

Strategic priority 1:

Climate change and energy

Context

There is a strong imperative for Council to reduce greenhouse gas emissions and prepare for a changing climate. Climate change will have a significant impact on Council's strategic goals as well as Council operations, assets and areas of service delivery. The combination of rising energy prices, increasing demand on Council services and facilities from our growing population and continuing to deliver a certain standard of services, facilities and infrastructure within a rate-capped environment all drive action on climate change.

Council plays an important role in balancing a growing population with reducing energy consumption and greenhouse gas emissions and continuing to provide a range of services to the community. In addition, there is an ongoing expectation for Council to deliver expanded services and facilities to meet increasing community needs. A key role of Council is also supporting and encouraging residents, businesses and community groups to reduce their own emissions and adapt to the impacts of climate change.

Council's corporate greenhouse gas emissions are those resulting from Council's own operations, such as electricity and gas used in buildings and facilities, electricity for street lighting and transport fuels.

Council accounts for its most significant emissions from the three categories below:

» Electricity

- » Greenhouse emissions produced through the electricity used by Council buildings.
- » Public lighting in the City of Stonnington that is managed by electricity distributors on Council's behalf.

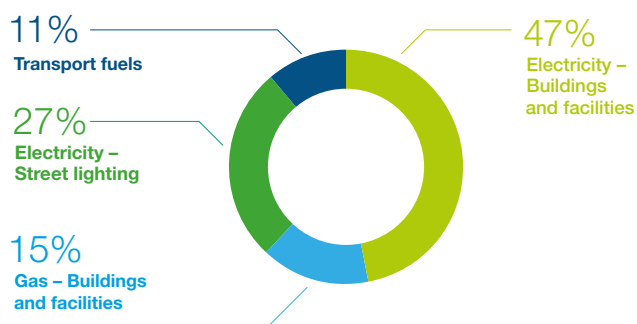
» Gas

- » Greenhouse emissions produced through the natural gas used by Council buildings.

» Fleet and equipment

- » Greenhouse emissions created through the fuel consumed by Council's passenger vehicles, utility vehicles and specialised heavy equipment.

Breakdown of Council's corporate greenhouse gas emissions



Strategic priority 1: Climate change and energy (continued)

Since 2005, Council has reduced its total emissions through energy efficiency and renewable energy by 22 per cent.

The majority of this reduction has been through emissions associated with street lighting, which have seen 41 per cent reduction since 2005/06. There has also been an 18 per cent reduction in emissions from electricity use in buildings, including electricity generation from embedded solar PV systems since 2011.

Council has met its initial corporate greenhouse gas emission target to reduce emissions by 20 per cent below 2005 levels by 2015 and is on track to meet its target of 30 per cent reduction by 2020.

While the Paris Agreement officially recognises the importance and role of local government in managing the impacts of climate change, it also acknowledges their role in setting greenhouse reduction targets. Based on detailed modelling completed by the Intergovernmental Panel on Climate Change (IPCC), a global 'carbon budget' has been developed in line with the Paris Agreement that outlines the maximum amount of greenhouse gas emissions that can be released into the atmosphere for catastrophic climate change to be averted. The carbon budget provides the basis for the development of a 'science-derived' emissions reduction target for Australia, which can be scaled down to a municipal level, calculating an appropriate share of the reduction effort.

A Science Derived Target for a council's corporate emissions provides a framework to setting targets that is fair, robust, consistent with international carbon budgeting methodology and aligned with international best-practice target setting.

Based on the City of Stonnington's current trajectory for emissions reductions, including projects planned over the next four years, Council will exceed a Science Derived Target for its corporate greenhouse gas emissions.



Council is committed to demonstrating a leadership role in the community and throughout the Australian local government sector, therefore has set the following targets to reduce greenhouse gas emissions:

30 per cent below 2005 levels by 2020 ▼

35 per cent below 2005 levels by 2022 ▼

60 per cent below 2005 levels by 2030 ▼

Total Council greenhouse gas emissions

TONNES OF CO2

20,000

15,000

10,000

5,000

0

2005-2006

2006-2007

2008-2009

2009-2010

2010-2011

2011-2012

2012-2013

2013-2014

2014-2015

2015-2016

2016-2017

2020 Target (30%) ▼

2022 Target (35%) ▼

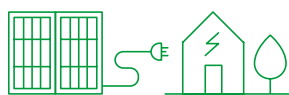
2030 Target (60%) ▼

Renewable energy

Renewable energy will play a key role in the transition to a low carbon economy. While the cost of installing renewable technology falls, market uptake is increasing. The Victorian Government's Renewable Energy Target is a commitment to ensure that 25 per cent of Victoria's electricity supply will come from renewable sources by 2020 and 40 per cent by 2025, supporting Council's own commitment to increasing use of renewable energy sources.

Approximately 6 per cent of Stonnington households have solar on their roofs, which is similar to surrounding metro local government areas but trails behind less urban areas.

Council will continue to investigate opportunities to increase its use of renewable energy and support community uptake of renewable energy technologies. With limited space available for a large scale solar facility within the municipality, exploring innovative options for renewable energy generation will be a key Council focus over the coming years.



6%

of Stonnington households
have solar on their roofs

Battery storage

Maximising the energy generated through solar PV systems with battery storage technology is a growing area, however, this technology is currently expensive with long payback periods.

It is expected that battery storage will play an increasingly important role in the future generation, storage and use of renewable energy. Council will continue to monitor this area and look at opportunities for energy storage on our properties and to support its uptake across the city.

Buildings and facilities

Buildings have significant potential to deliver energy savings and greenhouse gas emission reductions. Council owns and manages over 100 facilities and buildings ranging in size from public toilets through to sports pavilions, community halls and large facilities such as libraries, the Harold Holt Swim Centre, Prahran Aquatic Centre, the Stonnington Depot, Malvern and Prahran Town Halls and the Stonnington City Centre. All of these facilities use energy, contributing approximately 62 per cent of Council's total greenhouse gas emissions.

As Stonnington continues to grow, it is increasingly important to design and build efficient buildings. Improving energy efficiency in new and existing buildings, including seeking ways to use less energy to achieve the same output, has both financial and environmental benefits.

Transport

Council provides a range of services to help improve the health and sustainability of our local area including waste management, building and repairing roads and footpaths, community and family services, looking after our green spaces and delivering major building projects. These services require an extensive vehicle fleet consisting of passenger vehicles, as well as light commercial vehicles, trucks and heavy roadwork machinery. The transport fuels required to deliver these services contribute 11 per cent of Council's total greenhouse gas emissions.

Supporting greener vehicles and more sustainable transport options will play a major role in reducing Council's greenhouse gas emissions and fuel costs as well as providing healthier modes of transport.

Council is committed to promoting sustainable modes of transport for residents, workers and visitors. We will continue improving walking and cycling infrastructure and facilitating car sharing within the municipality.

Community emissions

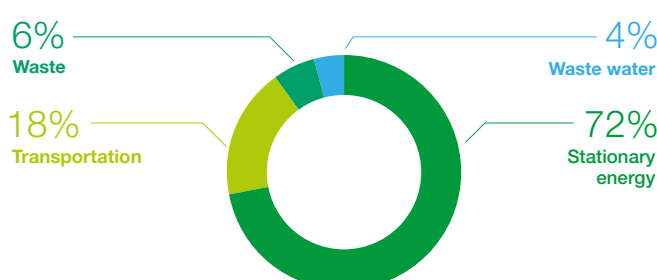
While the City of Stonnington's own corporate emissions are less than 1 per cent of total emissions across the entire municipality, Council plays an important leadership role within the community, stimulating local action and supporting the transition to a more sustainable future.

The City of Stonnington produces approximately 1,695 kt CO₂-e each year.

- » The largest source of emissions in the municipality is from stationary energy, which accounts for 72 per cent of total emissions and is mainly electricity consumed by buildings and facilities
- » transport is responsible for 18 per cent of municipal emissions
- » emissions from waste account for 6 per cent, and
- » waste water, including sewerage, makes up 4 per cent of total emissions.

Our community emissions profile has been developed through a combination of modelled activity data using robust assumptions and highly-modelled data to provide a more general overview. While this summary provides an outline of emissions across the city, more detailed data will improve reporting on community emissions over time. Alongside creating and building the capacity, awareness and commitment to reducing greenhouse gas emissions, Council will monitor and report on community emissions to track progress and develop an ongoing evaluation framework.

Breakdown of Stonnington community greenhouse gas emissions



Strategic priority 1: Climate change and energy (continued)

Our approach

Council is committed to leading action on climate change through environmental innovation, leadership, quality delivery and accountability. Significant resources have been invested into managing Council's own corporate emissions as well as supporting change at a local level, resulting in ongoing greenhouse gas emission reductions.

Council will continue to focus its resources on reducing greenhouse gas emissions, prioritising efforts and investment into reducing actual energy use rather than purchasing green energy and offsets. This approach ensures ongoing financial and greenhouse savings.



- » **Solar PV systems installed** across Council buildings



- » Prioritised the **purchase of low and alternative fuel consumption vehicles**



- » **3,070 street lights upgraded** to more energy efficient LED lights over the next year



- » **Council delivers environmental programs** to assist the community to reduce energy use

Corporate greenhouse gas emissions

Buildings and facilities

Council has committed ongoing capital investment since 2011 through its Energy Efficiency Implementation Program to save energy and reduce greenhouse gas emissions from town halls, aquatic centres, libraries, childcare centres, sporting facilities, parks and gardens, entertainment venues and other community centres.

Key initiatives delivered through the Energy Efficiency Implementation Program include:

- » installation of solar PV systems across Council buildings (including offices, pools, libraries, sports pavilions and childcare centres)
- » upgraded lighting in buildings, carparks and facilities to more energy efficient lamps
- » boiler and turbidity controller upgrades at aquatic centres, and
- » Environmentally Sustainable Design (ESD) features incorporated into new buildings.

Council building projects aim to achieve environmentally sustainable design by assessing the energy and water efficiency, thermal comfort, and the overall environmental sustainability performance of the new building or redevelopment.

Council will continue to invest in improving the efficiency of its buildings and facilities through ongoing investment in smart design, technology and innovation.

Street lighting

Council's 7,997 street lights account for almost one third of Council's total electricity consumption and greenhouse gas emissions. Since 2010 Council has invested capital funding to upgrade residential street lights to energy efficient luminaires resulting in ongoing savings.

Council support will see a bulk upgrade of 3,070 street lights to more energy efficient LED lights over the next year. These upgrades will result in significant reductions in greenhouse gas emissions, energy consumption and operating costs each year.

Council will continue to explore ways to roll out energy efficient street lighting across the municipality.

Fleet

Council has prioritised the purchase of low and alternative fuel consumption vehicles to support emissions reductions. This has included setting minimum fuel efficiency standards for our garbage trucks, hybrid vehicles and the addition of an all-electric vehicle to its light fleet.

Emissions standards and innovation will continue to assist Council to reduce total fuel consumption and incorporate low emissions vehicles into both its light and heavy fleet.



Community

Energy efficiency

The City of Stonnington is committed to helping the community adopt energy efficient practices and reducing related greenhouse gas emissions. Council delivers a range of environmental programs and events that aim to assist residents, schools, apartment complexes, businesses and community groups to reduce energy use.

Transport

In Stonnington, we are working towards improving transport, access and movement within the city by promoting and supporting safe, accessible and convenient local destinations, public transport options, and walking and cycling. These activities have a range of economic, social and environmental benefits.

Council will continue to support the uptake of sustainable transport options through facilities, programs, services and advocacy.

Environmentally Sustainable Design

Environmentally Sustainable Design (ESD) aims to reduce the impact of construction and building use on the natural environment. The City of Stonnington is committed to ensuring that new buildings and development in the city are energy-efficient and environmentally sustainable. An ESD Local Planning Policy was approved into the Stonnington Planning Scheme in November 2015 and has been extended until 30 June 2019.

Council will continue to ensure that development meets high environmental standards from the design stage through to construction and operation as well as advocate for a state-wide ESD policy.

Victorian Government's TAKE2 program

TAKE2 is the Victorian Government's collective climate change pledge initiative to reach net zero emissions by 2050, and keep the global temperature rise to under 2 degrees in line with the Paris Agreement.



TAKE2 provides a strong framework for supporting community action and Council encourages all residents to join the thousands of Victorians who have already made the TAKE2 pledge to take action on climate change.

Climate change and energy strategic objectives



Council will:

- 1.1 maximise energy efficiency in Council buildings and facilities through design, technology, innovation and engagement
- 1.2 maximise renewable energy generation opportunities across all Council buildings and facilities
- 1.3 achieve minimum Environmentally Sustainable Design standards for Council building projects
- 1.4 support development to meet minimum Environmentally Sustainable Design standards
- 1.5 address climate risks to Council assets, operations and service delivery responsibilities, and
- 1.6 reduce fuel consumption by 5 per cent each year through efficiency, innovation and engagement.

Council will support the community to:

- 1.7 improve the energy efficiency of homes, schools and businesses
- 1.8 reduce greenhouse gas emissions
- 1.9 transition to renewable energy
- 1.10 prepare for the impacts of a changing climate, and
- 1.11 transition to more sustainable modes of transport including alternative fuel, and fuel efficient vehicles, cycling and public transport.