**Version: November 2021**

**Explanatory notes: Government operations greenhouse gas emissions data**

## ***Data collation process***

The Department of Energy and Public Works (DEPW) collates the annual Greenhouse Gas (GHG) emissions associated with electricity, fuel and air travel for all Queensland Government departments, and some statutory authorities including all 16 Hospital and Health Services (HHS).

The scope of emissions includes those associated with electricity use in owned and leased premises, fuel use in vehicles (petrol and diesel) including bulk fuel purchases, fuel use in hire cars, and emissions arising from domestic, trans-Tasman and international air travel.

DEPW collates the emissions as it is responsible for procurement of these services through QTravel, QFleet and Queensland Government Procurement (QGP). Electricity use represents the majority of emissions associated with government operations. QGP undertakes extensive investigative work to tally and validate the electricity use from government sites.

Data modelling is undertaken to collate, convert, arrange and analyse the emissions data prior to issue.

## ***Emissions reporting process***

DEPW provides financial year (FY) collated emissions data to the Department of Environment and Science (DES) for annual publishing on the Queensland Government’s Open Data portal: <https://www.data.qld.gov.au/dataset/government-operations-greenhouse-gas-emissions>

Reported emissions are net emissions, expressed in metric tonnes of carbon dioxide equivalent (CO2-e). Renewable energy (generated or exported) and carbon offsets have not been separately reported, however may offset some site use (this is unable to be quatified).

Emissions data may be updated between reporting periods if necessary, such as if additional or more accurate data is sourced.

Importantly, any direct comparison of recent agency emissions totals with those published during the previous era (2008-2011) should take into consideration that key parameters may have changed, including but not limited to: emissions conversion factors, grid emissions intensity, quantity of public services delivered, the Government's asset portfolio size, profile and ownership (owned vs. leased), technological advances, and machinery-of-government adjustments.

## ***Impacts of machinery-of-Government (MoG) changes***

The government operations emissions for a particular year have been collated considering the Administrative MoG Arrangements for that financial year, as referenced:

For 2020-21FY, Administrative units listed as per:

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| **ADMINISTRATIVE ARRANGEMENTS ORDER (No. 2) 2021**  |
| <https://www.qld.gov.au/__data/assets/pdf_file/0022/214672/administrative-arrangements-order-no-2-2021.pdf>  |
| Made by the Governor in Council on 07 October 2021 |

For 2019-20FY, Administrative units listed as per:

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| **ADMINISTRATIVE ARRANGEMENTS ORDER (No. 1) 2020**  |
| <https://www.qld.gov.au/__data/assets/pdf_file/0026/127484/administrative-arrangements-order-no-1-2020.pdf> |
| Made by the Governor in Council on 11 May 2020 |

For 2018-19FY, Administrative units listed as per:

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| **ADMINISTRATIVE ARRANGEMENTS ORDER (No. 2) 2018**  |
| <https://www.qld.gov.au/__data/assets/pdf_file/0025/91609/administrative-arrangements-order-no-2-2018.pdf> |
| Made by the Governor in Council on 13 December 2018 |

For 2017-18FY, Administrative units listed as per:

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| **ADMINISTRATIVE ARRANGEMENTS ORDER (No. 4) 2017**  |
| https://www.qld.gov.au/\_\_data/assets/pdf\_file/0025/39454/administrative-arrangements-order-no-4-2017.pdf |
| Made by the Governor in Council on 21 December 2017 |

Generally, emissions from ‘abolished’ departments are re-allocated to newly formed or restructured departments in line with the relevant Administrative Arrangements Order. GHG emissions reallocation occurs through a split percentage redistribution (i.e. 50/50% or 50/25/25%) from abolished department to new department.

Emissions redistribution is not undertaken at the site, building or NMI level, and likewise, redistribution in line with employee numbers or occupied floor area is not considered as this level of detail is unavailable with the current methodology.

## ***Emissions (Electricity)***

The emissions attributed to electricity are derived from energy use data (kWh) sourced from the QGP whole-of-government (WoG) electricity procurement contractual arrangements (Large sites, Small sites, and regional sites). The WoG procurement arrangements enable central collation of all purchased electricity for government departments.

Also included is any additional electricity data provided directly by departments, such as electricity supply arrangements to non-metered or temporary sites (e.g. TMR unmetered street-lighting).

Electricity information for major-leased office accommodation is provided by Queensland Government Accommodation Office (QGAO), since for these leases the Queensland Government does not hold the retail account, the building owners on-sell electricity to their tenants. An example of this arrangement is 1 William Street, Brisbane.

Emissions associated with electricity use have been calculated using scope 2 electricity emissions factors as per the National Greenhouse Accounts Factors Workbook for each relevant financial year period.

## ***Emissions (Fuel)***

Fuel information has been sourced from the WoG fuel procurement contractual arrangement (Agreement 370), which captures fuel purchased in litres on government fuel card, identifiable by department. Agreement 370 enables central collation of most purchased fuel for government departments.

Agreement 370 for card fuel and associated services is a common use supply arrangement managed by QGP. A fuel card provides access to fuel types including diesel, premium diesel, biodiesel, unleaded petrol, premium unleaded petrol and ethanol-blended petrol. Participating suppliers are BP, Caltex and Shell.

Bulk quantities of fuel in litres are purchased on the fuel card arrangement QP694.

Emissions conversions for fuel litres are then calculated using combustion emissions factors provided in the National Greenhouse Accounts Factors for each relevant financial year.

Hire car vehicle data is provided directly from Avis, Budget and Hertz to QTravel. This data includes kilometres travelled per lease event and the class of vehicle. Grams CO2 per km for each particular vehicle class are confirmed with the Green Vehicle Guide. Emissions conversions are then undertaken for each lease event and tallied per agency.

Hire car data is provided for both *passenger* and *commercial* vehicles from FY20/21 onwards. Previous FY reporting was not able to capture commercial vehicle hire data, therefore, FY17/18, FY18/19 and FY19/20 only includes passenger vehicle hire emissions.

No gas consumption information (liquified petroleum gas or liquified natural gas) has been provided by departments for inclusion in these datasets.

## ***Emissions (Air Travel)***

Air travel emissions data has been sourced through the WoG QTravel System (Corporate Travel Management) for all domestic and international flights that have been taken (service date, not booked/invoiced flights).

Carbon or GHG emissions figures for each passenger flight are calculated by CTM and provided to DEPW according to the methodology used by CTM.

The CTM methodology is based on advice from South Pole, which follows the UK Department for Business, Energy & Industrial Strategy (UK BEIS) 2018 methodology and the Greenhouse Gas Protocol (GHG) for determining flight emission factors and uses UK BEIS data to calculate flight distance definitions and flight emissions.

Flight emissions include adjustments for radiative forcing (RF), distance uplift and well-to-wing multipliers.

Emissions produced from other air travel sources are requested by DEPW for the purposes of accurate emissions reporting. These additional emissions may include the Police air wing and the Government air wing.

Emissions data for these additional sources may be updated between annual reporting periods.

Air travel emissions as reported **do not include charter flights**, as no accurate emissions data is available at the time of publishing.