

TOWN OF BASSENDEAN

NOTICE OF THE INAUGURAL MEETING OF THE SUSTAINABILITY COMMITTEE

Dear Committee Member

The inaugural meeting of the Sustainability Committee of the Town of Bassendean will be held in the Council Chamber, 48 Old Perth Road, Bassendean, on Tuesday 13 March 2018, commencing at 7.00pm.

Mr Bob Jarvis
CHIEF EXECUTIVE OFFICER

8 March 2018

A G E N D A

1.0 DECLARATION OF OPENING/ANNOUNCEMENT OF VISITORS

Acknowledgement of Traditional Owners

The Town of Bassendean acknowledges the past and present traditional owners of the land on which we gather to conduct this meeting, and pays its respects to their Elders, both past and present.

2.0 ELECTION OF PRESIDING MEMBER AND DEPUTY PRESIDING MEMBER

The Committee's Instrument of Appointment & Delegation states that the Committee shall appoint a Presiding Member and Deputy Presiding Member to conduct its business. The Presiding Member shall ensure that minutes of the proceedings are kept and that business is conducted in accordance with the Town of Bassendean Standing Orders 2011.

As this is the first Committee meeting, the positions for Presiding Member and Deputy Presiding Member must be decided.

The Director Operational Services will conduct the election of the Presiding Member under delegated authority of the CEO.

The Presiding Member will then call for nominations for Deputy Presiding Member.

Nominations must be made in writing (nomination form attached) and a secret ballot will be conducted to decide the positions.

3.0 ATTENDANCES, APOLOGIES AND APPLICATIONS FOR LEAVE OF ABSENCE

4.0 DEPUTATIONS/PRESENTATIONS

4.1 Presentation - City of Vincent Sustainability Advisory Group

Ms Anita Marriott, Sustainability Officer, Policy and Place, City of Vincent, will be in attendance to share her experiences as part of the City of Vincent's Sustainability Advisory Group, that has been operating for some time.

5.0 CONFIRMATION OF MINUTES

Nil.

6.0 ANNOUNCEMENTS BY THE PRESIDING PERSON WITHOUT DISCUSSION

7.0 DECLARATIONS OF INTEREST

8.0 BUSINESS DEFERRED FROM PREVIOUS MEETING

Nil.

9.0 **REPORTS**

9.1 **Committee Members**

As this is the first meeting of the Sustainability Committee meeting, members are asked to introduce themselves.

9.2 **Instrument of Appointment and Delegation**

Attachment No. 1:

The Instrument of Appointment and Delegation is included as an attachment so that members can familiarise themselves with the document.

9.3 **Code of Conduct**

Members of the Committee will be circulated with the Town's Code of Conduct. It is required that members read and understand the conditions of the Code of Conduct and agree to abide by the requirements of this document.

Please sign and date the declaration and return to the Town of Bassendean.

9.4 **Previous Liveable Town Advisory Committee/Council Resolutions (Ref: GOVN/CCL/MEET/34)**

COMMENT

The purpose of this report is to advise the new Sustainability Committee of the past Council (OCM-23/11/17) resolution.

In November 2017, Council considered the recommendations from disbanded Liveable Town Advisory Committee and resolved (OCM-23/11/17) in part, the following:

"That Council:

- 1. Considers conducting an audit of the Town's fleet vehicles and prepares a report on:
 - i Transitioning the fleet to hybrid/electric vehicles; and*
 - ii Implementing alternative transport options / incentives for staff.**
- 2. Investigates the installation of electric charging station/s within the Town, as well as the offer of a charging station from the REV Programme at UWA;*
- 3. Lobbies Western Power to transition the Town's street lighting to LED;*

4. *Investigates and introduces a solar bulk buy purchase scheme for property owners in the Town of Bassendean;*
5. *Develops and implements a “Sustainable Town Incentive Scheme”;*
6. *Investigates offering environmental sustainability grants for suitable community projects.”*

In January 2018, Council (OCM – 26/01/18) resolved:

“That Council:

1. *Requests staff investigate Western Power’s recently completed Local Government procurement process to upgrade street lamps with LED luminaires; and*
2. *Requests staff prepare a report for the first Sustainability Committee meeting on 13 March 2018, detailing:*
 - a) *The current list of LED lights within the Town of Bassendean;*
 - b) *The current underground power by street;*
 - c) *The current cost of power to the Town on a monthly basis;*
 - d) *The current Co2 emissions calculated over 12 months;*
 - e) *The expected cost to transition to LED lights based on Western Power’s new LED procurement process;*
 - f) *The expected financial cost and Co2 savings once transitioned.”*

The following update has been provided for each item of the above Council resolutions:

Audit of the Town’s fleet vehicles and prepares a report on transitioning the fleet to hybrid/electric vehicles; and implementing alternative transport options/incentives for staff.

Comment:

Item 9.4 draft Carbon Reduction Plan attached to this committee report provides preliminary information on the current Town of Bassendean fleet of vehicles.

Investigates the installation of electric charging station/s within the Town, as well as the offer of a charging station from the REV Programme at UWA.

Comment

At the October 2017 Liveable Town Advisory Committee, Cr McLennan advised the Committee that the Town has the opportunity to obtain an electric car charger through the REV programme at the University of WA.

Officers have been in contact with Professor Thomas Braunl from the University of WA (UWA), in regards to the charging station that was offered through the REV programme. Prof Braunl advised officers that the original 2 car station is no longer available, as the manufacturer is no longer making that station and they will require the charge station for parts. However, UWA has a single car station available if the Town would still like to be involved in the programme.

The model is ground mount Level-2 AC station (1*7kW) and requires single phase 240v and 32 Amp Power connection. The station is a type 2 which, requires user to bring their own charging cable so can therefore be available for any EV currently available in Australian market.

The UWA charger is provided to the Town on an unlimited loan, free of charge. The Town will be required to cover installation costs and any repairs (e.g. technical problems or vandalism), and the Town would be required to provide one car bay marked EV only with free power for users. The power cost is estimated at \$300 per year and installation costs are estimated between \$1,000-\$2,000.

If Council would rather purchase its own charging station, capable of charging two vehicles at once, the same as the original UWA was providing, this would cost approximately \$3,990 + gst, and \$1,000 to \$2,000 for installation. If the Town owned the station, then it would be at the discretion of the Council as to whether a small fee is required to use the station or if the charger is free.

Officers have had preliminary discussions with Town's Department of Development Services as to what planning approvals are required for installation and have been advised that of the sites that were originally considered for the charging station, one being the undercroft parking under the Library and the second being street parking in Old Perth Road, the street parking in Old Perth Road is the best option in terms of accessibility of those spaces.

The Library carpark is often used to its full capacity, and is not particularly visible in terms of promoting the charging station. The street bays are also easier to access than the Library bays. Town of Bassendean Development Services advised that the installation of a charging Station in Old Perth Road would be typical of the types of other infrastructure provided in a road reserve, and would not require Development Approval of the Town. Therefore, it is recommended that an ideal location for the station would be on Old Perth Road, either adjacent the library or in front of Customer Service Centre (see image below). A charging station in either of these locations would be easily accessible and less prone to vandalism.



Lobbies Western Power to transition the Town's street lighting to LED and OCM – 26/01/18 requests staff prepare a report for the first Sustainability Committee meeting.

Comment

Prior to the Australian Standards for street lighting being published, the former State Government Agency responsible for installing street lights, e.g. within the Town, installed street lighting on every second or third pole within the inner metropolitan area.

If a Local Government Council resolves to upgrade street lighting outside of the State Government's underground power grant funding programme, the cost is borne fully by that local government's ratepayers.

On 8 February 2018, Officers met with Western Power to discuss its new procurement policy for replacing traditional luminaires with light-emitting diode (LED) street lights.

Western Power advised that it is nearing the completion of the contractual procurement process for the supply of luminaires (1st July 2018), and has included a range of LED luminaires.

The new LED luminaires will be equivalent to the wattages available for traditional luminaires, e.g. the current 42 watt CFL will have the equivalent wattage in the LED range, which may be 22 watt.

As soon as there is a signed contract, Western Power will be able to release the new range of LEDs. The cost to transition all luminaires is unavailable until a signed contract has been achieved. However, using the current 18-watt luminaire, the estimated replacement cost, for Local Governments, per light is \$500.

Western Power is also working with Synergy to ensure there is the relevant tariff available for streetlights that undergo retrofit with LED luminaire and will most likely be using LED lighting for all future underground power projects.

In regards to the Council resolution to lobby Western Power to transition the Town's street lighting to LED, as explained above, the Town has been advised that Western Power is inviting tenders for the provision of LED lights for the upcoming State Underground Power Program and for site specific locations.

In regards to the wholesale replacement of existing lights to LED, it is highly likely that the spacing of the Western Power poles will not coincide with the required spacing for the LED luminaires, in order to achieve the AS/NZS 1158 Road Lighting and Main Roads WA (MRWA) Lighting Design Guidelines. Therefore, additional street poles may be required.

In regards to OCM – 26/01/18 resolution, the following information is provided:

OCM – 26/01/18	Comment
a) The current list of LED lights within the Town of Bassendean	Old Perth Rd has 50 x 28.5W LED and 6 x 60W LED
b) The current underground power by street;	<p>Currently only the suburb of Ashfield is underground power and a small portion of Eden Hill with the following streets covered:</p> <p>Suburb of Ashfield</p> <ul style="list-style-type: none"> - Ashfield Pde - Colstoun Rd - Dorothy St - Fisher St - French St - Haig St - Hardy Rd - Harman Ct - Jacqueline St - Kenmure Av - Latham St - Lethbridge Ct - Maidos St - Maley Ct - Maley St - Margaret St - Millard Cl - Mons St - Moojebing St - Ollie Kickett Mews - Pearson St - Royer Ct - Woolcock Ct <p>Suburb of Eden Hill</p> <ul style="list-style-type: none"> - Christie Wy - Dobson Ln - Pryde Wy - Pirani Ln
c) The current cost of power to the Town on a monthly basis	The bill received for January 2018 was \$26,700
d) The current Co2 emissions calculated over 12 months	The 2016/2017 CO2 emissions for Street lighting (not including Auxiliary) was 716.1 tCo2-e (47% of Town's total corporate emissions for 2016/2017)

<p>e) The expected cost to transition to LED lights based on Western Power's new LED procurement process.</p>	<p>Western Power has advised that they have not yet completed the procurement process and that under their current process there is 1 luminaire available 22w and current cost is approximately \$500 per light for replacement .</p>
<p>f) The expected financial cost and Co2 savings once transitioned</p>	<p>The Town currently has 1,549 street lights at the current price of \$500 per light this would be \$774,500, however not every light is suitable for replacement with 22W LED so the cost cannot be truly identified until western power have a LED replacement for all fittings we can then get a more accurate price and estimate the CO2 savings</p>

The State Underground Power Program is an initiative that replaces overhead powerlines to improve the reliability of electricity supply and provide more energy efficient luminaires.

The Underground Power Program is a partnership between the Government of Western Australia, Western Power and local government ratepayers. The funding for projects is shared between program partners to improve power reliability, enhance streetscapes and visual amenity; reduce street tree maintenance costs for local governments and to improve street lighting and community safety.

Currently, the Town of Bassendean has underground power in Ashfield and a portion of Eden Hill.

In 2016, the Town of Bassendean Council submitted two expression of interest applications for underground power in accordance with the selection criteria. Whilst the expression of interest application met all the requirements, unfortunately insufficient Eden Hill ratepayer support for the project was achieved.

Investigates and introduces a solar bulk buy purchase scheme for property owners in the Town of Bassendean;

Comment

Officers have been in contact with service providers for Solar PV and they have advised that discounts could be available if minimum orders are met.

The minimum quantity of PV systems required can only be determined once service providers have more information on systems required, such as 3kw system for small households, then a 5kw system for larger house holds. Officers could not find any information on other local governments providing a subsidy to their residents when purchasing Solar PV.

Develops and implements a “Sustainable Town Incentive Scheme

Comment

The Design Bassendean Committee has on its agenda, the "Sustainable Building Design Policy" and when sufficiently developed, the Director Strategic Planning will provide to the Sustainability Committee for input.

Investigates offering environmental sustainability grants for suitable community projects

Comment

Officers have investigated what other Local Governments in WA are offering their residents. Below are grants/subsidies available at City of Cockburn, City of Melville and City of Joondalup for the Committee to review.

The City Of Cockburn Offer its residents the following subsidies/grants:

Native Plant Subsidy, the Town of Bassendean has plants to Residents Scheme.

Sustainability Grants (A better Tomorrow), The Sustainability Grants Program provides funding for projects in Cockburn relating to six sustainability themes. Small businesses, schools, not-for profits and collective households can apply. Successful applicants can apply for up to \$4,000 towards the project.

Sustainability grants are arranged into six themes. Applicants can apply for a range of projects under one of the following themes:

- **Giving Back** aims to improve social equity and involvement across the City. Possible projects include volunteering, helping those in need, providing opportunities to participate.

- **Protecting our Future** aims to build resilience to climate change and/or safeguarding biodiversity. Possible projects include native or productive food gardens, climate change education, and preservation of natural areas.
- **Strong Communities** aims to build community capacity. Possible projects include community development, events and inclusive neighbourhoods.
- **Water, Energy and Waste** aims to promote resource use efficiency. Possible projects include increased recycling, composting, improved water and energy efficiency.
- **TravelSmart** aims to support the uptake of alternative transport. Possible projects include end of trip facilities, TravelSmart events, and education.
- **Healthy Lifestyles** aims to promote opportunities for improved public health outcomes in the community. Possible projects include events, healthy lifestyle programs and education.

Home Waste Compost Subsidy - The City of Cockburn offers a home waste compost subsidy that part funds the cost of worm farms, compost bins and bokashi bins.

- Worm farm subsidy - \$85, Residents are required to come along to a workshop and learn how to set-up and use worm farm units. The workshops are run in partnership with The Worm Shed.
Workshop Cost: \$85 cash at the workshop
- Compost Bin Rebate \$50. Buy a compost bin of your choice and receive a \$50 rebate upon proof of purchase and residence. Submit a rebate form (below under 'Related Documents' at the City's Administration Building. Your rebate will be processed within 8 weeks. Maximum one bin per household
- Bokashi Bin subsidy \$50, Bokashi bins are designed for odour-free composting in the kitchen and are great for those with smaller gardens. Visit the City's Administration Building and purchase your 20L Bokashi Bin. You must provide proof of residency. This includes a bag of Bokashi Dust (lasts an average household 3-4 weeks) and instructions. Maximum two bins per household.
Cost: \$50

- **Compost Caddy Free.** Compost caddies (includes a roll of compostable bags) are suitable for collecting food scraps in the kitchen and transferring them straight into a worm farm or compost bin. The caddies are free and are available from the City's Administration Building. Maximum one caddy per household.

Bird Bath Rebate - City of Cockburn residents will receive a rebate of half the cost of a bird bath (up to the value of \$50) that they have purchased. A completed form, proof of address and proof of purchase must be provided. To apply, complete the Bird Bath Rebate Application Form in person to the City's Administration building at 9 Coleville Crescent, Spearwood WA. There is a limit of one rebate per household.

Free Home Eco Audits - The Town offered these Audits in 2016 and had a poor success with very little residents signing up to be included in program, the Town also offers free in home energy audit kits that can be hired for free from the Library.

Land Owner Biodiversity Conservation Grant - the Landowner Biodiversity Conservation Grants program provides financial support to Cockburn residents living in the rural, rural living and resource zones who wish to conserve and enhance the natural bushland and wetland areas on their property.

To be eligible for a grant, you must meet the following criteria:

- Your property must be situated in the rural, rural living or resource zones (refer to map under Documents heading below)
- You must have remnant bushland or wetland areas on your property and any proposed works must benefit the conservation value of these areas
- You must contribute significant financial or in-kind support to the project (all manual in-kind labour is to be calculated at \$30/hr)
- As an applicant, you must be the owner of the property. The City will assess applications for vacant land or land where the owner is not in residence on a case-by-case basis
- If your property has a conservation covenant, you will not be eligible for funding and priority will be given to landowners whose property has no lawful protection.

The City of Melville offers the following subsidies and Grants:

Native Plant Subsidy Scheme, The Town Offers Plants to residents Scheme

Worm Café Subsidy, Worm cafe subsidies are available to City of Melville residents who attend worm-farming workshops at Piney Lakes. Save \$127.00 on the complete set up of your worm-cafe.

Piney Lakes Environmental Education Centre hosts workshops with the [Worm Shed](#) throughout the year, aimed at assisting you in creating successful worm farms.

All City of Melville residents who attend a worm-farming workshop at Piney Lakes are entitled to a \$127.00 subsidy when purchasing a worm-cafe *on the day of the workshop*. Each cafe contains all set up materials and a supply of one kilogram of live worms. Your complete cost will be \$90.00. This is only while stocks last.

Compost Bin Rebate, Residents can apply for a \$50.00 rebate on the cost of a compost bin of their choice.

City of Melville residents are entitled to the Compost Bin Rebate. To receive a rebate of up to \$50.00, purchase a compost bin from a retailer, complete the Rebate Application Form and return to us with:

- A copy of the compost bin purchase receipt
- Proof of address within the City of Melville (e.g. rates notice, driver's licence, utility bill).

The City of Joondalup provide the following Grants & subsidies:

Environmental Development Community Funding

The City provides \$25,000 in funding each year as part of the Environmental Development Community Funding Program. Funding is provided over two funding rounds and is available to community groups and schools.

These grants aim to assist community groups and schools with projects, events, and activities that increase awareness of environmental issues, promote positive environmental behaviour, and protect the City's natural areas.

The following are examples of projects, events or activities that your school or community group may wish to apply for:

- Community waterwise local native plants garden
- Community edible food garden with permaculture principles
- Composting and worm farms

- Installation of rainwater tank
- Revegetation of degraded bushland, wetland or coastal areas with local native plants
- Installation of bird nesting boxes or bat boxes, where suitable
- Research into native flora, fauna or fungi
- Sustainable transport participation programs eg. walking school bus
- Installation of bicycle parking
- Eco audits of buildings to provide sustainability recommendations
- Contribution towards installation of solar panels
- Environmental education programs such as bushland care, Indigenous cultural heritage, water conservation, energy efficiency, waste minimisation, recycling, walking or cycling
- Community events that support environmental days or weeks such as World Environment Day, National Biodiversity Month, National Tree Day, Walk Over October, Ride2School Day, Walk to School Day, Clean Up Australia Day, and National Recycling Week.

OFFICER RECOMMENDATION — ITEM 9.4

That the information provided as an update in regards to Council (OCM-23/11/17) resolution, be received.

9.5 Draft Carbon Reduction Plan

ATTACHMENTS

Attachment No.2

First Draft - ACER- Emissions Reduction Plan

Attachment No.3

Wileo Sustainability Proposal

COMMENT

The purpose of this report is to present to the Committee the First Draft of ACER - Emissions Reduction Plan and seek feedback from the Committee.

BACKGROUND

The Town of Bassendean began the implementation of carbon reduction and energy efficiency actions in 2001; these were formalised under the Carbon Reduction Plan (March 2015).

This Plan supports strategic objectives within the Strategic Community Plan 2013 – 2023, Environmental Management Plan 2013 – 2023, Local Climate Change Adaptation Action Plan and Carbon Reduction Strategy 2013 – 2018. The Town is currently undertaking a review of its Carbon Reduction Plan in 2017/2018 to determine new actions towards reducing carbon emissions in the future.

The Town of Bassendean's carbon footprint has been measured for each financial year from 2010/2011 to 2014/2015 with the WALGA Greensense Emissions Reporting Platform. The Town transitioned to a new platform, Planet Footprint, in 2015/2016 which will be used to continue to monitor the Town's energy consumption, emissions and water usage.

The Town is not obliged to report emissions under the National Greenhouse and Energy Reporting System (NGERS) or any other legislative framework. The Town has chosen to report emissions annually as part of adopting a best practice approach to carbon management and in doing so will enable carbon emissions and reduction claims to be objectively assessed by the public.

The Town achieved its previous carbon reduction target of 7.5% reduction of total corporate emissions a year early and therefore a new target has been adopted. The Town investigated emissions targets around Australia and determined to base its new carbon reduction target on the Australian Government's 2030 Emissions Reduction Target. The target was committed to in August 2015 as part of the United Nations Framework Convention on Climate Change Paris Agreement, a global agreement for climate action post 2020, and subsequently ratified. The Town's new target is:

“To reduce 2014/2015 corporate emissions by 26 – 28% by 2029/2030”

Based on this target, the Town will need to reduce 2014/2015 corporate emissions by at least 441.8 tCO₂-e to 1,257.3 tCO₂-e (Figure 1) by 2029/2030. The baseline year of 2014/2015 was chosen as it has the most accurate data available for analysis and is the closest to the Australian Government's emissions reduction target baseline of 2005.

The Plan has been prepared as part of the implementation of the Town of Bassendean's Carbon Reduction Strategy. Analysis has been performed on data provided by Planet Footprint through the Town's subscription and the information is correct at the time of publication, to the best of our knowledge. It should be noted that data may change over time due to revisions by utilities.

COMMUNICATION & ENGAGEMENT

The Former Renewable Energy working group was advised that the Town subscribes to planet footprint in order to manage/ monitor the Town's energy use and emissions tracking. It was also agreed that the Town's carbon reduction strategy target should be in-line with the federal governments climate change target of 26-28%. The working group were also presented with the Towns latest Emission report card.

COMMENT

The Town of Bassendean's *Emissions Reduction Plan* is an update of the Town's previous *Carbon Reduction Plan* (CRP) which was reviewed in 2017 after the Town's successful achievement of its 2015 Carbon Reduction Target to reduce base year (2011/2012) corporate emissions by 7.5% by 2016/2017. This plan comes under the Town's *Carbon Reduction Strategy* which outlines the Town's objectives to mitigate the future impacts of climate change by reducing the Town's corporate emissions. The *Emissions Reduction Plan* is an implementation tool for the strategy and provides actions for the Town over a five year period (2018-2023) to achieve a new Emissions Reduction Target.

The CRP review included a desktop study that identified the Town's achievements since 2015. Key achievements from the last few years include the installation of solar PV systems on council owned and operated buildings, the rollout of LED lighting retrofits, energy efficient upgrades to park lighting, and an air conditioner retrofit. The review also identified emerging technology and trends such as electric vehicles, solar batteries, microgrids, sustainable building design and energy efficient products.

Since the new target baseline year of 2014/2015, the Town has already reduced its corporate carbon emissions by 10.8% through the implementation of solar PV systems, LED lighting, energy efficient products and much more. For the Town to achieve its new target, corporate carbon emissions will need to reduce by a further 258.0 - 331.5 tonnes CO²-e by 2029/2030.

Within this plan, the Town's emissions boundary is defined and actions developed in the CRP review process are listed in action tables. To aid in identifying priority actions, the action tables list budget types, estimated cost ranges, emissions reduction potential and timeframes, as well as outline the responsible department/s. These actions will assist the Town to progress emissions reductions towards its new target over a five year period, 2018-2023.

The review identified the following emissions reduction achievements within the Town since 2015:

- Continued participation in the EMRC's ACER Program since 2012;
- Transferred to Planet Footprint, a data management platform, in 2016 from WALGA's Emissions Reporting Platform;
- Established the Former Renewable Energy Working Group in 2016 which includes Town staff and community members tasked with matters relating to renewable energy within the Town; and Now have the Sustainability Committee.
- Hosted a Climathon event in October 2017. The challenge aimed to develop ideas for how residents, businesses and community in the Town can contribute to Australia's Emissions Reduction Target to reduce emissions through innovative renewable energy practices;
- Divested 75% of investments from financial institutions who support fossil fuels in June 2016;
- Solar PV systems were installed at the Town's Administration, Library and Seniors Citizens Building (30kW); Depot (15kW); Ashfield Community Centre (20kW); Wind in the Willows Childcare Centre (12kW); Customer Service Centre (10kW); and Alf Faulkner Hall (5kW);
- Ducted air-conditioner installed at Customer Service Centre to replace older, inefficient model;
- Home Energy Audits provided to the community, as well as Home Energy Audit Kits continuing to be available in the Town's Library;
- Continued rollout of LED lighting within Town buildings and facilities where necessary;
- Solar LED lighting installed at Success Hill, Jubilee, Broadway and Point Reserves;
- LED Lighting installed at Sandy Beach Reserve and Mary Crescent Reserve; and
- Upgraded irrigation practices and central control system improving water and energy efficiency.

The Town's carbon footprint is the aggregated emissions from the Town's corporate operations and activities that use stationary energy and liquid fuels, such as electricity, gas, unleaded petrol and diesel.

The Town's emissions are measured in tonnes of carbon dioxide equivalent (tCO₂-e) and each source type has different emissions factors¹ that are used for calculation. The Town mainly consumes electricity and gas for Council buildings and facilities such as administration, community centres and lighting. The Town's 2014/2015 total carbon footprint was 1,699.1 tCO₂-e. Of that total, 44.3% of emissions were produced by Street Lighting, 33.6% by Buildings and Facilities, 16.4% by Fleet, 5.5% by Parks and Gardens and 0.2% by Auxiliary Lighting.

The areas which have the most potential for reductions include the Town's Buildings and Facilities, Fleet, and Parks and Gardens. These areas make up over 55% of the Town's carbon footprint and reducing emissions in these areas can be achieved with technology and measures that are currently accessible.

Street lighting is the most difficult area in which to reduce emissions as the majority of the Town's residential street lamps are owned by Western Power. Town Officers have met with Western Power officials to discuss its new procurement policy for replacing traditional luminaires with light-emitting diode (LED) street lights.

Western Power advised that it is nearing the completion of the contractual procurement process for the supply of luminaires (1st July 2018), and has included a range of LED luminaires.

The new LED luminaires will be equivalent to the wattages available for traditional luminaires e.g. the current 42 watt CFL will have the equivalent wattage in the LED range, which may be 22 watt.

As soon as there is a signed contract, Western Power will be able to release the new range of LEDs. The cost to transition all Luminaires is unavailable until a signed contract has been achieved. However, using the current 18-watt Luminaire, the estimated replacement cost, for Local Governments, per light is \$500.

Western Power is also working with Synergy to ensure there is the relevant tariff available for streetlights that undergo retrofit with LED luminaire and will most likely be using LED lighting for all future underground power projects.

In 2016/2017, the Town's carbon footprint was 1,515.3 tCO₂-e, a reduction of 183.8 tCO₂-e since 2014/2015 (Figure 2).

¹ National Greenhouse Account Factors July 2017

This is a 10.8% reduction in just two years, This reduction is most likely due to the efforts of the Town installing over 110kW of solar PV systems on council owned and operated facilities, as well as contributions from the ongoing LED retrofits and other efficiency measures. To achieve the Town's Emissions Reduction Target, emissions will need to reduce by a further 258.0 -331.5 tCO²-e in order to reach a reduction of 26-28% by 2029/2030.

The following table identifies short-term actions listed in the Draft Emission reduction Plan that will need to be included in the 2018-19 Budget:

Action	Emission reduction potential
Introduce an energy fund reserve, or similar, to finance energy efficiency and emissions reduction projects, sourcing funding from savings made from implemented projects within the Town.	F
Develop a staff housekeeping plan to reduce energy use (e.g. turning lights and equipment off).	L
Identify Town buildings and facilities that may benefit from solar battery technology and prepare for future implementation.	F
Investigate energy meters at the Administration, Library and Senior Citizens' Buildings, Customer Service Centre and Depot in order to determine feasibility of separating the meters or installing smart meters and loggers to understand energy use.	F
Ensure that power saving functions on equipment are activated on existing and new equipment in staff offices - E.g. sleep mode, hibernation etc.	L
Investigate smart technology for implementation for sport lighting to reduce vandalism, improper use and energy wastage.	F
Conduct a review of the Town's fleet vehicles to determine where change can be implemented to reduce carbon emissions.	F
Prepare a briefing note on 'green' vehicles that would be most suitable to be integrated into the Town's fleet.	F
Review the Town's vehicle allocation system to identify how hybrid and electric vehicles could be allocated to staff.	F

The following table is a key for how actions are rated by emission reduction potential:

EMISSIONS REDUCTION POTENTIAL	
Emissions Reduction Type	E↓
Low Emissions Reduction	L
Moderate Emissions Reduction	M
High Emissions Reduction	H
Future Emissions Reduction	F
Community Emissions Reduction	C

The Town of Bassendean has been provided with a proposal from Wileo Consulting (**Attachment 3**). The proposal includes a high level scan of relevant projects for the Town's consideration comprised of the following:

1. Research of cutting-edge projects that have been recognised for showcasing Sustainability in a context similar to the Town of Bassendean, and selection of the most appropriate ones.
2. In individual reports, description of the projects, what made them successful showcasing sustainability and how they served or added value to the local community. What will be needed to implement it in the context of the Town of Bassendean. Rating of the project's cost, impact and repeatability across the Town's land.
3. Research of existing funding, grants or subsidies that could help the town finance the selected projects.
4. Editing work to integrate all the individual reports into a single final report as a decision-making support.
5. Presentation of the findings to the council team in a meeting at the town hall to allow for discussion.

The Wileo Proposal shares similar structure and outcome as the EMRC Emission reduction plan, with the exception that the EMRC plan incorporates long-term strategic planning and has been developed after reviewing the following Town Plans and Policies to align the emissions reduction plan with:

- Carbon Reduction Strategy 2011-2018
- Economic Development Plan 2012-2017
- Environmental Management Plan 2014-2024
- Strategic Community Plan 2017-2027

- Local Climate Change Adaptation Action Plan 2011
- Local Planning Policy 2 – Energy Efficient Design
- Purchasing Policy
- Sustainable Bassendean Policy
- Energy Use Policy
- Investment Policy
- Recyclable and Biodegradable Projects at Town of Bassendean's Events and Functions Policy
- EMRC's Regional Environment Strategy 2016-2020

FINANCIAL CONSIDERATIONS

Funds will need to be allocated in 2018-19 Budget to undertake short-term actions identified in Emission Reduction Plan

OFFICER RECOMMENDATION — ITEM 9.5

That:

1. The Committee receives the first draft ACER Emission Reduction Plan;
2. Members of the Committee review the draft ACER Emission Reduction Plan and provide feedback to Town's Officers by COB Friday 14 April 2018, to enable Officers to review feedback and provide an update at next Committee meeting on 29 May 2018; and
3. The Town does not proceed with the Wileo Proposal.

9.6 School Programs – Eastern Regional Catchment Skills 4 Youth Natural Resource Management Program and Climate Clever Program

APPLICATION

The purpose of the report is to provide an overview of the following School programs:

- Eastern Metropolitan Regional Council (EMRC) operate an award –winning community program that works with young people to learn about and care for the natural areas in their neighborhood
- The Climate Clever initiative is a new program designed specifically to help schools measure, monitor and reduce their carbon footprint, and become leaders in sustainability climate action in their community.

ATTACHMENTS

Attachment No. 4:

1. EMRC Eastern Region Skills 4 Youth Natural Resource Management program
2. Climate Clever brochure - Partnership opportunities and benefits for Local Government

BACKGROUND

Climate Clever

In 2016, SimplyCarbon, in collaboration with Curtin University and the CRC for Low Carbon Living (CRC LCL), launched an innovative two-year Low Carbon Schools Pilot Program with 15 schools in Western Australia. Due to the success and excellent feedback received from those schools Simply Carbon are now launching the Climate Clever National Pilot.

ClimateClever is a social enterprise made up of a team of passionate sustainability and climate professionals with backgrounds in research, policy, industry, education and infrastructure. They provide a unique set of skills combining academic action-based research with industry best practice, to empower schools and organisations to achieve measurable sustainability and climate goals. The ClimateClever Initiative like Low Carbon Schools is a partnership between Curtin University, the Cooperative Research Centre (CRC) for Low Carbon Living and ClimateClever.

The Program is designed specifically to help schools measure, monitor and reduce their carbon footprint, and become leaders in sustainability and climate action in their community. The program is also supported by curriculum materials to enable teachers to use the App in the classroom to ensure the program is primarily student-led. We also hold quarterly in-person meet-ups with groups of participating schools to help keep them accountable and enable them to share experiences.

EMRC Skills 4 Youth Natural Resource Management Program

In January 2015, the Bush Skills for Youth (BS4Y) program commenced with the appointment of a Youth Environmental Education Officer with specific skills and experience in teaching.

During the first year, the program focused on nature workshops for children aged 8 – 12 years in primary schools and during school holidays. In the second year of the pilot, workshops for youth aged 12 – 16 were added. The BS4Y pilot program aimed to deliver a series of nature workshops in Perth's Eastern Region for youth between the ages of 8 and 16 that will take place during school hours and on school holidays.

Desired objectives:

- Raise awareness in youth about the importance of conserving the natural environment.
- Provide opportunities for youth to develop knowledge and skills to care for the natural environment.
- Raise awareness about environmental volunteer groups and their importance.
- Provide positive opportunities for participants to help volunteer groups in undertaking environmental activities.
- Provide the participants with the natural resource management skills to help protect the environment into the future.
- Provide leadership and networking opportunities for youth with interests in the natural environment.
- Consult with young people about their attitude towards the natural environment and the types of activities they would engage in.

Long-term objectives:

- Improve connection to and knowledge about the natural environment amongst youth so they are more likely to become environmental stewards into the future.
- Youth will be more skilled and aware of environmental issues and can then influence others in the community
- Reduced vandalism in local bushland areas.
- Increase in the number of volunteers working on local environmental projects.
- Increase conservation of bushland areas and reserves in Perth's Eastern Region.

BS4Y was developed in response to member Council priorities for community education and engagement to support environmental stewardship and has been one of the EMRC's most successful initiatives in recent years. A report to the EMRC's Council in December 2017 identified that due to the interest in the BS4Y program, it was included in the successful State NRM Community Capability Grant which will provide funding until the end of December 2018.

The EMRC will be seeking the support of its member Councils to fund this program into the future through its Regional Services Funding Summary 2018/2019.

COMMUNICATION & ENGAGEMENT

No communication has been held with the Department of Education WA or the Principals of schools within the Town of Bassendean about their current student curriculum and the suitability of the programs

COMMENT

Climate Clever

If the Town is to join the program we would be required to provide financial support to subsidise the cost for schools within our boundary. The cost for schools in 2018 is \$8 per student, with fees capped at \$6,500. There are 5 primary Schools with the Town Boundary, This program provides a way to upskill a large and engaged audience of students and school staff. And, as students bring knowledge home to their families whilst achieving goals set out in the Towns Strategic Plan and Emission reduction plan. Based on early results Climate clever have advised that schools who create and implement ambitious action plans are likely to save at least 10% on their water and energy costs.

Bush Skills for Youth

The Program was previously funded by State NRM if the Town of Bassendean would like to be involved in the program the Town will have to contribute \$3,500 to the EMRC, The program offers member Councils the opportunity to have assistance from EMRC to engage young people in doing activities that encourage them to care for the natural environment. Through BS4Y, groups of young people participate in bush care activities in their neighbourhood. This may be through schools, youth groups, community groups, Council activities or family and neighbourhood groups. BS4Y also delivers nature activities at community events and school holiday workshops. Since its inception in January 2015, BS4Y has delivered over 170 workshops for young people aged 4 – 18 across the six EMRC member Councils.

A key aspect of the BS4Y program is connecting children and families with nature through activities in their local area. This will be an important aspect of all workshops so invitations to nominate a bush area for a BS4Y workshop in 2018 have been delivered (via the mailing list and other forms of promotion).

Any community groups or families who would like to nominate a spot need to send the location address and reasons why it would be a good spot for a workshop. The location needs to be somewhere in the Eastern Metropolitan Regional Council. Community and Friends of groups who are looking after a reserve have been encouraged to nominate their spot for a workshop. For councils this means that parks and nature areas throughout the Council will be targeted, not just well known and frequently used places, thus raising the awareness and value of all remaining natural areas.

EMRC has advised that previously the schools in Bassendean have not taken up the offer of workshops, the Community Capability State NRM funding still allows for a workshop each calendar year. BS4Y is committed to deliver at least one holiday workshop in each of the six member Councils. The 2018 calendar with the activities that have been organised for the first 6 months of 2018, currently has no workshops planned for Bassendean. EMRC is planning to book a holiday workshop in Bassendean in either July or October.

FINANCIAL CONSIDERATIONS

The EMRC has indicated that the cost to implement its award winning program into Town of Bassendean schools, would costs approximately \$3,500

The new Climate Clever initiative program provided requires participating schools to down load an application and the measure energy usage to reduced carbon emissions and make financial savings from utility bills and improved student learning outcomes around sustainability and carbon reduction. The Town has 5 primary schools and the fee is \$8 per student or \$6,500 per school so the Town would need to budget \$32,500 to cover costs for all Schools.

OFFICER RECOMMENDATION — ITEM 9.6

That the Committee review information and provide feedback on preferred option.

9.7 Recycling Station and Public Recycling Bins

COMMENTS

At the Ordinary Council Meeting held in November 2017, Council resolved to initiate a three-bin phone survey of at least 400 ratepayers.

Based on the data collected through the surveys, there is a strong support for the introduction of a 3-bin system waste collection system to reduce the amount of waste currently going to landfill.

- 88% of households either supported or strongly supported the introduction of green waste bin.
- 84% would use it regularly.

Support for the additional bin declined when a one off levy (\$80 - \$90) was introduced, however, still more than 2 in 3 households (69%) supported the introduction of the third bin.

It is also worth noting that older residents (over 40 years of age) were more likely than those younger to be opposed to the third bin introduction.

Results were consistent across all three suburbs, renters and ratepayers throughout the Town.

Officers are currently preparing a report to Council, for May 2018, regarding all waste collection procedures within the Town. It is hoped, this will include feedback from the City of Melville's Food Organics Garden Organic (FOGO) trial they are currently undertaken so it will coincide with the possible introduction of the third bin.

Furthermore, at the 29 May Sustainability Committee Meeting members will receive a deputation from "Kooda", which a start-up company created by Carly Hardy in 2016 with the vision of seeing the diversion of food-wastes from landfill, starting with the kitchens where it is generated, and returning the carbon back into the soil cycle. It also aims to create employment for those unable to hold down time-based un-flexible working hours.

Currently the Town provides the following waste collection services for ratepayers within the Town:

- Weekly Waste Kerbside Collection
- Fortnightly Recycling Kerbside Collection
- Additional Recycling Kerbside Collection over the festive holiday period (Christmas/New Year)
- Annual Bulk Verge Green Waste Collection
- Annual Bulk Verge Rubbish Collection
- Monthly Fridge Collection
- Annual Tip Passes (4 per year per property)
- Street Litter Bin Collection
- Parks & Reserves Bin Collection
- Oil drop off at the Depot

To coincide with the Annual Bulk Rubbish and Greenwaste Services, and as part of the Town's commitment to strive for a sustainable environment and to reduce the hard waste that ends up in landfill, the Town has planned yearly community recyclable goods drop off days commencing Saturday 26 May 2018.

The following items will be collected, from Town of Bassendean ratepayers only, at the Towns Depot located at 69 Scaddan Street, Bassendean between 9am and 12 noon.

These community-recycling drop off days have been planned, for this time, to decrease the amount of ineligible waste some ratepayers leave on their verge during and after the annual Bulk Kerbside collections, and decrease the additional cost for collection of these items.

Metals

Bikes, BBQ's, bed frames, corrugated iron/tin sheeting, air con units, hot water systems, car body parts, dismantled swings/trampolines

Woods

Any untreated timber-off cuts (no longer than 1.5m) crates, pallets (NO cabinets or furniture accepted)

E Waste

TV's, computers, black boxes, monitors, keyboards, consoles, speakers, stereo equipment, printers, scanners, photocopiers, DVD players, X-boxes, laptops, mobile phones, camera equipment

Mattresses

Inner spring and foam mattresses, queen, double, single, king size, futons

Tyres

Car, trailer, 4WD

Hazardous waste

Engine oil, paint, engine coolants, and pesticides

In addition to the above services, the Town has set up a "Recycling Centre's" at the Library and Customer service for the collection of:

- Batteries
- Globes
- Spectacles
- Mobile phones

Waste education has a high priority for the Town and in partnership with the Towns waste collection contractor and the East Metropolitan Regional Council (EMRC) the Town provides the following educational programs and displays.

- The Eastern Metropolitan Regional Council (EMRC) host school tours of the Red Hill Waste Management Facility and activities at the environmental education centre.
- In addition, the EMRC coordinates several other school waste education programs in Perth's Eastern Region on behalf of its member Councils, including a highly successful battery recycling program.
- The Town's Waste Contractor conducts free school incursions, to contribute locally relevant content and updated information on local waste and recycling services.
- Best practice for recycling waste information is provided on a yearly basis at the Town of Bassendean Markets.
- With support of the Town and the EMRC schools are able to participate in waste collection practices such as, battery, mobile phone collections.

OFFICER RECOMMENDATION — ITEM 9.7.

That the Committee receives the information and notes that a report will be presented to Council in May 2018, regarding Waste Collection procedures.

9.8 Peer-to-Peer Energy Trading project

COMMENT

Western Power and Curtin University are trialling a shared energy storage system that will make sharing power between neighbours possible through a solar-powered micro-grid and battery storage system. The system is being built into a new residential complex in White Gum Valley, near Fremantle. The residents of the 80 dwellings, including units and townhouses, will be part of a micro-grid that will make use of energy captured through their solar panels and topped up by the main electricity network.

The system will allow peer to peer sharing of electricity between residents and is expected to provide about 70 per cent of the energy needs of the complex. There will also be the option to allow any excess electricity to be sold back to retailers via the Western Power network. The idea behind peer to peer energy sharing is simple:

1. Use your solar panels to generate electricity

2. Store it in your home battery
3. Sell or share any excess energy that you don't need.

It all starts with the electricity network.

Electricity still requires conductors (the wires) to transfer it long distances. The Western Power network is already there to interconnect 1.1 million customers and has the potential to be the energy trading platform that makes the concept a reality for Western Australians. To tap into the potential of peer to peer energy sharing, homes and businesses will require advanced meters to track energy use then link it to block-chain technology to help buy, sell and trade excess energy. Block-chain technology creates an online, decentralised ledger that autonomously and securely facilitates and records transactions. It's what could help you securely and confidently buy energy from a complete stranger.

James Eggleston from Powerledger, presented to Councillors the Peer to Peer Energy Trading Project. Power Ledger has developed a series of world-leading block-chain energy applications, such as P2P energy trading application that allows businesses, such as utilities, to host trading on the platform. Block-chain technology provides a transparent, auditable and automated market trading and clearing mechanism for the benefit of producers and consumers. Their technology enables the sale of surplus renewable energy generated at residential and commercial developments (including multi-unit/multi-tenanted) connected to existing electricity distribution networks, or within micro-grids. Power Ledger puts the power to manage the energy economy into the hands of consumers, while maintaining the value of existing distribution networks.

Officers have contacted James to provide more information on how the Town can be involved. James would like to setup a meeting with Staff to run through potential possibilities.

OFFICER RECOMMENDATION — ITEM 9.8

That the Committee receives the information.

10.0 **MOTIONS OF WHICH PREVIOUS NOTICE HAS BEEN GIVEN**

Cr Quinton has advised that she wishes to move the following motion at this meeting:

“That:

- 1. The Town of Bassendean recognise the scourge that single use plastics has on our environment and is committed to reducing the amount of single use plastics created in the Town;*
- 2. That the Town of Bassendean ban, where possible, all use of single use plastics at events organised or sponsored by the Town of Bassendean including but not limited to straws, plastics cups and plastic bags;*
- 3. That the Mayor of the Town of Bassendean write to all businesses in the Town outlining our commitment to reducing single use plastics and encourage them to reduce single use plastics, particularly straws and plastic cups where possible;*
- 4. That the Town organise an education campaign about single use plastics to be monitored by the Sustainability Committee.”*

11.0 **ANNOUNCEMENTS OF NOTICES OF MOTION FOR THE NEXT MEETING**

12.0 **CONFIDENTIAL BUSINESS**

13.0 **CLOSURE**

The next meeting date to be held on Tuesday, 29 May 2018 commencing at 7.00pm.



TOWN *of* BASSENDEAN

NOMINATION FOR PRESIDING MEMBER/ DEPUTY PRESIDING MEMBER

2017/19 TERM

I would like to nominate _____ (insert name)
for the position of Presiding Member/Deputy Presiding Member (circle
position applicable) of the Sustainability Committee.

Name: _____

Signed:

Dated: