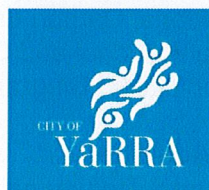


Australian Government
Carbon Neutral Program
Public Disclosure Summary




An Australian Government Initiative

NAME OF CERTIFIED ENTITY: Yarra City Council

REPORTING PERIOD: 2017 - 2018

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.

Signature 	Date 26 November 2017
Name of Signatory MICHAEL OKE	
Position of Signatory Acting Manager Sustainability & Strategic Transport	

Carbon neutral certification category	Organisation
Date of most recent external verification/audit	7/11/2016
Auditor	Stephen Glynatsis (Lead Auditor – Sustainability) SGS Australia Pty Ltd
Auditor assurance statement link	https://www.yarracity.vic.gov.au/-/media/files/about-us/sustainability-initiatives/2017-ncos-carbon-neutral-independent-audit-report.pdf?la=en&hash=77BEADF9CDDF8C65248BF6BF43FFA1EB9AC1BF01



Australian Government
Department of the Environment and Energy

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1. Carbon neutral information

1A. Introduction

This Public Disclosure Summary and accompanying documents are part of a submission for Carbon Neutrality under the National Carbon Offset Standard for the organisation of Yarra City Council, as defined by the Organisational and Operational boundaries detailed on the following pages and reflected in the graphic titled Diagram of Certification Boundary (Figure 1).

Description of Organisation Activities

The City of Yarra - an inner metropolitan municipality of Melbourne Victoria, was originally formed in June 1994 and is home to a diverse community of about 95,981 people. The municipality is 19.5 square kilometres.

As an organisation, Yarra City Council has a total budget expenditure of \$181 Million in 2017/18, which is used to deliver a wide range of community services and maintain essential community infrastructure.

Council's service delivery includes:

- Care for aged residents and/or residents with a disability
- Meal on Wheels
- Collection of domestic rubbish and recycling
- Footpath and Road resurfacing
- Operation of 5 libraries, 3 leisure centres plus Burnley Golf Course
- Family and Children Services
- Maintenance of Parks and Gardens and Street Trees
- Construction of new community assets and redevelopment and maintenance of existing community assets

The entire organisation of Yarra City Council is the subject of this carbon neutral certification.

Applicable Standards

The Annual Inventory and this Public Disclosure Summary have been prepared in accordance with the following standards:

1. National Carbon Offset Standard for Organisations
2. National Greenhouse & Energy Reporting Scheme
3. GHG Protocol: A Corporate Accounting and Reporting Standard
4. GHG Protocol – Corporate Value Chain (scope 3) Accounting and Reporting Standard
5. ISO 14064.1:2006

Greenhouse Gases

The relevant greenhouse gases for the purpose of NCOS reporting are: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydro-fluorocarbons (HFCs). Note, there are no per-fluorocarbons (PFCs) and sulphur hexafluoride (SF₆) emitted from our business.

Consolidation approach

Yarra has elected to use an Operational Control approach, being most applicable for a local authority.

Council included emission sources in its organisational boundary, based on two key determining factors:

- That the emissions would not have otherwise occurred if the City of Yarra as an organisation did not exist (i.e. operational control); and
- That Council had confidence that the emissions were able to be measured to a reasonable degree of accuracy.

1B. Emission sources within certification boundary

Quantified sources

In 2012, Council established its emissions boundary for the entire organisation, and was based on national and international standards to ensure alignment with the National Carbon Offset Standard (NCOS) Program. This included not only the National Greenhouse and Energy Reporting Act 2007 (NGER Act) and ISO 14064.1:2006 but also the GHG Protocol's Corporate Accounting and Reporting Standard 2004- that covers the accounting and reporting of the six greenhouse gases covered by the Kyoto Protocol.

In summary, Council's emissions boundary has been established to include the following:

Scope 1 emissions

- Natural Gas;
- Transport Fuel (including Unleaded Petrol, Liquefied Petroleum Gas (LPG) and Diesel use)
- Fugitive emissions

Scope 2 emissions

- Grid electricity

Scope 3 emissions

- Business travel of employees, including Air Flights, Public Transport and Taxis, Rental Cars and Buses and Accommodation;
- Waste created from business operations;
- Paper;
- Upstream Electricity Use- Street lighting;
- Contractor Fuel Use;
- Water Use – Corporate &
- Asphalt

Non-quantified sources

The following emissions sources have not been quantified, in line with the National Carbon Offset Standard.

There are some exclusions from Council's emissions inventory. Some of these fall within Council's organisational boundary but have been excluded from quantification in line with Section 4.2.3 of the National Carbon Offset Standard (NCOS), due to one (or more) of the following:

- the emissions are likely to be negligible (relative to other scope 3 emissions)
- determining the emissions will be very costly relative to their likely significance or
- there is insufficient data.

Table 1. Emission exclusions from within the Organisational Boundary

Emission source	Scope	Justification for exclusion & overall implications for footprint
Purchased Goods and Services	3	<p>Lack of complete and reliable data, and uncertainty regarding methodologies and locally relevant emissions factors.</p> <p>Would be extremely time intensive to capture holistic data for this emissions source but will consider limited inclusions in future reporting periods.</p> <p>Council also have limited ability to influence these emissions, and limited resources to collect this information.</p> <p>Overall implication for the footprint is difficult to judge, although could be a substantial source of scope 3 emissions.</p>
Capital Goods	3	<p>Lack of complete and reliable data, and uncertainty regarding methodologies and locally relevant emissions factors.</p> <p>Would be extremely time intensive to capture holistic data for this emissions source but will consider limited inclusions in future reporting periods.</p> <p>Council also have limited ability to influence these emissions, and limited resources to collect this information.</p> <p>Overall implication for footprint is difficult to judge, although could be a substantial source of scope 3 emissions.</p>
Oils and Lubricants purchased via Third Parties	3	<p>Council contracts out the servicing of its vehicles and most equipment. As such the vast bulk of Councils use of Oils and Lubricants is incorporated into bills from such contractors and very difficult to isolate. As a result there is a lack of complete and reliable data for this emissions source.</p> <p>Implication for the footprint is minor.</p>
Redevelopment (of Buildings)	3	<p>Lack of complete and reliable data.</p> <p>Overall implication for footprint is difficult to judge, although could be a substantial source of scope 3 emissions.</p>
Outdoor Events	3	<p>Lack of complete and reliable data.</p> <p>Implication for footprint would be minor.</p>
Contractor Energy	3	<p>Lack of complete and reliable data.</p> <p>Implication for footprint likely to be minor.</p>

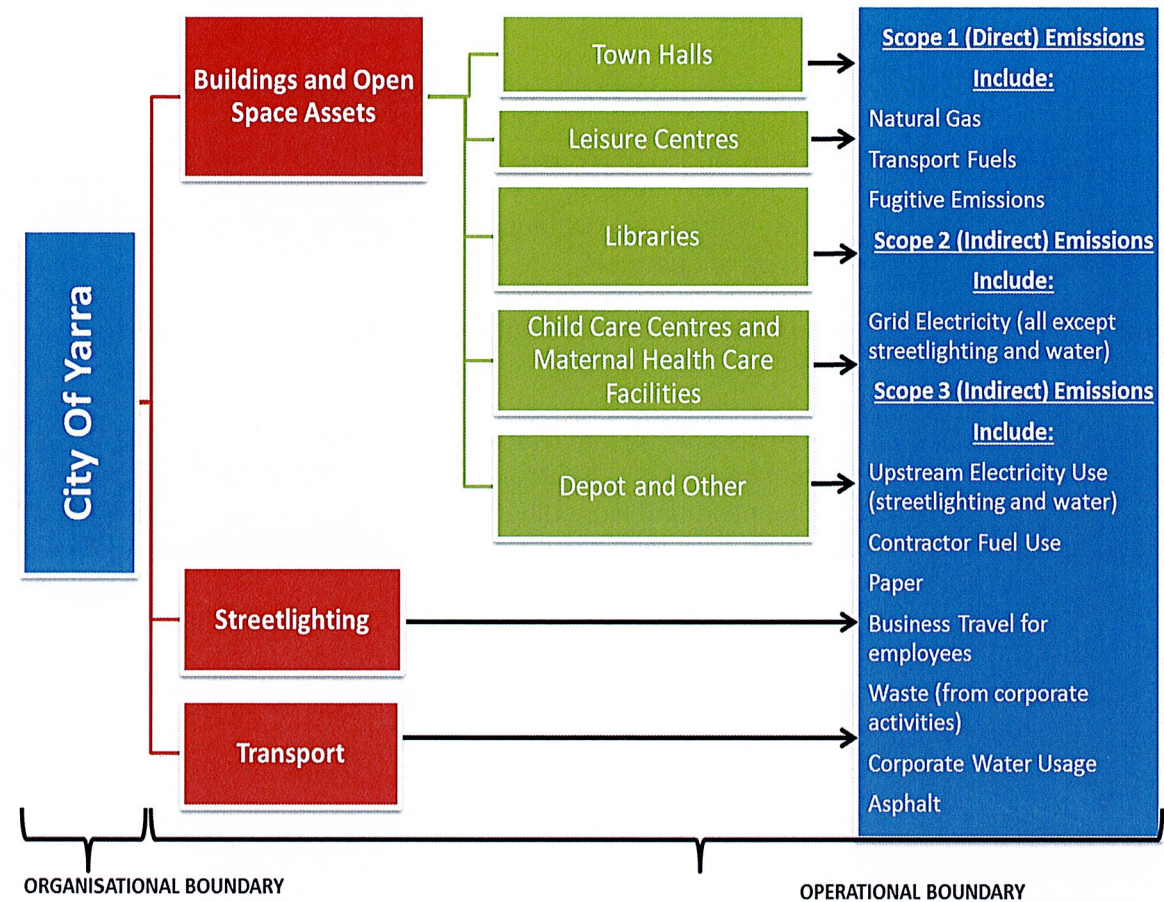
Employee Commuting (except those commuting in a fleet vehicle)	3	<p>Lack of complete and reliable data. Could consider future inclusion if based on very limited sample data.</p> <p>Implication for footprint likely to be minor.</p>
Downstream leased assets	3	<p>Not considered to be within Council's operational control.</p> <p>Lack of, and inability to get, consistent and quality data.</p> <p>Note –Yarra does not lease out any of its Leisure Centres to third party operators.</p> <p>Implication for the footprint considered to be small (less than 1.5% of total footprint).</p>
Investments	3	<p>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.</p> <p>Council have limited resources to collect this information.</p> <p>Implication for the footprint considered to be negligible.</p>

Other scope 3 emissions are outside Council's organisational boundary and as such not included in this inventory. These include:

- Municipal waste – all waste generated by the broader Yarra community, with the exception of the corporate waste Council produces.
- Community emissions (emissions emitted within the City of Yarra but outside of Council's operational control).

1C. Diagram of the certification boundary

Yarra City Council Organisational and Operational Boundary.



Scope 3 Emissions Exclusions - Purchased Goods and Services, including Capital Goods/Expenditure, Oils and Lubricants purchased via third parties, Redevelopments, Outdoor Events, Contractor Energy, Employee Commuting, Downstream Leased Assets, Investments, Municipal Waste, Community Emissions

Figure 1: City of Yarra's Certification Boundary

2. Emissions reduction measures

2A. Emissions over time

Table 2. Emissions since base year (tCO₂-e)									
	2011/12 Base Year	Dec- 13	13/14	14-15	15-16	16/17	Current Year 17/18	Net change since the Base Year	Percentage change since the base year
Scope 1	2,573	2,943	2,823	3,083	2,821	3,180	3,059	486	18.9%
Scope 2	5,497	5,129	4,921	4,049	4,170	3,804	3,891	-1,606	-29.2%
Scope 3 – Street Lighting	4,260	3,687	3,421	3,131	2,934	2,896	2,849	-1,411	-33.1%
Scope 3 – Other	2,132	2,166	2,782	2,862	2,863	2,517	2,189	55	2.6%
Total	14,462	13,925	13,947	13,125	12,787	12,397	11,988	-2,476	-17.1%

2B. Emissions reduction strategy

Since Council's first Greenhouse Action Plan was released in 2004 it has been recognised that Yarra's response to the impacts of climate change need to include a commitment to greenhouse mitigation. The impacts of climate change are being felt now and likely to become more severe. It is considered that mitigation actions now will reduce the cost and effort required to adapt to climatic changes and improve future environmental, social, health, and economic outcomes.

The Yarra Environment Strategy covering the period 2013-17 set the following relevant targets:

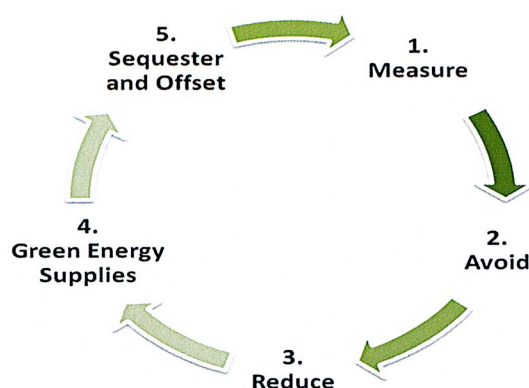
1. Council will be carbon neutral through emissions reductions, carbon offsets, and Green Power.
2. Reduce gross organisational emissions by 55% by 2017 and 60% by 2020
3. Reduce carbon emissions through renewable energy generation by Council by 850 tCO₂-e by 2017 and 1,250 tCO₂-e by 2020
4. Carbon Neutral Municipality by 2020

The City of Yarra's emissions reduction strategy is based on implementing its Carbon Neutral Action Plan (CNAP) 2010 – 2015. While the CNAP identified becoming a carbon neutral organisation in 2012 (which was achieved) as a key target, Council has a holistic approach to carbon management via the '*energy hierarchy*' strategy. The hierarchy enables Council to prioritise its immediate and long term actions and methods in reducing its carbon.

The energy hierarchy prioritises Yarra's actions which minimise overall greenhouse emissions.

1. **Measure** all emissions and evaluate the effectiveness of previous reduction measures
2. **Avoid** using energy at all opportunities and eliminate waste.
3. **Reduce** what energy needs to be used through efficient technology and behaviour change
4. **Green energy supplies** by switching to low or no emission sources
5. **Sequester and offset** all residual emissions that can't be eliminated through avoiding, reducing and changing energy supplies

The energy hierarchy



2C. Emissions reduction actions

Table 3. Emissions reductions actions	
Action	Estimated annual emissions reduction (tCO₂e)
Completed installation 256kW solar PV at nine Council sites including battery storage at 6 sites.	380
Ongoing replacement of street lighting to low energy LED as opportunities occur such as lights damaged or failed	47

Table 4. Impact of the purchase of Carbon Neutral Product		
Emission Source	Details	tonnes CO₂-e
Paper	Emissions Inventory before the deduction of any NCOS Carbon Neutral products or services	11,990
	NCOS carbon neutral paper products purchased – Scope 3	2
	Emissions Inventory after the deduction of any NCOS Carbon Neutral products or services	11,988

3. Emissions summary

Table 5. Emissions Summary		
Scope	Emission source	t CO2-e
1	Transport (petrol)	599.8
1	Transport (Autogas – LPG)	31.7
1	Transport (Diesel)	1279.6
1	Natural Gas	2141.6
1	Fugitive Emissions	217.2
2	Electricity - Buildings	3891.3
3	Electricity – Buildings - transmission and distribution losses	373.5
3	vehicle fleet (petrol extraction & distribution losses)	27.7
3	vehicle fleet (Autogas -LPG extraction & distribution losses)	1.9
3	vehicle fleet (Diesel extraction & distribution losses)	6.9
3	Natural Gas Distribution	162.1
3	Electricity –Street Lighting	2849.1
3	Contractor Fuel Use (transport) – Petrol	3.3
3	Contractor Fuel Use (transport) – Autogas/LPG	0.2
3	Contractor Fuel Use (transport) – Diesel	58.5
3	Waste	43.1
3	Paper	71.5
3	Business Travel of Employees	22.7
3	Water Use -Corporate	132.3
3	Asphalt	73.9
Total Gross Emissions		11,988
GreenPower or retired LGCs		NIL
Total Net Emissions		11,988

Electricity use in buildings has increased from 2016/17. This can be attributed to:

- A new community facility, the **Bargoonga Nganjin** Library & Community Hub, was opened in February 2017. The building incorporates a variety of environmentally sustainable design features which see it achieve a Six Star Green Star rating – the highest environmental rating awarded by the Green Building Council of Australia.
- Co-generation systems at Collingwood and Richmond Leisure Centres operated at reduced hours due to a combination of technical issues and optimization of run times.
- Richmond Recreation Centre increased its opening hours, the pool blankets were under repair for some months and the heat recovery system off-line for a period due to breakdown.
- There was a 30% increase in the number ‘cooling degree days’ in 2017/18 as compared to 2016/17. ‘Cooling degree days’ are a metric used to assess and normalise the demand for cooling in buildings based on hourly outdoor temperature variations. This supports the fact that the majority of the increase in emissions for Yarra buildings occurred during summer months, illustrating the effect of higher temperatures and cooling demand. Taking this into account, it can be surmised that it is likely that underlying building energy use may have actually decreased when normalised for the hotter summer load in 17/18.

4. Carbon offsets

4A. Offsets summary

Table 6. Offsets Summary			
Offset type and registry	Year retired	Quantity	Serial numbers
Markit	2017	3,180	2474-106203478-106212477-VCU-018-MER-TH-13-416-01012011-31122011-0
Markit	2018	8,810	5092-211543728-211552537-VCU-005-APX-TH-13-416-01012014-14092014-0
Total offsets retired		11,990	
Net emissions		Zero	

4B. Offsets purchasing and retirement strategy

Council offset procurement process specifies that Council only procure offsets that meet the NCOS *Guidance on NCOS eligible offset units*. Offsets have historically been retired on either the Markit or APX VCS registries and this is unlikely to change in the foreseeable future.

Offset Retirement:

In order to allow for any minor undetected discrepancies Council will 'round-up' its retirement of offsets to the nearest ten, in the case of 2017/18, the rounding up was from 8,806 to 8,810 tonnes CO₂-e.

4C. Offset projects (Co-benefits)

Kalasin Wastewater Treatment, Thailand

Council has selected to support the Kalasin Wastewater Treatment Project - a Clean Development Mechanism (CDM) project certified in accordance with United Nations Framework Convention on Climate Change (UNFCCC). Located in the Kalasin Province in north-east Thailand, the project commenced in 2012. It introduced a closed loop system in a starch factory that employs an Anaerobic Baffled Reactor (ABR) that removes 90% of the organic material in the wastewater, and hence reduces the Chemical Oxygen Demand (COD) and subsequent fugitive CH₄ emissions. The captured methane-rich biogas is used to provide heat and generate electricity.

As a result of this process, the electricity generated from the fossil-fuel intensive grid and heavy fuel oil used in the boilers, is replaced with a clean alternative. The project reduces air pollution and saves precious groundwater resources which directly benefits the health of the local community. It promotes sustainable development of the region by supporting local farmers with free agricultural fertilizers and creating jobs during the construction and operating phases.

The project's offsets are certified under the Verified Carbon Units scheme and are recognised both globally and under the National Carbon Offsets Scheme.

5. Use of trade mark

Table 7. Trade mark register	
Where used	Logo type
Staff Email Signature Blocks	Certified organisation
Decal on Nissan Leaf Electric Vehicle	Certified organisation
Website	Certified organisation