

# NCOS CARBON NEUTRAL PROGRAM PUBLIC DISCLOSURE SUMMARY

# **City Of Yarra**

PO Box 168 Richmond, VIC 3121 ABN: 98 394 086 520



#### 1. ORGANISATIONAL INFORMATION

Organisation Name: <u>Yarra City Council</u>

Disclosure Period: From: <u>01/07/2011</u> to: <u>30/06/2012</u>

Carbon Neutral Disclosure Type:

Organisation 🔀

#### 2. ORGANISATION DESCRIPTION

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 79,500 people. Yarra's 19.5 square kilometres include the suburbs of Abbotsford, Burnley, Clifton Hill, Collingwood, Cremorne, Fitzroy, North Carlton, North Fitzroy, Princes Hill and Richmond. Parts of Alphington and Fairfield - south of Heidelberg Road - are also included in Yarra.

As an organisation, Yarra Council has a total capital and operating budget of \$162.5 million, which is used to deliver a wide range of community services and maintain essential community infrastructure.

Council provides both universal services that are used by most community members (such as waste and recycling collection or footpath maintenance), and specialised services which respond to specific needs (such as meals on wheels and child care).

Some key statistics that relate to Council's service delivery in 2011-12 include:

- 10,028 hard waste collections and 8,138 green waste collections
- 29,049 residential rubbish bins and 25,721 residential recycling bins emptied per week
- 3,581 immunisations for the general community and 1895 for school children
- 52,321 meals delivered to aged care residents and/or residents with a disability
- 346 kindergarten places for three and four-year-olds
- 24,000-plus new items being added to the local library collection
- The planting of more than 1,000 street trees
- 2,957 inspections of food premises such as restaurants and cafes.

# **Buildings Summary**

Council owns and operates over 150 buildings and structures across the City of Yarra. This includes town halls, libraries, leisure centres, sports pavilions and child care centres. The largest sites are Richmond Town Hall, Fitzroy Town Hall, Collingwood Town Hall, Richmond Recreation Centre, Fitzroy Swimming Pool and Collingwood Leisure Centre. These six sites account for nearly 77% of total building energy use.

# **Streetlighting Summary**

There are approximately 8,028 streetlights (including watchman lights) in operation across the municipality owned and operated by the two distribution businesses, being Citipower and Jemena, but are included in Council's inventory as a Scope 3 emission. These vary according to light requirements around the municipality and include T5 linear fluorescent technology, High Pressure Sodium (HPS), Mercury Vapour (MV), Fluorescent, Metal Halide and Compact Fluorescent (CFL). Together, street lighting is Council's single largest emissions source and has been a large focus of Council's emissions reductions actions. Some of these lights are 'cost-shared' with VicRoads, as is the electricity usage, and associated emissions.

#### **Fleet Summary**

Council operates a fleet of approximately 220 vehicles for passenger and commercial purposes. These range from small four cylinder vehicles for passenger transport uses to plant and equipment and a number of light trucks, for park maintenance and other depot services.

# **Strategic Overview and Organisational targets**

Yarra City Council is committed to responding to the effects of climate change through positive and long-term greenhouse mitigation measures. Council's direction in relation to carbon managements is set out in Council's Yarra Environment Strategy (YES) adopted in 2008.

The YES was developed in consultation with staff and the community, and sets the targets by 2012 to achieve:

- Carbon neutral (zero net emissions) for Council operations
- A 30% reduction in Council's energy consumption
- Low carbon local energy generation equivalent to 10% of Council's energy requirements.

In addition, by 2015 Council has also committed to:

- Continue to be carbon neutral (zero net emissions) for Council operations
- A 50% reduction in Council's energy consumption
- Sourcing 25% of Council's energy requirements from low carbon local energy generation.

In 2010, Council outlined a clear pathway in achieving these ambitious targets through its Carbon Neutral Action Plan (CNAP). The CNAP details the various actions that would be needed in order to achieve these targets according to the following themes:

- Council-Wide Policy and leadership
- Buildings
- Sustainable Public Lighting
- Transport and Fleet
- Waste

# City of Yarra's emissions boundary

In 2012, Council established its emissions boundary for the entire organisation, 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 (which covers the accounting and reporting of the six greenhouse gases covered by the Kyoto Protocol). As a result, a number of Scope 1, 2 and 3 emissions have been identified, measured and subsequently offset. 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)
- That Council had confidence that the emissions were able to be measured completely and accurately.

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

#### Scope 1 emissions

- Natural gas for the buildings it owns and operates (not those leased out to third parties, or where Council is not responsible for the bill and does not have operational control).
- Transport fuel (including unleaded Petrol, Liquefied Petroleum Gas (LPG) and diesel use)
- Fugitive emissions (refrigerants).

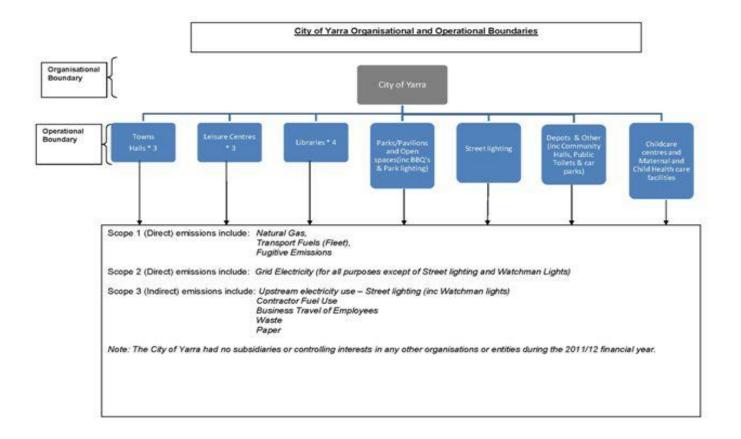
#### Scope 2 emissions

 Grid electricity for the buildings it owns and operates (not those leased out to third parties, or where Council is not responsible for the bill and does not have operational control).

# Scope 3 emissions

- Business travel of employees (including air flights, public transport and taxis)
- Waste created from business operations
- Paper
- Electricity Street Lighting
- Major contractor fuel use.

# City of Yarra's emissions boundary (con't)



#### **Financial Control**

Council consolidates its facility-level GHG emissions and removals based on financial control i.e. accounting for all its quantified Greenhouse Gas emissions and removals from facilities over which it has financial control as per the AS ISO 14064.1-2006. Financial Control is directly linked to whether Council is paying the utility costs for the sites. Additionally Council looked at Operational Control (as defined under NGERS) of the facilities and can report the following.

# **Operational Control**

Council has also analysed its building stock and applied the operational control test (as defined under NGER) and have confirmed that sites that are owned and operated by Council are all under Council's operational control, as determined by the ability to set:

- -Operating policies
- -Health and safety policies &
- -Environmental policies

#### Sites Council lease to others

Council have a number of buildings where the entire building is leased out to a third party.

Using the same operational control test and based on details contained in the lease agreements Council does not have operational control of these sites. None of these are of a significant size (i.e. some Councils lease out their leisure centres but the City of Yarra does not). Of these leased sites there are 4 sites where Council paid the utility bills in 2011-12 (for a variety of reasons) and these have been included within inventory for that year, as they sit within Council's financial control.

# Leased spaces within Council operated buildings

Council also have some sites (e.g. Fitzroy Town Hall) where portion of the building is leased out. In these circumstances Council is responsible for the utility bills in their entirety and they are considered to within Council operational and financial control and as such all emissions at these sites are included in Council's inventory.

# Sites Council lease from others

Council lease a number of sites on long term leases (10 years plus) from third parties. Of these only four have electricity or gas connected. The other leased sites are parks and Open space site. Those with electricity or gas connected are:

- The Collingwood Library
- North Fitzroy Library
- Ryan Reserve Tennis Court and Pavilion &
- Stanton Street Hall

It has been determined that these sites are within Council's financial and operational control and are included in Council's inventory.

In some instances, Council's boundary emissions have accounted for emissions that are not under its operational control but under Councils financial control. Examples include:

- A site is used by public individuals/groups but the tenant does not pay any utility bills- e.g. some pavilions and community centres
- Fleet vehicles used for staff commute to and from work

Consequently, there were some exclusions from Council's emissions boundary such as:

- Embodied emissions of all other consumables, supplies and services;
- Minor contractor vehicle use
- Municipal waste
- Staff commute to and from work (except those commuting in a fleet vehicle)
- Electricity and gas use at Council leased facilities (where bills are paid by the tenant); and
- Oils and lubricants used by the depot

Figure 1 demonstrates the relationship between emissions that are included and excluded within Council's boundary.

Figure 1. Council's emissions boundary's inclusions and exclusions

# Scope 1- direct emissions Scope 2- indirect emissions Scope 3- indirect emissions **Inclusions Inclusions Inclusions** • Natural Gas (upstream) Natural Gas · Grid electricity • Use of transport fuels • Use of transport fuels (upstream) • Fugitive emissions · Business travel of (refrigerants) employees Waste Paper • Electricity - Street Lighting (upstream) Major contractor fuel use **Exclusions Exclusions** • Oils & Lubricants • Embodied emissions of all other consumables, supplies and services • Minor contractor vehicle use; Municipal waste • Staff commute to and from work • Electricity and gas use at Council leased facilities (where bills are paid by the tenant)

**Table 1** - all included emissions sources from Council activities and the reasons for inclusion within Yarra's organisational boundary:

Scope	Description	Examples	Reason of inclusion
1. Direct emissions	Generation of electricity, heat or steam	Use of natural and LPG gas to heat buildings, hot water and pools.	Minimum requirement for NCOS certification
	Transportation of materials, products, waste, and employees	Petrol, LPG gas and Diesel used in fleet	Minimum requirement for NCOS certification
	Fugitive emissions (refrigerants)	Hydro fluoro-carbons emissions during the use of refrigeration and air- conditioning equipment	Minimum requirement for NCOS certification
2. Indirect emissions	Generation of electricity, steam, heating/cooling purchased by the organisation	Electricity use, purchased from the national grid	Minimum requirement for NCOS certification
3. All other indirect emissions	Business travel of employees	Air flights, use of public transport, and taxi use	Emissions occur as a direct result of activities related to the City of Yarra
	Disposal of waste generated by the organisation	Emissions from waste from Council's buildings once in landfill	Emissions occur as a direct result of activities related to the City of Yarra
	The use of paper	Lifecycle emissions generated by office paper used in the course of business	Emissions occur as a direct result of activities related to the City of Yarra
	Electricity – Street Lighting	All distributor-owned public lighting (Street lighting)	Although the lights are not owned or operated by Council, it is a core service identified to be delivered by local governments under the Local Government Act (1989) Vic.
	Indirect emissions from the transport and distribution of electricity and gas;	All electricity and natural gas use	Emissions occur as a direct result of activities related to the City of Yarra
	Major contractor fuel emissions	Waste and park maintenance contracts	Considered a significant emissions and a direct result of the delivery of a core Council service

Part of the boundary defining process included an in depth consultation period with a number of key stakeholders such as the Municipality Association of Victoria (MAV); Citipower, Council's primary electricity distributor who owns and operates the vast majority of Council's street lighting; and other councils, both locally and interstate.

While Council has included all scope 1 and 2 emissions sources as part of its organisational boundary, plus additional scope 3 emissions that are within the organisation's financial control, there are also several other scope 3 emissions that have been excluded. Table 2 highlights the emissions sources that were considered, but have been excluded from Yarra's organisational boundary with a justification of exclusion for each emission's source.

Table 2. Emissions exclusions summary

Scope	Description	Examples	Justification of exclusion
1.Direct Emissions	i. Oils and Lubricants	Oils and Lubricants used at the Council depots	Lack of, and inability to get, consistent and quality data Immaterial
3. Indirect Emissions	ii. Staff commuting to work	Car use to and from work  Public transport to and from work  Excludes Council owned vehicles included in Scope 1 vehicle fleet	Partially included where staff use corporate vehicles to travel to and from work (i.e. where Council pays for the fuel)  Not considered to be within Council's operational control  Lack of complete and reliable data and uncertainty regarding methodologies and locally relevant emissions factors.
	iii. Minor contractor vehicle use	An electrician undertaking work on behalf of Council  Personal use of cars by staff for work e.g. meals on wheels and home care.	Lack of complete and reliable data  Not considered a significant emissions source
	iv. Emissions from products and/or supplies	Emissions from the installation of concrete and asphalt	Lack of complete and reliable data, and uncertainty regarding methodologies and locally relevant emissions factors
	v. Embodied emissions of all other supplies and services	Emissions from consultants used by Council, the production emissions of food and energy requirements for non-paper based stationary	Lack of complete and reliable data, and uncertainty regarding methodologies and locally relevant emissions factors

Scope	Descri	iption	Examples	Justification of exclusion
3. Indirect Emissions	g; C	lectricity and as use at council leased acilities	Sports pavilion that a club leases and pays the electricity and/or gas bills. Note: Council does not lease out any significant emissions sites (e.g. Leisure Centres)	Lack of, and inability to get, consistent and quality data  Not considered to be within Council's operational control & not considered a significant emissions source
		ransportation f sold products	Not Applicable	City of Yarra does not sell products
	viii. D	omestic waste	Emissions in landfill or other facilities from domestic kerbside waste picked up by Council contractors	Emissions associated with the transport of waste are calculated within Council's organisational boundary.  Not considered to be within Council's operational control
	ix. E	. Events	Offsite and open space annual events	All emissions from events held within Council buildings/ assets are currently included within Yarra's organisational boundary, as would any diesel fuel for generators
				Some activities/ events conducted by Council do occur outside of Council's buildings and facilities. Emissions associated are not considered a significant source, plus there is currently a lack of complete and reliable data for calculation purposes.
	as ra (r co	missions ssociated with atepayers residential and orporate/ non- esidential)	Emissions from housing and businesses within the City of Yarra	Considered to be outside of Yarra's organisational boundary  Lack of, and inability to get, consistent and quality data

Council is committed to developing its ability to increase the measurement, reduction and offset of emissions beyond its current emissions boundary. Operational activities such as procurement processes, lease agreements and tender documentation have been identified as opportunities where possible improvements can be made in the future.

# 3. PURCHASE OF GREENPOWER™ OR NCOS CARBON NEUTRAL PRODUCTS AND/OR CANCELLATION OF GREENPOWER™ ELIGIBLE RENEWABLE ENERGY CERTIFICATES (RECS)

The City of Yarra purchased no GreenPower or the voluntary cancellation of GreenPower<sup>™</sup> eligible REC's or identified NCOS carbon neutral products within the reporting year. In 2011, Council resolved to shift its accrued GreenPower budget towards an increased on-going annual budget for emissions reduction and energy generation actions.

# 4. TOTAL CARBON FOOTPRINT

Emission source	Tonnes CO <sub>2</sub> -e
Electricity	6,133
Electricity - Street Lighting	4,260
Natural Gas	1,714
Transport Fuels	872
Transport Fuels - Major Contractors	1,186
Waste	58
Fugitive Emissions (refrigerants)	175
Paper	30
Business Travel of Employees	34
Total Emissions	14,462

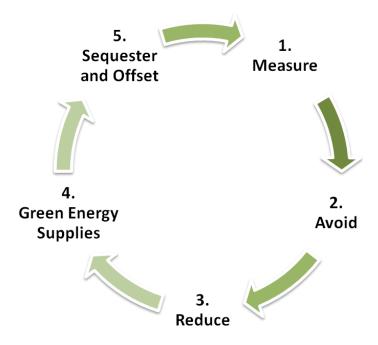
# 5. EMISSION REDUCTION MEASURES

# **Strategic Context**

The Yarra Environment Strategy: Towards Local Sustainability was adopted by Council in October 2008. It was developed through extensive consultation with internal and external stakeholders, to set a vision for local sustainability in 2020, key strategic directions to guide Council's work towards the vision, and targets to measure progress in 10 Action Areas representing different components of sustainability, including greenhouse mitigation.

It is important to ensure that any emission reduction actions represent the most effective use of our time and resources. Understanding how to prioritise measures and actions is critical in achieving our goals.

# The energy hierarchy



The energy hierarchy prioritises Council'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

**Table 3** – Emission Management and Reduction Measures

Emission Management and Reduction Measures	Estimated Emissions Reduction of current projects (Tonnes CO <sub>2</sub> -e)
Street lighting retrofit program- converting both 80MV and non 80MV to energy efficient T5 Fluorescent luminaries. Note –further savings will be delivered from this project after June 2012	815
Installation of 140kw capacity of Solar PV across 9 Council sites. Note  – these panels were installed in June 2012, and hence the majority of the resultant savings will appear in 2012/13	248
Collingwood Leisure Centre – 65 kW Cogeneration unit, 6 kW of solar PV and an enhanced air handling system. While this site has been substantially expanded it is expected that emissions will drop significantly despite the increased size/capacity of the site	350

Emission Management and Reduction Measures	Estimated Emissions Reduction of current projects (Tonnes CO <sub>2</sub> -e)
Roof insulation installed at Collingwood Library (approx)	1
Thermal proofing of various Council buildings (approx)	5
Installation of fans to reduce heating and cooling demands at various Council buildings (approx)	5
Total Emissions Reduction	1,424

# **Future emission reduction plans**

Major projects in 2012/13 include:

- a 50kW cogeneration unit at the Fitzroy Swimming Pool saving 350-400 tCO2-e
- major works at the Richmond Library to create an energy efficiency demonstration sites (with co-funding from the federal government) saving approximately 112 tCO2-e
- 99kW solar PV system to be installed on the Victoria Park football ground grandstand
- Council has joined the Fleetwise program to establish actions to reduce fleet emissions.

Council is also looking to run a tender for an Energy Performance Contract (EPC) to undertake a holistic suite of in depth energy reduction measures, initially at Council's 5 largest Council buildings. This is currently considered the best way for Council to reach its ambitious 50% emissions reduction target – by 2015.

# 6. OFFSET PURCHASE / CANCELLATION

Offset Type  Refer NCOS 3.1	Registry	Serial Numbers	Offset Quantity (Tonnes CO₂-e)
Voluntary Carbon Units (VCU's) issued by the Voluntary Carbon Standard	Markit Registry	2184-89136484- 89150945-VCU- 008-MER-CN-1- 807-01012011- 06072011-0	14,462 (retired 7/10/2012)

#### 7. OTHER INFORMATION

As outlined in Section 2, Council adopted its Carbon Neutral Action Plan (CNAP) in 2010, with the goal of reducing Council's total greenhouse footprint. In line with the targets of the Yarra Environment Strategy (YES) also detailed in Section 2, the CNAP details a total of 157 actions (including sub actions), required to meet Council targets.

Council plans to utilise a number of different mediums in order to communicate the progress of the CNAP to staff and the community. This includes distributing information through the Yarra website, Council publications, at community events and through social media. Communication of the CNAP actions and achievements will encourage greater understanding and engagement by the community in sustainable living.

Council has made substantial progress against a number of its mid-term targets. A number of substantial energy reductions have already been made and by June 2012, Council will have cut its energy use by about 21.7% (from 2000/01 levels), although Collingwood Leisure Centre (a major emissions site) was closed for part of the 2011/12 year. If it had been opened for the full year it is estimated emissions would have still been down 20.5%. This is still a major achievement despite falling short of Council's ambitious target of a 30% reduction in energy use by 2012. It is projected that emissions will be down a further 7-8% in 2012/13 and there are still numerous energy efficiency and renewable energy projects both underway and being scoped out that make it possible for Council to achieve its long term targets of a 50% reduction in energy use by 2015.

As well as having a strong focus on reducing the environmental footprint of the City of Yarra as an organisation, Council also has a strong focus on community sustainability. In April 2011, Council launched the Yarra Energy Foundation (YEF), a non-profit organisation solely dedicated to making the City of Yarra ,as a municipality, carbon neutral by 2020. The foundation leads projects that work with residents, businesses and the wider community to achieve its aims.

Recognising Yarra's commitment to community sustainability, the City of Yarra was named Victorian Sustainable City of the Year in Keep Australia Beautiful annual awards in July 2011. Yarra was awarded top prize for a range of community-based initiatives and projects aimed at reducing waste, cutting energy consumption and preserving the natural environment. As well as winning the overall Sustainable City award, Yarra also won the 'Community Action' category for the Yarra Neighbourhood Orchard program, which organises a monthly food swap for home gardeners, so that people can share their excess produce and their home gardening expertise.

Yarra Council prides itself on being a strong leader in community and organisational sustainability. This can be demonstrated through the ambitious goals and targets set out in the YES and CNAP as well as the large number of projects that have already been implemented throughout Council. This shows strong commitment to the City of Yarra's vision of 'A vibrant, liveable and sustainable inner city that the community can be proud of'.