**附录: 注册会计师ESG鉴证报告示例及企业ESG报告中碳排放数据的披露示例**

**【中文翻译仅供参考】**

**独立执业会计师的有限保证鉴证报告**

**致中电控股有限公司董事会**

我们已对中电控股有限公司（“贵公司”）的以下选定的可持续发展资料执行了有限保证的鉴证工作，并在后附报告主要表现数据（附录1）中以橘色标记数字作为识别（“经识别的可持续发展资料”）。

**经识别的可持续发展资料**

截至二零二零年十二月三十一日止年度的经识别的可持续发展资料概述如下：

|  |  |
| --- | --- |
| **企业管治*** 已向审核及风险委员会呈报被判罪的贪污个案（宗数）
* 已向审核及风险委员会呈报的违反《纪律守则》个案（宗数）

**安全*****死亡（人数）**** 死亡—雇员
* 死亡—承办商

***死亡率（以200,000工作小时为基准）**** 死亡率—雇员
* 死亡率—承办商

***损失工时事故（宗数）**** 损失工时事故—雇员
* 损失工时事故—承办商

***损失工时工伤事故率（以200,000工作⼩时为基准）**** 损失工时工伤事故率—雇员
* 损失工时工伤事故率—承办商

***总损失日数（日数）**** 总损失日数—雇员

**雇员*****雇员总数（⼈数）******于未来五年合资格退休的雇员（%）******按地区的雇员自动流失率（%）**** 香港
* 中国内地
* 印度
* 澳洲
 | **温室气体排放****中电集团有限公司*****二氧化碳当量（CO2e）排放总量—按净权益计算（千吨）**** 二氧化碳当量（CO2e）排放量（范围一）（千吨）
* 二氧化碳当量（CO2e）排放量（范围二）（千吨）
* 二氧化碳当量（CO2e）排放量（范围三）（千吨）

***中电集团的发电和储能组合**** 二氧化碳（CO2）—按净权益计算（千吨）
* 二氧化碳（CO2）—按权益及长期购电容量和购电安排计算 （千吨）
* 二氧化碳（CO2）—按营运控制权计算（千吨）
* 二氧化碳当量（CO2e）—按营运控制权计算（千吨）

**《气候愿景2050》*****目标表现—按净权益计算**** 中电集团发电和储能组合的二氧化碳排放强度（每度电的二氧化碳排放（千克））
* 可再生能源总发电容量（%（兆瓦））
* 零碳排放能源总发电容量（%（兆瓦））

***目标表现—按权益及长期购电容量和购电安排计算**** 中电集团发电和储能组合的二氧化碳排放强度（每度电的二氧化碳排放（千克））
* 可再生能源总发电容量（%（兆瓦））
 |
| **环境*****资源利用及排放**** 氮氧化物（NOx）排放量（千吨）
* 二氧化硫（SO2）排放量（千吨）
* 粒状物排放量（千吨）
* 六氟化硫（SF6）（千吨）

*一般液体废物（千升）** 产量
* 循环再造量

*一般固体废物（吨）** 产量
* 循环再造量

*有害液体废物（千升）** 产量
* 循环再造量

*有害固体废物（吨）** 产量
* 循环再造量

*煤灰（千吨）** 产量
* 回收和出售量

*石膏（千吨）** 产量
* 回收和出售量

***水抽取总量（百万立方米）******水排放总量（百万立方米）******环保合规*** * 引致罚款或遭起诉的环保违规（宗数）
* 环保超标及其他违规（宗数）
 | **营运****发电和储能容量—按资产类别（%（兆瓦））** ***总发电和储能容量—按资产类别**** 燃煤
* 天然气
* 核能
* 可再生能源
* 储能
* 其他

***总发电和储能容量—按权益和长期购电容量及购电安排计算**** 燃煤
* 天然气
* 核能
* 可再生能源
* 储能
* 其他

**发电输出量—按资产类别（%（每百万度））*****所有发电输出量—按净权益计算**** 燃煤
* 天然气
* 核能
* 可再生能源
* 储能
* 其他

***所有发电输出量—按权益和长期购电容量及购电安排计算**** 燃煤
* 天然气
* 核能
* 可再生能源
* 储能
* 其他

***所有发电输出量—按营运控制权计算（每百万度）******燃料用量**** 燃煤消耗量（用于发电）（万亿焦耳）
* 天然气消耗量（用于发电）（万亿焦耳）
* 燃油消耗量（用于发电）（万亿焦耳）
 |

我们的鉴证工作仅限于截至二零二零年十二月三十一日止年度的资料，与前期间有关的资料及于二零二零年可持续发展报告中所包括的任何其他数据均不在我们的工作范围内，因此我们不就此发表任何结论。

**编报基础**

贵公司编制经识别的可持续发展资料所采用的编报基础列示于附加在报告后方的报告范围及数据验证中（“编报基础”）（附录2）中。

**贵公司就经识别的可持续发展资料须承担的责任**

贵公司有责任根据编报基础编制经识别的可持续发展资料。该责任包括设计、实施和维护与编制经识别的可持续发展资料有关的内部控制，以使该等数据不存在由于欺诈或错误而导致的重大错报。

**固有限制**

由于对于非财务数据，未有评估和计量的国际公认通用标准，故此不同但均为可予接受的计量和计量技术，或会导致报告结果出现差异，继而影响与其他机构的可比性。此外，由于未有完备的科学知识可予采用以确定结合不同气体的排放因子和排放值，因此温室气体排放的量化存在固有的不确定性。

**我们的独立性和质量控制**

我们遵守国际会计师职业道德准则理事会颁布的《国际会计师职业道德守则》中对独立性及其他职业道德的要求﹐有关要求基于诚信、客观、专业胜任能力和应有的关注、保密及专业行为的基本原则而制定的。

本所应用国际质量控制准则第1号﹐因此保持一个全面的质量控制制度﹐包括制定与遵守职业道德要求、专业准则、以及适用的法律及监管要求相关的政策和程序守则。

**我们的责任**

我们的责任是根据我们所执行的程序以及我们取得的证据，就经识别的可持续发展资料发表有限保证结论。我们根据国际审计与鉴证准则理事会颁布的国际鉴证业务准则第3000号（修订版）*历史财务信息的审计或审阅以外的鉴证业务，*以及就温室气体排放而言，根据国际鉴证业务准则第3410号*温室气体排放声明的鉴证业务*的规定执行了有限保证的鉴证工作。该准则要求我们计划和实施鉴证工作，以就经识别的可持续发展资料不存在重大错报取得有限保证。

有限保证的鉴证工作包括评估贵公司使用编报基础作为编制经识别的可持续发展资料的基础是否合适，评估经识别的可持续发展资料是否存在由于欺诈或错误导致的重大错报风险，在需要的情况下对经评估的风险作出相应的程序，并评估经识别的可持续发展资料的整体列报。就风险评估程序（包括对内部控制的了解）以及针对经评估风险而执行的程序而言，有限保证的鉴证业务范围远小于合理保证的鉴证业务范围。

我们执行的程序是基于我们的专业判断，包括作出询问、观察流程的执行、检查文文件、分析性程序、评估定量方法和报告政策的恰当性，以及与原始记录的核对和调节。

鉴于本业务的具体情况，我们在执行上述程序时：

* 对负责经识别的可持续发展资料的相关人员进行询问；
* 已了解收集和报告经识别的可持续发展资料的流程；
* 对经识别的可持续发展资料抽样执行有限的实质性测试；及
* 考虑经识别的可持续发展资料的披露和列报。

于有限保证的鉴证业务中所执行的程序在性质和时间上，与合理保证的鉴证业务有所不同，且其范围小于合理保证的鉴证业务范围。因而有限保证的鉴证业务所取得的保证程度远远低于合理保证的鉴证业务中应取得的保证程度。因此，我们不会就贵公司的经识别的可持续发展资料是否在所有重大方面按照编报基础编制，发表合理保证意见。

**有限保证结论**

基于我们执行的程序以及取得的证据，我们未有发现任何事项使我们相信贵公司截至二零二零年十二月三十一日止年度的经识别的可持续发展资料在所有重大方面未有按照编报基础编制。

本报告乃为中电控股有限公司董事会而编制并仅供其使用﹐除此之外不得作为其他用途。我们不会就本报告的内容向任何其他人士负上或承担任何责任。

**罗兵咸永道会计师事务所**

执业会计师

香港，二零二一年二月二十二日

附录1：主要表现数据

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **温室气体排放** | **2020** | **2019** | **2018** | **2017** | **2016** | **GRI/HKEx****/ TCFD** |
| **中电集团** 1 |   |   |   |   |   |   |
| **二氧化碳当量（CO e）排放总量—按净权益计算（千吨） 2 3** | 62,138 | 71,720 | 不适用 | 不适用 | 不适用 | HKEx A1.2 |
| 二氧化碳当量（CO2e）排放量（范围一）（千吨）4 | 45,105 | 50,047 | 不适用 | 不适用 | 不适用 | GRI 305-1 / TCFD |
| 二氧化碳当量（CO2e）排放量（范围二）（千吨） | 244 | 250 | 不适用 | 不适用 | 不适用 | GRI 305-2 / TCFD |
| 二氧化碳当量（CO2e）排放量（范围三）（千吨） | 16,790 | 21,424 | 不适用 | 不适用 | 不适用 | GRI 305-3 / TCFD |
| 类别 1：购买的产品和服务 | 1,210 | 1,093 | 不适用 | 不适用 | 不适用 |   |
| 类别 2：资本产品 | 685 | 1,347 | 不适用 | 不适用 | 不适用 |   |
| 类别 3：燃料和能源相关活动 | 12,690 | 16,671 | 不适用 | 不适用 | 不适用 |   |
| 类别 5：运营中产生的废物 | 63 | 101 | 不适用 | 不适用 | 不适用 |   |
| 类别 6：商务差旅 | 1 | 8 | 不适用 | 不适用 | 不适用 |   |
| 类别 7：员工通勤 | 2 | 4 | 不适用 | 不适用 | 不适用 |   |
| 类别 11：已售产品的使用 | 2,138 | 2,200 | 不适用 | 不适用 | 不适用 |   |
| **中电集团的发电和储能组合** 3 4 5 6 |   |   |   |   |   |   |
| 二氧化碳（CO2）一按净权益计算（千吨） | 44,987 | 不适用 | 不适用 | 不适用 | 不适用 | GRI 102-48, 305-1, 305-2 / HKEx A1.2 |
| 二氧化碳（CO2）一按权益及长期购电容量和 购电安排计算 （千吨）7 | 48,621 | 不适用 | 不适用 | 不适用 | 不适用 | GRI 102-48, 305-1, 305-2 / HKEx A1.2 |
| 二氧化碳（CO2）一按营运控制权计算（千吨） | 43,808 | 50,676 | 52,306 | 48,082 | 46,681 | GRI 102-48, 305-1, 305-2 / HKEx A1.2 |
| 二氧化碳当量（CO2e）一按营运控制权计算（千吨） | 44,023 | 50,412 | 52,052 | 47,921 | 46,518 | GRI 102-48, 305-1, 305-2 / HKEx A1.2 |
| **《气候愿景2050》 3 4 5 6** |  |  |  |  |  |  |
| **目标表现—按净权益计算** |   |   |   |   |   |   |
| 中电集团发电和储能组合的二氧化碳排放强度（每度电的二氧化碳排放（千克）） | 0.65 | 0.70 | 0.74 | 0.80 | 0.82 | GRI 305-4 / HKEx A1.2 / TCFD |
| 可再生能源总发电容量（% （兆瓦）） | **12.8 (2,517)** | 12.8 (2,469) | 12.5 (2,387) | 14.2 (2,751) | 16.6 (3,090) | TCFD |
| 零碳排放能源总发电容量（% （兆瓦）） | **20.9 (4,110)** | 21.1 (4,069) | 20.9 (3,987) | 22.4 (4,350) | 19.2 (3,582) |   |
| **目标表现—按权益及长期购电容量和购电安排计算 7** |   |   |   |   |   |   |
| 中电集团发电和储能组合的二氧化碳排放强度（每度电的二氧化碳排放（千克）） | 0.57 | 0.62 | 0.66 | 0.69 | 0.72 | GRI 305-4 / HKEx A1.2 / TCFD |
| 可再生能源总发电容量（% （兆瓦）） | **13.5 (3,342)** | 13.7 (3,294) | 12.8 (3,039) | 13.1 (3,211) | 14.9 (3,551) | TCFD |
| 零碳排放能源总发电容量（% （兆瓦）） | **24.4 (6,017)** | 24.9 (5,979) | 24.1 (5,724) | 23.2 (5,699) | 20.7 (4,931) |   |
| **中华电力—售电量碳排放强度** |  |  |  |  |  |  |
| 中华电力售电量二氧化碳排放强度（每度电的二氧化碳当量排放（千克））4 8 | 0.37 | 0.50 | 0.51 | 0.51 | 0.54 |   |
| 中华电力售电量二氧化碳当量排放强度（每度电的二氧化碳排放（千克））4 8 | 0.37 | 0.49 | 0.51 | 0.50 | 0.54 |   |
|   |   |   |   |   |   |   |
| *1* 涵盖一系列业务，包括发电和储能组合、输电及配电、零售和其他。 |
| *2* 由于数字经进位调整，显示的总数与所列数据的总和之间存在差异。 |
| *3* Paguthan电厂的购电协议于2018年12月届满，并未纳入2019年及2020年报告范围。 |
| *4* 根据《温室气体议定书》，采用废物产生的沼气发电的“中电绿源”不纳入中电的二氧化碳排放量（范围一），独立在资产表现数据中报告；其非二氧化碳温室气体（即甲烷及一氧化二氮）则纳入中电的二氧化碳当量排放量（范围一）。 |
| *5* 自2020年开始，该组合包括储能资产和发电资产。储能资产包括抽水蓄能和电池储能。在过往年度，该组合只包括发电资产。 |
| *6* 雅洛恩及Hallett电厂的二氧化碳排放数据用于计算2018年数据。电厂的二氧化碳当量数据用于计算2018年前的数据。 |
| *7* 表现数据包括占多数权益及占少数权益的所有资产，以及中电的“长期购电容量和购电安排”。自2018年开始，“长期购电容量和购电安排”指购电协议至少达五年或以上及购电容量不少于10兆瓦。 |
| *8* 售电量是指在调整可再生能源证书前向中华电力香港客户售出的电量。 |

附录2：报告范围及数据验证

|  |  |
| --- | --- |
| **温室气体排放****–中电集团总二氧化碳当量排放量****（按净权益计算）** | 包括集团的发电和储能组合、输配电、零售及其他相关业务活动，涵盖范围一、范围二及范围三的温室气体排放。**二氧化碳当量排放量 （范围一）**包括符合以下条件的所有集团发电和储能组合、输配电设施、煤矿及燃料储存设施：* 中电拥有，并按权益基准入账（即根据中电于资产中的持股比例来计算数据）；且
* 于汇报年度内处于营运中。

**二氧化碳当量排放量 （范围二）**包括符合以下条件的所有集团发电和储能组合、输配电设施、煤矿、燃料储存设施及办公室：* 中电拥有或租赁，并按权益基准入账（即根据中电于资产中的持股比例来计算数据）；且
* 于汇报年度内处于营运中。

**二氧化碳当量排放量 （范围三）**包括中电价值链中出现且并未包括于范围二中的间接排放，包括与中电有关的范围三类别排放量。 |
| **温室气体排放****–中电集团的发电和储能组合****（二氧化碳排放量按权益／按权益及长期购电容量和购电安排计算** | 数据按以下两种模式的权益计算为基准作汇整：1. **所占权益**包括符合以下条件的集团发电和储能组合资产：* 中电拥有，并按权益基准入账（即根据中电于资产中的持股比例来计算数据）；且
* 于汇报年度内处于营运中。

2. **所占权益及长期购电容量和购电安排**即除上述（1）项外，也包括中电为满足客户需求而购买的额外容量和电量的集团发电和及储能组合，并符合以下条件：* 购电协议期限不少于五年；且
* 所购容量或电量不低于 10 兆瓦。
 |
| **温室气体排放****–中电集团的发电和储能组合****（二氧化碳/二氧化碳当量排放量按营运控制权计算）** | 包括符合以下条件的所有集团发电和储能组合、煤矿及燃料储存设施：* 中电拥有大部分股权或中电拥有营运控制权的资产，且中电可全权执行其营运政策；
* 于汇报年度内某段时间营运中；且
* 对环境产生重大影响。

除另有说明外，报告范围所提及资产的表现数据均按百分百基准汇报，并未基于中电的权益份额作出调整。 |

**【原文摘录】**

**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 metrics (Appendix I) appended to this report (the “Identified Sustainability Information”).

**Identified Sustainability Information**

The Identified Sustainability Information for the year ended 31 December 2020 is summarised below:

|  |  |
| --- | --- |
| **Governance*** Convicted cases of corruption reported to the Audit & Risk Committee (cases)
* Breaches of Code of Conduct reported to the Audit & Risk Committee (cases)

**Safety*****Fatalities (number)*** * Fatalities - employees only
* Fatalities - contractors only

***Fatality Rate (number per 200,000 manhour)**** Fatality Rate - employees only
* Fatality Rate - contractors only

***Lost Time Injury (number)**** Lost Time Injury - employees only
* Lost Time Injury - contractors only

***Lost Time Injury Rate (number per 200,000 manhour)**** Lost Time Injury Rate - employees only
* Lost Time Injury Rate - contractors only

***Days Lost (number)**** Days Lost - employees only

**People*****Total employees (number)******Total employees eligible to retire within the next five years (%)******Voluntary staff turnover rate (%) - by region**** Hong Kong
* Mainland China
* India
* Australia
 | **GHG emissions****CLP Group*****Total CO2e emissions – on an equity basis (kt)*** * CO2e - Scope 1 (kt)
* CO2e - Scope 2 (kt)
* CO2e - Scope 3 (kt)

***CLP Group’s generation and energy storage portfolio**** CO2 – on an equity basis (kt)
* CO2 – on an equity plus long-term capacity and energy purchase basis (kt)
* CO2 – on an operational control basis (kt)
* CO2e – on an operational control basis (kt)

**Climate Vision 2050*****Performance against targets - on an equity basis**** Carbon dioxide emissions intensity of CLP Group’s generation and energy storage portfolio (kg CO2/ kWh)
* Renewable energy generation capacity (%(MW))
* Non-carbon emitting generation capacity (%(MW))

***Performance against targets - on an equity plus long-term capacity and energy purchase basis*** * Carbon dioxide emissions intensity of CLP Group’s generation and energy storage portfolio (kg CO2/ kWh)
* Renewable energy generation capacity (%(MW))
* Non-carbon emitting generation capacity (%(MW))

***CLP Power Hong Kong - carbon emissions intensity of electricity sold*** * CO2e emissions intensity of electricity sold by CLP Power Hong Kong (kg CO2e/ kWh)
* CO2 emissions intensity of electricity sold by CLP Power Hong Kong (kg CO2/ kWh)
 |
| **Environment*****Resource Use & Emissions**** Nitrogen oxides emissions (NOx) (kt)
* Sulphur dioxide emissions (SO2) (kt)
* Particulates emissions (kt)
* Sulphur hexafluoride (SF6) (kt)

*Non-hazardous liquid waste (kl)** Produced
* Recycled

*Non-hazardous solid waste (t)** Produced
* Recycled

*Hazardous liquid waste (kl)** Produced
* Recycled

*Hazardous solid waste (t)** Produced
* Recycled

*Ash (kt)** Produced
* Recycled and sold

*Gypsum (kt)** Produced
* Recycled and sold

***Total water withdrawal (Mm3) Total water discharge (Mm3) Environmental compliance**** Environmental regulatory non-compliances resulting in fines or prosecutions (number)
* Environmental licence limit exceedances & other non-compliances (number)
 | **Operations****Generation and energy storage capacity by asset type (%(MW))*****Total generation and energy storage capacity - on an equity basis**** Coal
* Gas
* Nuclear
* Renewables
* Energy Storage
* Others

***Total generation and energy storage capacity - on an equity plus long-term capacity and energy purchase basis**** Coal
* Gas
* Nuclear
* Renewables
* Energy Storage
* Others

**Energy sent out by asset type (%(GWh))** ***Total energy sent out – on an equity basis**** Coal
* Gas
* Nuclear
* Renewables
* Energy Storage
* Others

***Total energy sent out - on an equity plus long-term capacity and energy purchase basis**** Coal
* Gas
* Nuclear
* Renewables
* Energy Storage
* Others

***Total energy sent out (GWh) – on an operational control basis******Fuel use**** Coal consumed (for power generation) (TJ)
* Gas consumed (for power generation) (TJ)
* Oil consumed (for power generation) (TJ)
 |

Our assurance was with respect to the year ended 31 December 2020 information only and we have not performed any procedures with respect to earlier periods or any other elements included in the 2020 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 scope and data verification (the “Criteria”) (Appendix II) 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 2020 is not prepared, in all material respects, in accordance with the Criteria.

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

**PricewaterhouseCoopers**

Certified Public Accountants

Hong Kong, 22 February 2021

**Appendix I: Key performance metrics**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|   |   |   |   |   |   |   |
| **GHG emissions** | **2020** | **2019** | **2018** | **2017** | **2016** | **GRI/HKEx****/ TCFD** |
| CLP Group 1 |   |   |   |   |   |   |
| **Total CO2e emissions – on an equity basis (kt) 2 3** | 62,138 | 71,720 | N/A | N/A | N/A | HKEx A1.2 |
| CO2e - Scope 1 (kt) 4 | 45,105 | 50,047 | N/A | N/A | N/A | GRI 305-1 / TCFD |
| CO2e - Scope 2 (kt) | 244 | 250 | N/A | N/A | N/A | GRI 305-2 / TCFD |
| CO2e - Scope 3 (kt) | 16,790 | 21,424 | N/A | N/A | N/A | GRI 305-3 / TCFD |
| Category 1: Purchased goods and services | 1,210 | 1,093 | N/A | N/A | N/A |   |
| Category 2: Capital goods | 685 | 1,347 | N/A | N/A | N/A |   |
| Category 3: Fuel- and energy- related activities | 12,690 | 16,671 | N/A | N/A | N/A |   |
| Category 5: Waste generated in operations | 63 | 101 | N/A | N/A | N/A |   |
| Category 6: Business travel | 1 | 8 | N/A | N/A | N/A |   |
| Category 7: Employee commuting | 2 | 4 | N/A | N/A | N/A |   |
| Category 11: Use of sold products | 2,138 | 2,200 | N/A | N/A | N/A |   |
| **CLP Group's generation and energy storage portfolio** 3 4 5 6 |   |   |  |  |  |   |
| CO2 – on an equity basis (kt) | 44,987 | N/A | N/A | N/A | N/A | GRI 102-48, 305-1, 305-2 / HKEx A1.2 |
| CO2 – on an equity plus long-term capacity and energy purchase basis (kt)7 | 48,621 | N/A | N/A | N/A | N/A | GRI 102-48, 305-1, 305-2 / HKEx A1.2 |
| CO2 – on an operational control basis (kt) | 43,808 | 50,676 | 52,306 | 48,082 | 46,681 | GRI 102-48, 305-1, 305-2 / HKEx A1.2 |
| CO2e – on an operational control basis (kt) | 44,023 | 50,412 | 52,052 | 47,921 | 46,518 | GRI 102-48, 305-1, 305-2 / HKEx A1.2 |
| **Climate Vision 2050 3 4 5 6** |  |  |  |  |  |  |
| **Performance against targets - on an equity basis** |   |   |   |   |   |   |
| Carbon dioxide emissions intensity of CLP Group’s generation and energy storage portfolio (kg CO2/ kWh) | 0.65 | 0.70 | 0.74 | 0.80 | 0.82 | GRI 305-4 / HKEx A1.2 / TCFD |
| Renewable energy generation capacity (% (MW)) | **12.8 (2,517)** | 12.8 (2,469) | 12.5 (2,387) | 14.2 (2,751) | 16.6 (3,090) | TCFD |
| Non-carbon emitting generation capacity (% (MW)) | **20.9 (4,110)** | 21.1 (4,069) | 20.9 (3,987) | 22.4 (4,350) | 19.2 (3,582) |   |
| **Performance against targets - on an equity plus long-term capacity and** **energy purchase basis 7** |   |   |   |   |   |   |
| Carbon dioxide emissions intensity of CLP Group’s generation and energy storage portfolio (kg CO2/ kWh) | 0.57 | 0.62 | 0.66 | 0.69 | 0.72 | GRI 305-4 / HKEx A1.2 / TCFD |
| Renewable energy generation capacity (% (MW)) | **13.5 (3,342)** | 13.7 (3,294) | 12.8 (3,039) | 13.1 (3,211) | 14.9 (3,551) | TCFD |
| Non-carbon emitting generation capacity (% (MW)) | **24.4 (6,017)** | 24.9 (5,979) | 24.1 (5,724) | 23.2 (5,699) | 20.7 (4,931) |   |
| **CLP Power Hong Kong - carbon emissions intensity of electricity sold** |  |  |  |  |  |  |
| CO2e emissions intensity of electricity sold by CLP Power Hong Kong (kg CO2e/kWh)4,8 | 0.37 | 0.50 | 0.51 | 0.51 | 0.54 |   |
| CO2 emissions intensity of electricity sold by CLP Power Hong Kong (kg CO2/kWh) 4 8 | 0.37 | 0.49 | 0.51 | 0.50 | 0.54 |   |
|   |   |   |   |   |   |   |
| *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 and 2020 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 CO₂ emissions and reported separately in the Asset Performance Statistics. Its non-CO₂ GHG emissions (i.e. CH4 and N₂O) is included in CLP’s Scope 1 CO₂e 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* CO₂ emissions of Yallourn and Hallet Power Stations have been used since 2018. Prior to 2018, CO₂e emissions data of these assets were used. |
| *7* Numbers include assets with majority and minority share, 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 duration of at least five years, and capacity or energy purchased being no less than 10MW. |
| *8* "Electricity sold" is the total electricity sold to CLP Power Hong Kong's customers before adjustment of Renewable Energy Certificates. |

**Appendix II: Reporting scope and data verification**

|  |  |
| --- | --- |
| **GHG emissions****– CLP Group's total CO2e emissions****(on an equity basis)** | Includes the Group’s generation and energy storage portfolio, transmission and distribution, retail and other business activities where relevant, covering GHG emissions from Scope 1, 2 and 3.**Scope 1 CO2e**Includes the Group’s generation and energy storage portfolio, transmission and distribution infrastructure, coal mines and fuel storage facilities that are:* Owned by CLP, where assets are included on an equity basis (i.e. accounts for the data according to CLP’s equity share in the asset); and
* In operation during the reporting year.

**Scope 2 CO2e**Includes the Group’s generation and energy storage portfolio, transmission and distribution infrastructure, coal mines, fuel storage facilities and offices that are:* Owned or rented by CLP, where assets and offices are included on an equity basis (i.e. accounts for the data according to CLP’s equity share in the asset); and
* In operation during the reporting year.

**Scope 3 CO2e**Includes indirect emissions (not included in Scope 2) that occur in the value chain of CLP. It includes emissions from the Scope 3 categories relevant to CLP. |
| **GHG emissions****– CLP Group's****generation and energy storage portfolio****(CO2 on an equity/ an equity plus long-term capacity and energy purchase basis)** | Data are consolidated on an equity basis with two variations:1. **Equity basis** includes the assets in the Group’s generation and energy storage portfolio that are:
* Owned by CLP, where assets are included on an equity basis (i.e. accounts for the data according to CLP’s equity share in the asset); and
* In operation during the reporting year.
1. **Equity plus long-term capacity and energy purchase basis** adds onto (1) above and includes the assets in the Group’s generation and energy storage portfolio whose capacity and energy are purchased by CLP to meet customer demand, and where:
* Purchase agreement duration is at least 5 years; and
* Capacity or energy purchase is no less than 10MW.
 |
| **GHG emissions****– CLP Group's****generation and energy storage portfolio****(CO2/CO2e on an operational control basis)** | Includes the Group’s generation and energy storage portfolio, coal mines or fuel storage facilities that are:* Majority owned by CLP or under CLP’s operational control, defined as full authority to implement CLP’s operating policies;
* In operation during the reporting year; and
* Posing material impact to the environment.

100% of the performance data for in-scope assets is reported without adjustment based on CLP's equity share, unless otherwise stated. |