MORELAND CITY COUNCIL
2014/15

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.

[Sign Here] [Date] 20/10/2015
[Name of Signatory] SUE VUJCEVIC
[Position of Signatory] MANAGER CITY STRATEGY AND DESIGN

Type of carbon neutral certification: Organisation
Verification
Date of most recent external verification/audit: 27/10/2014
Auditor: Philip Pomenoff, Genesis Now
Auditor assurance statement link:
1. Carbon neutral information

Introduction

Moreland City Council is certified carbon neutral for its organisational corporate 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 163,488 is forecast to grow to 182,000 by 2031. 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, 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.

Council invested $41.9 million into capital works in 2014–2015. Of this, the largest share was invested in roads and car parks ($8.2 million), with land assets ($6.8 million), parks and reserves ($3 million) and climate change mitigation works ($2.3 million) also receiving significant investment.

This inventory has been prepared based on 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
  o R22, R507, R134a, R407C, R410a, HFC-134a

**Boundary overview**

Council calculated its facility-level GHG emissions based on financial control. However, operational control was also assessed to derive a better understanding of Council’s broader responsibilities outside its financial control. Financial and operational control was assessed at all Council facilities and buildings which included those:

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

**Financial verses operational control**

Financial control was defined as whether Council was paying the utility costs for the facility. Operational control was defined as to whether Council has the ability to set operating policies, health and safety policies and environmental policies (as defined by the National Greenhouse and Energy Reporting Act). 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 operational control.

Council’s inventory included GHG emissions and removals from facilities for which Council has financial control (*AS ISO 14064.1-2006*). All facilities where Council was deemed to have financial control were included in the scope of this greenhouse gas inventory.

All facilities where Council was not deemed to have financial control were not included in the scope of this greenhouse gas inventory.

All sites where Council facilities were leased to third parties were assigned operational control based on their ability to set operating policies, health and safety policies and environmental policies (as defined by NGER). Only those facilities however, where Council has financial control were included in the scope of this inventory. The operational boundary is depicted in Figures 1 and 2.

**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
• Employee business public transport travel
• Lubricants: emissions associated with the extraction, production, and transportation of lubricants

**Non-quantified sources**

**Emissions not quantified**

In line with the NCOS the following sources have not been quantified and are not expected to make a material difference to the total emissions:

• Some outdoor events
• Embodied emissions of purchased products and services
• Transport emissions from purchased products and materials such as emissions from building roads.

**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 financial or 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.
Diagram of certification boundary

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

**Figure 2:** Diagram of emission sources
2. Emissions reduction measures

**Part A. 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 FY2014/15. Changes in emissions from FY2013/14 to FY2014/15 can largely be attributed to:

- Updates to the National Greenhouse Accounts Factors as published by the Department of Environment in August 2015
- Improvement in data quality
- Organisational behaviour change
- Reductions due to installation of solar PV and energy efficiency upgrades

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Scope 1 Emissions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Transport Fuels</td>
<td>2280.80</td>
<td>2,101.32</td>
<td>9%</td>
<td>1,933.68</td>
<td>18%</td>
<td>2,606.00</td>
<td>-12%</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>1954.82</td>
<td>2,075.89</td>
<td>-6%</td>
<td>924.28</td>
<td>111%</td>
<td>1,561.00</td>
<td>25%</td>
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<td>Stationary Fuels</td>
<td>35.87</td>
<td>57.27</td>
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<td>214.92</td>
<td>-83%</td>
<td>635.00</td>
<td>-94%</td>
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<td>Fugitive Emissions</td>
<td>95.74</td>
<td>99.71</td>
<td>-4%</td>
<td>127.54</td>
<td>-25%</td>
<td>162.51</td>
<td>-41%</td>
</tr>
<tr>
<td>Lubricants</td>
<td>1.29</td>
<td>2.36</td>
<td>-45%</td>
<td>2.98</td>
<td>-57%</td>
<td>5.19</td>
<td>-75%</td>
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<td><strong>Total Scope 1 Emissions</strong></td>
<td>4368.52</td>
<td>4,336.56</td>
<td>1%</td>
<td>3,203.39</td>
<td>36%</td>
<td>4,969.70</td>
<td>-12%</td>
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<tr>
<td><strong>Scope 2 Emissions</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Electricity</strong></td>
<td>5344.16</td>
<td>5,467.20</td>
<td>-3%</td>
<td>5,184.74</td>
<td>3%</td>
<td>5,879.00</td>
<td>-9%</td>
</tr>
<tr>
<td><strong>Total Scope 2 Emissions</strong></td>
<td>5344.16</td>
<td>5,467.20</td>
<td>-2%</td>
<td>5,184.74</td>
<td>3%</td>
<td>5,879.00</td>
<td>-9%</td>
</tr>
<tr>
<td><strong>Scope 3 Emissions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Street Lighting</td>
<td>6527.94</td>
<td>7,053.23</td>
<td>-7%</td>
<td>7,354.30</td>
<td>-11%</td>
<td>7,197.23</td>
<td>-9%</td>
</tr>
<tr>
<td>Contractor Fuels</td>
<td>1607.12</td>
<td>1,623.03</td>
<td>-1%</td>
<td>1,631.33</td>
<td>-1%</td>
<td>1,634.24</td>
<td>-2%</td>
</tr>
<tr>
<td>Water</td>
<td>546.55</td>
<td>496.59</td>
<td>10%</td>
<td>879.63</td>
<td>-38%</td>
<td>351.13</td>
<td>56%</td>
</tr>
<tr>
<td>Electricity (Scope 3 emissions)</td>
<td>613.24</td>
<td>694.98</td>
<td>-12%</td>
<td>664.71</td>
<td>-8%</td>
<td>734.90</td>
<td>-17%</td>
</tr>
<tr>
<td>Electricity (No operational control)</td>
<td>420.59</td>
<td>412.69</td>
<td>2%</td>
<td>251.81</td>
<td>67%</td>
<td>27.52</td>
<td>1428%</td>
</tr>
<tr>
<td>Transport Fuels</td>
<td>117.27</td>
<td>160.94</td>
<td>-27%</td>
<td>147.94</td>
<td>-21%</td>
<td>200.00</td>
<td>-41%</td>
</tr>
<tr>
<td>Natural Gas (Scope 3 emissions)</td>
<td>147.95</td>
<td>157.72</td>
<td>-6%</td>
<td>70.23</td>
<td>111%</td>
<td>122.00</td>
<td>21%</td>
</tr>
<tr>
<td>Waste Disposal</td>
<td>32.85</td>
<td>52.40</td>
<td>-37%</td>
<td>51.58</td>
<td>-36%</td>
<td>29.28</td>
<td>12%</td>
</tr>
<tr>
<td>Stationary Fuels</td>
<td>1.90</td>
<td>4.52</td>
<td>-58%</td>
<td>16.95</td>
<td>-89%</td>
<td>48.00</td>
<td>-96%</td>
</tr>
<tr>
<td>Flights</td>
<td>5.68</td>
<td>16.62</td>
<td>-66%</td>
<td>12.86</td>
<td>-56%</td>
<td>18.80</td>
<td>-70%</td>
</tr>
<tr>
<td>Natural Gas (No operational control)</td>
<td>3.30</td>
<td>3.18</td>
<td>4%</td>
<td>5.07</td>
<td>-35%</td>
<td>0.00</td>
<td>0%</td>
</tr>
<tr>
<td>Hire Cars and Taxis</td>
<td>5.25</td>
<td>1.94</td>
<td>170%</td>
<td>4.28</td>
<td>23%</td>
<td>11.42</td>
<td>-54%</td>
</tr>
<tr>
<td>Office Paper</td>
<td>22.77</td>
<td>1.14</td>
<td>1894%</td>
<td>1.03</td>
<td>2117%</td>
<td>25.87</td>
<td>-12%</td>
</tr>
<tr>
<td>Public Transport</td>
<td>2.07</td>
<td>1.90</td>
<td>9%</td>
<td>1.28</td>
<td>61%</td>
<td>2.57</td>
<td>-19%</td>
</tr>
<tr>
<td>Lubricants</td>
<td>0.40</td>
<td>0.45</td>
<td>-11%</td>
<td>0.57</td>
<td>-30%</td>
<td>0.80</td>
<td>-50%</td>
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<tr>
<td><strong>Total Scope 3 Emissions</strong></td>
<td>10056.94</td>
<td>10,681.35</td>
<td>-6%</td>
<td>11,092.99</td>
<td>-9%</td>
<td>10,403.75</td>
<td>-3%</td>
</tr>
<tr>
<td><strong>Total Emissions</strong></td>
<td>19769.63</td>
<td>20,485.10</td>
<td>-4%</td>
<td>19,481.12</td>
<td>1%</td>
<td>21,252.46</td>
<td>-7%</td>
</tr>
</tbody>
</table>

**Table 1:** Summary of emission sources by scope
The increase in Scope 1 emissions were predominantly due to the growth in transport fuels which make up 12% of scope 1 emissions. This was largely due to the increase in Council operations over the period.

Scope 2 emissions reported this year decreased because of the change in emissions factor as provided in the National Greenhouse Accounts Factors – August 2015. For scope 2 emissions there was a decrease from 1.36 kg/CO2-e (scope 2 + scope 3 emissions) to 1.26 kg/CO2-e. This explains the reduction of 2% in calculated emissions despite electricity consumption increasing by 2%. If the emissions factor was to remain the same, emissions for scope 2 would have increased to by approximately 5% 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 33% of scope 3 emissions.
- Updates to the National Greenhouse Accounts Factors as published by the Department of Environment in August 2015
- Organisational behaviour change which contributed to less waste, transport reductions and other reductions.

**Part B. 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 produced 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.

**Carbon Management Strategy Energy Efficiency Implementation**

CMS works in 2014-15 have largely focused on the preparation and design for works at three iconic sites across Moreland: Coburg Leisure Centre, Brunswick Town Hall and Coburg Civic Centre, with the following works undertaken:

- Coburg Leisure Centre: Lighting upgrade
- Brunswick Town Hall: Lighting upgrade
- Coburg Civic Centre: LED upgrade
- Coburg Civic Centre (Elm Grove Plant room): HVAC upgrade

Since January 2011, Council has reduced annual emissions by approximately 7% or 1,500 tCO2-e with an associated cost saving of approximately $180,000 per annum. Energy efficiency works undertaken by Council at Coburg Civic Centre, Coburg Leisure Centre, Fawkner Leisure Centre, Bob Hawke Centre and Walter Street Depot have contributed 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 since January 2011.

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 – 2015 and beyond**

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.

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 MYKI to encourage public transport use.
- Salary sacrifice options available for purchase of bicycles.
- Electric bikes and cars powered by renewable energy available to all staff.

**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 2014-15 are:

- Street Lighting – 33% (scope 3)
- Buildings - Electricity – 27% (Scope 2 and Scope 3 (Operational control only)).
- Transport fuels – 12% (scope 1)
Figure 4: 2014-15 Breakdown by emission source

Around 71% of all emissions result from these top three sources and 61% is due to electricity 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 (8000 - 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 proposed lighting upgrade would reduce lighting energy consumption by approximately 65% while improving light quality and reducing glare. The remaining lights will be completed this financial year (2015-16).

**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 is still an opportunity for Council in 2014-15.
- In July 2012 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.

**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.

In this reporting period, Council installed a total of 18kW on Council owned buildings:

- Oxygen Youth Centre: 9kW Solar PV
- Campbell Turnbull Library: 7kW Solar PV
- Hadfield MCHC: 2kW Solar PV

Council has completed installation of three of the above solar PV systems in 2014-15. Approximately 200kW of solar PV systems will be installed in 2015-16 on Council buildings. The bulk of these will be installed on Coburg Leisure Centre (70kW) and Coburg Civic Centre (100kW).

**GreenPower**

Council currently purchases 100% GreenPower for Coburg Civic Centre.

**Sequester**

This is not directly available to Council as an option.
**Part C. Emissions reduction actions**

Council’s emissions for this reporting period is 19,770 tCO₂-e. By purchasing GreenPower for Coburg Civic Centre, the net emissions were reduced to 18,845 tCO₂-e.

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

<table>
<thead>
<tr>
<th>Year completed</th>
<th>Emission source</th>
<th>Reduction measure and calculation method</th>
<th>Scope</th>
<th>Status</th>
<th>Reduction t CO₂-e</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014/15</td>
<td>Scope 2 – electricity consumption</td>
<td>Oxygen Youth Centre: Solar PV 9kW.</td>
<td>2</td>
<td>Implemented this reporting period</td>
<td>14</td>
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<tr>
<td>2014/15</td>
<td>Scope 2 – electricity consumption</td>
<td>Campbell Turnbull Library: Solar PV 7kW</td>
<td>2</td>
<td>Implemented this reporting period</td>
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<td>2014/15</td>
<td>Scope 2 – electricity consumption</td>
<td>Hadfield MCHC: Solar PV 2kW</td>
<td>2</td>
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<tr>
<td>2014/15</td>
<td>Scope 2 – electricity consumption</td>
<td>Coburg Leisure Centre: Lighting upgrade</td>
<td>2</td>
<td>Implemented this reporting period</td>
<td>5</td>
</tr>
<tr>
<td>2014/15</td>
<td>Scope 2 – electricity consumption</td>
<td>Brunswick Town Hall: Lighting upgrade</td>
<td>2</td>
<td>Implemented this reporting period</td>
<td>5</td>
</tr>
<tr>
<td>2014/15</td>
<td>Scope 2 – electricity consumption</td>
<td>Coburg Civic Centre LED upgrade</td>
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<td>Implemented this reporting period</td>
<td>72.91</td>
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<tr>
<td>2014/15</td>
<td>Scope 2 – electricity consumption</td>
<td>Coburg Civic Centre (Elm Grove Plant room) HVAC upgrade</td>
<td>2</td>
<td>Implemented this reporting period</td>
<td>37.71</td>
</tr>
</tbody>
</table>

**Table 2: Emissions reduction measures implemented in the current reporting period**

The following actions are planned for 2015-16:

- Installation of approximately 200kW of solar PV systems on Brunswick Town Hall, Coburg Library, Walter Street Depot and Bob Hawke Centre.
- Street lighting represents one of the largest components of Council’s carbon footprint. A bulk change to replace 70% of street lights (8000 - 80 watt mercury vapour streetlights) in residential streets with more efficient fittings is currently underway. This project was commenced in January 2015 and the remaining 65% of outstanding lights will be completed this financial year (2015-16).
- Replace 2 fully electric passenger vehicles (Nissan Leafs) for Council staff use.

**3. Emissions summary**

<table>
<thead>
<tr>
<th>Scope</th>
<th>Emission source</th>
<th>t CO₂-e</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Transport Fuels</td>
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</tr>
<tr>
<td>1</td>
<td>Natural Gas</td>
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</tr>
<tr>
<td>1</td>
<td>Stationary Fuels</td>
<td>35.87</td>
</tr>
<tr>
<td>1</td>
<td>Fugitive Emissions (Refrigerants)</td>
<td>95.74</td>
</tr>
<tr>
<td>Scope</td>
<td>Emission source</td>
<td>t CO₂-e</td>
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</tr>
<tr>
<td>1</td>
<td>Lubricants</td>
<td>1.29</td>
</tr>
<tr>
<td>2</td>
<td>Electricity</td>
<td>5344</td>
</tr>
<tr>
<td>3</td>
<td>Street Lighting</td>
<td>6,527.94</td>
</tr>
<tr>
<td>3</td>
<td>Contractor Fuels</td>
<td>1,607.12</td>
</tr>
<tr>
<td>3</td>
<td>Water</td>
<td>546.55</td>
</tr>
<tr>
<td>3</td>
<td>Electricity (Scope 3 emissions)</td>
<td>614.82</td>
</tr>
<tr>
<td>3</td>
<td>Electricity (No operational control)</td>
<td>420.59</td>
</tr>
<tr>
<td>3</td>
<td>Transport Fuels</td>
<td>117.27</td>
</tr>
<tr>
<td>3</td>
<td>Natural Gas (Scope 3 emissions)</td>
<td>147.95</td>
</tr>
<tr>
<td>3</td>
<td>Waste Disposal</td>
<td>32.85</td>
</tr>
<tr>
<td>3</td>
<td>Stationary Fuels</td>
<td>1.90</td>
</tr>
<tr>
<td>3</td>
<td>Flights</td>
<td>5.68</td>
</tr>
<tr>
<td>3</td>
<td>Natural Gas (No operational control)</td>
<td>3.30</td>
</tr>
<tr>
<td>3</td>
<td>Hire Cars and Taxis</td>
<td>5.25</td>
</tr>
<tr>
<td>3</td>
<td>Office Paper</td>
<td>23.26</td>
</tr>
<tr>
<td>3</td>
<td>Public Transport</td>
<td>2.07</td>
</tr>
<tr>
<td>3</td>
<td>Lubricants</td>
<td>0.40</td>
</tr>
<tr>
<td></td>
<td><strong>Total Gross Emissions</strong></td>
<td><strong>19,770</strong></td>
</tr>
<tr>
<td></td>
<td><strong>GreenPower or retired LGCs</strong></td>
<td><strong>924.90</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total Net Emissions</strong></td>
<td><strong>18,845</strong></td>
</tr>
</tbody>
</table>

*Table 3: Emissions Summary*
4. Carbon offsets

**Part A. Offsets summary**

In September 2015, Council purchased 18,845 tCO2-e of offsets from Climate Friendly Pty Ltd who have subsequently retired the total of 19,215 credits through the APX registry. Retiring of these offsets consists of the 18,845 tCO2-e of offsets required in order to meet Council’s NCOS obligations for 2014-15 as well as 370 tCO2-e retired on behalf of members of Moreland residents and staff.

<table>
<thead>
<tr>
<th>Offset type and registry</th>
<th>Year retired</th>
<th>Quantity</th>
<th>Serial numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project</strong>: Hebei Guyuan County Dongxinying 199.5 MW Wind Power Project</td>
<td>2014/15</td>
<td>19,215 tCO2-e</td>
<td>2525-107938678-107956759-VCU-008-MER-CN-1-903-01012011-14092011-0</td>
</tr>
<tr>
<td><strong>Location</strong>: Guyuan County, Hebei Province, China</td>
<td></td>
<td>(18,845 tCO2-e on behalf of Council operations)</td>
<td>2520-107612856-107613988-VCU-008-MER-CN-1-903-01012011-14092011-0</td>
</tr>
<tr>
<td><strong>Offset type</strong>: VCU</td>
<td></td>
<td>(370 tCO2-e on behalf of Moreland residents and staff)</td>
<td></td>
</tr>
<tr>
<td><strong>Registry</strong>: APX VCS registry</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total offsets retired | 19,215 tCO2-e |
| Net emissions         | 0 tCO2-e      |
| Total offsets held in surplus for future years: | 0 tCO2-e |

**Table 4: Offsets Summary**

**Part B. 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 have confirmed two offset providers as preferred suppliers for the years 2012 to 2015. Once total greenhouse figures are audited each year, Council will purchase and retire/cancel the required credits through one of the preferred suppliers as required by NCOS.

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

The Guyuan Dongxinying Wind Project contributes to sustainable development in the local community, and China as a whole. The project helps reduce the level of air pollution caused by burning coal, as well as reducing other environmental impacts from extracting and processing fossil fuels. It has created jobs for local people during its construction and now in its continued operation. It has also created new business opportunities for the provision of local services in the area.
The project has helped to promote the domestic wind turbine manufacturing industry by using Chinese made state-of-the-art wind turbines. The market for carbon credits has been a major driver of large-scale wind power development in North China. This has created new commercial opportunities for the manufacture and installation of turbines and other equipment and an increase in investment and technical know-how.

Investment in wind technology is helping to lower the cost of wind power generation, which is currently more expensive than power from fossil fuels. In the future this means clean, renewable electricity from wind power will become a viable alternative to polluting fossil fuels in China and beyond.

5. Have you done more?

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

- 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.
- 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.
- Investigate business models for installation of Solar PV on Council owned facilities leased to community groups. This will include options where Council can deliver solar on these buildings and supply the occupants with lower cost power. Commencement Implementation subject to Council approval and availability of funding.
- 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 a number of 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.
- Work with a consortium to investigate the development of a large scale renewable energy project to source all future electricity.