PUBLIC DISCLOSURE STATEMENT

BRISBANE CITY COUNCIL

CARBON NEUTRAL ORGANISATION
2019-20

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 2019 – 30 June 2020

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.

Signature: Date:

Name of Signatory: Colin Jensen

Position of Signatory: Chief Executive Officer

Australian Government
Department of Industry, Science, Energy and Resources

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CARBON NEUTRAL INFORMATION

Description of certification

Carbon neutral certification is for the business operations of Brisbane City Council and its subsidiary companies.

"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

Brisbane City Council (Council) is Australia's largest local government authority in terms of both population and budget. It is dedicated to ensuring Brisbane is a great place to live and providing leadership and good governance for the people of Brisbane.

As Queensland's capital, Brisbane has a thriving economy and significant infrastructure investment. The Greater Brisbane economy was valued at $182 billion in 2019-20, accounting for 49% of Queensland's economic output and nine per cent of Australia's output[1]. Brisbane has a warm, subtropical climate, extensive parklands and recreational facilities, a diverse natural environment and vibrant central business district, retail, arts and entertainment precincts.

Council is made up of 26 wards, spanning an area of 1,342 square kilometres. It provides a broad array of services for the city's 1,253,982 residents, manages local infrastructure and assets valued at more than $27 billion and has an annual budget in the order of $2.3 billion.

The *City of Brisbane Act 2010* (the Act) creates a framework for the city's day to day operations and long-term plans. The Act provides for the way in which Council is constituted, its responsibilities and powers.

Brisbane Vision 2031 is Council's long-term community plan for the city. The main priorities for the plan are to maintain and improve quality of life for the Brisbane community and ensure Brisbane meets the liveability and sustainability opportunities of the future. *Brisbane Vision 2031* outlines aspirations for the city's future and identifies targets to be achieved by 2031, including carbon neutral status for Council operations.

Brisbane has been a leader in sustainability practices for more than 20 years. Council has been active in responding to climate change, focusing on the performance of its own operations, as well as delivering initiatives to support Brisbane residents and businesses to reduce their greenhouse gas emissions.

Council achieved carbon neutrality for its operations in 2017 and obtained certification of its carbon neutral status under the Climate Active Carbon Neutral Program following finalisation of its 2016-17 Carbon Account in February 2018. This 2019-20 Public Disclosure Summary (2019-20 PDS) is Council's fourth annual report under the Carbon Neutral Program and provides an update on progress made in 2019-20. It outlines the 2019-20 Carbon Account, including changes from the 2016-17 base year, recently implemented emission reduction measures, and details of the annual offset reconciliation.

The coronavirus pandemic significantly impacted Brisbane City Council and its subsidiary companies in the latter part of 2019-20 and Council's focus in this period has been on assisting the city's residents and businesses to recover.

In 2019-20, Council provided the following services to the residents of Brisbane:

- land use planning and development assessment
- operation of public transport services, including one of the largest bus fleets in Australia and the iconic CityCat and CityFerry network
- transport network development and maintenance
- waste management services, including operation of a landfill facility
- provision of on and off-street parking services
- development and maintenance of urban parks

[11] Brisbane City Council estimate based on Australian Bureau of Statistics (ABS) and Queensland Treasury data.

- 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 control and pest management
- disaster response and recovery
- flood risk management
- biodiversity conservation
- green community initiatives, including programs and events to support greater sustainability action by households, students and businesses.

The infrastructure and assets managed by Council in 2019-20 included:

- 583 picnic grounds
- 2,168 parks, comprising 9,881 hectares of natural areas and 6,731 hectares of urban and sports parks
- 151 dog off-leash areas in parks
- 34 libraries, including a mobile library
- 22 swimming pools
- 12 cemeteries and crematoria
- 4,922 kilometres of paths and walkways
- 6,275 bus stops
- 1,244 buses
- 22 CityCat ferries
- 1,219 buses
- 9 cross river ferries
- 8 cross river bridges (excluding the Clem 7 tunnel)
- 87 wharves, jetties and pontoons.

Emissions reduction strategy

Council is reducing its carbon footprint through investments in energy efficiency and emissions reduction projects, as well as renewable energy purchases. From 2016-17, carbon offsets have been purchased on a financial year basis to negate remaining emissions and maintain Council's carbon neutral status.

The *Corporate Plan 2016-17 to 2020-21 – 2017 Update* outlines Council's objective to continually improve energy and carbon management (Program 3 – Clean, Green and Sustainable City). This is being achieved through the ongoing identification, analysis and prioritisation of a pipeline of energy and carbon abatement opportunities.

The *Carbon Neutral Council Emissions Management Plan (EMP) 2017-18 to 2020-21* outlines Council's emissions reduction strategy. It comprises a four-year rolling program of priority energy efficiency and emissions reduction projects and actions in the following areas.

1. Improve the energy efficiency and emissions profile of **existing assets and services**, where possible and cost-effective.
2. Ensure the design and delivery of **new assets and services** is informed by an understanding of expected energy consumption and associated emissions and, where practical, incorporates measures to improve energy and emissions performance.
3. Encourage changes in **employee behaviour** to support improved energy efficiency and emissions reduction outcomes.
4. Develop organisational capacity to identify and deliver ongoing improvements in energy and carbon management across Council operations.

Emission reduction actions

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 a total of 1.75 megawatts (MW) of solar photovoltaic (PV) systems across 29 sites since achieving carbon neutral status in 2016-17, bringing total installed capacity to 2 megawatts (MW) in 2019-20
- 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 a diesel-electric hybrid bus 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 15 years from 2003 to June 2019, Council purchased more than 970,000 megawatt hours (MWh) of electricity from renewable energy sources, reducing its greenhouse gas emissions by more than 904,000 tCO_2-e[2], and purchased and cancelled around 2.8 million carbon offsets.

In 2019-20, Council implemented the following emissions reduction measures:

- purchased 47,705 MWh of electricity from renewable energy sources
- installed 796 kilowatts (kW) of solar PV systems at four bus depots, three libraries, office buildings and other public facilities
- LED lighting upgrades at bus and works depots and in public lighting installations, including bikeways and parks
- ongoing utilisation of recycled asphalt, reducing bitumen and aggregate used in asphalt production.

The table below provides a summary of the estimated annual emissions reductions achieved as a result of measures implemented in 2019-20.

Scope	Emissions source	Action undertaken	Annual emissions reduction (tCO_2-e)
2,3	Electricity – buildings and facilities Energy extraction, production and transportation (E,P&T)	Purchased and voluntarily surrendered 47,705 Large-scale Generation Certificates (LGCs)	51,574
2,3	Electricity – buildings and facilities Energy E,P&T	Installed 49.5 kW solar PV system at Bracalba quarry workshop	82
2,3	Electricity – buildings and facilities Energy E,P&T	Installed 100 kW solar PV system at Eagle Farm bus depot	165
2,3	Electricity – buildings and facilities Energy E,P&T	Installed 100 kW solar PV system at Sherwood bus depot	165
2,3	Electricity – buildings and facilities Energy E,P&T	Installed 100 kW solar PV system at Willawong bus depot	165
2,3	Electricity – buildings and	Installed a second 100 kW solar PV system at Toowong bus depot	165

[2] 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).

Scope	Emissions source	Action undertaken	Annual emissions reduction (tCO_2-e)
	facilities Energy E,P&T	workshop	
2,3	Electricity – buildings and facilities Energy E,P&T	Installed a 17.3 kW solar PV system at Boondall Environment Centre	29
2,3	Electricity – buildings and facilities Energy E,P&T	Installed a 2.5 kW solar PV system at King George Square	4
2,3	Electricity – buildings and facilities Energy E,P&T	Installed a 31 kW solar PV system at Coopers Plains library	118
2,3	Electricity – buildings and facilities Energy E,P&T	Installed a 31 kW solar PV system at Grange library	52
2,3	Electricity – buildings and facilities Energy E,P&T	Installed a 71.4 kW solar PV system at Bracken Ridge library	52
2,3	Electricity – buildings and facilities Energy E,P&T	Installed a 51 kW solar PV system at Mt Coot-tha Botanic Gardens	85
2,3	Electricity – buildings and facilities Energy E,P&T	Installed a 21 kW solar PV system at Brisbane Riverstage	35
2,3	Electricity – buildings and facilities Energy E,P&T	Installed a 51 kW solar PV system at Rochedale landfill office	86
2,3	Electricity – buildings and facilities Energy E,P&T	Installed a 70 kW solar PV system at North Regional Business Centre	116
2,3	Electricity – buildings and facilities Energy E,P&T	LED lighting upgrade at Garden City Bus Depot	82
2,3	Electricity – buildings and facilities Energy E,P&T	LED lighting upgrade at Darra Field Services Depot	29
2,3	Electricity – buildings and	LED lighting upgrade at	5

Scope	Emissions source	Action undertaken	Annual emissions reduction (tCO_2-e)
	facilities Energy E,P&T	Newmarket SES Depot	
2,3	Electricity – buildings and facilities Energy E,P&T	LED lighting upgrade at Toowong bus depot workshop	6
2, 3	Electricity – buildings and facilities Electricity – Council controlled streetlights Energy E,P&T Third party controlled streetlights	Installation of LED lights in street and public lighting applications, including bikeways and parks	567
3	Asphalt production input materials	Utilisation of recycled asphalt in asphalt production	1,236
		Total annual emissions reduction	54,818

1. EMISSIONS BOUNDARY

Description of the certification boundary

Council's 2019-20 Carbon Account was prepared in accordance with the *Climate Active Carbon Neutral Standard for Organisations* and relevant national legislation and international standards. These included:

- *National Greenhouse and Energy Reporting (Measurement) Determination 2008 (NGER Measurement Determination), Compilation No. 11, July 2019*
- *Greenhouse Gas (GHG) Protocol Corporate Accounting and Reporting Standard*, 2004
- *GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard*, 2011.

The organisational emissions boundary was defined in accordance with Section 2.3.1 of the *Climate Active Carbon Neutral Standard for Organisations* using an 'operational control' approach. It included all entities for which Council had the full authority to introduce or implement its operating policies.

The entities included within the organisational emissions boundary are Council and its six operational divisions, the Resource Recovery Innovation Alliance (RRIA)[3] and Council's eight wholly owned subsidiaries. These include:

- Brisbane Economic Development Agency (formerly Brisbane Marketing Pty Ltd)
- Brisbane Powerhouse Pty Ltd
- City of Brisbane Investment Corporation (CBIC) Pty Ltd
- City Parklands Services Pty Ltd
- Brisbane Green Heart CitySmart Pty Ltd
- Museum of Brisbane Pty Ltd
- TradeCoast Land Pty Ltd
- Oxley Creek Transformation Pty Ltd.

[3] 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.

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 (10%).

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 certification boundary, where possible. Other indirect emissions occurring as a result of the included entities' activities (scope 3) were considered by Council and have been included within the certification boundary, where they were deemed to be relevant and material. There were no emissions generating activities associated with TradeCoast Land Pty Ltd in 2019-20. Emission generated from activities undertaken by Oxley Creek Transformation Pty Ltd are captured within Council's operational footprint[4].

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.

As noted above, Council provides municipal waste management services to the residents of Brisbane. These services are delivered by Council and RRIA, either directly or under contract, and include kerbside waste collection, operation of four resource recovery centres, transportation of waste from resource recovery centres for final disposal or processing and operation of the city's landfill at Rochedale. Where these services are delivered directly by Council or RRIA, they are accounted for under scope 1 and 2 emissions. Where the services are provided by contractors, they are accounted for as scope 3 emissions.

As Council (through RRIA) is deemed to have operational control of the Rochedale landfill, all emissions generated from waste disposal at the site, including the disposal of municipal waste, is included in the certification boundary and accounted for under scope 1 emissions. However, any emissions occurring as a result of the disposal or processing of municipal waste at sites operated by third parties (e.g. private landfill, composting or recycling facilities) are excluded from the emissions boundary on the basis that they are associated with the resident population, rather than Council operations.

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 2019-20.

Included sources

A list of emissions sources deemed relevant to Council's operations and included in the certification boundary is provided in the below. A diagram of the certification boundary, showing quantified emissions sources, non-quantified sources and excluded sources is included at Appendix 1.

[4] TradeCoast Land Pty Ltd and Oxley Creek Transformation Pty Ltd operate out of Council facilities and any associated emissions are accounted for within the carbon account prepared for Council's operational divisions.

Scope	Emissions source
1	Fuel combustion - stationary energy
1	Fuel combustion - transport
1	Fuel use - oils and greases
1	Fugitive emissions - landfill
1	Fugitive emissions - refrigerants
2	Electricity use - buildings and facilities
2	Electricity use - Council controlled streetlights
3	Asphalt production input materials
3	Building and facility maintenance services
3	Business travel - accommodation
3	Business travel - flights
3	Business travel - rental cars
3	Business travel - taxis
3	Cleaning services
3	Community bike hire service
3	Construction materials and services
3	Contracted bus services
3	Downstream leased assets
3	Employee commuting
3	Energy extraction, production and transportation (E,P&T)
3	Ferries and boats
3	Food and catering
3	Green waste processing and transportation
3	Hired vehicles and equipment
3	Horticultural services
3	ICT applications and services
3	ICT equipment
3	Machinery and equipment

Scope	Emissions source
3	Mowing and tree maintenance services
3	Motor vehicles
3	Municipal waste transportation
3	Office supplies
3	Paper use
3	Postage, courier and freight
3	Printing and publications
3	Professional services
3	Quarry services
3	Third party controlled streetlights
3	Transportation components and systems
3	Transportation repairs and maintenance
3	Upstream leased assets - base building services
3	Venue hire
3	Waste
3	Water use

Non-quantified sources and data management plan

The following emissions sources are included in the certification boundary, but were partially accounted for in 2019-20, due to gaps in the available data.

Council is continuing to work towards filling data gaps by taking the steps outlined in the table below. It should be noted, however, that Council is relying on contractors, tenants and landlords to provide data that is generally not required to be reported under existing contracts or lease agreements. Data will therefore only be included in future emissions reports, where provided.

Scope	Emissions source	Data management plan
3	Downstream leased assets	Council has over 650 downstream leases, including approximately 33 commercial and retail leases, 22 pools, two golf courses and more than 590 community leases (e.g. halls, sporting venues etc.). Electricity consumption data was obtained for 15 commercial leases, all 22 pools, two golf courses and 193 community facilities in 2019-20. Council will continue to seek data from all lessees and work towards comprehensive reporting of emissions from downstream leased assets in future carbon accounts.

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 2019-20, emissions have been quantified for five 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 Green Heart CitySmart Pty Ltd. Data will continue to be sought from all lessors to enable quantification in future carbon accounts.
3	Water use	Water consumption data is currently available and associated emissions have been estimated for all Council owned facilities and 28 of 49 upstream leased sites. Data will continue to be sought for all remaining upstream leases to enable comprehensive quantification in future carbon accounts.

In addition, Council is continuing to rely on expenditure data and emissions factors developed using generalised input-out analysis[5] 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.

Excluded sources

Emissions excluded from the certification boundary and the reasons for their exclusion are outlined below. Details of the relevance assessment for these sources is included at Appendix 2.

Scope	Emissions source	Justification for exclusion
1	Fugitive emissions – landfill (closed prior to 2016)	Council is responsible for managing around 150 closed landfill sites, all of which ceased operations between 1940 and 1996, long before Council committed to achieve carbon neutral status for its operations. While active landfill gas management still occurs at five of these legacy sites, the vast majority have been converted for alternative use as public parks or sporting fields and are no longer identifiable as landfills. In most cases, limited (or no) information is available about the waste that was deposited, making it difficult to accurately estimate emissions continuing to be released.

[5] 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.

Scope	Emissions source	Justification for exclusion
1	Fugitive emissions – landfill gas management	Council works with a third party to manage fugitive emissions at its operating landfill at Rochedale, through landfill gas capture and combustion via electricity generation or flaring. Any emissions (or reductions) associated with the capture and combustion of landfill gas at the site are excluded from Council's certification boundary on the basis these activities are undertaken by an independent third party and are outside of Council's operational control. The third party retains all rights and responsibilities in relation to landfill gas captured and transferred.
3	Investments	Council has interests or shareholdings in a number of entities that are excluded from the certification boundary on the basis that they are outside of Council's operational control.
3	Municipal waste disposal at third party facilities	Council provides municipal waste collection, transportation and disposal services for Brisbane residents. Emissions associated with the collection transportation and disposal of waste at Council's operating landfill at Rochedale are deemed relevant to Council operations and included the certification boundary. Emissions generated from the final disposal of municipal waste at third party facilities (outside of Council's control) are excluded from the boundary as these are the result of resident activities, rather than Council operations.
3	Office equipment	Emissions from office equipment are estimated to be less than one per cent of emissions from Council's fuel and electricity use and do not meet other relevance criteria.
3	Other purchased goods and services	Emissions from other purchased goods and services are individually estimated to be less than one per cent of emissions from Council's fuel and electricity use and do not meet other relevance criteria.

3. EMISSIONS SUMMARY

Emissions summary (carbon account)

Council's carbon footprint is made up of emissions from landfill, fuel and electricity use as well as other indirect emissions sources, such as construction materials and services, third-party controlled streetlighting, municipal and green waste transportation and catering services.

In 2019-20, the three largest emissions sources accounted for around 54% of Council's total carbon footprint. These were fuel combustion for stationary energy and transport (20%), construction materials and services (19%) and fugitive emissions from the Rochedale landfill (17%). Council buildings and facilities and controlled streetlights were 100% powered by renewable energy in 2019-20, reducing electricity related emissions to zero.

Council's operational divisions accounted for the majority (80%) of the organisation footprint. RRIA accounted for 18% of total emissions with the subsidiaries contributing the remaining two per cent.

The tables below summarise Council's 2019-20 emissions by source and responsible entity.

Emissions by source

Scope	Emissions source category	Emissions (tCO_2-e)
1	Fuel combustion - stationary energy	13,668
1	Fuel combustion - transport	103,382
1	Fuel use - oils and greases	85
1	Fugitive emissions - landfill	104,365
1	Fugitive emissions - refrigerants	3,107
2	Electricity use - buildings and facilities	0
2	Electricity use - Council controlled streetlights	0
3	Asphalt production input materials	7,322
3	Building and facility maintenance services	11,650
3	Business travel - accommodation	80
3	Business travel - flights	234
3	Business travel - rental cars	3
3	Business travel - taxis	49
3	Cleaning services	2,004
3	Community bike hire service	0
3	Construction materials and services	113,369
3	Contracted bus services	1,900
3	Downstream leased assets	21,238
3	Employee commuting	8,190
3	Energy extraction, production and transportation (E,P&T)	9,534
3	Ferries and boats	3,590
3	Food and catering	650
3	Green waste processing and transportation	1,343
3	Hired vehicles and equipment	26,143
3	Horticultural services	9,175
3	ICT applications and services	10,585

Scope	Emissions source category	Emissions (tCO_2-e)
3	ICT equipment	17,809
3	Machinery and equipment	5,491
3	Mowing and tree maintenance services	2,520
3	Motor vehicles	3,979
3	Municipal waste transportation	11,850
3	Office supplies	618
3	Paper use	217
3	Postage, courier and freight	3,035
3	Printing and publications	3,570
3	Professional services	17,504
3	Quarry services	990
3	Third party controlled streetlights	39,370
3	Transportation components and systems	15,651
3	Transportation repairs and maintenance	9,731
3	Upstream leased assets - base building services	2,849
3	Venue hire	626
3	Waste	8,715
3	Water use	691
	Total net emissions	596,882

Emissions by responsible entity

Responsible entity	Emissions (tCO_2-e)
Council operational divisions	479,393
RRIA	110,043
Brisbane Economic Development Agency	2,125
Brisbane Powerhouse Pty Ltd	652
CBIC	2,087
City Parklands Services Pty Ltd	1,834

Responsible entity	Emissions (tCO_2-e)
Brisbane Green Heart CitySmart Pty Ltd	638
Museum of Brisbane Pty Ltd	110
TradeCoast Land Pty Ltd	0
Oxley Creek Transformation Pty Ltd	0
Total emissions	596,882

Uplift factors

Reason for uplift factor	Emissions (tCO_2-e)
N/A – no uplift factors have been applied	

Total footprint to offset (uplift factors + net emissions)	

Carbon neutral products or services

Emissions associated with the operation of Council's community bike hire service (CItyCycle) are reported as zero as the service is operated by JCDecaux, another Climate Active carbon neutral certified organisation. Fuel and electricity used by JCDecaux in operating CityCycle are included and offset as part of JCDecaux's carbon account.

Electricity summary

Electricity emissions were calculated using the market-based approach.

Market-based approach electricity

Electricity inventory items	Electricity (kWh)	Emissions (tCO_2e)
Electricity Renewables	60,140,801	0.00
Electricity Carbon Neutral Power	0	0.00
Electricity Remaining	-4,609	0.00
Renewable electricity percentage	100%	
Net emissions (market-based approach)		0

Location-based summary

State/ territory	Electricity inventory items	Electricity (kWh)	Emissions factor (Scope 2+3)	Emissions (tCO_2-e)
ACT/NSW	Electricity Renewables	7,737,000	-0.90	-6,963.30
SA	Electricity Renewables	3,262,000	-0.53	-1,728.86
Vic	Electricity Renewables	7,731,000	-1.12	-8,658.72
Qld	Electricity Renewables	27,874,633	-0.93	-25,923.41
Qld	Netted off (exported on-site generation)	265,076	-0.81	-214.71
Qld	Electricity Total	60,401,269	0.93	56,173.18
NT	Electricity Renewables	2,576,000	-0.71	-1,828.96
	Total net electricity emissions		0.00	10,855.22

4. CARBON OFFSETS

Offset purchasing strategy: forward purchasing

Forward purchasing summary

1. Total offsets previously forward purchased for this reporting period	609,320
2. Total offsets required for this reporting period	596,882
3. Net offset balance for this reporting period	-12,438
4. Total offsets to be forward purchased for next reporting period	574,981

Offset purchasing and retirement strategy

Council forward purchases and cancels carbon offsets at the beginning of each reporting period. Forward purchases are based on the final carbon accounts 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 accounts 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 PDS 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
- location – it is desirable to purchase some offsets from local or Australian projects, where available
- 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.

2019-20 offsets summary

In 2018-19, Council forward cancelled 609,320 offset units to negate forecast 2019-20 emissions and banked 219,999 active units for future use.

As Council's final 2019-20 carbon accounts resulted in a lower than forecast net carbon footprint of 596,882 tCO_2-e, 12,438 forward cancelled units have been carried over for use in 2020-21. A further 368,900 offset units were purchased in 2019-20, bringing total holdings available for the 2020-21 reporting period to 610,337 tCO_2-e.

Council's carbon footprint is forecast to decrease in 2020-21 to 587,419 tCO_2-e, net of expected renewable energy purchases. All units banked or carried over from 2019-20 have been allocated to cover emissions in this period. An additional 574,981 purchased units were allocated and forward cancelled to cover remaining forecast emissions, leaving 13,918 active units to be banked for use in 2021-22.

Offset units cancelled to negate Council's 2019-20 emissions and carried over and forward cancelled for use in 2020-21 are detailed in the offsets summary table below.

For details of all offset units cancelled by Council to meet its carbon neutral commitment, please see the Retired VCUs Report on the Verra website (search by Account Holder Brisbane City Council) and the Clean Energy Regulator's list of voluntary cancellations in the Australian National Registry of Emissions Units (ANREU). Further evidence of ACCU surrender is provided in Appendix 4.

Offsets summary

1. Total offsets required for this report	596,882
2. Offsets retired in previous reports and used in this report	12,438
3. Net offsets required for this report	584,444

Project description	Eligible offset unit type	Registry unit retired in	Date retired	Serial number	Vintage	Quantity (tCO_2-e)	Quantity used for previous report	Quantity to be banked for future years	Quantity to be used this report
Tipperary Group of Stations Savanna Burning Project	ACCU	ANREU	19 Sep 2019	3,768,304,431 - 3,768,306,431	2017-18	2,001	0	0	2,001
Grouped Hydropower Plants in Chongqing, Yunnan, Sichuan and Guizhou Provinces, P.R. China	VCU	APX	19 Sep 2019	5730-257025476-257084075-VCU-028-APX-CN-1-438-26052015-25122015-1[6]	2015	58,600	0	0	58,600
Renewable Energy Project by LNB Group	VCU	APX	19 Sep 2019	5703-255908526-255918746-VCU-034-APX-IN-1-1418-01012017-30112017-0	2017	10,221	0	0	10,221
Renewable Energy Project by LNB Group	VCU	APX	19 Sep 2019	5703-255918747-255944546-VCU-034-APX-IN-1-1418-01012017-30112017-0	2017	25,800	0	0	25,800
Renewable Energy Project in Rajasthan and Maharashtra	VCU	APX	19 Sep 2019	5701-255842396-255866029-VCU-034-APX-IN-1-1579-01012017-31122017-0	2017	23,634	0	0	23,634

[6] Units 5730-257023449-257084075-VCU-028-APX-CN-1-438-26052015-25122015-1 were forward allocated and cancelled to cover 2018-19 emissions. As the final 2018-19 carbon account was lower than forecast, units 5730-257025476-257084075-VCU-028-APX-CN-1-438-26052015-25122015-1 were carried over and allocated to cover 2019-20 emissions.

1.6 MW Bundled Rice Husk Based Cogeneration Plant by M/s Milk Food Limited (MFL) in Patiala (Punjab) and Moradabad (U.P.) Districts	VCU	APX	19 Sep 2019	6201-285763144-285794095-VCU-034-APX-IN-1-784-01012016-31122016-0	2016	30,952	0	0	30,952
1.6 MW Bundled Rice Husk Based Cogeneration Plant by M/s Milk Food Limited (MFL) in Patiala (Punjab) and Moradabad (U.P.) Districts	VCU	APX	19 Sep 2019	6200-285705032-285763143-VCU-034-APX-IN-1-784-01022014-31122014-0	2014	58.112	0	0	58,112
Grouped Hydropower Plants in Chongqing, Yunnan, Sichuan and Guizhou Provinces, P.R. China	VCU	APX	19 Sep 2019	6194-284586840-284588317-VCU-028-APX-CN-1-438-01012014-31122014-1	2014	1,478	0	0	1,478
Grouped Hydropower Plants in Chongqing, Yunnan, Sichuan and Guizhou Provinces, P.R. China	VCU	APX	19 Sep 2019	6193-284436840-284586210-VCU-028-APX-CN-1-438-26052015-25122015-1	2015	149,371	0	0	149,371
Grouped Hydropower Plants in Chongqing, Yunnan, Sichuan and Guizhou Provinces, P.R. China	VCU	APX	19 Sep 2019	5729-257009298-257023448-VCU-028-APX-CN-1-438-01012014-31122014-1	2014	14,151	0	0	14,151
Grouped Hydropower Plants in Chongqing, Yunnan, Sichuan and Guizhou Provinces, P.R. China	VCU	APX	19 Sep 2019	6167-283045170-283055169-VCU-028-APX-CN-1-438-01012014-31122014-1	2014	10,000	0	0	10,000

Gangakhed Sugar and Energy Private Ltd (GSEPL) 30 MW Bagasse Based Co-generation Power Project	VCU	APX	19 Sep 2019	6196-284674990-284675213-VCU-048-APX-IN-1-1539-01012015-31122015-0	2015	224	0	0	224
Gangakhed Sugar and Energy Private Ltd (GSEPL) 30 MW Bagasse Based Co-generation Power Project	VCU	APX	19 Sep 2019	4584-190022402-190027401-VCU-048-APX-IN-1-1539-01012015-31122015-0	2015	5,000	0	0	5,000
Gangakhed Sugar and Energy Private Ltd (GSEPL) 30 MW Bagasse Based Co-generation Power Project	VCU	APX	19 Sep 2019	6197-284675214-284704989-VCU-048-APX-IN-1-1539-01012014-31122014-0	2014	29,776	0	0	29,776
CECIC HKC Gansu Changma Wind Power project	VCU	APX	19 Sep 2019	6203-285890595-286000594-VCU-034-APX-CN-1-717-01012016-31122016-0	2016	110,000	0	0	110,000
North East Arnhem Land Fire Abatement (NEALFA) Project	KACCU	ANREU	19 Sep 2019	3,755,749,415 - 3,755,759,414	2016-17	10,000	0	0	10,000
DAC-2015-01 (Devine Agribusiness Carbon Pty Ltd Vegetation Project)	KACCU	ANREU	19 Sep 2019	3,771,865,731 - 3,771,885,730	2017-18	20,000	0	0	20,000
CECIC HKC Gansu Changma Wind Power project	VCU	APX	19 Sep 2019	6132-280823336-280860897-VCU-034-APX-CN-1-717-01012016-31122016-0	2016	37,562	0	0	37,562

CECIC HKC Gansu Changma Wind Power project	VCUs	APX/Verra	19 Sep 2019	6132-280860898-280873335-VCU-034-APX-CN-1-717-01012016-31122016-0[7]	2016	12,438	0	12,438	0
1.6 MW Bundled Rice Husk Based Cogeneration Plant by M/s Milk food Limited (MFL) in Patiala (Punjab) & Moradabad (U.P) Districts	VCUs	Verra	28 Oct 2020	6202-285827019-285890594-VCU-034-APX-IN-1-784-01012017-31122017-0	2017	63,576	0	63,576	0
1.6 MW Bundled Rice Husk Based Cogeneration Plant by M/s Milk food Limited (MFL) in Patiala (Punjab) & Moradabad (U.P) Districts	VCUs	Verra	28 Oct 2020	6201-285794096-285827018-VCU-034-APX-IN-1-784-01012016-31122016-0	2016	32,923	0	32,923	0
CECIC HKC Gansu Changma Wind Power project	VCUs	Verra	28 Oct 2020	6133-280883336-280923335-VCU-034-APX-CN-1-717-01012017-31122017-0	2017	40,000	0	40,000	0
CECIC HKC Gansu Changma Wind Power project	VCUs	Verra	28 Oct 2020	6134-280923336-280973335-VCU-034-APX-CN-1-717-01012018-23092018-0	2018	50,000	0	50,000	0
Arnhem Land Savannah Fire Management Projects	ACCU	ANREU	28 Oct 2020	3,769,395,837 - 3,769,400,836	2017-18	5,000	0	5,000	0
QLD Savanna Burning - EOP100968	ACCU	ANREU	28 Oct 2020	3,772,352,970 - 3,772,362,969	2018-19	10,000	0	10,000	0
QLD Savanna Burning - EOP100968	ACCU	ANREU	28 Oct 2020	3,772,362,970 - 3,772,368,969	2018-19	6,000	0	6,000	0

[7] Units 6132-280823336-280873335-VCU-034-APX-CN-1-717-01012016-31122016-0 were forward allocated and cancelled to cover 2019-20 emissions. As the final 2019-20 carbon account was lower than forecast, units 6132-280860898-280873335-VCU-034-APX-CN-1-717-01012016-31122016-0 were carried over and allocated to cover 2020-21 emissions. Note that these units were surrendered in the APX registry which was taken over by Verra in 2020. The hyperlink provided allows the serial numbers to be searched for evidence of surrender in the Verra registry.

QLD Savanna Burning - EOP100772	ACCU	ANREU	28 Oct 2020	3,772,369,065 - 3,772,371,564	2018-19	2,500	0	2,500	0
NSW Revegetation - EOP101115	ACCU	ANREU	28 Oct 2020	3,775,745,442 - 3,775,745,442	2018-19	1	0	1	0
NSW Revegetation - EOP101115	ACCU	ANREU	28 Oct 2020	3,775,745,443 - 3,775,755,441	2018-19	9,999	0	9,999	0
Queensland Savannah Burning project (ERF104944)	ACCU	ANREU	28 Oct 2020	3,786,643,386 - 3,786,658,367	2019-20	14,982	0	14,982	0
Ningxia Xiangshan Wind Farm Project	VCUs	Verra	28 Oct 2020	7296-383883645-383933644-VCU-034-APX-CN-1-1867-01012019-28022019-0	2019	50,000	0	50,000	0
Ningxia Xiangshan Wind Farm Project	VCUs	Verra	28 Oct 2020	7300-384033645-384083644-VCU-034-APX-CN-1-1867-01012018-31122018-0	2018	50,000	0	50,000	0
Liucheng Biomass Power Generation Project	VCUs	Verra	28 Oct 2020	7294-383763645-383843644-VCU-034-APX-CN-1-1824-01012015-31122015-0	2015	80,000	0	80,000	0
Liucheng Biomass Power Generation Project	VCUs	Verra	28 Oct 2020	7295-383863645-383873644-VCU-034-APX-CN-1-1824-01012016-31122016-0	2016	10,000	0	10,000	0
Liucheng Biomass Power Generation Project	VCUs	Verra	28 Oct 2020	7294-383843645-383853644-VCU-034-APX-CN-1-1824-01012015-31122015-0	2015	10,000	0	10,000	0
Heqing Solar Cooker Project I	VCUs	Verra	28 Oct 2020	7299-384026216-384033644-VCU-046-APX-CN-1-1860-01122016-31122016-0	2016	7,429	0	7,429	0

Heqing Solar Cooker Project I	VCUs	Verra	28 Oct 2020	7298-383993645-384026215-VCU-046-APX-CN-1-1860-01012017-30112017-0	2017	32,571	0	32,571	0
Energising India using Solar Energy Projects	VCUs	Verra	28 Oct 2020	7387-391257725-391357724-VCU-034-APX-IN-1-1931-01012019-30062019-0	2019	100,000	0	100,000	0
						Total offsets retired this report and used in this report	0	0	596,882
						Total offsets retired this report and banked for future reports	0	587,419	0

Co-benefits

The following table provides a summary of the co-benefits provided by the offset projects support by Council in 2019-20.

Project name and location	Proportion of offsets (%)	Co-benefits
Heqing Solar Cooker Project I, Gansu, China	6.8%	• Provides a reliable and convenient electricity supply for households in low-income communities. • Improves respiratory health by reducing exposure to smoke. • Supports local economic development outcomes including creating 100 jobs. • Provides community education on the benefits of solar energy technology and environmental protection.
Various savanna burning projects, Queensland, Australia	6.5%	• Protects local environment, cultural sites, infrastructure and communities from devastating bushfires. • Supports local economic development including job creation within remote aboriginal communities.
Revegetation project, New South Wales, Australia	1.7%	• Support improved local environmental outcomes, including increased biodiversity and habitat value and mitigation of soil erosion and salinity risk.

5. USE OF TRADEMARK

A register of use of the trademark during the 2019-20 reporting period is provided in the table below.

Description of where trademark was used	Logo type
Brisbane City Council website – Carbon Neutral Council page	Climate Active carbon neutral organisation
Mandatory back panel template appearing on all Brisbane City Council publications in A4 and DL sizes – ensures the Climate Active carbon neutral logo is featured on all publications	Climate Active carbon neutral organisation

6. ADDITIONAL INFORMATION

Emissions over time

Council has prepared carbon accounts and reported publicly on its operational greenhouse gas emissions since achieving carbon neutral status in 2016-17. As the first year of comprehensive carbon reporting, the 2016-17 carbon account forms the baseline for Council's emissions reporting.

In 2019-20, Council's overall carbon footprint had declined 7% from baseline levels. This was primarily the result of reduced scope 1 emissions and increased renewable energy purchases.

Scope 1 emissions had reduced by 21% in 2019-20, largely due to reduced fugitive emissions from landfill. Lower emissions are the result of improvements to landfill gas capture infrastructure since 2016-17, which saw an increase in gas capture rates.

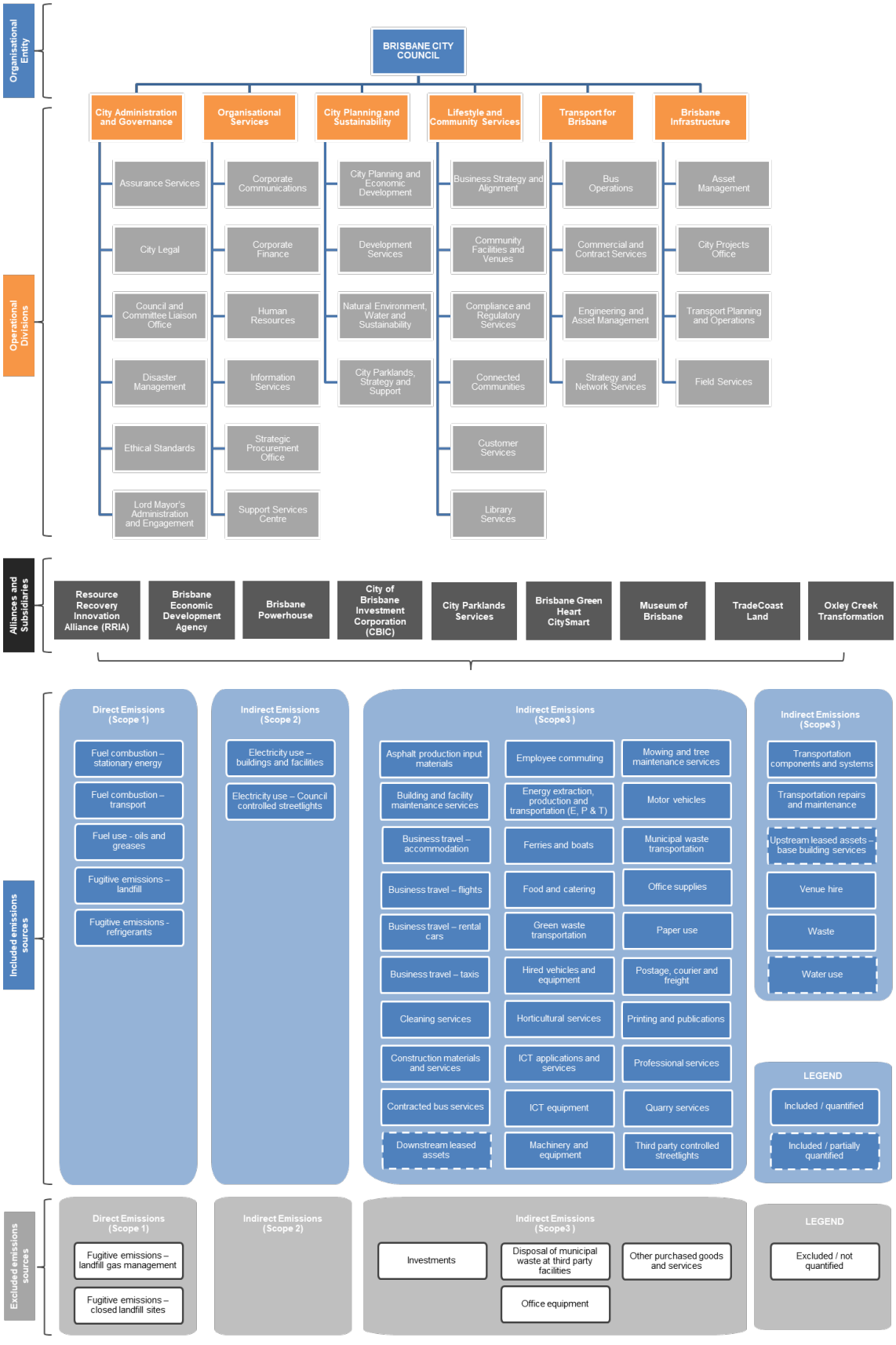
The reduction in scope 1 emissions was partially offset by a 13 percent increase in scope 3 emissions. This was primarily driven by construction activity resulting from major road infrastructure projects, such as the Kingsford Smith Drive and Wynnum Road upgrades and Council's ongoing road resurfacing and bikeway construction programs. Scope 3 emissions have also increased due to continuous improvement in data collection, which has increased coverage of partially accounted for emissions sources.

Scope 2 emissions were reduced to zero in 2019-20 through the use of 100% renewable energy. Council has used an increasing volume of renewable energy since 2016-17, resulting in a gradual decline in scope 2 emissions from baseline levels. Council used 60,401 MWh of renewable energy in 2019-20, including the purchase and voluntary retirement of 47,705 Large-Scale Generation Certificates (LGCs).

Emissions since base year

Emissions source	2016-17 (tCO_2-e)	2019-20 (tCO_2-e)	Emissions change (tCO_2-e)	% change
Scope 1	285,376	224,607	-60,769	-21%
Scope 2	51,563	0	-51,563	-100%
Scope 3	329,896	372,275	-42,440	+13%
Total gross emissions	666,835	N/A	N/A	N/A
Emissions reduced through voluntarily retired LGCs	22,796	N/A	N/A	N/A
Net emissions	644,039	596,882	-47,157	-7%

7. APPENDIX 1: EMISSIONS BOUNDARY



8. APPENDIX 2: EXCLUDED EMISSIONS

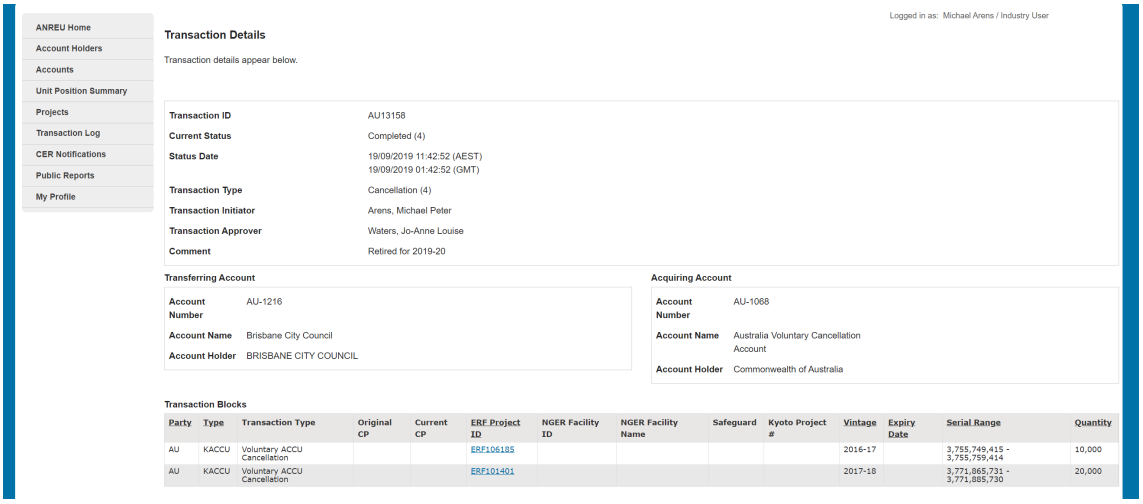
To be deemed relevant an emission must meet two of the five relevance criteria. Excluded emissions are detailed below against each of the five criteria.

	Relevance test				
Excluded emissions source	*The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions*	*The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.*	*Key stakeholders deem the emissions from a particular source are relevant.*	*The responsible entity has the potential to influence the reduction of emissions from a particular source.*	*The emissions are from outsourced activities previously undertaken within the organisation's boundary, or from outsourced activities typically undertaken within the boundary for comparable organisations.*
Fugitive emissions – landfill gas management	Yes	No	No	No	No
Fugitive emissions – landfill (closed prior to 2016)	Yes	No	No	No	No
Investments	Yes	No	No	No	No
Office equipment	No	No	No	Yes	No
Municipal waste disposal at third party facilities	Yes	No	No	No	No
Other purchased goods and services	No	No	No	Yes	No

9. APPENDIX 3: NON-QUANTIFIED EMISSIONS

Non-quantification test				
Relevant-non-quantified emission sources	*Immaterial <1% for individual items and no more than 5% collectively*	*Quantification is not cost effective relative to the size of the emission but uplift applied*	*Data unavailable but data management plan is in place (see Section 2 Emissions Boundary)*	*Initial emissions non-quantified but repairs and replacements quantified*
Downstream leased assets (partially quantified)		No	Yes	No
Upstream leased assets – base building services (partially quantified)		No	Yes	No
Water use (partially quantified)		No	Yes	No

10. APPENDIX 4: EVIDENCE OF ACCU SURRENDER



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Account Holders
Accounts
Unit Position Summary
Projects
Transaction Log
CER Notifications
Public Reports
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Transaction Details

Transaction details appear below.

Transaction ID	AU13158
Current Status	Completed (4)
Status Date	19/09/2019 11:42:52 (AEST) 19/09/2019 01:42:52 (GMT)
Transaction Type	Cancellation (4)
Transaction Initiator	Arens, Michael Peter
Transaction Approver	Waters, Jo-Anne Louise
Comment	Retired for 2019-20

Transferring Account

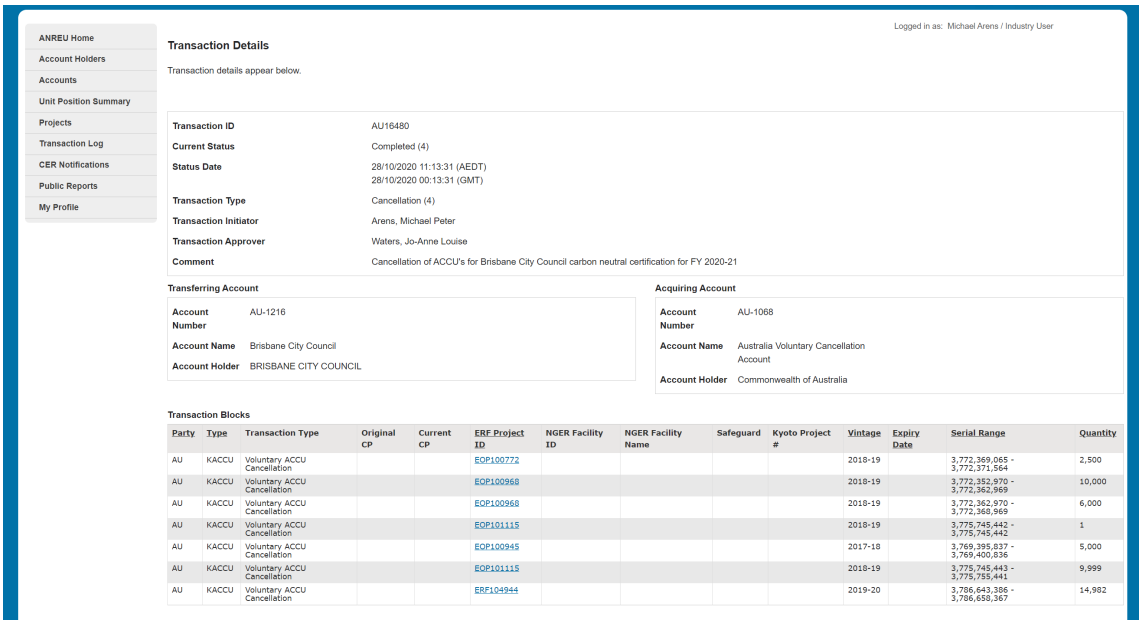
Account Number	AU-1216
Account Name	Brisbane City Council
Account Holder	BRISBANE CITY COUNCIL

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			ERF106185					2016-17		3,755,749,415 - 3,755,759,414	10,000
AU	KACCU	Voluntary ACCU Cancellation			ERF101401					2017-18		3,771,865,731 - 3,771,885,730	20,000



ANREU Home
Account Holders
Accounts
Unit Position Summary
Projects
Transaction Log
CER Notifications
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Transaction Details

Transaction details appear below.

Transaction ID	AU16480
Current Status	Completed (4)
Status Date	28/10/2020 11:13:31 (AEDT) 28/10/2020 00:13:31 (GMT)
Transaction Type	Cancellation (4)
Transaction Initiator	Arens, Michael Peter
Transaction Approver	Waters, Jo-Anne Louise
Comment	Cancellation of ACCU's for Brisbane City Council carbon neutral certification for FY 2020-21

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			EOP100772					2018-19		3,772,369,065 - 3,772,371,564	2,500
AU	KACCU	Voluntary ACCU Cancellation			EOP100968					2018-19		3,772,352,970 - 3,772,362,969	10,000
AU	KACCU	Voluntary ACCU Cancellation			EOP100968					2018-19		3,772,362,970 - 3,772,368,969	6,000
AU	KACCU	Voluntary ACCU Cancellation			EOP101115					2018-19		3,775,745,442 - 3,775,745,442	1
AU	KACCU	Voluntary ACCU Cancellation			EOP100945					2017-18		3,769,395,837 - 3,769,400,836	5,000
AU	KACCU	Voluntary ACCU Cancellation			EOP101115					2018-19		3,775,745,443 - 3,775,755,441	9,999
AU	KACCU	Voluntary ACCU Cancellation			ERF104944					2019-20		3,786,643,386 - 3,786,658,367	14,982