

Asset Performance Statistics

CastlePeak

- 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 | 2016 | 2015 | 2014 | 2013 | 2012 |
|---|-----------------|---------|---------|---------|---------|---------|
| 1. Operation | | | | | | |
| Electricity sent out | GWh | 15,187 | 15,176 | 20,280 | 19,409 | 17,310 |
| Coal consumed | TJ | 160,661 | 161,988 | 215,367 | 205,198 | 182,651 |
| Oil consumed | TJ | 3,207 | 2,032 | 1,620 | 1,340 | 4,195 |
| Gas consumed | TJ | 1,545 | 43 | 32 | 2,404 | 12 |
| Thermal efficiency | % | 33.1 | 33.3 | 33.6 | 33.4 | 33.4 |
| Equivalent availability factor (EAF) | % | 85.8 | 85.0 | 81.9 | 84.7 | 81.3 |
| 2. Air Emissions | | | | | | |
| CO ₂ e (Scope 1) ⁽¹⁾ | kT | 14,834 | 14,797 | 19,519 | 18,645 | 16,645 |
| CO ₂ (Scope 1) ⁽¹⁾ | kT | 14,737 | 14,700 | 19,389 | 18,528 | 16,538 |
| SO ₂ | kT | 5.2 | 4.3 | 13.9 | 11.8 | 11.3 |
| NO _x | kT | 15.4 | 15.9 | 26.0 | 24.8 | 20.8 |
| Particulate (Total) | kT | 0.5 | 0.5 | 1.2 | 1.1 | 1.1 |
| Particulate (Respirable) | kT | 0.3 | 0.3 | 0.8 | 0.7 | 0.7 |
| 3. Water | | | | | | |
| Water Withdrawal | Mm ³ | 2,742.1 | 2,708.3 | 3,203.1 | 3,180.0 | 2,887.6 |
| from marine water resources | Mm ³ | 2,737.4 | 2,703.5 | 3,198.0 | 3,175.5 | 2,883.3 |
| from freshwater resources ⁽²⁾ | Mm ³ | - | - | - | - | - |
| from municipal sources | Mm ³ | 4.7 | 4.8 | 5.1 | 4.6 | 4.3 |
| Water Discharged | Mm ³ | 2,738.8 | 2,704.5 | 3,199.2 | 3,176.6 | 2,884.3 |
| cooling water discharged to sea | Mm ³ | 2,737.4 | 2,703.5 | 3,198.0 | 3,175.5 | 2,883.3 |
| treated wastewater discharged to sea | Mm ³ | 1.4 | 1.0 | 1.2 | 1.1 | 1.0 |
| treated wastewater discharged to freshwater bodies ⁽²⁾ | Mm ³ | - | - | - | - | - |
| wastewater discharged to sewerage ⁽³⁾ | Mm ³ | - | - | - | - | - |
| Water Reused / Recycled ⁽⁴⁾ | Mm ³ | - | - | - | - | - |
| 4. Environmental Compliance | | | | | | |
| 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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5. By-products & Waste Management

| | | | | | | |
|------------------------------------|----------------------------|------------------|------------|-----------|-----------|-----------|
| Ash produced | kT | 257 | 240 | 374 | 349 | 341 |
| Ash recycled / sold | kT | 258 | 240 | 373 | 347 | 338 |
| Gypsum produced | kT | 92 | 72 | 98 | 93 | 93 |
| Gypsum recycled / sold | kT | 91 | 70 | 93 | 93 | 89 |
| Hazardous waste ⁽⁵⁾ | | | | | | |
| produced | T (solid) / kl (liquid) | 790 / 309 | 96 / 1,805 | 73 / 199 | 63 / 241 | 86 / 354 |
| recycled | T (solid) / kl (liquid) | 55 / 308 | 55 / 184 | 1 / 199 | 2 / 183 | 1 / 354 |
| disposed | T (solid) / kl (liquid) | 735 / 1 | 40 / 1,621 | 72 / 1 | 62 / 58 | 85 / 0 |
| Non-hazardous waste ⁽⁵⁾ | | | | | | |
| produced | T (solid) / kl (liquid) | 3,842 / 0 | 4,431 / 0 | 3,816 / 0 | 3,871 / 0 | 5,193 / 0 |
| recycled | T (solid) / kl (liquid) | 1,009 / 0 | 1,728 / 0 | 870 / 0 | 826 / 0 | 1,358 / 0 |
| disposed | T (solid) / kl (liquid) | 2,833 / 0 | 2,703 / 0 | 2,945 / 0 | 3,045 / 0 | 3,836 / 0 |

6. Safety ⁽⁶⁾

| | | | | | | |
|--|----------|------------------|-----------|-----------|---|----|
| Employee - Fatalities | No. | 0 | 0 | 0 | 0 | 0 |
| Employee - Days lost / charged | Days | 0 | 0 | 0 | 0 | 62 |
| Employee - Lost Time Injuries ⁽⁷⁾ | Cases | 0 | 0 | 0 | - | - |
| Employee - Occupational Disease ⁽⁷⁾ | Cases | 0 | 0 | 0 | - | - |
| Employee - Total Work Hours ⁽⁷⁾ | Manhours | 1,870,155 | 1,815,968 | 1,858,816 | - | - |
| Contractor - Fatalities ⁽⁷⁾ | No. | 0 | 0 | 0 | - | - |
| Contractor - Lost Time Injuries ⁽⁷⁾ | Cases | 0 | 2 | 0 | - | - |
| Contractor - Total Work Hours ⁽⁷⁾ | Manhours | 4,358,061 | 3,980,288 | 4,343,822 | - | - |

Notes:

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

(2) Not applicable to Castle Peak.

(3) Not applicable as wastewater is treated on site and discharged to sea. There is no discharge to sewerage.

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

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

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

(7) Started reporting in 2014.

2016 data have been independently reviewed by the Hong Kong Quality Assurance Agency (HKQAA).