

# National Carbon Offset Standard Carbon Neutral Program Public Disclosure Summary



CITY OF MELBOURNE An Australian Government Initiative

## CITY OF MELBOURNE

01 July 2015 – 30 June 2016

### Declaration

To the best of my knowledge, the information provided in this Public Disclosure Summary is true and correct and meets the requirements of the National Carbon Offset Standard Carbon Neutral Program.

Martin Cutter

A handwritten signature in blue ink, appearing to read 'Martin Cutter'.

9 November 2016

Acting Chief Executive Officer

Type of carbon neutral certification: Organisation

Verification

Date of most recent external verification/audit: 9 November 2016

Auditor: Joshua Martin Ernst & Young



**Australian Government**  
**Department of the Environment**

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# 1. Carbon neutral information

## Introduction

The City of Melbourne ('the City'), legally known as the Melbourne City Council, is one of 79 city and shire councils in Victoria operating as a public statutory body incorporated under the Victorian *Local Government Act 1989*.

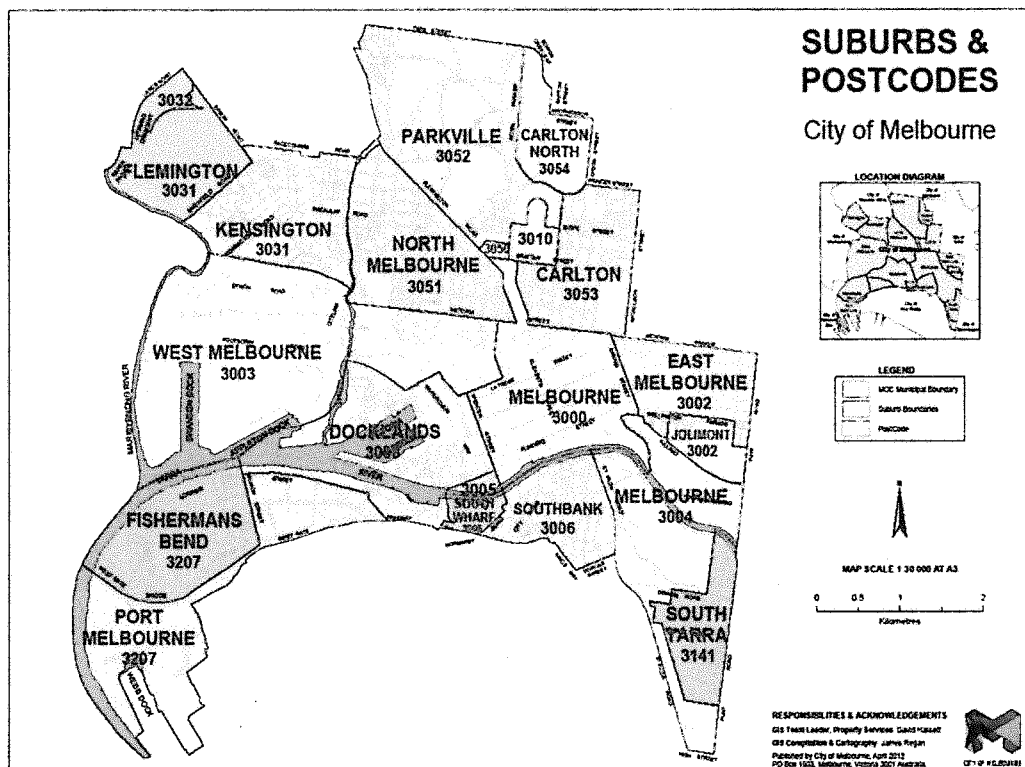
The City of Melbourne is the local government authority responsible for the Melbourne city centre and fourteen surrounding inner-city suburbs.

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 kilometres and has a residential population of 124,000. On an average weekday, more than 800,000 people work in or visit the city, and Melbourne hosts over a million international visitors each year.

As a local government authority, the City strives to achieve its community's vision of a bold, inspirational and sustainable city – a great place for people to live, work and visit.

To lead the city towards this vision, the City is has focused on reducing its own environmental impact, and the organisation is certified carbon neutral for council operations. This certification covers all City facilities, as well as major contracts and services.

Figure 1: City of Melbourne geographical boundary



## 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 includes roads, bridges, drains, town halls, libraries, recreation facilities, child care centres, community hubs, event venues, parks and gardens.

The majority of the City'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 owns and/or operates more than 350 buildings, parks, gardens and other facilities.

The services provided by the City include property, economic, human, recreational and cultural services. The City also enforces state and local laws relating to matters such as 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 2014-15:

- 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

## Inventory

CoM greenhouse gas emissions inventory has been prepared according to the National Carbon Offset Standard. The emissions boundary is consistent with the GHG Protocol *Corporate Accounting and Reporting Standard*:

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

Based on an operational consolidation approach, the entities included are:

- Administration Buildings
- Child Care Centres
- Community Facilities
- Libraries
- Parks
- Public Lighting
- Recreation Centres
- Sports Grounds

### Greenhouse Gases

The following greenhouse gases have been considered in the City's accounts:

CO <sub>2</sub>	Carbon dioxide
CH <sub>4</sub>	Methane
N <sub>2</sub> O	Nitrous oxide
HFCs, SF <sub>6</sub> , CF <sub>4</sub> , C <sub>2</sub> F <sub>6</sub>	Synthetic gases

### Emission sources within certification boundary

#### Quantified sources

The following emission sources have been included:

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

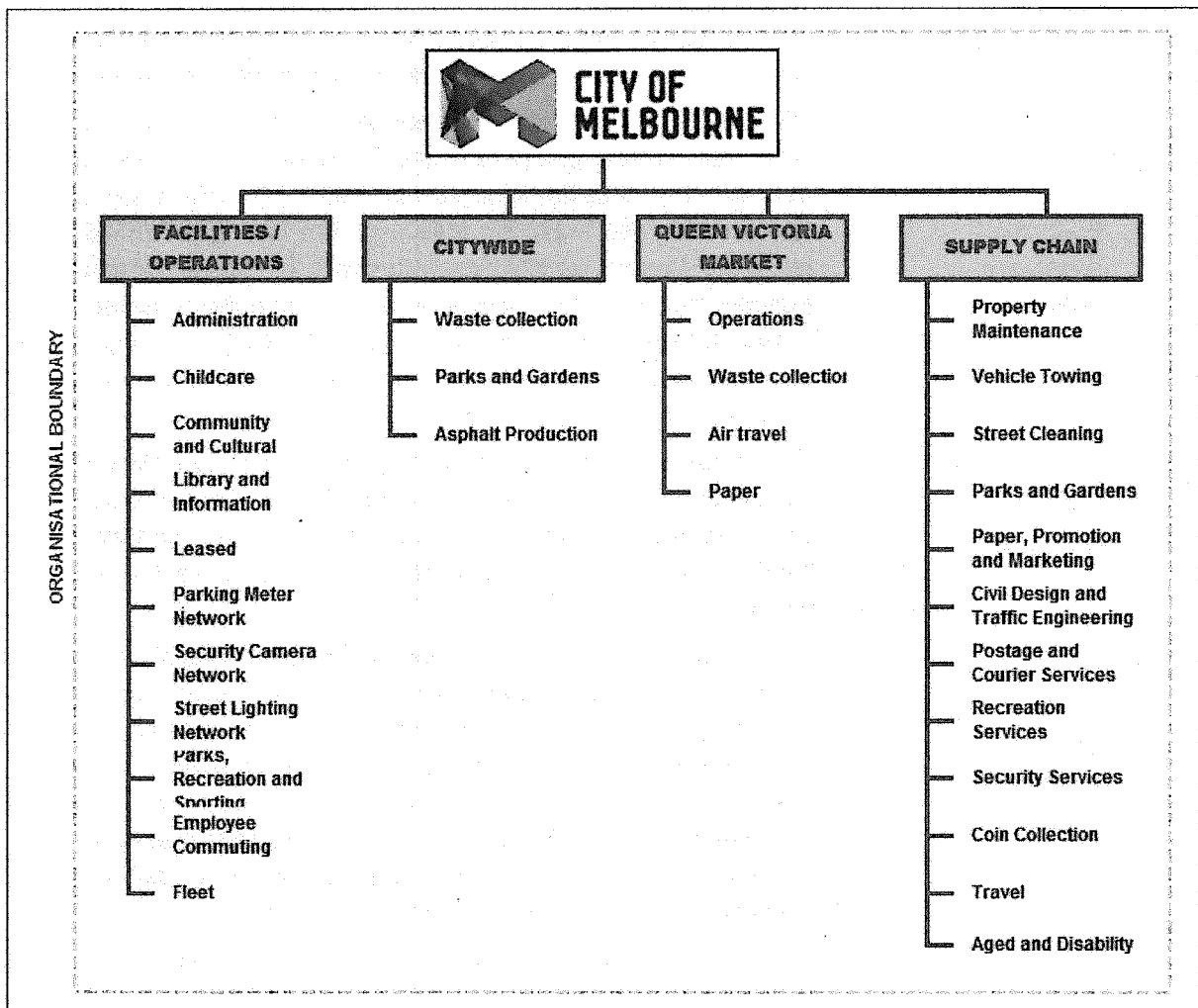
## Non-quantified sources

Emission source	Scope	Justification for exclusion & overall implications for footprint
Citywide	3	<p>Citywide emissions not associated with CoM usage have been excluded. Citywide is a wholly owned subsidiary that is not under CoM operational control. CoM includes 21.64% of Citywide's emissions as this is the proportion of Citywide's revenue associated with service provision to CoM (e.g. waste collection). This is consistent with the method used for all contractors.</p>
Waste	3	<p>The City of Melbourne includes emissions associated with waste generated during the course of Council 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, which is included in our emissions (reported under Citywide). Waste collected during the course of street cleaning is excluded as the City has no operational control over this waste.</p>
Purchased goods and services	3	<p>The City of Melbourne currently includes 11 emissions sources associated with the purchase of goods and services. These sources were determined by the principles outlined in the <i>Value Chain (Scope 3) Accounting and Reporting Standard</i>. The City has excluded two emissions sources identified in this process: animal management is excluded due to immateriality (see below), and artists/speaker travel is excluded due to a lack of reliable data. The City will engage with the suppliers of artists/speaker travel to collect data for inclusion in the City's inventory in future years.</p>
Animal Management	3	<p>Animal management is primarily serviced in-house by CoM 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).</p>
Upstream transportation & distribution	3	<p>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.</p>
Business travel	3	<p>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.</p>

Downstream transportation & distribution	The City of Melbourne does not sell products.
Processing of sold products	The City of Melbourne does not sell products
Use of sold products	The City of Melbourne does not sell products
End-of-life treatment of sold products	The City of Melbourne does not sell products
Franchises	The City of Melbourne is not franchised.

Diagram of certification boundary

Figure 2: Organisational boundary – list of all activities CoM has full operational control over.



## 2. Emissions reduction measures

### Part A. Emissions over time

Emissions Summary	Year	tCO2e
Baseline Year	2011-12	52,059
Current Reporting Period	2015-16	43,083

	2011-12	2015-16
Scope 1	1,449	1,236.22
Scope 2	16,964	12,710.65
Scope 3	33,646	29,136.56
<b>Total</b>	<b>52,059</b>	<b>43,083</b>

### Part B. Emissions reduction strategy

The City of Melbourne Emissions Reduction Plan (ERP) (2016) for Council Operations summarises the actions that the City of Melbourne will take to reduce emissions from our operations between 1 July 2016 and 30 June 2021, and maintain our carbon neutrality. The ERP includes emissions reduction targets reflective of the 2015 Paris Climate Change Agreement to limit a global temperature rise to under 2°C. The City of Melbourne is on track to meet its 2018 emissions reduction target of 10% by 2018 compared to the 2010-11 baseline year. The actions described in this Plan will achieve further emission reductions of 4.5% per year to meet or exceed the 1.5°C science-based target.

City of Melbourne Carbon Neutral Strategy (Council Operations) (2012) outlines the City's approach to achieving and maintaining carbon neutrality, including the essential and important principles that guide decision making in emissions management, as well as key focus areas for reducing emissions.

Zero Net Emissions by 2020 strategy (2014) sets an emissions reduction target for council operations of 10% by 2018 (based on baseline year 2010-11).

### Part C. Emissions reduction actions

The ERP outlines a range of initiatives designed to meet or exceed the emissions reduction targets set forth in the plan. To support the delivery of the ERP, the City of Melbourne secured \$ 4,390,320 of funds from the Clean Energy Finance Corporation (CEFC) to deliver 'various energy efficiency and renewable energy' improvements across the major sources of emissions reported by the City of Melbourne annually under the National Carbon Offset Standard (NCOS). Stage one will invest \$1,068,040 over two years (1 July 2016 to 30 June 2018) to upgrade works in large administration, community and heritage buildings. These upgrades will deliver direct emission reductions of 1,916 tonnes CO<sub>2</sub>-e each year.

This ERP describes the actions we will take to reduce emissions from our operations over five years from 1 July 2016 to 30 June 2021, in seven priority areas:

1. Develop a low carbon culture
2. Celebrate Melbourne, without the emissions
3. Zero carbon for our buildings
4. Revitalise Queen Victoria Market
5. Carbon neutral goods and services
6. Zero carbon transport
7. Reduce emissions from waste

#### **Public Lighting**

Designing a sustainable city is a key theme identified in City of Melbourne's Public Lighting Strategy 2013. In practice this means promoting efficient technology, responsible management practices and other forms of energy conservation. It calls for large scale replacement of inefficient mercury vapour lighting with more efficient and longer-lasting technologies. The program of works is expected to take approximately three years to complete.

#### **Waste Reduction**

The City of Melbourne's Waste and Resource Recovery Plan 2015-2018 addresses the emissions generated by waste across the municipality and includes waste avoidance campaigns, recycling programs and the diversion of organic waste from landfill. We do not own or operate any landfills, however the waste collected from our facilities is taken to recycling stations and landfills outside the municipality. The indirect emissions associated with recycling and landfill for the waste collected at our facilities is included in our operational emissions inventory.

A waste audit was undertaken across CoM's three main administration buildings in February 2014. The audit found many improvements that could be made, specifically around improving recycling and contamination rates, improving contractor waste practices and reducing organics to landfill. Subsequently, contractor education has been improved, signage updated, and worm farms are being trialled to manage organics (see below).

#### **Transport**

Our staff regularly travel by walking, cycling and using public transport and electric bicycles to avoid emissions from the use of vehicles. The emissions from any work-



related air travel are offset. The staff members responsible for enforcing local laws - our on-street compliance team - have pioneered the use of bicycle transport in their roles.

Our corporate vehicle fleet comprises 80 cars including nine fully electric vehicles and two plug-in hybrid electric vehicles. We maintain carbon neutrality for our vehicle fleet in several ways: offsetting electricity emissions and transport fuel, charging electric vehicles in car parks owned by the City of Melbourne, and by increasing the weighting given to fuel efficiency in the evaluation criteria applied to new vehicle models for inclusion in the fleet.

### Events

The City of Melbourne currently measures and offsets the emissions from Christmas lights and projections in the city.

Building on a pilot project completed to measure the GHG emissions from a major event in the City (Moomba), the Events Branch, in collaboration with the Sustainability Branch, will calculate the emissions from premier events such as Melbourne Spring Fashion Week and New Year's Eve. We will also develop a carbon neutral ticketing option for patrons attending Melbourne Music Week and Melbourne Spring Fashion Week.

### Worm farms

Seven worm farms are now in operation around the City of Melbourne's offices (four in Council House 1 and three in Council House 2), transforming organic waste into 'worm juice' and compost. Staff are encouraged to take a bottle of 'worm juice' home and the surplus is given to community gardens.

## 3. Emissions summary

Emissions by scope				
Resource Category	Scope 1	Scope 2	Scope 3	Total
Asphalt Production	0	0	70.48	70.48
Chemicals	7.86	0	86.86	94.73
Electricity	0	26,437.74	3,479.01	29,916.75
Expenditure	0	0	306.04	306.04
Flights	0	0	357.46	357.46
Lp. Gas	0.1	0	0.01	0.1
Nat. Gas	1,796.60	0	135.97	1,932.57
Office Paper	0	0	135.22	135.22
Office Services	0	0	5.31	5.31
Public Transport	15.61	0	43.29	58.91
Refrigerants	168.82	0	0	168.82
Stationary Fuel	317.36	0	24.9	342.27
Transport Fuel	5,132.11	0	385.44	5,517.55
Waste	0	0	2,931.08	2,931.08
Water	0	0	1,246.15	1,246.15
<b>Total Net Emissions</b>	<b>7,438</b>	<b>26,438</b>	<b>9,207</b>	<b>43,083</b>

## 4. Carbon offsets

### Part A. Offsets summary

Offset type and registry	Year retired	Quantity	Serial numbers
<b>Guyuan Dongxinying Wind Project</b> <i>Verified Carbon Standard (VCS) credits, Markit registry.</i>	2016	12,077	4533-189033047-189045123-VCU-034-APX-CN-1-903-04102012-31122012-0
<b>Kariba REDD+</b> <i>Verified Carbon Standard (VCS) credits, Markit registry.</i>	2016	10,000	4526-188967419-188982418-VCU-006-APX-ZW-14-902-01012014-30062014-1
	2016	5,000	4526-188967419-188982418-VCU-006-APX-ZW-14-902-01012014-30062014-1
<b>Balikesir Wind Power Project</b> <i>Gold Standard Voluntary Emissions Reductions (VER) credits, Markit registry.</i>	2015	18,161	GS1-1-TR-GS971-12-2013-2912-191472 to 231471
<b>TOTAL</b>		<b>45,238</b>	
Total offsets retired*			45,238
Net emissions			0
Total offsets held in surplus for future years:			30,923

\* CoM retires an additional 5% buffer. Total emissions offset for 2015-16 come to 43,083 + 5% = 45,238

### Part B. Offsets purchasing and retirement strategy

City of Melbourne purchases offsets according to the principles set out in our City of Melbourne Carbon Neutral Strategy (Council Operations):

#### **Essential principles**

- Compliance with NCOS
- Social responsibility
- Timeliness

#### **Important principles**

- Certainty
- Transparency
- Cost effectiveness
- Leadership
- Biodiversity

Offsets are purchased and retired on an annual basis at the end of the reporting period after the inventory has been completed. CoM purchases and retires an additional 5% buffer to account for any uncertainty.

### Part C. Offset projects (Co-benefits)

City of Melbourne has voluntarily surrendered and cancelled 45,238 t CO<sub>2</sub>-e offsets for 2015-16.

Our emissions were offset through the following projects:

<b>Project</b>	<b>Offsets (tCO<sub>2</sub>-e)</b>	<b>% of CoM inventory</b>
<b>Balikesir Wind Project (Turkey)</b>	<b>18,161</b>	<b>40%</b>
The Balikesir Wind Farm is a Gold Standard accredited renewable energy project located in Turkey that prevents 250,000 tonnes of CO <sub>2</sub> emissions each year and also contributes to social and economic improvement by supporting schools and improving local infrastructure.		
<b>Guyuan Dongxinying Wind Project (China)</b>	<b>12,077</b>	<b>27%</b>
Located in the Hebei Province, China, the Guyuan Dongxinying Wind Project is a large-scale wind farm comprising 133 turbines. The project supplies northern China with renewable energy, preventing more than 428,000 tonnes of CO <sub>2</sub> emissions annually. The project has also created opportunities for the local economy and, by using Chinese-made turbines, has supported China's domestic turbine manufacturing industry.		
<b>Kariba REDD+ Project (Zimbabwe)</b>	<b>15,000</b>	<b>33%</b>
Zimbabwe's Kariba Reduced Emissions from Deforestation and Degradation (REDD) project is the world's largest forest conservation project. Through supporting local communities to establish sustainable income and food sources, the project is combating the rising levels of deforestation in Zimbabwe. Profit from the sale of the project's carbon credits is then invested back into local support services, such as health and education.		

## 5. Have you done more?

The City of Melbourne is committed to continuously improving our inventory.

Improvements this year include:

- Improving data quality by constantly updating our web based database that manages electricity consumption and emissions. Assets and NMI's reviewed and removed/added to ensure accurate reporting with data feeds directly from our electricity retailer.
- Back casting – where appropriate we have included new emissions sources or recalculated (based on methodology changes) our previous years' inventories in order to accurately measure our emissions trend.

