# Australian Government

# Carbon Neutral Program Public Disclosure Summary





An Australian Government Initiative

# THIS DOCUMENT WILL BE MADE PUBLICLY AVAILABLE

# NAME OF CERTIFIED ENTITY: Moreland City Council

REPORTING PERIOD: 1/7/2017 to 30/6/2018

## 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 19 12018

Name of Signatory: Michaela Skett

Position of Signatory: ESD Unit Manager, Planning & Economic Development

Carbon neutral certification category	Organisation				
Date of most recent external verification/audit	12 September 2016				
Auditor	SGS Australia Pty Ltd				
Auditor assurance statement link					



Australian Government

Department of the Environment and Energy

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## 1. Carbon neutral information

## 1A. Introduction

Moreland City Council is certified carbon neutral for its organisational corporate emissions. Moreland City Council works hard to continually reduce our emissions through our Corporate Carbon Reduction Plan. To be certified carbon neutral, Moreland City Council must also measure and offset all remaining emissions.

## **City of Moreland**

The City of Moreland covers the inner and mid-northern suburbs of Melbourne. It lies between 4 and 14km north of central Melbourne and covers a diverse range of communities. Centrally located on the northern doorstep of Melbourne's CBD, Moreland is undergoing a sustained period of urban regeneration. Moreland has housing choices ranging from restored heritage cottages, modern family homes and stylish inner-urban apartments to recycled industrial buildings.

Moreland's population of 172,816 is forecast to grow to 214,320 by 2036. Significant growth has occurred in the last five years (the biggest increase for two decades). The City of Moreland covers the suburbs of Brunswick, Brunswick East, Brunswick West, Pascoe Vale, Pascoe Vale South, Coburg, Coburg North, Hadfield, Fawkner, Glenroy, Oak Park and Gowanbrae. Small sections of the suburbs of Fitzroy North and Tullamarine are also located in the City.

Key features of Moreland's regional context include:

- Proximity to Melbourne's Central Business District (CBD); and
- Good transport links to the CBD, ports, airport and industrial areas.

## **Moreland City Council**

Moreland City Council (Council) provides services to the community within the City of Moreland. Council provides these services through our buildings and facilities (see below), fleet, in-house waste collection services as well as the use of contractors for waste collection services and the provision of public (street) lighting. These services are the primary business activities that result in carbon emissions.

Moreland City Council currently has over 300 buildings within its portfolio including civic centres, aquatic and sports leisure centres, community centres, pavilions, maternal/child care centres, kindergartens, libraries and depots, as well as other facilities including public lighting and parks and reserves. The majority of these buildings/facilities are used by Council; however, some are leased by a third party. Council also leases some third-party buildings/facilities to provide various community services.

This inventory has been prepared based on National Carbon Offset Standard (NCOS). It is aligned with the National Greenhouse and Energy Reporting Act 2007 (NGER Act), as well as the Greenhouse Gas Protocol's Corporate Accounting and Reporting Standard.

In this submission, the following greenhouse gases are considered:

- carbon dioxide
- methane
- nitrous dioxide
- synthetic gases (R22, R507, R134a, R407C, R410a, HFC-134a, SF6)

#### **Boundary overview**

In 2012 Council established its emissions boundary for the entire organisation, based on the GHG Protocol's *Corporate Accounting and Reporting Standard*, Carbon Neutral Guidelines, and *AS ISO 14064.1-2006*. Council included emission sources in its organisational boundary, based on operational control approach for measuring and reporting on Council's emissions.

Operational control was defined in accordance with the National Greenhouse and Energy Reporting Act as whether Council:

- was paying the utility costs for the facility
- had the ability to set operating policies, health and safety policies and environmental policies

Operational control was assessed at all Council facilities and buildings which included:

- Council owned and operated facilities
- Council facilities leased out to third party
- Facilities Council leased from a third party

An analysis of Council's building stock confirmed that all sites that are owned and operated by Council or are leased from third parties and operated by Council are under Council's control. Sites where Council facilities were leased to third parties were considered to be under Council's operational control only where Council was paying the utility costs. The operational boundary is depicted in Figures 1 and 2.

#### 1B. Emission sources within certification boundary

#### Quantified sources

The direct and indirect emissions included in the boundary of this inventory (as depicted in Figure 2 below) are as follows:

#### Scope 1 emissions

- Transport Fuels
- Natural Gas
- Stationary Fuels
- Fugitive Emissions (Refrigerants)
- Lubricants

#### Scope 2 emissions

• Electricity: grid electricity from facilities where Council has financial and operational control (buildings, public/minor and unmetered lighting) and all unidentified electricity accounts (0 out of 193 accounts).

#### Scope 3 emissions

- Street Lighting
- Contractor Fuels
- Water
- Electricity: transmission & distribution losses associated with electricity purchased by Council (excluding street lighting)
- Electricity: grid electricity from facilities where Council does not have operational control but has financial control (including unmetered lighting)
- Transport Fuels: emissions associated with the extraction, production, and transportation of fuels
- Natural gas: emissions associated with the extraction, production and distribution of natural gas
- Natural gas: facilities where Council does not have operational control but pays bill

- Waste disposal
- Stationary fuels: emissions associated with the extraction, production, and transportation of fuels
- Employee business travel (public transport, flights, hire cars, taxis)
- Paper consumption
- Lubricants: emissions associated with the extraction, production, and transportation of lubricants
- Accommodation
- Asphalt

## Excluded sources

The following emission sources have been excluded in line with the provisions of the National Carbon Offset Standard for Organisations. The impact of excluding these sources is not expected to materially affect the overall total emissions

#### **Emissions not quantified**

The Carbon Neutral Guidelines lists activities recommended or to be considered for inclusion in the inventory. Where they have been excluded this is generally due to two factors:

- Council does not have any emissions associated with the activity
- There is a lack of reliable data or methodology to quantify the emissions and to quantify the data and is difficult to gather relative to the expected emissions.

The following emissions sources that have been excluded from the final inventory:

Emission Source	Scope	Justification for exclusion & overall implications for footprint
Some outdoor events	3	Lack of complete and reliable data.
		Implication for footprint would be minor.
Staff commute	3	<ul> <li>Lack of complete and reliable data. Could consider future inclusion if based on very limited sample data.</li> <li>Implication for footprint likely to be minor.</li> </ul>
Contractor energy	3	<ul> <li>Lack of complete and reliable data, and uncertainty regarding methodologies and locally relevant emissions factors.</li> <li>Would be extremely time intensive to capture holistic data for this emissions source but will consider limited inclusions in future reporting periods.</li> <li>Council also have limited ability to influence these emissions, and limited resources to collect this information.</li> <li>Overall implication for the footprint is difficult to judge, although could be a substantial source of scope 3 emissions.</li> </ul>
Construction/demolition activities	3	<ul> <li>Lack of complete and reliable data. Overall implication for footprint is difficult to judge, although could be a substantial source of scope 3 emissions.</li> </ul>
Embodied emissions of purchased products and services, i.e. IT equipment, chlorine, office printing, telecommunications, stationery, food and catering, cleaning services	3	<ul> <li>Lack of complete and reliable data, and uncertainty regarding methodologies and locally relevant emissions factors.</li> <li>Would be extremely time intensive to capture holistic data for this emissions source but will consider limited inclusions in future reporting periods.</li> <li>Council also have limited ability to influence these emissions, and limited resources to collect this information.</li> <li>Overall implication for the footprint is difficult to judge, although could be a substantial source of scope 3 emissions.</li> </ul>
Transport emissions from purchased products and materials	3	<ul> <li>Lack of complete and reliable data, and uncertainty regarding methodologies and locally relevant emissions factors.</li> </ul>

i.e. postage, couriers, freight	•	<ul> <li>Would be extremely time intensive to capture holistic data for this emissions source but will consider limited inclusions in future reporting periods.</li> <li>Council also have limited ability to influence these emissions, and limited resources to collect this information.</li> <li>Overall implication for the footprint is difficult to judge, although could be a substantial source of scope 3 emissions.</li> </ul>

An action plan is in place for determining materiality of the above emission sources for future reporting.

#### Emissions outside of the inventory boundary

All emissions not listed above are outside of the boundary of this inventory. A specific example of this is domestic waste from the community in the form of emissions from waste disposal to landfill from domestic kerbside waste. Whilst the emissions from Council operations and contractors to collect the waste is considered within the inventory boundary, the emissions from community waste disposal to landfill is not considered to be Council's responsibility as Council has no operational control over this action.

Similarly, emissions generated by the community or businesses located within the Moreland municipality are also excluded from this inventory, as are emissions generated by Council employees commuting to/from work at Council.

## 1C. Diagram of the certification boundary



Council Facilities where Council has operational control

Asphalt, Fleet & Plant

Third Part Facilities leased by Council were Council has operational control

Moreland City Council (direct and indirect emissions)

Facilities leased from Council to a third party where Council is paying utility costs

**Public Lighting** 

Service Providers (street lighting, public transport, waste disposal, office paper, accommodation)

## 2. Emissions reduction measures

## 2A. Emissions over time

Table 1 below shows the emission sources by scope and compares the percentage change in emissions of a respective year against the current year FY2017/18. Emissions in FY2017/18 fell 1% compared to FY2016/17, which was a slight decrease reflecting a reduction in consumption, given that the accounts factors for most categories are comparable between the two periods. Factors contributing to the year-to-year reduction were:

- Updates to the National Greenhouse Accounts Factors as published by the Department of Environment in July 2018
- Improvement in data quality
- Organisational behaviour change
- Reductions due to installation of street lighting upgrades, solar PV and other energy efficiency upgrades

#### Scope 1 emissions largely remained flat with a decrease of 1%.

The small decrease in scope 1 emissions was largely due to fugitive emissions (refrigerants) which decreased by 12% (0.46% of total profile) and Transport Fuel which decrease by 1% (13% of total profile).

#### Scope 2 emissions decreased slightly, by 6%.

Emissions reported this year decreased because of the change in emissions factor as provided in the National Greenhouse Accounts Factors – July 2017. For scope 2 emissions there was a slight decrease from 1.17 kg/CO2-e (scope 2 + scope 3 emissions) to 1.08 kg/CO2-e. This and the actions detailed in Table 2 below explains the drop-in emissions of 6%.

#### Scope 3 emissions increased slightly this year, by 2%.

The biggest contributing factor was:

- An increase of water by 24%, with water making up 5% of the total profile. The increase was a result of low water usage estimates for billing during the 2016-17 financial year across numerous sites. This resulted in a reported increase in consumption of over 5,000kL across 8 sites, the most significant being Wallace Reserve Soccer Ground (20,587kL) and JB Smith Reserve (14,539kL). Council also has four new water accounts for the reporting period which did not impact overall consumption significantly.
- An increase of contractor fuels by 6%, with contractor fuels making up 11% of the total profile.

Other sectors also increased, with the largest being a 627% increase in emissions from flights. This was largely due to emissions stemming from a significant increase in overseas travel. However, this category makes a small contribution to the overall total.

There were significant improvements within Scope 3, that have a smaller impact on the overall carbon profile These include:

- A 6% decrease in electricity scope 3 emissions due to solar PV and other energy efficiency upgrades.
- A 7% decrease in emissions from street lighting,
- A 6% reduction in emissions from office paper,
- A 43% decrease in emissions from natural gas (no operational control)

Table 1: Emissions since base year														
GHG Source	GHG Emissions (tCO2-e)	Proportion of total Inventory	GHG Emissions (tCO2-e)	% Change 17-18 vs 16- 17	GHG Emissions (tCO2-e)	% Change 17-18 vs 15- 16	GHG Emissions (tCO2-e)	% Change 17-18 vs 14- 15	GHG Emissions (tCO2-e)	% Change 17-18 vs 13- 14	GHG Emissions (tCO2-e)	% Change 17-18 vs 12- 13	GHG Emissions (tCO2-e)	% Change 17-18 vs 11- 12
	2017-18		2016-17		2015-16		2014-15		2013-14		2012-13		2011-12	
Scope 1 Emissions														
Transport Fuels	2,061.63	13%	2,084.69	-1%	2,059.04	0%	2,280.80	-10%	2,101.32	-2%	1,933.68	7%	2,606.00	-21%
Natural Gas	1,815.51	12%	1,821.38	0%	1,816.09	0%	1,954.82	-7%	2,075.89	-13%	924.28	96%	1,561.00	16%
Stationary Fuels	43.02	0.28%	44.34	-3%	33.80	27%	35.87	20%	57.27	-25%	214.92	-80%	635.00	-93%
Fugitive Emissions (Refrigerant s)	71.05	0.46%	80.85	-12%	94.44	-25%	95.74	-26%	99.71	-29%	127.54	-44%	162.51	-56%
Lubricants	0.99	0.01%	0.95	4%	1.49	-34%	1.29	-23%	2.36	-58%	2.98	-67%	5.19	-81%
Total Scope 1 Emissions	3,992.21	26%	4,032.22	-1%	4,004.86	0%	4,368.52	-9%	4,336.56	-8%	3,203.39	25%	4,969.70	-20%

National Carbon Offset Standard

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Table 1: Emissions since base year														
GHG Source	GHG Emissions (tCO2-e)	Proportion of total Inventory	GHG Emissions (tCO2-e)	% Change 17-18 vs 16- 17	GHG Emissions (tCO2-e)	% Change 17-18 vs 15- 16	GHG Emissions (tCO2-e)	% Change 17-18 vs 14- 15	GHG Emissions (tCO2-e)	% Change 17-18 vs 13- 14	GHG Emissions (tCO2-e)	% Change 17-18 vs 12- 13	GHG Emissions (tCO2-e)	% Change 17-18 vs 11- 12
Scope 2 Emissions														
Electricity	4,608.86	30%	4,893.52	-6%	5,079.75	-9%	5,344.16	-14%	5,467.20	-16%	5,184.74	-11%	5,879.00	-22%
Total Scope 2 Emissions	4,608.86	30%	4,893.52	-6%	5,079.75	-9%	5,344.16	-14%	5,467.20	-16%	5,184.74	-11%	5,879.00	-22%
Scope 3 Emissions														
Street Lighting	3,016.57	20%	3,249.54	-7%	5,171.61	-42%	6,527.94	-54%	7,053.23	-57%	7,354.30	-59%	7,197.23	-58%
Contractor Fuels	1,685.98	11%	1,591.68	6%	1,689.63	0%	1,607.12	5%	1,623.03	4%	1,631.33	3%	1,634.24	3%
Water	770.16	5%	619.07	24%	608.81	27%	546.55	41%	496.59	55%	879.63	-12%	351.13	119%
Electricity (Scope 3 emissions)	430.73	3%	407.79	6%	466.03	-8%	614.82	-30%	694.98	-38%	664.71	-35%	734.90	-41%
Electricity (No Op ctl)	317.89	2.08%	288.75	10%	336.13	-5%	420.59	-24%	412.69	-23%	251.81	26%	27.52	1055%
Transport Fuels	105.89	0.69%	107.14	-1%	106.00	0%	117.27	-10%	160.94	-34%	147.94	-28%	200.00	-47%

National Carbon Offset Standard

Public Disclosure Summary

Table 1: Emissions														
since base														
year														
GHG Source	GHG Emissions (tCO2-e)	Proportion of total Inventory	GHG Emissions (tCO2-e)	% Change 17-18 vs 16- 17	GHG Emissions (tCO2-e)	% Change 17-18 vs 15- 16	GHG Emissions (tCO2-e)	% Change 17-18 vs 14- 15	GHG Emissions (tCO2-e)	% Change 17-18 vs 13- 14	GHG Emissions (tCO2-e)	% Change 17-18 vs 12- 13	GHG Emissions (tCO2-e)	% Change 17-18 vs 11- 12
Natural Gas (Scope 3 emissions)	137.41	0.90%	137.85	0%	137.45	0%	147.95	-7%	157.72	-13%	70.23	96%	122.00	13%
Waste Disposal	21.71	0.14%	23.13	-6%	27.08	-20%	32.85	-34%	52.40	-59%	51.58	-58%	29.28	-26%
Stationary Fuels	2.29	0.02%	2.27	1%	1.80	27%	1.90	21%	4.52	-49%	16.95	-86%	48.00	-95%
Flights	9.58	0.06%	1.32	627%	4.12	132%	5.68	69%	16.62	-42%	12.86	-26%	18.80	-49%
Natural Gas (No Op ctl)	1.63	0.01%	2.87	-43%	2.58	-37%	3.30	-51%	3.18	-49%	5.07	-68%	-	0%
Hire Cars and Taxis	13.84	0.09%	7.13	94%	3.17	337%	5.25	164%	1.94	613%	4.28	223%	11.42	21%
Office Paper	13.87	0.09%	14.77	-6%	23.09	-40%	23.26	-40%	1.14	1115%	1.03	1251%	25.87	-46%
Public Transport	1.92	0.01%	1.82	6%	1.98	-3%	2.07	-7%	1.90	2%	1.28	50%	2.57	-25%
Lubricants	0.29	0.00%	0.27	9%	0.47	-39%	0.40	-27%	0.45	-36%	0.57	-49%	0.80	-64%
Asphalt	147.40	0.96%	120.10	23%	202.61	-27%								
Accommod ation	3.55	0.02%	1.82	95%	2.22	60%								

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Table 1:														
Emissions														
since base														
year														
	GHG	Proportion	GHG	% Change										
GHG Source	Emissions	of total	Emissions	17-18 vs 16-	Emissions	17-18 vs 15-	Emissions	17-18 vs 14-	Emissions	17-18 vs 13-	Emissions	17-18 vs 12-	Emissions	17-18 vs 11-
	(tCO2-e)	Inventory	(tCO2-e)	17	(tCO2-e)	16	(tCO2-e)	15	(tCO2-e)	14	(tCO2-e)	13	(tCO2-e)	12
Total Scope	6,680.72	44%	6,577.30	2%	8,784.79	-24%	10,056.94	-34%	10,681.35	-37%	11,092.99	-40%	10,403.75	-36%
3 Emissions														
Total	15,281.79	100%	15,503.04	-1%	17,869.41	-14%	19,769.63	-23%	20,485.10	-25%	19,481.12	-22%	21,252.46	-28%
Emissions														

## 2B. Emissions reduction strategy

#### Climate Action Plan / Carbon Management Strategy / Corporate Carbon Reduction Plan

In April 2007, Council endorsed the Climate Action Plan, which included a commitment to the goal of zero net emissions for Council's corporate emissions by 2020 and the goal of zero net emissions for the Moreland community by 2030. In December 2008, the incoming Mayor's speech took the corporate goal further to state that Council would achieve zero net emissions by 2012. To respond to this direction, Council developed a Carbon Management Strategy (CMS) that provided a pathway for Council to meet its commitment of carbon neutrality for Council's corporate operations by 2012. The CMS brought together the Climate Action Plan, the Building Operating Plan and the Sustainable Buildings Program and included a strategic energy efficiency program to provide a road map to move forward in a positive direction towards zero net emissions by 2012. Council delivered on its promise of zero net emissions by 2012 by achieving carbon neutral certification under the National Carbon Offset Standard (NCOS).

In June 2015, Council endorsed an update of the CMS - The Corporate Carbon Reduction Plan (CCRP) sets out Council's on-going actions to decrease corporate carbon emissions through to 2020 and sets the foundations for action beyond this time whilst maintaining carbon neutral accreditation under NCOS. The CCRP includes actions to directly reduce emissions associated with Council's operations and actions to influence and encourage others such as Council's service providers to reduce emissions associated with their operations. The key objectives of the CCRP are to:

- Maintain Council's carbon neutral certification.
- Provide leadership to the local government sector and the Moreland community of the urgent need to tackle climate change.
- Deliver a clear business case for action.
- Ensure that projects are planned, delivered and reviewed regularly to deliver clear outcomes.

#### **Corporate Carbon Reduction Plan Energy Efficiency Implementation**

CCRP capital works undertaken in 2017-18 have largely focused on installation of solar photovoltaic systems.

From the 2011-12 reporting period to the current 2017-18 results, Council has reduced annual emissions by approximately 28% or 5,971 tCO2-e. This includes reductions since the base year in almost all categories, excluding Natural Gas Scope 1 and 3, Contractor Fuels, Water, and Electricity (no operational control) and Hire Cars and Taxis with improved reporting structures likely to be responsible for some of the apparent gains in these categories. Hire Car and Taxis along with Contractor Fuels being the exception, as they saw a significant increase during this reporting period.

This result is testement to Council's strategic approach of continual monitoring and improvement. It reflects ongoing energy efficiency works undertaken at all council buildings, as well as behavioural modifiations and procurement policies.

To manage its commitment to reducing emissions and maintaining its carbon neutral status, Council will continue to take a strategic approach, guided by the CCRP to mitigating its carbon impact. Investment in energy efficiency is critical to directly reducing greenhouse emissions, reducing Council's exposure to energy price rises, carbon prices and the costs associated with achieving carbon neutrality. Council will also continue to progress data management to identify savings and to help direct energy efficiency projects.



**Figure 3:** Carbon Management Principles (source: http://www.epa.vic.gov.au/business-and-industry/lower-your-impact/carbon-management-at-work)

Using steps in the Carbon Management Principles (refer Figure 3 above). Council has identified and recommended actions by which the organisation can reduce its greenhouse emissions. These are outlined in the following sections.

#### Measure

#### Data Management

Employing Council's Utility Data Management Officer and improving data management saved Council over \$100,000 in energy bill errors in the first 12 months of implementation. These savings would have been missed were it not for the proactive approach recommended in the CMS. Further, measuring utility data is a crucial step towards carbon neutrality as Council has a much better understanding of:

- Opportunities for emissions reduction
- The impact of energy efficiency measures and facility use on emissions
- The investment required for energy efficiency and carbon offsets for forward planning

The data management system has been upgraded to a more rigorous system (Chameleon) integrated within Council's financial system. This data management system will provide more rigorous quality assurance, improved reporting and best use of the resources available to Council.

#### Avoid

- Council has a thermal comfort policy ensuring our buildings are heated and cooled as effectively as possible, infrared sensors and signage on lights to encourage people to switch off when rooms are not in use.
- Incentives such as subsidised annual MYKI tickets and free MYKI for business use to encourage public transport use.
- Interest free loans are available for purchase of bicycles.
- Electric bikes and cars powered by renewable energy available to all staff.
- Council has a Sustainable Buildings Policy ensuring all building projects are subject to best practice energy efficiency minimum standards.
- Council hosted fossil fuel divestment information sessions
- Council installed new recycling and composting bin infrastructure at the Coburg Town Hall and Hadfield Operations Centre

#### **Reduce – Energy Efficiency Projects**

Adopting an approach to reduce emissions through energy efficiency projects will minimise the need to purchase carbon offsets and associated long term costs.

As shown in Figure 4 below, the top 3 emission sources for Council in 2017-18 are:

- Buildings Electricity 30% (Scope 2 and Scope 3 (Operational control only)).
- Street Lighting 20% (scope 3)
- Transport Fuels 13% (scope 1)





Around 63% of all emissions result from these top three sources and 30% is due to electricity use. Adopting an approach to achieve ongoing emissions through energy efficiency projects that particularly target these three areas will minimise the need to purchase carbon offsets and associated long-term costs. Opportunities are presented below and have been selected based on integration with capital works projects and on their ability to reduce both energy costs and greenhouse emissions.

#### Open Space Lighting program

Council will actively upgrade existing mercury vapour lights to LED in parks and open spaces. During the reporting period, lighting upgrades were undertaken in 3 sites:

- CB Smith Reserve
- Rogers Reserve
- Bridges Reserve

#### Renewable Energy – Solar

Council undertook a renewable energy feasibility study in 2013-14 for Council owned buildings. The study identified a number of sites where solar PV is viable for installation.

In this reporting period, Council installed solar PV on the following Council owned buildings:

• Coburg Children's Centre: Solar PV 5kW

Council completed installation of the solar PV systems on Council's owned and operated buildings in 2017-18 (listed above).

Council also installed two systems at Council buildings leased to the community. Council used an innovative approach where Council paid for the installation and the community group leasing the site repay for the system over a 5-10-year period utilising savings received from reduced energy bills. This Solar on Leased Facilities pilot program saw the following installations:

- Barry Beckett Child Care Centre: Solar PV 21kW
- Shirley Robinson Child Care Centre: Solar PV 15kW

#### <u>GreenPower</u>

Council currently purchases 100% GreenPower for Coburg Civic Centre.

#### Melbourne Renewable Energy Project

Throughout 2017-18 Moreland continued to partner in the Melbourne Renewable Energy Project (MREP) which is a consortium of 13 partners who are intending to stimulate the construction of a renewable energy generation project to provide 100% renewable energy for a period of ten years. The project contract has been established to purchase 100% renewable electricity to meet all Council end uses. When Crowlands windfarm is operational in January 2019, the 39 turbines will provide all the electricity for Council's corporate operations as an MREP partner.

#### <u>Sequester</u>

This is not directly available to Council as an option.

## 2C. Emissions reduction actions

Council's emissions for the 2017-18 reporting period is **15,281** tCO2-e. By purchasing GreenPower for Coburg Civic Centre, the net emissions were reduced to **14,840** tCO2-e. Note that energy efficiency upgrades and the installation of additional solar PV at this building reduced consumption at this site significantly, so that much less GreenPower was purchased by Council compared to previous reporting periods.

The emission reductions achieved during the reporting period can be partly attributed to the following actions:

Table 2: Emissions reduction measures implemented in the current reporting period								
Year completed	Emission source	Reduction measure and calculation method	Scope	Status	Reduction t CO <sub>2</sub> -e Per annum	Reduction t CO <sub>2</sub> -e 2017-18		
2017/18	Scope 2 & 3 – electricity consumption	Coburg Children's Centre: Solar PV: 5kW	2	Implemented this period	8	6		
2017/18	Scope 2 & 3 – electricity consumption	Barry Beckett Childcare Centre: Solar PV: 21kW	2	Implemented this period	34	5.7		
2017/18	Scope 2 & 3 – electricity consumption	Shirley Robinson Childcare Centre: Solar PV: 15kW	2	Implemented this period	21	3.5		
Tota	Total emission reductions implemented in this reporting period6315.2							

Further initiatives that have been implemented under best practise to reduce emissions where evidence of the emissions reductions will be revealed in the total energy consumption reported in the audit include:

- Coburg Civic Centre High Efficiency Reverse Cycle Thermal Plant Upgrade
  - $\circ$   $\hfill The gas boilers have been replaced with heat pumps$
- Thermal Boiler Upgrades at Fawkner Leisure Centre
  - Boilers have been replaced with high efficiency condensing boilers

#### Key strategic emission reduction actions for 2018-19

The following actions are planned for 2018-19:

- Crowland windfarm is expected to be operational in January 2019 which will provide all the electricity for Council's corporate operations as an MREP partner.
- The introduction of a new fleet policy that will prioritise the purchase of zero emissions vehicles.
- Six new solar PV sites have been proposed, which consist of:
  - Lake Park Kindergarten 7-8kW
  - Brunswick NW Kindergarten 15-17kW
  - Fawkner Bowls Club 18kW
  - Denzil Don Kindergarten 7-10kW
  - West Coburg Bowls Club 20kW
  - Brunswick Football Club 7-10kW
- The introduction of four new electric vehicle charging stations, three of which are for Council use and one for public use.

# 3. Emissions summary

Table 2. Emissions Summary							
Scope	Emission source	t CO <sub>2</sub> -e					
1	Transport Fuels	2,061.63					
1	Natural Gas	1,815.51					
1	Stationary Fuels	43.02					
1	Fugitive Emissions (Refrigerants)	71.05					
1	Lubricants	0.99					
2	Electricity	4,608.86					
3	Street Lighting	3,016.57					
3	Contractor Fuels	1,685.98					
3	Water	770.16					
3	Electricity (Scope 3 emissions)	430.73					
3	Electricity (No operational control)	317.89					
3	Transport Fuels	105.89					
3	Natural Gas (Scope 3 emissions)	137.41					
3	Waste Disposal	21.71					
3	Stationary Fuels	2.29					
3	Flights	9.58					
3	Natural Gas (No operational control)	1.63					
3	Hire Cars and Taxis	13.84					
3	Office Paper	13.87					
3	Public Transport	1.92					
3	Lubricants	0.29					
3	Asphalt	147.40					
3	Accommodation	3.55					
Total Gr	oss Emissions	15,281.79					
GreenPo	ower or retired LGCs	440.93					
Total Ne	et Emissions	14,840.86					

# 4. Carbon offsets

## 4A. Offsets summary

In the last few years Council purchased and retired through the APX registry offsets from two projects in order to meet Council's NCOS obligations in 2015-16, 2017-18. The surplus from these offsets are used to meet Council's NCOS obligations for FY2017-18 along with offset purchases from two projects in 2017-18. The table below shows the amount of offsets that were used and associated projects.

Table 3. Offsets Summary							
Date of cancellation	Offset project, unit type and registry	Serial numbers	Vintage	Quantity			
2015	Project: Wind Power Vaspet-II and Vaspet-III Wind Power Project, Maharashtra Offset Type: VCUs Registry: APX VCS registry	4639-191553809-191572808- VCU-008-APX-IN-1-1404- 01012014-03082014-0	2015	3,503			
2018	Project: Grouped Wind Power Project in India Offset Type: VCUs Registry: APX VCS registry	4972-206061380-206070379- VCU-048-APX-IN-1-429- 01012013-31122013-0	2017	9,000			
2018	Project: Hebei Kangbao Sanxiatian Wind Farm Project Offset Type: VCUs Registry: APX VCS registry	5138-214089969-214099968- VCU-034-APX-CN-1-697- 30112011-31122011-0	2017	2,337			
Total offsets c		14,841					
Net emission	0 tCO2-e						
Total offsets b [include serial	anked for use future years: (if any) numbers]			7,663			

## 4B. Offsets purchasing and retirement strategy

Council seeks to position itself as a carbon neutral organisation and to recognise this through an accreditation process. Accreditation requires the purchase of verified carbon offsets. In June 2012 Council endorsed its Carbon Offset policy which outlines Council's approach and criteria to the purchase of carbon offsets. This policy establishes a framework for purchasing carbon offsets, which includes procurement process and criteria for offset selection. National Carbon Offset Standard Public Disclosure Summary In July 2012 Council established a panel of preferred suppliers for carbon offsets to ensure that Council can purchase NCOS accredited offsets to meet its carbon neutral commitment. Council confirmed two offset providers as preferred suppliers for the years 2012 to 2015.

In accordance with NCOS guidelines for the purchase of offsets for the years 2015 to 2016, 2016 to 2017 and 2017 to 2018, Council has forward purchased and cancelled offsets. Any excess offsets will be carried forward to Council's carbon neutral claim in subsquent years. The offset suppliers for the years 2017 – 2018 were selected based on Council's Offest policy criteria through a request for quote process.

## 4C. Offset projects (Co-benefits)

The selected wind projects contribute to sustainable development in the local community, and India and China as a whole. The projects help reduce the level of air pollution caused by burning coal, as well as reducing other environmental impacts from extracting and processing fossil fuels. The projects create jobs for local people during construction and with their continued operation.

# 5. Use of trade mark

Table 4. Trade mark register								
Where used	Logo type							
Council's website	Certified organisation							
Council's Annual Report	Certified organisation							
Council email signatures	Certified organisation							
Presentations to other Councils	Certified organisation							
Northern Alliance for Greenhouse Action (NAGA) events	Certified organisation							
Council presentation banners	Certified organisation							
Decals on Council's electric vehicle	Certified organisation							
Electronic information Kiosks	Certified organisation							
Council Buildings	Certified organisation							

# 6. Have you done more?

Under the CCRP, Council has or plans to take the following actions beyond the requirements of the NCOS:

- Continue to install solar PV on Council's leased facilities to assist with reducing community emissions and inspire the community to install solar PV in residential dwellings.
- Complete the development and integration of carbon emissions tender questions into Council's procurement process to influence the process and supply chain of Council suppliers.
- Update community grants application forms with questions regarding carbon and other environmental performance of projects and programs being put forward for grant funding.
- Continue to engage and educate staff on sustainability actions they can take in their own time including active transport, reducing organic waste to landfill and divestment from fossil fuels.
- Implement divestment policy to guide Council's approach to reducing carbon emissions associated with Council's Investments (divestment policy being developed in 2015). In addition, council included several questions pertaining to carbon mitigation in our banking services tender process.
- Introduction of a central Utility Billing Management System (Chameleon) including employing a dedicated Data Management Officer to ensure quality and general management of data.
- Source all future electricity from the development of Crowlands windfarm from January 2019.
- The Moreland Integrated Transport Strategy 2018 has a focus on new and improved routes for pedestrians and cyclist and increasing bus services with an aim to reduce the growth of cars in Moreland as the population increases.
- Continue to apply the Moreland Sustainable Buildings Policy in the development or redevelopment of Council buildings such as the Oakpark Sports and Aquatic Centre which incorporated sustainable design and operation into the redevelopment.
- Respond to the impacts of the urban heat island effect. Council's Urban Heat Island Effect Action Plan 2016-26
  identified the Upfield corridor as having some of the hottest surface temperatures within Moreland. The key
  priorities of the Action Plan are to develop an action plan to reduce the urban heat island effect along the Upfield
  corridor, identify locations for introducing water and landscaping along the corridor, improve pedestrian and
  bicycle amenity along the corridor to encourage walking and cycling and have a coordinated approach across
  Council.
- The introduction of a new fleet policy that will prioritise the purchase and use of zero emissions vehicles