



PUBLIC DISCLOSURE STATEMENT

CITY OF MELBOURNE

ORGANISATION CERTIFICATION

FY2022-23

Australian Government
**Climate Active
Public Disclosure Statement**



NAME OF CERTIFIED ENTITY	CITY OF MELBOURNE
REPORTING PERIOD	1 July 2022 – 30 June 2023 Arrears Report
DECLARATION	<p><i>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.</i></p> <p><i>Alison Leighton</i></p> <p>Alison Leighton Chief Executive Officer 30 October 2023</p>



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

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Version August 2023.



1. CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	12,175 tCO ₂ -e
OFFSETS USED	40% VERs 60% VCUs
RENEWABLE ELECTRICITY	Total renewables: 98.21%
CARBON ACCOUNT	Prepared by: City of Melbourne
TECHNICAL ASSESSMENT	October 2022 Tim Pittaway RSM Australia Next technical assessment due: FY2024-25

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2. CARBON NEUTRAL INFORMATION

Description of certification

The City of Melbourne is certified carbon neutral for council operations. This certification covers all City of Melbourne facilities, as well as major contracts and services.

Organisation description

The City of Melbourne (ABN 55 370 219 287), legally known as the Melbourne City Council, is one of 79 councils in Victoria operating as a public statutory body incorporated under the Victorian Local Government Act 2020.

The City of Melbourne sits at the heart of Greater Melbourne, the state capital of Victoria and is Australia's second largest city. The municipality covers 37.7 square kilometers, spanning the Melbourne city center and surrounding areas (see Figure 1), and has a residential population of 184,000.

As a local government authority, the City of Melbourne strives to achieve its community's vision of a bold, inspirational and sustainable city. To lead the city towards this vision, the City of Melbourne is focused on reducing its own environmental impact. In 2019, the City of Melbourne declared a climate and biodiversity emergency and amended its target to zero emissions for the municipality to 2040, ten years ahead of schedule. Actions to achieve this are set out in the City of Melbourne's [Emissions Reduction Plan for our Operations 2021-2026](#). The Plan also outlines a commitment to maintain carbon neutrality for our operations.

The following subsidiaries / child companies are also included within this certification.

Legal entity name	ABN	ACN
CITYWIDE SERVICE SOLUTIONS PTY LTD	94 066 960 085	066 960 085
QUEEN VICTORIA MARKET PTY LTD	44 069 959 771	069 959 771

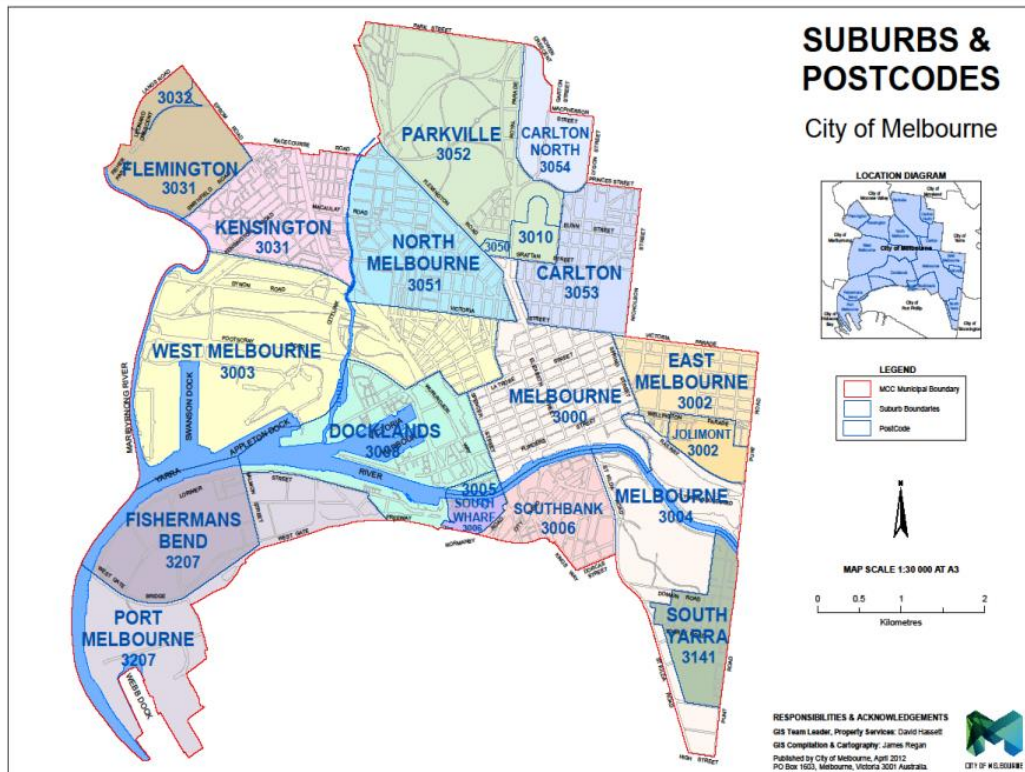


Figure 1: City of Melbourne boundary map

Services and Facilities

The City of Melbourne is responsible for maintaining an extensive range of facilities and delivering a diverse range of services. The community infrastructure maintained by the City of Melbourne includes roads, bridges, drains, town halls, libraries, recreation facilities, child care centres, community hubs, event venues, parks and gardens.

The majority of the City of Melbourne's operations are run out of three main administrative buildings in the central business district, including the Melbourne Town Hall, Council House 1 and Council House 2.

Additional operations are run out of a number of external sites and facilities located throughout the municipality. The City of Melbourne owns and/or operates more than 350 buildings, parks, gardens and other facilities.

The services provided by the City of Melbourne include property, economic, human, recreational and cultural services. The City of Melbourne also enforces state and local laws relating to matters of land use, planning, environment protection, public health, traffic and parking, and animal management.

Below is an overview of the services and operations undertaken by the City of Melbourne during 2021-22:

- Animal management
- Community and cultural services
- Event management and sponsorship
- Health services
- Local laws
- Parks, gardens and open space
- Planning and building
- Recreation services
- Roads and parking
- Strategic planning
- Sustainability
- Waste management

3.EMISSIONS BOUNDARY

Inside the emissions boundary

All emission sources listed in the emissions boundary are part of the carbon neutral claim.

Quantified emissions have been assessed as relevant and are quantified in the carbon inventory. This may include emissions that are not identified as arising due to the operations of the certified entity, however are **optionally included**.

Non-quantified emissions have been assessed as relevant and are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. All material emissions are accounted for through an uplift factor. Further detail is available at Appendix C.

Outside the emissions boundary

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

Inside emissions boundary

Quantified

City of Melbourne

- Electricity
- Stationary energy
- Natural Gas
- Water
- Waste
- Transport Fuel
- Refrigerants
- Paper
- Business Travel –flights, taxi,
- Staff Commute to Work
- Working from Home
- Waste
- Recycling
- Street lighting

Subsidiaries

- Queen Vic Markets
 - Electricity
 - Natural Gas
 - Fuel
- Citywide
 - Electricity
 - Natural Gas
 - Fuel
 - Waste

Supply chain

- Electricity
- Natural gas
- Fuel
- Refrigerant
- Waste
- Water
- Chemicals

Non-quantified

- Purchased goods and services with < 0.5% expenditure
- Web Hosting & Services
- Video / Filming / Photography
- Catering
- Real Estate Services

Outside emission boundary

Excluded

- Citywide (non-CoM contract)*
- Municipal waste disposal at third party facilities
- Animal Management
- Upstream transportation & distribution
- Business travel (regional)
- Downstream transportation & distribution
- Processing, use & end of life of sold products
- Capital goods
- Investments
- Community Emissions

*Citywide is a wholly owned subsidiary that is not under City of Melbourne's operational control. Citywide emissions not associated with City of Melbourne usage have been excluded. City of Melbourne represents 19% of Citywide's revenue and thus emissions not associated with service provision to City of Melbourne are excluded

Data management plan for non-quantified sources

The data management plan below outlines how more rigorous quantification can be achieved for material (greater than 1%) non-quantified emission sources.

4. EMISSIONS REDUCTIONS

Emissions reduction strategy

The City of Melbourne has been Climate Active certified since 2011. We are committed to reducing gross emissions both in our Council operations and in our municipality as a whole. Our new and ambitious commitments include:

- Achieve Net Zero Emissions by 2040 for the entire municipality.
- Transition Council operations from fossil fuels by 2030.
- Embed climate change and biodiversity action in Council processes, programs and design and construction of assets.

Further information can be found at the City of Melbourne's [Emissions Reduction Plan \(ERP\) for Council Operations](#) which summarises the actions the City will take to reduce emissions from activities and operations between 1 July 2021 and 30 June 2026, and maintain carbon neutrality.

Emissions reduction actions

The ERP describes actions the City of Melbourne has taken to reduce emissions from activities and operations across eight priority areas:

1. Carbon Neutral Events
2. Zero carbon for our buildings
3. Measure and minimise embodied carbon in design and construction
4. Carbon neutral goods and services
5. Zero carbon corporate transport
6. Towards zero waste for Council operations
7. Low emissions subsidiaries
8. Tell City of Melbourne's climate change story

Melbourne Renewable Energy Project

The Melbourne Renewable Energy Project (MREP) marked the first time in Australia that a group of local governments, cultural institutions, universities and corporations collectively purchased renewable energy from a newly built facility.

The 39-turbine Crowlands Windfarm near Ararat is owned and operated by Melbourne-based clean energy company Pacific Hydro. Under this project, fourteen members of the buying group combined their purchasing power and committed to purchase 88 GWh of electricity per year from the windfarm under a long-term power purchase agreement. The agreement enabled financing and construction arrangements for the project; and because the windfarm generates more than the purchasing group's needs, it brings additional renewable energy into the market.

The windfarm began supplying energy from 1 January 2019 and from this date the City of Melbourne's electrical load has been powered by renewable energy. The renewable energy certificates generated by the windfarm are surrendered on behalf of City of Melbourne by our electricity retailer and the electricity

usage is treated as zero emissions.

Solar

Since 2003 the City of Melbourne has undertaken multiple solar photovoltaic installations to reduce Council's reliance on Victoria's carbon-intensive electricity grid.

The existing solar system at the [Queen Vic Market](#) was upgraded to a larger system in FY23 as part of a wider redevelopment. The new system comprises approximately 1,500 solar panels and abate more than 1,300 tonnes of carbon emissions each year.

5. EMISSIONS SUMMARY

Emissions over time

The below table summarises the total emissions of each reporting period since the City of Melbourne started reporting through Climate Active (formally National Carbon Offset Standard) in 2011-12.

Emissions since base year		Total tCO ₂ -e
Year 1:	2011–12	52,059
Year 2:	2012–13	49,030
Year 3:	2013–14	50,967
Year 4:	2014–15	46,125
Year 5:	2015–16	43,083
Year 6:	2016–17	37,172
Year 7:	2017–18	35,914
Year 8:	2018–19	23,706
Year 9:	2019–20	12,346
Year 10:	2020–21	11,209
Year 11:	2021–22	11,429
Year 12	2022-23	12,163

Significant changes in emissions

The City of Melbourne has seen a steady decline in emissions each year. In total, the City of Melbourne's operational emissions have reduced by 78 per cent from our 2011-12 baseline. Emission reductions have been driven largely by our Emissions Reduction Plan, however reductions have far exceeded the science-based targets set out in this Plan.

- Reductions between FY16 and FY18 are attributable to major energy efficiency program funded by the Clean Energy Finance Corporation (CEFC).
- Significant step changes between FY19 and FY20 were a result of the purchase of renewable energy through the Melbourne Renewable Energy Project.
- Changes between FY21 and FY23 are predominantly due to the easing of COVID-19 lockdown restrictions and improvement in the quality of data gathering for major emissions sources.

Changes in emission source categories

The below table summarises the reasons for significant (+/- 10%) change in emission source categories between this year (FY23) and the previous year.

Emission source name	Previous year emissions (t CO ₂ -e)	Current year emissions (t CO ₂ -e)	Detailed reason for change
Diesel oil post-2004	3,157.13	3,886.68	Increase of approximately 20% in emissions factor for Diesel fuel between FY22 and FY23.
Water supply and wastewater treatment - Melbourne	1,760.05	2,468.82	Improved data gathering methodology resulted in a number additional water accounts included in FY23 which were not included in FY22.

Use of Climate Active carbon neutral products, services, buildings or precincts

N/A

Emissions summary

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

Emission category	Sum of Scope 1 (t CO ₂ -e)	Sum of Scope 2 (t CO ₂ -e)	Sum of Scope 3 (t CO ₂ -e)	Sum of Total Emissions (t CO ₂ -e)
Accommodation and facilities	-	-	9.05	9.05
Cleaning and chemicals	8.98	-	-	8.98
Electricity	-	267.95	35.46	303.42
Stationary energy (gaseous fuels)	933.88	-	72.49	1,006.37
Stationary energy (liquid fuels)	252.25	-	66.36	318.60
Transport (air)	-	-	83.82	83.82
Transport (land and sea)	3,619.39	-	922.43	4,541.82
Waste	-	-	2,011.20	2,011.20
Water	-	-	2,468.82	2,468.82
Working from home	-	-	795.63	795.63
Office equipment and supplies	-	-	35.74	35.74
Total	4,814.50	267.95	6,501.00	11,583.46

Uplift factors

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

Reason for uplift factor	tCO ₂ -e
Uplift to account for non-quantified sources where data is unavailable or where data collection is not cost effective	579.2
<i>Total footprint to offset (uplift factors + net emissions)</i>	12,163



6. CARBON OFFSETS

Offsets retirement approach


This certification has taken an in-arrears offsetting approach. The total emission to offset is **12,175 t CO₂-e**. The total number of eligible offsets used in this report is **12,163**. Of the total eligible offsets used, 0 were previously banked and 12,175 were newly purchased and retired. 12 are remaining and have been banked for future use.

Co-benefits

Table 5. Offset projects and co-benefits

Project	Offsets (tCO ₂ -e)	% of CoM inventory
Grouped Hydropower Plants in Chongqing, Yunnan, Sichuan and Guizhou Provinces, P.R.	7,546	62%
<p>This project consists of multiple small-scale hydropower plants that generate renewable energy for rural Southwest and South Central China. By supplying clean hydroelectric power to the local grid, the project displaces greenhouse gas emissions, helping mitigate climate change. The project helps to improve the livelihoods of people living in remote and sometimes isolated communities through funding a number of initiatives, including a social fund and sustainable agricultural workshops.</p> <p>The project contributes to the following United Nations Sustainability Goals:</p> 		
EcoAustralia - Everbright Suzhou LFG (2013) Gold Standard project*	4,629	38%
<p>Over 80% of China's electricity supply comes from coal-based power plants. China's growing cities and economies make the supply of energy and goods a logistical challenge – along with its disposal and the implications of growing waste streams. This project captures methane emissions from a landfill site and uses them to generate power, contributing to sustainable development in China.</p> <p>The project contributes to the following United Nations Sustainability Goals:</p> 		

***Units stapled with Biodiversity units**

EcoAustralia - Mount Sandy Biodiversity protection (ABU)	1,200	n/a
<p>The Mount Sandy project ensures permanent protection for a regionally and culturally important pocket of biodiversity-rich land in partnership with its Traditional Owners. Local birds, animals and plants flourish undisturbed, while native plants for revegetation will be supplied by the local nursery at Raukkan Aboriginal Community, a self-governed Indigenous community 50 kilometres northwest of the project site.</p> <p>The project contributes to the following United Nations Sustainable Development Goals:</p> 		

Eligible offsets retirement summary

Offsets retired for Climate Active carbon neutral certification											
Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Stapled quantity	Eligible quantity retired (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 (%)
Grouped Hydropower Plants in Chongqing, Yunnan,Sichuan and Guizhou Provinces, P.R. China	VCU	Verra	18 October 2023	9407-95978952-95983030-VCS-VCU-785-VER-CN-1-438-28032016-25092016-1	2016	0	4,079	0	0	4,079	34%
Grouped Hydropower Plants in Chongqing, Yunnan,Sichuan and Guizhou Provinces, P.R. China	VCU	Verra	18 October 2023	10901-255320439-255320515-VCS-VCU-785-VER-CN-1-438-26122015-27032016-1	2016	0	77	0	0	77	0.6%
Grouped Hydropower Plants in Chongqing, Yunnan,Sichuan and Guizhou Provinces, P.R. China	VCU	Verra	18 October 2023	8534-29310681-29310696-VCS-VCU-785-VER-CN-1-438-26122015-27032016-1	2016	0	16	0	0	16	0.1%
Grouped Hydropower Plants in Chongqing, Yunnan,Sichuan and Guizhou Provinces, P.R. China	VCU	Verra	18 October 2023	6943-360495871-360495904-VCU-028-APX-CN-1-438-28032016-25092016-1	2016	0	34	0	0	34	0.3%
Grouped Hydropower Plants in Chongqing, Yunnan,Sichuan and Guizhou Provinces, P.R. China	VCU	Verra	18 October 2023	13098-471501664-471502155-VCS-VCU-785-VER-CN-1-438-28032016-25092016-1	2016	0	492	0	0	492	4%
Grouped Hydropower Plants in Chongqing, Yunnan,Sichuan and Guizhou Provinces, P.R. China	VCU	Verra	18 October 2023	13650-519985710-519988262-VCS-VCU-785-VER-CN-1-438-26122015-27032016-1	2016	0	2,553	0	0	2,553	21%

EcoAustralia Mount Sandy Biodiversity protection	ABU		18 October 2023	76226-81149	2013	4,924	-	-	-	-	-
Stapled to											
Suzhou Qizi Mountain Landfill Gas Recovery Project	VER	GSIR	18 October 2023	GS1-1-CN-GS397-21-2013-3558-89690-94613	2020	-	4,924	0	12	4,912	40%
Total eligible offsets retired and used for this report										12,163	
Total eligible offsets retired this report and banked for use in future reports										12	

Type of offset units	Eligible quantity (used for this reporting period)	Percentage of total
Verified Emissions Reductions (VERs)	4,924	40%
Verified Carbon Units (VCUs)	7,251	60%

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) summary

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

1. Large-scale Generation certificates (LGCs)* 13,763

* LGCs in this table only include those surrendered voluntarily (including through PPA arrangements), and does not include those surrendered in relation to the LRET, GreenPower, and jurisdictional renewables.

Project supported by LGC purchase	Project location	Eligible unit type	Registry	Surrender date	Accreditation code	Certificate serial number	Generation year	Fuel source	Quantity (MWh)
Melbourne City Council									
Crowlands Wind Farm	VIC, Australia	LGC	REC Registry	30-Mar-23	WD00VC32	79928-83331	2022	Wind	3,404
Crowlands Wind Farm	VIC, Australia	LGC	REC Registry	30-Mar-23	WD00VC32	27963-30905	2022	Wind	2,943
Crowlands Wind Farm	VIC, Australia	LGC	REC Registry	*To be surrendered in 2024	WD00VC32	4170-7148	2023	Wind	2,979
Crowlands Wind Farm	VIC, Australia	LGC	REC Registry	*To be surrendered in 2024	WD00VC32	59761-63126	2023	Wind	3,366
								Melbourne City Council	12,692
Melbourne City Council - Engineering & Eng Collective									

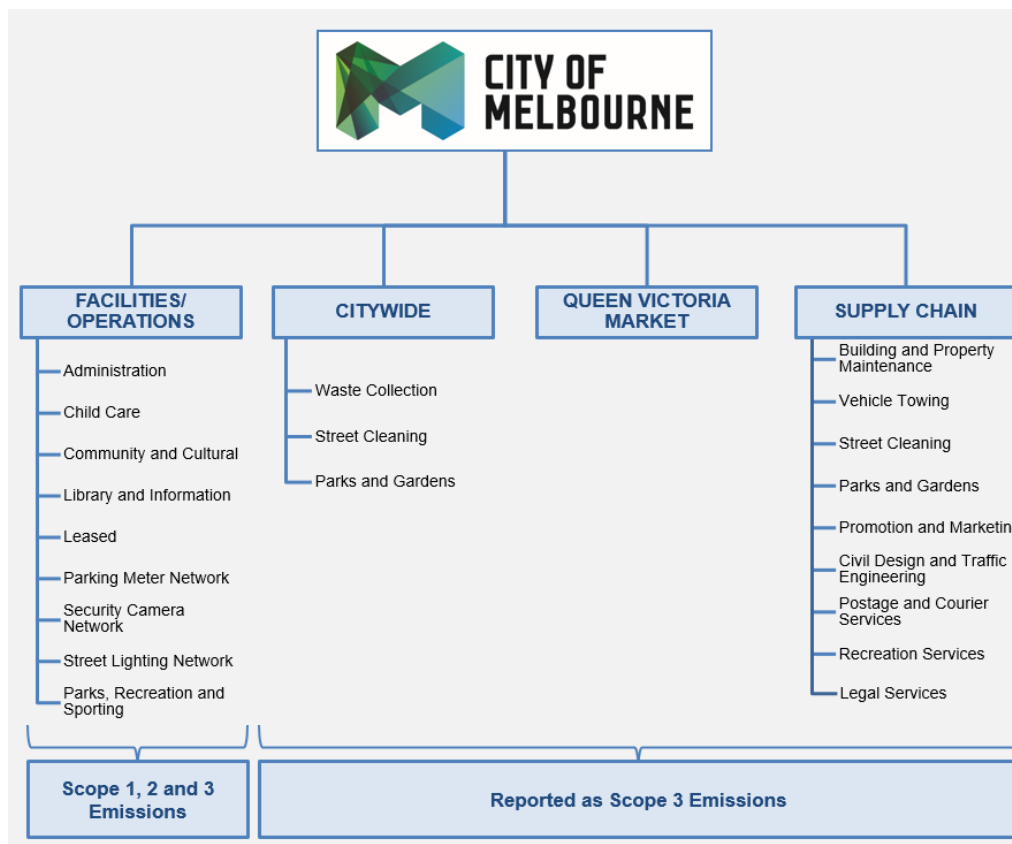
Crowlands Wind Farm	VIC, Australia	LGC	REC Registry	30-Mar-23	WD00VC32	211310- 211550	2022	Wind	241
Crowlands Wind Farm	VIC, Australia	LGC	REC Registry	30-Mar-23	WD00VC32	30906-31136	2022	Wind	231
Crowlands Wind Farm	VIC, Australia	LGC	REC Registry	*To be surrendered in 2024	WD00VC32	7149-7381	2023	Wind	233
Crowlands Wind Farm	VIC, Australia	LGC	REC Registry	*To be surrendered in 2024	WD00VC32	74919-75151	2023	Wind	233
Melbourne City Council - Engineering & Eng Collective									938
Citywide Service Solutions Pty Ltd									
Crowlands Wind Farm	VIC, Australia	LGC	REC Registry	30-Mar-23	WD00VC32	176704- 176895	2022	Wind	192
Crowlands Wind Farm	VIC, Australia	LGC	REC Registry	30-Mar-23	WD00VC32	176896- 177046	2022	Wind	151
Crowlands Wind Farm	VIC, Australia	LGC	REC Registry	*To be surrendered in 2024	WD00VC32	13866-14018	2023	Wind	153
Crowlands Wind Farm	VIC, Australia	LGC	REC Registry	*To be surrendered in 2024	WD00VC32	63418-63533	2023	Wind	116
Citywide Service Solutions Pty Ltd									612
Citywide is a wholly owned subsidiary that is not under City of Melbourne's operational control. Citywide emissions not associated with City of Melbourne usage have been excluded. City of Melbourne includes 21.8% of Citywide's emissions (and associated LGCs) as this is the proportion of Citywide's revenue associated with service provision to City of Melbourne									133
Total LGCs surrendered this report and used in this report									13,763

APPENDIX A: ADDITIONAL INFORMATION

The City of Melbourne’s greenhouse gas emissions inventory has been prepared according to the Climate Active Carbon Neutral Standard. The emissions boundary is consistent with the GHG Protocol Corporate Accounting and Reporting Standard:

- *Organisational boundary:* The City of Melbourne uses the operational control approach for measuring and reporting on the organisation’s emissions. The City of Melbourne includes emissions from all activities over which we have full operational control (see Figure 2).
- *Operational boundary:* The emissions inventory includes direct emission sources (scope 1), emissions from purchased energy (scope 2) and other measurable indirect emission sources (scope 3) that are material to the City of Melbourne’s operations.

Figure 2: Organisational and operational boundary



The following greenhouse gases have been considered:

- Carbon dioxide CO₂
- Methane CH₄
- Nitrous oxide N₂O
- Synthetic gases HFCs, SF₆, CF₄, C₂F₆

The following emission sources have been included:

EMISSIONS SOURCE	SCOPE
Natural gas	1, 3
Transport fuels	1, 3
Stationary fuels	1, 3
Refrigerants	1
Grid electricity	2, 3
Waste disposal	3
Reticulated water	3
Subsidiaries	3
Supply chain	3
Staff and volunteer travel	3

The City of Melbourne maintains an internal reporting procedures document. This document outlines the reporting process and acts as a guide for the relevant reporting officer to assist in preparing the Climate Active inventory in an accurate, transparent and timely manner.

Utility data for gas, water and electricity is collated on a carbon management software platform. The software provider collects data directly from utility providers and the City reporting officer manually uploads supply chain data.

A materiality test is used to initiate the reporting process to determine the major areas of business activity and associated emissions. The assessment looks at total expenditure across the organisation through account codes for all purchased goods and services. All sources that are equal or greater than 0.5% of the total expenditure are assessed for possible inclusion. Anything outside this range is excluded as immaterial and an uplift factor is applied.

For everything within range, the reporting officer requests data directly from the contractors and suppliers. These data owners are provided with a template for providing information on the energy, water, waste, and materials used in line with the services provided to the City of Melbourne. Provision of environmental data is included as a standard clause in City of Melbourne contracts. Where contractors and suppliers are unable to provide reliable data the City of Melbourne works with these specific contractors to build their capacity to provide suitable data.

Offsets strategy

The City of Melbourne purchases offsets according to the principles set out in our [City of Melbourne Carbon Neutrality Strategy \(Council Operations\)](#) approved by the Council's Future Melbourne Committee at a meeting held on 17 April 2012. These principles are constantly evolving as we strive to ensure best practice in response to the dynamic voluntary offset market.

The most recent offset procurement in 2023 was targeted as follows:

Project Type

Preference for:

- Draw-down over avoided emissions projects
- Nature-based projects (preferably not avoided deforestation if possible)
- Australia-based projects (although international projects will also be considered)

Transparency

The provider has supplied detailed evidence to support the project's claims of quality and credibility. This may include:

- Project documentation
- Factsheets and collateral
- Register details
- Substantiation of project outcomes & benefits
- Alignment to UN SDG's
- Any other material which supports the projects' claims of integrity and additionality.

Co-Benefits

Preference for:

- Aboriginal and Torres Strait Islander employment and training
- Local economic and employment opportunities
- Positive social and health outcomes
- Improved biodiversity and ecosystem services

The City of Melbourne procures offsets at the start of each reporting period. These offsets are held by our offset provider and are then retired upon request at the end of the reporting period, after the inventory has been completed.

As of 30 June 2023, the City of Melbourne held 999 kW of solar capacity across 27 sites:

Installed Capacity	Site
200 kW	North Melbourne Football Club
250 kW	Queen Victoria Market
85 kW	Library at the Dock
52 kW	Fitzroy Garden Depot
45.8 kW	Carlton Baths (2)
38.9 kW	Kensington Flemington Bowls
38 kW	Gowrie Child Care
35.1 kW	Community Hub at The Dock (2)

30 kW	Community Hub at The Dock (1)
27 kW	Fitzroy Garden Visitor Centre
20 kW	Boyd School
20 kW	Flagstaff Bowls Club
15.6 kW	Carlton Baths (1)
15.6 kW	Fawkner Park Children's Centre & Senior Citizens Centre
15.6 kW	Kensington Family Services
10.4 kW	East Melbourne Library
10.4 kW	Kensington neighbourhood Centre
7.5 kW	Royal Park North Depot
6.24 kW	North Melbourne Children's Centre
5.1 kW	The Venny
4.8 kW	Urban Camp
3.6 kW	CH2
3.23 kW	Art Play
2.3 kW	North Melbourne Baths
1.3 kW	Signal
7.5 kW	Royal Park North Depot
40.3 kW	Lady Huntingfield

Energy Efficiency

The City of Melbourne's ERP and Asset Management Strategy 2015-2026 help to ensure we make the right decisions about community assets, with the right information, by establishing the correct data and processes. The integration of these three elements helps ensure best practice energy efficiency technology is delivered across the life cycle of assets. During FY23, electrification design documents were completed for Boyd Community Hub and Carlton Baths. Additionally building analytics monitoring was installed at 5 sites: East Melbourne Library, Library at the Dock, Kathleen Syme, Kensington Neighbourhood Centre and Lady Huntingfield Childcare .

Waste Reduction

The City of Melbourne's Waste and Resource Recovery Strategy 2030 addresses the emissions generated by waste across the municipality and sets a key target of 1.2Mt CO₂-e in greenhouse gas emissions avoided by 2030. The strategy outlines key activities to enhance the circular economy that will reduce environmental impacts, improve the amenity and livability of the city, and make the waste and resource recovery system more resilient. The City of Melbourne does not own or operate any landfills; however the waste collected from our facilities is taken to organics and comingled recycling stations and landfills outside the municipality. The indirect emissions associated with recycling and waste collected at our facilities is included in our operational emissions inventory.

Transport

Staff at the City of Melbourne regularly travel by foot, cycling with electric bicycles, taking public transport and driving electric vehicles to avoid emissions through the use of petroleum and diesel run vehicles. Emissions from any work-related air travel are offset. Carbon neutrality for the vehicle fleet is maintained through: offsetting transport fuel, reducing fleet size, reducing the vehicle engine size, introducing electric vehicles, charging electric vehicles in car parks owned by the City of Melbourne, and increasing the

weighting given to fuel efficiency in the evaluation criteria for new vehicle purchases. The City of Melbourne's corporate vehicle fleet comprises 60 vehicles, including 18 fully electric vehicles, 12 hybrid vehicles and 11 plug-in hybrid electric vehicles. Electric and hybrid vehicles constitute 69% of City of Melbourne's total fleet.

Events

Since 2018-19, the City of Melbourne has maintained a certified carbon neutral large events portfolio consisting of Melbourne Fashion Week, Melbourne Music Week and Melbourne Knowledge Week. During 2022/23 the famous Moomba Festival, Melbourne Fashion Week and the Docklands Firelight Festival all achieved carbon neutral certification. Preparations were also made to certify the City of Melbourne's newest major event 'Now or Never' which ran in from August 17 to September 2, 2023. See more at: [Carbon Neutral Events](#).

APPENDIX B: ELECTRICITY SUMMARY

There are two international best-practice methods for calculating electricity emissions – the location-based method and the market-based method. Reporting electricity emissions under both methods is called dual reporting.

Dual reporting of electricity emissions is useful, as it provides different perspectives of the emissions associated with a business's electricity usage.

Location-based method:

The location-based method provides a picture of a business'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.

Market-based method:

The market-based method provides a picture of a business'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.

For this certification, electricity emissions have been set by using the **market-based approach**.

Market Based Approach Summary			
Market Based Approach	Activity Data (kWh)	Emissions (kg CO ₂ -e)	Renewable Percentage of total
Behind the meter consumption of electricity generated	402,481	0	2%
Total non-grid electricity	402,481	0	2%
LGC Purchased and retired (kWh) (including PPAs)	13,763,000	0	78%
GreenPower	0	0	0%
Climate Active precinct/building (voluntary renewables)	0	0	0%
Precinct/Building (LRET)	0	0	0%
Precinct/Building jurisdictional renewables (LGCs surrendered)	0	0	0%
Electricity products (voluntary renewables)	0	0	0%
Electricity products (LRET)	0	0	0%
Electricity products jurisdictional renewables (LGCs surrendered)	0	0	0%
Jurisdictional renewables (LGCs surrendered)	1,223	0	0%
Jurisdictional renewables (LRET) (applied to ACT grid electricity)	310	0	0%
Large Scale Renewable Energy Target (applied to grid electricity only)	3,260,040	0	18%
Residual Electricity	317,715	303,418	0%
Total renewable electricity (grid + non grid)	17,427,055	0	98%
Total grid electricity	17,342,289	303,418	96%
Total electricity (grid + non grid)	17,744,770	303,418	98%
Percentage of residual electricity consumption under operational control	100%		
Residual electricity consumption under operational control	317,715	303,418	
Scope 2	280,580	267,954	
Scope 3 (includes T&D emissions from consumption under operational control)	37,136	35,464	
Residual electricity consumption not under operational control	0	0	
Scope 3	0	0	

Total renewables (grid and non-grid)	98.21%
Mandatory	18.37%
Voluntary	77.57%
Behind the meter	2.27%
Residual scope 2 emissions (t CO₂-e)	267.95
Residual scope 3 emissions (t CO₂-e)	35.46
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO₂-e)	267.95
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO₂-e)	35.46
Total emissions liability (t CO₂-e)	303.42

Figures may not sum due to rounding. Renewable percentage can be above 100%

Location Based Approach Summary						
Location Based Approach	Activity Data (kWh) total	Under operational control			Not under operational control	
Percentage of grid electricity consumption under operational control	100%	(kWh)	Scope 2 Emissions (kg CO2-e)	Scope 3 Emissions (kg CO2-e)	(kWh)	Scope 3 Emissions (kg CO2-e)
ACT	1,650	1,650	1,204	99	0	0
NSW	46,600	46,600	34,018	2,796	0	0
SA	0	0	0	0	0	0
VIC	17,277,256	17,277,256	14,685,668	1,209,408	0	0
QLD	12,925	12,925	9,435	1,939	0	0
NT	0	0	0	0	0	0
WA	0	0	0	0	0	0
TAS	3,857	3,857	656	39	0	0
Grid electricity (scope 2 and 3)	17,342,289	17,342,289	14,730,981	1,214,280	0	0
ACT	0	0	0	0		
NSW	0	0	0	0		
SA	0	0	0	0		
VIC	402,481	402,481	0	0		
QLD	0	0	0	0		
NT	0	0	0	0		
WA	0	0	0	0		
TAS	0	0	0	0		
Non-grid electricity (behind the meter)	402,481	402,481	0	0		
Total electricity (grid + non grid)	17,744,770					

Residual scope 2 emissions (t CO2-e)	14,730.98
Residual scope 3 emissions (t CO2-e)	1,214.28
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO2-e)	14,730.98
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO2-e)	1,214.28
Total emissions liability (t CO2-e)	15,945.26

APPENDIX C: INSIDE EMISSIONS BOUNDARY

Non-quantified emission sources

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

1. **Immaterial** <1% for individual items and no more than 5% collectively
2. **Cost effective** Quantification is not cost effective relative to the size of the emission but uplift applied.
3. **Data unavailable** Data is unavailable but uplift applied. 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.

Non-quantified emissions have been assessed as relevant and are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. All material emissions are accounted for through an uplift factor.

Relevant-non-quantified emission sources	(1) Immaterial	(2) Cost effective (but uplift applied)	(3) Data unavailable (but uplift applied & data plan in place)	(4) Maintenance
Purchased goods and services (artists/speaker travel)	Yes	No	No	No
Web Hosting & Services	No	No	Yes	No
Video/Filming/Photography	No	Yes	No	No
Catering	No	Yes	No	No
Real Estate Services	Yes	No	No	No

Data management plan for non-quantified sources

The data management plan below outlines how more rigorous quantification can be achieved for material (greater than 1%) non-quantified emission sources.

Non quantified emission sources	Data management plan to quantify these sources
Web Hosting & Services	Majority (80%) of data is hosted and stored in on premises servers and emissions from energy use are captured through building electricity usage. The remaining data is stored in the cloud. Investigations are underway with City of Melbourne IT team to determine how to accurately quantify energy use data from these solutions to determine if it represents material emissions.
Catering	Majority of Catering is undertaken through single contractor within the Melbourne town hall, emissions are included within energy use of the building. Catering at sites external to City of Melbourne are not quantified. Emissions are considered to be immaterial and covered through uplift factor.

APPENDIX D: OUTSIDE EMISSIONS BOUNDARY

Excluded emission sources

The below emission sources have been assessed as not relevant to this organisation's operations and are outside of its emissions boundary. These emissions are not part of the carbon neutral claim. Emission 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** The emissions from a particular 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 a particular source.
3. **Risk** The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.
4. **Stakeholders** Key stakeholders deem the emissions from a particular source are relevant.
5. **Outsourcing** 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.

Emission sources tested for relevance	Size	Influence	Risk	Stakeholders	Outsourcing	Justification
Citywide (non-CoM contract)	Yes	No	No	No	No	Size: Citywide is a wholly owned subsidiary that is not under City of Melbourne's operational control. Citywide emissions not associated with City of Melbourne usage have been excluded. City of Melbourne includes 21% of Citywide's emissions, as this is the proportion of Citywide's revenue associated with service provision to City of in 2022-23. This is consistent with the method used for all contractors.
Municipal waste disposal at third party facilities	Yes	No	No	No	No	Size: The City of Melbourne includes emissions associated with waste generated during the course of business, i.e. within the operational control of the City. The emissions associated with waste generated by residents and businesses (municipal, commercial, industrial, construction and demolition waste streams) have been excluded, as these waste streams are not under the City's operational control. However it should be noted the City collects and transports a portion of this waste, Waste collected during the course of street cleaning is excluded, as the City has no operational control over this waste. However the emissions resultant from Citywide transporting this waste is included in within our emissions.
Animal Management	No	No	No	No	No	Size: Animal management is primarily serviced in-house by City of Melbourne staff and the fuel used is included in the corporate fleet emissions source. There are instances where the collection of animals is undertaken by the RSPCA but these are considered insignificant (less than 10 pick-ups per month).
Upstream transportation & distribution	No	No	No	No	Yes	Outsourcing: The City of Melbourne has included transportation and distribution of goods and services for seven emissions sources; towing, parks and recreation, building and property maintenance, street cleaning, security services, coin collection and aged and disability services. The remaining emissions sources with transportation and distribution have been excluded due to lack of reliable data from suppliers. These include office paper, animal management, promotion and marketing, and civil design and traffic engineering.
Business travel (regional)	No	No	Yes	No	No	Risk: The City of Melbourne currently includes metropolitan public transport use by staff, hire cars, taxis, flights and use of its own fleet. Business travel undertaken by regional public transport or in employee vehicles are excluded due to lack of reliable data.
Downstream transportation & distribution	No	No	No	No	No	The City of Melbourne does not sell products.
Processing, use & end of life of sold products	No	No	No	No	No	The City of Melbourne does not sell products.
Capital goods	No	Yes	No	No	No	Influence: The City of Melbourne purchases and maintains capital goods to support the delivery of Council services. The operational emissions from this equipment is included within the inventory (eg, emissions from gas from use in hot water units) however the embodied emissions in the purchasing of these Capital goods themselves is excluded due to a lack of reliable methodology for equipment types.

Investments	No	No	No	No	No	Council holds no financial investments (as defined under the Greenhouse Gas Protocol – Corporate Value Chain (Scope 3) Accounting and Reporting Standard) as its investments are held in term deposits with no link to any specific products or services. Council have limited resources to collect this information. Implication for the footprint considered to be immaterial.
Community Emissions	Yes	No	No	No	No	Size: Emissions that are resultant from activity within the broader municipality of the City of Melbourne but are not the result of activity of the City of Melbourne operations are excluded. The City of Melbourne reports on these through a separate reporting framework using the GHG Protocol standard developed by C40.



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