# PUBLIC DISCLOSURE STATEMENT

BRISBANE CITY COUNCIL

ORGANISATION CERTIFICATION

FY2021-22

Australian Government

# Climate Active
# Public Disclosure Statement

Dedicated to a better Brisbane

An Australian Government Initiative

| | |
|---|---|
| NAME OF CERTIFIED ENTITY | Brisbane City Council |
| REPORTING PERIOD | 1 July 2021 – 30 June 2022 |
| DECLARATION | *To the best of my knowledge, the information provided in this public disclosure statement is true and correct and meets the requirements of the Climate Active Carbon Neutral Standard.*<br><br>Signed:<br>  |
| | Colin Jensen<br>Chief Executive Officer<br>Date: 31 January 2023 |

Australian Government
Department of Climate Change, Energy, the Environment and Water

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Version March 2022

# 1.CERTIFICATION SUMMARY

| | |
|---|---|
| TOTAL EMISSIONS OFFSET | 574,453 $tCO_2$-e |
| OFFSETS BOUGHT | 5% ACCUs, 95% VCUs |
| RENEWABLE ELECTRICITY | 100% |
| TECHNICAL ASSESSMENT | Date: 2 December 2022<br>Name: Charlie Knaggs<br>Organisation: Point Advisory<br>Next technical assessment due: 2025 |

## Contents

# 2.CARBON NEUTRAL INFORMATION

## Description of certification

Carbon neutral certification is for the business operations of Brisbane City Council (Council), ABN 72 002 765 795, and its subsidiaries.

Council achieved carbon neutrality for its operations in 2017 and obtained certification of its carbon neutral status under the Climate Active program in February 2018. This 2021-22 Public Disclosure Statement (2021-22 PDS) is Council's sixth annual report under the program and provides an update on progress made in 2021-22. It outlines the 2021-22 Carbon Inventory, changes from the 2016-17 base year, recently implemented emissions reduction measures, and details of the annual offset reconciliation.

*"Brisbane City Council is committed to a clean, green and sustainable Brisbane and is leading the transition to a low carbon city by taking responsibility for the emissions occurring as a result of our operations."*

## Organisation description

Located in South-East Queensland, Council is Australia's largest local government authority in terms of both population and budget. Spanning a geographic area of 1,342 square kilometres, Council provides a broad array of local government services for the city's 1.28 million residents, has an annual budget in the order of $3.2 billion and manages infrastructure and assets valued at $33.1 billion.

In 2021-22, Council provided the following services:

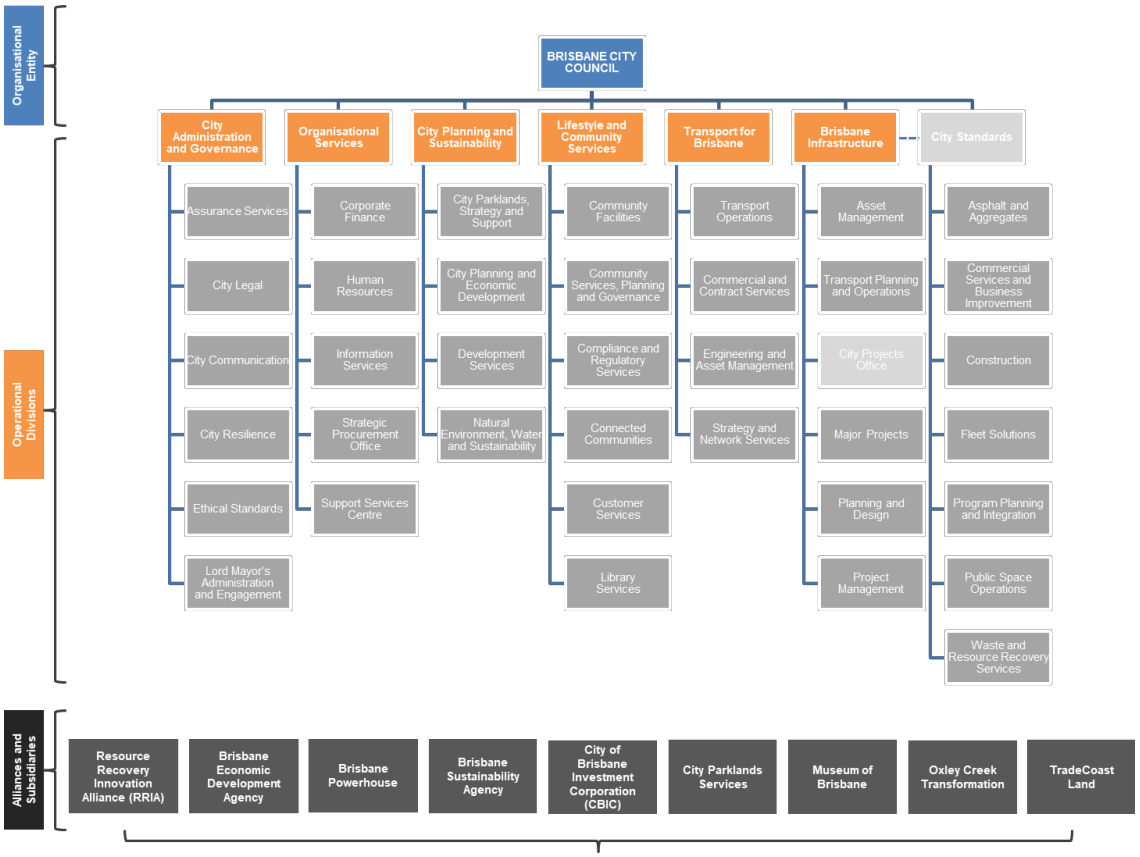
- land use planning and development assessment
- transport network development and maintenance
- operation of public transport services, including one of the largest bus fleets in Australia and the iconic CityCats and city ferry network
- waste management services, including operation of a landfill facility
- provision of on and off-street parking services
- development and maintenance of urban parks
- provision and management of arts and cultural facilities and events
- provision and maintenance of libraries, community halls and sports and recreational facilities
- street cleaning and graffiti removal
- animal management
- vaccination services
- mosquito and pest control and vegetation management
- disaster response and recovery
- flood risk management
- biodiversity conservation
- provision of green community programs and events.

The infrastructure and assets managed by Council in 2021-22 included:

- 2,187 parks, comprising 9,971 hectares of natural areas and 6,764 hectares of urban and sports parks
- 6,280 bus stops
- 30 community halls
- 4,986 kilometres of paths and walkways
- 92 wharves, jetties and pontoons
- 165 dog off-leash areas in parks
- 12 cemeteries and crematoria
- 34 libraries
- 8 cross river bridges
- 22 swimming pools
- 5,761 kilometres of road network
- 23 CityCat and 6 KittyCat ferries
- 1,267 buses
- 601 picnic grounds.

Council's organisational boundary has been defined in accordance with Section 2.3.1 of the *Climate Active Carbon Neutral Standard for Organisations* using an 'operational control' approach and includes all entities for which Council has the full authority to introduce or implement operating policies. These include Council's six operational divisions, the Resource Recovery Innovation Alliance (RRIA)[1] and eight wholly owned subsidiaries (see Diagram 1 below).

**Diagram 1: Organisational boundary**




In addition to the wholly owned subsidiaries, Council has part or shareholder interests in a number of other entities. However, as Council does not have operational control of these entities, they are excluded from the certification boundary. The excluded entities and Council's equity share are as follows:

- Brisbane Bus Build (50%)
- Brisbane Housing Company Ltd (9.1%)
- Major Brisbane Festivals (50%)
- Queensland Urban Utilities (85%)
- SEQ Regional Recreational Facilities (12.5%)
- Council of Mayors (SEQ) Pty Ltd (9.1%).

Table 1 below provides details of the subsidiary entities included within this certification.

[1] The RRIA is an alliance arrangement between Council and a third-party contractor for the innovative and environmentally sustainable management of Council's resource recovery centres and Rochedale landfill facility. The alliance was previously known as the Brisbane Waste Innovation Alliance.

**Table 1: Subsidiary entities included in the organisational boundary**

| Legal entity name | ABN | ACN |
|---|---|---|
| Brisbane Economic Development Agency Pty Ltd | 86 094 633 262 | N/A |
| Brisbane Powerhouse Pty Ltd | 18 091 551 290 | N/A |
| Brisbane Sustainability Agency Pty Ltd | 29 099 480 010 | N/A |
| City of Brisbane Investment Corporation (CBIC) Pty Ltd | 95 066 022 455 | N/A |
| City Parklands Services Pty Ltd | 72 068 043 318 | N/A |
| Museum of Brisbane Pty Ltd | 39 152 165 789 | N/A |
| Oxley Creek Transformation Pty Ltd | 47 084 763 253 | N/A |
| TradeCoast Land Pty Ltd | 15 111 428 212 | N/A |

# 3.EMISSIONS BOUNDARY

Council's 2021-22 Carbon Inventory was prepared in accordance with the *Climate Active Carbon Neutral Standard for Organisations* and relevant national legislation and international standards. These include:

- *National Greenhouse and Energy Reporting (Measurement) Determination 2008 (NGER Measurement Determination), Compilation No. 13, July 2021*
- *Greenhouse Gas (GHG) Protocol Corporate Accounting and Reporting Standard*, 2004
- *GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard*, 2011.

All direct emissions (scope 1) and indirect emissions from purchased electricity (scope 2) arising from the activities of the included entities have been identified and included within the emissions boundary. Other indirect supply chain emissions occurring as a result of the included entities' activities (scope 3) were considered by Council and have been included within the emissions boundary, where deemed to be relevant and material. There were no emissions generating activities associated with TradeCoast Land Pty Ltd in 2021-22. Emissions generated from activities undertaken by Oxley Creek Transformation Pty Ltd were captured within Brisbane Sustainability Agency's operational footprint[2].

The *GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard* was applied in the consideration of other scope 3 emissions sources. Council considered emissions from the 15 categories listed in Section 5.4 of the standard and sought to quantify emissions from all relevant sources. The following criteria were applied in determining the relevance of identified scope 3 emissions sources:

- the source is likely to be large relative to Council's fuel and electricity use
- the source has the potential to contribute to Council's greenhouse gas risk exposure
- the source is deemed to be relevant to key stakeholders
- Council has the potential to influence reductions from the source
- the source relates to emissions from outsourced activities previously performed in-house or activities outsourced by Council that are typically performed in-house by other local government authorities.

When assessing whether scope 3 emissions sources were large relative to Council's fuel and electricity use, a one percent threshold was applied.

Emissions of carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride ($SF_6$) were considered in preparing Council's carbon account. All emissions are accounted for in tonnes of carbon dioxide equivalent ($tCO_2$-e). No PFC or $SF_6$ emissions were identified in 2021-22.

## Inside the emissions boundary

All emission sources listed in the emissions boundary are included in Council's carbon neutral claim. **Quantified emissions** have been assessed as relevant and are quantified in the Carbon Inventory. **Partially quantified emissions** have been assessed as relevant and are captured within the emissions boundary but are not wholly measured (quantified) in the Carbon Inventory. Further detail is available at Appendix C.

## Outside the emissions boundary

**Excluded emissions** are those that have been assessed as not relevant to Council's operations and therefore fall outside of the emissions boundary and scope of the certification. These emissions are not part of Council's carbon neutral claim. Further detail is available at Appendix D.

[2] Oxley Creek Transformation Pty Ltd operated out of Brisbane Sustainability Agency's facilities in 2021-22.

**Diagram 2: Emissions boundary**

## Inside emissions boundary

### Quantified

Fuel combustion – stationary energy

Fuel combustion – transport

Fuel use – oils and greases

Fugitive emissions – landfill

Fugitive emissions – refrigerants

Electricity use – buildings and facilities

Electricity use – Council controlled streetlights

Asphalt production input materials

Business travel – accommodation

Business travel – flights

Business travel - taxis

Business travel – rental cars

Cleaning services

Construction materials and services

Downstream leased assets

Employee commuting

Employee work from home

Ferries and boats

Ferry operations

Food and catering

Green waste processing and transportation

Hired vehicles and equipment

Horticultural services

ICT applications and services

ICT equipment

Machinery and equipment

Motor vehicles

Mowing and tree maintenance services

Municipal waste transportation

Office supplies

Paper use

Postage, courier and freight

Printing and publications

Professional services

Quarry services

Third-party controlled streetlights

Transportation components and systems

Transportation repairs and maintenance

Venue hire

Waste

### Upstream leased assets – base building services

### Water use

## Outside emissions boundary

### Excluded

Fugitive emissions – landfill (closed prior to 2016)

Fugitive emissions – landfill gas management

Investments

Municipal waste disposal and third-party facilities

Office equipment

Other purchased good and services

## Data management plan for partially quantified emissions

There are no non-quantified sources in the emissions boundary that require a data management plan.

The following emissions sources are included in the emissions boundary, but were only partially accounted for in 2021-22, due to gaps in available data. The data management plan below outlines how more rigorous quantification can be achieved for partially quantified emissions sources.

**Table 2: Partially quantified emissions data management plan**

| Scope | Emissions source | Data management plan |
|---|---|---|
| 3 | Upstream leased assets – base building services | Council and its subsidiaries occupy 20 leased facilities where base building services are provided by the lessor. In 2021-22, emissions have been quantified for nine Council facilities, including the primary tenancy at Brisbane Square, 69 Ann Street and facilities occupied by Brisbane Economic Development Agency, City Parklands Services Pty Ltd and Brisbane Sustainability Agency.<br><br>Data will continue to be sought from all existing lessors on a voluntary basis to enable more comprehensive quantification in future carbon accounts. Where possible, new upstream leases will include provisions for annual data reporting requirements. |
| 3 | Water use | Water consumption data is currently available and associated emissions have been quantified for all Council owned facilities and 28 of 49 upstream leased sites.<br><br>Data will continue to be sought from all existing lessors on a voluntary basis to enable more comprehensive quantification in future carbon accounts. Where possible, new upstream leases will include provisions for annual data reporting requirements. |

In addition, Council is continuing to rely on expenditure data and emissions factors developed using generalized input-out analysis[3] to estimate emissions associated with several scope 3 sources, including construction materials and services. While the input-output factors are expected to generate conservative estimates of emissions associated with these sources, Council is working to improve the accuracy of its emissions calculations by moving to alternative activity-based methods, where available.

[3] Input-output factors represent the emissions intensity of a dollar spent in a particular sector of the Australian economy and are derived from Australian Bureau of Statistics (ABS) data for total sector emissions and expenditure.

# 4.EMISSIONS REDUCTIONS

## Emissions reduction strategy

Council is contributing to global efforts to reduce greenhouse gas emissions and mitigate the impacts of climate change through its carbon neutral commitment. To ensure we play out part, Council is committed to reducing our operational carbon footprint by at least 30% on 2016-17 levels by 2031-32 and aspires to 30% plus. In the longer term, Council is committed to achieving net zero emissions for our operations by 2050.

Council is working to continually reduce our operational greenhouse gas emissions by considering the emissions impact of all investment, procurement and operational decisions, including those relating to:

- constructing, purchasing, leasing, operating and maintaining infrastructure, buildings and facilities
- purchasing electricity and fuel
- purchasing goods and services
- purchasing, operating and maintaining plant, equipment and vehicles
- delivering municipal waste management and public transportation services
- managing and protecting the city's natural assets.

Council's *Emissions Reduction Strategy 2022-23 to 2027-28* (Emissions Reduction Strategy) outlines priority activities to be implemented over the next five years. These include enabling energy efficient behaviour by employees, adopting low or zero carbon technologies and processes, purchasing electricity from renewable energy sources, installing renewable energy generation systems and switching to less emissions-intensive fuels, goods or services.

Council will continue to monitor annual progress against the Emissions Reduction Strategy and periodically review its emissions reduction commitments, with a view to increasing ambition over time, as new opportunities emerge.

## Emissions reduction actions

Since achieving carbon neutral certification in 2016-17, Council has made significant progress in the delivery of energy efficiency and emissions reduction projects, including:

- retrofitting more than 25,000 streetlights with energy efficient lamps and ensuring all new and replacement lamps in street and other public lighting applications are LEDs, where possible
- installing over 3 megawatts (MW) of solar photovoltaic (PV) systems across 88 sites, bringing total installed capacity to 3.27 megawatts (MW) in 2021-22
- including electric vehicles in Council's passenger fleet, ensuring all new buses utilise new generation, high-efficiency Enhanced Environmentally-friendly Vehicle (EEV) diesel engine technology, and trialling four fully electric buses on the popular City Loop route
- piloting eco-driving training with 370 Council bus drivers
- diverting organic waste from landfill through a dedicated green waste collection service, the Love Food Hate Waste campaign and launch of community composting hubs at 23 locations across the city
- utilising recycled asphalt to reduce requirements for bitumen and aggregate in asphalt production
- upgrading the heating system and insulation in the storage bins at the Eagle Farm asphalt plant, reducing energy consumed in maintaining the temperature of asphalt produced prior to delivery.

In addition, over the 18 years from 2003 to June 2022, Council purchased more than 1,100,000 megawatt hours (MWh) of electricity from renewable energy sources, reducing its greenhouse gas emissions by more than 989,000 $tCO_2$-e[4], and purchased and cancelled around 4.5 million carbon offsets.

In 2021-22, Council implemented the following emissions reduction measures:

- purchased 44,881 MWh of electricity from renewable energy sources
- installed 388 kilowatts (kW) of solar PV systems on 18 community leased facilities
- ongoing utilisation of recycled asphalt, reducing bitumen and aggregate used in asphalt production.

[4] Includes full fuel cycle emissions, i.e. scope 2 emissions associated with grid electricity generation and scope 3 emissions associated with energy extraction, production and transportation (E,P&T).

The table below provides a summary of the estimated annual emissions reductions achieved as a result of measures implemented in 2021-22.

**Table 3: Emissions reduction actions**

| Scope | Emissions source | Action undertaken | Annual emissions reduction ($tCO_2$-e) |
|---|---|---|---|
| 1, 3 | Fuel combustion – transport | Replaced four diesel buses operating on the City Loop service over 12 months to 30 June 2022 with fully electric buses powered by renewable energy | 140 |
| 2, 3 | Electricity – buildings and facilities | Purchased 5,307 MWh of accredited GreenPower and purchased and voluntarily surrendered 39,574 Large-scale Generation Certificates (LGCs) | 44,656 |
| 2, 3 | Electricity – buildings and facilities | Installed 388 kW solar PV systems at 18 community leased facilities | 593 |
| 3 | Asphalt production input materials | Utilised recycled asphalt, reducing bitumen and aggregate used in asphalt production | 1,245 |
| **Total annual emissions reduction** | | | **46,634** |

# 5.EMISSIONS SUMMARY

## Emissions over time

**Table 4: Emissions since base year**

| Reporting period | | Total emissions ($tCO_2$-e) |
|---|---|---|
| Base year/year 1: | 2016-17 | 623,659* |
| Year 2: | 2017-18 | 635,352 |
| Year 3: | 2018-19 | 589,615 |
| Year 4: | 2019-20 | 596,882 |
| Year 5: | 2020-21 | 520,075 |
| Year 6: | 2021-22 | 574,453 |

* Base year emissions were re-calculated in 2021-22 to reflect improvements in data and changes in quantification methodologies since 2016-17. See following section for details.

## Significant changes in emissions

The following table outlines significant changes in the 2021-22 carbon footprint.

**Table 5: Changes in emissions from previous year**

| Emissions source | Current year emissions ($tCO_2$-e) | Previous year emissions ($tCO_2$-e) | Reason for change |
|---|---|---|---|
| Downstream leased assets | 34,597 | 24,031 | Emissions for this source have been partially quantified in previous years using activity data provided by lessees. With improved data coverage over time, 2021-22 activity data has been extrapolated to provide an estimate of emissions for the full portfolio. |
| Electricity – third-party controlled streetlights | 35,529 | 38,949 | Energy improvements by service provider. |

In 2021-22, Council also re-calculated its base year inventory to reflect improvements in data and changes in quantification methodologies since 2016-17. While the overall impact of these changes has been small, with a 3% reduction from the initial reported footprint of 644,039 $tCO_2$-e to a revised footprint estimate of 623,659 $tCO_2$-e, there have been significant changes in some individual emissions sources. Material changes (greater than 5%) are outlined in Table 6 below.

**Table 6: Changes in base year emissions**

| Emissions source | Re-calculated base year emissions ($tCO_2$-e) | Previous base year emissions ($tCO_2$-e) | Reason for change |
|---|---|---|---|
| Fugitive emissions – landfill | 175,897 | 157,051 | Increased Global Warming Potential (GWP) for methane. |
| Electricity use – buildings and facilities | 26,261 | 49,404 | Adoption of the market-based method for electricity accounting. |
| Asphalt production input materials | 7,009 | 4,265 | Adoption of updated emissions factors. |
| Downstream leased assets | 35,503 | 9,808 | Emissions for this source were partially quantified in 2016-17 using activity data provided by lessees. With improved data coverage over time, 2021-22 activity data has been used to provide an estimate of emissions for the full portfolio. |
| Employee commuting | 13,832 | 7,701 | Inclusion of data for subsidiaries and adoption of latest Climate Active emissions factors. |
| Energy Extraction, Production and Transportation (E, P&T) | 0 | 21,740 | Emissions for this source are now included in the emissions estimates for fuel combustion and electricity use. |
| Hired vehicles and equipment | 9,359 | 27,086 | Adoption of latest Climate Active emissions factors. |
| Horticultural services | 2,155 | 13,429 | Removal of tree maintenance emissions and adoption of latest Climate Active emissions factors. Tree maintenance services are reported separately with mowing services and quantified using activity data. |
| ICT equipment | 2,604 | 10,480 | Adoption of latest Climate Active emissions factors. |
| Machinery and equipment | 1,903 | 0 | Emissions from this source were previously excluded on the basis of immateriality but have more recently been included in Council's emissions boundary. |
| Motor vehicles | 7,773 | 4,718 | Adoption of latest Climate Active emissions factors. |
| Postage, courier and freight | 1,507 | 238 | Inclusion of missing data and adoption of latest Climate Active emissions factors. |
| Printing and publications | 1,889 | 3,237 | Adoption of latest Climate Active emissions factors. |

| Emissions source | Re-calculated base year emissions ($tCO_2$-e) | Previous base year emissions ($tCO_2$-e) | Reason for change |
|---|---|---|---|
| Professional services | 10,954 | 14,663 | Adoption of latest Climate Active emissions factors. |
| Quarry services | 1,590 | 6,168 | Emissions were previously quantified using expenditure data and have been re-calculated using activity data provided in subsequent reporting periods. |
| Third party-controlled streetlights | 40,951 | 34,720 | Inclusion of E, P&T emissions for scope 3 emissions sources and adoption of market-based method for electricity accounting. |
| Transportation components and systems | 3,618 | 23,467 | Previously reported emissions included spend on fuel, which has now been excluded from the emissions estimate. Fuel use emissions are reported separately. Adoption of latest Climate Active emissions factors has also contributed to the reduction in emissions. |
| Transport repairs and maintenance | 2,184 | 6,760 | Adoption of latest Climate Active emissions factors. |
| Upstream leased assets – base building | 2,881 | 64 | Emissions for this source continue to be partially quantified but data coverage has improved over time enabling a more comprehensive emissions estimate. |
| Waste | 5,787 | 7,572 | Adoption of latest Climate Active emissions factors for recycling. |
| Water | 1,898 | 626 | Adoption of latest Climate Active emissions factors. |

## Use of Climate Active carbon neutral products and services

**Table 7: Climate Active carbon neutral products and services**

| Certified brand name | Product or service used |
|---|---|
| N/A | |

## Organisation emissions summary

The electricity summary is available in the Appendix B. Electricity emissions were calculated using a market-based approach.

**Table 7: Emissions summary**

| Scope | Emissions category | Emissions ($tCO_2$-e) |
|---|---|---|
| 1, 3 | Fuel combustion – stationary energy | 11,650 |
| 1, 3 | Fuel combustion - transport | 109,607 |
| 1, 3 | Fuel use – oils and greases | 93 |
| 1 | Fugitive emissions – landfill | 117,989 |
| 1 | Fugitive emissions – refrigerants | 3,297 |
| 2, 3 | Electricity use – buildings and facilities | 0 |
| 2, 3 | Electricity use – Council controlled streetlights | 0 |
| 3 | Asphalt production input materials | 8,287 |
| 3 | Business travel – accommodation | 14 |
| 3 | Business travel – flights | 158 |
| 3 | Business travel – rental cars | 1 |
| 3 | Business travel – taxis | 6 |
| 3 | Cleaning services | 1,523 |
| 3 | Construction materials and services | 130,455 |
| 3 | Downstream leased assets | 34,597 |
| 3 | Employee commuting | 12,476 |
| 3 | Employee work from home | 508 |
| 3 | Ferries and boats | 1,294 |
| 3 | Ferry operations | 5,729 |
| 3 | Food and catering | 384 |
| 3 | Green waste processing and transportation | 1,688 |
| 3 | Hired vehicles and equipment | 10,271 |
| 3 | Horticultural services | 2,622 |
| 3 | ICT applications and services | 12,217 |
| 3 | ICT equipment | 3,418 |

| Scope | Emissions category | Emissions ($tCO_2$-e) |
|---|---|---|
| 3 | Machinery and equipment | 3,127 |
| 3 | Motor vehicles | 6,540 |
| 3 | Mowing and tree maintenance services | 3,306 |
| 3 | Municipal waste transportation | 12,169 |
| 3 | Office supplies | 392 |
| 3 | Paper use | 122 |
| 3 | Postage, courier and freight | 1,662 |
| 3 | Printing and publications | 2,012 |
| 3 | Professional services | 13,563 |
| 3 | Quarry services | 1,435 |
| 3 | Third party-controlled streetlights | 35,529 |
| 3 | Transportation components and systems | 5,761 |
| 3 | Transportation repairs and maintenance | 1,463 |
| 3 | Upstream leased assets – base building | 2,618 |
| 3 | Venue hire | 390 |
| 3 | Waste | 14,509 |
| 3 | Water use | 1,572 |
| **Total emissions** | | **574,453** |

## Uplift factors

An uplift factor is an upwards adjustment to the total carbon inventory to account for relevant emissions, which can't be reasonably quantified or estimated. This conservative accounting approach helps ensure the integrity of the carbon neutral claim.

**Table 8: Uplift factors**

| Reason for uplift factor | Emissions ($tCO_2$-e) |
|---|---|
| N/A – no uplift factors have been applied | 0 |
| **Total footprint to offset** *(total emissions from summary table plus uplift)* | **574,453** |

# 6.CARBON OFFSETS

## Offsets retirement approach

**Table 9: Offset retirement summary**

| Offsets retirement approach: forward purchasing | |
|---|---|
| 1. Total eligible offsets forward purchased and retired in last year's report | 570,147 |
| 2. Total emissions footprint to offset for this report | 574,453 |
| 3. Total eligible offsets retired and used for this report | 4,306 |
| 4. Total eligible offsets forward purchased and retired for next year's report | 577,996 |
| 5. Total eligible offsets forward purchased and retired for next year's report plus any remaining banked offsets to be carried over | 582,302 |

Council forward purchases and cancels carbon offsets at the beginning of each reporting period. Forward purchases are based on the final carbon inventory for the previous year, with adjustments to account for any projected changes in the emissions profile in the reporting period.

A 'true-up' occurs following finalisation of the carbon inventory for the financial year, with any surplus offsets carried over for use in the subsequent reporting period. In the event that Council underestimates its emissions, additional offsets will be purchased and retired to cover the shortfall. Details of any carryover or shortfall will be included in the Public Disclosure Statement for the subsequent reporting period.

Council takes delivery of carbon offset units in its own public registry accounts, wherever possible. In this case, units are retired as allocated for use in a given reporting period. Where Council does not have an account in the registry that holds the particular type of carbon offset units purchased, the units may be transferred into the supplier's registry account and retired by the supplier on Council's behalf. In these instances, retirement is to occur at the time of purchase. Council maintains an internal record of its carbon offset holdings, including status, registry accounts and the reporting period to which the units are allocated.

Council considers the following criteria when undertaking carbon offset purchases:

- **Climate Active eligible** – all purchased offsets must be eligible for use under the Climate Active Carbon Neutral Standard for Organisations
- **Cost** – all purchased offsets are to represent value for money in line with Council's procurement principles, measured by price as well as merit against other criteria
- **Potential negative impacts** – any offset projects with negative economic, social, or environmental outcomes are to be avoided
- **Locati**on – it is desirable to purchase some offsets from local or Australian projects
- **Technology** – consideration is to be given to the technology applied in the offset project with a view to broadening the offset portfolio to include a range of technologies and spread investment risk
- **Positive impacts** – Council will favour offset projects that have a positive economic, social or environmental impact or provide co-benefits.

Council will only purchase offsets where it can be verified that the emissions reductions have occurred.

## 2021-22 offsets and forward purchase

Council forward purchased and banked 570,147 offset units to negate forecast 2021-22 emissions.

As Council's final 2021-22 carbon inventory resulted in a higher than forecast carbon footprint of 574,453 $tCO_2$-e, an additional 4,306 units have been retired for use in this reporting period.

Council's carbon footprint is forecast to increase to 577,996 $tCO_2$-e in 2022-23 and equivalent units have been forward purchased and banked to cover emissions in this period.

Offset units retired to negate Council's 2021-22 emissions and banked for use in 2022-23 are detailed in the offsets summary table below.

## Co-benefits

The following table provides a summary of the co-benefits provided by the offset projects support by Council in 2021-22.

**Table 10: Offset co-benefits**

| Project name and location | Proportion of offsets (%) | Co-benefits |
|---|---|---|
| Savannah burning projects, Queensland, Australia | 1.3% | • Protects local environment, cultural sites, infrastructure and communities from devastating bushfires.<br>• Supports local economic development including job creation within remote aboriginal communities. |
| Revegetation and Human Induced Revegetation projects, Queensland, Australia | 3.7% | • Support improved local environmental outcomes, including increased biodiversity and habitat value and mitigation of soil erosion and salinity risk. |

## Eligible offsets retirement summary

**Table 11: Offsets cancelled for Climate Active carbon neutral certification**

| Project description | Type of offset units | Registry | Date retired | Serial numbers[5] | Vintage | Stapled quantity | Eligible quantity ($tCO_2$-e) | Eligible quantity used for previous reporting periods | Eligible quantity banked for future reporting periods | Eligible quantity used for this reporting period | Percentage of total (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Queensland savannah burning project (ERF104944) | ACCU | ANREU | 22 Sep 2021 | 3,786,658,386 - 3,786,659,645 | 2019-20 | | 1,260 | | | 1,260 | 0.2% |
| Queensland savannah burning project (ERF104944) | ACCU | ANREU | 28 Oct 2020 | 3,786,643,386 - 3,786,658,367 | 2019-20 | | 14,982 | 11,615 | | 3,367 | 0.6% |
| Queensland savannah burning project (ERF104944) | ACCU | ANREU | 22 Sep 2021 | 3,786,658,368 - 3,786,658,385 | 2019-20 | | 18 | | | 18 | 0.003% |
| Queensland savannah burning project (ERF104944) | ACCU | ANREU | 22 Sep 2021 | 3,786,669,685 - 3,786,672,324 | 2019-20 | | 2,640 | | | 2,640 | 0.5% |
| Yarronvale human-induced regeneration project (ERF118295) | ACCU | ANREU | 22 Sep 2021 | 3,789,856,421 - 3,789,866,420 | 2019-20 | | 10,000 | | | 10,000 | 1.7% |

[5] Includes a hyperlink to registry transaction record, where units are held in a publicly accessible registry. Evidence of ACCU surrender is included in Appendix E.

| Project description | Type of offset units | Registry | Date retired | Serial numbers[5] | Vintage | Stapled quantity | Eligible quantity ($tCO_2$-e) | Eligible quantity used for previous reporting periods | Eligible quantity banked for future reporting periods | Eligible quantity used for this reporting period | Percentage of total (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Energising India using solar energy projects | VCU | Verra | 28 Oct 2020 | 7387-391257725-391357724-VCU-034-APX-IN-1-1931-01012019-30062019-0 | 2019 | | 100,000 | 36,023 | | 63,977 | 11.1% |
| Norley regeneration project | ACCU | ANREU | 22 Sep 2021 | 3,792,800,957 - 3,792,802,090 | 2019-20 | | 1,134 | | | 1,134 | 0.2% |
| Norley regeneration project | ACCU | ANREU | 22 Sep 2021 | 3,792,800,889 - 3,792,800,956 | 2019-20 | | 68 | | | 68 | 0.01% |
| Solar PV power project by Prayatna Developers Pvt Ltd | VCU | Verra | 22 Sep 2021 | 8257-5502353-5503161-VCS-VCU-997-VER-IN-1-1782-17092016-31122016-0 | 2016 | | 809 | | | 809 | 0.1% |
| Solar PV power project by Prayatna Developers Pvt Ltd | VCU | Verra | 22 Sep 2021 | 8255-5501194-5502018-VCS-VCU-997-VER-IN-1-1782-01012018-03072018-0 | 2018 | | 825 | | | 825 | 0.1% |
| Solar PV power project by Prayatna Developers Pvt Ltd | VCU | Verra | 22 Sep 2021 | 8256-5502019-5502352-VCS-VCU-997-VER-IN-1-1782-01012017-31122017-0 | 2017 | | 334 | | | 334 | 0.1% |

| Project description | Type of offset units | Registry | Date retired | Serial numbers[5] | Vintage | Stapled quantity | Eligible quantity ($tCO_2$-e) | Eligible quantity used for previous reporting periods | Eligible quantity banked for future reporting periods | Eligible quantity used for this reporting period | Percentage of total (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Hyundai project | VCU | Verra | 22 Sep 2021 | 9032-62332762-62494949-VCS-VCU-260-VER-KR-1-786-01012017-30062017-0 | 2017 | | 162,188 | | | 162,188 | 28.2% |
| Shandong Laiwu landfill gas recovery and power generation project | VCU | Verra | 22 Sep 2021 | 9149-70890187-70919718-VCS-VCU-997-VER-CN-13-2260-01012018-31122018-0 | 2018 | | 29,532 | | | 29,532 | 5.1% |
| Shandong Laiwu landfill gas recovery and power generation project | VCU | Verra | 27 Sep 2021 | 9149-70919719-70919722-VCS-VCU-997-VER-CN-13-2260-01012018-31122018-0 | 2018 | | 4 | | | 4 | 0.001% |
| Shandong Laiwu landfill gas recovery and power generation project | VCU | Verra | 22 Sep 2021 | 9150-70954631-71021263-VCS-VCU-997-VER-CN-13-2260-01012017-31122017-0 | 2017 | | 66,633 | | | 66,633 | 11.6% |

| Project description | Type of offset units | Registry | Date retired | Serial numbers[5] | Vintage | Stapled quantity | Eligible quantity ($tCO_2$-e) | Eligible quantity used for previous reporting periods | Eligible quantity banked for future reporting periods | Eligible quantity used for this reporting period | Percentage of total (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Shandong Laiwu landfill gas recovery and power generation project | VCU | Verra | 22 Sep 2021 | 9147-70821264-70859900-VCS-VCU-997-VER-CN-13-2260-01012016-31122016-0 | 2016 | | 38,637 | | | 38,637 | 6.7% |
| Wiralla regeneration project | ACCU | ANREU | 22 Sep 2021 | 3,799,095,019 - 3,799,096,400 | 2019-20 | | 1,382 | | | 1,382 | 0.2% |
| Wiralla regeneration project | ACCU | ANREU | 22 Sep 2021 | 3,799,096,401 - 3,799,105,038 | 2019-20 | | 8,638 | | | 8,638 | 1.5% |
| CECIC Gansu Yumen Changma no.3 wind farm project | VCU | Verra | 22 Sep 2021 | 8898-52689947-52689951-VCS-VCU-997-VER-CN-1-728-01012017-31122017-0 | 2017 | | 5 | | | 5 | 0.001% |
| CECIC Gansu Yumen Changma no.3 wind farm project | VCU | Verra | 22 Sep 2021 | 8898-52689952-52739946-VCS-VCU-997-VER-CN-1-728-01012017-31122017-0 | 2017 | | 49,995 | | | 49,995 | 8.7% |
| Mersin wind farm | GSVER | GSIR | 22 Sep 2021 | GS1-1-TR-GS753-12-2017-7210-962-48055 | 2017 | | 47,094 | | | 47,094 | 8.2% |

| Project description | Type of offset units | Registry | Date retired | Serial numbers[5] | Vintage | Stapled quantity | Eligible quantity ($tCO_2$-e) | Eligible quantity used for previous reporting periods | Eligible quantity banked for future reporting periods | Eligible quantity used for this reporting period | Percentage of total (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mersin wind farm | GSVER | GSIR | 22 Sep 2021 | GS1-1-TR-GS753-12-2016-7211-1666-18922 | 2016 | | 17,257 | | | 17,257 | 3.0% |
| Mersin wind farm | GSVER | GSIR | 22 Sep 2021 | GS1-1-TR-GS753-12-2016-7211-18923-83272 | 2016 | | 64,350 | | | 64,350 | 11.2% |
| Engenheiro Ernesto Jorge Dreher and Engenheiro Henrique Kotzian SHPs VCS project | VCU | Verra | 6 Dec 2022 | 11575-341211301-341215606-VCS-VCU-291-VER-BR-1-708-01012017-31122017-0 | 2017 | | 4,306 | | | 4,306 | 0.7% |
| Wiralla regeneration project | ACCU | ANREU | 5 Dec 2022 | 3,799,105,039 - 3,799,107,906 | 2019-20 | | 2,868 | | 2,868 | | 0.5% |
| Pingine regeneration project | ACCU | ANREU | 5 Dec 2022 | 3,804,734,887 - 3,804,743,328 | 2020-21 | | 8,442 | | 8,442 | | 1.5% |
| AACo beef cattle herd management project | ACCU | ANREU | 5 Dec 2022 | 8,340,002,336 - 8,340,015,449 | 2021-22 | | 13,114 | | 13,114 | | 2.3% |
| Piccaninny Plains carbon abatement project | ACCU | ANREU | 5 Dec 2022 | 8,330,152,237 - 8,330,156,712 | 2021 | | 4,476 | | 4,476 | | 0.8% |

| Project description | Type of offset units | Registry | Date retired | Serial numbers[5] | Vintage | Stapled quantity | Eligible quantity ($tCO_2$-e) | Eligible quantity used for previous reporting periods | Eligible quantity banked for future reporting periods | Eligible quantity used for this reporting period | Percentage of total (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Solar PV power project by Prayatna Developers Pvt Ltd | VCU | Verra | 6 Dec 2022 | 8254-5474051-5501193-VCS-VCU-997-VER-IN-1-1782-01012019-03012020-0 | 2019 | | 27,143 | | 27,143 | | 4.7% |
| Shandong Laiwu landfill gas recovery and power generation project | VCU | Verra | 6 Dec 2022 | 9148-70859901-70890186-VCS-VCU-997-VER-CN-13-2260-01012019-31122019-0 | 2019 | | 30,286 | | 30,286 | | 5.2% |
| Shandong Laiwu landfill gas recovery and power generation project | VCU | Verra | 6 Dec 2022 | 9149-70919723-70954630-VCS-VCU-997-VER-CN-13-2260-01012018-31122018-0 | 2018 | | 34,908 | | 34,908 | | 6.0% |
| Guohua Wulate Zhongqi Chuanjing phase II wind farm project | VCU | Verra | 6 Dec 2022 | 7651-417224191-417274190-VCU-034-APX-CN-1-1200-01012019-31102019-0 | 2019 | | 50,000 | | 50,000 | | 8.7% |
| Guohua Rongcheng phase II wind farm project | VCU | Verra | 6 Dec 2022 | 8017-447964956-448014955-VCU-034-APX-CN-1-1301-01012019-30112019-0 | 2019 | | 50,000 | | 50,000 | | 8.7% |

| Project description | Type of offset units | Registry | Date retired | Serial numbers[5] | Vintage | Stapled quantity | Eligible quantity ($tCO_2$-e) | Eligible quantity used for previous reporting periods | Eligible quantity banked for future reporting periods | Eligible quantity used for this reporting period | Percentage of total (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| VCS grouped project for renewable power generation by Essel Mining and Industries Limited | VCU | Verra | 6 Dec 2022 | 12155-392103333-392175112-VCS-VCU-999-VER-IN-1-1497-21022020-31122020-0 | 2020 | | 71,780 | | 71,780 | | 12.4% |
| Ningxia Xiangshan wind farm project | VCU | Verra | 6 Dec 2022 | 10430-214231645-214281644-VCS-VCU-997-VER-CN-1-1867-01032020-31122020-0 | 2020 | | 50,000 | | 50,000 | | 8.7% |
| Ningxia Xiangshan wind farm project | VCU | Verra | 6 Dec 2022 | 10430-214281645-214306644-VCS-VCU-997-VER-CN-1-1867-01032020-31122020-0 | 2020 | | 25,000 | | 25,000 | | 4.3% |
| Ningxia Xiangshan wind farm project | VCU | Verra | 6 Dec 2022 | 10430-214536024-214546023-VCS-VCU-997-VER-CN-1-1867-01032020-31122020-0 | 2020 | | 10,000 | | 10,000 | | 1.7% |

| Project description | Type of offset units | Registry | Date retired | Serial numbers[5] | Vintage | Stapled quantity | Eligible quantity ($tCO_2$-e) | Eligible quantity used for previous reporting periods | Eligible quantity banked for future reporting periods | Eligible quantity used for this reporting period | Percentage of total (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ningxia Xiangshan wind farm project | VCU | Verra | 6 Dec 2022 | 10430-214374839-214414838-VCS-VCU-997-VER-CN-1-1867-01032020-31122020-0 | 2020 | | 40,000 | | 40,000 | | 6.9% |
| Renewable solar power project by Shapoorji Pallonji | VCU | Verra | 6 Dec 2022 | 8599-33108282-33178281-VCS-VCU-1491-VER-IN-1-1976-18042018-31122018-0 | 2018 | | 70,000 | | 70,000 | | 12.1% |
| Chol Charoen Group wastewater treatment with biogas system I (Cholburi) | VCU | Verra | 6 Dec 2022 | 13302-489603516-489610515-VCS-VCU-842-VER-TH-13-430-01012020-02032020-0 | 2020 | | 7,000 | | 7,000 | | 1.2% |
| Chol Charoen Group wastewater treatment with biogas system I (Cholburi) | VCU | Verra | 6 Dec 2022 | 13303-489611078-489611887-VCS-VCU-842-VER-TH-13-430-03032020-31122020-0 | 2020 | | 810 | | 810 | | 0.1% |

| Project description | Type of offset units | Registry | Date retired | Serial numbers[5] | Vintage | Stapled quantity | Eligible quantity ($tCO_2$-e) | Eligible quantity used for previous reporting periods | Eligible quantity banked for future reporting periods | Eligible quantity used for this reporting period | Percentage of total (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CYY Global Plus wastewater treatment and biogas utilization project | VCU | Verra | 6 Dec 2022 | 13286-489200111-489215118-VCS-VCU-1531-VER-TH-13-2296-15092019-31122019-0 | 2019 | | 15,008 | | 15,008 | | 2.6% |
| Guangxi Longan biomass power project | VCU | Verra | 6 Dec 2022 | 13310-490777328-490807327-VCS-VCU-785-VER-CN-1-1972-01062020-31122020-0 | 2020 | | 30,000 | | 30,000 | | 5.2% |
| Engenheiro Ernesto Jorge Dreher and Engenheiro Henrique Kotzian SHPs VCS Project | VCU | Verra | 6 Dec 2022 | 11575-341215607-341221300-VCS-VCU-291-VER-BR-1-708-01012017-31122017-0 | 2017 | | 5,694 | | 5,694 | | 1.0% |

| Project description | Type of offset units | Registry | Date retired | Serial numbers[6] | Vintage | Stapled quantity | Eligible quantity ($tCO_2$-e) | Eligible quantity used for previous reporting periods | Eligible quantity banked for future reporting periods | Eligible quantity used for this reporting period | Percentage of total (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CYY Global Plus wastewater treatment and biogas utilization project | VCU | Verra | 6 Dec 2022 | 13285-489158419-489189885-VCS-VCU-1531-VER-TH-13-2296-01012020-31052020-0 | 2020 | | 31,467 | | 31,467 | | 5.4% |
| **Total offsets retired this report and used in this report** | | | | | | | | | | **574,453** | |
| **Total offsets retired this report and banked for future reports** | | | | | | | | | **577,996** | | |

**Table 12: Type of offset units used for this reporting period claim**

| Type of offset units | Quantity used for this reporting period claim ($tCO_2$-e) | Percentage of total (%) |
|---|---|---|
| Australian Carbon Credit Units (ACCUs) | 28,507 | 5% |
| Verified Carbon Units (VCUs) | 417,245 | 73% |
| Verified Emissions Reductions (VERs) | 128,701 | 22% |

[6] Includes a hyperlink to registry transaction record, where units are held in a publicly accessible registry. Evidence of ACCU retirement is included in Appendix E.

# 7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

## Renewable Energy Certificate (REC) summary

The following RECs have been voluntarily surrendered to reduce electricity emissions under the market-based reporting method.

**Table 13: REC summary**

| | |
|---|---|
| **1. Large-scale Generation Certificates (LGCs)*** | 39,574 |
| **2. Other RECs** | 0 |

* LGCs in this table only include those surrendered voluntarily (including through Power Purchase Agreement arrangements) and does not include those surrendered in relation to the Large-scale Renewable Energy Target (LRET), GreenPower and jurisdictional renewables.

**Table 14: RECs surrendered to reduce emissions**

| Project description | Type of units | Registry | Date surrendered | Accreditation code (LGCs) | Serial numbers[7] | Generation year | Quantity (MWh) | Fuel source | Location |
|---|---|---|---|---|---|---|---|---|---|
| Bannerton Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVVCB9 | 46463-49626 | 2021 | 3,164 | Solar | VIC |
| Visy WW Biomass Generator No 1 | LGC | REC-Registry | 8 Dec 2022 | BEBMVC02 | 2525-3313 | 2021 | 789 | Biomass | VIC |
| Visy WW Biomass Generator No 1 | LGC | REC-Registry | 8 Dec 2022 | BEBMVC02 | 1683-2524 | 2021 | 842 | Biomass | VIC |
| Lady Glenmaggie Hydro-electric | LGC | REC-Registry | 8 Dec 2022 | HYMIVC03 | 2514-3087 | 2020 | 574 | Hydro | VIC |

[7] Evidence of REC surrender is included in Appendix F.

| Project description | Type of units | Registry | Date surrendered | Accreditation code (LGCs) | Serial numbers[7] | Generation year | Quantity (MWh) | Fuel source | Location |
|---|---|---|---|---|---|---|---|---|---|
| Lady Glenmaggie Hydro-electric | LGC | REC-Registry | 8 Dec 2022 | HYMIVC03 | 1762-1923 | 2020 | 162 | Hydro | VIC |
| The Drop Hydro-electric | LGC | REC-Registry | 8 Dec 2022 | HYMINS09 | 1322-1348 | 2020 | 27 | Hydro | NSW |
| Transpacific LFG | LGC | REC-Registry | 8 Dec 2022 | BEBGVC10 | 10936-15434 | 2022 | 4,499 | Landfill gas | VIC |
| Woolworths Griffith North 1156 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPXNS11 | 107-139 | 2021 | 33 | Solar | NSW |
| Woolworths Griffith North 1156 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPXNS11 | 69-106 | 2021 | 38 | Solar | NSW |
| Woolworths Griffith North 1156 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPXNS11 | 39-68 | 2021 | 30 | Solar | NSW |
| Woolworths Griffith North 1156 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPXNS11 | 16-38 | 2021 | 23 | Solar | NSW |
| Woolworths Griffith North 1156 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPXNS11 | 42005 | 2021 | 15 | Solar | NSW |
| Woolworths Brighton 5798 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVSAL4 | 41760 | 2021 | 10 | Solar | SA |
| Woolworths Brighton 5798 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVSAL4 | 4 | 2021 | 1 | Solar | SA |
| Woolworths Brighton 5798 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVSAL4 | 3 | 2021 | 1 | Solar | SA |

| Project description | Type of units | Registry | Date surrendered | Accreditation code (LGCs) | Serial numbers[7] | Generation year | Quantity (MWh) | Fuel source | Location |
|---|---|---|---|---|---|---|---|---|---|
| Woolworths Brighton 5798 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVSAL4 | 2 | 2021 | 1 | Solar | SA |
| Woolworths Brighton 5798 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVSAL4 | 1 | 2021 | 1 | Solar | SA |
| Woolworths Christies Beach 5739 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVSAL2 | 247-283 | 2021 | 37 | Solar | SA |
| Woolworths Christies Beach 5739 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVSAL2 | 213-246 | 2021 | 34 | Solar | SA |
| Woolworths Christies Beach 5739 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVSAL2 | 186-212 | 2021 | 27 | Solar | SA |
| Woolworths Christies Beach 5739 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVSAL2 | 164-185 | 2021 | 22 | Solar | SA |
| Woolworths Christies Beach 5739 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVSAL2 | 151-163 | 2021 | 13 | Solar | SA |
| Woolworths Dickson 1073 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVAC29 | 72-91 | 2021 | 20 | Solar | ACT |
| Woolworths Dickson 1073 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVAC29 | 53-71 | 2021 | 19 | Solar | ACT |
| Woolworths Dickson 1073 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVAC29 | 30-52 | 2021 | 23 | Solar | ACT |
| Woolworths Dickson 1073 Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVAC29 | 47453 | 2021 | 18 | Solar | ACT |

| Project description | Type of units | Registry | Date surrendered | Accreditation code (LGCs) | Serial numbers[7] | Generation year | Quantity (MWh) | Fuel source | Location |
|---|---|---|---|---|---|---|---|---|---|
| Elaine Wind Farm | LGC | REC-Registry | 8 Dec 2022 | WD00VC35 | 26731-26748 | 2021 | 18 | Wind | VIC |
| White Rock Wind Farm | LGC | REC-Registry | 8 Dec 2022 | WD00NS12 | 21632-21938 | 2021 | 307 | Wind | NSW |
| Gunning Wind Farm | LGC | REC-Registry | 8 Dec 2022 | WD00NS07 | 126858-126909 | 2021 | 52 | Wind | NSW |
| Cullerin Range Wind Farm | LGC | REC-Registry | 8 Dec 2022 | WD00NS05 | 69479-71252 | 2021 | 1,774 | Wind | NSW |
| Hamilton Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVQL85 | 23711-32855 | 2022 | 9,145 | Solar | QLD |
| Hamilton Solar Farm | LGC | REC-Registry | 8 Dec 2022 | SRPVQL85 | 32856-40710 | 2022 | 7,855 | Solar | QLD |
| Macarthur Wind Farm | LGC | REC-Registry | 8 Dec 2022 | WD00VC14 | 202243-212242 | 2021 | 10,000 | Wind | VIC |
| **Total RECs surrendered and used in this report** | | | | | | | **39,574** | | |

# APPENDIX A: ADDITIONAL INFORMATION

N/A

# APPENDIX B: ELECTRICITY SUMMARY

Electricity emissions are calculated using a market-based approach

## Market-based method

The market-based method provides a picture of an organisation's electricity emissions in the context of its renewable energy investments. It reflects the emissions intensity of different electricity products, markets and investments. It uses a residual mix factor (RMF) to allow for unique claims on the zero emissions attribute of renewables without double-counting.

| Market-based approach | Activity data (kWh) | Emissions ($kgCO_2$-e) | Percentage of total (%) |
|---|---|---|---|
| Behind the meter consumption of electricity generated on-site | 2,229,055 | 0 | 4% |
| **Total non-grid electricity (behind the meter)** | **2,229,055** | **0** | **4%** |
| LGCs purchased and voluntarily surrendered (kWh) (including PPAs and precinct LGCs) | 39,574,000 | 0 | 69% |
| GreenPower | 5,307,725 | 0 | 9% |
| Jurisdictional renewables (LGCs surrendered) | 0 | 0 | 0% |
| Jurisdictional renewables (applied to ACT grid electricity) | 0 | 0 | 0% |
| Large-scale Renewable Energy Target (applied to grid electricity only) | 10,247,844 | 0 | 18% |
| Residual electricity | -3,998 | -3,978 | 0% |
| **Total grid electricity** | **55,125,571** | **-3,978** | **96%** |
| **Total electricity consumed (grid + non-grid)** | **57,354,626** | **-3,978** | **100%** |
| Renewable electricity | 57,358,623 | 0 | |
| Residual electricity | -3,998 | -3,978 | |
| **Exported electricity generated on-site** | **332,008** | **-242,366** | |
| **Emissions (kgCO2-e)** | | **0** | |

## Location-based method

The location-based method provides a picture of an organisation's electricity emissions in the context of its location and the emissions intensity of the electricity grid it relies on. It reflects the average emissions intensity of the electricity grid in the location (state) in which energy consumption occurs. The location-based method does not allow for any claims of renewable electricity from grid-imported electricity usage.

| Location-based approach | Activity data (kWh) | Scope 2 emissions ($kgCO_2$-e) | Scope 3 emissions ($kgCO_2$-e) |
|---|---|---|---|
| ACT | 0 | 0 | 0 |
| NSW | 0 | 0 | 0 |
| SA | 0 | 0 | 0 |
| Vic | 0 | 0 | 0 |
| Qld | 55,125,571 | 44,100,457 | 6,615,069 |
| NT | 0 | 0 | 0 |
| WA | 0 | 0 | 0 |
| Tas | 0 | 0 | 0 |
| **Total grid electricity (scope 2 and 3)** | **55,125,571** | **44,100,457** | **6,615,069** |
| ACT | 0 | 0 | 0 |
| NSW | 0 | 0 | 0 |
| SA | 0 | 0 | 0 |
| Vic | 0 | 0 | 0 |
| Qld | 2,229,055 | 0 | 0 |
| NT | 0 | 0 | 0 |
| WA | 0 | 0 | 0 |
| Tas | 0 | 0 | 0 |
| **Total non-grid electricity (behind the meter)** | **2,229,055** | **0** | **0** |
| **Total electricity consumed** | **57,354,626** | **44,100,457** | **6,615,069** |

# APPENDIX C: INSIDE EMISSIONS BOUNDARY

## Partially quantified emission sources

The following sources emissions have been assessed as relevant and are captured within the emissions boundary but not fully measured (quantified) in the carbon inventory. They have only been partially quantified due to one of the following reasons:

1. **Immaterial**: <1% for individual items and no more than 5% collectively.
2. **Not cost-effective**: Quantification is not cost-effective relative to the size of the emission.
3. **Data unavailable**: Data is unavailable. A data management plan must be put in place to provide data within 5 years.
4. **Maintenance**: Initial emissions non-quantified but repairs and replacements quantified.

| Relevant partially quantified emissions sources | 1. Immaterial | 2. Not cost-effective | 3. Data unavailable | 4. Maintenance |
|---|---|---|---|---|
| Upstream leased assets – base building services | No | No | Yes | No |
| Upstream water use | No | No | Yes | No |

# APPENDIX D: OUTSIDE EMISSIONS BOUNDARY

## Excluded emissions sources

The below emissions sources have been assessed as not relevant to Council's operations and outside of its emissions boundary. These emissions are not part of the carbon neutral claim.

Emissions sources considered for relevance must be included within the certification boundary if they meet two of the five relevance criteria. Those which only meet one condition of the relevance test can be excluded from the certification boundary.

Emissions tested for relevance are detailed below against each of the following criteria:

1. **Size**: Emissions from the source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions.
2. **Influence**: The responsible entity has the potential to influence the reduction of emissions from the source.
3. **Risk**: Emissions from the source contribute to the organisation's greenhouse gas risk exposure.
4. **Stakeholders**: Key stakeholders deem emissions from the source to be relevant.
5. **Outsourced**: The emissions are from outsourced activities previously undertaken within the organisational boundary, or from outsourced activities typically undertaken within the boundary for comparable organisations.

| Emission sources tested for relevance | 1. Size | 2. Influence | 3. Risk | 4. Stakeholders | 5. Outsourced | Included in boundary? |
|---|---|---|---|---|---|---|
| Fugitive emissions – landfill (closed prior to 2016) | Yes | No | No | No | No | No |
| Fugitive emissions – landfill gas management | Yes | No | No | No | No | No |
| Investments | Yes | No | No | No | No | No |
| Municipal waste disposal at third party facilities | Yes | No | No | No | No | No |
| Office equipment | No | Yes | No | No | No | No |
| Other purchased goods and services | No | Yes | No | No | No | No |

# APPENDIX E: EVIDENCE OF ACCU RETIREMENT

**Transferring Account**

| | |
|---|---|
| Account Number | AU-1216 |
| Account Name | Brisbane City Council |
| Account Holder | BRISBANE CITY COUNCIL |

**Acquiring Account**

| | |
|---|---|
| Account Number | AU-1068 |
| Account Name | Australia Voluntary Cancellation Account |
| Account Holder | Commonwealth of Australia |

**Transaction Blocks**

| Party | Type | Transaction Type | Original CP | Current CP | ERF Project ID | NGER Facility ID | NGER Facility Name | Safeguard | Kyoto Project # | Vintage | Expiry Date | Serial Range | Quantity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AU | KACCU | Voluntary ACCU Cancellation | | | ERF104944 | | | | | 2019-20 | | 3,786,658,386 - 3,786,659,645 | 1,260 |
| AU | KACCU | Voluntary ACCU Cancellation | | | ERF104944 | | | | | 2019-20 | | 3,786,658,368 - 3,786,658,385 | 18 |
| AU | KACCU | Voluntary ACCU Cancellation | | | ERF104944 | | | | | 2019-20 | | 3,786,669,685 - 3,786,672,324 | 2,640 |
| AU | KACCU | Voluntary ACCU Cancellation | | | ERF118295 | | | | | 2019-20 | | 3,789,856,421 - 3,789,866,420 | 10,000 |
| AU | KACCU | Voluntary ACCU Cancellation | | | ERF119548 | | | | | 2019-20 | | 3,792,800,957 - 3,792,802,090 | 1,134 |
| AU | KACCU | Voluntary ACCU Cancellation | | | ERF119548 | | | | | 2019-20 | | 3,792,800,889 - 3,792,800,956 | 68 |
| AU | KACCU | Voluntary ACCU Cancellation | | | ERF116713 | | | | | 2019-20 | | 3,799,095,019 - 3,799,096,400 | 1,382 |
| AU | KACCU | Voluntary ACCU Cancellation | | | ERF116713 | | | | | 2019-20 | | 3,799,096,401 - 3,799,105,038 | 8,638 |

**Transaction Status History**

| Status Date | Status Code |
|---|---|
| 22/09/2021 12:04:41 (AEST)<br>22/09/2021 02:04:41 (GMT) | Completed (4) |
| 22/09/2021 12:04:41 (AEST)<br>22/09/2021 02:04:41 (GMT) | Proposed (1) |
| 22/09/2021 12:04:41 (AEST)<br>22/09/2021 02:04:41 (GMT) | Account Holder Approved (97) |
| 22/09/2021 08:40:54 (AEST)<br>21/09/2021 22:40:54 (GMT) | Awaiting Account Holder Approval (95) |

**Transferring Account**

| | |
|---|---|
| Account Number | AU-1216 |
| Account Name | Brisbane City Council |
| Account Holder | BRISBANE CITY COUNCIL |

**Acquiring Account**

| | |
|---|---|
| Account Number | AU-1068 |
| Account Name | Australia Voluntary Cancellation Account |
| Account Holder | Commonwealth of Australia |

**Transaction Blocks**

| Party | Type | Transaction Type | Original CP | Current CP | ERF Project ID | NGER Facility ID | NGER Facility Name | Safeguard | Kyoto Project # | Vintage | Expiry Date | Serial Range | Quantity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AU | KACCU | Voluntary ACCU Cancellation | | | EOP100549 | | | | | 2021-22 | | 8,330,152,237 - 8,330,156,712 | 4,476 |
| AU | KACCU | Voluntary ACCU Cancellation | | | EOP101165 | | | | | 2020-21 | | 3,804,734,887 - 3,804,743,328 | 8,442 |
| AU | KACCU | Voluntary ACCU Cancellation | | | ERF116713 | | | | | 2019-20 | | 3,799,105,039 - 3,799,107,906 | 2,868 |
| AU | KACCU | Voluntary ACCU Cancellation | | | ERF132521 | | | | | 2021-22 | | 8,340,002,336 - 8,340,015,449 | 13,114 |

**Transaction Status History**

| Status Date | Status Code |
|---|---|
| 05/12/2022 10:49:20 (AEDT)<br>04/12/2022 23:49:20 (GMT) | Completed (4) |
| 05/12/2022 10:49:20 (AEDT)<br>04/12/2022 23:49:20 (GMT) | Proposed (1) |
| 05/12/2022 10:49:19 (AEDT)<br>04/12/2022 23:49:19 (GMT) | Account Holder Approved (97) |
| 05/12/2022 10:27:03 (AEDT)<br>04/12/2022 23:27:03 (GMT) | Awaiting Account Holder Approval (95) |

# APPENDIX F: EVIDENCE OF REC SURRENDER

## Certificate activity log

The certificate activity log provides a consolidated transaction log of the certificates associated with your account. It will assist in reconciling your accounts certificate holdings.

Selecting the transaction hyperlink in the search results will take you to a new page showing further details about the transaction.

### Surrender details

**Surrender ID:** 6156
**Status:** Accepted

**Certificates offered:** 39,574
**Surrender type:** Voluntary
**Surrender reason:** Altruistic purposes

**Time surrender offer created:** 7/12/2022 07:52:39
**Performed by user:** Christine Chambers (CHAMC59239)

**Surrender note:** To cover 2021 - 2022 carbon neutral claim for Brisbane City Council
**Auditor note:** Offer of voluntary surrender (Offer ID: 6115) has been accepted by the Clean Energy Regulator on 08/12/2022

### Certificate details

10 records per page

| Certificate type | Fuel source | Generation year | Creation year | Certificate quantity |
|---|---|---|---|---|
| LGC | Biomass-based components of municipal solid waste | 2021 | 2022 | 1631 |
| LGC | Hydro | 2020 | 2021 | 763 |
| LGC | Landfill gas | 2022 | 2022 | 4499 |
| LGC | Solar | 2021 | 2021 | 3530 |
| LGC | Solar | 2022 | 2022 | 17000 |
| LGC | Wind | 2021 | 2021 | 12151 |

Showing 1 to 6 of 6 entries

← First ← Previous 1 Next → Last →

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