

# Castle Peak

- Coal-fired power station
- 4,108MW (4 x 350MW, 4 x 677MW)
- Plant commissioned between 1982 and 1990
- Shareholding of 70% with operational control by CLP

Parameter	Unit	2017	2016	2015	2014	2013
<b>1. Operation</b>						
Electricity sent out	GWh	13,906	15,187	15,176	20,280	19,409
Coal consumed	TJ	148,065	160,661	161,988	215,367	205,198
Oil consumed	TJ	3,808	3,207	2,032	1,620	1,340
Gas consumed	TJ	59	1,545	43	32	2,404
Thermal efficiency	%	32.9	33.1	33.3	33.6	33.4
Equivalent availability factor (EAF)	%	83.7	85.8	85.0	81.9	84.7
<b>2. Air Emissions</b>						
CO <sub>2</sub> e (Scope 1) <sup>(1)</sup>	kT	13,581	14,834	14,797	19,519	18,645
CO <sub>2</sub> (Scope 1) <sup>(1)</sup>	kT	13,492	14,737	14,700	19,389	18,528
SO <sub>2</sub>	kT	4.7	5.2	4.3	13.9	11.8
NO <sub>x</sub>	kT	13.1	15.4	15.9	26.0	24.8
Particulate (Total)	kT	0.5	0.5	0.5	1.2	1.1
Particulate (Respirable)	kT	0.4	0.3	0.3	0.8	0.7
<b>3. Water</b>						
Water Withdrawal	Mm <sup>3</sup>	2,632.1	2,742.1	2,708.3	3,203.1	3,180.0
from marine water resources	Mm <sup>3</sup>	2,627.4	2,737.4	2,703.5	3,198.0	3,175.5
from freshwater resources <sup>(2)</sup>	Mm <sup>3</sup>	-	-	-	-	-
from municipal sources	Mm <sup>3</sup>	4.7	4.7	4.8	5.1	4.6
Water Discharged	Mm <sup>3</sup>	2,628.9	2,738.8	2,704.5	3,199.2	3,176.6
cooling water discharged to sea	Mm <sup>3</sup>	2,627.4	2,737.4	2,703.5	3,198.0	3,175.5
treated wastewater discharged to sea	Mm <sup>3</sup>	1.5	1.4	1.0	1.2	1.1
treated wastewater discharged to freshwater bodies <sup>(2)</sup>	Mm <sup>3</sup>	-	-	-	-	-
wastewater discharged to sewerage <sup>(3)</sup>	Mm <sup>3</sup>	-	-	-	-	-
Water Reused / Recycled <sup>(4)</sup>	Mm <sup>3</sup>	-	-	-	-	-
<b>4. Environmental Compliance</b>						
Regulatory non-compliances resulting in fines or prosecutions	No.	0	0	0	0	0
Licence limit exceedances & other non-compliances	No.	0	0	0	0	0

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Parameter	Unit	2017	2016	2015	2014	2013
<b>5. By-products &amp; Waste Management</b>						
Ash produced	kT	237	257	240	374	349
Ash recycled / sold	kT	232	258	240	373	347
Gypsum produced	kT	73	92	72	98	93
Gypsum recycled / sold	kT	78	91	70	93	93
Hazardous waste <sup>(5)</sup>						
produced	T (solid) / kl (liquid)	213 / 364	790 / 309	96 / 1,805	73 / 199	63 / 241
recycled	T (solid) / kl (liquid)	26 / 362	55 / 308	55 / 184	1 / 199	2 / 183
disposed	T (solid) / kl (liquid)	187 / 2	735 / 1	40 / 1,621	72 / 1	62 / 58
Non-hazardous waste <sup>(5)</sup>						
produced	T (solid) / kl (liquid)	3,805 / 0	3,842 / 0	4,431 / 0	3,816 / 0	3,871 / 0
recycled	T (solid) / kl (liquid)	1,432 / 0	1,009 / 0	1,728 / 0	870 / 0	826 / 0
disposed	T (solid) / kl (liquid)	2,373 / 0	2,833 / 0	2,703 / 0	2,945 / 0	3,045 / 0
<b>6. Safety <sup>(6)</sup></b>						
Employee						
Fatalities	No.	0	0	0	0	0
Days lost / charged	Days	0	0	0	0	0
Lost Time Injuries <sup>(7)</sup>	Cases	0	0	0	0	-
Occupational Disease <sup>(7)</sup>	Cases	0	0	0	0	-
Total Work Hours <sup>(7)</sup>	Manhours	1,968,165	1,870,155	1,815,968	1,858,816	-
Contractor						
Fatalities <sup>(7)</sup>	No.	1	0	0	0	-
Lost Time Injuries <sup>(7)</sup>	Cases	2	0	2	0	-
Total Work Hours <sup>(7)</sup>	Manhours	4,966,405	4,358,061	3,980,288	4,343,822	-

## Notes:

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

<sup>(2)</sup> Not applicable to Castle Peak.

<sup>(3)</sup> Wastewater is mainly treated on site and discharged to sea. Small amount of wastewater from onsite mobile toilet are not routinely collected.

<sup>(4)</sup> A portion of the treated wastewater is reused on site but measurement data are not routinely collected.

<sup>(5)</sup> Waste categorised in accordance with local regulations. Contractor waste is included.

<sup>(6)</sup> All safety data are combined for the three power stations under Castle Peak Power Company (CAPCO).

<sup>(7)</sup> Started reporting in 2014.

2017 data have been independently reviewed by the Hong Kong Quality Assurance Agency (HKQAA).