ACKNOWLEDGEMENT OF COUNTRY:

Cr Kogoy performed acknowledgement of country in the capacity as Chairperson.

I acknowledge the Gadigal and Wangal people of the Eora nation on whose Country we are meeting today, and their elders past and present.

BUSINESS:

ITEM 1
APOLOGIES

ERC22/12 RECOMMENDED HANNAFORD/LAWRENCE

That apologies be accepted for the non attendance of Aaron Callaghan and Cr Rochelle Porteous.

ITEM 2
DECLARATION OF PECUNIARY INTEREST AND NON-PECUNIARY INTERESTS
Nil

ITEM 3
MINUTES OF THE PREVIOUS MEETING: 4 April 2012

ERC23/12 RECOMMENDED LAWRENCE / KOGOY

That Council adopt the minutes of the Environment & Recreation Committee meeting held on 4 April 2012.

ITEM 4
SUMMARY OF RESOLUTIONS

ERC24/12 RECOMMENDED LAWRENCE/HANNAFORD

This is page 1 of the Minutes of the Meeting of the Environment and Recreation Committee held on 6 June 2012.
ITEM 5
CORRESPONDENCE

ITEM 5.1
PRECINCT ACTIVATION AND VISITOR SERVICES RE CALLAN PARK GLOVERS STREET DRAINAGE WORKS (ERC17/12)

ERC25/12 RECOMMENDED STAMOLIS/ARNERICH

1. That the email received from Damian Jeacle, A/Director Precinct Activation and Visitor Services re Callan Park Glovers Street Drainage Works per ERC17/12 be received and noted.

ITEM 5.2
NSW DEPARTMENT OF PRIMARY INDUSTRIES (ERC15/12)

ERC26/12 RECOMMENDED FLOYD/STAMOLIS

1. That correspondence sent to NSW Department of Primary Industries per ERC15/12 regarding timeline for the declaration of Celtis sinensis as a Class 4 Noxious Weed be received and noted.

2. That an update be provided to the next Environment and Recreation Committee meeting on the progress of the response to this letter.

ITEM 6
REPORTS FROM THE COMMUNITY

ERC27/12 RECOMMENDED KOGOY/HANNAFORD

1. That Council investigates the carbon farming initiative and its possible contribution in offsetting emissions.

2. That Council approaches Wires to be involved in the Eco Festival in August.

ITEM 7
CLIMATE CHANGE TASKFORCE MINUTES – 2 May 2012

ERC28/12 RECOMMENDED KOGOY/LAWRENCE

That the minutes of the Climate Change Taskforce meeting held on 2 May 2012 be noted. (Attachment 1)
ITEM 8
UPDATE OF OPEN SPACE AND RECREATION REPORTS TO COUNCIL

ERC29/12 RECOMMENDED STAMOLIS/ LAWRENCE

That the Environment and Recreation Committee note this report.

ITEM 9
FISHING ACTIVITY ON THE BALMAIN PENINSULA SIX MONTHLY UPDATE

ERC30/12 RECOMMENDED STAMOLIS/ LAWRENCE

That Council erect signage at Yurulbin Park and Peacock Point banning open fires.

ITEM 10
CARBON NEUTRAL OFFSET OPTIONS REPORT

ERC31/12 RECOMMENDED KOGOY/ARNERICH

1. That as per the existing contract for large sites, Leichhardt Council maintain its current level of GreenPower in 2012/13 and purchase National Carbon Offset Standard (NCOS)-compliant carbon offsets to achieve and maintain carbon neutral status in 2012.

2. That the strategy for the purchase and balance of GreenPower and carbon offsets be reviewed every 12 months in line with the planning, monitoring and reporting cycle specified in the National Carbon Offsets Standard.

Copy of Report – Attachment 2

ITEM 11
OTHER BUSINESS

Nil

ITEM 12
NEXT MEETING

The next meeting will be held on Wednesday, 1 August 2012 at 6:30pm.

Future Meetings for 2012:

1 August
3 October
5 December

Meeting closed at 8:46pm

This is page 3 of the Minutes of the Meeting of the Environment and Recreation Committee held on 6 June 2012.
Minutes of the Climate Change Taskforce of Leichhardt Municipal Council held in the Supper Room on 2 May 2012.

Present at the commencement of the meeting:

Councillors: (Rochelle Porteous), Daniel Kogoy, Gordon Weiss

Staff: Jon Stiebel, Guido den Teuling

Community: Marghanita Da Cruz, Francis Breen

Meeting Commenced: 6:45pm

ACKNOWLEDGEMENT OF COUNTRY:

Cr Kogoy performed acknowledgement of country.

I acknowledge the Gadigal and Wangal people of the Eora nation on whose Country we are meeting today, and their elders past and present.

BUSINESS

ITEM 1
APOLOGIES

Recommended Weiss/Da Cruz

That apologies be accepted for the non attendance of Peter Conroy, Stephen Arnerich and Lea Richards.

ITEM 2
DECLARATION OF PECUNIARY AND NON-PECUNIARY INTERESTS - Nil

Recommended Kogoy/Weiss

ITEM 3
MINUTES FROM PREVIOUS MEETING: 7 March 2012

Recommended Da Cruz/Kogoy

That the minutes of the Climate Change Taskforce meeting held on 7 March 2012 be accepted.
ITEM 4
MATTERS ARISING FROM PREVIOUS MEETING - Nil

Recommended Da Cruz/Weiss

1. That a story on Council’s recent LED lighting projects be included in an upcoming sustainability E-Newsletter.

2. That a report to the next Climate Change Taskforce include cost and energy savings of LED light tubes compared to T5 light fittings.

3. That a PV system be included with the construction of the Rozelle Bay Native Nursery.

ITEM 5
SUMMARY OF RESOLUTIONS

Recommended Kogoy/Weiss

That the information in the summary of resolutions be received and noted.

ITEM 6
LOW CARBON AUSTRALIA CARBON NEUTRAL PROGRAM

Officer Recommendation

That the committee note:

1. That the National Carbon Offsets Standard (NCOS) sets minimum requirements for calculating, auditing and offsetting the carbon footprint of an organisation or product to achieve ‘carbon neutrality’.

2. That the process for carbon neutral certification involves the following:
   - Calculating a corporate Carbon Footprint
   - Developing an Emissions Management Plan
   - Preparing a Public Disclosure Summary
   - Obtaining Independent Verification of the Carbon Footprint, Emissions Management Plan (EMP) and Public Disclosure Summary (collectively referred to as the ‘Application Package’)
   - Submitting the Application Package to Low Carbon Australia
   - Assessment for Carbon Neutral Certification by Low Carbon Australia

3. That the process for maintaining ongoing Carbon Neutral Certification involves the following:
   - Monitoring and reducing emissions
   - Purchase and cancel of eligible carbon offset units for any residual emissions
   - Reporting to Low Carbon Australia annually

This is page 2 of the Minutes of the Meeting of the Climate Change Taskforce held on 2 May 2012.
Obtaining independent report verification
Submit documentation to the Program Administrator to determine the maintenance of Carbon Neutrality

4. That a further report outlining the financial and resource implications required for council to become certified carbon neutral be brought to the Climate Change Taskforce Committee.

Recommended Porteous/Kogoy

That the committee note:

1. That the National Carbon Offsets Standard (NCOS) sets minimum requirements for calculating, auditing and offsetting the carbon footprint of an organisation or product to achieve ‘carbon neutrality’.

2. That the process for carbon neutral certification involves the following:
   - Calculating a corporate Carbon Footprint
   - Developing an Emissions Management Plan
   - Preparing a Public Disclosure Summary
   - Obtaining Independent Verification of the Carbon Footprint, Emissions Management Plan (EMP) and Public Disclosure Summary (collectively referred to as the ‘Application Package’)
   - Submitting the Application Package to Low Carbon Australia
   - Assessment for Carbon Neutral Certification by Low Carbon Australia

3. That the process for maintaining ongoing Carbon Neutral Certification involves the following:
   - Monitoring and reducing emissions
   - Purchase and cancel of eligible carbon offset units for any residual emissions
   - Reporting to Low Carbon Australia annually
   - Obtaining independent report verification
   - Submit documentation to the Program Administrator to determine the maintenance of Carbon Neutrality

4. That Council commits to allocating funding in the 2012/13 budget to purchase the required amount of GreenPower and offsets to ensure Council is carbon neutral by the end of 2012.

5. That Council starts the process to attain carbon neutral certification as soon as possible.

6. That a report be brought to the June Environment and Recreation Committee on the different GreenPower and Offset products available to enable decisions about the mix of greenpower and offsets to purchase.

7. That the Climate Change Taskforce Committee acknowledges that Environment Team staff resources will need to be prioritised towards achieving carbon neutral in 2012.
ITEM 7
CAPITAL WORKS STATUS UPDATE

Officer Recommendation

That the report is received and noted.

Recommended Da Cruz/Kogoy

1. That the report is received and noted.

2. That a verbal update be given to the next Climate Change Task Force on the temperature settings and operation of the AC unit in the gym at LPAC.

3. That a capital works status update be brought to the next Climate Change Taskforce Committee.

ITEM 8
AUSGRID STREETLIGHTING PROPOSALS

Recommended Da Cruz/Weiss

To receive and note the report.

ITEM 9
UPDATE ON PLANNING FOR SUSTAINABILITY FORUM

Officer Recommendation

1. That the committee note that the first sustainability forum for 2012 will be held on 5 June to coincide with World Environment Day and will showcase sustainable neighbourhood initiatives around the world.

2. That the committee note that the forum will assist with promoting the expanded Living Streets sustainable neighbourhoods program to the community and encourage participation.

Recommended Porteous/Weiss

1. That the committee note that the first sustainability forum for 2012 will be held in June to coincide with World Environment Day and will showcase sustainable neighbourhood initiatives around the world.

2. That the committee note that the forum will assist with promoting the expanded Living Streets Sustainable Neighbourhoods program to the community and encourage participation.

3. That the committee request an additional speaker be added to the forum in June.
4. That future sustainability forums also consider including information on the climate change science and the importance of taking action.

5. That waste be considered as the topic for a future forum.

ITEM 10
OTHER BUSINESS - Nil

ITEM 11
NEXT MEETING

The next meeting of the Climate Change Taskforce will be held on Wednesday, 25 July 2012. Please note that the meeting has been rescheduled from 4 July to 25 July per Council Resolution C27/12 February Ordinary Meeting.

FUTURE MEETINGS FOR 2012

25 July – meeting rescheduled from 4/7 to 25/7 per 2012 Feb Ordinary Meeting
5 September
7 November

The meeting closed at 8.45pm
### DIRECTOR’S SUMMARY - ORGANISATIONAL IMPLICATIONS

**Financial Implications:** Minimum additional cost in 2012/13 of approximately $31,580. Carbon neutral target could be cost neutral in 2013/14.

**Policy Implications:** In line with council carbon neutral target if we want.

**Strategic Plan Objective:** Sustainable Environment

**Staffing Implications:**

**Notifications:** Nil

**Other Implications:** Nil
1. **Purpose of Report**

To outline to the Environment and Recreation Committee the GreenPower and Carbon Offsetting options available to assist Council in achieving its carbon neutral target.

2. **Recommendations**

1. That as per the existing contract for large sites, Leichhardt Council maintain its current level of GreenPower in 2012/13 and purchase National Carbon Offset Standard (NCOS)-compliant carbon offsets to achieve and maintain carbon neutral status in 2012.
2. That the strategy for the purchase and balance of GreenPower and carbon offsets be reviewed every 12 months in line with the planning, monitoring and reporting cycle specified in the National Carbon Offsets Standard.

3. **Background**

At the May 2012 meeting of the Climate Change Taskforce Committee, the following was resolved:

> That a report be brought to the June Environment and Recreation Committee on the different GreenPower and Offset products available to enable decisions about the mix of GreenPower and offsets to purchase.

4. **Report**

Council has formed a Climate Change Taskforce to investigate:

1. The policies and actions required for the Council to become carbon neutral by 2012 (end) with an emphasis on carbon reductions and enhanced ecological sustainability; and
2. To develop a program of actions that will reduce the carbon footprint of the community by addressing energy use and greenhouse gas emissions, education and engagement with the wider community, and lobbying and advocacy.

A simplified 3-step process for Council to achieve carbon neutrality is provided in Diagram 1.

![Diagram 1: Simplified process for achieving carbon neutral status](image-url)
A detailed report outlining the process for Council to obtain carbon neutral certification was delivered to the May 2012 Climate Change Committee and is summarised in Diagram 2.

**Diagram 2: Carbon Neutral Steps under National Carbon Offsets Standard**

This report focuses on the options available for offsetting remaining greenhouse gas emissions (Step 3 in Diagram 1).

### 4.1 What is a Carbon Offset?

A carbon offset is a financial instrument representing a reduction in greenhouse gas emissions. In simple terms, an offset is an action in one location (domestic or overseas) that absorbs or displaces the 1 tonne of CO₂-e which is released by an activity in another location, as shown in Diagram 3.

**Diagram 3: Simplified carbon-offsetting process**

#### 4.1.1 Types of carbon offset products

The resolution referred to in the background to this report requested that a report be delivered on the different GreenPower and carbon offset products available, in order to enable Council to make decisions regarding the mix of GreenPower and offsets to be purchased.
Carbon offset products available for purchase on the carbon-offset market are summarised in below table 1:

<table>
<thead>
<tr>
<th>Offset Product Type</th>
<th>Details</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forestry/ Biosequestration</td>
<td>Includes afforestation projects, that is, planting of new forests on lands that historically have not contained forests; as well as reforestation (planting of forests on lands which had been previously cleared of forest for another land use) where plantation forestry is employed</td>
<td>Pros: Can have co-benefits such as improving biodiversity and creating employment. Issues: Quality of projects can vary. The permanence of these products requires particular attention. There can be ethical issues in third world countries relating to land use change.</td>
</tr>
<tr>
<td>Methane projects</td>
<td>Methane is a significant greenhouse gas, and a number of offset products are being sold that prevent release to the atmosphere including emissions from coal mining, landfill and livestock.</td>
<td>Pros: Technology well developed, Offsets often lower cost. Issues: Whether the project actually achieves a net emissions reduction and is additional to business as usual.</td>
</tr>
<tr>
<td>Renewable energy projects</td>
<td>Wind, Solar, Biomass, Small hydro</td>
<td>Pros: Reduces reliance on fossil fuel sources. Provides for investment in sustainable development. Issues: Need to ensure the projects are actually additional to business as usual.</td>
</tr>
<tr>
<td>Energy efficiency</td>
<td>Includes major upgrades of manufacturing processes</td>
<td>Pros: Co-benefits include education and long term behaviour change. Issues: concerns regarding the accuracy and reliability of measurement and changes over time in energy use.</td>
</tr>
</tbody>
</table>
4.1.2 Eligible Offsets under the National Carbon Offsets Standard

The above project types are subject to a number of different offset certification schemes. Council will be seeking to purchase offsets which are compliant with the National Carbon Offset Standard (NCOS).

Carbon offsets can be generated either by a Regulated Carbon Market or a Voluntary Carbon Market. Carbon offsets from a Regulated Carbon Market are those created and regulated by mandatory national or international carbon reduction regimes and include systems like the Kyoto Protocol, European Union Emissions Trading Scheme, Clean Development Mechanism and Joint Implementation. Carbon offsets from a Voluntary Carbon Market are created outside the compliance market. Many voluntary market standards are accepted under NCOS, however before electing to use voluntary offsets, parties should undertake their own due-diligence assessment of the originating projects and underpinning methodologies.

The below list provides an explanation of the carbon offset products accepted under the National Carbon Offsets Standard for the purpose of council achieving carbon neutral certification.

- Credits for projects under the Kyoto Protocol’s Clean Development Mechanism, which seeks investment from developed countries to fund sustainable development projects in developing countries

- Credits for projects under the Kyoto Protocol’s Joint Implementation Project, which seeks to encourage joint development of sustainable initiatives between developed and developing nations,

- Removal units for eligible land use, land-use change and forestry activities by parties to the Kyoto Protocol.

- Voluntary Emissions Reductions Units, which are exchanged in the voluntary market and are usually certified through a voluntary certification process. Verified Emission Reductions are projects outside of the Kyoto Protocol.

- Units under the Voluntary Carbon Standard (VCS).

Offsets under the National Carbon Offsets Standard need to meet the following integrity principles:

(a) **Additional**: Abatement must go beyond what would be required to meet regulatory obligations or undertaken as part of ‘business-as-usual’; and additional to Australia’s international emissions targets.

(b) **Permanent**: Offsets must represent permanent reductions in greenhouse gas emissions. In the case of sinks, this requires that the carbon stored is sequestered and will not be released into the atmosphere for a period of 100 years.
(c) **Measurable**: Methodologies used to quantify the amount of emissions reductions generated must be robust and based on defensible scientific methods. Methodologies must clearly define the greenhouse gas assessment boundary, emissions sources and sinks, and methods for calculating baseline emissions and project abatement.

(d) **Transparent**: Consumers and other interested stakeholders must have access to information about offset projects, including the applied methodology, abatement estimates and project monitoring arrangements.

(e) **Demonstrate avoidance of leakage**: an offset project must not cause material increases in emissions elsewhere which nullify or reduce the abatement that would otherwise result under the project.

(f) **Independently audited**: Greenhouse gas emissions reductions generated by offset projects must be audited by an independent, qualified third party.

(g) **Registered**: Offset units must be listed and tracked in a publicly transparent registry.

As an example of the types of projects available, an offset provider (ranked number 1 by Carbon Offset Watch, who is backed by the Total Environment Centre, Choice and UTS Institute for Sustainable Futures) was contacted by council and can offer the following projects, as described in table 2. It should be noted that these projects are available at between the $5.00 to $20.00 / tonne range.

**There is currently only one Australia-based NCOS-eligible project that is verified to an international standard (the VCS). This is a native forest protection project in Tasmania. This project is currently available at around the $16/tonne range.** Additional Australian compliant projects will be created in the future under the new Australian Government Carbon Farming Initiative but these are also likely to be more costly than overseas offset projects.

An important point to bear in mind is that the atmospheric concentration of carbon dioxide does not conform to geographical boundaries, and an emissions reduction in any country represents an emissions reduction in the global context. Therefore, it is relatively insignificant whether projects are based within Australia or overseas. All organizations in Australia that wish to become carbon neutral presently face this issue. Other local governments that are purchasing offsets from projects from overseas at a lower price than those available in Australia are allowing their remaining funds to be invested in other energy savings initiatives within the LGA boundary.
Table 2: Example offsets

<table>
<thead>
<tr>
<th>Location</th>
<th>Standard</th>
<th>Technology</th>
<th>Some additional benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>VCS</td>
<td>Wind</td>
<td>Employment, Infrastructure, Skills transfer</td>
</tr>
<tr>
<td>Vietnam</td>
<td>VCS</td>
<td>Small hydro</td>
<td>Reliable baseload energy, Provision of free electricity to local households</td>
</tr>
<tr>
<td>Brazil</td>
<td>VCS+Social Carbon</td>
<td>Fuel switch</td>
<td>Reduced deforestation, Use of waste materials</td>
</tr>
<tr>
<td>Thailand</td>
<td>VCS</td>
<td>Biomass</td>
<td>Use of sustainable biomass for energy production in cement industry</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Provision of free health clinics and school scholarships</td>
</tr>
<tr>
<td>Australia</td>
<td>VCS</td>
<td>Improved forestry management</td>
<td>Private landholders receive income from retaining native forest instead of logging</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Preservation of biodiversity and habitats for endangered species</td>
</tr>
<tr>
<td>China</td>
<td>VCS</td>
<td>Wind</td>
<td>Employment, Infrastructure, Electricity supply in a remote area</td>
</tr>
<tr>
<td>Cambodia</td>
<td>VCS</td>
<td>Efficient cook stoves</td>
<td>Respiratory health benefits, Reduced deforestation</td>
</tr>
<tr>
<td>Turkey</td>
<td>Gold Standard</td>
<td>Wind</td>
<td>Reliable electricity supply</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Gold Standard</td>
<td>Wind</td>
<td>Energy security in a country importing almost 100% of its energy</td>
</tr>
<tr>
<td>Ghana</td>
<td>Gold Standard</td>
<td>Efficient cook stoves</td>
<td>Respiratory health benefits, Reduced deforestation</td>
</tr>
</tbody>
</table>

4.1.3 GreenPower

GreenPower is a government-accredited program that enables energy utilities to purchase renewable energy on an individual’s or entity’s behalf (and is eligible under the National Carbon Offsets Standard).

Renewable energy is energy derived from sources that cannot be depleted or energy that can be replaced. Renewable sources don’t produce additional greenhouse gas emissions. Eligible renewable resources under the Australian GreenPower scheme include:

- solar power
- wind power
- biomass (landfill gas, municipal solid waste, agricultural wastes, energy crops, wood wastes)
- hydro-electric power (small-scale or on existing dams)
- geothermal energy
- wave and tidal power.

Leichhardt Council has a history of supporting GreenPower and promoting its use to the community (e.g. via way of signage). Leichhardt Council began purchasing GreenPower in 2003/04. Initially, Council purchased 6% GreenPower for selected assets including street lighting. This commitment was increased to 12% in 2006.
Since 2007/08 Council has purchased 25% GreenPower at six of its top energy-consuming sites. Purchasing GreenPower instructs Council’s energy providers to purchase accredited renewable energy on Council’s behalf.

Council is currently locked into a contract for 25% GreenPower or greater at its large sites until June 30, 2013. Following this, the portion of GreenPower for purchase can be adjusted. Purchasing GreenPower is one of the only options for Council to invest in Australian projects.

4.2 Cost of abatement for each strategy

4.2.1 GreenPower

In 2012/13 GreenPower is estimated to cost Council $0.048 (4.8 cents) per kilowatt hour (kWh).

One kWh of electricity in NSW creates 1.07 kg (0.00107 tonnes) of carbon pollution.

In financial terms, this means that as a carbon reduction strategy the cost of abatement for GreenPower is $48 per tonne of CO2.

4.2.2 Offsets

Prices for carbon offsets vary greatly, ranging from $5 - $50/tonne of CO2, making generalisations about the cost of abatement difficult for comparison.

Research into the offset market has found that Council will be able to obtain NCOS-compliant offsets in the vicinity of $5/tonne. These are for overseas projects only and, like any market, prices are subject to change. Communication with offset providers has revealed that it is possible for providers to develop a portfolio of projects to help match projects with Council’s objectives and budget, although the range of projects will be more limited at the lower end of the price range. It should be noted that larger organisations have been able to purchase NCOS-complaint offsets at a lower cost, however this was because of the need to purchase more offsets to nullify a greater carbon footprint.

4.2.3 Why is Street Lighting included in the council carbon footprint under carbon neutral?

At the December 2011 Climate Change Taskforce Committee, a recommendation was made that Leichhardt Council exclude street lighting from its carbon footprint. This resolution was made in the context of Council not having yet qualified for carbon neutrality, and therefore being eligible to report under National Greenhouse Energy Reporting Guidelines (NGERS) (albeit voluntarily), rather than the National Carbon Offsets Standard (NCOS) for reporting current emissions.

NGERs applies the rule of “operational control” to determine whether particular activity emissions need to be reported. Council elected that it could exclude street lighting as it does not have operational control over street lighting.
If Council wishes to use the term ‘carbon neutral’ to describe its activities, it must comply with the National Carbon Offsets Standard. This Standard requires additional emissions to be included (including street lighting) (refer diagram 3 below) which were not previously reported under NGERs.

At the time when the Climate Change Taskforce was first established, the term carbon neutral was used more flexibly. The NCOS put a stop to this because the term had become misleading to the public. Since the release of NCOS in 2010, Council can only credibly claim to be carbon neutral by complying with the standard. This was confirmed in two conversations with the Program Manager at the certifier (Paul Watt, Low Carbon Australia).

Diagram 3: Setting the carbon footprint boundary – under NGERs and NCOS

4.2.4 Energy Efficiency projects

Best practice carbon management would require emissions to be reduced via energy efficiency actions as the first priority, followed by offsetting residual emissions. The presentation of a comprehensive set of Energy Savings Actions to the December 2011 Climate Change Taskforce meeting provided a targeted strategy for reducing emissions based on a set of comprehensive energy audits.

Council’s ESD consultant reports that the combined impact of these actions has the potential to reduce Leichhardt Council’s carbon footprint by approximately 1517 tonnes. The particular impact of these actions has been included in the scenarios following for 2013/14 where the impact of projects such as the Leichhardt Park Aquatic Centre cogeneration system will take effect and reduce Council’s emissions, thereby reducing the amount of carbon offsets which will need to be purchased.
4.2.5 Offset scenarios

An average cost of $5 per tonne has been used to create the following offset scenarios for consideration.

All figures relating to emissions and energy use are based on 2010/11 financial year data obtained using Council’s Carbon Management and Reporting Tool. The tool is populated with data provided from Council’s utility providers. Figures include all electricity (including street lighting), gas and fleet.

Please note: Figures in this report are from the main emissions sources that Leichhardt Council reports on, and would comply with NGERs. These figures represent the majority of emissions that would be included under a carbon-neutral scenario.

Under the carbon neutral scenario council will be required to define the emissions footprint boundary further. The boundary of an organisation defines the activities that an organisation should include in its carbon footprint calculation. In all cases, the organisational boundary chosen should be transparently documented and disclosed when making assertions relating to the achievement of carbon neutrality by the organisation.

The boundary-defining process is quite involved and, once complete, is externally verified. It is likely that some additional scope 3 emissions will be identified that will need to be included, for example, waste from Council buildings or, potentially, fuel from contractors vehicles which may pass tests for significance requiring their inclusion.

Further, Leichhardt Council currently has a contract for the purchase of 25% GreenPower for its top five energy using sites and street lighting. The amount of GreenPower purchased cannot be decreased before the contract ends in June 2013. Therefore, the only possible scenario for Council to become carbon neutral for financial year 2012/13 involves Council maintaining 25% GreenPower. Additional scenarios are presented for financial year 2013/14 that also take into account the energy savings estimated by Council’s ESD consultant as a result of implementing various energy saving projects, including the installation of a cogeneration plant at LPAC.
Scenarios for 2012/13 for carbon neutral based on $5 per tonne (international projects):

1. 25% GreenPower for top five energy using sites and street lighting and carbon offsets for residual emissions.

Scenarios for 2013/14 for carbon neutral based on $5 per tonne (international projects):

1. 25% GreenPower for top five energy using sites and street lighting and carbon offsets for residual emissions;
2. 100% carbon offsets and nil GreenPower.

2012/13 Carbon Neutral based on $5 per tonne

Current situation (FOR COMPARISON ONLY): 25% GreenPower for top five energy using sites and street lighting*

<table>
<thead>
<tr>
<th>Current situation: 25% GreenPower for major sites</th>
<th>Total Energy use</th>
<th>Total scope 1+2+3 Emissions</th>
<th>Cost of offset</th>
<th>Total Cost 2012/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>25% GreenPower</td>
<td>(kWh)</td>
<td>(tCO2-e)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Council sites</td>
<td>857,260</td>
<td>917</td>
<td>$0.048</td>
<td>$41,148.47</td>
</tr>
<tr>
<td>Street Lighting</td>
<td>628,280</td>
<td>672</td>
<td>$0.048</td>
<td>$30,157.45</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>$71,305.91</td>
</tr>
</tbody>
</table>

Scenario 1: 25% GreenPower for top five energy using sites and street lighting and carbon offsets for residual emissions*

<table>
<thead>
<tr>
<th>25% GreenPower for major sites &amp; Carbon Offset for residual</th>
<th>Total Energy use</th>
<th>Total scope 1+2+3 Emissions</th>
<th>Cost of offset</th>
<th>Total Cost 2012/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>25% GreenPower</td>
<td>(kWh)</td>
<td>(tCO2-e)</td>
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<td></td>
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</tr>
<tr>
<td>Street Lighting</td>
<td>628,280</td>
<td>672</td>
<td>$0.048</td>
<td>$30,157.45</td>
</tr>
<tr>
<td>Residual Carbon Offsets</td>
<td>(kWh)</td>
<td>(tCO2-e)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Council sites</td>
<td>3,139,645</td>
<td>3,359</td>
<td>$5.000</td>
<td>$16,797.10</td>
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<td>Street Lighting</td>
<td>1,884,840</td>
<td>2,017</td>
<td>$5.000</td>
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<td>Gas</td>
<td>179</td>
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<td>$5.000</td>
<td>$58.63</td>
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<tr>
<td>Fuel</td>
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<td>(tCO2-e)</td>
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<td></td>
</tr>
<tr>
<td>Gasoline</td>
<td>149</td>
<td>341</td>
<td>$5.000</td>
<td>$1,703.38</td>
</tr>
<tr>
<td>Diesel</td>
<td>125</td>
<td>337</td>
<td>$5.000</td>
<td>$1,686.03</td>
</tr>
<tr>
<td>Biodiesel</td>
<td>112</td>
<td>250</td>
<td>$5.000</td>
<td>$1,251.83</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>$102,886.79</td>
</tr>
<tr>
<td>Less: GreenPower - current spend on 25% GreenPower for major sites 2012/13</td>
<td></td>
<td></td>
<td>-$71,305.91</td>
<td></td>
</tr>
<tr>
<td>Net additional offsetting cost 2012/13</td>
<td></td>
<td></td>
<td>$31,580.88</td>
<td></td>
</tr>
</tbody>
</table>

* It is likely that some additional scope 3 emissions will be identified during the emissions boundary setting report.
Scenarios for 2013/14 based on $5 per tonne

Scenario 1: 25% GreenPower for top five energy using sites and street lighting and carbon offsets for residual emissions*

<table>
<thead>
<tr>
<th>25% GreenPower for major sites &amp; Carbon Offset for residual</th>
<th>Total Energy use</th>
<th>Total scope 1+2+3 Emissions</th>
<th>Cost of offset</th>
<th>Total Cost 2013/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>25% GreenPower</td>
<td>(kWh)</td>
<td>(tCO2-e)</td>
<td>$0.048</td>
<td>$18,000.00</td>
</tr>
<tr>
<td>Council sites</td>
<td>375,000</td>
<td>401</td>
<td>$0.048</td>
<td>$30,157.45</td>
</tr>
<tr>
<td>Street Lighting</td>
<td>628,280</td>
<td>672</td>
<td>$0.048</td>
<td>$10,400.00</td>
</tr>
<tr>
<td>Residual Carbon Offsets</td>
<td>(kWh)</td>
<td>(tCO2-e)</td>
<td>$5.000</td>
<td>$6,382.19</td>
</tr>
<tr>
<td>Council sites</td>
<td>1,590,578</td>
<td>1,702</td>
<td>$5.000</td>
<td>$7,562.92</td>
</tr>
<tr>
<td>Street Lighting</td>
<td>1,884,840</td>
<td>2,017</td>
<td>$5.000</td>
<td>$9,900.00</td>
</tr>
<tr>
<td>MJ</td>
<td></td>
<td></td>
<td>$5.000</td>
<td>$6,382.19</td>
</tr>
<tr>
<td>Gas (including Cogen at LPAC)</td>
<td>11,252</td>
<td>737</td>
<td>$5.000</td>
<td>$3,686.72</td>
</tr>
<tr>
<td>Fuel</td>
<td></td>
<td></td>
<td>$5.000</td>
<td>$1,703.38</td>
</tr>
<tr>
<td>Gasoline</td>
<td>149</td>
<td>341</td>
<td>$5.000</td>
<td>$1,686.03</td>
</tr>
<tr>
<td>Diesel</td>
<td>125</td>
<td>337</td>
<td>$5.000</td>
<td>$1,251.83</td>
</tr>
<tr>
<td>Biodiesel</td>
<td>112</td>
<td>250</td>
<td>$5.000</td>
<td>$1,251.83</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>$70,430.52</td>
</tr>
<tr>
<td>Less: GreenPower - spend on 25% GreenPower for major sites</td>
<td></td>
<td></td>
<td>$71,305.91</td>
<td>-$875.39</td>
</tr>
</tbody>
</table>

Net saving 2013/14

-$875.39

Scenario 2: 100% carbon offsets and nil GreenPower*

<table>
<thead>
<tr>
<th>100% Carbon Offset &amp; Nil GreenPower</th>
<th>Total Energy use</th>
<th>Total scope 1+2+3 Emissions</th>
<th>Cost of offset</th>
<th>Total Cost 2013/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Offsets</td>
<td>(kWh)</td>
<td>(tCO2-e)</td>
<td>$5.000</td>
<td>$10,515.84</td>
</tr>
<tr>
<td>Council sites</td>
<td>1,965,578</td>
<td>2,103</td>
<td>$5.000</td>
<td>$13,445.19</td>
</tr>
<tr>
<td>Street Lighting</td>
<td>2,513,121</td>
<td>2,689</td>
<td>$5.000</td>
<td>$13,445.19</td>
</tr>
<tr>
<td>Gas (including Cogen at LPAC)</td>
<td>11,252</td>
<td>737</td>
<td>$5.000</td>
<td>$3,686.72</td>
</tr>
<tr>
<td>Fuel</td>
<td></td>
<td></td>
<td>$5.000</td>
<td>$1,703.38</td>
</tr>
<tr>
<td>Gasoline</td>
<td>149</td>
<td>341</td>
<td>$5.000</td>
<td>$1,686.03</td>
</tr>
<tr>
<td>Diesel</td>
<td>125</td>
<td>337</td>
<td>$5.000</td>
<td>$1,251.83</td>
</tr>
<tr>
<td>Biodiesel</td>
<td>112</td>
<td>250</td>
<td>$5.000</td>
<td>$1,251.83</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>$32,289.00</td>
</tr>
<tr>
<td>Less: GreenPower - spend on 25% GreenPower for major sites</td>
<td></td>
<td></td>
<td>$71,305.91</td>
<td>-$39,016.92</td>
</tr>
</tbody>
</table>

Net saving 2013/14

-$39,016.92

* It is likely that some additional scope 3 emissions will be identified during the emissions boundary setting report.
Scenarios for 2012/13 for carbon neutral based on $16 per tonne (Australian projects):

1. 25% GreenPower for top five energy using sites and street lighting and carbon offsets for residual emissions.

Scenarios for 2013/14 for carbon neutral based on $16 per tonne (Australian projects)

1. 25% GreenPower for top five energy using sites and street lighting and carbon offsets for residual emissions;
2. 100% carbon offsets and nil GreenPower.

2012/13 Carbon Neutral based on $16 per tonne

Scenario 1: 25% GreenPower for top five energy using sites and street lighting and carbon offsets for residual emissions*

<table>
<thead>
<tr>
<th>25% GreenPower for major sites &amp; Carbon Offset for residual</th>
<th>Total Energy use (kWh)</th>
<th>Total scope 1+2+3 Emissions (tCO2-e)</th>
<th>Cost of offset</th>
<th>Total Cost 2012/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>25% GreenPower</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Council sites</td>
<td>857,260</td>
<td>917</td>
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<td>$41,148.47</td>
</tr>
<tr>
<td>Street Lighting</td>
<td>628,280</td>
<td>672</td>
<td>$0.048</td>
<td>$30,157.45</td>
</tr>
<tr>
<td>Residual Carbon Offsets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Council sites</td>
<td>3,139,645</td>
<td>3,359</td>
<td>$16.00</td>
<td>$53,750.73</td>
</tr>
<tr>
<td>Street Lighting</td>
<td>1,884,840</td>
<td>2,017</td>
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<td>$32,268.47</td>
</tr>
<tr>
<td>Gas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>179</td>
<td></td>
<td>12</td>
<td>$16.00</td>
<td>$187.63</td>
</tr>
<tr>
<td>Fuel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gasoline</td>
<td>149</td>
<td>341</td>
<td>$16.00</td>
<td>$5,450.81</td>
</tr>
<tr>
<td>Diesel</td>
<td>125</td>
<td>337</td>
<td>$16.00</td>
<td>$5,395.30</td>
</tr>
<tr>
<td>Biodiesel</td>
<td>112</td>
<td>250</td>
<td>$16.00</td>
<td>$4,005.87</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>$172,364.72</td>
</tr>
</tbody>
</table>

Less: GreenPower - current spend on 25% GreenPower for major sites 2012/13 -$71,305.91

Net additional offsetting cost 2012/13 $101,058.81

* It is likely that some additional scope 3 emissions will be identified during the emissions boundary setting report.
Scenarios for 2013/14 based on $16 per tonne

Scenario 1: 25% GreenPower for top five energy using sites and street lighting and carbon offsets for residual emissions*

<table>
<thead>
<tr>
<th>25% GreenPower for major sites &amp; Carbon Offset for residual</th>
<th>Total Energy use</th>
<th>Total scope 1+2+3 Emissions</th>
<th>Cost of offset</th>
<th>Total Cost 2013/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>25% GreenPower</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Council sites</td>
<td>375,000</td>
<td>401</td>
<td>$0.048</td>
<td>$18,000.00</td>
</tr>
<tr>
<td>Street Lighting</td>
<td>628,280</td>
<td>672</td>
<td>$0.048</td>
<td>$30,157.45</td>
</tr>
<tr>
<td>Residual Carbon Offsets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Council sites</td>
<td>1,590,578</td>
<td>1,702</td>
<td>$16.000</td>
<td>$20,423.02</td>
</tr>
<tr>
<td>Street Lighting</td>
<td>1,884,840</td>
<td>2,017</td>
<td>$16.000</td>
<td>$24,201.35</td>
</tr>
<tr>
<td>Gas (including Cogen at LPAC)</td>
<td>11,252</td>
<td>737</td>
<td>$16.000</td>
<td>$11,797.50</td>
</tr>
<tr>
<td>Fuel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gasoline</td>
<td>149</td>
<td>341</td>
<td>$16.000</td>
<td>$5,450.81</td>
</tr>
<tr>
<td>Diesel</td>
<td>125</td>
<td>337</td>
<td>$16.000</td>
<td>$5,395.30</td>
</tr>
<tr>
<td>Biodiesel</td>
<td>112</td>
<td>250</td>
<td>$16.000</td>
<td>$4,005.87</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>$119,431.29</td>
</tr>
</tbody>
</table>

Less: GreenPower - spend on 25% GreenPower for major sites -$71,305.91

Net additional offsetting cost 2013/14 $48,125.38

Scenario 2: 100% carbon offsets and nil GreenPower*

<table>
<thead>
<tr>
<th>100% Carbon Offset &amp; Nil GreenPower</th>
<th>Total Energy use</th>
<th>Total scope 1+2+3 Emissions</th>
<th>Cost of offset</th>
<th>Total Cost 2013/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Offsets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Council sites</td>
<td>1,965,578</td>
<td>2,103</td>
<td>$16.000</td>
<td>$33,650.69</td>
</tr>
<tr>
<td>Street Lighting</td>
<td>2,513,121</td>
<td>2,689</td>
<td>$16.000</td>
<td>$43,024.62</td>
</tr>
<tr>
<td>Gas (including Cogen at LPAC)</td>
<td>11,252</td>
<td>737</td>
<td>$16.000</td>
<td>$11,797.50</td>
</tr>
<tr>
<td>Fuel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gasoline</td>
<td>149</td>
<td>341</td>
<td>$16.000</td>
<td>$5,450.81</td>
</tr>
<tr>
<td>Diesel</td>
<td>125</td>
<td>337</td>
<td>$16.000</td>
<td>$5,395.30</td>
</tr>
<tr>
<td>Biodiesel</td>
<td>112</td>
<td>250</td>
<td>$16.000</td>
<td>$4,005.87</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>$103,324.79</td>
</tr>
</tbody>
</table>

Less: GreenPower - spend on 25% GreenPower for major sites -$71,305.91

Net additional offsetting cost 2013/14 $32,018.88

* It is likely that some additional scope 3 emissions will be identified during the emissions boundary setting report.
4.3 Aligning offset decisions with Council Strategic Objectives

The cost of abatement should not be the only factor governing decisions about GreenPower and offsets. Decisions about offsetting should be consistent with, and promote, Council’s overall strategic objectives.

This report recommends that any future Request for Quotation for carbon offsets align with Council’s strategic objectives. The purchase of offsets and GreenPower can promote Council’s environmental, social and economic objectives, although choices available will be limited by cost, particularly regarding Australian options.

5. Summary/Conclusions

This report recommends that as per the existing contract for large sites, Leichhardt Council maintain its current percentage of GreenPower in 2012/13, and purchase National Carbon Offset Standard (NCOS)-compliant carbon offsets to achieve and maintain carbon neutrality in 2012.

Council should then review this strategy in 2013/14 when the current GreenPower contract is up for renewal. Council can reduce its GreenPower purchase and offset residual emissions without any additional cost to maintain a carbon neutral position in 2013/14.

The advantage of maintaining a portion of GreenPower with offsets is that council can maintain a consistent message to the community regarding the benefits of GreenPower, show leadership by implementing a strategy that can also be readily applied by local businesses and the community and provide support to the domestic renewable energy industry. Further, there is currently only one NCOS-compliant offset project in Australia certified to an international standard. Purchasing GreenPower will allow council to continue to invest in Australian renewable energy. By also purchasing a portion of offsets, Council can take advantage of the flexibility and cost savings of carbon offsets by purchasing offsets for any residual carbon emissions following implementation of its various proactive carbon reduction strategies.

This report has also outlined issues which should be considered to minimise and manage risk for Council, and ensure that the outcomes of the offset purchases are consistent with Council’s strategic objectives.