



BOROONDARA
City of Harmony

Our Low Carbon Future Strategy

Action Plan Update

2017 - 2020



Responsible Directorate: Environment and Infrastructure
Authorised By: Council
Date of Adoption: 12 September 2016
Sunset Date: December 2020



Table of contents

1. Introduction	3
1.1. Purpose	3
1.2. Scope of this update	3
2. Background	3
2.1. About Our Low Carbon Future Strategy	3
2.2. Strategy principles	3
2.3. Strategy objectives	3
2.4. Strategy targets for 2020	4
3. Strategy review and planning update	4
3.1. Action implementation since strategy adoption	4
3.2. Council emissions trends since the baseline year (2007/08)	10
3.3. Community emissions trends and abatement actions	11
4. Action Plan 2017 - 2020	12
5. Complementary activities	17
6. Closing any gap to emissions targets	17
7. Monitoring and reporting	18

1. Introduction

1.1. Purpose

Our Low Carbon Future - City of Boroondara Strategy (2009) sets the direction for Council's climate change mitigation response to 2020.

This document summarises the outcome of the strategy's seven-year review, and defines the highest priority actions for implementation over the final four years (2017 - 2020) of the strategy term. Options for closing the gap between 2020 emissions and the targets are also discussed.

1.2. Scope of this update

This update provides an overview of:

- the principles, objectives and targets set in the strategy
- progress on implementing the previous action plan (2012 - 2016)
- trends in Council's (corporate) greenhouse gas emissions since the baseline year
- community emissions and reduction actions
- priority corporate and community emissions reduction measures for implementation over the coming years
- complementary measures that also support progress towards a low carbon future
- options for closing the gap to the 2020 corporate target.

2. Background

2.1. About Our Low Carbon Future Strategy

In 2009 the City of Boroondara adopted its low carbon strategy, including the establishment of guiding principles and objectives. The strategy also identified emission reduction targets for corporate and community sectors to be achieved by 2020.

2.2. Strategy principles

The five principles that underpin the strategy were developed to reflect Council's thinking, and guide the selection of the strategy's targets and priority actions:

1. Leadership by Council with the community
2. Assuming a moral obligation to act
3. Pursuit of multiple benefits and a 'no regrets' approach to action
4. Action prioritised by impact
5. Equity in both strategy and action.

Refer to section 4.2 of the 2009 strategy for a description of each of these principles.

2.3. Strategy objectives

The strategy principles are complemented by a set of core objectives that reflect the combination of benefits being sought through implementation of the strategy. These objectives are to:

1. Reduce Council's own greenhouse gas emissions
2. Reduce aggregate emissions for Australia
3. Reduce the impact of increasing energy prices on Council's budget
4. Reduce the impact of increasing energy prices on vulnerable sectors of the community
5. Support the Australian Government to introduce more ambitious greenhouse gas reduction targets
6. Increase local energy security through investment in renewable energy sources.

2.4. Strategy targets for 2020

The strategy set Council the target to reduce its corporate greenhouse gas emissions by 30 - 40% below 2007/08 levels by 2020.

The strategy also aims to support community emissions abatement of at least 50,000 tonnes CO₂-e by 2020 through support for community programs and projects.

3. Strategy review and planning update

3.1. Action implementation since strategy adoption

The strategy's initial three-year action plan and subsequent Action Plan Update 2012-2016 defined discrete and tangible priority actions for implementation. Most of the actions from these two action plans have now been completed or are well underway. In some cases, better alternative options emerged and were pursued.

The strategy's implementation has focused on addressing key sources of greenhouse gas emissions for Council (Council buildings, streetlighting and fleet) and the community (residential and commercial emissions). Key actions completed from the initial action plan 2009 - 12 include:

- the installation of 325 kW cogenerator at Ashburton Pool and Recreation Centre
- Stage 1 of the municipal-wide switch to efficient streetlights
- installation of a 12 kW of Solar PV system at the Camberwell Offices
- adoption of the Sustainable Buildings Policy (2010).

The action plan update for 2012 - 2016 focussed on increasing energy efficiency and low carbon technologies in Council's buildings, and completing the switch to energy efficient streetlights across the municipality.

Outcomes from the second action plan are summarised in Table 1, with highlights including:

- installation of a 100 kW Solar PV system at Kew Recreation Centre
- installation of a 100 kW cogenerator at Hawthorn Aquatic and Leisure Centre
- upgrade of pool halls and stadiums to efficient LED lighting
- Stage 2 of the municipal-wide switch to efficient streetlights.

Community actions focused on supporting residential energy efficiency through programs to drive household uptake of energy efficient lighting, low flow showerheads, solar hot water and rooftop photovoltaic panels.

While implementation actions have delivered significant environmental benefits, considered investment in energy reduction measures is also a good investment based on financial returns alone.

Table 1. Implementation status of 2012 — 2016 action plan update

Corporate (Council operations)		
Priority action area	Action	Status
Buildings	Roll-out the installation of cogeneration power at recreation and leisure centres: <ul style="list-style-type: none"> • Hawthorn Aquatic and Leisure Centre (HALC) • Boroondara Sports Complex (BSC) • Kew Recreation Centre (KRC) 	<p>Partially completed</p> <p>Cogeneration power installed as part of HALC redevelopment. Over the last few years the business case for cogeneration at leisure centres has declined (due to factors such as increasing gas prices) and the cost effectiveness of technologies such as solar photovoltaics and LED lighting has improved. Funding was redirected to:</p> <ul style="list-style-type: none"> • 100 kW solar PV at Kew Recreation Centre • 100 kW solar PV at Boroondara Sports Complex (in progress) • 30 kW solar PV at Kew Depot • 20 kW solar PV at Hawthorn Library • 16 kW solar PV at Riversdale Depot • Boiler upgrades at Kew Recreation Centre • Broad scale lighting upgrades at BSC, KRC and Ashburton Pool and Recreation Centre (APARC) to LED lighting • Installation of Variable Speed Drives and other energy saving technologies <p>Council's PV (including BSC) capacity saves over 500 tonnes of CO2-e and \$45,000 worth of electricity per year.</p>
	Consistent with the Sustainable Buildings Policy, continue integration of ESD principles and technologies across buildings renewal program, including use of innovative technologies.	<p>Ongoing</p> <ul style="list-style-type: none"> • Cool roof paint has been applied at several sites including APARC and KRC • A green roof was completed at Minifie Park in 2013 • Increasing inclusion of LED lighting in building projects

Public lighting	Complete the Sustainable Street Lighting bulk changeover (Stage 2) of up to 6,450 lights across the CitiPower distribution area to energy efficient T5 lamps.	<p>Completed in 2014</p> <ul style="list-style-type: none"> The project is delivering annual greenhouse savings est. 3700 tonnes CO2-e with total annual cost savings (includes OMR and energy cost savings) est. \$400,000 per annum. <p>Since 2015 new public lighting installations and replacements use LED lighting.</p>
	Investigate and, where cost effective, progressively implement energy efficiency retrofit or renewal of public lighting.	<p>Ongoing</p> <p>Completed projects include:</p> <ul style="list-style-type: none"> Upgrade of market lane carpark to LED Upgrade of The Well multi-deck car park to LED New lighting at Boroondara Tennis Centre Installation of daylight and motion sensing lights at multiple sites.
Fleet	Holistic review and revision to Council's Motor Vehicle Policy (MVO) and Staff Car Parking Policy to deliver greater environmental, social and financial benefits.	<p>Completed</p> <ul style="list-style-type: none"> Enhanced MVP with tighter restrictions on vehicle efficiency including minimum efficiency requirements. Two electric bikes now available within Council fleet.
	Trial the use of hybrid truck for pick-up of waste in Council parks and shopping strips.	<p>Completed in 2013</p> <ul style="list-style-type: none"> Hybrid trucks were not available for purchase in subsequent tender. Future procurement will consider Hybrid vehicles.
	Offset residual 'actual' annual emissions of both passenger AND large truck fleet through purchase of accredited offsets.	<p>Completed from 2015/16 financial year</p> <ul style="list-style-type: none"> Emissions of entire vehicle fleet offset through purchases from Greenfleet and Carbon Neutral with offsets totalling 2,453 tonnes CO2-e.
Data management and reporting	Centralise responsibility and oversight of Utilities (electricity, gas, water) across Council facilities for consistent record-keeping, payment authorisation, usage monitoring and identification of savings opportunities.	<p>Completed</p> <ul style="list-style-type: none"> Utilities officer engaged since 2014. This approach is ongoing with continuous improvement in data collection and system processes.

Community		
Priority action area	Action	Status
Electricity and gas use in homes and offices	Support residential take-up of energy efficiency behaviours and technologies.	<p>Completed</p> <ul style="list-style-type: none"> • Council support for Victorian Energy Efficiency Target (VEET) upgrades through regional partnership via the Eastern Alliance for Greenhouse Action (EAGA) partnership with 'Live Green with Less' • Online and over the phone advice and support for home and business energy efficiency and solar provided through partnership with Positive Charge • Eight Living for our Future workshops focused on energy efficiency and/or solar/renewables since 2012 <p>Refer to section 3.3 for available data on community uptake of energy efficiency and renewables.</p>
	Incorporate greater support for Ecologically Sustainable Design (in particular energy efficient buildings and renewables) within the revised Boroondara Planning Scheme and the planning application process.	<p>Ongoing</p> <p>Proposed changes are expected to be presented to the Planning Minister in FY2016/17.</p>
	Undertake onsite energy / ESD audits of (up to 10) Neighbourhood Houses (also known as community centres), together with on-the-spot implementation of low-cost energy, water and climate adaptation actions.	<p>Completed</p> <p>Audits and energy efficiency upgrades were carried out at 10 community centres. Actions prioritised 'low hanging fruit' such as draught sealing and lighting upgrades.</p>
Waste / consumption	Support the community (particularly households, community centres, cafes and schools) to reduce the amount of food waste (estimated at 20% of all food purchased) and reduce organic waste sent to landfill.	<p>Completed</p> <ul style="list-style-type: none"> • 12 Living for our Future workshops focused on food and waste issues including local produce, de-cluttering and managing the cost of living. • Council subsidised purchase of 74 wormfarms, 98 compost bins and 33 Bokashi bins through Compost Revolution from 2013 to 2016.

	Continue investigation and regional collaboration towards enhanced waste management options (eg access to Advanced Waste Technology facilities).	Ongoing <ul style="list-style-type: none"> Regional organics processing being progressed through Metropolitan Waste and Resource Recovery Group. Kitchen scraps from Council and Depot offices now diverted to worm farms as part of Green Office Program.
Transport	Support the expansion of car share schemes in key activity centres through provision of car spaces to commercial operators.	Completed <ul style="list-style-type: none"> As at July 2016 13 car share spaces were active in Boroondara shopping strips.
	Increase investment and stakeholder advocacy supporting the mode share of low emissions personal transport (through a safe cycling network, pedestrian amenity, and better public transport).	Ongoing <p>Council continues to invest in and advocate for improvements to the walking, cycling and public transport networks. These improvements include shared path reconstruction, blackspot accident treatments and improved walking access to key activity centres. Implementation of the Balwyn Access Plan and Camberwell Access Plan are on-going with improvements to the walking and cycling routes to these two key destinations continuing in 2016/17.</p>
Community engagement and activation	Support community engagement and local grassroots action	Ongoing <ul style="list-style-type: none"> Boroondara Sustainable Living Festival held in 2012 and 2014. Boroondara Sustainability Awards for home and gardens (2012), and schools (2013 and 2015). New 'Sustainable Communities' stream introduced into the Boroondara Community Strengthening Grants Program in 2013. Grant funding for sustainability initiatives provided to 22 organisations to date.

3.2. Council emissions trends since the baseline year (2007/08)

Each year Council completes a re-inventory of its operational greenhouse gas emissions, most notably emissions associated with Council buildings (electricity and gas use), electricity use for public lighting, and fuel use in passenger and large vehicle fleet¹.

Figure 1 compares corporate emissions from 2007/08 (the strategy's 'baseline' year) through to 2014/15 (most recent data), with the 2020 target range. It reflects both net emissions each year, and, where applicable, the purchase of 'carbon offsets' (ie GreenFleet) and zero emissions (renewable) energy (ie GreenPower).

The most recent emissions inventory for 2014/15 reported emissions of 23,397 tonnes CO₂-e, which is about twelve and a half percent below emissions in the 2007/08 baseline (26,837 tonnes CO₂-e). This reduction in corporate emissions has been achieved against a backdrop of larger and enhanced facilities with expanded service delivery.

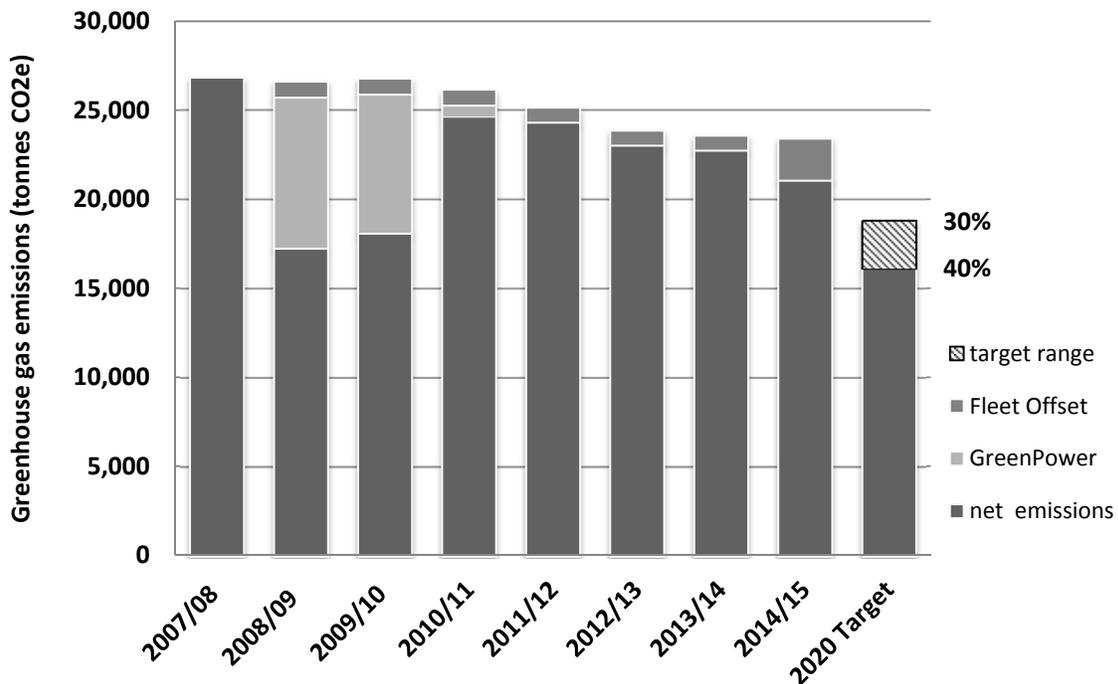


Figure 1. Annual corporate emissions (including offsets)

In 2014/15, additional funds were allocated to allow the offset of the entire Council fleet. It should be noted that an offset can only be reported in the year of purchase. If offsets are included in reported emissions totals, it is necessary to continue purchasing to avoid an emissions rebound in subsequent years.

¹ Emissions arising from Council's own organic waste to landfill (eg. food waste from council offices) are monitored separately and not included in Council's corporate inventory.

Council's net emissions in 2014/15, after fleet emissions offsets are accounted for, was 20,944 tonnes CO2-e, representing a 22 per cent reduction on the 2007/08 baseline year.

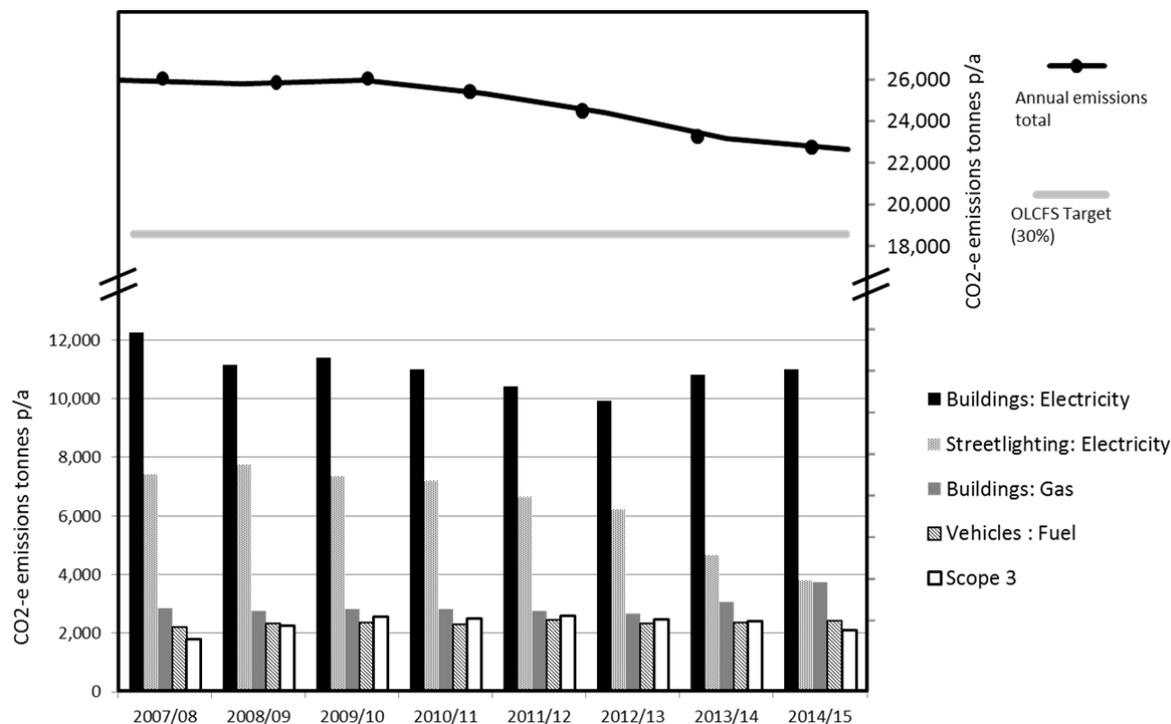


Figure 2. Comparison of annual corporate emissions by type

Figure 2 compares annual emissions by type across the seven years since 2007/08. Both electricity and natural gas consumption across Council's buildings portfolio has responded to a number of factors.

While energy efficiency works have significantly reduced emissions, this has largely been offset by energy demand from new and upgraded facilities with bigger building footprints providing enhanced services. The building emissions trend also reflects temporary dips in emissions as large buildings were closed or on 'builders supply' during redevelopment. For example, Hawthorn Aquatic and Leisure Centre (HALC) was closed throughout 2013/14 and re-opened in 2014/15, now accounts for around 14 per cent of Council's total emissions from buildings.

The 2014/15 financial year inventory represents a near complete portfolio of Council buildings.

Expenditure on electricity and gas used in Council's buildings portfolio exceeds \$1.7 million per annum (excluding fixed costs) and accounts for over 15,000 tonnes of CO2-e (being 65 per cent of Council's greenhouse gas emissions).

3.3. Community emissions trends and abatement actions

The key sources of greenhouse gas emissions for Boroondara as a whole continue to be residential electricity and gas use, emissions from cars and trucks, commercial sector energy

use and methane emissions from organic waste sent to landfill. There is limited new data available to estimate any changes in Boroondara's specific community emissions profile since the strategy was established.

Australia-wide, household electricity use has decreased slightly. This is due in part to increased efficiency in residential lighting and water heating. Additionally the installation of solar PV has reduced the net import of electricity in the residential sector. Partly offsetting that reduction is the increased use of home appliances, in particular air conditioning.

Given the average Boroondara residents' relatively high household income and consumption levels, our per capita resource use and greenhouse gas emissions remain high in both relative and absolute terms. Despite relatively high average household income, the proportion of Boroondara homes with solar PV is below the Melbourne metropolitan average.

Council does not have access to complete information about residential adoption of emissions saving behaviours and technologies. Since the strategy was adopted, community programs implemented or promoted by Council are known to have achieved the following uptake:

- 4,211 solar PV systems have been installed across Boroondara since 2001, with over half of these installed since 2012. Installed capacity was 3,872 kW in 2012, this has grown over three fold to 12,619 kW in mid-2016. Installation rates have generally declined in the last few years although system sizes have increased. Existing installations across Boroondara reduce emissions by over 23,000 tonnes CO₂-e per annum².
- 5,073 solar hot water systems have been installed across Boroondara since 2001, with 512 of these in 2015.
- Energy efficient lighting upgrades installed through Council supported VEET programs will result in cumulative abatement of an estimated 313,000 tonnes CO₂-e over their working life.

Council currently has very limited access to information about energy efficiency investment within the commercial sector. Despite the net financial benefits to businesses of undertaking energy efficiency and renewable energy initiatives, the time commitment and upfront expenditure for businesses make Council engagement with this sector a challenge.

4. Action Plan 2017 - 2020

This section outlines high priority corporate and community-focused actions for progressive implementation through to 2020. These updated priority actions have been determined following review of existing and emerging opportunities against the strategy principles and objectives, and following consultation within Council and with interested members of the community.

² Based on registrations with the Office of the Renewable Energy Regulator for postcodes within Boroondara. This includes some small overlaps outside City of Boroondara ie Glen Iris 3146.

Table 2 Action Plan 2017 - 2020

Priority action area	Description	Timeframe	Responsible department(s)	Estimated Costs	Benefits
Corporate (Council Operations)					
Council buildings	Deliver a broad suite of cost effective energy efficiency upgrades at Council's largest buildings via an Energy Performance Contract (EPC) model as used in the Victorian Government's Efficient Government Buildings program. ³	2016-17 to 2018-19	Environment and Sustainable Living with Projects and Strategy	\$2M over three years	Energy and water savings with a guaranteed financial return est. \$200,000 p/a
	Pending Council endorsement, implement an updated Sustainable Council Buildings Policy that sets robust sustainability standards referencing the 'Green Star - Design and As Built' rating tool from the Green Buildings Council of Australia.	Policy adoption proposed late 2016	Whole of Council implementation with Environment and Sustainable Living support (policy custodian)	Marginal cost impact (~5%) to be managed within capital works and building renewal planning / budgets	Leadership action Energy and water savings Enhanced occupant comfort and building quality.
	Undertake a municipal-wide assessment of opportunities and relative priority for solar PV roll-out on Council buildings.	2017-18 or 2018-19	Environment and Sustainable Living	Est. \$15 - 20k for professional services and advice	Inform planning and cost effective roll-out of local renewable electricity generation
Public lighting	Continue to progressively implement energy efficiency retrofit or renewal of public lighting, such as (but not limited to): <ul style="list-style-type: none"> • Upgrades to more efficient lighting technology in Council carparks • Increasing control of lighting (timing and levels) in public parks and gardens. 	Ongoing	Traffic and Transport and Asset Management	Within existing budgets or subject to project specific budget bids	Energy, emissions and operational savings.
Fleet	Continue to offset annual emissions of Council's fleet (passenger vehicles and trucks)	Ongoing (via annual	Finance with support from	Within existing operating budget	Council fleet is effectively net

³ <http://www.dtf.vic.gov.au/About/Projects/Efficient-Government-Buildings>

Priority action area	Description	Timeframe	Responsible department(s)	Estimated Costs	Benefits
	through purchase of accredited offsets.	purchase of offsets)	Environment and Sustainable Living		'carbon neutral'.
	Annual review of Council's motor vehicle policy including update to emissions thresholds to achieve green vehicle standards.	Ongoing	Finance with support from Environment and Sustainable Living	Policy review within existing operating budget / staff time	Reduced emissions and air pollution. Operational savings less fuel use. Staff health and wellbeing benefits from active travel
	Progressively improve efficiency and emissions standards of waste fleet, including through continued transition to higher efficiency trucks (incl hybrid where available) meeting Euro6 standards.	Ongoing	Waste management (Infrastructure Services)	Within existing operating budgets or subject to future budget bid	Reduced emissions and air pollution. Operational savings less fuel use.
Data management and reporting	Strategic review of utility billing at tenanted facilities to ensure fair cost sharing and encourage responsible use of resources through user pays models.	2016-17	Financial Services	Within existing operating budgets	Facilitates fair allocation of costs to tenants and rewards responsible use of energy
	Report to Council on cost effective and sustainable options to 'close any remaining gap' between annual emissions and Council's adopted emissions reduction target for 2020.	2018-2019	Environment and Sustainable Living	Within existing operating budgets	Enables timely and well-informed decision-making
Community					
Regional action and advocacy	Support the implementation of regional initiatives and advocacy on climate change mitigation and adaptation through ongoing membership of organisations such as the Eastern Alliance for Greenhouse Action and the Green Building Council of Australia.	Ongoing	Environment and Sustainable Living	Within existing operating budget	Economies of scale and increased impact of advocacy

Priority action area	Description	Timeframe	Responsible department(s)	Estimated Costs	Benefits
	Continue to advocate for better support for ESD within the State Planning Policy Framework (SPPF) as a basis for delivering more sustainable outcomes through the planning permit application process.	Ongoing	Strategic Planning with Environment and Sustainable Living and Statutory Planning	Within existing operating budgets	Improved sustainability standards in residential and commercial building developments.
Electricity and gas use in homes and offices	Support residential take-up of energy efficiency behaviours and technologies: <ul style="list-style-type: none"> • Positive Charge energy efficiency advice service and other associated programs • Broad promotion of Victorian Energy Efficiency Target program • Living for Our Future program - ongoing education and incentives • Programs targeting vulnerable / low income households. 	Ongoing	Environment and Sustainable Living	Within existing Living for Our Future program budget / staff time	Energy and cost savings for residents Greater community understanding of ESD principles and sustainable energy use
Waste / consumption	Support the community (particularly households, community centres, cafes and schools) to reduce the amount of food waste (estimated at 20% of all food purchased) and reduce organic waste sent to landfill.	Ongoing	Environment and Sustainable Living and Infrastructure Services with support from various departments	Within existing Living for Our Future program budget / staff time.	Less organic waste to landfill with associated emissions and cost savings. Local production of garden compost.
	Continue regional collaboration towards enhanced waste management options for organic materials (eg access to Advanced Waste Technology facilities via Metropolitan Waste and Resource Recovery Group (MWRRG)).	Ongoing	Infrastructure Services	Within existing operational budget / staff time.	Contribute to emergence of 'best practice' regional organic waste solution.
Transport	Support the expansion of car share schemes in	Support	Traffic and	Within existing	Participants in car

Priority action area	Description	Timeframe	Responsible department(s)	Estimated Costs	Benefits
	key activity centres through provision of car spaces to commercial operators.	further roll-out in coming years.	Transport	operational budget / staff time.	share typically drive less and walk, cycle and use public transport more.
	Continue investment supporting the mode share of low emissions personal transport (through a safe cycling network and improved pedestrian amenity) as outlined in relevant Council strategies and plans.	Ongoing	Traffic and Transport	Large infrastructure projects subject to budget allocation. Some actions within existing programs/budgets (eg through footpath renewal, additional bench seating etc)	Reduced transport related emissions and air pollution. Improved public health and safety, and community connection. Reduction in congestion and lost productivity.
	Pursue funding for the Boroondara Active and Safe Schools program through the VicRoads Smarty Grants Program.	Ongoing - apply every year.	Traffic and Transport	Approximately \$30,000 in-kind money is required from Council.	Encourages use of active transport modes from a young age.

5. Complementary activities

As with the previous action plans, this updated action plan focuses on the highest priority actions that are considered most likely to deliver tangible emissions reductions.

There are many complementary activities Council is undertaking that are consistent with the strategy's vision, principles and objectives. Examples of complementary activities include:

- Increased use of lower emissions construction materials, such as low emissions concrete, 'warm asphalt' and responsibly sourced timber or natural stone to reduce the 'embodied emissions' from Council capital works.
- Increased use of robust street furniture, public signage and other products made from reprocessed plastic waste instead of timber, reducing maintenance costs and supporting the market for recovery and re-use of flexible plastics.
- Advocacy to State and Commonwealth governments across a range of areas for policy, regulatory and financial support for a rapid transition to a safe and sustainable low carbon future, including through lower emissions transport (eg. public transport).
- Green Office initiatives to embed sustainability across Council operations (eg worm farms at Council offices).
- Trialling the expansion of the bicycle fleet across different Council offices.
- Further 'Greening' the public realm and better using harvested water within the landscape (eg street trees, vegetation, water bodies etc) to reduce the 'urban heat island' effect as well as deliver bio-sequestration, health, amenity and biodiversity benefits.

Council will also respond to new and emerging opportunities to support achievement of the strategy's objectives.

6. Closing any gap to emissions targets

Regardless of emissions savings achieved from implementing the actions in this plan, there may be a 'savings gap' between Council's actual net emissions in 2020 and the OLCFS target of 30-40% emission reduction. Additional action may be required to close the gap and achieve the target.

Based on current information, one or a combination of options could be used to close any 'savings gap':

- **Accelerated roll-out of renewable generation (solar PV) on Council facilities** - a relatively simple to implement solution with increasingly attractive financial return.
- **Additional investment in energy efficiency** - the EPC may identify additional opportunities that are not appropriate for the EPC methodology or are beyond allocated funding. These or other opportunities identified in Council's facilities may allow further emissions savings to be achieved.
- **Buy accredited 'carbon offsets'** - a credible method of "offsetting" otherwise unavoidable emissions through means such as tree planting and renewable energy projects. Offsets are an annual operational expense without a financial return.

- **Buy GreenPower** - government accredited GreenPower is carbon neutral electricity from renewable sources such as wind, solar and biomass. Purchasing GreenPower directly drives investment in renewable energy but like offsetting, is an operational cost without a financial return, and can be seen as 'buying' a solution.

Consistent with the principles and objectives of the OLCFS, options that directly reduce Council's own emissions and deliver a financial return over time are generally preferable.

Since other options may emerge, and the relative costs and benefits of the above options change over the intervening years, it is proposed to re-assess all options prior to the 2020 target year.

7. Monitoring and reporting

Progress with implementing priority actions will be monitored and reported through Council's internal business planning cycle by responsible departments. Annual review of corporate emissions and emissions savings resulting from implemented actions will track progress towards the strategy's 2020 targets.

The annual corporate emissions re-inventory is subject to external review and the result published in Council's Annual Report as a Strategic Indicator. Progress and outcomes from implementation of key actions will be communicated via Council's newsletter and website.

In the final year of the strategy a report will be prepared for Council outlining progress to meeting the 2020 targets and options for closing any remaining 'gap'.

A new long-term strategy is proposed for development in 2020-21.