occupational Disease 職業病	Cases 宗數	0	0	0
Total Work Hours 總工時	Manhours 工時	50,448	53,256	56,080

Laiwu I & II

萊蕪一期及二期

- Wind farm 風力發電場
- 99MW generation capacity 發電容量 99 兆瓦
- Phase I commissioned in 2014, Phase II in 2017 一期於2014年投產, 二期於2017年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
4. Safety 安全				
Contractor 承辦商				
Fatalities 死亡	No. 人數	0	0	0
Lost Time Injuries 損失工時受傷事故	Cases 宗數	0	0	0
Total Work Hours 總工時	Manhours 工時	36,280	37,339	32,200

Notes:

- (1) Electricity sent out has been reported since 2017. Prior to 2017, electricity sold was reported.
2016年或之前的數據為上網電量。2017年起，匯報輸出電量。
- (2) Equivalent availability factor has been reported since 2017. Prior to 2017, availability factor was reported.
2016年或之前的數據為可用率。2017年起，匯報等效可用率。
- (3) Gross capacity factor has been reported since 2017. Prior to 2017, capacity factor was reported.
2016年或之前的數據為容量系數。2017年起，匯報總容量因子。
- (4) Water consumed and discharged is for domestic use only and the quantity is negligible.
水抽取及排放量為生活用水，數量極少。
- (5) Waste produced is negligible.
產生的廢物數量極少。

Lingyuan

凌源

- Solar power station 太陽能發電廠
- 17MW generation capacity 發電容量 17 兆瓦
- Station commissioned in 2018 電廠於2018年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018
1. Operation 營運		
Electricity sent out 輸出電量	GWh 百萬度	15
Gross Capacity Factor 總容量因子	%	21.4
Service Factor (SF) ⁽¹⁾ 運行系數	%	35.6
2. Water 水 ⁽²⁾		
3. Environmental Compliance 環保符規		
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0
4. Waste Management 廢物管理 ⁽³⁾		
Hazardous waste 有害廢物		
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升(液體)	-
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升(液體)	-
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升(液體)	-
Non-hazardous waste 一般廢物		
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升(液體)	-
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升(液體)	-
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升(液體)	-

Lingyuan

凌源

Parameter 統計事項	Unit 單位	2018
5. Safety 安全		
Employee 僱員		
Fatalities 死亡	No. 人數	0
Days lost / charged 總工傷損失日數	Days 日數	0
Lost Time Injuries 損失工時受傷事故	Cases 宗數	0
Occupational Disease 職業病	Cases 宗數	0
Total Work Hours 總工時	Manhours 工時	10,152
Contractor 承辦商		
Fatalities 死亡	No. 人數	0
Lost Time Injuries 總工傷損失日數	Cases 宗數	0
Total Work Hours 總工時	Manhours 工時	59,990

Notes:

⁽¹⁾ Service Factor (SF) = Total hours of operation during the period / Total length of period (hours) x 100

運行系數 = 報告期內總運作小時 / 報告期總長度(小時) x 100。

⁽²⁾ Water consumed and discharged is for domestic use only and the quantity is negligible.

水抽取及排放量為生活用水, 數量極少。

⁽³⁾ Waste data will be reported in 2019.

廢物數據將於2019年匯報。

Penglai I

蓬萊一期

- Wind farm 風力發電場
- 48MW generation capacity 發電容量 48 兆瓦
- Wind farm commissioned in 2012 於2012年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out ⁽¹⁾ 輸出電量 ⁽¹⁾	GWh 百萬度	98	88	94 ⁽¹⁾
Equivalent Availability factor (EAF) ⁽²⁾ 等效可用率 ⁽²⁾	%	99.7	99.8	99.8 ⁽²⁾
Gross Capacity factor ⁽³⁾ 總容量因子 ⁽³⁾	%	23.6	20.9	22.4 ⁽³⁾
2. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
3. Water & Waste 水及廢物 ^{(4) (5)}				
4. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0	0
Lost Time Injuries ⁽⁶⁾ 損失工時受傷事故 ⁽⁶⁾	Cases 宗數	0	0	0
Occupational Disease ⁽⁶⁾ 職業病 ⁽⁶⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁶⁾ 總工時 ⁽⁶⁾	Manhours 工時	72,661	76,400	55,152
4. Safety 安全				
Contractor 承辦商				
Fatalities ⁽⁶⁾ 死亡 ⁽⁶⁾	No. 人數	0	0	0
Lost Time Injuries ⁽⁶⁾ 損失工時受傷事故 ⁽⁶⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁶⁾ 總工時 ⁽⁶⁾	Manhours 工時	30,234	32,000	28,400

Notes:

Penglai I

蓬萊一期

- ⁽¹⁾ Electricity sent out has been reported since 2017. Prior to 2017, electricity sold was reported.
2016年或之前的數據為上網電量。2017年起，匯報輸出電量。
- ⁽²⁾ Equivalent availability factor has been reported since 2017. Prior to 2017, availability factor was reported.
2016年或之前的數據為可用率。2017年起，匯報等效可用率。
- ⁽³⁾ Gross capacity factor has been reported since 2017. Prior to 2017, capacity factor was reported.
2016年或之前的數據為容量系數。2017年起，匯報總容量因子。
- ⁽⁴⁾ Water consumed and discharged is for domestic use only and the quantity is negligible.
水抽取及排放量為生活用水，數量極少。
- ⁽⁵⁾ Waste produced is negligible.
產生的廢物數量極少。
- ⁽⁶⁾ Started reporting in 2014.
數據由2014年起匯報。

Qian'an I & II

乾安一期及二期

- Wind farm 風力發電場
- 99MW total generation capacity 發電容量共99兆瓦
- Wind farm phase 1 and 2 commissioned in 2010 and 2011 respectively 一期及二期分別於2010年及2011年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out ⁽¹⁾ 輸出電量 ⁽¹⁾	GWh 百萬度	231	180	142
Equivalent Availability factor (EAF) ⁽²⁾ 等效可用率 ⁽²⁾	%	98.2	98.5	97.6
Gross Capacity factor ⁽³⁾ 總容量因子 ⁽³⁾	%	26.5	20.5	16.3
2. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
3. Water & Waste 水及廢物 ^{(4) (5)}				
4. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0	0
Lost Time Injuries ⁽⁶⁾ 損失工時受傷事故 ⁽⁶⁾	Cases 宗數	0	0	0
Occupational Disease ⁽⁶⁾ 職業病 ⁽⁶⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁶⁾ 總工時 ⁽⁶⁾	Manhours 工時	55,352	55,334	53,844
Contractor 承辦商				
Fatalities ⁽⁶⁾ 死亡 ⁽⁶⁾	No. 人數	0	0	0
Lost Time Injuries ⁽⁶⁾ 損失工時受傷事故 ⁽⁶⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁶⁾ 總工時 ⁽⁶⁾	Manhours 工時	5,888	7,760	14,872

Notes:

Qian'an I & II

乾安一期及二期

(1) Electricity sent out has been reported since 2017. Prior to 2017, electricity sold was reported.

2016年或之前的數據為上網電量。2017年起，匯報輸出電量。

(2) Equivalent availability factor has been reported since 2017. Prior to 2017, availability factor was reported.

2016年或之前的數據為可用率。2017年起，匯報等效可用率。

(3) Gross capacity factor has been reported since 2017. Prior to 2017, capacity factor was reported.

2016年或之前的數據為容量系數。2017年起，匯報總容量因子。

(4) Water consumed and discharged is for domestic use only and the quantity is negligible.

水抽取及排放量為生活用水，數量極少。

(5) Waste produced is negligible.

產生的廢物數量極少。

(6) Started reporting in 2014.

數據由2014年起匯報。

Sandu I

三都一期

- Wind farm 風力發電場
- 99MW generation capacity 發電容量共99兆瓦
- Station commissioned in 2016 於2016年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017
1. Operation 營運			
Electricity sent out 輸出電量	GWh 百萬度	209	238
Equivalent Availability factor (EAF) 等效可用率	%	82.5	99.8
Gross Capacity factor 總容量因子	%	24.1	27.5
2. Environmental Compliance 環保符規			
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0
3. Water & Waste 水及廢物 ^{(1) (2)}			
4. Safety 安全			
Employee 僱員			
Fatalities 死亡	No. 人數	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0
Lost Time Injuries 損失工時受傷事故	Cases 宗數	0	0
Occupational Disease 職業病	Cases 宗數	0	0
Total Work Hours 總工時	Manhours 工時	33,676	49,272
Contractor 承辦商			
Fatalities 死亡	No. 人數	0	0
Lost Time Injuries 總工傷損失日數	Cases 宗數	0	0
Total Work Hours 總工時	Manhours 工時	90,870	42,280

Notes:

⁽¹⁾ Water consumed and discharged is for domestic use only and the quantity is negligible.

水抽取及排放量為生活用水, 數量極少。

⁽²⁾ Waste produced is negligible.

產生的廢物數量極少。

Sihong

泗洪

- Solar power station 太陽能發電廠
- 93MW generation capacity 發電容量 93 兆瓦
- Station commissioned in 2015 電廠於2015年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out ⁽¹⁾ 輸出電量 ⁽¹⁾	GWh 百萬度	133	138	135
Gross Capacity factor ⁽²⁾ 總容量因子 ⁽²⁾	%	16.3	17.0	16.5
Service Factor (SF) ⁽³⁾ 運行系數 ⁽³⁾	%	46.8	45.0	43.9
2. Water 水⁽⁴⁾				
3. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
4. Waste Management 廢物管理⁽⁵⁾				
Hazardous waste 有害廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
Non-hazardous waste 一般廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	1 / 0	1 / 0	1 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0

Sihong

泗洪

Parameter 統計事項	Unit 單位	2018	2017	2016
5. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0	0
Lost Time Injuries 損失工時受傷事故	Cases 宗數	0	0	0
Occupational Disease 職業病	Cases 宗數	0	0	0
Total Work Hours 總工時	Manhours 工時	41,920	39,132	39,184
Contractor 承辦商				
Fatalities 死亡	No. 人數	0	0	1
Lost Time Injuries 總工傷損失日數	Cases 宗數	0	0	0
Total Work Hours 總工時	Manhours 工時	37,880	40,688	42,528

Notes:

- ⁽¹⁾ Electricity sent out has been reported since 2017. Prior to 2017, electricity sold was reported.
2016年或之前的數據為上網電量。2017年起，匯報輸出電量。
- ⁽²⁾ Gross capacity factor has been reported since 2017. Prior to 2017, capacity factor was reported.
2016年或之前的數據為容量系數。2017年起，匯報總容量因子。
- ⁽³⁾ Service Factor (SF) = Total hours of operation during the period / Total length of period (hours) x 100.
運行系數 = 報告期內總運作小時 / 報告期總長度(小時) x 100。
- ⁽⁴⁾ Water consumed and discharged is for domestic use only and the quantity is negligible.
水抽取及排放量為生活用水，數量極少。
- ⁽⁵⁾ Waste categorised in accordance with local regulations. Contractor waste is excluded.
有害廢物和一般廢物根據當地法例進行分類。數據不包括承辦商產生的廢物。

Xicun I & II

西村一期及二期

- Solar power station 太陽能發電廠
- 84MW generation capacity 發電容量 84 兆瓦
- Phase 1 and 2 solar power station commissioned in 2014 and 2015 respectively
一期及二期太陽能發電廠分別於2014年及2015年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out ⁽¹⁾ 輸出電量 ⁽¹⁾	GWh 百萬度	166	166	164
Gross Capacity factor ⁽²⁾ 總容量因子 ⁽²⁾	%	22.6	22.6	22.2
Service Factor (SF) ⁽³⁾ 運行系數 ⁽³⁾	%	51.4	50.4	49.9
2. Water 水⁽⁴⁾				
3. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
4. Waste Management 廢物管理⁽⁵⁾				
Hazardous waste 有害廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
Non-hazardous waste 一般廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	4 / 0	4 / 0	4 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	4 / 0	4 / 0	4 / 0

Xicun I & II

西村一期及二期

Parameter 統計事項	Unit 單位	2018	2017	2016
5. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0	0
Lost Time Injuries 損失工時受傷事故	Cases 宗數	0	0	0
Occupational Disease 職業病	Cases 宗數	0	0	0
Total Work Hours 總工時	Manhours 工時	21,516	31,588	36,108
Contractor 承辦商				
Fatalities 死亡	No. 人數	0	0	0
Lost Time Injuries 總工傷損失日數	Cases 宗數	0	0	0
Total Work Hours 總工時	Manhours 工時	50,008	63,312	80,136

Notes:

- ⁽¹⁾ Electricity sent out has been reported since 2017. Prior to 2017, electricity sold was reported.
2016年或之前的數據為上網電量。2017年起，匯報輸出電量。
- ⁽²⁾ Gross capacity factor has been reported since 2017. Prior to 2017, capacity factor was reported.
2016年或之前的數據為容量系數。2017年起，匯報總容量因子。
- ⁽³⁾ Service Factor (SF) = Total hours of operation during the period / Total length of period (hours) x 100.
運行系數 = 報告期內總運作小時 / 報告期總長度(小時) x 100。
- ⁽⁴⁾ Water consumed and discharged is for domestic use only and the quantity is negligible.
水抽取及排放量為生活用水，數量極少。
- ⁽⁵⁾ Waste categorised in accordance with local regulations. Contractor waste is excluded.
有害廢物和一般廢物根據當地法例進行分類。數據不包括承辦商產生的廢物。

Xundian I

尋甸一期

- Wind farm 風力發電場
- 49.5MW generation capacity 發電容量 49.5 兆瓦
- Station commissioned in 2016 於2016年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out ⁽¹⁾ 輸出電量 ⁽¹⁾	GWh 百萬度	135	127	135
Equivalent Availability factor (EAF) ⁽²⁾ 等效可用率 ⁽²⁾	%	99.6	99.4	99.6
Gross Capacity factor ⁽³⁾ 總容量因子 ⁽³⁾	%	31.8	29.2	31.9
2. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
3. Water & Waste 水及廢物 ^{(4) (5)}				
4. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0	0
Lost Time Injuries 損失工時受傷事故	Cases 宗數	0	0	0
Occupational Disease 職業病	Cases 宗數	0	0	0
Total Work Hours 總工時	Manhours 工時	66,346	51,320	37,188
Contractor 承辦商				
Fatalities 死亡	No. 人數	0	0	0
Lost Time Injuries 總工傷損失日數	Cases 宗數	0	0	0
Total Work Hours 總工時	Manhours 工時	18,120	21,604	56,728

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Notes:

- ⁽¹⁾ Electricity sent out has been reported since 2017. Prior to 2017, electricity sold was reported.
2016年或之前的數據為上網電量。2017年起，匯報輸出電量。
- ⁽²⁾ Equivalent availability factor has been reported since 2017. Prior to 2017, availability factor was reported.
2016年或之前的數據為可用率。2017年起，匯報等效可用率。
- ⁽³⁾ Gross capacity factor has been reported since 2017. Prior to 2017, capacity factor was reported.
2016年或之前的數據為容量系數。2017年起，匯報總容量因子。
- ⁽⁴⁾ Water consumed and discharged is for domestic use only and the quantity is negligible.
水抽取及排放量為生活用水，數量極少。
- ⁽⁵⁾ Waste produced is negligible.
產生的廢物數量極少。

Jhajjar

哈格爾

- Coal-fired power station 燃煤電廠
- 1,320MW (2 x 660MW) 1,320兆瓦 (2 x 660兆瓦)
- Plant commissioned in 2012 電廠於2012年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out 輸出電量	GWh 百萬度	6,726	5,463	2,965
Coal consumed 煤消耗量	TJ 兆兆焦耳	66,589	53,951	30,750
Oil consumed 燃油消耗量	TJ 兆兆焦耳	67	113	103
Thermal efficiency 發電效能	%	36.3	36.4	34.7
Equivalent availability factor (EAF) 等效可用率	%	90.1	78.9	93.2
2. Air Emissions 氣體排放				
CO ₂ e (Scopes 1 & 2) 二氧化碳當量 (範疇一及二)	kT 千公噸	6,018	4,891	2,805
CO ₂ (Scopes 1 & 2) 二氧化碳 (範疇一及二)	kT 千公噸	5,991	4,864	2,788
SO ₂ 二氧化硫	kT 千公噸	18.5	27.4	12.0
NO _x 氮氧化物	kT 千公噸	5.7	7.4	4.0
Particulate (Total) 粒狀物 (總量)	kT 千公噸	1.0	1.4	1.3
3. Water 水				
Water Withdrawal - Total 水抽取量 - 總數	Mm ³ 兆立方米	15.2	12.0	7.5
from marine water resources ⁽¹⁾ 海水 ⁽¹⁾	Mm ³ 兆立方米	-	-	-
from freshwater resources 淡水	Mm ³ 兆立方米	15.2	12.0	7.5
from municipal sources ⁽¹⁾ 自來水 ⁽¹⁾	Mm ³ 兆立方米	-	-	-

Jhajjar

哈格爾

Parameter 統計事項	Unit 單位	2018	2017	2016
3. Water 水				
Water Discharged - Total 水排放量 - 總數	Mm ³ 兆立方米	0	0	0
cooling water blowdown discharged ⁽²⁾ 冷卻排污水排放 ⁽²⁾	Mm ³ 兆立方米	-	-	-
treated wastewater discharged ⁽²⁾ 經處理的廢水排放 ⁽²⁾	Mm ³ 兆立方米	-	-	-
Water Reused / Recycled 水回收/循環使用量	Mm ³ 兆立方米	91.2	66.8	37.0
4. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	1	13	2
5. By-products & Waste Management 副產品及廢物管理				
Ash produced 煤灰產量	kT 千公噸	1,651	1,568	753
Ash recycled / sold 煤灰循環再造/銷售量	kT 千公噸	1,498	1,141	587
Gypsum produced 石膏產量	kT 千公噸	22	0	0
Gypsum recycled / sold 石膏循環再造/銷售量	kT 千公噸	18	0	0
Hazardous waste 有害廢物 ⁽³⁾				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	95 / 25	31 / 26	149 / 49
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	20 / 25	8 / 24	12 / 49
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	75 / 0	23 / 2	136 / 0
Non-hazardous waste 一般廢物 ⁽³⁾				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	803 / 0	242 / 0	624 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	803 / 0	242 / 0	624 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0

Jhajjar

哈格爾

Parameter 統計事項	Unit 單位	2018	2017	2016
6. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0	0
Lost Time Injuries ⁽⁴⁾ 損失工時受傷事故 ⁽⁴⁾	Cases 宗數	0	0	0
Occupational Disease ⁽⁴⁾ 職業病 ⁽⁴⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁴⁾ 總工時 ⁽⁴⁾	Manhours 工時	454,748	454,942	457,320
Contractor 承辦商				
Fatalities ⁽⁴⁾ 死亡 ⁽⁴⁾	No. 人數	0	0	1
Lost Time Injuries ⁽⁴⁾ 損失工時受傷事故 ⁽⁴⁾	Cases 宗數	1	1	1
Total Work Hours ⁽⁴⁾ 總工時 ⁽⁴⁾	Manhours 工時	3,570,575	3,501,029	3,537,216

Notes:

⁽¹⁾ Not applicable to Jhajjar.
不適用於哈格爾電廠。

⁽²⁾ All wastewater is treated and reused on site, no wastewater is being discharged out of site boundary.
所有廢水在電廠內處理及循環再用，並無向廠外排放。

⁽³⁾ Waste categorised in accordance with local regulations. Contractor waste is included.
有害廢物和一般廢物根據當地法例進行分類。數據包括承辦商產生的廢物。

⁽⁴⁾ Started reporting in 2014.
數據由2014年起匯報。

Paguthan

- Gas-fired power station (with naphtha as secondary fuel) 燃氣電廠 (石腦油為副發電燃料)
- 655MW (3 x 138MW gas turbine, 1 x 241MW steam turbine) 655兆瓦(3 x 138兆瓦燃氣渦輪機, 1 x 241兆瓦蒸氣渦輪機)
- Plant commissioned in 1998 電廠於1998年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out 輸出電量	GWh 百萬度	365	376	547
Gas consumed 天然氣消耗量	TJ 兆兆焦耳	3,509	3,307	4,939
Naphtha consumed 石腦油消耗量	TJ 兆兆焦耳	418	424	0
Thermal efficiency 發電效能	%	33.5	36.3	39.8
Equivalent availability factor (EAF) 等效可用率	%	96.2	95.5	95.6
2. Air Emissions 氣體排放				
CO ₂ e (Scopes 1 & 2) 二氧化碳當量 (範疇一及二)	kT 千公噸	219	211	264
CO ₂ (Scopes 1 & 2) 二氧化碳 (範疇一及二)	kT 千公噸	218	208	263
SO ₂ 二氧化硫	kT 千公噸	0.003	0.003	0.002
NO _x 氮氧化物	kT 千公噸	0.12	0.11	0.12
Particulate (Total) ⁽¹⁾ 粒狀物 (總量) ⁽¹⁾	kT 千公噸	-	-	-
3. Water 水				
Water Withdrawal - Total 水抽取量 - 總數	Mm ³ 兆立方米	0.70	0.85	1.32
from marine water resources ⁽²⁾ 海水 ⁽²⁾	Mm ³ 兆立方米	-	-	-
from freshwater resources 淡水	Mm ³ 兆立方米	0.70	0.85	1.32
from municipal sources ⁽²⁾ 自來水 ⁽²⁾	Mm ³ 兆立方米	-	-	-

Paguthan

Parameter 統計事項	Unit 單位	2018	2017	2016
3. Water 水				
Water Discharged - Total 水排放量 - 總數	Mm ³ 兆立方米	0.03	0.05	0.07
cooling water blowdown discharged to natural drain 冷卻排污水(排放至天然排水道)	Mm ³ 兆立方米	0.02	0.05	0.06
treated wastewater discharged to natural drain 經處理的廢水(排放至天然排水道)	Mm ³ 兆立方米	0.005	0.004	0.007
wastewater discharged to sewerage ⁽³⁾ 未經處理的廢水(排放至污水系統) ⁽³⁾	Mm ³ 兆立方米	-	-	-
Water Reused / Recycled 水回收/循環使用量	Mm ³ 兆立方米	1.40	1.19	2.97
4. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
5. Waste Management 廢物管理 ⁽⁴⁾				
Hazardous waste 有害廢物				
produced 產量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	4 / 3	15 / 4	14 / 19
recycled 循環再造量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	1 / 3	1 / 4	1 / 15
disposed 棄置量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	3 / 0	14 / 0	12 / 3
Non-hazardous waste 一般廢物				
produced 產量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	17 / 0	71 / 0	37 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	0 / 0	0 / 0	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	17 / 0	71 / 0	37 / 0
6. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0	0
Lost Time Injuries ⁽⁵⁾ 損失工時受傷事故 ⁽⁵⁾	Cases 宗數	0	0	0
Occupational Disease ⁽⁵⁾ 職業病 ⁽⁵⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁵⁾ 總工時 ⁽⁵⁾	Manhours 工時	123,378	145,482	158,555

Paguthan

Parameter 統計事項	Unit 單位	2018	2017	2016
6. Safety 安全				
Contractor 承辦商				
Fatalities ⁽⁵⁾ 死亡 ⁽⁵⁾	No. 人數	0	0	0
Lost Time Injuries ⁽⁵⁾ 損失工時受傷事故 ⁽⁵⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁵⁾ 總工時 ⁽⁵⁾	Manhours 工時	1,010,730	1,177,975	1,274,975

Notes:

⁽¹⁾ Total particulates measured were below detection limit.
粒狀物總量的監測數據低於可測量範圍。

⁽²⁾ Not applicable to Paguthan.
不適用於Paguthan電廠。

⁽³⁾ No discharge to sewerage as wastewater is treated on site and discharged to natural drain.
廢水在電廠內處理, 再排放到天然排水道, 並無排放至污水系統。

⁽⁴⁾ Waste categorised in accordance with local regulations. Contractor waste is included.
有害廢物和一般廢物根據當地法例進行分類。數據已包括承辦商產生的廢物。

⁽⁵⁾ Started reporting in 2014.
數據由2014年起匯報。

2018 data have been independently verified by DNV GL Business Assurance India Pvt Limited.
2018數據由 DNV GL Business Assurance India Pvt Limited獨立驗證。

Hallett

- Gas-fired power station (with distillate as secondary fuel) 燃氣電廠 (蒸餾油為副發電燃料)
- 203MW total generation capacity (12 gas turbine generators) 203兆瓦 (12台燃氣渦輪機)
- Plant commissioned in 2002 電廠於2002年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out 輸出電量	GWh 百萬度	23	20	39
Gas consumed 天然氣消耗量	TJ 兆兆焦耳	403	348	727
Oil consumed 燃油消耗量	TJ 兆兆焦耳	16	52	75
Thermal efficiency 發電效能	%	18	17	18
Equivalent availability factor (EAF) 等效可用率	%	85.4	91.5	90.6
2. Air Emissions 氣體排放				
CO ₂ e (Scopes 1 & 2) 二氧化碳當量 (範疇一及二)	kT 千公噸	23	23	45
SO ₂ ⁽¹⁾ 二氧化硫 ⁽¹⁾	kT 千公噸	-	-	-
NO _x 氮氧化物	kT 千公噸	0.1	0.1	0.1
Particulate ⁽¹⁾ 粒狀物 ⁽¹⁾	kT 千公噸	-	-	-
3. Water 水				
Water Withdrawal 水抽取量 ⁽²⁾	Mm ³ 兆立方米	-	-	-
from marine water resources 海水	Mm ³ 兆立方米	-	-	-
from freshwater resources 淡水	Mm ³ 兆立方米	-	-	-
from municipal sources 自來水	Mm ³ 兆立方米	-	-	-
Water Discharged 水排放量 ⁽³⁾	Mm ³ 兆立方米	-	-	-
treated wastewater discharged to sea 經處理的廢水(排放至海洋)	Mm ³ 兆立方米	-	-	-
treated wastewater discharged to freshwater bodies 經處理的廢水(排放至淡水水體)	Mm ³ 兆立方米	-	-	-
wastewater discharged to sewerage 未經處理的廢水(排放至污水系統)	Mm ³ 兆立方米	-	-	-
Water Reused / Recycled 水回收/循環使用量	Mm ³ 兆立方米	-	-	-

Hallett

Parameter 統計事項	Unit 單位	2018	2017	2016
4. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
5. Waste Management 廢物管理 ⁽⁴⁾				
Hazardous waste 有害廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 2	10 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 0	0 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	0 / 0	0 / 2	10 / 0
Non-hazardous waste 一般廢物				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	26 / 0	19 / 0	21 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	3 / 0	2 / 0	3 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	23 / 0	17 / 0	19 / 0
6. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0	0
Lost Time Injuries ⁽⁵⁾ 損失工時受傷事故 ⁽⁵⁾	Cases 宗數	0	0	0
Occupational Disease ⁽⁵⁾ 職業病 ⁽⁵⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁵⁾ 總工時 ⁽⁵⁾	Manhours 工時	20,006	19,316	17,704
Contractor 承辦商				
Fatalities ⁽⁵⁾ 死亡 ⁽⁵⁾	No. 人數	0	0	0
Lost Time Injuries ⁽⁵⁾ 損失工時受傷事故 ⁽⁵⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁵⁾ 總工時 ⁽⁵⁾	Manhours 工時	12,002	6,820	5,573

Hallett

Notes:

⁽¹⁾ Emission quantities presented as "-" mean negligible.

排放量表現為“-”意思是監測到的排放量極少。

⁽²⁾ Water is consumed for domestic use only and measurement data are not routinely collected.

電廠用水主要為非發電用途，因此沒有監測數據。

⁽³⁾ No wastewater discharged from core plant operation.

電廠主要運作並無廢水排放。

⁽⁴⁾ Waste categorised in accordance with local regulations. Contractor waste is included.

有害廢物和一般廢物根據當地法例進行分類。數據已包括承辦商產生的廢物。

⁽⁵⁾ Started reporting in 2014.

數據由2014年起匯報。

2018 data have been independently verified by V&C Environment Consultants Pty Limited.

2018 數據由V&C Environment Consultants Pty Limited獨立驗證。

Mount Piper

- Coal-fired power station 燃煤電廠
- 1,400MW (2 x 700MW) 1,400兆瓦 (2 x 700兆瓦)
- Plant commissioned in 1992 電廠於1992年投產
- Shareholding of 100% acquired in 2013 with operational control by CLP 中電於2013 年收購全部權益，並擁有營運控制權

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out 輸出電量	GWh 百萬度	8,193	6,880	7,264
Coal consumed 煤消耗量	TJ 兆兆焦耳	82,994	70,938	75,607
Oil consumed 燃油消耗量	TJ 兆兆焦耳	207	221	208
Thermal efficiency 發電效能	%	35.1	36.6	35.4
Equivalent availability factor (EAF) 等效可用率	%	85.4	75.8	77.6
2. Air Emissions 氣體排放				
CO ₂ e (Scopes 1 & 2) 二氧化碳當量 (範疇一及二)	kT 千公噸	7,455	6,405	6,785
CO ₂ (Scopes 1 & 2) 二氧化碳 (範疇一及二)	kT 千公噸	7,436	6,402	6,767
SO _x 氧化硫	kT 千公噸	36.3	30.0	31.2
NO _x 氮氧化物	kT 千公噸	24.5	21.7	21.5
Particulate (Total) 粒狀物 (總量)	kT 千公噸	0.2	0.3	0.3
3. Water 水				
Water Withdrawal - Total 水抽取量 - 總數	Mm ³ 兆立方米	12.3	9.8	10.1
from marine water resources ⁽¹⁾ 海水 ⁽¹⁾	Mm ³ 兆立方米	-	-	-
from freshwater resources 淡水	Mm ³ 兆立方米	12.3	9.8	10.1
from municipal sources ⁽¹⁾ 自來水 ⁽¹⁾	Mm ³ 兆立方米	-	-	-

Mount Piper

Parameter 統計事項	Unit 單位	2018	2017	2016
3. Water 水				
Water Discharged - Total 水排放量 - 總數	Mm ³ 兆立方米	0	0	0
treated wastewater discharged to sea ⁽¹⁾ 經處理的廢水(排放至海洋) ⁽¹⁾	Mm ³ 兆立方米	-	-	-
treated wastewater discharged to freshwater bodies ⁽²⁾ 經處理的廢水(排放至淡水水體) ⁽²⁾	Mm ³ 兆立方米	0	0	0
wastewater discharged to sewerage ⁽²⁾ 未經處理的廢水(排放至污水系統) ⁽²⁾	Mm ³ 兆立方米	0	0	0
Water Reused / Recycled 水回收/循環使用量	Mm ³ 兆立方米	806	746	782
4. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
5. By-products & Waste Management 副產品及廢物管理				
Ash produced 煤灰產量	kT 千公噸	953	777	789
Ash recycled / sold 煤灰循環再造/銷售量	kT 千公噸	202	226	216
Hazardous waste 有害廢物 ⁽³⁾				
produced 產量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	1 / 0	0 / 0	2 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	1 / 0	0 / 0	2 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	0 / 0	0 / 0	0 / 0
Non-hazardous waste 一般廢物 ⁽³⁾				
produced 產量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	356 / 52	276 / 103	207 / 83
recycled 循環再造量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	259 / 52	171 / 103	106 / 83
disposed 棄置量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	97 / 0	106 / 0	102 / 0
6. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	6	26	0
Lost Time Injuries 損失工時受傷事故	Cases 宗數	1	2	0
Occupational Disease 職業病	Cases 宗數	0	0	0
Total Work Hours 總工時	Manhours 工時	349,717	331,714	338,814

Mount Piper

Parameter 統計事項	Unit 單位	2018	2017	2016
Contractor 承辦商				
Fatalities 死亡	No. 人數	0	0	0
Lost Time Injuries 損失工時受傷事故	Cases 宗數	1	2	1
Total Work Hours 總工時	Manhours 工時	306,547	280,047	297,116

Notes:

⁽¹⁾ Not applicable to Mount Piper.

不適用於Mount Piper電廠。

⁽²⁾ All wastewater is treated and reused on site, no wastewater is being discharged out of site boundary.

所有廢水在電廠內處理及循環再用，並無向廠外排放。

⁽³⁾ Waste categorised in accordance with local regulations. Contractor waste is included.

有害廢物和一般廢物根據當地法例進行分類。數據已包括承辦商產生的廢物。

2018 data have been independently verified by V&C Environment Consultants Pty Limited.

2018 數據由V&C Environment Consultants Pty Limited獨立驗證。

Tallawarra

- Gas-fired power station 燃氣電廠
- 420MW (1 gas turbine & 1 steam turbine) 420兆瓦 (1台燃氣渦輪機 + 1台蒸氣渦輪機)
- Plant commissioned in 2009 電廠於2009年投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out 輸出電量	GWh 百萬度	855	1,644	858
Gas consumed 天然氣消耗量	TJ 兆兆焦耳	6,478	11,965	6,562
Thermal efficiency 發電效能	%	47.0	49.6	47.1
Equivalent availability factor (EAF) 等效可用率 ⁽⁴⁾	%	72.4	84.9	95.2
2. Air Emissions 氣體排放				
CO ₂ e (Scopes 1 & 2) 二氧化碳當量 (範疇一及二)	kT 千公噸	338	616	346
CO ₂ (Scopes 1 & 2) 二氧化碳 (範疇一及二)	kT 千公噸	337	614	345
SO _x 氧化硫	kT 千公噸	0 ⁽¹⁾	0.02 ⁽¹⁾	0.01 ⁽¹⁾
NO _x 氮氧化物	kT 千公噸	0.11	0.15	0.04
Particulate (Total) 粒狀物 (總量)	kT 千公噸	0.0020 ⁽¹⁾	0.0034 ⁽¹⁾	0.0003 ⁽¹⁾
3. Water 水				
Water Withdrawal - Total 水抽取量 - 總數	Mm ³ 兆立方米	241.35	274.54	177.86
from lake (marine) water resources 湖水/海水	Mm ³ 兆立方米	241.22	274.42	177.77
from freshwater resources ⁽²⁾ 淡水 ⁽²⁾	Mm ³ 兆立方米	-	-	-
from municipal sources 自來水	Mm ³ 兆立方米	0.13	0.12	0.09

Tallawarra

Parameter 統計事項	Unit 單位	2018	2017	2016
3. Water 水				
Water Discharged - Total 水排放量 - 總數	Mm ³ 兆立方米	241.32	274.55	177.88
cooling water discharged to lake (marine) 冷卻水(排放至湖泊/海洋)	Mm ³ 兆立方米	241.22	274.42	177.77
treated wastewater discharged to water treatment wetland 經處理的廢水(排放至濕地廢水處理系統)	Mm ³ 兆立方米	0.1000	0.1300	0.1100
wastewater discharged to sewerage 未經處理的廢水(排放至污水系統)	Mm ³ 兆立方米	0.0000	0.0006	0.0003
Water Reused / Recycled ⁽³⁾ 水回收/循環使用量 ⁽³⁾	Mm ³ 兆立方米	-	-	-
4. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	0	0	0
5. Waste Management 廢物管理 ⁽⁴⁾				
Hazardous waste 有害廢物				
produced 產量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	0 / 1	0 / 1	0 / 2
recycled 循環再造量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	0 / 1	0 / 1	0 / 2
disposed 棄置量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	0 / 0	0 / 0	0 / 0
Non-hazardous waste 一般廢物				
produced 產量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	63 / 0	37 / 0	14 / 1
recycled 循環再造量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	21 / 0	7 / 0	3 / 1
disposed 棄置量	T (solid) / kl (liquid) 公噸(固體) / 千公升(液體)	42 / 0	30 / 0	11 / 0
6. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	0	0	0
Days lost / charged 總工傷損失日數	Days 日數	0	0	0
Lost Time Injuries ⁽⁵⁾ 損失工時受傷事故 ⁽⁵⁾	Cases 宗數	0	0	0
Occupational Disease ⁽⁵⁾ 職業病 ⁽⁵⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁵⁾ 總工時 ⁽⁵⁾	Manhours 工時	64,876	53,520	45,065

Tallawarra

Parameter 統計事項	Unit 單位	2018	2017	2016
6. Safety 安全				
Contractor 承辦商				
Fatalities ⁽⁵⁾ 死亡 ⁽⁵⁾	No. 人數	0	0	0
Lost Time Injuries ⁽⁵⁾ 損失工時受傷事故 ⁽⁵⁾	Cases 宗數	0	1	0
Total Work Hours ⁽⁵⁾ 總工時 ⁽⁵⁾	Manhours 工時	102,600	22,424	7,491

Notes:

⁽¹⁾ Measurement data are below detection limits. Estimates on yearly emissions were made as required by local authorities.
監測數據均低於可測量範圍。每年的排放量估算按地方當局要求作出。

⁽²⁾ Not applicable to Tallawarra.
不適用於Tallawarra電廠。

⁽³⁾ A portion of the treated wastewater is reused on site but measurement data are not routinely collected.
部分廢水在電廠處理及循環再用，但並無定期收集數據。

⁽⁴⁾ Waste categorised in accordance with local regulations. Contractor waste is included.
有害廢物和一般廢物根據當地法例進行分類。數據已包括承辦商產生的廢物。

⁽⁵⁾ Started reporting in 2014.
數據由2014年起匯報。

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2018 數據由V&C Environment Consultants Pty Limited獨立驗證。

Yallourn

雅洛恩

- Brown coal-fired power station and captive mine 褐煤電廠及專用煤礦場
- 1,480MW (2 x 360MW, 2 x 380MW) 1,480兆瓦 (2 x 360兆瓦, 2 x 380兆瓦)
- Plant commissioned between 1974 and 1982 電廠於1974年至1982年間投產
- Wholly owned and operated by CLP 中電全資擁有及營運

Parameter 統計事項	Unit 單位	2018	2017	2016
1. Operation 營運				
Electricity sent out ⁽¹⁾ 輸出電量 ⁽¹⁾	GWh 百萬度	9,371	9,946	10,483
Coal consumed 煤消耗量	TJ 兆兆焦耳	144,351	152,901	158,761
Oil consumed 燃油消耗量	TJ 兆兆焦耳	353	365	324
Thermal efficiency 發電效能	%	23.5	23.5	23.9
Equivalent availability factor (EAF) 等效可用率	%	77.2	83.0	87.8
2. Air Emissions 氣體排放				
CO ₂ e (Scopes 1 & 2) 二氧化碳當量 (範疇一及二)	kT 千公噸	13,731	14,412	15,298
SO ₂ ⁽²⁾ 二氧化硫 ⁽²⁾	kT 千公噸	15.7	18.2	21.0
NO _x ⁽²⁾ 氮氧化物 ⁽²⁾	kT 千公噸	13.5	14.5	14.6
Particulate (Total) ⁽³⁾ 粒狀物 (總量) ⁽³⁾	kT 千公噸	6.6	5.9	6.2
3. Water 水				
Water Withdrawal - Total 水抽取量 - 總數	Mm ³ 兆立方米	29.7	29.3	28.8
from marine water resources ⁽⁴⁾ 海水 ⁽⁴⁾	Mm ³ 兆立方米	-	-	-
from freshwater resources 淡水	Mm ³ 兆立方米	28.4	28.0	27.4
from municipal sources 自來水	Mm ³ 兆立方米	1.3	1.3	1.4
Water Discharged - Total 水排放量 - 總數	Mm ³ 兆立方米	14.1	14.2	15.2
treated wastewater discharged to sea ⁽⁴⁾ 經處理的廢水(排放至海洋) ⁽⁴⁾	Mm ³ 兆立方米	-	-	-
treated wastewater discharged to freshwater bodies 經處理的廢水(排放至淡水水體)	Mm ³ 兆立方米	12.3	12.3	13.6
wastewater discharged to sewerage 未經處理的廢水(排放至污水系統)	Mm ³ 兆立方米	1.8	1.9	1.6
Water Reused / Recycled 水回收/循環使用量	Mm ³ 兆立方米	0	0	0

Parameter 統計事項	Unit 單位	2018	2017	2016
4. Environmental Compliance 環保符規				
Regulatory non-compliances resulting in fines or prosecutions 引致罰款或遭起訴的違規	No. 宗數	0	0	0
Licence limit exceedances & other non-compliances 環保超標及其他違規	No. 宗數	1	0	0
5. By-products & Waste Management 副產品及廢物管理				
Ash produced 煤灰產量	kT 千公噸	251	279	272
Ash recycled / sold 煤灰循環再造/銷售量	kT 千公噸	0	0	0
Hazardous waste 有害廢物 ⁽⁵⁾				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	214 / 176	130 / 177	108 / 315
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	2 / 174	1 / 177	0 / 255
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	212 / 2	129 / 0	107 / 61
Non-hazardous waste 一般廢物 ⁽⁵⁾				
produced 產量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	4880 / 0	3,239 / 0	1,970 / 0
recycled 循環再造量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	1424 / 0	1,318 / 0	766 / 0
disposed 棄置量	T (solid) / kl (liquid) 公噸 (固體) / 千公升 (液體)	3456 / 0	1,922 / 0	1,205 / 0
6. Safety 安全				
Employee 僱員				
Fatalities 死亡	No. 人數	1	0	0
Days lost / charged 總工傷損失日數	Days 日數	20	47	1
Lost Time Injuries ⁽⁶⁾ 損失工時受傷事故 ⁽⁶⁾	Cases 宗數	2	6	1
Occupational Disease ⁽⁶⁾ 職業病 ⁽⁶⁾	Cases 宗數	0	0	0
Total Work Hours ⁽⁶⁾ 總工時 ⁽⁶⁾	Manhours 工時	618,723	569,081	383,794
Contractor 承辦商				
Fatalities ⁽⁶⁾ 死亡 ⁽⁶⁾	No. 人數	0	0	0
Lost Time Injuries ⁽⁶⁾ 損失工時受傷事故 ⁽⁶⁾	Cases 宗數	2	3	1
Total Work Hours ⁽⁶⁾ 總工時 ⁽⁶⁾	Manhours 工時	955,035	866,593	791,998

Yallourn

雅洛恩

Notes:

- ⁽¹⁾ Sent out, with mine.
輸出（連同煤礦場）。
- ⁽²⁾ SO₂ and NO_x data derived from plant emissions monitoring conducted every six months.
二氧化硫及氮氧化物數據來自每6個月進行一次的排放監測。
- ⁽³⁾ Particulate emissions from power generation only during 2010-2013, emissions from mine sources included since 2014.
2010-2013年數據只包括來自發電的粒狀物排放量，2014年起數據包括來自發電及煤礦場的粒狀物排放量。
- ⁽⁴⁾ Not applicable to Yallourn.
不適用於雅洛恩電廠。
- ⁽⁵⁾ Waste categorised in accordance with local regulations. Contractor waste is included.
有害廢物和一般廢物根據當地法例進行分類。數據已包括承辦商產生的廢物。
- ⁽⁶⁾ Started reporting in 2014.
數據由2014年起匯報。

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2018 數據由V&C Environment Consultants Pty Limited獨立驗證。

Generation Performance of Our Assets in 2018

Asset	Business Type	Generation Type	Generating Capacity (MW)	Equity Ownership (%)	Equivalent Availability Factor (EAF) ⁽¹⁾	Generation Sent-Out (Total) (GWh)	Thermal Efficiency (%)	Energy Intensity (kJ/kWh)
HONG KONG								
Castle Peak	Power Generation	Coal	4,108.0	70%	85.5%	13,727.0	32.3%	11,146
Black Point	Power Generation	Gas	2,575.0	70%	87.7%	9,304.2	45.8%	7,860
Penny's Bay	Power Generation	Diesel	300.0	70%	98.4%	1.1	20.4%	17,647
Transmission & Distribution Network	Power Delivery	N/A	N/A	100%	N/A	N/A	N/A	N/A
MAINLAND CHINA								
Fangchenggang I & II	Power Generation	Coal	2,580.0	70%	86.7%	8,267.0	38.5%	9,351
Laiwu I & II	Power Generation	Wind	99.0	100%	99.4%	183.1	N/A ⁽²⁾	N/A ⁽³⁾
CLP Laizhou I	Power Generation	Wind	49.5	100%	99.8%	127.1	N/A ⁽²⁾	N/A ⁽³⁾
Penglai I	Power Generation	Wind	48.0	100%	99.7%	98.4	N/A ⁽²⁾	N/A ⁽³⁾
Qian'an I & II	Power Generation	Wind	99.0	100%	98.2%	231.2	N/A ⁽²⁾	N/A ⁽³⁾
Sandu I	Power Generation	Wind	99.0	100%	82.5%	208.6	N/A ⁽²⁾	N/A ⁽³⁾
Xundian I	Power Generation	Wind	49.5	100%	99.6%	134.7	N/A ⁽²⁾	N/A ⁽³⁾
Dali Yang_er	Power Generation	Hydro	49.8	100%	92.6%	182.3	N/A ⁽²⁾	N/A ⁽³⁾
Huaiji	Power Generation	Hydro	129.0	85%	88.9%	327.7	N/A ⁽²⁾	N/A ⁽³⁾
Jiangbian	Power Generation	Hydro	330.0	100%	90.9%	1,143.8	N/A ⁽²⁾	N/A ⁽³⁾
Huai'an	Power Generation	Solar	12.8	100%	100.0%	19.7	N/A ⁽²⁾	N/A ⁽³⁾
Jinchang	Power Generation	Solar	85.0	100%	99.9%	155.7	N/A ⁽²⁾	N/A ⁽³⁾
Lingyuan	Power Generation	Solar	17.0	100%	100.0%	15.4	N/A ⁽²⁾	N/A ⁽³⁾
Sihong	Power Generation	Solar	93.4	100%	99.9%	133.0	N/A ⁽²⁾	N/A ⁽³⁾
Xicun I & II	Power Generation	Solar	84.0	100%	100.0%	166.3	N/A ⁽²⁾	N/A ⁽³⁾
INDIA								
Jhajjar	Power Generation	Coal	1,320.0	60%	90.1%	6,726.2	36.3%	9,917
Paguthan	Power Generation	Gas	655.0	60%	96.2%	365.0	33.5%	10,746
Wind Farms ⁽⁴⁾	Power Generation	Wind	924.2	60%	95.4%	1,727.1	N/A ⁽²⁾	N/A ⁽³⁾
Tornado	Power Generation	Solar	20.0	60%	98.6%	6.3	N/A ⁽²⁾	N/A ⁽³⁾

Generation Performance of Our Assets in 2018 (Continued)

Asset	Business Type	Generation Type	Generating Capacity (MW)	Equity Ownership (%)	Equivalent Availability Factor (EAF)	Generation Sent-Out (Total) (GWh)	Thermal Efficiency (%)	Energy Intensity (kJ/kWh)
AUSTRALIA								
Mount Piper	Power Generation	Coal	1,400.0	100%	85.4%	8,193.3	35.1%	10,256
Yallourn	Power Generation	Coal	1,480.0	100%	77.2%	9,371.3	23.5%	15,319
Hallett	Power Generation	Gas	203.0	100%	85.4%	22.6	18.1%	19,890
Tallawarra	Power Generation	Gas	420.0	100%	72.4%	855.0	47.0%	7,660
Newport	Power Generation	Gas	500.0	100%	89.0%	502.5	32.0%	11,250
Jeeralang	Power Generation	Gas	440.0	100%	95.3%	106.8	24.0%	15,000

Notes:

(1) Equivalent Availability Factor (EAF): The fraction of a given operating period in which a generating unit is available without any planned or unplanned and equipment or seasonal deratings * 100.

(2) N/A: In this context, N/A means "Not Applicable" as renewable generation does not have a thermal efficiency because power is not generated through thermal process.

(3) N/A: In this context, N/A means "Not Applicable" as energy intensity is not calculated for renewable energy.

(4) CLP commenced the transition to a new operating model of wind power assets in India in 2018, phasing out an external contractor to gain increased control over the maintenance and management of a wind farm as well as the health, safety, and environmental performance. Starting in 2019, CLP will report verified environmental data for its Indian wind power assets.

Safety and Environmental Management Systems of Our Assets in 2018

Asset	Generation Type	Safety Management		Environmental Management						
		Safety Management System	NOSA Audit in 2018 (Grading)	Environmental Management System	CEMS	Particulate Control Equipment	Low NO _x Burner	FGD	Water Management	Waste Management
HONG KONG										
Castle Peak	Coal	OHSAS 18001	N/A	ISO14001	✓	✓	✓	✓	✓	✓
Black Point	Gas	OHSAS 18001	N/A	ISO14001	✓	N/A	✓	N/A	✓	✓
Penny’s Bay	Oil	OHSAS 18001	N/A	ISO14001	✓	N/A	✓	N/A	✓	✓
Transmission & Distribution Network	Power Delivery	OHSAS 18001	N/A	ISO14001	Nil	N/A	Nil	N/A	✓	✓
MAINLAND CHINA										
Fangchenggang I & II	Coal	OHSAS 18001 & NOSA	N/A ⁽¹⁾	ISO14001	✓	✓	✓	✓	✓	✓
Laiwu I & II	Wind	OHSAS 18001 & NOSA	4 stars	Laiwu I: ISO14001 Laiwu II: Under Development	N/A	N/A	N/A	N/A	✓	✓
CLP Laizhou I	Wind	OHSAS 18001	N/A	ISO14001	N/A	N/A	N/A	N/A	✓	✓
Penglai I	Wind	OHSAS 18001 & NOSA	5 stars	ISO14001	N/A	N/A	N/A	N/A	✓	✓
Qian'an I & II	Wind	OHSAS 18001 & NOSA	5 stars	ISO14001	N/A	N/A	N/A	N/A	✓	✓
Sandu I	Wind	OHSAS 18001 & NOSA	Baseline Assessment	ISO14001	N/A	N/A	N/A	N/A	✓	✓
Xundian I	Wind	OHSAS 18001 & NOSA	3 stars	ISO14001	N/A	N/A	N/A	N/A	✓	✓
Dali Yang_er	Hydro	NOSA	5 stars	ISO14001	N/A	N/A	N/A	N/A	✓	✓
Huaiji	Hydro	NOSA	5 stars and 4 stars ⁽²⁾	ISO14001	N/A	N/A	N/A	N/A	✓	✓
Jiangbian	Hydro	OHSAS 18001 & NOSA	5 stars	ISO14001	N/A	N/A	N/A	N/A	✓	✓
Huai’an	Solar	Under Development	N/A	Under Development	N/A	N/A	N/A	N/A	✓	✓
Jinchang	Solar	OHSAS 18001 & NOSA	4 stars	ISO14001	N/A	N/A	N/A	N/A	✓	✓
Lingyuan	Solar	Under Development	N/A	Under Development	N/A	N/A	N/A	N/A	✓	✓
Sihong	Solar	NOSA	4 stars	ISO14001	N/A	N/A	N/A	N/A	✓	✓
Xicun I & II	Solar	OHSAS 18001 & NOSA	4 stars	ISO14001	N/A	N/A	N/A	N/A	✓	✓

Safety and Environmental Management Systems of Our Assets in 2018 (Continued)

Asset	Generation Type	Safety Management		Environmental Management						
		Safety Management System	NOSA Audit in 2018 (Grading)	Environmental Management System	CEMS	Particulate Control Equipment	Low NO _x Burner	FGD	Water Management	Waste Management
INDIA										
Jhajjar	Coal	NOSA	5 Stars	ISO14001	✓	✓	✓	✓	✓	✓
Paguthan	Gas	NOSA	NOSCAR ⁽³⁾	ISO14001	✓	N/A	✓	N/A	✓	✓
Wind Farms ⁽⁴⁾	Wind	N/A ⁽⁵⁾	N/A ⁽⁵⁾	ISO14001	N/A	N/A	N/A	N/A	✓	✓
Tornado	Solar	N/A ⁽⁵⁾	N/A ⁽⁵⁾	Under Development ⁽⁶⁾	N/A	N/A	N/A	N/A	✓	✓
AUSTRALIA										
Mount Piper	Coal	OHSAS 18001	N/A	ISO14001	✓	✓	Nil	Nil	✓	✓
Yallourn	Coal	OHSAS 18001	N/A	ISO14001	✓	✓	Nil	Nil	✓	✓
Hallett	Gas	OHSAS 18001	N/A	ISO14001	Nil	N/A	Nil	N/A	✓	✓
Tallawarra	Gas	OHSAS 18001	N/A	ISO14001	✓	N/A	✓	N/A	✓	✓
Jeeralang	Gas	AS 4801	N/A	ISO14001	Nil	N/A	Nil	N/A	✓	✓
Newport	Gas	AS 4801	N/A	ISO14001	✓	N/A	Nil	N/A	✓	✓

● CEMS - Continuous Emission Monitoring System

● FGD - Flue Gas Desulphurisation

● Nil - Not required by operational license

● N/A - Not Applicable to the type of operation (for Environmental Management)

● NOSA - National Occupational Safety Association

● OHSAS - Occupational Health and Safety Assessment Series

● Under Development - System being set up with

resources and staff support in place.

Notes:

(1) The NOSA audit for 2018 will be completed in the first quarter of 2019.

(2) The Changdiao station obtained 5 stars and the Yutiao station obtained 4 stars.

(3) Paguthan achieved NOSCAR in the NOSA audit for 2017 (valid till December 2018). It did not take up NOSA audit in 2018 as the Power Purchase Agreement (PPA) for Paguthan expired in December 2018.

(4) CLP commenced the transition to a new operating model of wind power assets in India in 2018, phasing out an external contractor to gain increased control over the maintenance and management of a wind farm as well as the health, safety, and environmental performance. Starting in 2019, CLP will report verified environmental data for its Indian wind power assets.

(5) The contractors implement their own safety management systems with reference to CLP's safety standards and guidelines.

(6) Tornado solar farm, acquired in November 2018, will develop its ISO14001 Environmental Management System within two years.

Stakeholders Key Concerns or Interests Table 2018

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Lenders

Region/Level	Key Concerns or Interests in 2018	CLP's Specific Actions in 2018
Group Level or General	<ul style="list-style-type: none"> Business sustainability and financial performance of overseas businesses CLP Group's sustainable investment and financing strategies 	<ul style="list-style-type: none"> Exercised a high level of discipline in managing our investments and finances, and demonstrated strong competence in managing the operating and financial performance of CLP's overseas businesses Achieved stronger financial profile of the Group in 2018 as demonstrated by 2.3% decrease in net debt to total capital ratio and HK\$4.2 billion reduction in net debt balance Maintained strong investment grade credit ratings with both Standard & Poor's and Moody's affirmed their credit ratings for CLP Holdings (A / A2), CLP Power Hong Kong (A+ / A1), CAPCO (AA- / A1) and EnergyAustralia (BBB+); Rating outlooks are all stable Assessed the arrangement of more socially responsible and sustainable financing (e.g. green/new energy bonds and energy transition/emission reduction bonds) under CLP's Climate Action Finance Framework ("CAFF")
Hong Kong	<ul style="list-style-type: none"> Implications of new Scheme of Control (SoC) Agreement Financing strategy of SoC business 	<ul style="list-style-type: none"> Explained that the new SoC Agreement provides a clear and certain regulatory framework for the development of the electricity industry and enables CLP to plan ahead and make measured, sensible investments to meet the long-term development needs of Hong Kong Obtained adequate, cost effective and diversified debt funding on a timely basis to support operation and business growth, and enhance capital structure
Mainland China	<ul style="list-style-type: none"> Availability of adequate liquidity at viable commercial terms for financing of renewable energy investments Uncertainty in timing of receipt of government subsidy for renewable projects 	<ul style="list-style-type: none"> Diversified funding sources by tapping into the offshore RMB bank loan market in Hong Kong in recent years to fund the construction and early-period operation of our wholly-owned renewable energy projects in Mainland China Cultivated and maintained long-term relationships with key lenders in Mainland China Utilised surplus cash within Mainland China to fund interim cash requirements for particular projects for the greater benefit of the Group

Investors and shareholders

Region/Level	Key Concerns or Interests in 2018	CLP's Specific Actions in 2018
General	<ul style="list-style-type: none"> The New Scheme of Control Agreement and the New Development Plan for 2018-2023; construction of the new gas-fired generation unit and planning for the second new unit; progress on the floating offshore LNG Terminal; commencement of the Feed-in-tariff scheme; issuance of Renewable Energy Certificates in Hong Kong Business opportunities, financial and operational performance in Mainland China, India and Australia Dividends and managing our financial and debt position Market reforms in Mainland China and the impact of the energy transition The introduction of CDPQ as a strategic partner in CLP India and our strategy for growing the business by investing in low carbon assets and broadening our position along the energy supply chain Development of the legacy two Vietnamese coal-fired projects Impact and opportunities associated with the supply/demand balance, political environment and regulation in the Australian market 	<ul style="list-style-type: none"> Produced a range of shareholder communication materials including Analyst Presentation, Investor Presentation and Media Release as well as this Sustainability Report and Annual Report to inform shareholders on these issues Organised direct engagement activities including: Annual General Meeting; investor meetings and site visits; analyst briefings; and visits to our facilities through our Shareholders' Visit Programme where the shareholders can raise questions to us directly
ESG-specific	<ul style="list-style-type: none"> CLP's Climate Vision 2050 and our investment strategy to address climate change; exposure to coal-fired generation and mitigation measures CLP's Climate Action Finance Framework for socially responsible and sustainable financing CLP's investment and further opportunities in low-carbon generation including nuclear and renewables Potential business opportunities brought in from the Hong Kong Government's Climate Action Plan 2030+ Impact on the business brought by climate change 	<ul style="list-style-type: none"> Incorporated Sustainability Principles into all our investment decisions Produced the annual Sustainability Report Included a specific section on environment, social and governance (ESG) in the Investor Presentation Organised ESG breakfast meeting overseas Replied to ESG questionnaires and surveys Responded to disclosure requests that support our inclusion in sustainability-themed stock indices

Governments and regulators

Region/Level	Key Concerns or Interests in 2018	CLP's Specific Actions in 2018
Hong Kong	<ul style="list-style-type: none"> • Introduction of post-September 2018 regulatory arrangements under the new Scheme of Control • First five year investment programme (Development Plan) under the new Scheme of Control • Tariff review for 2018 when the new regime started in October 2018 and tariff review for 2019 • Resilience of our electricity supply systems to extreme climate conditions, e.g. super typhoons, severe floods 	<ul style="list-style-type: none"> • Preparations with government progressed well and the introduction of the new Scheme of Control progressed smoothly • Submitted the Development Plan covering the period October 2018 – December 2023 to the Government, supporting the further decarbonisation of our electricity supply; this was approved by government earlier than expected, in July 2018 • Engaged and maintained dialogue with the relevant government departments, legislators and political parties on the tariff adjustment • Construction of the new CCGT at Black Point Power Station is in good progress; this will become fully operational in 2020 and will significantly increase the share of gas in CLP's electricity supply to about 50%. • Continued to enhance resilience of our infrastructure in various areas
Mainland China	<ul style="list-style-type: none"> • Safety and reliability • Emergency readiness 	<ul style="list-style-type: none"> • Exchanged regularly with authorities to build support and increase understanding of CLP's safety culture • Active monitoring of policy and market development related to power sector • Kept close working relationship with regulatory authorities including the National Development and Reform Commission (NDRC), the National Energy Administration (NEA), and local regulatory authorities where CLP has presence (e.g. Provincial Government, Local Energy Bureau, and Industry and Information Committee of Guangxi Zhuang Autonomous Region)
India	<ul style="list-style-type: none"> • National Action Plan on Climate Change and business opportunities or challenges arising out of it • Stakeholder consultations by Central and State electricity regulator/s related to PPA, Tariff, and other matters related to our business, etc. 	<ul style="list-style-type: none"> • Actively tracked market and policy development related to renewable energy and transmission bids • Participated in stakeholder consultation of centre and state electricity regulators.
Australia	<ul style="list-style-type: none"> • The national climate and energy policy and associated frameworks • Balancing reliability, affordability and lowering emissions of power supplies • State-based energy policies for renewables 	<ul style="list-style-type: none"> • Managed concerns/ issues through contributing to expert reviews at Australian Parliamentary committees and forums, and actively participated in industry groups • EnergyAustralia represented on the Board and working groups of the Australian Energy Council (AEC) and Business Council of Australia (BCA)

Residential customers

Region/Level	Key Concerns or Interests in 2018	CLP's Specific Actions in 2018
Hong Kong	<ul style="list-style-type: none"> • Tariff adjustment • Energy efficiency and conservation • Customer experience 	<ul style="list-style-type: none"> • Contained tariff adjustment at 2%, close to the CPI figure for October 2018 • Provided bill inserts and bill messages as well as FAQs on CLP website to explain tariff change • Provided energy saving tips on CLP's website, digital and social media channels; provided Eco Power 360 and Home Energy Report to help customers use electricity wisely; promoted Smart Energy Programme to educate customers to use electricity wisely; and promoted paperless Green Bill • Provided CLP Eco rewards scheme as an additional e-Channel to enhance and sustain customer experience and engagement; provided CLP Power Hong Kong website and Mobile App to enhance customer services; transformed Mong Kok Eco Home into new Smart Energy@Mong Kok to offer customers a chance to personally experience and appreciate the benefits of a full range of smart home products and technologies • Engaged customers via different social media platforms; reached younger generation through Facebook and Instagram; engaged with the professional segment via LinkedIn
Australia	<ul style="list-style-type: none"> • "Bill shock" and energy prices • Billing and debt collection • Customer service quality • Renewable energy • General lack of trust in energy retailers 	<ul style="list-style-type: none"> • Maintained flat annual electricity prices on average for customers in NSW and Victoria by paying A\$55 million to offset increased network and green scheme costs • Provided automatic discounts of 15% on electricity and gas usage for eligible EnergyAustralia concession-card customers on default tariffs • Removed fees for paper bills and over-the-counter transactions by cash or cheque via Australia Post for all customers in NSW, Victoria, South Australia and Queensland • Signed agreements worth \$50 million to operate utility-scale battery storage systems at Gannawarra and Ballarat to provide stability for Victoria's energy system • Completed a programme to underpin development of around 500MW of new wind and solar generation capacity in eastern Australia • Continued to invest an additional A\$10 million in measures to support financially vulnerable customers, including waiving debts and providing A\$500,000 of energy-efficient heating and cooling systems to the VincentCare Ozanam House homeless hub

Commercial and industrial customers

Region/Level	Key Concerns or Interests in 2018	CLP's Specific Actions in 2018
Hong Kong	<ul style="list-style-type: none"> Tariff adjustment Energy efficiency and conservation Customer experience 	<ul style="list-style-type: none"> Contained tariff adjustment at 2%, close to the CPI figure for October 2018 Communicated with key customers and stakeholders through dedicated Account Managers Provided tariff impact analysis information to large consumption customers; provided bill inserts and bill messages to SMEs and developed FAQs on website Conducted energy audits and provided power quality improvement services for commercial and industrial customers; provided energy saving solutions e.g. Meter Online, Energy Billboard; organised Smart Energy Awards to recognise the performance of C&I customers in energy management and the use of renewable energy and smart technology ; provided Smart Enterprise (an affordable IoT energy monitoring solution) by using simple IoT devices to help C&I customers save energy
Australia	<ul style="list-style-type: none"> "Bill shock", energy prices (wholesale) and availability of gas (medium/ long term) Adapting and developing systems and processes with industry best practice customer experience Agility of business to grow and thrive in a rapidly changing landscape Strong market preference for energy brokers as the intermediary to customers with resulting challenges to acquire and retain customers 	<ul style="list-style-type: none"> Assisted customers to understand and manage their energy usage Renewed focus and investment in our capability to serve commercial and industrial customers Interacted with and leveraged Next Generation products and services Renewed focus on customer retention Identified and developed alternative/ proactive channels to market
Mainland China	<ul style="list-style-type: none"> Supply reliability Tariff management Tariff competitiveness 	<ul style="list-style-type: none"> Entered into medium term contracts with a high-usage industrial customers Various short term contracts with electricity trading companies and commercial & industrial customers Maintained tariff competitiveness through efficient operations
India	<ul style="list-style-type: none"> Entry into Corporate Power Purchase Agreement (PPA) under rooftop and Open Access arrangements with industrial and commercial consumers for renewable energy 	<ul style="list-style-type: none"> Carried out engagements with facilitation agents/ electricity traders/ partners to identify potential customers for Corporate PPA Started marketing of these PPAs to leading companies

Electricity boards and grid companies

Region/Level	Key Concerns or Interests in 2018	CLP's Specific Actions in 2018
Mainland China	<ul style="list-style-type: none"> Ability to fulfil dispatch obligations and to meet offtake agreements 	<ul style="list-style-type: none"> Communicated regularly with grid companies on generation plans and dispatch requirements Participated in the Guangxi Electricity Exchange as one of its shareholders and the Guangxi Electricity Market Supervisory Council as one of its members
India	<ul style="list-style-type: none"> Management of existing PPAs 	<ul style="list-style-type: none"> Interacted periodically with these customers and relevant government authorities on operational, commercial and regulatory aspects / issues related to our PPAs
Australia	<ul style="list-style-type: none"> Network tariff reform for the electricity and mass market Opening up of metering competition 	<ul style="list-style-type: none"> Participated in regulatory and industry discussions with distributors and retailers; and began to increase engagement at the executive management level between EA and the distributors

Employees

Region/Level	Key Concerns or Interests in 2018	CLP's Specific Actions in 2018
Group level or General	<ul style="list-style-type: none"> Competitive remuneration and benefits Career development opportunities Gender diversity and equal opportunity Concerns on safety performance 	<ul style="list-style-type: none"> Conducted regular independent review of market remuneration surveys and benefits, and review of family-friendly policies and practices Conducted regular review of succession planning; optimised internal promotion; continued investment in training and development; and arranged staff rotation Made significant investment in staff development programmes Continued female mentoring programme with universities; organised groupwide network for female engineers Carried out reviews of gender pay equity Broadened and diversified our recruitment sources and channels Established a Group-wide HSE Improvement plan; the new strategy is based around five pillars namely uplifting our safety culture, rethinking risk, involving our stakeholders, maintaining a healthy and engaged workforce and ensuring environmental sustainability

Suppliers and contractors

Region/Level	Key Concerns or Interests in 2018	CLP's Specific Actions in 2018
Group level or General	<ul style="list-style-type: none"> Responsible procurement practices and supply chain management Demonstration of CLP's commitments to continuous improvement and adoption of best practices 	<ul style="list-style-type: none"> Included compliance with CLP's Responsible Procurement Policy Statement (RePPS) in the supplier/contractor assessment and selection process Developed and implemented Supplier Risk Assessment framework for strategic suppliers with quarterly reviews of risk levels and mitigation plans Developed and implemented Supplier Relationship Management framework for strategic suppliers with regular meetings to review performance, drive continuous improvement in product and service delivery and plan for future developments Conducted benchmarking of existing responsible procurement practices against those of other industry leaders, developed roadmap and implementing measures to further enhance sustainability risk management capabilities across our supply chain

Communities, NGOs and media

Region/Level	Key Concerns or Interests in 2018	CLP's Specific Actions in 2018
Hong Kong	<ul style="list-style-type: none"> Preparation and implementation of initiatives under new Scheme of Control Agreement (SCA) Future fuel mix to address climate change and air quality Supply reliability particularly in strong typhoons Progress of additional gas-fired generation capacity at the Black Point Power Station Approval for Hong Kong Offshore LNG Terminal Assistance to the under-privileged especially for residents living in sub-divided flats 	<ul style="list-style-type: none"> Engaged extensively with the community after signature of the new SCA Engaged and informed community stakeholders through briefings, communication material and site visits to CLP's facilities to explain the need and development progress of various key infrastructure projects Planned and prepared carefully for the severe Typhoon Mankhut, and communicated actively with affected customers Conducted discussion workshops with key customers to review ways in which CLP can continuously improve its efforts in enhancing supply reliability, cost control and environmental performance Continued strategic engagement with NGOs and local community organisations for various community programmes and volunteer services and offered practical support to those in need Timely communication with the media on the details of our infrastructure projects to enhance media and public understanding
Mainland China	<ul style="list-style-type: none"> Impact of CLP business on local communities Benefit of CLP's community investment programmes to local communities CLP's business development in China 	<ul style="list-style-type: none"> Implemented CLP Community Investment programmes Communicated with Mainland media outlets on CLP's business update, business model and brand
India	<ul style="list-style-type: none"> Primary healthcare services in remote villages near CLP's facilities Empowerment of women Youth engagement 	<ul style="list-style-type: none"> Provided primary healthcare services through Mobile Medical Van Constructed 50 bedded hospital and handed over to the local administration Supported women led micro-credit societies Supported local sports like wrestling and basketball

Australia	<ul style="list-style-type: none"> • Customers' capacity to pay energy bills • Carbon emissions and approach to minimizing them • Community engagement, communication and local social investment; social license to proceed with site projects • Longevity and reliability of power generator sites 	<ul style="list-style-type: none"> • Continued strategic engagement with community groups to better inform our hardship programme and delivery of Financial Inclusion Action Plan (FIAP) initiatives • Quarterly engagement with local communities on site projects and environmental management through community reference groups • Delivered community grant programme in all communities close to EnergyAustralia generation sites • Proactively engaged media
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Academia and schools

Region/Level	Key Concerns or Interests in 2018	CLP's Specific Actions in 2018
Hong Kong	<ul style="list-style-type: none"> • Career development in engineering • Development of STEM education • Energy efficiency and conservation • Progress of additional gas-fired generation capacity at Black Point Power Station 	<ul style="list-style-type: none"> • Delivered programs via CLP Power Academy • Collaborated with NGOs and professional bodies in public education programmes for kindergarten, primary, secondary and university students • Taught young children on energy conservation and power journey by engineers through POWER YOU Kindergarten Visitation programme • Engaged and informed key stakeholders through background briefings and site visits to CLP's facilities • Promoted an educational package to secondary schools by installing IoT devices to illustrate the use of technology to drive energy saving • Reached out to 50 secondary schools in the 2018-2019 academic year through Engineer in School Programme to inspire more students to pursue a career in the engineering profession • Engaged and informed key stakeholders through lectures, seminars and site visits to CLP's facilities
Mainland China	<ul style="list-style-type: none"> • Energy conservation and Mainland China's climate change commitment • Improvement in education facilities • Poverty relief for students • Career development in engineering and management 	<ul style="list-style-type: none"> • Organised talks on environmental protection to students • Sponsored schools to upgrade their facilities through the Support-a-School and various community programmes • Made donations to students through the Support-a-student Programme • Recruited Graduate Trainees from a number of colleges
India	<ul style="list-style-type: none"> • Malnutrition in young children in local communities • Improvement in education facilities • Career development opportunities 	<ul style="list-style-type: none"> • Provided mid-day meals in schools • Strengthened infrastructure of local school for better facilities • Supported students from economically disadvantaged families with scholarship/mentoring
Australia	<ul style="list-style-type: none"> • Concerns about the electricity generator industry in their community • Career development of students in the changing local job market 	<ul style="list-style-type: none"> • Informed key community stakeholders through regular community liaison meetings • Social Investment programme including volunteering, community grants and partnerships have a focus on education and social inclusion

For an overview of our engagement with key industry and professional organisations, please read the table available at the [Downloads](#) section.

Industry and Professional Organisations

INTERNATIONAL

Organisation	About the Organisation	CLP's Involvement
World Business Council for Sustainable Development (WBCSD)	WBCSD is a global, CEO-led organisation of over 200 leading businesses working together to accelerate the transition to a sustainable world.	<p>CLP has been a member since 2001. Our CEO is a Council Member and has been a member of the Climate and Energy Program Board since 2014.</p> <p>CLP is currently participating in various programmes such as the Climate Policy Working Group and the New Energy Solutions project. We also supported the publication of the report "New Energy Solutions for 1.5°C - Pathways and technologies to achieve the Paris Agreement".</p> <p>CLP India was also an active member of WBCSD's REscale program and supported the publication of "Accelerating corporate procurement of renewable energy in India".</p>
Energy Transition Commission (ETC)	ETC is a diverse group from across the energy landscape, aiming to accelerate change towards low-carbon energy systems that enable robust economic development and limit the rise in global temperature to well below 2°C.	<p>CLP has joined the organisation in August 2018. Our CEO is Commissioner of ETC and Our Managing Director – India is Commissioner of ETC India.</p> <p>CLP's senior executives work together with a diverse group of leaders from the public, private and NGO sectors to accelerate change towards low carbon energy systems that enable both robust economic development and limit the rise in global temperature to below 2°C.</p>
International Solar Alliance (ISA)	ISA is a treaty-based, inter-governmental organisation established in December 2015 at COP-21. It aims to provide a dedicated platform for cooperation among solar resource rich countries where the global community can make a positive contribution to assist and help achieve the common goals of increasing the use of solar energy in meeting energy needs of prospective ISA member countries in a safe, convenient, affordable, equitable and sustainable manner.	In June 2016, ISA entered into an agreement with the World Bank to raise US\$1 trillion by 2030 to meet the Paris Agreement objectives. As part of these efforts, CLP is supporting the Indian Government's plan to deploy solar technology across the country.
World Energy Council (WEC)	Formed in 1923, WEC is a UN-accredited global energy body, represented by more than 3,000 member organisations located in over 90 countries. WEC informs global, regional and national leaders on energy strategies and facilitates the world's energy policy dialogue.	<p>CLP has been engaged with the WEC since 1988. Our CEO is currently the chairman of WEC Hong Kong Membership Committee (WEC HK) and our Director – CLP Research Institute is the Secretary for WEC HK.</p> <p>In 2018, CLP continued its engagement with the WEC, including contributing to the 2018 Energy Trilemma Index and the World Energy Insights – Blockchain: Anthology of Interviews & Insights Brief.</p>
International Electric Research Exchange (IERE)	IERE is a worldwide, non-profit organisation established in 1968. It serves executives, senior managers, engineers, and researchers who are responsible for electricity and energy-related R&D and solutions.	<p>CLP has been a regular member of IERE since 2000 and an Executive Member since 2014.</p> <p>In November 2018, our Director – CLP Research Institute was elected as the Vice-Chair of IERE. CLP continued to work with IERE on the joint R&D programme and Technology Foresight activities, including participating in the IERE General Meeting and workshop.</p>

International Emissions Trading Association (IETA)	The International Emissions Trading Association (IETA) is a non-profit business organisation founded in 1999 to establish a functional international framework for trading in greenhouse gas emission reductions.	CLP has been a corporate member of IETA since 2009. CLP continued to exchange views and updates on the latest international carbon emissions trading trends and presented on the Chinese Emissions Trading Scheme (ETS) at the IEA-IETA-EPRI 2018 Greenhouse Gas Emissions Trading Workshop.
International Integrated Reporting Council (IIRC)	IIRC is a global coalition of regulators, investors, companies, standard setters, the accounting profession and NGOs, promoting communication about value creation as the next step in the evolution of corporate reporting.	CLP was involved as a Working Group member from 2010-2014 and was one of the original pilot companies of the <IR> Framework. CLP remains supportive of IIRC and is a member of the <IR> Network.
Global Reporting Initiative (GRI)	GRI is a network-based NGO that helps businesses, governments and other organisations understand and communicate the impact of business on critical sustainability issues.	CLP is one of the early adopters of the GRI reporting guidelines. In 2018, CLP continued its involvement as a GRI Gold Community member.
We Mean Business (WMB) Coalition	WMB is a global nonprofit coalition working with the businesses to take action on climate change. The coalition brings together seven non-profit organisations, including WBCSD amongst others.	CLP is represented on the WMB Corporate Advisory Group via our Director – Group Sustainability.

HONG KONG

Organisation	About the Organisation	CLP's Involvement
Engineering Professional Bodies	CLP actively supports a number of engineering professional bodies, namely the Hong Kong Institution of Engineers (HKIE), the Institution of Engineering and Technology (IET HK), the Institution of Mechanical Engineers (IMechE), the Association of Engineering Professionals in Society Ltd (AES), the Institute of Electrical and Electronics Engineers (IEEE), the Hong Kong Nuclear Society, the Society of Operations Engineers (SOE HK) and the Chartered Institution of Building Services Engineers (CIBSE).	As a responsible industry player, we are active in participating in engineering-related professional bodies for the benefit of information exchange, experience sharing, and promotion of the engineer profession. Given the nature of our business, we are most active in electrical, gas, energy, nuclear and environmental disciplines. Many CLP colleagues are participating in trainings, events and as Committee Members.
Business Environment Council (BEC)	BEC is an independent, non-profit organisation set up by the business sector in 1992. It promotes environmental excellence by advocating the uptake of clean technologies and practices which reduce waste, conserve resources, prevent pollution and improve corporate environmental and social responsibility.	CLP is a founding member of BEC. Our CEO has been a Director of BEC since 2012 and is current Chairman of the Board of Directors since 2016. CLP continued to be an active member in four of the advisory groups: Climate Change Business Forum Advisory Group, Energy Advisory Group, ESG Advisory Group and Transport & Logistics Advisory Group.
Hong Kong Green Building Council (HKGBC)	HKGBC is a non-profit organisation established in 2009. It aims to raise green building awareness by engaging the public, the industry and the government, and to develop practical solutions for Hong Kong's unique, subtropical built environment of high-rise, high density urban area, leading Hong Kong to become a world's exemplar of green building development.	CLP is an institutional member of HKGBC and our Senior Director – Power Systems sits on the Board.
The Hong Kong Institute of Certified Public Accountants (HKICPA)	HKICPA is a professional accountant institute that serves the business community and public interest of Hong Kong and contributes to the sustainable development of Hong Kong as a leading international business and financial centre.	CLP is represented on the Sustainability and Integrated Reporting Advisory Panel via our Director – Group Sustainability.

MAINLAND CHINA

Organisation	About the Organisation	CLP's Involvement
China Nuclear Energy Association (CNEA)	CNEA is a national non-profit and non-governmental organisation established in 2007. The CNEA's missions are to implement the national policies on nuclear energy development, promote industrial independent innovation and Technical advancement, and support the improvement of safety, reliability and economics of nuclear energy utilisation.	Hong Kong Nuclear Investment Company (HKNIC) joined the CNEA in 2007 and is a standing member of the Governing Council of CNEA. In 2018, HKNIC participated in CNEA's committee meetings and Annual Meeting. We also attended an industry forum on public communication organised by CNEA and made a presentation.
China Electricity Council (CEC)	Established in 1988, CEC is a joint organisation of China's power enterprises and institutions. Functioning as a bridge between the government and power enterprises, CEC serves its members by appealing to the government on their requests and protecting their legal rights, encourages its members to fulfil their social responsibilities, and promotes the healthy development of the whole industry.	CLP joined the CEC in 1999 and the Managing Director of our China Business Unit is a member of the Standing Committee of this organisation. We are actively involved in the discussions of key China power sector initiatives including the Reliability Index, Power Supply-Demand forecast and China Power Sector reform.

INDIA

Organisation	About the Organisation	CLP's Involvement
TERI Council for Business Sustainability (TERI-CBS)	During 2015, TERI renamed its Business Council for Sustainable Development to Council for Business Sustainability. It is an independent and credible platform for corporate leaders to address issues related to sustainable development and promote leadership in environmental management, social responsibility and economic performance.	CLP India has been an active member of TERI-CBS since 2011 and actively participates in the Chief Sustainability Officers (CSO) Forum. Our Managing Director – India is a member of the Executive Committee of TERI-CBS. Our engagement involves regular participation in knowledge sharing meetings, conferences and development of case-studies to promote industry best practices.
Indian Wind Power Association (IWPA)	Set up in 1996, IWPA is a non-profit organisation which represents the wind energy sector in India. IWPA aims to mainstream wind energy in India and advocate an increase of the penetration of wind energy in the grid to at least 20% by the year 2020.	CLP India has been a member of IWPA for over six years. We participate in this platform for peer-to-peer learning, knowledge sharing as well as providing inputs. IWPA acts as a stakeholder in the wind industry and looks into matters that potentially affect the growth of wind power sector.
Confederation of Indian Industry (CII)	CII is a non-government, non-profit, industry led-organisation, playing a proactive role in India's development process. CII charts progress through dialogues with the central Government on policy issues and interfacing with thought leaders across industries.	CLP India has been a member of CII for a period of time. Our Managing Director – India is the Co-Chair for the CII National Committee on Power. CLP India participated in multiple forums hosted by CII including sidelines sessions in COP 22 in Marrakech, where our Managing Director – India leading speaker.
Association of Power Producers (APP)	In 2010, Private Power Developers came together to constitute the Association of Power Producers (APP) to highlight the issues faced by the private sector, and to ensure timely redressal of such issues to assure that the capacity addition targets can be met.	CLP India has been a founding member of APP and is one of the active members of the body. We have been playing an instrumental role, for example, our Managing Director – India was the Chairperson in 2014. CLP India played a vital role in policy advocacy in fuel related matters, Power Purchase Agreement (PPA) issues, measures to improve DISCOMS health amendments to Electricity Act 2003, Tariff Policy, and standard bridging documents (SBDs).

AUSTRALIA

Organisation	About the Organisation	CLP's Involvement
The Clean Energy Council	The CEC is the peak body representing Australia's clean energy sector. It is an industry association made up of more than 600 member companies operating in the fields of renewable energy and energy efficiency.	EnergyAustralia is an active member of the CEC and chair of one of its working groups on energy market reform. By having a seat on the CEC, EnergyAustralia aims to work with members to find a sustainable policy framework for the clean energy sector as the broader energy market transitions to lower emissions.
Australian Energy Council (AEC)	The Australian Energy Council was formed in 2016 and represents 21 major electricity and downstream natural gas businesses operating in competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia and sell gas and electricity to over 10 million homes and businesses.	EnergyAustralia is represented on the board of the AEC and is an active participant in its various working groups covering a range of competitive energy market issues including reviews of wholesale market operation, competitive retail markets and emission reduction policies.
Carbon Markets Institute (CMI)	CMI is dedicated to helping Australian business seize opportunities in rapidly evolving carbon markets.	EnergyAustralia is a member of CMI where we seek to work with members to help promote the benefits of carbon offset opportunities for Australia.
The Hawthorn Club	The Hawthorn Club is an international network for Executive women in the energy industry. Its mission is to promote the appointment of women to senior corporate positions and boards; to facilitate gender diversity within the energy sector.	CLP Group has been a member of the Hawthorn Club since 2018. Head of Planning, Delivery, and Performance at EnergyAustralia currently sits on the Asia Pacific Advisory Board.

GRI Content Index



Materiality Disclosures

CLP Holdings Limited

Mar 2019

Service

For the Materiality Disclosures Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of the report.

GRI Standard	Disclosure	Page number(s) and/or URL(s)	Part Omitted	Omission Reason	Explanation
GRI 101: Foundation 2016 General Disclosures					
GRI 102: General Disclosures 2016	Organizational profile				
	102-1 Name of the organization	Our business			
	102-2 Activities, brands, products, and services	Our business			
	102-3 Location of headquarters	Our business			
	102-4 Location of operations	Our business			
	102-5 Ownership and legal form	Our business			
	102-6 Markets served	Our business			
	102-7 Scale of the organization	Our business			
	102-8 Information on employees and other workers	Building an agile, inclusive and sustainable workforce			
		Employment practice			
	102-9 Supply chain	Our business			
		Supply chain			
	102-10 Significant changes to the organization and its supply chain	Portfolio changes			
		Responsible procurement			
	102-11 Precautionary Principle or approach	Environmental management			
	102-12 External initiatives	Facilitating informed engagement			
		Public policy			
	102-13 Membership of associations	Public policy			
		Public policy			
	EU1 Installed capacity, broken down by primary energy source and by regulatory regime	Availability and reliability			
	EU2 Net energy output, broken down by primary energy source and by regulatory regime	Availability and reliability			
	EU3 Number of residential, industrial, institutional and commercial customer accounts	Customer portfolio			
EU4 Length of above and underground transmission and distribution lines by regulatory regime	Availability and reliability				
EU5 Allocation CO ₂ e emissions allowances or equivalent, broken down by carbon trading framework	Carbon trading schemes				
Strategy					
102-14 Statement from senior decision-maker	Chairman and CEO Message				
102-15 Key impacts, risks, and opportunities	Key drivers and megatrends				
	Building the "Utility of the Future"				

	Ethics and integrity	
	102-16 Values, principles, standards, and norms of behavior	Our Value Framework Sustainable Development Goals
	102-17 Mechanisms for advice and concerns about ethics	Corporate Governance Framework and Code Code of Conduct & anti-corruption
	Governance	
	102-18 Governance structure	Sustainability Governance
	102-19 Delegating authority	Sustainability Governance
	102-20 Executive-level responsibility for economic, environmental, and social topics	Management Roles
	102-21 Consulting stakeholders on economic, environmental, and social topics	Materiality assessment Stakeholder Engagement Framework
	102-22 Composition of the highest governance body and its committees	Sustainability Governance Annual Report; Corporate Governance Report
	102-23 Chair of the highest governance body	Sustainability Governance Annual Report; Corporate Governance Report
	102-24 Nominating and selecting the highest governance body	Sustainability Governance Corporate governance Annual Report; Corporate Governance Report
	102-25 Conflicts of interest	Sustainability Governance Corporate governance Annual Report; Corporate Governance Report
	102-26 Role of highest governance body in setting purpose, values, and strategy	Sustainability Governance Corporate governance Annual Report; Corporate Governance Report
	102-27 Collective knowledge of highest governance body	Sustainability Governance Corporate governance Annual Report; Corporate Governance Report
	102-28 Evaluating the highest governance body's performance	Sustainability Governance Corporate governance Annual Report; Corporate Governance Report
	102-29 Identifying and managing economic, environmental, and social impacts	Sustainability Governance Annual Report; Corporate Governance Report
	102-30 Effectiveness of risk management processes	Risk Management Risk Management Annual Report; Corporate Governance Report
	102-31 Review of economic, environmental, and social topics	Sustainability Governance Annual Report; Corporate Governance Report
	102-32 Highest governance body's role in sustainability reporting	Sustainability Governance Annual Report; Corporate Governance Report
	102-33 Communicating critical concerns	Stakeholder Engagement Framework
	102-34 Nature and total number of critical concerns	Stakeholder Engagement Framework
	102-35 Remuneration policies	Our Zero Harm vision; Embedding ESG performance into remuneration considerations Employment practice
	102-36 Process for determining remuneration	Our Zero Harm vision; Embedding ESG performance into remuneration considerations Employment practice

	102-37 Stakeholders’ involvement in remuneration	Our Zero Harm vision; Embedding ESG performance into remuneration considerations			
	102-38 Annual total compensation ratio	Nil	All	Not applicable	We will consider disclosures upon the establishment of a common global standard for these metrics.
	102-39 Percentage increase in annual total compensation ratio	Nil	All	Not applicable	
	Stakeholder engagement				
	102-40 List of stakeholder groups	Stakeholder Engagement Framework; Strategies and procedures			
	102-41 Collective bargaining agreements	Human rights; Freedom of association and collective bargaining			
	102-42 Identifying and selecting stakeholders	Stakeholder Engagement Framework; Strategies and procedures			
	102-43 Approach to stakeholder engagement	Stakeholder Engagement Framework			
	102-44 Key topics and concerns raised	Materiality results Building the "Utility of the Future" Stakeholder Engagement Framework; Strategies and procedures			
	Reporting practice				
	102-45 Entities included in the consolidated financial statements	Reporting scope and data verification			
	102-46 Defining report content and topic Boundaries	Materiality assessment Assessment process			
	102-47 List of material topics	Materiality results Building the "Utility of the Future"			
	102-48 Restatements of information	Reporting scope and data verification			
	102-49 Changes in reporting	Reporting scope and data verification			
	102-50 Reporting period	Reporting scope and data verification			
	102-51 Date of most recent report	Reporting scope and data verification			
	102-52 Reporting cycle	Reporting scope and data verification			
	102-53 Contact point for questions regarding the report	Feedback Form			
	102-54 Claims of reporting in accordance with the GRI Standards	Reporting frameworks and content indices			
	102-55 GRI content index	Data and downloads			
	102-56 External assurance	Reporting scope and data verification Data and downloads			
Material Topics					
200 series (Economic topics)					
Economic Performance					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment			
	103-2 The management approach and its components	Our business			
	103-3 Evaluation of the management approach	Our business			
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Growing our business with purpose; What this means for CLP			
	201-2 Financial implications and other risks and opportunities due to climate change	Responding to climate change Climate Change			
	201-3 Defined benefit plan obligations and other retirement plans	Employment practice			
	201-4 Financial assistance received from government	Public policy			
Market Presence					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment			
	103-2 The management approach and its components	Employment practice			
	103-3 Evaluation of the management approach	Employment practice			

GRI 202: Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	Employment practice	
	202-2 Proportion of senior management hired from the local community	Employment practice	
Indirect Economic Impacts			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment	
	103-2 The management approach and its components	Growing our business with purpose	
	103-3 Evaluation of the management approach	Growing our business with purpose	
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	Growing our business with purpose; What this means for CLP	
	203-2 Significant indirect economic impacts	Growing our business with purpose; What this means for CLP	
Procurement Practices			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment	
	103-2 The management approach and its components	Supply chain	
	103-3 Evaluation of the management approach	Supply chain	
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	Responsible procurement	
Anti-corruption			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment	
	103-2 The management approach and its components	Code of Conduct & anti corruption	
	103-3 Evaluation of the management approach	Code of Conduct & anti corruption	
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	Code of Conduct & anti corruption	
	205-2 Communication and training about anti-corruption policies and procedures	Code of Conduct & anti corruption	
	205-3 Confirmed incidents of corruption and actions taken	Code of Conduct & anti corruption	
		Legal compliance	
Anti-competitive Behavior			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment	
	103-2 The management approach and its components	Legal compliance	
	103-3 Evaluation of the management approach	Legal compliance	
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Legal compliance	
300 series (Environmental topics)			
Materials			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment	
	103-2 The management approach and its components	Environmental management	
	Sector Specific: Long-term strategy for managing and phasing out high level and low level in-service PCBs		
GRI 301: Materials 2016	103-3 Evaluation of the management approach	Environmental management	
	301-1 Materials used by weight or volume	Asset management	
	Sector Specific: Report in-use inventory of solid and liquid high level and low level PCBs contained in equipment		
	301-2 Recycled input materials used	Waste	
	301-3 Reclaimed products and their packaging materials	Nil	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.
Energy			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment	
	103-2 The management approach and its components	Responding to climate change	
	103-3 Evaluation of the management approach	Asset management	
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Responding to climate change	
	302-2 Energy consumption outside of the organization	Asset management	
		Our Business	
	302-3 Energy intensity	Data Table; Operations	
		Availability and reliability	

	302-4 Reduction of energy consumption 302-5 Reductions in energy requirements of products and services	Asset management Responding to climate change Asset management Helping our communities decarbonise			
Water					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components Sector Specific: Collaborative approaches to manage watersheds and reservoirs and long-term planning for securing water resources 103-3 Evaluation of the management approach	Materiality assessment Water Water			
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource Sector Specific: Overall water usage for processing, cooling and consumption in thermal and nuclear power plants, including use of water in ash handling and coal cleaning 303-2 Management of water discharge-related impacts 303-3 Water withdrawal 303-4 Water discharge 303-5 Water consumption	Water Water Water Water Water			
Biodiversity					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components Sector Specific: Approaches for pest and vegetation management along transmission and distribution corridors 103-3 Evaluation of the management approach	Materiality assessment Biodiversity & Land Use Climate resilience Biodiversity & Land Use			
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas 304-2 Significant impacts of activities, products, and services on biodiversity Sector Specific: Nature of significant direct and indirect impacts on biodiversity regarding maintenance of transmission line corridors, fragmentation and isolation, as well as impacts of thermal discharge 304-3 Habitats protected or restored EU13 Biodiversity of offset habitats compared to the biodiversity of the affected areas 304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	Biodiversity & Land Use Biodiversity & Land Use Biodiversity & Land Use Biodiversity & Land Use Biodiversity & Land Use			
Emissions					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Materiality assessment Responding to climate change GHG Emissions Responding to climate change GHG Emissions			
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions Sector Specific: CO ₂ e per MWh, breakdown by regulatory regime, for net generation from generating capacity, fossil fuel generation and estimated net delivery to end users including emissions from own generation 305-2 Energy indirect (Scope 2) GHG emissions Sector Specific: CO ₂ e per MWh, breakdown by regulatory regime, for estimated net delivery to end users including emissions from own generation 305-3 Other indirect (Scope 3) GHG emissions 305-4 GHG emissions intensity 305-5 Reduction of GHG emissions 305-6 Emissions of ozone-depleting substances (ODS) 305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions Sector Specific: NOx, SOx and other significant air emissions per MWh for net generation from generating capacity and combustion power plants	Responding to climate change GHG Emissions Responding to climate change GHG Emissions GHG Emissions GHG Emissions GHG Emissions N/A Air Emissions	All	Not applicable	Not Material - CLP's ODS inventory volume is very small.

Effluents and Waste		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Waste
	Sector Specific: Management strategy and storage methods for different types of radioactive nuclear waste	Water
	103-3 Evaluation of the management approach	Waste Water
GRI 306: Effluents and Waste 2016	306-1 Water discharge by quality and destination	Water
	306-2 Waste by type and disposal method	Waste
	306-3 Significant spills	Waste
	306-4 Transport of hazardous waste	Waste
	306-5 Water bodies affected by water discharges and/or runoff	Water
Environmental Compliance		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Legal compliance Environmental regulations & compliance
	103-3 Evaluation of the management approach	Legal compliance Environmental regulations & compliance
		Legal compliance
GRI 307: Environmental Compliance 2016	307-1 Non-compliance with environmental laws and regulations	Environmental regulations & compliance
Supplier Environmental Assessment		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Supply chain
	103-3 Evaluation of the management approach	Supply chain
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	Responsible procurement
	308-2 Negative environmental impacts in the supply chain and actions taken	Responsible procurement
400 series (Social topics)		
Employment		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Building an agile, inclusive and sustainable workforce
	Sector Specific: Programs and processes to ensure the availability of a skilled workforce	Safety
	Sector Specific: Policies and requirements regarding health and safety of employees and employees of contractors and subcontractors	Employment practice
	103-3 Evaluation of the management approach	Building an agile, inclusive and sustainable workforce Safety Employment practice
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Data and downloads - Employees
	Sector Specific: Average length of tenure of employees leaving employment during the reporting period, breakdown by gender and age group	
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Employment practice
	401-3 Parental leave	Employee wellbeing
	EU15 Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category and by region	Data and downloads; Key Performance Data Data and downloads - Employees
	EU17 Days worked by contractor and subcontractor employees involved in construction, operation & maintenance activities	Occupational health and safety
	EU18 Percentage of contractor and subcontractor employees that have undergone relevant health and safety training	Occupational health and safety

Labor/Management Relations		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Employment practice
	103-3 Evaluation of the management approach	Human Rights Employment practice
GRI 402: Labor/Management Relations 2016	402-1 Minimum notice periods regarding operational changes	Human Rights
Occupational Health and Safety		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Occupational health and safety
	103-3 Evaluation of the management approach	Occupational health and safety
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Occupational health and safety
	403-2 Hazard identification, risk assessment, and incident investigation	Our Zero Harm vision
	Sector Specific: Health and safety performance of contractors and subcontractors working onsite or on behalf of the organization off-site	Occupational health and safety
	403-3 Occupational health services	Occupational health and safety
	403-4 Worker participation, consultation, and communication on occupational health and safety	Occupational health and safety
	403-5 Worker training on occupational health and safety	Occupational health and safety
	403-6 Promotion of worker health	Occupational health and safety
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Occupational health and safety
	403-8 Workers covered by an occupational health and safety management system	Occupational health and safety
	403-9 Work-related injuries	Occupational health and safety
	403-10 Work-related ill health	Occupational health and safety
Training and Education		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Building an agile, inclusive and sustainable workforce
	103-3 Evaluation of the management approach	Training and development Building an agile, inclusive and sustainable workforce
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Training and development
	404-2 Programs for upgrading employee skills and transition assistance programs	Building an agile, inclusive and sustainable workforce
	404-3 Percentage of employees receiving regular performance and career development reviews	Training and development Training and development
Diversity and Equal Opportunity		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Building an agile, inclusive and sustainable workforce
	103-3 Evaluation of the management approach	Diversity and equal opportunity Building an agile, inclusive and sustainable workforce
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Diversity and equal opportunity
	405-2 Ratio of basic salary and remuneration of women to men	Supporting diversity and inclusion Diversity and equal opportunity
Non-discrimination		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Discrimination and harassment
	103-3 Evaluation of the management approach	Discrimination and harassment
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	Discrimination and harassment

Freedom of Association and Collective Bargaining		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components Sector Specific: Management mechanisms to address the right to organize, bargain and strike	Human rights
	103-3 Evaluation of the management approach	Human rights
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Human rights
		Responsible procurement
Child Labor		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Human rights
	103-3 Evaluation of the management approach	Human rights
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	Human rights
Forced or Compulsory Labor		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Human rights
	103-3 Evaluation of the management approach	Human rights
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Human rights
Security Practices		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Reinforcing cyber resilience and data protection
	103-3 Evaluation of the management approach	Security and cyber security Reinforcing cyber resilience and data protection
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	Security and cyber security
Rights of Indigenous Peoples		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Legal compliance
	103-3 Evaluation of the management approach	Legal compliance
GRI 411: Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	Legal compliance
Human Rights Assessment		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Human rights
	103-3 Evaluation of the management approach	Human rights
GRI 412: Human Rights Assessment 2016	412-1 Operations that have been subject to human rights reviews or impact assessments	Human rights
	412-2 Employee training on human rights policies or procedures	Training and development Responsible procurement
	412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Portfolio changes
Local Communities		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Community investment
	Sector Specific: Stakeholder participation in the decision making process related to energy planning and infrastructure development	Risk management; Holistic assessment of new investment projects
	Sector Specific: Approach to managing the impacts of displacement	
	Sector Specific: Explanation of whether the organization's programmes for managing community impacts have been effective in mitigating negative impacts and maximizing positive impacts	
	103-3 Evaluation of the management approach	Community investment

GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	Community investment
	413-2 Operations with significant actual and potential negative impacts on local communities	Legal compliance
	EU22 Number of people physically or economically displaced and compensation, broken down by type of project	Legal compliance
Supplier Social Assessment		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Supply chain
	103-3 Evaluation of the management approach	Supply chain
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	Responsible procurement
	414-2 Negative social impacts in the supply chain and actions taken	Responsible procurement
Public Policy		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Public policy
	103-3 Evaluation of the management approach	Public policy
GRI 415: Public Policy 2016	415-1 Political contributions	Public policy
Customer Health and Safety		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components Sector Specific: Assessment of resource planning, generation, transmission, distribution and use and processes for assessing community health risks and risks identified	Customer health and safety
	103-3 Evaluation of the management approach	Customer health and safety
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	Customer health and safety
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Legal compliance
	EU25 Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases	Legal compliance
Marketing and Labeling		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Customer satisfaction
	103-3 Evaluation of the management approach	Customer satisfaction
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	Customer satisfaction
	417-2 Incidents of non-compliance concerning product and service information and labeling	Legal compliance
	417-3 Incidents of non-compliance concerning marketing communications	Legal compliance
Customer Privacy		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Reinforcing cyber resilience and data protection
	103-3 Evaluation of the management approach	Customer Privacy Reinforcing cyber resilience and data protection
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Customer Privacy Reinforcing cyber resilience and data protection
Socioeconomic Compliance		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Legal compliance
	103-3 Evaluation of the management approach	Legal compliance
GRI 419: Socioeconomic Compliance 2016	419-1 Non-compliance with laws and regulations in the social and economic area	Legal compliance

GRI G4 Sector Disclosure

GRI Standard	Disclosure	Page number(s) and/or URL(s)	Part Omitted	Omission Reason	Explanation
Electric Utilities					
Availability and Reliability					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components Sector Specific: Ensure short and long-term electricity availability and reliability 103-3 Evaluation of the management approach	Materiality assessment Availability and reliability Availability and reliability			
EU10 Availability and Reliability	EU10 Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime	Transitioning to low carbon generation Availability and reliability			
Demand-Side Management					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components Sector Specific: Demand-side management programs including residential, commercial, institutional and industrial programs 103-3 Evaluation of the management approach	Materiality assessment Demand-side management Demand-side management			
Research and Development					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components Sector Specific: Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development 103-3 Evaluation of the management approach	Materiality assessment Harnessing the power of technology Harnessing the power of technology			
Plant Decommissioning					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components Sector Specific: Provisions for decommissioning of nuclear power sites 103-3 Evaluation of the management approach	Materiality assessment Nuclear safety Nuclear safety			
System Efficiency					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Materiality assessment Asset management Asset management			
EU11 System Efficiency	EU11 Average generation efficiency of thermal plants by energy source and by regulatory regime	Asset management			
EU12 System Efficiency	EU12 Transmission and distribution losses as a percentage of total energy	Asset management			
Disaster/Emergency Planning and Response					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components Sector Specific: Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans 103-3 Evaluation of the management approach	Materiality assessment Emergency and crisis management Emergency and crisis management			
Access					
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components Sector Specific: Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services 103-3 Evaluation of the management approach	Materiality assessment Access to electricity Access to electricity			
EU26 Access	EU26 Percentage of population unserved in licensed distribution or service areas	Availability and reliability			
EU27 Access	EU27 Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime	Access to electricity			
EU28 Access	EU28 Power outage frequency	Availability and reliability			
EU29 Access	EU29 Average power outage duration	Availability and reliability			
EU30 Access	EU30 Average plant availability factor by energy source and by regulatory regime	Availability and reliability			

Provision of Information		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Materiality assessment
	103-2 The management approach and its components	Access to electricity
	Sector Specific: Practices to address language, cultural, low literacy and disability related barriers to accessing and safely using electricity and customer support services	
	103-3 Evaluation of the management approach	Access to electricity

Hong Kong Stock Exchange Environmental, Social and Governance (ESG) Content Index

Subject Areas, Aspects, General Disclosure and KPIs		Explanation / Chapter or Sub-chapter reference to the 2018 Sustainability Report
A. Environmental		
Aspect A1	Emissions	
General Disclosure	<p>Information on:</p> <p>(a) the policies; and</p> <p>(b) compliance with relevant laws and regulations that have a significant impact on the issuer</p> <p>relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.</p> <p><i>Note: Air emissions include NO_x, SO_x, and other pollutants regulated under national laws and regulations.</i></p> <p><i>Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.</i></p> <p><i>Hazardous wastes are those defined by national regulations.</i></p>	<p>Responding to climate change</p> <p>Environment</p> <p>Legal compliance</p> <p>Climate change</p>
KPI A1.1	The types of emissions and respective emissions data.	<p>Responding to climate change</p> <p>GHG emissions</p>
KPI A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	<p>Responding to climate change</p> <p>GHG emissions</p>
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Waste
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Waste
KPI A1.5	Description of measures to mitigate emissions and results achieved.	<p>Responding to climate change</p> <p>Environment</p> <p>Climate change</p>
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	Waste
Aspect A2	Use of Resources	
General Disclosure	<p>Policies on the efficient use of resources including energy, water and other raw materials.</p> <p><i>Note: Resources may be used in production, in storage, transportation, in buildings, electronic equipment, etc.</i></p>	<p>Responding to climate change</p> <p>Environment</p> <p>Climate change</p> <p>Operations</p>
KPI A2.1	Direct and / or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	<p>Responding to climate change</p> <p>GHG emissions</p> <p>Asset management</p>
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Water
KPI A2.3	Description of energy use efficiency initiatives and results achieved.	<p>Responding to climate change</p> <p>Asset management</p>

KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	Water
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	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.
Aspect A3	The Environment and Natural Resources	
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	Responding to climate change Environment Climate change
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Responding to climate change Environment Climate change
B. Social		
Employment and Labour Practices		
Aspect B1	Employment	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	Building an agile, inclusive and sustainable workforce Legal compliance Employees
KPI B1.1	Total workforce by gender, employment type, age group and geographical region	Employment practice Data and downloads; Employees
KPI B1.2	Employee turnover rate by gender, age group and geographical region	Data and downloads; Employees
Aspect B2	Health and Safety	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer. relating to providing a safe working environment and protecting employees from occupational hazards.	Our Zero Harm vision Legal compliance Occupational health and safety
KPI B2.1	Number and rate of work-related fatalities.	Our Zero Harm vision Occupational health and safety
KPI B2.2	Lost days due to work injury.	Our Zero Harm vision Occupational health and safety
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	Our Zero Harm vision Occupational health and safety
Aspect B3	Development and Training	
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities. <i>Note: Training refers to vocational training. It may include internal and external courses paid by the employer.</i>	Training and development
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Training and development Data and downloads; Employees
KPI B3.2	The average training hours completed per employee by gender and employee category	Training and development Data and downloads; Employees

Aspect B4	Labour Standards	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	Legal compliance Employment practice Human rights
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	Human rights
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	Human rights
Operating Practices		
Aspect B5	Supply Chain Management	
General Disclosure	Policies on managing environmental and social risks of supply chain.	Supply Chain
KPI B5.1	Number of suppliers by geographical region.	Responsible procurement
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	Supply Chain Responsible procurement
Aspect B6	Product Responsibility	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Reinforcing cyber resilience and data protection Legal compliance Customer health and safety Customer satisfaction Customer privacy
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	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.
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	Customer satisfaction
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	Our Value Framework Legal compliance
KPI B6.4	Description of quality assurance process and recall procedures.	Customer satisfaction
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	Reinforcing cyber resilience and data protection Customer privacy
Aspect B7	Anti-corruption	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Corporate Governance Framework and Code of Conduct and anti-corruption Legal compliance
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	Legal compliance
KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	Corporate Governance Framework and Code of Conduct and anti-corruption
Community		
Aspect B8	Community Investment	
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	Stakeholder Engagement Framework Community investment
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	Community investment
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	Community investment