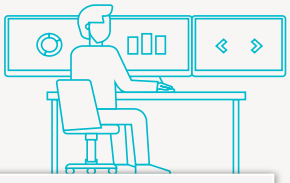
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120 years 同行望遠 of shared vision

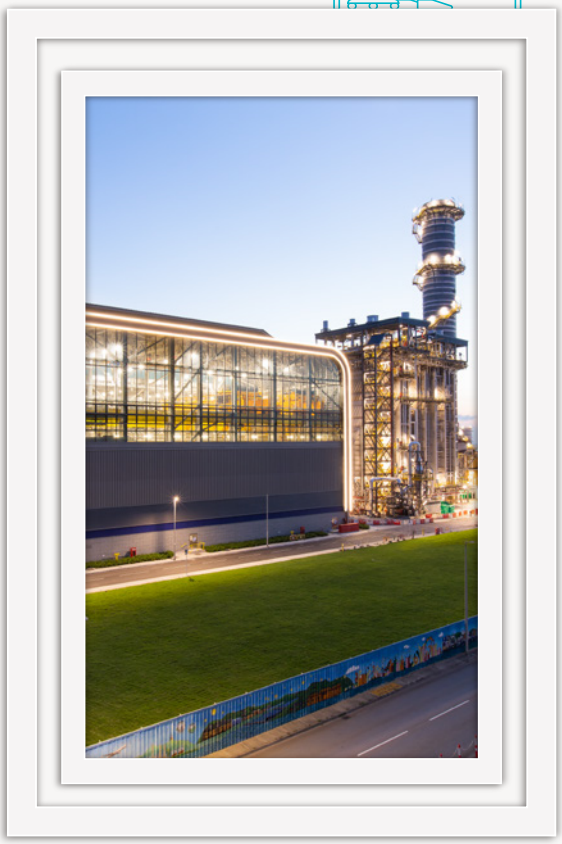
2021
Sustainability Report

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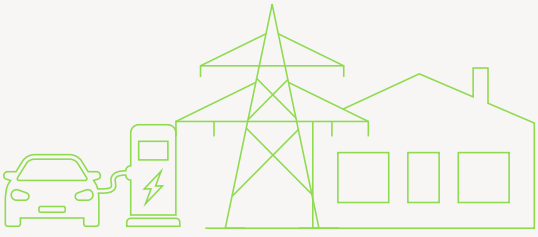






120 years of shared vision





Key performance metrics



CLP continually improves by managing, monitoring and reporting its ESG performance. These tables present a quantitative overview of the Group's 2021 financial and non-financial performance. The disclosures are selected from the GRI Standards, The Hong Kong Stock Exchange's ESG Reporting Guide, SASB Standards for Electric Utilities and ISSB's Climate-related Disclosures Prototype, as well as other key performance data.

Detailed discussion of these metrics can be found in the corresponding Standard ESG Disclosures sections.

The 2021 data shaded in orange has been independently verified by PricewaterhouseCoopers. The assurance scope of past years' data can be found in previous Sustainability Reports.

Read the reporting scope →

Download the independent assurance statement

Governance	2021	2020	2019	2018	2017	GRI/HKEx/ SASB/ISSB
Convicted cases of corruption reported to the Audit & Risk Committee (cases)	**0**	0	0	0	0	GRI 205-3 / HKEx B7.1
Breaches of Code of Conduct reported to the Audit & Risk Committee (cases)	**18**	25	31	20	28	

Financial information	2021	2020	2019	2018	2017	GRI/HKEx/ SASB/ISSB
Total capital investment incurred by asset type (HK$M(%))[1,2,3]	**15,411 (100%)**	13,022 (100%)	12,028 (100%)	12,851 (100%)	N/A	ISSB 13-e
Transmission, distribution and retail	**5,957 (39%)**	4,810 (37%)	5,229 (43%)	4,953 (39%)	N/A	
Coal	**2,628 (17%)**	3,638 (28%)	2,473 (21%)	3,040 (24%)	N/A	
Gas	**5,639 (37%)**	3,445 (26%)	3,146 (26%)	4,098 (32%)	N/A	
Nuclear	**0 (0%)**	0 (0%)	352 (3%)	0 (0%)	N/A	
Renewables[4]	**860 (6%)**	462 (4%)	580 (5%)	714 (5%)	N/A	
Others	**327 (2%)**	667 (5%)	248 (2%)	46 (0%)	N/A	
Total operating earnings by asset type (HK$M(%))[5]	**10,638 (100%)**	12,374 (100%)	12,138 (100%)	15,145 (100%)	14,189 (100%)	
Transmission, distribution and retail	**5,612 (53%)**	5,751 (46%)	5,131 (42%)	7,427 (49%)	8,392 (59%)	
Coal[6]	**1,020 (10%)**	2,871 (23%)	2,503 (21%)	3,370 (22%)	3,994 (28%)	
Gas[6]	**1,326 (12%)**	1,510 (12%)	1,735 (14%)	1,533 (10%)		
Nuclear	**1,908 (18%)**	1,594 (13%)	1,688 (14%)	1,720 (11%)	913 (7%)	
Renewables[7]	**519 (5%)**	575 (5%)	1,016 (8%)	924 (7%)	629 (4%)	
Others	**253 (2%)**	73 (1%)	65 (1%)	171 (1%)	261 (2%)	

Financial information	2021	2020	2019	2018	2017	GRI/HKEx/ SASB/ISSB
Economic value generated, distributed and retained (HK$M)						GRI 201-1
Economic value generated						
Revenue	**83,959**	79,590	85,689	91,425	92,073	
Share of profits of non-wholly owned entities[8]	**1,129**	1,608	1,828	1,509	609	
Economic value distributed						
Fuel costs	**18,506**	15,753	16,712	17,187	15,473	
Other operating costs[9]	**39,922**	35,774	48,654	43,604	46,325	
Staff expenses[10]	**5,107**	4,844	4,535	4,449	4,195	
Finance costs[11]	**1,774**	1,875	2,033	2,107	2,278	
Dividends	**7,832**	7,832	7,782	7,630	7,352	
Taxes[12]	**1,720**	2,529	2,189	3,565	2,094	
Donations	**15**	27	21	18	14	
Economic value retained[13]	**10,212**	12,564	5,591	14,374	14,951	

1 Numbers have been subject to rounding. Any discrepancies between the total shown and the sum of the amounts listed are due to rounding.
2 Capital investment includes additions to fixed assets, right-of-use assets, investment property, intangible assets, investments in and advances to joint ventures and associates, and acquisition of business/asset.
3 On an accrual basis.
4 Renewables include wind, hydro, solar and waste-to-energy. Waste-to-energy is not considered as non-carbon emitting energy. Numbers of waste-to-energy included in renewables since 2019 are as follows: 2019 - HK$123 million; 2020 - HK$7 million; 2021 - HK$18 million.
5 Before unallocated expenses.
6 Starting from 2018, operating earnings of coal and gas are reported separately.
7 Renewables include wind, hydro, solar and waste-to-energy. Waste-to-energy is not considered as non-carbon emitting energy. Numbers of waste-to-energy included in renewables since 2019 are as follows: 2019 - HK$5 million; 2020 - HK$8 million; 2021 - HK$10 million.
8 Includes share of results (net of income tax) from joint ventures and associates netted with earnings attributable to other non-controlling interests, which represented CLP's share of economic value created together with its business partners.
9 Includes impairment provision/reversal and other charges. In particular, amount included litigation settlement of HK$1,110 million and impairment of retail goodwill of HK$6,381 million in Australia in 2021 and 2019 respectively.
10 Another HK$1,402 million (2020: HK$1,386 million) of staff costs incurred were capitalised.
11 Finance costs are netted with finance income and include payments made to perpetual capital securities holders. In addition, finance costs of HK$317 million (2020: HK$306 million) were capitalised.
12 Represents current income tax but excludes deferred tax for the year.
13 Represents earnings attributable to shareholders (before depreciation, amortisation and deferred tax) for the year retained.

Safety	2021	2020	2019	2018	2017	GRI/HKEx/ SASB/ISSB
Fatalities (number of personnel)[1,2,3]						GRI 403-2 / HKEx B2.1
Fatalities - employees only	**0**	0	0	1	0	
Fatalities - contractors only	**0**	0	1	1	4	
Fatalities - employees and contractors combined	**0**	0	1	2	4	
Fatality Rate (number per 200,000 work hours)[1,4,5]						GRI 403-2 / HKEx B2.1 / SASB IF-EU-320a.1
Fatality Rate - employees only	**0.00**	0.00	0.00	0.01	0.00	
Fatality Rate - contractors only	**0.00**	0.00	0.01	0.01	0.03	
Fatality Rate - employees and contractors combined	**0.00**	0.00	0.00	0.01	0.02	

Safety	2021	2020	2019	2018	2017	GRI/HKEx/ SASB/ISSB
Days Away From Work Injuries (number of personnel)[1,3,6]						GRI 403-2
Days Away From Work Injuries - employees only	**4**	12	7	11	11	
Days Away From Work Injuries - contractors only	**10**	10	19	11	16	
Days Away From Work Injuries - employees and contractors combined	**14**	22	26	22	27	
Lost Time Injury Rate (number per 200,000 work hours)[1,5,7]						
Lost Time Injury Rate - employees only	**0.05**	0.13	0.07	0.13	0.13	
Lost Time Injury Rate - contractors only	**0.08**	0.09	0.14	0.09	0.14	
Lost Time Injury Rate - employees and contractors combined	**0.07**	0.11	0.11	0.10	0.13	
High-consequence Injuries (number of personnel)[1,8]						GRI 403-9
High-consequence Injuries - employees only	**0**	N/A	N/A	N/A	N/A	
High-consequence Injuries - contractors only	**1**	N/A	N/A	N/A	N/A	
High-consequence Injuries - employees and contractors combined	**1**	N/A	N/A	N/A	N/A	
Total Recordable Injury Rate (number per 200,000 work hours)[1,5,9]						GRI 403-2 / SASB IF-EU-320a.1
Total Recordable Injury Rate - employees only	**0.14**	0.25	0.19	0.19	0.21	
Total Recordable Injury Rate - contractors only	**0.29**	0.37	0.52	0.29	0.36	
Total Recordable Injury Rate - employees and contractors combined	**0.23**	0.32	0.38	0.25	0.29	
Work-related Ill Health (number of personnel)[1,3,10]						GRI 403-10 / HKEx B2.1
Work-related Ill Health - employees only	**1**	0	0	1	0	
Lost Days (number of days)[1,11]						GRI 403-2 / HKEx B2.2
Lost Days - employees only	**304**[12]	443[13]	464[14]	249	252	

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.
2 Refers to the number of fatalities as a result of work-related injury.
3 Starting from 2021, the unit is changed from the number of cases to the number of personnel.
4 Refers to the number of fatal injuries per 200,000 work hours in the year.
5 Rates are normalised to 200,000 work hours, which approximately equals to the number of hours worked by 100 people in one year.
6 Starting from 2021, "Days Away From Work Injuries" replaces "Lost Time Injury". Days Away From Work Injuries refers to the number of personnel who sustains work-related injury and is unfit to perform any work on any day after the occurrence of the injury. "Any day" is any calendar day which includes rest days, weekend days, leave days, public holidays or days after ceasing employment. It does not include the day the injury incident occurred. "Days Away From Work Injuries" excludes fatalities which were included in "Lost Time Injury". Numbers prior to 2021 are the previously reported numbers for "Lost Time Injury".
7 Refers to the number of Days Away From Work Injuries and Fatalities per 200,000 work hours in the year.
8 Refers to the number of personnel who sustains life threatening or life-altering work-related injury. It is a subset of Days Away From Work Injuries.
9 Refers to the number of Total Recordable Injuries per 200,000 work hours in the year. Total Recordable Injuries include Fatalities, Days Away From Work Injuries, Restricted Work Injuries, and Medical Treatment Injuries.
10 Starting from 2021, "Work-related Ill Health" replaces "Occupational Disease". Work-related Ill Health includes the diseases listed in the ILO List of Occupational Diseases, work-related mental illnesses and work-related disorders. Numbers prior to 2021 are the previously reported numbers for "Occupational Disease".
11 Starting from 2021, "Lost Days" replaces "Days Lost". "Lost Days" is the sum total of calendar days (consecutive or otherwise) after the days on which the work-related injuries and work-related ill health occurred. "Days Lost" accounts the working days instead of calendar days. Numbers prior to 2021 are the previously reported numbers for "Days Lost".
12 19 out of 304 days were carried forward from one incident in 2020.
13 188 out of 443 days were carried forward from one incident in the past.
14 158 out of 464 days were carried forward from three incidents in the past.

Environment	2021	2020	2019	2018	2017	GRI/HKEx/ SASB/ISSB
Resource Use & Emissions[1,2,3]						
Nitrogen oxides emissions (NO_x) (kt)	**45.7**	43.2	47.0	60.9	59.3	GRI 305-7 / HKEx A1.1 / SASB IF-EU-120a.1
Sulphur dioxide emissions (SO_2) (kt)	**52.7**	48.0	44.7	76.1	81.6	
Particulates emissions (kt)	**7.6**	6.9	7.7	8.5	8.3	
Sulphur hexafluoride (SF_6) (kt)	**0.004**	0.003	N/A	N/A	N/A	
Non-hazardous liquid waste (kl)[4]						GRI 306-2 / HKEx A1.4
Produced	**65**	3	59	52	103	
Recycled	**65**	3	57	52	103	
Non-hazardous solid waste (t)[4]						
Produced	**24,481**	17,901	13,344	11,471	20,334	
Recycled	**4,214**	4,458	4,986	3,990	3,790	
Hazardous liquid waste (kl)[4]						GRI 306-2 / HKEx A1.3
Produced	**1,017**	1,091	1,578	1,685	1,420	
Recycled	**947**	1,069	1,536	1,648	1,384	
Hazardous solid waste (t)[4]						
Produced	**1,524**	1,503	862	1,435	857	
Recycled	**520**	523	201	631	469	
Ash (kt)						SASB IF-EU-150a.1
Produced	**3,403**	2,624	3,032	3,419	3,005	
Recycled and sold	**2,501**	1,793	3,667	2,263	1,745	
Gypsum (kt)						
Produced	**367**	334	441	253	156	
Recycled and sold	**365**	335	438	250	161	
Total water withdrawal (Mm^3)[5]	**5,160.0**	5,162.7[6]	5,219.9[6]	5,153.6	4,480.6	GRI 2-4, 303-3 / HKEx A2.2 / SASB IF-EU-140a.1
For cooling purpose						
Water withdrawal from freshwater resources	**42.5**	35.1	45.7	53.3	47.6	
Water withdrawal from marine water resources	**5,107.4**	5,117.0[6]	5,161.7[6]	5,087.3	4,421.7	
For non-cooling purposes						
Water withdrawal from freshwater resources	**5.3**	5.7	5.8	6.0	4.9	
Water withdrawal from municipal sources	**4.8**	4.9	6.7	7.0	6.4	

Environment	2021	2020	2019	2018	2017	GRI/HKEx/ SASB/ISSB
Total water discharge (Mm^3)[5,7]	**5,122.5**	5,133.8[6]	5,179.6[6]	5,103.2	4,437.7	GRI 2-4, 303-4
From cooling process						
Treated wastewater to freshwater bodies	**0**	0	0	0	0	
Water discharge to marine water bodies	**5,107.4**	5,117.0[6]	5,161.7[6]	5,087.3	4,421.7	
Wastewater to other destinations	**0**	0	0	0.02	0.05	
From non-cooling processes						
Treated wastewater to freshwater bodies	**11.9**	13.7	14.4	12.3	12.3	
Treated wastewater to marine water bodies	**1.3**	1.5	1.7	1.6	1.6	
Wastewater to other destinations	**1.9**	1.6	1.7	1.9	2.0	
Wastewater to sewerage	**0.03**	0.03	0.03	0.03	0.02	
Environmental compliance[1,2]						GRI 2-27
Environmental regulatory non-compliances resulting in fines or prosecutions (number)	**0**	0	0	0	0	
Environmental licence limit exceedances & other non-compliances (number)	**9**	4	10	2	13	

1 Numbers include operating assets where CLP has operational control during the calendar year.
2 Paguthan Power Station, the power purchase agreements of which expired in December 2018, was not included in the 2019-2021 numbers.
3 Since 2019, numbers at the asset level have been aggregated and then rounded.
4 Waste categorised in accordance with local regulations.
5 Numbers have been subject to rounding. Any discrepancies between the total shown and the sum of the amounts listed are due to rounding.
6 Restated as per updated data for Newport Power Station in Australia.
7 Starting from 2019, Yallourn Power Station's "water discharged to third-parties", which was previously reported under "wastewater to sewerage", has been reported under "wastewater to other destinations".

GHG emissions	2021	2020	2019	2018	2017	GRI/HKEx/ SASB/ISSB
CLP Group[1]						
Total CO_2e emissions – on an equity basis (kt)[2,3]	**65,017**	62,138	71,720	N/A	N/A	GRI 305-1, 305-2, 305-3 / HKEx A1.2 / SASB IF-EU-110a.1, IF-EU-110a.2 / ISSB 13-a
Scope 1 (kt)[4]	**47,690**	45,105	50,047	N/A	N/A	
Scope 2 (kt)	**236**	244	250	N/A	N/A	
Scope 3 (kt)	**17,091**	16,790	21,424	N/A	N/A	
Category 1: Purchased goods and services	**901**	1,210	1,093	N/A	N/A	
Category 2: Capital goods	**1,488**	685	1,347	N/A	N/A	
Category 3: Fuel- and energy-related activities	**12,733**	12,690	16,671	N/A	N/A	SASB IF-EU-110a.2
Category 5: Waste generated in operations	**80**	63	101	N/A	N/A	
Category 6: Business travel	**1**	1	8	N/A	N/A	
Category 7: Employee commuting	**4**	2	4	N/A	N/A	
Category 11: Use of sold products	**1,884**	2,138	2,200	N/A	N/A	

GHG emissions	2021	2020	2019	2018	2017	GRI/HKEx/ SASB/ISSB
CLP Group's generation and energy storage portfolio[3,4,5]						
CO_2 – on an equity basis (kt)[6]	**47,574**	44,987	N/A	N/A	N/A	GRI 305-1, 305-2 / HKEx A1.2
CO_2e – on an equity basis (kt)[6]	**47,813**	N/A	N/A	N/A	N/A	
CO_2 – on an equity plus long-term capacity and energy purchase basis (kt)[7,8]	**51,674**	48,621	N/A	N/A	N/A	
CO_2e – on an equity plus long-term capacity and energy purchase basis (kt)[7,8]	**51,941**	N/A	N/A	N/A	N/A	
CO_2 – on an operational control basis (kt)[6]	**46,842**	43,808	50,412	52,052	47,921[9]	
CO_2e – on an operational control basis (kt)[6]	**47,090**	44,023	50,676	52,306	48,082	
Climate Vision 2050						
CLP Group – GHG emissions intensity of generation and energy storage portfolio[3,4,5,10]						GRI 305-4 / HKEx A1.2 / ISSB 15
On an equity plus long-term capacity and energy purchase basis (kg CO_2e/kWh)[7,8]	**0.57**	0.57	0.63	0.66	0.69[9]	
On an equity basis (kg CO_2e/kWh)[6]	**0.65**	0.66	0.71	0.74	0.80[9]	
CLP Power Hong Kong – GHG emissions intensity of electricity sold[4,11]						
CO_2e emissions intensity of electricity sold by CLP Power Hong Kong (kg CO_2e/kWh)	**0.39**	0.37	0.50	0.51	0.51	
CO_2 emissions intensity of electricity sold by CLP Power Hong Kong (kg CO_2/kWh)	**0.39**	0.37	0.49	0.51	0.50	

1 Refers to a range of businesses, including generation and energy storage portfolio, transmission and distribution, retail and others.
2 Numbers have been subject to rounding. Any discrepancies between the total shown and the sum of the amounts listed are due to rounding.
3 Paguthan Power Station, the power purchase agreements of which expired in December 2018, was not included in the 2019-2021 numbers.
4 In accordance with the Greenhouse Gas Protocol, WE Station, which makes use of landfill gas from waste for power generation, is not included in CLP's Scope 1 CO_2 emissions and is reported separately in the Asset Performance Statistics. Its non-CO_2 GHG emissions (i.e. CH_4 and N_2O) are included in CLP's Scope 1 CO_2e emissions.
5 Starting from 2020, the portfolio includes energy storage assets and generation assets. Energy storage assets include pumped storage and battery storage. In previous years, the portfolio included generation assets only.
6 Numbers include Scope 1 and Scope 2 emissions.
7 Numbers include assets with majority and minority shareholdings, and those under "long-term capacity and energy purchase" arrangements with CLP. Starting from 2018, "long-term capacity and energy purchase" has been defined as a purchase agreement with a duration of at least five years, and capacity or energy purchased being no less than 10MW.
8 Numbers include Scope 1, Scope 2 and Scope 3 Category 3 emissions (direct emissions from generation of purchased electricity that is sold to CLP's customers).
9 CO_2e emissions of Yallourn and Hallet Power Stations were used to calculate CO_2emissions metrics in 2017 due to limited data availability.
10 The 2019-2021 numbers refer to the GHG emissions intensity (kg CO_2e/kWh), in line with the updated Climate Vision 2050 targets. Numbers prior to 2019 refer to carbon emissions intensity (kg CO_2/kWh), as reported in the past.
11 "Electricity sold" is the total electricity energy sold to CLP Power Hong Kong's customers before the adjustment of Renewable Energy Certificates.

Asset management	2021	2020	2019	2018	2017	GRI/HKEx/ SASB/ISSB
Generation and energy storage capacity by asset type (MW(%))[1,2]						GRI 2-4 / ISSB 13
Total generation and energy storage capacity - on an equity basis	**20,018 (100%)**	19,691 (100%)	19,238 (100%)	19,108 (100%)	19,395 (100%)	
Coal	**10,795 (53.9%)**	10,765 (54.7%)	10,765 (56.0%)	10,765 (56.3%)	11,401 (58.8%)	
Gas	**4,666 (23.3%)**	4,600 (23.4%)	4,194 (21.8%)	4,147 (21.7%)	3,434 (17.7%)	

Asset management	2021	2020	2019	2018	2017	GRI/HKEx/ SASB/ISSB
Nuclear	**1,600 (8.0%)**	1,600 (8.1%)	1,600 (8.3%)	1,600 (8.4%)	1,600 (8.2%)	
Wind[3]	**1,747 (8.7%)**	1,521 (7.7%)	1,521 (7.9%)	1,521 (8.0%)	1,941 (10.0%)	
Hydro[3]	**489 (2.4%)**	489 (2.5%)	489 (2.5%)	489 (2.6%)	489 (2.5%)	
Solar[3]	**499 (2.5%)**	499 (2.5%)	451 (2.3%)	369 (1.9%)	321 (1.7%)	
Waste-to-energy[3]	**7 (0.0%)**	7 (0.0%)	7 (0.0%)	7 (0.0%)	N/A	
Energy Storage	**5 (0.0%)**	0 (0.0%)	N/A	N/A	N/A	
Others	**210 (1.0%)**	210 (1.1%)	210 (1.1%)	210 (1.1%)	210 (1.1%)	
Total generation and energy storage capacity - on an equity plus long-term capacity and energy purchase basis[4]	**25,108 (100%)**	24,752 (100%)[5]	24,015 (100%)	23,705 (100%)	24,554 (100%)	
Coal	**12,027 (47.9%)**	11,997 (48.5%)	11,997 (50.0%)	11,997 (50.6%)	12,633 (51.4%)	
Gas	**5,813 (23.2%)**	5,717 (23.1%)	5,139 (21.4%)	5,084 (21.4%)	5,322 (21.7%)	
Nuclear	**2,685 (10.7%)**	2,685 (10.8%)	2,685 (11.2%)	2,685 (11.3%)	2,488 (10.1%)	
Wind[6]	**2,331 (9.3%)**	2,105 (8.5%)[5]	2,049 (8.5%)	1,982 (8.4%)	2,401 (9.8%)	
Hydro[6]	**489 (1.9%)**	489 (2.0%)	489 (2.0%)	489 (2.1%)	489 (2.0%)	
Solar[6]	**793 (3.2%)**	793 (3.2%)	745 (3.1%)	558 (2.4%)	321 (1.3%)	
Waste-to-energy[6]	**10 (0.0%)**	10 (0.0%)	10 (0.0%)	10 (0.0%)	N/A	
Energy Storage	**660 (2.6%)**	655 (2.6%)	N/A	N/A	N/A	
Others	**300 (1.2%)**	300 (1.2%)	900 (3.7%)	900 (3.8%)	900 (3.7%)	
Energy sent out by asset type (GWh(%))[1,7,8]						GRI 2-4 / SASB IF-EU-000.D / ISSB 13
Total energy sent out - on an equity basis	**73,113 (100%)**	68,699 (100%)	70,949 (100%)	N/A	N/A	
Coal	**42,002 (57.4%)**	39,438 (57.4%)	44,596 (62.9%)	N/A	N/A	
Gas	**13,233 (18.1%)**	12,390 (18.0%)	9,979 (14.1%)	N/A	N/A	
Nuclear	**12,302 (16.8%)**	11,192 (16.3%)	10,888 (15.3%)	N/A	N/A	
Wind[9]	**2,959 (4.0%)**	2,886 (4.2%)	2,924 (4.1%)	N/A	N/A	
Hydro[9]	**1,668 (2.3%)**	1,879 (2.7%)	1,758 (2.5%)	N/A	N/A	
Solar[9]	**922 (1.3%)**	898 (1.3%)	805 (1.1%)	N/A	N/A	
Waste-to-energy[9]	**27 (0.0%)**	15 (0.0%)	0 (0.0%)	N/A	N/A	
Energy Storage	**0 (0.0%)**	0 (0.0%)	N/A	N/A	N/A	
Others	**0 (0.0%)**	1 (0.0%)	0 (0.0%)	N/A	N/A	
Total energy sent out - on an equity plus long-term capacity and energy purchase basis[4,10]	**91,183 (100%)**	85,949 (100%)[5]	88,573 (100%)	100%	100%	GRI 2-4 / SASB IF-EU-000.B / ISSB 13
Coal	**43,995 (48.2%)**	41,118 (47.8%)	48,512 (54.8%)	60%	61%	
Gas	**18,461 (20.2%)**	17,157 (20.0%)	13,073 (14.8%)	12%	15%	
Nuclear	**20,962 (23.0%)**	19,923 (23.2%)	19,400 (21.9%)	20%	15%	
Wind[11]	**4,611 (5.1%)**	4,445 (5.2%)[5]	4,474 (5.0%)			
Hydro[11]	**1,668 (1.8%)**	1,879 (2.2%)	1,758 (2.0%)	8%	9%	
Solar[11]	**1,524 (1.7%)**	1,522 (1.8%)	1,467 (1.7%)			
Waste-to-energy[11]	**38 (0.0%)**	22 (0.0%)	0 (0.0%)	N/A	N/A	
Energy Storage	**-75 (-0.1%)**	-118 (-0.1%)	N/A	N/A	N/A	
Others	**1 (0.0%)**	1 (0.0%)	-109 (-0.1%)	0%	0%	
Total energy sent out (GWh) - on an operational control basis	**62,967**	58,918	N/A	N/A	N/A	SASB IF-EU-000.D / ISSB 13

Asset management	2021	2020	2019	2018	2017	GRI/HKEx/ SASB/ISSB
Fuel use[8,12]						
Coal consumed (for power generation) (TJ)	**426,190**	403,379	485,453	521,568	471,976	GRI 302-1 / HKEx A2.1
Gas consumed (for power generation) (TJ)	**142,304**	134,776	107,183	83,364	91,426	
Oil consumed (for power generation) (TJ)	**2,717**	2,243	2,620	3,807	5,069	

1 Numbers have been subject to rounding. Any discrepancies between the total shown and the sum of the amounts listed are due to rounding.
2 Starting from 2020, a new "Energy Storage" asset category is added, under which pumped storage and battery storage are included. In previous years, assets under the "Others" category included oil-fired generation assets and pumped storage.
3 Renewables include wind, hydro, solar and waste-to-energy. The total capacity of renewables on an equity basis is 2,743 MW (13.7%) in 2021.
4 Numbers include assets with majority and minority shareholdings, and those under "long-term capacity and energy purchase" arrangements with CLP. Starting from 2018, "long-term capacity and energy purchase" is defined as a purchase agreement with a duration of at least five years, and capacity or energy purchased being no less than 10MW.
5 Restated as per updated data for Power Purchase Agreement (PPA) of Waterloo Wind Farm in Australia.
6 Renewables include wind, hydro, solar and waste-to-energy. The total capacity of renewables on an equity plus long-term capacity and energy purchase basis is 3,624 MW (14.4%) in 2021.
7 Starting from 2020, a new "Energy Storage" asset category is added, under which pumped storage and battery storage are included. In previous years, assets under the "Others" category included oil-fired generation assets and pumped storage.
8 Paguthan Power Station, the power purchase agreements of which expired in December 2018, was not included in the 2019-2021 numbers.
9 Renewables include wind, hydro, solar and waste-to-energy. The total sent out of renewables on an equity basis is 5,576 GWh (7.6%) in 2021.
10 Only percentages are available for the years 2017-18.
11 Renewables include wind, hydro, solar and waste-to-energy. The total sent out of renewables on an equity plus long-term capacity and energy purchase basis is 7,840 GWh (8.6%) in 2021.
12 Numbers include operating assets where CLP has operational control during the calendar year.

People	2021	2020	2019[1]	2018	2017	GRI/HKEx/ SASB/ISSB
Total employees by region (number)	**8,116**	8,060	7,960	7,634	7,542	GRI 2-7 / HKEx B1.1
Hong Kong	**4,771**	4,689	4,604	4,538	4,504	
Mainland China	**627**	609	607	596	577	
Australia	**2,281**	2,320	2,280	2,042	1,998	
India	**437**	442	469	458	463	
Total employees eligible to retire within the next five years (%)[2]	**14.6**	14.5	13.9	16.4	15.1	GRI EU15
Hong Kong	**20.1**	20.4	19.5	20.0	18.6	
Mainland China	**15.1**	13.4	14.5	13.2	10.6	
Australia[3]	**6.6**	5.7	5.4	12.8	12.2	
India	**5.0**	5.1	4.8	4.0	2.4	
Voluntary staff turnover rate (%)[4,5]						GRI 401-1 / HKEx B1.2
Hong Kong	**4.6**	3.1	2.4	2.3	1.9	
Mainland China	**2.3**	1.3	2.0	4.7	3.0	
Australia	**16.1**	7.7	12.9	13.6	13.8	
India	**6.9**	4.7	6.6	5.6	3.5	
Average training hours per employee (hours)	**51.6**	42.5	40.1	46.1	46.9	GRI 404-1 / HKEx B3.2

1 Starting from 2019, the numbers have included full-time and part-time employees. Numbers in the previous years included full-time employees only.
2 The percentages given refer to permanent employees within each region, who are eligible to retire within the next five years.
3 There is no mandatory retirement age in Australia. Since 2019, the retirement age assumption has been adjusted from 60 to 65 to reflect local norms, which led to a significantly lower percentage compared to previous years. Numbers in previous years adopting the adjusted retirement age for Australia are as follows: 2017 - Australia: 4.8% / Group total: 12.9%; 2018 - Australia: 4.6% / Group total: 14.0%.
4 Voluntary staff turnover refers to employees leaving the organisation voluntarily and does not include dismissal, retirement, company-initiated termination or end of contract.
5 Includes permanent employees except for Mainland China, which includes both permanent and fixed-term contract employees due to local employment legislation.

The 2021 data shaded in orange has been independently verified by PricewaterhouseCoopers. The assurance scope of past years' data can be found in previous Sustainability Reports.

Glossary



Air emissions	The emission of air pollutants such as sulphur dioxide (SO_2), nitrogen oxides (NO_x) and particulate matter (PMs).
Availability	The fraction of a given operating period in which a generating unit is available without outages and capacity reductions. This is also known as the Equivalent Availability Factor.
Baseload	An operating regime of power generation at a reasonably constant rate to serve continuous system load, and not designed to respond to peak demands or emergencies.
Capacity purchase	Additional third-party owned power generation capacity contracted by CLP under long-term agreements to meet customer demand. Some of these agreements may confer CLP rights to use the generation assets and exercise dispatch control as if they belonged to the Group.
Capital investments	Includes additions to fixed assets, right-of-use assets and intangible assets, investments in and advances to joint ventures and associates, and acquisition of business.
Carbon credit	A carbon credit is a tradeable instrument which represents either: (a) a permit which gives the holder the right to emit one tonne of carbon dioxide or equivalent greenhouse gas (tCO_2e) into the atmosphere; or (b) a certificate from a project that represents the removal or avoidance of one tCO_2e from the atmosphere. CLP Carbon Credits (https://www.clpcarboncredits.com) are generated from renewable energy sources and can be used to offset carbon emissions generated by governments, organisations or individuals.
Carbon neutral	When the greenhouse gas emissions associated with an activity or entity are balanced by carbon removal elsewhere, such as carbon credits, carbon sinks or storage, and renewable energy certificates.
Climate Action Finance Framework (CAFF)	Launched in 2017, CAFF supports the transition to a low-carbon economy by attracting socially responsible, sustainable financings, and 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, management of proceeds and reporting for Climate Action Finance Transactions, including bonds, loans and other forms of finance.
Climate Vision 2050	CLP's Climate Vision 2050 sets out the blueprint of the Group's transition to net-zero greenhouse gas emissions leading up to mid-century. Launched in 2007 with a focus on the ambition to mitigate CLP's climate impact, Climate Vision 2050 has been instrumental in informing CLP's business strategy and guiding its investment decision-making.
Combined-cycle gas turbine (CCGT)	A technology used in gas-fired generation to enable significantly higher efficiency by utilising residual heat from gas turbine exhaust to run steam turbine and generating additional electricity.
Decarbonisation	Decarbonisation of the power sector primarily refers to the reduction in the greenhouse gas emissions from electricity generation, and providing lower-carbon energy services and solutions to customers. At CLP it is measured by the reduction in carbon intensity, which is expressed in kilograms of carbon dioxide per kilowatt hour of electricity sent-out.
Decentralised generation / distributed generation	Refers to electrical generation and storage performed by a variety of technologies of a smaller scale located close to the load they serve. In contrast, centralised generation is the large-scale generation of electricity serving multi-loads connected to the transmission network.
Demand response	Demand response programmes encourage participating customers to commit to short-term reductions in electricity demand, helping energy suppliers to keep the grid running optimally during high load periods.
Digitalisation	The application of new information technologies including artificial intelligence and data analytics to help electric utilities develop new customer-centric services and improve operations.
Distributed energy	Distributed energy includes power generated from sources such as solar panels and wind turbines located close to the users, as well as controllable loads or storage such as electric vehicles and batteries.