National Carbon Offset Standard
Carbon Neutral Program
Public Disclosure Summary

Moreland City Council

An Australian Government Initiative

MORELAND CITY COUNCIL 2015/16

FIRST CARBON NEUTRAL PERIOD: 1/07/2011 to 30/06/2012

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.

Sue Vujcevic

Manager City Strategy and Design

Type of carbon neutral certification: Organisation

Verification

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

1. Carbon neutral information

1A. Introduction

Moreland City Council is certified carbon neutral for its organisational corporate emissions. For Moreland City Council carbon neutrality means we are working hard to 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 3rd 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 (4 out of 194 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

Non-quantified sources

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:

- Some outdoor events
- Staff commute
- Green waste
- Contractor energy
- Construction/demolition activities
- Embodied emissions of purchased products and services, i.e. IT equipment, chlorine, office printing, telecommunications, stationery, food and catering, cleaning services
- Transport emissions from purchased products and materials i.e. postage, couriers, freight

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. Certification boundary

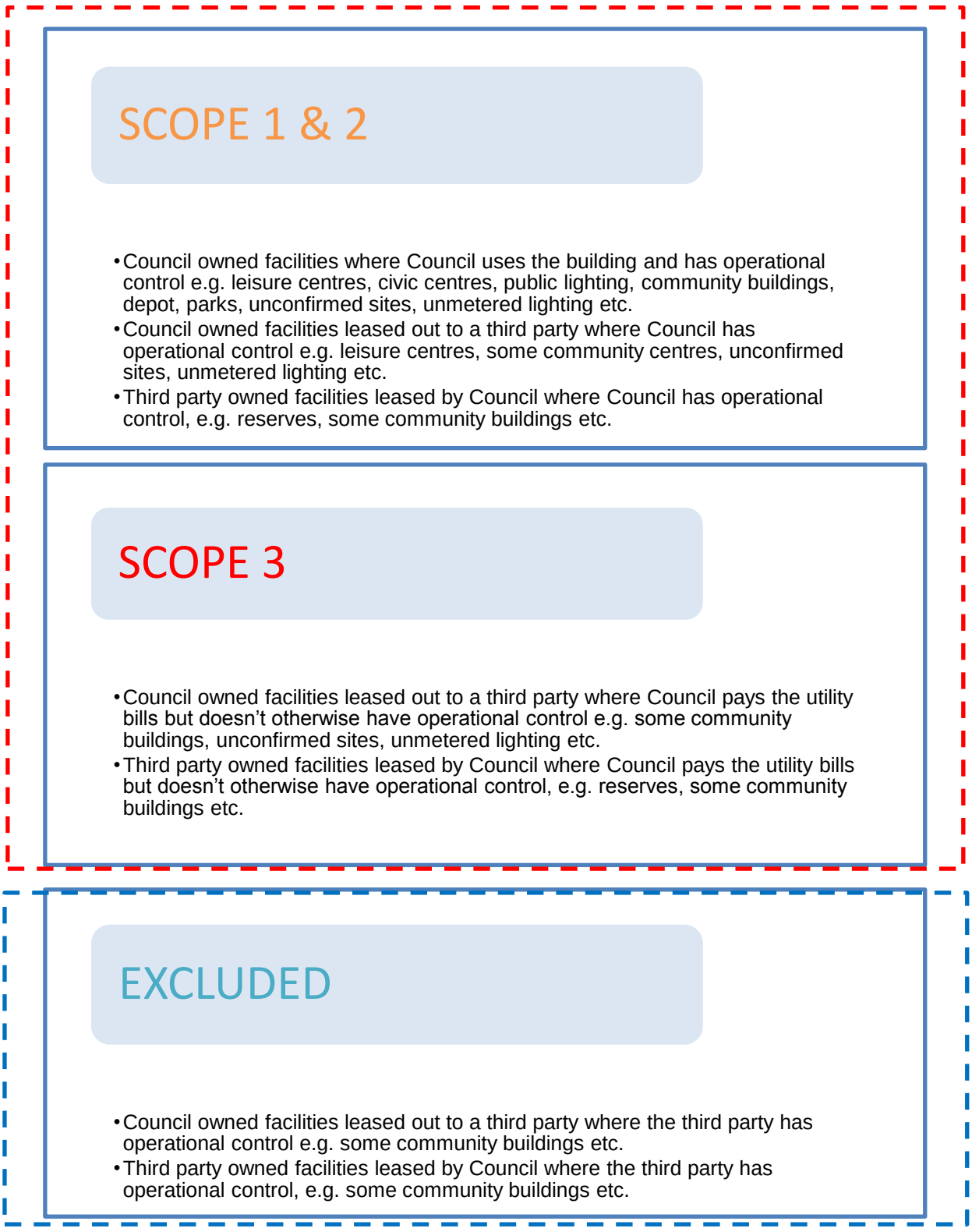

Figure 1: Diagram of the Boundary of the Subject of Certification

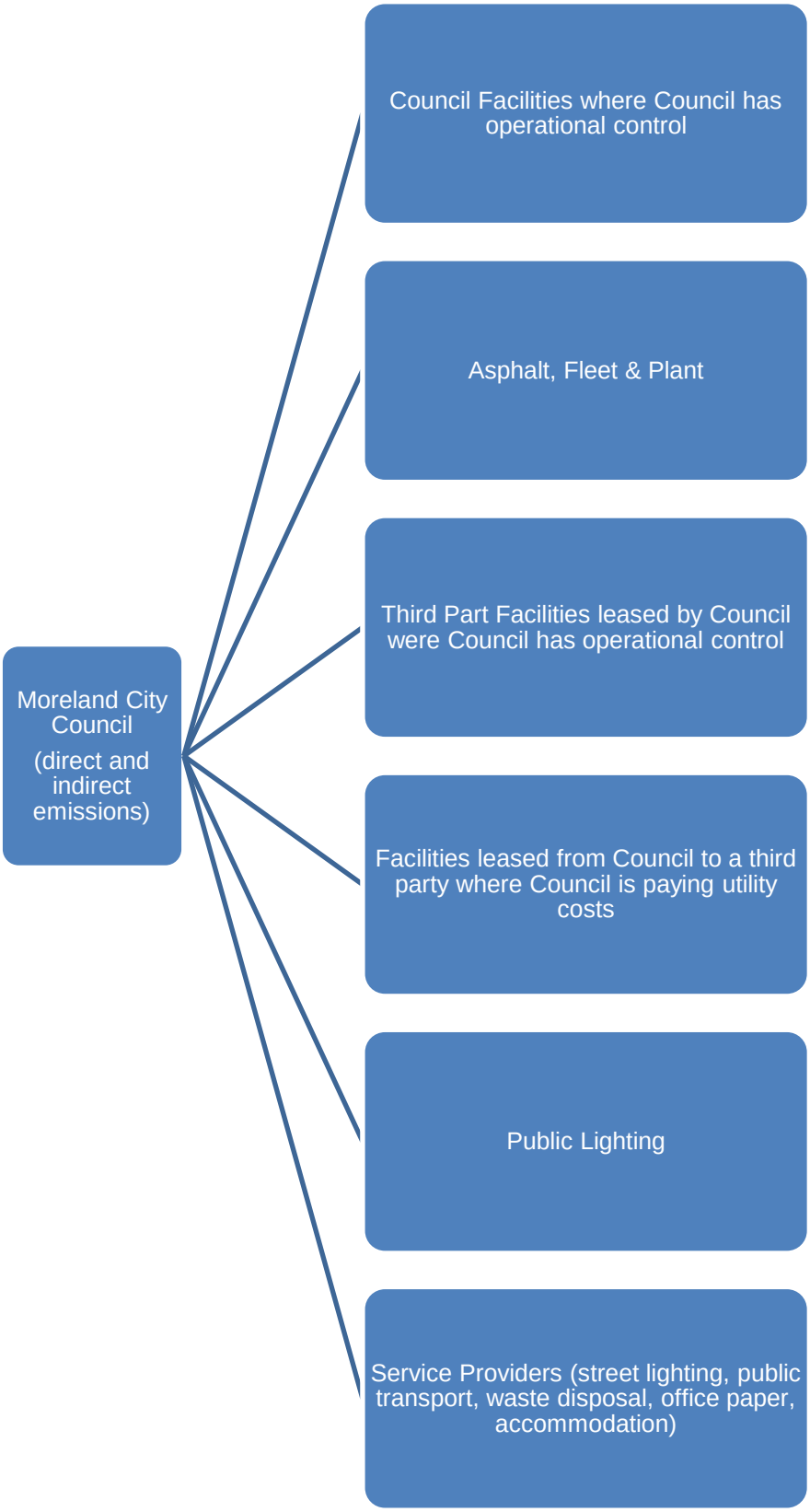

Figure 2: Diagram of emission sources

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 FY2015/16. Changes in emissions from FY2014/15 to FY2015/16 were minimal and can largely be attributed to:

- Updates to the National Greenhouse Accounts Factors as published by the Department of Environment in August 2016
- Improvement in data quality
- Organisational behaviour change
- Reductions due to installation of solar PV and energy efficiency upgrades

The decrease in **Scope 1** emissions were predominantly due to a reduction in transport fuel usage and natural gas usage which make up 12% and 10% of scope 1 emissions respectively. This was largely due to more fuel efficient vehicles and a move away from gas usage with the take up of renewable electricity and improved efficiency of boilers where gas is used.

Scope 2 emissions reported this year decreased because of the change in emissions factor as provided in the National Greenhouse Accounts Factors – August 2016. For scope 2 emissions there was a decrease from 1.26 kg/CO2-e (scope 2 + scope 3 emissions) to 1.09 kg/CO2-e. This explains the drop in emissions of more than 10% while consumption increased by 8%. If the emissions factor was to remain the same, emissions for scope 2 would have increased to by approximately 3% this reporting period. The increase in consumption is due to:

- Better data management thus improving the capture of Council electricity consumption
- An increase in Council operations
- Council adopting facilities back from the tenant.

Scope 3 emissions reported this year decreased because of changes to emissions factors and the following reasons:

- Changing of streetlights to LED was the biggest contributor to the reduction in scope 3 emissions. Street Lighting made up 29% of scope 3 emissions.
- Updates to the National Greenhouse Accounts Factors as published by the Department of Environment in August 2016
- Organisational behaviour change which contributed to less waste, transport reductions and other reductions.

There were a number of notable increases however, the most significant being paper due to increased consumption. Paper however only makes .24% of the total inventory so an overall reduction in emissions was maintained.

Table 1: Emissions since base year

GHG Source	GHG Emissions (tCO2-e) 2015-16	Proportion of total Inventory	GHG Emissions (tCO2-e) 2014-15	% change 2015-16 vs 2014-15	GHG Emissions (tCO2-e) 2013-14	% change 2015-16 vs 2013-14	GHG Emissions (tCO2-e) 2012-13	% change 2015-16 vs 2012-13	GHG Emissions (tCO2-e) 2011-12	% change 2015-16 vs 2011-12
Scope 1 Emissions										
Transport Fuels	2059	12%	2,280.80	-10%	2,101.32	-2%	1,933.68	6%	2,606.00	-21%
Natural Gas	1816	10%	1,954.82	-7%	2,075.89	-13%	924.28	96%	1,561.00	16%
Stationary Fuels	34	0.19%	35.87	-6%	57.27	-41%	214.92	-84%	635.00	-95%
Fugitive Emissions (Refrigerants)	94	0.53%	95.74	-1%	99.71	-5%	127.54	-26%	162.51	-42%
Lubricants	1.5	0.01%	1.29	16%	2.36	-37%	2.98	-50%	5.19	-71%
Total Scope 1 Emissions	**4005**	**22%**	**4,368.52**	-8%	**4,336.56**	**-8%**	**3,203.39**	**25%**	**4,969.70**	**-19%**
Scope 2 Emissions										
Electricity	4771	27%	5,344.16	-10.73%	5,467.20	-13%	5,184.74	-8%	5,879.00	-19%
Total Scope 2 Emissions	**4771**	**27%**	**5,344.16**	**-10.73%**	**5,467.20**	**-13%**	**5,184.74**	**-8%**	**5,879.00**	**-19%**
Scope 3 Emissions										

Table 1: Emissions since base year

GHG Source	GHG Emissions (tCO2-e) 2015-16	Proportion of total Inventory	GHG Emissions (tCO2-e) 2014-15	% change 2015-16 vs 2014-15	GHG Emissions (tCO2-e) 2013-14	% change 2015-16 vs 2013-14	GHG Emissions (tCO2-e) 2012-13	% change 2015-16 vs 2012-13	GHG Emissions (tCO2-e) 2011-12	% change 2015-16 vs 2011-12
Street Lighting	5171	29%	6,527.94	-21%	7,053.23	-27%	7,354.30	-30%	7,197.23	-28%
Contractor Fuels	1690	9%	1,607.12	5%	1,623.03	4%	1,631.33	4%	1,634.24	3%
Water	609	3%	546.55	11%	496.59	23%	879.63	-31%	351.13	73%
Electricity (Scope 3 emissions)	437	2%	614.82	-29%	694.98	-37%	664.71	-34%	734.90	-40%
Electricity (No Op ctl)	673	3.76%	420.59	60%	412.69	63%	251.81	167%	27.52	2347%
Transport Fuels	106	0.59%	117.27	-10%	160.94	-34%	147.94	-28%	200.00	-47%
Natural Gas (Scope 3 emissions)	137	0.77%	147.95	-7%	157.72	-13%	70.23	96%	122.00	13%
Waste Disposal	27	0.15%	32.85	-18%	52.40	-48%	51.58	-47%	29.28	-8%
Stationary Fuels	1.8	0.01%	1.90	-5%	4.52	-60%	16.95	-89%	48.00	-96%
Flights	4.1	0.02%	5.68	-24%	16.62	-74%	12.86	-67%	18.80	-77%

Table 1: Emissions since base year										
GHG Source	**GHG Emissions (tCO2-e) 2015-16**	**Proportion of total Inventory**	**GHG Emissions (tCO2-e) 2014-15**	**% change 2015-16 vs 2014-15**	**GHG Emissions (tCO2-e) 2013-14**	**% change 2015-16 vs 2013-14**	**GHG Emissions (tCO2-e) 2012-13**	**% change 2015-16 vs 2012-13**	**GHG Emissions (tCO2-e) 2011-12**	**% change 2015-16 vs 2011-12**
Natural Gas (No Op ctl)	2.6	0.01%	3.30	-22%	3.18	-19%	5.07	-49%	0.00	0%
Hire Cars and Taxis	3.2	0.02%	5.25	-40%	1.94	63%	4.28	-26%	11.42	-72%
Office Paper	43	0.24%	23.26	86%	1.14	3693%	1.03	4117%	25.87	67%
Public Transport	2.0	0.01%	2.07	-4%	1.90	4%	1.28	54%	2.57	-23%
Lubricants	0.5	0.00%	0.40	18%	0.45	5%	0.57	-16%	0.80	-41%
Asphalt	203	1.13%								
Accommodation	2.2	0.01%								
Total Scope 3 Emissions	**9114**	**51%**	**10,056.94**	**-9%**	**10,681.35**	**-15%**	**11,092.99**	-18%	**10,403.75**	-12%
Total Emissions	**17890**		**19,769.63**	**-10%**	**20,485.10**	**-12.7%**	**19,481.12**	**-8%**	**21,252.46**	**-15.8%**

2B. Emissions since base year

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 2015-16 have largely focused on the installation of solar photo- voltaic renewable energy systems at nine sites across Moreland totalling 269.5 kW.

From January 2011 to 14, Council has reduced annual emissions by approximately 7% or 1,500 tCO2-e with an associated cost saving of approximately $180,000 per annum through energy efficiency works. Energy efficiency works undertaken by Council at Coburg Civic Centre, Coburg Leisure Centre, Fawkner Leisure Centre, Bob Hawke Centre and Walter Street Depot have contibuted to this decrease. These energy and greenhouse gas saving achievements have been quantified based upon energy audits. The most significant demonstrated energy efficiency savings have occurred at the Coburg Civic Centre with annual electricity costs and greenhouse gas (GHG) emissions reflecting monthly savings of up to 29%, totalling $51,493 between January 2011 and 2014. Further efficiency works have been undertaken since 2014 resulting in further savings.

These figures demonstrate the effects of some of the energy efficiency works undertaken by Council at our top 10 electricity consuming sites. This includes HVAC optimisation, replacing inefficient gas boiler systems with modern reverse cycle electric heating systems, installation of voltage optimisation technology, LED lighting retrofits, timer controlled appliances, insulation and draft sealing, installing window insulation and car park and security lighting upgrades.

Strategic Actions in 2015-16

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.

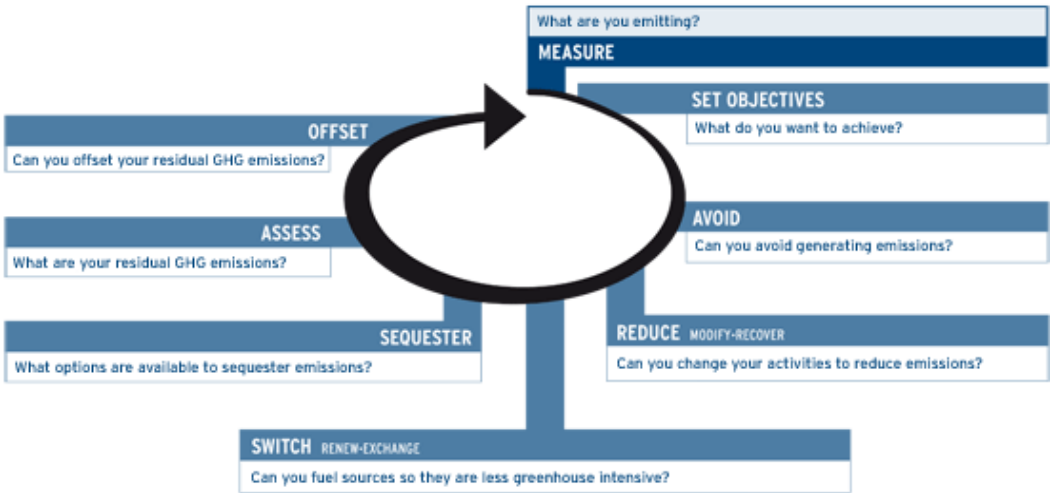

Figure 3: Carbon Management Principles (source: http://www.epa.vic.gov.au/business-and-industry/lower-your-impact/carbon-management-at-work)

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 process have saved Council over $100,000 in energy bill errors in the first 12 months. 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 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 2015-16 are:

- Street Lighting – 29% (scope 3)
- Buildings - Electricity – 29% (Scope 2 and Scope 3 (Operational control only)).
- Transport fuels – 11.5% (scope 1)

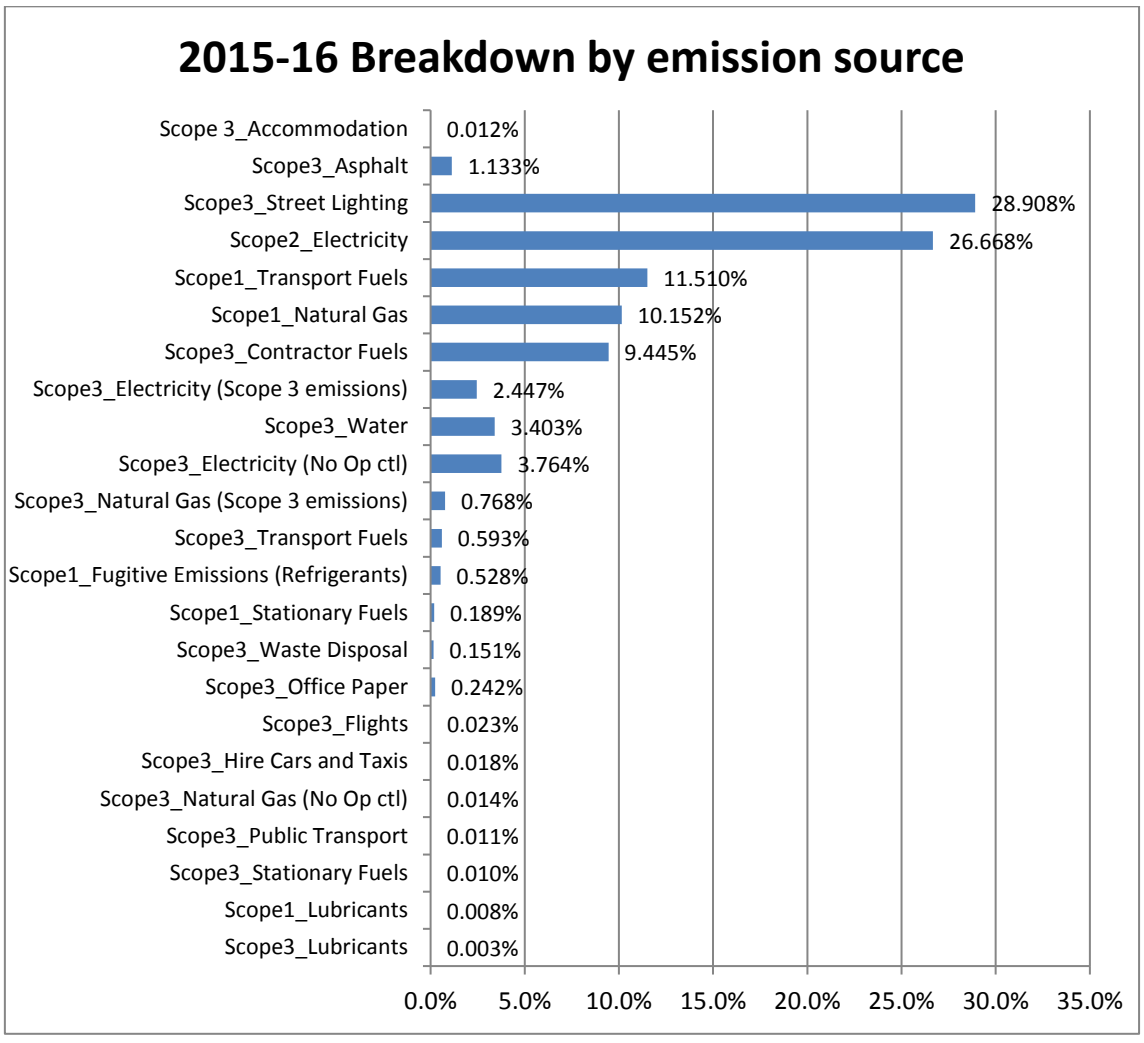

Figure 4: 2014-15 Breakdown by emission source

Around 70% of all emissions result from these top three sources and 58% is due to electricty use. Adopting an approach to reduce emissions through energy efficiency projects, particularly targeting 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.

Street Lighting

Street lighting represents one of the largest components of Council's carbon footprint. A bulk change to replace 70% of street lights (8,000 - 80 watt mercury vapour streetlights) in residential streets with more efficient fittings is currently underway - with 35% completed in the Financial Year 2014-15. The lighting upgrade will reduce lighting energy consumption by approximately 65% while improving light quality and reducing glare.

Transport

Council's fleet emissions and associated fuel costs continue to increase. Heavy vehicles such as the waste collection trucks comprise the highest fuel consuming area for Council, accounting for 40% of the Council's total fuel costs. Community transport, open space and staff vehicles make up the remainder of the fleet.

- In 2011, the ESD Unit developed a light fleet matrix to assist fleet in the purchasing of the most appropriate vehicles for Council operations. This has resulted in smaller cars being purchased for general pool car use and dedicated LPG vehicles with a lower carbon footprint for larger cars with load carrying requirements.
- In 2011 Council commissioned a feasibility study into the option of converting the heavy fleet vehicles to CNG (Compressed Natural Gas). CNG can deliver 15% greenhouse gas emissions savings along with air quality improvements from fleet operations and reduce operating costs by up to 50%. The report was presented in June 2012 and recommended collaborating with neighbouring Councils to reduce the costs of infrastructure upgrades required to deliver CNG to vehicles. Meetings will be held with neighbour councils to scope potential partnership opportunities. This was still an opportunity for Council in 2014, however a zero emissions solution (hydrogen) was preferred and is now being developed.
- Throughout 2015-16 Moreland worked with the Hydrogen Utility (H2U) and a leading truck manufacturer to develop a renewable hydrogen refuelling station at the Hadfield Operations Centre as well as prototype hydrogen waste vehicles. The project is currently in the developmental stages, however the initial business case is very promising.
- In July 2013 Electric Vehicle (EV) charging infrastructure was installed and a Nissan Leaf electric car introduced to Council's pool car fleet.
- Two additional Nissan Leaf electric cars were added to Council's fleet in 2014-15
- One additional EV was added to the fleet in 2015-16; a Renault Kangoo electric van.
- Council intends to purchase two new EV's every year as part of the CCRP, however has been unable to purchase due to vehicles not being available in Australia to buy.

Switch

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.

Roll-out of solar photo-voltaics in 2015-16 at multiple sites has further reduced emissions by 417 tCO2-e .

In this reporting period, Council installed a total of 271.5kW on Council owned buildings:

- Walter Street Depot: Solar PV 66kW
- Brunswick Town Hall: Solar PV 99kW
- Coburg Library: Solar PV 15kW
- Glenroy Library: Solar PV 25kW
- Newland's Community Centre: Solar PV 7kW
-

Council completed installation of five solar PV systems on Council's owned and operated buildings in 2015-16 (listed above).

Council also installed four 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:

- Coburg Table Tennis Club: 11kW
- Glenroy Neighbourhood Learning Centre: 17.5kW
- Glenroy Bowls club: 20kW
- Everret Street Childcare centre: 11kW

GreenPower

Council currently purchases 100% GreenPower for Coburg Civic Centre.

Melbourne Renewable Energy Project

Throughout 2015-16 Moreland continued to partner in the Melbourne Renewable Energy Project 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. This innovative project is currently at the tender stage and is expected to make a final decision by May 2017.

Sequester

This is not directly available to Council as an option.

2C. Emissions reduction actions for 2016-17

Council's emissions for the 2015-16 reporting period is **19,183** tCO2-e. By purchasing GreenPower for Coburg Civic Centre, the net emissions were reduced to **17.839** tCO2-e.

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_2-e Per annum	Reduction t CO_2-e 2015-16
2015/16	Scope 2 – electricity consumption	Walter Street Depot: Solar PV 66kW.	2	Implemented this reporting period May 2016	101	8
2015/16	Scope 2 – electricity consumption	Brunswick Town Hall: Solar PV 99kW	2	Implemented this reporting period May 2016	145	12
2015/16	Scope 2 – electricity consumption	Coburg Library: Solar PV 15kW	2	Implemented this reporting period September 2015	22	16
2015/16	Scope 2 – electricity consumption	Glenroy Library: Solar PV 25kW	2	Implemented this reporting period March 2016	45	11
2015/16	Scope 2 – electricity consumption	Newlands Community Centre: Solar PV 7Kw	2	Implemented this reporting period September 2015	11	5
Total emission reductions implemented in this reporting period						52

Key strategic emission reduction actions for 2016-17

The following actions are planned for 2016-17:

- Installation of approximately 12.5kW of solar PV systems on Bob Hawke Community Centre
- Installation of another four solar PV systems at community leased sites through the new Solar on Leased Facilities program
- Energy Efficiency works including:
    - HVAC upgrades at Brunswick Mechanics Institute & Campbell Turnbull Library
    - Voltage Power Optimisation at Brunswick Baths
    - Stage 3 Thermal heating/cooling plant upgrade at Coburg Civic Centre
    - LED light replacements at various buildings
- Development of a MOU for installation of renewable hydrogen fleet fueling infrastructure
- Introduction of another commercial EV van into Councils fleet

- Street lighting represents one of the largest components of Council's carbon footprint. A bulk change to replace 70% of Category P street lights (8,000 - 80 watt mercury vapour streetlights) in residential streets with more efficient fittings is currently underway. This project is expected to be completed in November 2016.
- Through the Northern Alliance of Greenhouse Action (NAGA), Council will undertake a business case assessment of a lighting retrofit of Category V, major roads lights.

3. Emissions summary

Table 3: Emissions Summary		
Scope	Emission source	t CO_2-e
1	Transport Fuels	2059
1	Natural Gas	1816
1	Stationary Fuels	34
1	Fugitive Emissions (Refrigerants)	94
1	Lubricants	1.5
2	Electricity	4771
3	Street Lighting	5171
3	Contractor Fuels	1690
3	Water	609
3	Electricity (Scope 3 emissions)	437
3	Electricity (No operational control)	673
3	Transport Fuels	106
3	Natural Gas (Scope 3 emissions)	137
3	Waste Disposal	27
3	Stationary Fuels	1.8
3	Flights	4.1
3	Natural Gas (No operational control)	2.6
3	Hire Cars and Taxis	3.2
3	Office Paper	43
3	Public Transport	2.0
3	Lubricants	0.5
3	Asphalt	203
3	Accommodation	2.2
Total Gross Emissions		**17,890**
GreenPower or retired LGCs		**714**
Total Net Emissions		**17,176**

4. Carbon offsets

4A. Offsets summary

In September 2015, Council purchased and retired through the APX resistry 19,000 tCO2-e of offsets from a wind power project in India. Retiring of these offsets consists of the 17,176 tCO2-e of offsets required in order to meet Council's NCOS obligations for 2015-16 as well as 1000 tCO2-e retired on behalf of members of Moreland residents and staff. 824 tCO2-e have been held in surplus for future years.

Table 4: Offsets Summary

Offset type and registry	Year retired	% purchased and retired for 2015 - 16	Quantity	Serial numbers
Project : Wind Power Project at Rajkot, Gujarat **Location:** Gujarat, India **Offset type:** VCUs **Registry:** APX VCS registry	2015	The project relates to 100% per cent of the total amount of offsets purchased and retired for this reporting period	**19,000 tCO2-e** (**17,176 tCO2-e** on behalf of Council operations) (**1000 tCO2-e** on behalf of Moreland residents and staff)	3801-165544757-165563756-VCU-005-APX-IN-1-1045-29032012-31102012-0

	Total offsets retired	**18,176** tCO2-e
	Net emissions	**0** tCO2-e
	Total offsets held in surplus for future years:	**824** tCO2-e

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.

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 and 2016 to 2017 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 2016 – 2017 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 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.

The Wind power project in Maharashtra is a smaller scale project spread across three villages supplying electricity to area previously without grid power, creating new business opportunities for industries and employment.

5. Use of trade mark

Table 5. 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 plans to take the following actions beyond the requirements of the NCOS:

- Continue to install solar 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 I nvestments (divestment policy being developed in 2015). In addition, council included a number of questyions 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.
- Work with a consortium to investigate the development of a large scale renewnable energy project to source all future electricity.
- Work with industry and multiple levels of government to develop an MOU for a world first pilot of hydrogen refuelling for Council's fleet.