

## Reporting Methodology

### Swire Pacific Annual Report 2018

---

#### About this report

The sustainability material in the 2018 Swire Pacific Annual Report is produced with reference to the Global Reporting Initiative's GRI Standard reporting guidelines. The GRI Standard framework encourages companies to report on sustainable development issues that are most relevant to them. The data collected at the 2018 Swire Pacific Annual Report has taken into account these requirements and the indicators required are set out below.

A separate sustainability website prepared with reference to the GRI Standard reporting guidelines at the core level, and in-line with Appendix 27 of the main board listing rules of the Hong Kong Stock Exchange, will be launched in July 2018 on the Swire Pacific website.

#### Boundaries and Scoping

**Appendix I** contains (i) a list of companies and parts of companies which have provided information for the 2018 Swire Pacific Annual Report, (ii) a list of companies and parts of companies which have not provided information for the 2018 Swire Pacific Annual Report and (iii) changes in scope since 2017. Performance indicators are reported on a 100% basis and therefore do not make reference to Swire Pacific's shareholdings in operating companies.

#### Information regarding our material aspects

##### Emissions

<p>GRI 305-1  (Formerly known as G4 EN15)</p>	<p><u>Direct Greenhouse Gas (GHG) Emissions (Scope 1)</u>: (a) gross direct (Scope 1) GHG emissions; (b) gases included in the calculation; (c) biogenic CO2 emissions; (d) the chosen base year; (e) the source of the emission factors used and the global warming potential (GWP) rates used or a reference to the GWP source; (f) the chosen consolidation approach for emissions; (g) standards, methodologies, and assumptions used</p>
<p>GRI 305-2  (Formerly known as G4 EN16)</p>	<p><u>Energy indirect greenhouse gas (GHG) emissions (Scope 2)</u>: (a) gross energy indirect (Scope 2) GHG emissions ; (b) If applicable, gross market-based energy indirect (Scope 2) GHG emissions in metric tons of CO2 equivalent; (c) gases included in the calculation, if available; (c) the chosen base year; (d) standards, methodologies, and assumptions used; (e) the source of the emission factors used and the global warming potential (GWP) rates used or a reference to the GWP source, if available; (f) the chosen consolidation approach for emissions</p>

*Aspect boundary:* We require all companies and parts of companies which have provided information for this report (as listed in appendix 1) to report their emissions. This helps operating companies to manage emissions more effectively and to identify opportunities for reduction. We use the operational control management approach.

*Reporting bases for these indicators:* Emissions are calculated in accordance with the greenhouse gas protocol developed by World Resources Institute and World Business Council on Sustainable Development (Greenhouse Gas Protocol). Direct emissions for GRI reporting are the same as Scope 1 emissions under the Greenhouse Gas Protocol and are defined as follows:

*'Emissions that occur from sources that are owned or controlled by a company, such as combustion facilities (e.g.: boilers, furnaces, burners, turbines, heaters, incinerators, engines, flares etc.), combustion of fuels in transportation (e.g.: cars, buses, planes, ships, barges, trains etc.), and physical or chemical processes (e.g.: in cement manufacturing, catalytic cracking in petrochemical processing, aluminium smelting etc.).'*

Indirect emissions for GRI reporting are the same as Scope 2 emissions under the *Greenhouse Gas Protocol* and are defined as follows:

*'Emissions that occur from the generation by another party of electricity that is purchased and consumed by the company'*

Greenhouse gas (GHG) emissions are calculated using emission factors from the following sources:

- **"Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purpose) in Hong Kong"** published by the Environmental Protection Department (EPD) of Hong Kong Government (all Hong Kong operations).
- Department for Environment, Food and Rural Affairs (Defra) in the UK (operations outside of Hong Kong)
- International Energy Agency (IEA) (electricity outside of Hong Kong)
- Aviation jet fuel: we include all flights in the calculation, including testing and training flights and flights by dry leased and wet leased aircraft. As fuel density varies according to a number of factors, we use the Joint Inspection Group's<sup>1</sup> recommended specific gravity of 0.80 kg/L to calculate the weight of fuel. We use the IPCC's emission factor of 3.15<sup>2</sup> to determine CO<sub>2</sub> emissions from the combustion of aircraft fuel.
- Electricity purchased in Hong Kong: we use conversion factors supplied by local power suppliers (China Light and Power and Hong Kong Electric).

---

<sup>1</sup> Formed by international oil companies, the Joint Inspection Group performs regular inspections of their airport facilities to ensure that they are operated in accordance with their procedures for handling aviation fuel at airports and upstream aviation fuel facilities.

<sup>2</sup> IPCC. (1999). *Aviation and the Global Atmosphere*. Cambridge: Cambridge University Press.

- Lubricant Oil for Swire Pacific Offshore’s operations: a factor of 0.9 (specific gravity of lubricant oil) and 0.82<sup>3</sup> (% lubricant oil consumed through combustion) is applied to the emission factor listed in Department for Environment, Food and Rural Affairs (Defra) in the UK

The following gases are included in GHG calculations: carbon dioxide (CO<sub>2</sub>), methane, sulphur dioxide and nitrous oxide. These are expressed in carbon dioxide equivalents (CO<sub>2</sub>e). Swire Pacific does not have any biogenic sources of CO<sub>2</sub>.

For aviation turbine fuel we only calculate CO<sub>2</sub> emissions as there is no scientific consensus on the global warming effect of other GHG emissions in the upper atmosphere. Our airlines continue to monitor developments in atmospheric science, including studies from the UK’s OMEGA aviation and environment project and the Institute of Atmospheric Physics at the German Aerospace Centre (DLR) and, most recently research published by the Goddard Institute of Space Science<sup>4</sup>. This latest research suggests that the warming impact of non CO<sub>2</sub> gases is less than the cooling impact of aerosols and other aircraft emissions. Until there is greater consensus among the scientific community on these gases, our primary focus remains on the reduction of CO<sub>2</sub> emissions.

The source of the GWP is “**Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for buildings (Commercial, Residential or Institutional Purpose) in Hong Kong**” published by EPD. These guidelines cite the IPCC Second Assessment Report (1995), and World Resources Institute (2005), *Calculating HFC and PFC Emissions from the Manufacturing, Installation, Operation and Disposal of Refrigeration & Air-conditioning Equipment (Version 1.0) - Guide to calculation worksheets*, World Business Council for Sustainable Development.

### Energy

GRI 302-1 (Formerly known as G4 EN3)	<u>Energy consumption within the organisation:</u> (a) total fuel consumption from non-renewable sources ; (b) total fuel consumption from renewable fuel sources; (c) the total: Electricity consumption, Heating consumption, Cooling consumption, Steam consumption; (d) the total: Electricity sold, Heating sold, Cooling sold, Steam sold; (e) total energy consumption in joules or multiples; (f) standards, methodologies, and assumptions used; (g) source of the conversion factors used.
--------------------------------------	--

*Aspect boundary:* We require all companies and parts of companies which have provided information for this report (as listed in appendix 1) to report their energy consumption. We also encourage those with whom we work to reduce their own energy consumption.

*Reporting basis for this indicator:* Direct energy sources used include diesel, petrol, LPG, Towngas, natural gas, fuel oil, marine gasoil, gas oil, lubricant oil and jet kerosene. Direct energy is reported in Gigajoules. The quantity of direct energy consumed is calculated by multiplying the fuel in volume or mass by corresponding calorific values (or heating values) given in “**Guidelines to Defra’s Greenhouse Gas Conversion Factors for Company Reporting**” by Defra in the UK. Towngas consumption in Hong Kong is calculated according to “**Guidelines to Account for and**

<sup>3</sup> SPO have evaluated the consumption of all grades of lubricating and hydraulic oils used on board and determined that 82% of the total quantity consumed is combusted in main engines or generators, and the by-products (GHG, SO<sub>x</sub>, NO<sub>x</sub>, PM etc.) emitted to the atmosphere.

<sup>4</sup> [www.pnas.org/content/early/2010/02/02/0906548107.full.pdf+html](http://www.pnas.org/content/early/2010/02/02/0906548107.full.pdf+html)

**Report on Greenhouse Gas Emissions and Removals for buildings (Commercial, Residential or Institutional Purpose) in Hong Kong (2010)"** published by EPD. Each unit registered by a gas meter represents a heat value of 48 Mega joules. Indirect energy sources used include electricity and steam purchased from other organizations. Indirect energy is reported in Gigajoules. We consume indirect energy mainly by buying electricity. Some of our bottling plants in Mainland China buy small amounts of steam. The majority of our electricity consumed in Hong Kong and Mainland China is purchased from franchised monopoly suppliers. As a result, we cannot lower the carbon intensity of our electricity by switching suppliers. Each kilowatt hour (kWh) registered by electricity meters represents 3.6 Mega joules. The consumption of renewable energy is insignificant compared with the total energy consumed. We do not sell energy or purchase heating or cooling.

**Water**

<p>GRI 301-1  (Formerly known as G4 EN8)</p>	<p><b>Total water withdrawal by source with breakdown by the following sources:</b> (a) total volume of water withdrawn from the sources; (b) standards, methodologies, and assumptions used.</p>
--	---

*Aspect boundary:* Our companies report consumption of potable water when it accounts for more than 2% of our total water use. All companies and parts of companies which have provided information for this report (as listed in appendix 1) (except Air Hong Kong and Swire Pacific Offshore) measure their water usage. The water consumption in Swire Beverages dormitories is excluded.

*Reporting basis for this indicator:* Municipal water supplies account for 98% of our water consumption. We use sea water for some cooling and toilet flushing but do not report the quantity used as sea water is not a scarce resource. The municipal water consumption is the amount reported in water bills.

**Occupational Health and Safety**

<p>GRI 403-2  (Formerly known as G4 LA6)</p>	<p>a) Report types of injury, injury rate (IR), occupational diseases rate (ODR), lost day rate (LDR), absentee rate (AR) and work-related fatalities, for all employees, with a breakdown by: Region ,Gender;</p> <p>b) Report types of injury, injury rate (IR) and work-related fatalities for all workers (excluding employees) whose work, or workplace, is controlled by the organisation, with a breakdown by: Region, Gender;</p> <p>c) Report the system of rules applied in recording and reporting accident statistics</p>
--	---

*Aspect boundary:* We require all companies and parts of companies which have provided information for this report (as listed in appendix 1) to provide information about health and safety on a quarterly basis.

We recognize the importance of the health and safety of our contractors and visitors. Occupational health and safety is included in our supplier CSR code of conduct.

*Reporting basis for this indicator:* Swire Pacific reports the number of lost time injuries (LTI), the Lost Time Injury Rate (LTIR), the number of lost days, the Lost Day Rate (LDR) and employee fatalities as defined below.

1. **Total injuries** are the number of injuries in a year which result in minimum lost time of one working day.
2. **Lost Time Injury Rate:** represents the number of injuries per 100 equivalent employees per year. It is calculated as the total Injuries multiplied by 200,000 and then divided by total hours worked. 200,000 is the annual hours worked by 100 employees, based on 40 hours per week for 50 weeks a year.
3. **Lost Days:** A Lost Day occurs when, in the opinion of a physician, an employee cannot work. Lost Days are counted as calendar days where counting begins on the first day following the injury and ends on the day when the person returns to full duty, receives a permanent job transfer or leaves employment.
4. **Lost Day Rate** represents the number of lost work days per 100 equivalent employees per year. It is calculated as the total lost days multiplied by 200,000 and then divided by total hours worked. 200,000 is the annual hours worked by 100 employees, based on 40 hours per week for 50 weeks a year.
5. **An employee fatality** is a loss of life of an employee as the result of a work-related incident.

Information about the number of hours worked, lost time injuries, fatalities and lost days due to injuries is collected from operating companies. Lost Day Rate and Lost Time Injury Rate are calculated using GRI definitions. Injuries occurring during travel to and from work in Mainland China are included having regard to relevant Mainland China legislation.

*Omissions:* Occupational health, absenteeism, types of injury and contractor management are monitored and managed by operating companies but not reported on at group level. The nature and locations of our operations mean that occupational health hazards are minimal. Due to the diversity of our businesses, types of injury will vary greatly between industries. Types of injury are therefore recorded at an operating company level. If a type of injury is common in several operating companies, the Swire Pacific health and safety committee may investigate further how these kinds of injuries can be reduced. For example, several incidences of road and transport related injuries resulted in a group transport safety policy being developed at head office level. Information on reducing injuries from manual handling has also been disseminated through the health and safety committee. Contractor management is done at operating company level and best practice is shared through the health and safety committee.

We do not report by region or gender.

## Appendix I

The Selected Sustainability Data in the Company's report for the year ending 31 December 2018 relates to companies and operations listed below:

- Swire Properties Limited
- Cathay Pacific Airways Limited
- Hong Kong Dragon Airlines
- Air Hong Kong
- Cathay Pacific Catering Services
- Vogue Laundry Service Limited
- Hong Kong Airport Services
- Cathay Pacific Services Limited
- Hong Kong Aircraft Engineering Company Limited
- Hong Kong Aero Engine Services Limited
- Taikoo (Xiamen) Aircraft Engineering Company Limited
- Taikoo (Xiamen) Landing Gear Services Company Ltd
- Taikoo Engine Services (Xiamen) Company Ltd
- Taikoo Spirit AeroSystems (Jinjiang) Composite Company Ltd
- HAECO Americas
- HAECO Component Overhaul (Xiamen) Ltd.
- Swire Beverages companies
- Swire Pacific Offshore companies
- Hongkong United Dockyards group
- Swire Resources group
- Taikoo Motors group
- Chongqing New Qinyuan Bakery
- Taikoo Sugar Limited
- Taikoo Sugar (China) Limited
- Swire Waste Management Limited
- Swire Pacific Cold Storage group

The Sustainability Data in the Company's report for the year ending 31 December 2018 does not include the companies and operations listed below:

- Aviation Division - Catering and laundry service companies outside Hong Kong
- Beverages Division - Coca-Cola Bottlers Manufacturing Holdings Limited and Xiamen Luquan Industries Company Limited
- Trading & Industrial Division - Campbell Swire, Akzo Nobel Swire Paints Limited and the Swire Sustainability Fund

In 2018 we expanded the scope of reporting to include the following operations:

- Swire Properties Limited - USA portfolio
- Swire Beverages -
  - US Bottling Plants in Yorkstreet, Wilsonville, Bellevue, Tempe
  - China bottling plants in Yunnan, Guangxi, Hubei, Hainan and Jiangxi provinces, the city of Zhanjiang in Guangdong province, and Shanghai Municipality