CLIMATE CHANGE

Think globally, act locally

CITY OF GREATER DANDENONG

Climate Emergency Strategy

2020 – 2030

GREATER DANDENONG

City of Opportunity

“As a student, in the City of Greater Dandenong, I know that taking action as soon as possible, and educating the younger generations and older generations alike will instil an attitude in the citizens of this city that will ultimately benefit us all.

Climate change and global warming are very real issues that pose a very real threat. Every day that we deny the fact, is a day closer to the point of no return. By advocating for change & educating the people now, we may still have a chance to prevent the future generations from having to suffer from the mistakes of the past.

We must preserve the quality of life. By tackling climate change, Greater Dandenong will be setting an example for the younger generations and making a start in bettering our ways.

There has to be a beginning. If nobody is willing to take the first step, then we will never change”

MOLLY BRUCE
Youth resident of the City of Greater Dandenong

Forward from the Mayor

On behalf of the City of Greater Dandenong and its Councillors, I am pleased to present our Climate Emergency Strategy.

Climate change is the greatest challenge of our time. Council has acknowledged we are in a climate emergency and ecological emergency. It is an issue that is already impacting the City of Greater Dandenong and our community, especially the vulnerable and disadvantaged.

This strategy is a major commitment from Council and demonstrates our willingness to take collective action to tackle climate change.

By addressing climate change and taking advantage of the opportunities associated with becoming a zero-carbon city, the city of Greater Dandenong will benefit economically, socially and environmentally.

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Think globally, act locally

Contents

Our Vision

The City of Greater Dandenong is a resilient, net zero carbon emissions city.

Headline Targets

As part of our commitment to addressing climate change, Council proposes the following headline targets:

Becoming a Net Zero Emission Council by 2025

100% renewable energy for council by 2025

Becoming a Net Zero Emission City by 2040

A resilient and active community prepared for the challenges of a changing climate

Our Context

Climate change is here, and its impacts are already affecting our environment, our society and our economy. While global efforts to tackle climate change are increasing, the science is clear that these efforts are not enough to keep climate change from affecting life on earth in increasingly severe ways. With climate change already impacting our day to day lives, we need stronger, urgent action in response to the Climate Emergency we are facing. This action needs to focus on achieving zero net carbon emissions as well as preparing for the unavoidable impacts of climate change. Recognising this, Greater Dandenong City Council joined a growing number of cities around Australia in January 2020 a by declaring a 'Climate and Ecological Emergency'', committing us to emergency action on climate change.

While Council can influence climate related outcomes, it cannot do it alone. If we are to achieve this vision, we need to provide leadership that helps mobilise our community, other levels of government, our partners and key stakeholders to act.

To further Council's ability to effectively mobilise the community and others, the first few years of the *Climate Emergency Action Plan* focus on building Council's capacity by putting in place measures that aim to:

- Create a united corporate culture working towards a common goal
- Increase awareness across Council of the impacts and risks from climate change to Council's assets, operations, services and finances
- Embed consideration of the Climate Emergency into Council's strategic documents and day to day decision making processes
- Better understand the financial implications of climate change on Council's assets, services and funding mechanisms
- Increase collaboration with key partners and stakeholders

This approach is striving to create the 'whole-of-organisation' response to the Climate and Ecological Emergency required to achieve the best outcomes for the municipal community, including future generations.

To support this, the *Climate Emergency Action Plan* specifically includes a number of new measures that aim to build the foundations for future programs and activities, target the building of the community's capacity to respond to the Climate Emergency and facilitate the transformational change required. These include:

- Identifying opportunities to increase community awareness
- Engaging with Council's existing community advisory committees to help ensure equitable outcomes that support the vulnerable members of our community
- Engaging with local business and industry leaders to accelerate responses that support the economic viability of local businesses
- Working collaboratively with key partners to assess the most effective measures for local governments to achieve their community emission reductions targets.

Key Priorities

As part of our commitment to addressing climate change, Council has identified the following key priorities over the next 5 years:

Focus of Council's efforts across its own operations		Focus of Council's efforts to support our community
• Creating a united corporate culture responding to climate change	**Demonstrating leadership**	• Working with our community to develop common shared values supporting climate change action
• Assessing the vulnerability of Council's key assets and services to the impacts of climate change	**Increasing awareness and engagement**	• Preparing a *Climate Emergency Engagement and Mobilisation Plan* to increase community awareness and engagement
• Embedding climate change into Council's risk and financial management decision-making processes and key governance documents	**Increasing capacity and resilience**	• Working collaboratively with partners and keys stakeholders to increase community resilience
• Setting a target to achieve net zero carbon emissions across Council's operations by 2025 • New Council Buildings to be net zero carbon emissions • Increasing generation of renewable energy	**Doing our fair share to reduce emissions**	• Setting a target to achieve net zero carbon emissions across the municipality by 2040 in line with the Paris Agreement • Increasing the energy efficiency of new buildings • Increasing the uptake of renewable energy by residents and businesses
• For the Federal and State Government to: » Declare a climate emergency » Drive emergency action to keep global warming below 1.5°C » Establish a National Climate Response Plan involving the three levels of government » Clarify local governments roles and responsibilities in responding to the climate emergency	**Advocating on behalf of our community**	• For the Federal and State Government to provide increased support that meets the needs and priorities of the community • For partners and stakeholders to increase support for our community, in particular those who are more vulnerable • For increased engagement by business and industry leaders to support local business to maintain viability and be more sustainable • For community-led climate action and advocacy

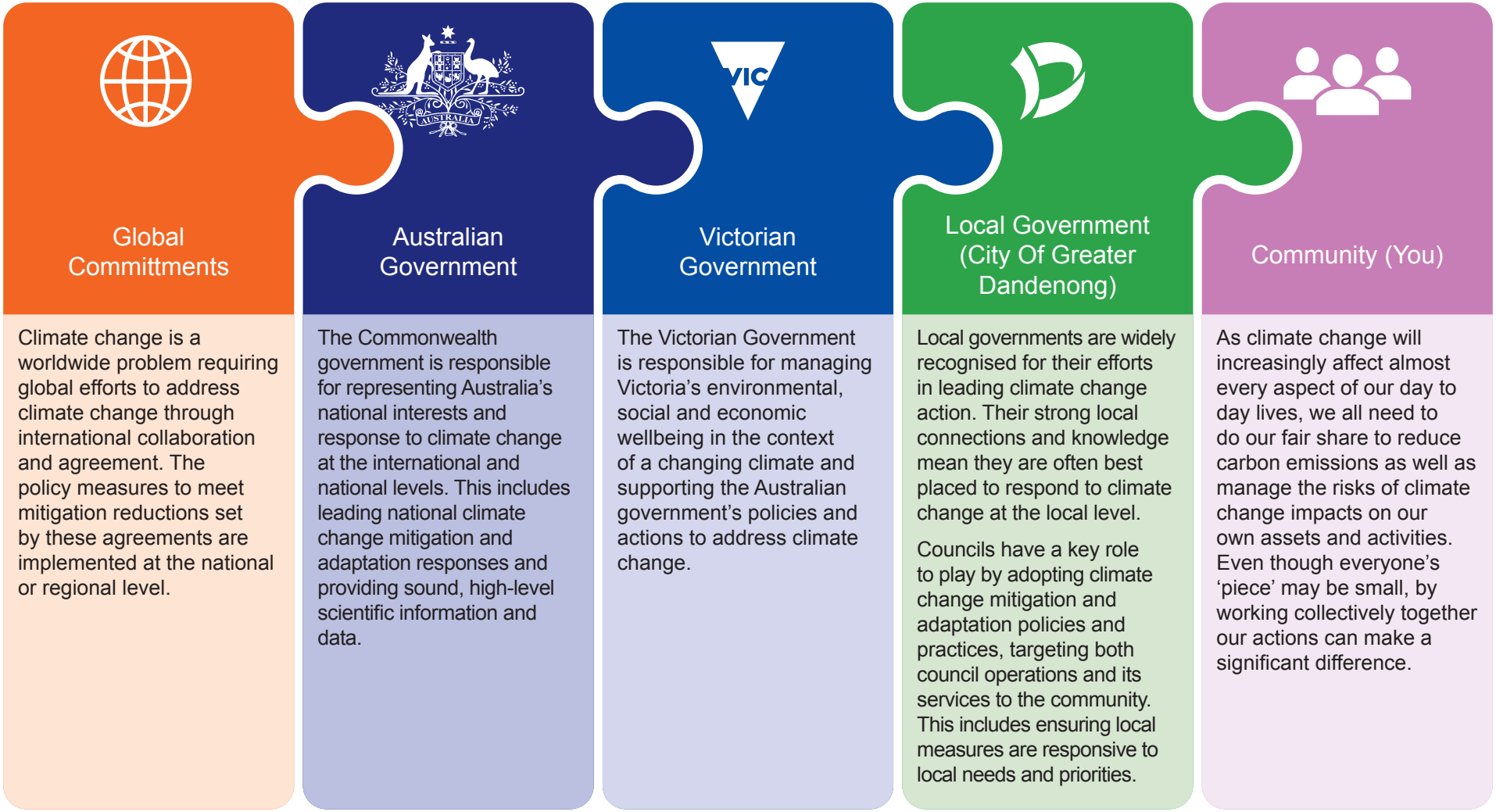
Our Themes & Goals

Council has identified eight key themes, with a goal for each theme. This Strategy outlines the Objectives, Targets and Areas of Focus for each of these themes. The Action Plan outlines the Actions Council will be taking over the next five years as it works to achieve the Strategy's Targets and Objectives.

Theme	Goal
Leadership & Governance	A city leading its community's climate change response
Community Wellbeing & Culture	A climate resilient city shaped by its community's shared values
Business & Economy	A city with a thriving and resilient net zero carbon economy
Energy & Buildings	A city of energy efficient buildings powered by clean energy
Biodiversity & Open Space	A city that is cool and green
Transport & Movement	A city that is well connected through low carbon transport
Assets, Infrastructure & Land Development	A city with a built environment supporting the community's resilience to climate change
Waste & Resources	A city of low waste through efficient resource use

Whilst Greater Dandenong Council can influence climate related outcomes, we cannot tackle it alone. We are one piece of the puzzle when it comes to reducing the effects of climate change.

This diagram highlights some key stakeholders and what their 'piece' entails. When compared to the Australian and State governments, local Councils have relatively limited levers of control and resources. However, we all have a role to play in responding to the global Climate and Ecological Emergency. By taking a leadership role and mobilising our community, we can collectively make a significant difference.



Implications of the COVID-19 pandemic for the Climate Emergency Strategy

As a society, we are currently experiencing two concurrent crises — the COVID-19 pandemic, and the Climate Emergency.

At first glance, these two issues might seem unrelated. In fact, they are deeply and profoundly connected. Both crises are manmade, a result of our collective inability to recognise and respect the connections between our society, the ecological systems we rely on, and the organisms we share the Earth with.

The COVID-19 pandemic is affecting many in our community, whether it be directly through illness or through other impacts such as social isolation, disruptions to supplies, or economic downturn and unemployment. It has proved how quickly life as we know it can be disrupted completely, perhaps to never be the same. The fine balance in which we coexist with the world is only a moment away from total chaos at any point in time.

While the impacts of pandemics in recent history became a distant memory, the importance of preparing for a pandemic remained high. However, as the relative likelihood of a pandemic occurring in any given year was considered low, other more pressing issues have been given a higher priority by society.

Similarly, the potential catastrophic impacts of climate change have also long been recognised, but with projections using timeframes extending out to 2070 and beyond, this led many to believe that climate change is a future issue. However, following the devastation caused by the bushfires across Australia in the summer of 2019/20 to our communities, wildlife and landscapes, a collective awakening has occurred as Australians realise that we are already in the midst of a Climate and Ecological Emergency.

We are already experiencing the intense and devastating impacts of an average global temperature approximately 1°C higher than mid 1900s levels. If emissions continue to rise at current rates, global average temperatures will increase by 3-4°C by 2100. We are vulnerable and inadequately prepared for the catastrophic impacts of such a world, and this is why building a climate resilient city and community is so important. A united, knowledgeable and prepared community is a community that can cope with and adapt to the impacts of climate change.

COVID-19 has shown us how vulnerable we are to change, but it has also shown us that we are capable of adapting. The impacts of the pandemic on implementation of this Strategy are still unknown, but we at the City of Greater Dandenong are ready for the challenge.

This is not the time for complacency – **this is the time for action**. For our community. For our future. For ourselves.

Will you join us?

Climate change is here, and its impacts are already affecting our environment, our society and our economy. While global efforts to tackle climate change are increasing, the science is clear that these efforts are not enough to keep climate change from affecting life on earth in increasingly severe ways. With climate change already impacting our day to day lives, we need stronger, urgent action in response to the Climate Emergency we are facing. This action needs to focus on achieving zero net carbon emissions as an initial target, followed by working to reduce atmospheric' carbon levels to eventually reduce global average temperatures. Recognising this, in January 2020 Greater Dandenong City Council joined a growing number of cities around Australia by declaring a '*Climate and Ecological Emergency*', committing us to emergency action on climate change.

While Council has taken action to reduce greenhouse emissions by implementing the 2016 Greater Dandenong Sustainability Strategy, we all need to do much more if we are to do our fair share to limit global warming to 1.5°C, combat climate change and reduce exposure to the unavoidable impacts of a climate change crisis. In line with global targets to reduce emissions, Greater Dandenong Council is aiming to achieve a net zero carbon emission city through measures focussed initially on efficient use of clean renewable energy sources.

Demonstrating leadership by declaring a Climate and Ecological Emergency and setting a target to become a net zero carbon emission city will provide a range of co-benefits for our community, whether it be through improving the liveability of the city, improving health and wellbeing outcomes, supporting our most vulnerable, protecting and enhancing our biodiversity or working towards a common goal, which can help to generate pride in the community. As the most socio-economically disadvantaged community in Melbourne, we will be more exposed to some of the worst impacts, as the more vulnerable in our community are likely to lack the resources to prepare for or respond to climate change, or to recover from its impacts.

To achieve the best outcomes for the municipality and our community (both current and future generations), Council's and the community's strategic decisions must also include integrated planning for climate change risks and increasing the resilience of the city and community. This will also help place local business and industry in Greater Dandenong to remain viable and being a better and necessary position to take advantage of the economic opportunities that becoming a resilient, net zero carbon emissions city can provide.

The *Climate Emergency Strategy* provides a strategic framework for Council and the community to achieve this vision, by informing decisions and helping to determine plans and activities. The strategy aims to develop a whole of Council response to climate change, building on existing programs and activities to reduce emissions and increase resilience, at both a corporate and community level.

Origin of the Climate Emergency Strategy

The Climate Emergency Strategy was identified as a priority in the 2017-2021 Council Plan. Commencing in late 2017, the strategy's development has been broken into eight (8) stages and is due to be published in September 2020.

Refer to the project schedule below for details:

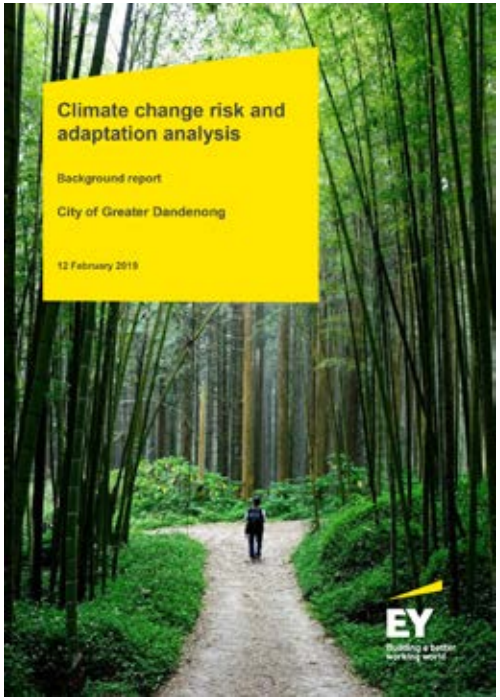
PROJECT STAGE	COMPLETION DATE
STAGE 1. PROJECT BRIEF COMPLETED	**DEC 2017**
STAGE 2. APPOINTMENT OF CONSULTANTS	**JUN 2018**
STAGE 3a. PREPARATION OF CONSULTATION PLAN	**SEP 2018**
STAGE 3b. PREPARATION OF BACKGROUND REPORTS: • Literature Review • Gaps Analysis • Mitigation Analysis Report • Adaptation Analysis Report	**OCT 2019**
STAGE 4. INITIAL COMMUNITY CONSULTATION	**MAR – MAY 2019**
STAGE 5. PREPARATION OF DRAFT STRATEGY PLAN	**JUN – DEC 2019**
STAGE 6. PUBLIC EXHIBITION OF DRAFT STRATEGY	**FEB – MAR 2020**
STAGE 7. FINALISATION OF STRATEGY	**APR – JUN 2020**
STAGE 8. FINAL ADOPTION BY COUNCIL OF STRATEGY	**AUG 2020**

An evidence base for climate action

In 2018, Council engaged consultants to help establish a detailed evidence base across the four (4) areas outlined below, to help guide the development of the draft Climate Change Strategy and its supporting Action Plan:

- Literature Review & Discussion Paper
- Best Practice Gap Analysis Report
- Greenhouse Gas Mitigation Report
- Risk and Adaptation Analysis Report.

For further information, the four background reports can be found on Council's website.



Community Consultation

Initial Community Consultation

An extensive initial round of community consultation was undertaken in March – May 2019. Council asked members of the community to provide a response to questions in a survey on climate change.

Council received 897 survey responses and a further 123 submissions from the community for a total of 1,020 responses.

Public Exhibition of the *Draft Climate Change Strategy*

A second round of consultation was undertaken over a four-week period from February - March 2020 to present the draft version of the Strategy and its vision for accelerated climate action to the community. A survey formed the basis for the community to provide open feedback on the *Draft Climate Change Strategy*.

Responses received during the public exhibition period in 2020 included 35 submissions via email, and 15 survey responses.

This brings the total number of responses received during both consultation periods to 1,070.

A summary of the feedback received from both rounds of survey responses has been provided on this page.

92% Are worried about climate change

94% Think it is important that Greater Dandenong act

63% Want targets of zero carbon emissions before 2050

90% Want targets of zero carbon emissions before or by 2050

What is Climate Change?

Climate change is any significant long-term change in expected weather patterns, such as changes in temperature, rainfall and wind.

What causes Climate Change?

A major contributing factor to climate change is caused by greenhouse gases that are part of the earth's atmosphere, increasing because of human activity and causing warming of the planet. Greenhouse gas emissions released into the atmosphere by human use of fossil fuels is also called carbon pollution. As carbon levels have increased in the earth's atmosphere, so too have average global temperatures.

How has earth's climate changed?

While earth's climate has varied greatly throughout its long history, records indicate that the rate of global warming experienced since the start of the 1900s is unprecedented compared to temperatures over thousands of years. The rise in global average temperatures has been accompanied by ongoing rises in ocean temperatures and sea levels. There has also been a reduction in the size of ice sheets and most glaciers.

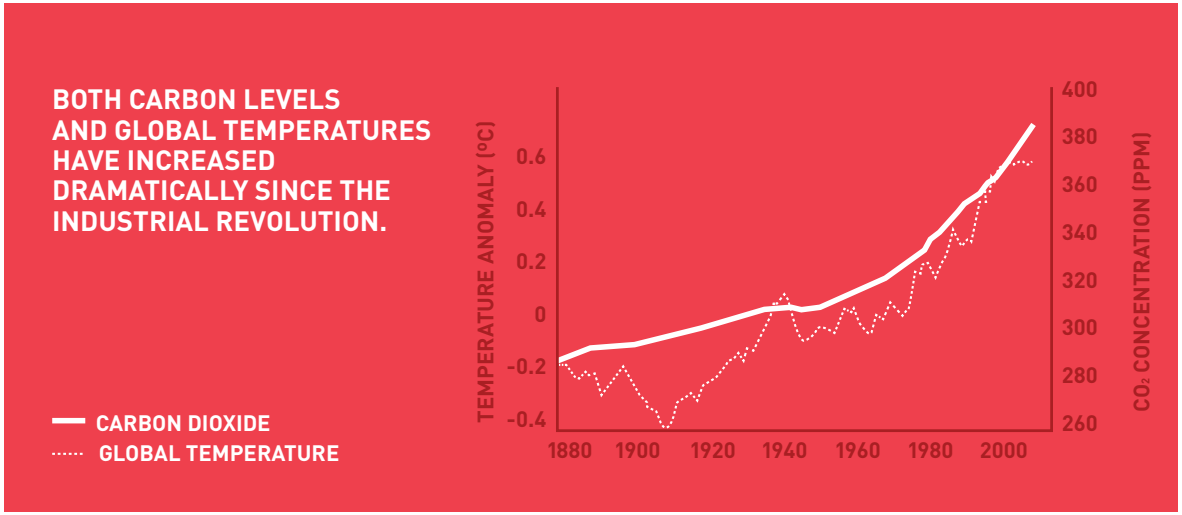
Carbon dioxide levels are at a record high

Carbon dioxide (CO^2) levels today are higher than at any point in at least the past 800,000 years. The last time the atmospheric CO^2 levels were this high was more than 3 million years ago, when the temperature was 2°- 3°C higher than during the pre-industrial era, and sea levels were 15-25 metres higher than today.

Who is responsible for carbon pollution?

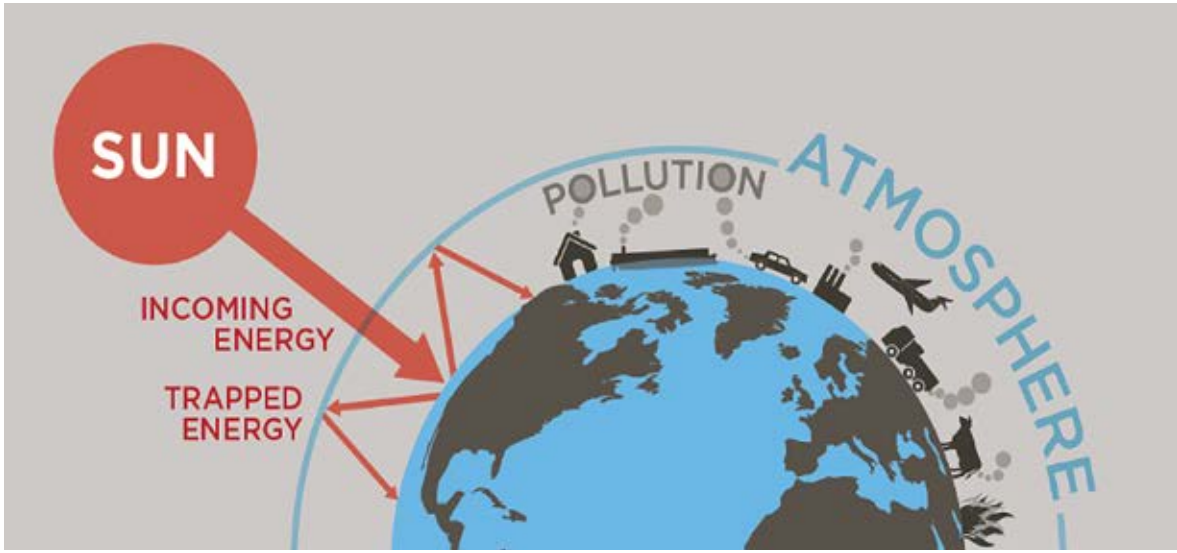
Human consumption of energy is the primary source of carbon pollution. Other key sources include transport, industry and food production.

Figure 1. Increases in carbon dioxide and global temperatures



Source: Climate Reality Project

Figure 2. Increases in greenhouse emissions are warming our planet



Source: King County. Confronting Climate Change 2017

Earth's relatively stable climate over the last 8,000 years, with its regular patterns of rainfall and temperature, have allowed human civilisation to flourish. Changes to these stable weather patterns as a result of climate change will affect all aspects of our lives, including the availability of water, our ability to grow food, and the health impacts arising from extreme weather events.

Average global temperatures have increased by 1°C since 1880

In 2018, the earth's average surface temperature was between 0.9 and 1.1°C above average temperatures recorded between 1880 and 1890.

In Australia, nine of the 10 hottest years on record have occurred since 2005. Globally, the 20 hottest years on record have been in the past 22 years. As illustrated in Figure 3 below, the increase in global average temperatures is increasing the probability of hot extremes (including record-breaking days of extreme heat) and cold extremes.

With further warming already locked in as a result of past and future global GHG emissions, we are in a climate and ecological emergency.

Average temperatures are projected to rise by 3 to 4°C by 2100

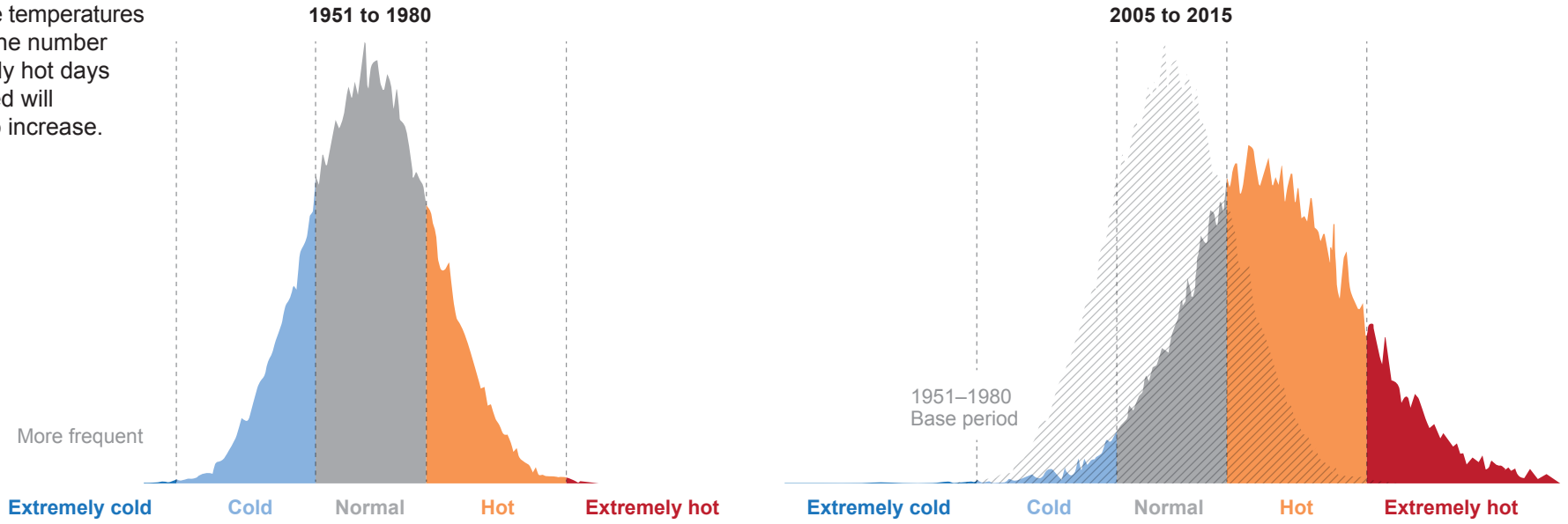
International targets to tackle climate change aim to limit global warming to 2°C and to pursue best efforts to keep warming to within 1.5°C above pre-industrial levels.

However, **the world is not currently on track to meet this target**. It is estimated that global warming is likely to reach 1.5°C between 2030 and 2052, **if warming continues at the current rate**.

While a global average temperature rise of 3 to 4°C may not sound significant at first, when you consider how temperature extremes have increased under an average 1°C temperature rise, the impacts of a 3 to 4°C average temperature rise on our planet's climate and the ecological systems it supports is predicted to be catastrophic.

Figure 3. The increasing frequency of weather extremes

As average temperatures increase, the number of extremely hot days experienced will continue to increase.



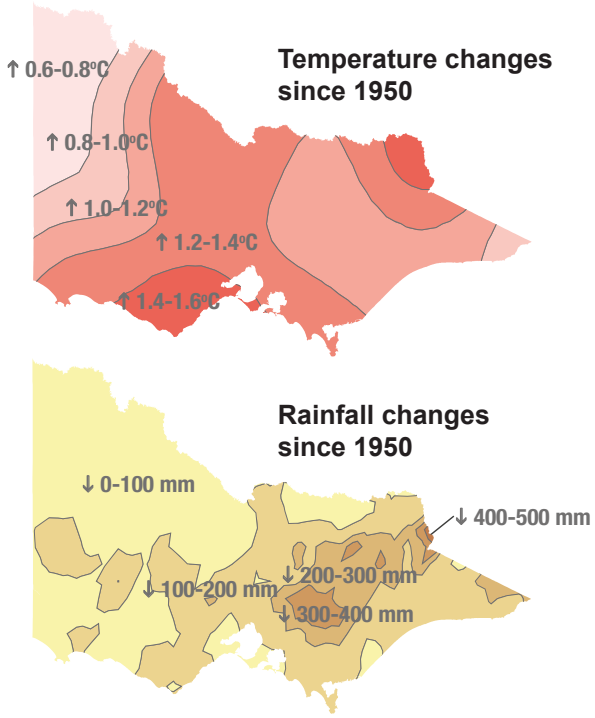
Source: Colombia University Earth Institute 2016 and New York Times July 2017.

Australia's climate varies – it always has and always will. This variability in our climate means that some periods are hotter and drier, and some periods are cooler and wetter. However, climate change is altering the long-term average, which means that our future climate will be different from our past.

The rate of warming across Victoria has increased since 1950. As illustrated below, the rate of change in temperatures and rainfall varies from region to region. If global emissions continue to rise at their current levels, the projection is that Melbourne's climate by 2050 could be more like the current climate of Wangaratta.

While we already experience weather-related events such as devastating storms, dangerous floods, extended droughts, extreme bushfires and prolonged heatwaves, the intensity and frequency of these events is projected to increase as a result of climate change.

Figure 4. Victoria's changing temperatures and rainfall



How Victoria's climate has already changed:	Projections for Melbourne if emissions continue to rise:
Increasing average temperatures Over 1°C increase in average air temperature between 1910 and 2018.	**Increase in average temperatures:** **2030 –** 0.7°C to 1.2°C **2050 –** 1.3°C to 2.3°C (median increase compared to 1986-2005)
Higher maximum temperatures The average number of days with a mean temperature of 30°C or above has increased significantly since 1950.	**Increase in maximum average temperatures:** 2030 – 1.2°C 2050 – 1.9°C (median increase compared to 1986-2005) **Hot Days** (above 35°C): **Current average:** ~8 days a year **2050:** between 13 and 21 days **Hot nights** (daily min. above 20°C): **Current average:** ~6 days per year **2050:** between 13 and 18 days.
Less Rainfall Average annual rainfall in the Greater Melbourne region has decreased between 100 and 200mm since 1950.	**Decrease in annual rainfall:** 2090 – 20%
Increased intensity of storm events	While remaining variable, extreme rainfall events are expected to become more intense on average through the century.
Harsher fire weather Fire weather has become more dangerous and fire seasons have started earlier and become longer.	**Increase in extreme fire weather days each year:** 2050: 42% (Median increase compared to 1986-2005)

Source: Greater Melbourne Climate Projections 2019

GLOBAL, NATIONAL AND STATE EFFORTS TO TACKLE CLIMATE CHANGE

Global Efforts

- With clear evidence demonstrating that carbon dioxide levels are rising, the term global warming started appearing in scientific papers in the 1960s. In 1970, carbon dioxide levels in the atmosphere were about 323 parts per million (ppm) and increasing by ~0.6ppm per year.
- With environmental concerns increasing in the 1970s, awareness and fears of global warming increased, eventually leading to the adoption of an international environmental treaty, the United Nations Framework Convention on Climate Change (UNFCCC) at the United Nations 1992 Rio Earth Summit.
- The objective of the UNFCCC is to stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous human-induced pollutants that interfere with the climate system.
- Building on past global efforts, in 2015, the Paris Agreement was adopted. This agreement's aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise to below 2°C and to pursue efforts to limit the rise to 1.5°C.
- In 2018, the global carbon dioxide levels in the atmosphere had risen to 407 parts per million (ppm), increasing by ~2.5ppm from the previous year.
- In October 2018, the Intergovernmental Panel on Climate Change (IPCC) released a Special Report on global warming of 1.5°C. This report outlined that global warming is likely to reach 1.5°C between 2030 and 2052, if warming continues at the current rate.

Australian Government

- Australia's commitment to the Paris Agreement included a target to reduce greenhouse gas emissions by 26 to 28% below 2005 levels by 2030. This target represents projected cuts of 50 to 52% in emissions per capita against 2005 levels (although Australia's per capita emissions are amongst the highest in the world).
- Key Australian government policies at the national level that shape Australia's response to climate change include the Emissions Reduction Fund, Renewable Energy Target, National Energy Production Plan and the National Climate Resilience and Adaptation Strategy.
- The Australian government's *March 2019 Quarterly Update of Australia's National Greenhouse Gas Inventory* shows despite rises in recent years, Australia's emissions for the year to March 2019 are still 14% below the peak in 2007, and 11.7% below 2005 emissions.

Victorian Government

- The Victorian Government has identified climate change as one of the biggest threats to the future of the State, with warmer and drier conditions projected to have negative consequences for health, infrastructure, agriculture, water and biodiversity.
- The Victorian Government has pledged to lead Victoria to reach zero net zero carbon emissions by 2050.

Local governments, having long recognised the need to tackle climate change, are widely recognised for leading climate change action around the world. With local governments' strong connections to their communities and their local knowledge, they play a critical role in helping their communities reduce carbon emissions and adapt to climate change. The Victorian Government's policies that help to shape local government response to climate change include:

Climate Change Act

- The Climate Change Act (2017) provides a policy framework to transition Victoria to a zero net carbon emissions pathway that is consistent with the global Paris Agreement and a climate resilient community and economy.
- Legislated targets for emissions reductions were outlined in the Climate Change Act 2017, with a net zero emissions target set for 2050, and interim targets every five years from 2021-2025.
- The Victorian Climate Change Adaption Plan 2017-2020 outlines the states approach to climate change and their efforts to increase resilience in Victorian communities.

Local Government Act

- The Local Government Act of Victoria (2020) provides a framework for Victoria's Councils to operate.
- Recent changes to the Act (the Local Government Bill (2019) refer to the need for Councils to act in the best interest of the community, including future generations and explicitly calls out the need for Councils to promote 'the economic, social and environmental sustainability for the municipal district, **including mitigation and planning for climate change risks**'.

Public Health and Wellbeing Act

- Under the Public Health and Wellbeing Act (2008), local Councils are required to protect, improve and promote public health and wellbeing within their municipality and prepare a Municipal Public Health and Wellbeing plan every four years.
- Under the Climate Change Act 2017, municipal public health and wellbeing plans must have regard to climate change.

The Planning and Environment Act

- The Planning and Environment Act (1987) defines the roles and responsibilities of Councils in responsible use, development and protection of land.
- A Council is required to prepare a Municipal Strategic Statement which must detail key strategic land use objectives and controls in place to achieve these objectives.
- It is the duty of the Council under this Act to ensure that land use is planned and developed in a responsible manner that represents the interest of the local community.

Emergency Management Acts

- The Emergency Management Acts in place in Victoria detail municipal Councils' emergency management responsibilities.
- This includes preparation of Municipal Emergency Management Plans that prepare Councils to handle any type of emergency that may affect the health and safety of its local community.

Climate change is increasingly affecting our environment, society and economy

The increasing effects of climate change will have far reaching impacts on people's lives. Effects involve both direct impacts, such as rises in deaths and health impacts from heatwave events, to less obvious indirect impacts, such as increased risk of food poisoning.

Examples of the ways that changes to our climate affect our environment, community and businesses include:

Health & Wellbeing	Heatwaves in Australia already kill more people than all other natural disasters.
Loss of biodiversity	Rising temperatures, droughts, heatwaves and bushfires are having significant impacts on biodiversity.
Electricity supply & costs	Extreme heatwave events increase energy demand, potentially leading to loss of supply and blackouts.
Increased need for irrigation	Warmer temperatures and lower levels of rainfall increase irrigation requirements and costs for food production.
Flood damage	Increased intensity of flood events will affect the ability to obtain insurance in some areas.
Impacts to buildings and infrastructure	Drought and extreme storm events can damage infrastructure resulting in increased repair and maintenance costs.
Our use of open spaces	The quality of local open spaces will be affected by reduced rainfall as well as extreme heatwave events on plants.
Food and water insecurity	Droughts and extreme weather events already affect food production and the price we pay for our food.
Our economy	With more than half of Australia's food production exported, the impacts of droughts and extreme weather events on food production can have significant impacts on Australia's economy. Loss in productivity from heat stress in Australia is estimated to be $7 Billion per year.

The Greater Dandenong Council acknowledges the need to reduce inequalities through responses to climate change

Vulnerable people in the community are at even greater risk of physical harm, including death and significant financial and social impact from climate change. This includes the sick or disabled, the elderly and very young, those who already receive community care, indigenous, low income, socially isolated, and Culturally and Linguistically Diverse communities.

Overall disadvantage

The 2016 Index of Relative Socio-economic Disadvantage ranked Greater Dandenong as the most disadvantaged municipality in

Personal resilience

Residents of Greater Dandenong scored at 5.5 out of 10 for personal resilience – the lowest score in the State.

Unemployment

Unemployment rates in Greater Dandenong reached 10.2% by June 2017 – the highest level in Victoria and nearly twice the metropolitan average of 5.9%.

Income

In 2016, median individual weekly gross individual incomes in Greater Dandenong were the lowest in Melbourne.

Homelessness

The number and percentage of homeless persons in Greater Dandenong were the highest in Victoria.

Cultural diversity

Greater Dandenong is the most culturally diverse locality in Victoria, and the second most diverse in Australia.

Residents are from over 150 different birthplaces.

150+

WIl over half of Greater Dandenong's population were born overseas.

Birthplaces include Vietnam, Cambodia, Sri Lanka, India, China, Italy, Greece, Bosnia, Afghanistan and britain.

More than four out of five residents have at least one overseas-born parents.

Languages

Two thirds of Greater Dandenong residents other than English at home. Widely spoken languages apart from English, include Vietnamese, Khmer, Chinese languages, Greek, Punjabi and Sinhalese

One in seven residents of Greater Dandenong has limited fluency in spoken English.

Residents with limited English fluency vary widely with age.

Opportunity

The global transition to a net zero carbon economy and the physical effects of climate change are driving demand for resilient, low-carbon products.

Opportunities for manufacturing from the transition to a resilient, low carbon economy include:

- More extreme weather events damage buildings, infrastructure and disrupt supply lines. The manufacturing sector can respond by developing and producing more resilient materials used in buildings and infrastructure.
- Opportunities to move towards a low carbon economy are being created by the public and private sectors– increasing demand for renewable energy, battery storage, electric vehicles and other green products.

Source: https://www.qld.gov.au/__data/assets/pdf_file/0024/101697/ernst-young-qld-zero-net-emissions-economy-manufacturing.pdf

Greater Dandenong business

$28 Billion
Estimated economic output in 2012

Greater Dandenong's industrial precincts form part of Australia's most significant and productive manufacturing areas and national employment cluster.

Over **50% of Council's rates income** is from the commercial and industrial sectors

Number of businesses:
12,543

Jobs
76,578

Local businesses generate many jobs, which makes Greater Dandenong a net exporter of jobs to the broader region.

Risk

"Most companies have failed to analyse the full impact of climate risk on business risk factors, including strategic, financial, operational, human resources, compliance and legal risks, as well as risks to their supply lines."

Source: https://www.bsr.org/reports/BSR_Resilient_Business_Resilient_World_A_Research_Framework_for_Private_Sector_Leadership_on_Climate_Adaptation.pdf

Manufacturing

Output: $15.5 Billion
The largest industry in Greater Dandenong, producing over half of its total output.

Jobs: 22,853
The largest employer in Greater Dandenong.

Responses to climate change are broadly defined as either:

- **Mitigation** – Reducing greenhouse gas (GHG) emissions that cause climate change; or,
- **Adaptation** – Responding to and preparing for the risks of climate change.

Mitigation

Climate change mitigation includes actions that are taken at a global, national and individual level to reduce the amount of greenhouse gases in the atmosphere and the anticipated negative impacts.

This can be through many different actions, whether it be through increasing energy efficiency, switching to renewable solar energy, the planting of trees, or changing management practices or consumer behaviours. It can be as complex as the urban design of our cities or as simple as changing over to energy efficient light bulbs.

Adaptation

The aim of climate change adaptation is to help individuals, communities, organisations and natural systems to deal with the consequences of climate change that cannot be avoided. It involves taking practical actions to manage risks from climate impacts, protect communities and strengthen the resilience of the economy.

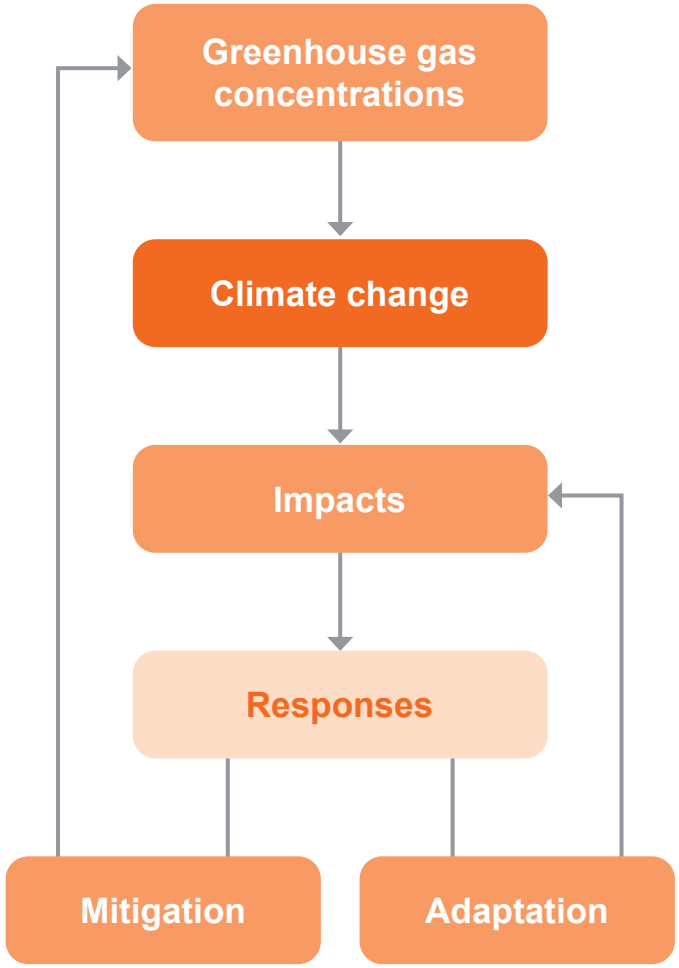
Adaptation actions range in complexity and scale, from planting trees to increase shade; to upgrading stormwater infrastructure to reduce the risk of overflow and associated flooding.

Individuals and businesses have a responsibility for adaptation decisions that reduce climate risks to their assets and livelihoods.

Taking an integrated approach

There is often overlap between what may be considered as a climate change **mitigation** or **adaptation** action. For example, increasing insulation in a building to reduce energy usage and associated carbon emissions (*a mitigation action*) will also help increase the thermal comfort for the building's occupants, increasing their resilience to climate change impacts of higher temperatures and heatwave events on their health (*an adaptation outcome*).

Rather than developing separate Adaptation and Mitigation Strategies, the development of this Strategy has taken a best practice approach, considering adaptation and mitigation in an integrated way to maximise efficiencies and minimise risks.

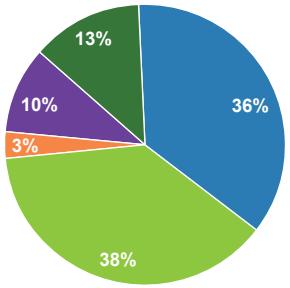


Council's carbon emissions inventory

Council's corporate greenhouse gas (GHG) emissions inventory for 2018/19 (primarily based on energy bills) identified total emissions to be 14,200 t CO_2e, with the breakdown illustrated in Figure 5 below.

Figure 5. Breakdown of the sources of Council's emissions

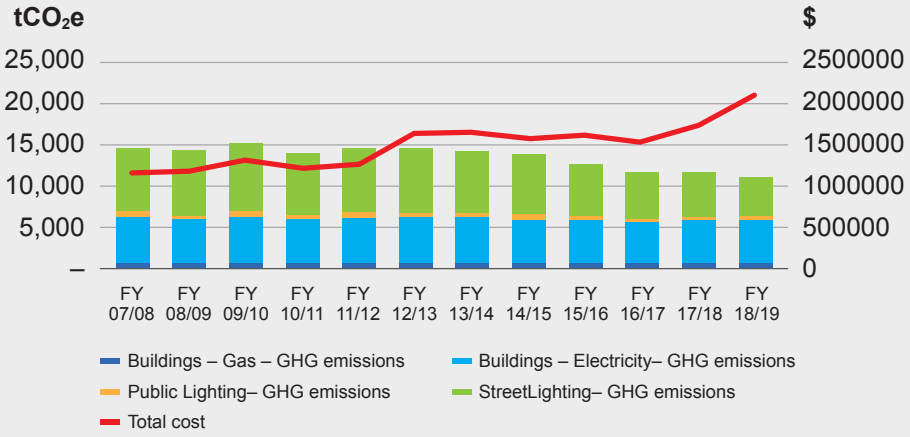
Buildings – Electricity	5,462
Buildings – Gas	229
Streetlighting	4,777
Other Public Lighting	635
Fleet	1,339
Waste	1,758
Total (tCO_2e)	**14,200**



Please note: Due to data limitations, the scope of Council's emissions inventory is limited to those facilities that Council is directly responsible for paying the accounts.

Council's increased focus on reducing energy use and costs in recent years has helped reduce GHG emissions from its buildings and streetlighting (see Figure 6). Without these initiatives, Council's energy costs would have been significantly higher.

Figure 6. Council's electricity and gas emissions and costs



Council's Target: net zero carbon emissions by 2025

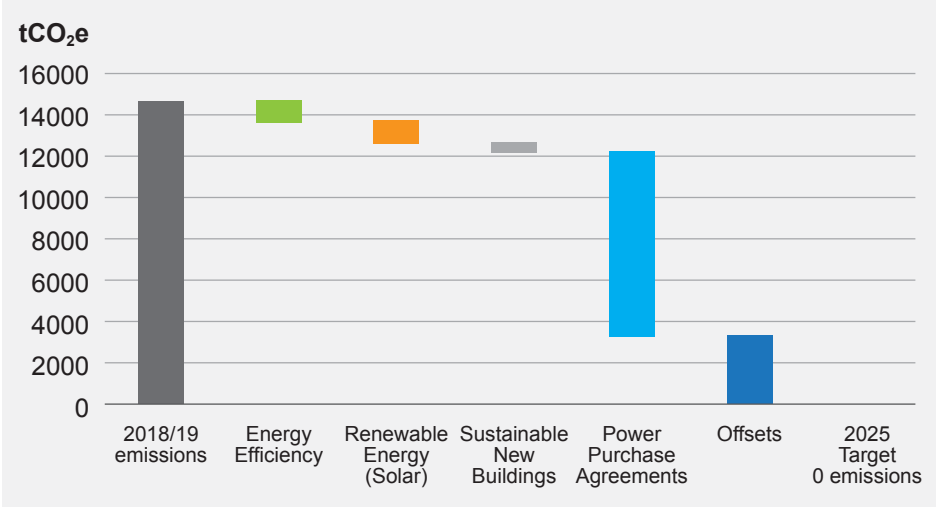
Achieving this target will require Council to:

1. Increase existing measures to reduce energy usage through:
   - prioritising energy efficiency of buildings and streetlights
   - installation of solar systems on new and existing buildings.
2. Implement new measures, in particular:
   - Purchasing offsite renewable electricity for Council's buildings and streetlighting through Power Purchase Agreements (PPA)
   - Offsetting of Council's gas, fleet and waste emissions.

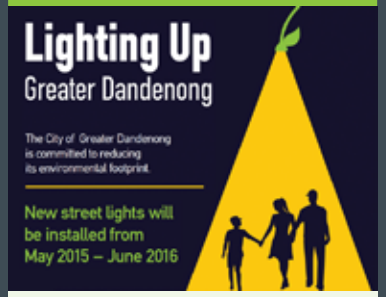
While the emission reductions achieved through these measures will vary depending on resources allocated and specific actions implemented, an indicative level of abatement likely to be achieved by each measure to achieve a net zero carbon target by 2025 is illustrated in Figure 7 below.

Achieving the target of net zero carbon emissions by 2025 is dependent on Council's current efforts to purchase 100% renewable electricity through a PPA for its streetlights and buildings.

Figure 7. Indicative pathway to achieving 2025 zero carbon target



Energy Efficiency



Lighting Up Greater Dandenong program

The changeover to energy efficient streetlights and improving light quality. Benefits include:

	2013/14	2017/18	Change
Energy Costs	**$669k**	**$499k**	**25%**
OMR Costs	**$807k**	**$544k**	**33%**
CO2	**7,673t**	**5,337t**	**30%**

Building Energy Management Plan 2017

This plan for Council's buildings aims to:

- reduce energy use and costs
- reduce carbon emissions
- increase uptake of renewable energy.

Renewable Energy

Dandenong Civic Centre – 100kW Solar System

Installed in 2019 Generates 20% of the building's electricity needs.

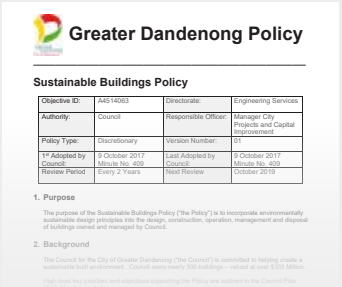
Council's recent installation of solar systems includes

- Shepley Pavilion 30kW (2018/19)
- Springvale Community Hub 250kW (2019/20)
- Operation Centre 85kW (2019/20
- Jan Wilson Centre 50kW (2020/21)
- Dandenong Market 100kW (2020/21)

Sustainable Building

Sustainable Buildings Policy 2020

Council's policy establishes sustainability requirements for new council buildings and refurbishments


Greater Dandenong Policy

Sustainable Buildings Policy

Objective ID:	A4514063	Directorate:	Engineering Services
Authority:	Council	Responsible Officer:	Manager City Projects and Capital Improvement
Policy Type:	Discretionary	Version Number:	01
1st Adopted by Council:	9 October 2017 Minute No. 409	Last Adopted by Council:	9 October 2017 Minute No. 409
Review Period:	Every 2 Years	Next Review	October 2019

1. Purpose

The purpose of the Sustainable Buildings Policy ("the Policy") is to incorporate environmentally sustainable design principles into the design, construction, operation, management and disposal of buildings owned and managed by Council.

2. Background

The Council for the City of Greater Dandenong ("the Council") is committed to helping create a sustainable built environment. Council owns nearly 300 buildings – valued at over $333 Million.

High-level key principles and objectives supporting the Policy are outlined in the Council Plan 2017-21 – they include:

- A healthy, liveable and sustainable city

Springvale Community Hub

Currently under construction, this building will:

- Achieve a 5 Star GreenStar rating
- Achieve net-zero carbon emissions through installation of a 250kW solar system.

Power Purchase Agreements

Power Purchase Agreements (PPAs)

A renewable energy PPA involves an energy user making a long-term agreement to pay a fixed price for the electricity generated by a wind or solar farm. PPAs are increasingly being used in Australia to reduce greenhouse emissions, exposure to volatile electricity prices and electricity bills.

Greater Dandenong Council's PPA Project

Greater Dandenong Council is participating with other councils in PPA projects that seek to supply electricity for their buildings and streetlights to:

- lower Council's energy costs
- reduce Council's risks from increases in energy prices
- significantly reduce Council's carbon emission from electricity use.

Carbon Offset

Carbon Offsets (or Carbon Credits) to reduce Council's corporate emissions

Carbon offsets are generated by an activity that prevents, reduces or removes greenhouse gas emissions from being released into the atmosphere that can then be used to compensate 'offset' emissions occurring elsewhere. Increased energy efficiency and uptake of renewable enable will **reduce Council's overall carbon emissions**, however its use of gas, sits vehicle fleet and waste will **still generate emissions into the future**.

For council to achieve zero carbon emissions by 2025, these emissions would need to be offset. Options include: purchasing the required offset each year, or, Council generating their own offsets, through activities such as the planting of trees.

Community carbon emissions profile

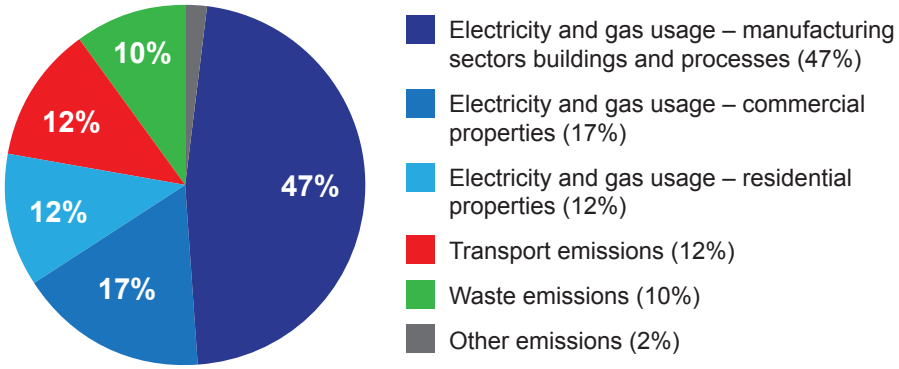
A carbon emissions profile of the Greater Dandenong community was prepared in accordance with the *Global Protocol for Community-scale Greenhouse Gas Emission Inventories BASIC Reporting approach* (GPC Inventory). Full details on the emissions profile can be found in the Mitigation Report available on Council's website.

The analysis identified greenhouse gas emissions from the Greater Dandenong municipality were in the order of 3,950,000t CO_2e, with:

- 76% of emissions are associated with buildings' energy use (electricity and gas)
  - » 47% from manufacturing sectors buildings' and processes
  - » 17% from commercial properties
  - » 12% from residential properties
- 12% emissions from transport
- 10% from waste.
- 2% from other.

Figure 8 shows the breakdown of the emissions profile inventory into sub sectors.

Figure 8. Breakdown of community carbon emissions 2016/17



The high carbon emissions (64%) associated with Greater Dandenong's extensive manufacturing and commercial precincts creates an additional challenge for Greater Dandenong to ensure a resilient thriving local businesses sector.

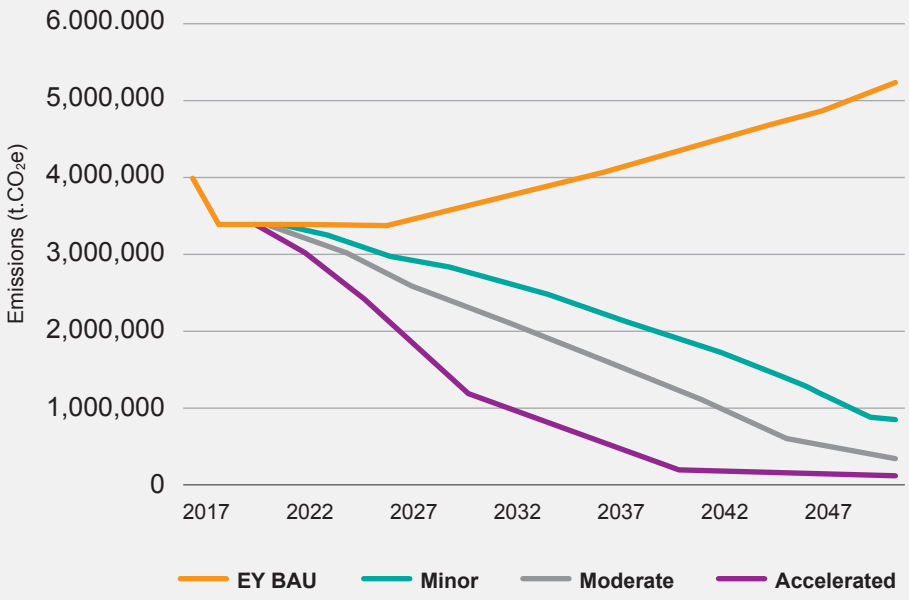
Towards a zero carbon community by 2040

Modelling undertaken indicates that under a 'Business-as-usual' approach, community emissions would be projected to increase, due to a range of factors including population growth (See Background Mitigation Report for further details).

Modelling of three different intervention scenarios ('*Minor*', '*Moderate*' and '*Accelerated*') (See Figure 9 below) compared to a '*Business-as usual*' approach indicates that only an '*Accelerated*' intervention approach would achieve emission reductions that:

- Are consistent with the community doing its fair share to keep temperatures below 1.5°C.
- Better positions the municipality for the likely tightening of state, national and international targets as the full impact of climate change becomes more apparent.

Figure 9. Scenarios for community carbon emissions growth



Collaboration required to achieve a zero carbon community

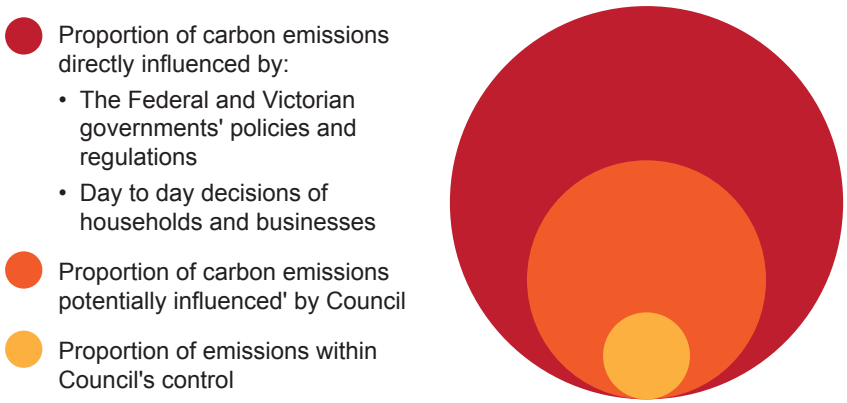
To achieve the accelerated pathway, we, as a community all need to do our fair share. As a large energy user, Council is demonstrating leadership by taking action to reduce its emissions. However, the proportion of emissions within Council's direct control is relatively small, being less than 2% of the municipality's emissions. While Council's ability to directly influence community emissions and control outcomes is limited, there are a range of policy and other levers of control that Council can use to facilitate the reduction of a large proportion of the municipality's emissions.

Compared to local governments, the Federal and State governments have control of a wide range of policy levers that can accelerate the transition towards a zero carbon future. Therefore, it is a key priority for Council to increase its advocacy to the Federal and Victorian governments.

For Australian businesses and households, the cumulative impacts of daily decisions are equally important. These decisions could be as simple as the decision to turn off lights or walk instead of driving, to significant decisions such as the purchase of an energy efficient building. Therefore, a key priority for Council is to mobilise our community.

Figure 10. Key players' influence over emissions

Greater Dandenong's Community Emissions: 3,965Kt CO_2e (2016/17)



Zero carbon community emissions by 2040

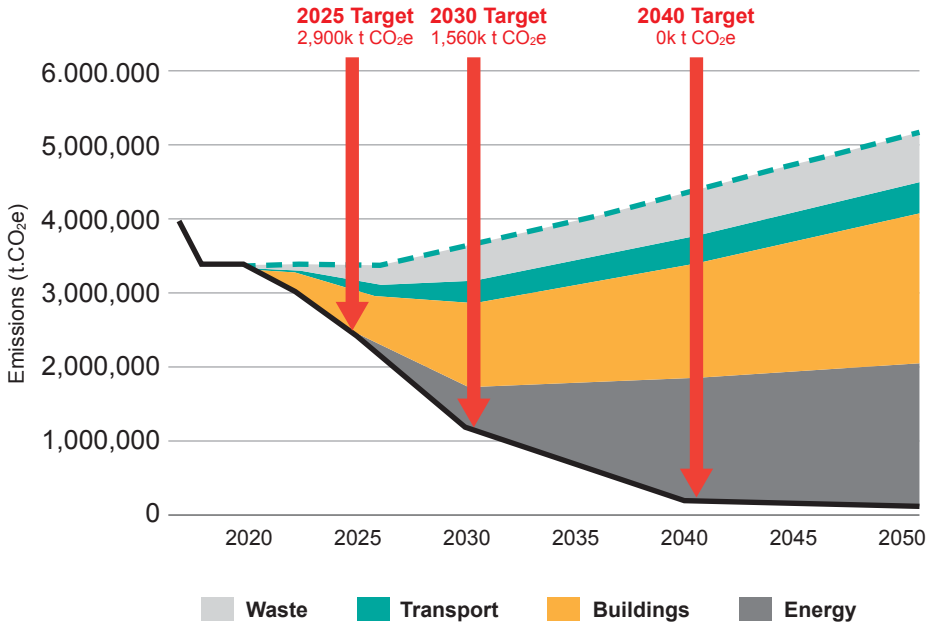
Using the GPC inventory outcomes (See Background Mitigation Report for further details), the major sources of carbon emissions in the community emissions profile has been grouped into four (4) main categories:

Buildings | Energy | Transport | Waste (including food).

Within each of these four main categories, a broad range of emission reduction actions have been considered that can be 'scaled up' to assist in achieving the desired target of zero carbon community emissions by 2040 under the 'accelerated' pathway.

The modelling illustrated in Figure 11 below indicates that to achieve the 'accelerated' pathway for community emissions abatement, the greatest reduction in emissions would be achieved through the buildings and energy categories, with less emission reductions achieved through from the waste and transport categories.

Figure 11. Accelerated pathway of action for emissions abatement



Priorities to accelerate community carbon emission reductions

Modelling and analysis have identified that the key priority areas required to achieve zero carbon community emissions by 2040, could be achieved through:

- Strengthened Federal and State renewable energy targets
- All new buildings being carbon neutral by 2030
- All existing buildings being carbon neutral by 2050
- Increased uptake of low emission and electric vehicles.

Key focus areas for Council to support community emission reductions priorities

As outlined earlier, compared to Federal and State Governments, Council has limited ability to directly influence the achievement of the key priorities listed above.

Within Council's levers of control, some of the key focus areas for Council to support an accelerated pathway that leads to emission abatements and reductions are shown in Table 11 below.

Table 1. Council's Key focus areas

KEY FOCUS AREAS INCLUDE:

Waste	Facilitating reductions in residential, business and construction waste.
Transport	Promote a mode shift from driving to active and public transport. Advocate for lower emissions intensity of motor vehicles.
Buildings	Facilitate increased sustainability outcomes through the planning process. Advocate for all new buildings to be carbon neutral by 2030. Advocate for all existing buildings to be carbon neutral by 2050.
Energy	Facilitate uptake of renewable energy by residents and businesses. Support increased uptake of energy efficiency measures. Advocate for more ambitious State and Federal Renewable Energy Targets.

The focus of Council's actions

Council has prepared a detailed *Action Plan* (See Appendices) outlining Council's actions over the next five years.

This Action Plan will explore new directions for reduction in community emissions, while continuing to support the actions that Council has implemented for many years across these key focus areas. The *Action Plan* also provides an increased focus on reducing those emissions outside of Council's direct area of influence. These actions include:

Advocacy to State and Federal governments

Council will advocate both directly and in collaboration with key partners to the Victorian and Federal governments to develop programs to drive emergency action for Australia to do its fair share to keep global warming below 1.5°C. This includes:

- Establishing carbon emission reductions targets in line with climate science
- Strengthen renewable energy targets and ensure a reliable and affordable national energy system
- Support for emission intensive businesses and industries to transition to a low-carbon economy
- Improve national energy productivity and efficiency, including energy efficiency requirements for buildings.

Mobilising our Community

Council will work both directly and in collaboration with key partners to increase our community's response to climate change through the daily decisions made by households and businesses. This includes:

- The development and implementation of a *Climate Emergency Community Engagement & Mobilisation Plan*
- Increasing awareness by local business and industry leaders that responding to climate change is an economic transformation opportunity, and a leveraging tool to revitalise a region
- Leading initiatives to facilitate uptake of Power Purchase Agreements by local businesses to enhance the sustainability and affordability of their operations
- Increasing the uptake of distributed energy resources (such as solar and batteries) by local households and businesses.

Waste

Kerbside waste & recycling

Council's household kerbside collection helps reduce community carbon emissions by reducing waste sent to landfill and increasing the recovery of resources

Supporting businesses to reduce waste

Council programs to reduce waste generated by businesses and increase resource efficiency include:

- 'Lean to Green' business programs
- Supporting the ASPIRE waste program

ASPIRE

Transport

Public transport advocacy

To improve public transport services throughout Greater Dandenong, especially, increased bus services to Keysborough South and Dandenong South's industrial area.

Increasing bicycle and walking facilities

Council's investment and advocacy has expanded the Shared User Path and Bicycle Network from 115 km in 2010 to 187 km in 2017-2018.

Buildings

ESD Buildings Policy

Incorporating Environmentally Sustainable Development (ESD) into the design of new development is now a requirement under the City of Greater Dandenong Planning Scheme.

SDAPP – Supporting developers with ESD guidelines and tools

Council has collaborated with other local councils to introduce the SDAPP (Sustainable Design Assessment in the Planning Process) program which includes key environmental performance considerations into the planning permit approvals process to achieve more sustainable building outcomes.

Energy

Environmental Upgrade Agreements

EUAs can support local business energy efficient measures.

Smart Recycling used EUA's to:

- Install a 100-kW solar system
- Save $25,000 p.a. on energy bills

Energy efficient buildings can expect:

- Lower energy bills
- Improved living comfort
- Future proofing

ADAPTATION – IDENTIFYING CLIMATE RISKS

A climate change risk assessment has been undertaken to guide Council's actions to reduce Council's and the community's exposure to climate risks and increase resilience.

Key findings from the Climate Change Risk Assessment

Five key climate related variables were considered when assessing the risk to the Greater Dandenong community and Council's business operations:

- Increasing temperatures
- Increasing heatwave events
- Reductions in rainfall
- Increasing extreme bushfire weather
- Increases in extreme storm events

The strategic risk areas associated with climate-related variables were categorised into five broad areas: Infrastructure; Events & Activities; Council specific; Biodiversity, and Community.

Across these five broad categories, forty-four specific strategic risks were identified. The most significant risks included: extreme storms, extreme hot days and heatwaves, potential health implications associated with these events and the potential for significant property damage and interruption of utilities and transport routes which could impact both Council operations and the community.

For Council's corporate documents, the risk assessment identified that while objectives and actions that directly or indirectly assist in reducing climate change risk exposure were included, climate change was not necessarily fully considered. To mainstream climate change within Council's corporate documents, the required key actions include:

- Embedding the Climate Change Risk Register (developed as part of the Climate Change Risk Assessment) into Council's Corporate Risk Register.
- Increased understanding of local government's roles, responsibilities and legal liabilities regarding climate change.
- Undertaking assessments of Council's assets, operations, services and finances vulnerability to climate change risks to identify specific adaptation measures to reduce vulnerability and risk.
- Embedding climate change into Council's long-term financial planning processes.
- Identifying long-term mechanisms to fund Council's climate change measures.

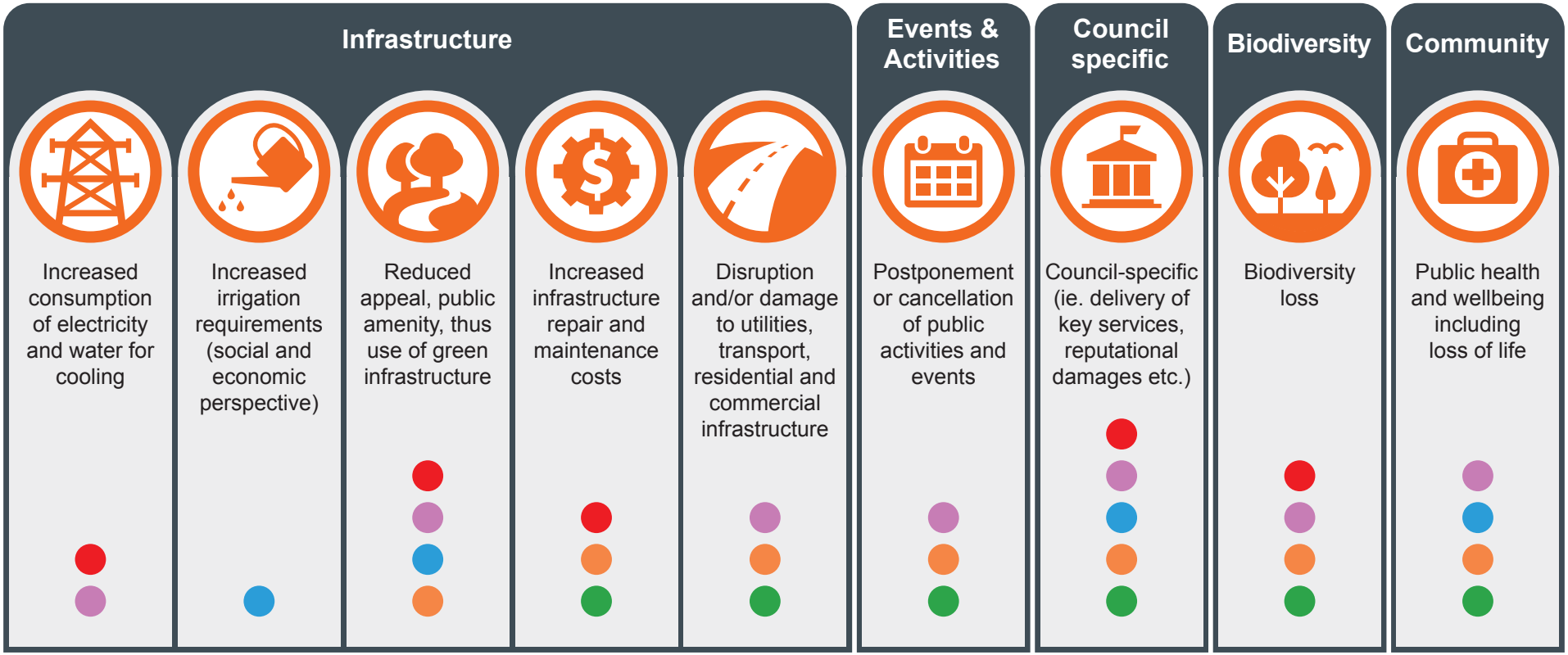
Further details can be found in the Background Report: *Risk and Adaptation Analysis Report*, available on Council's website.

Climate Variables

Temperature | Extreme hot days / heatwaves | Rainfall | Bushfire | Storm events

Broad Strategic Risks Areas

Strategic Risks as a result of Climate Variables



ADAPTATION – HOW COUNCIL HAS BEEN SUPPORTING RESILIENCE

Increasing heatwave events

Heatwave Plan

Vulnerable residents are more likely to be at risk of serious illness and death in the event of extreme heat.

Hot Spots Initiative

Council has been working with its partners to raise community awareness of heatwaves and ways to reduce its health impacts.

Reductions in rainfall

Reducing water usage

Drought resistant grasses have been used across all Council's sporting fields to reduce water use by up to 70%.

Increasing water efficiency and uptake of rainwater tanks

Council's planning processes include requirements to reduce water use in new buildings.

Increasing temperatures

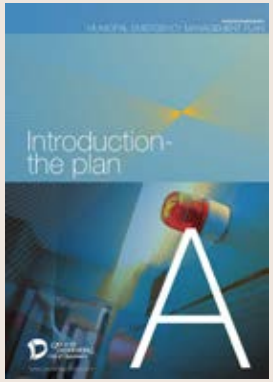
ESD Buildings Policy

Focuses on improving sustainability outcomes of buildings, included thermal comfort.

Improving indoor quality

Improving the indoor environment quality enhances well-being and reduces the likelihood of ill-health.

Increases in extreme storm events



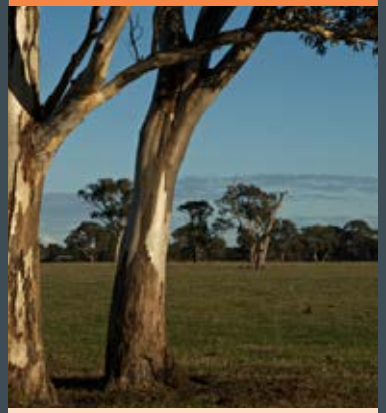
Emergency Management Plan

A legislated document which facilitates planning for emergencies within Greater Dandenong.

Flood Management Plan

While floods are natural and cannot be stopped, Council works with it partners to reduce their impacts.

Increasing extreme bushfire weather



Management of Council's reserves

To reduce fire risks within Council's reserves, fuel loads are regularly monitored and reduced.

Fire Management Plan

While bushfire risk in Greater Dandenong is low, fire management planning is still undertaken.

Implementation

The scale and complexity of the challenge created by the climate emergency requires that we all work together — as the actions of individuals, sectors or governments cannot solve it alone.

Implementation of this Strategy will require substantial changes to the way that Council and its community address Climate Change, in particular:

1. Council to take an integrated 'whole-of-organisation' approach to climate change across its own operations.
2. Council to support its community to lead effective responses to climate change. Council recognises that while everyone has a role to play, it must demonstrate leadership and empower others to act.

Framework for mobilising our Community

In a Climate Emergency context, Greater Dandenong Council has a greater role to play in bringing our community together and building capacity of members to be active citizens working collectively for change.

Using Council's *Community Development Framework* as a basis, this Strategy aims to build community resilience to the climate emergency by:

- Improving the capacity and confidence of the community to respond to climate change.
- Engaging and empowering the community to take climate action that builds momentum and encourages local ownership of responses to climate change.
- Supporting members of the community that are most vulnerable to climate impacts and advocating for equitable responses to climate change.

To facilitate this, Council will prepare a *Climate Emergency Community Engagement and Mobilisation Plan* to provide a guiding framework and implementation plan. Its development will be based on an analysis of:

- Best practice and innovative community capacity building approaches to maximise effectiveness and reach within the community.
- Council's existing environmental education programs and activities
- Opportunities provided through:
  - Other programs and activities that Council provides
  - Existing local community groups and networks
  - Collaboration with partners and key stakeholders

Building the capacity of our Community

The focus of the *Climate Emergency Community Engagement and Mobilisation Plan* will include:

1. Delivery of communication campaigns to increase community awareness and action
2. Enabling and encouraging the participation of our community through engagement activities
3. Support for programs that bring people together to help build capacity
4. Involving residents and businesses in finding solutions to their needs and helping community leaders to foster positive change in their communities.
5. Supporting residents' and businesses' active participation in their local community and encouraging them to work together on common goals.
6. Establishing partnerships and relationships with community members and organisations to facilitate collaboration with Council.
7. Developing partnerships with key community organisations, agencies and other stakeholders through network meetings and informal and formal advisory committees.
8. Helping to secure community funding and resources that support community initiatives.
9. Delivering initiatives that are developed in a manner that is respectful of diversity and promotes equity and equal access for all.
10. Clearly understanding the needs of the community and working on ways to address these needs
11. Representing and advocating for the needs of the community
12. Building resilience by helping to harness our community's unique strengths.

Action Plan

- The actions Council will be taking to achieve the *Climate Emergency Strategy* are outlined in the *Climate Emergency Action Plan*. This *Action Plan* has been developed to guide Council and community actions for the next five years.
- As implementation of the Action Plan progresses, Council anticipates further understanding of climate change impacts will develop, and new opportunities for climate mitigation and adaption will be identified. Additional opportunities will also emerge from changes to State and Federal government policies and programs, as well as available information, data and technology. To ensure this Strategy remains relevant, newly identified actions will be assessed and prioritised to ensure the continued implementation of the most effective climate change mitigation and adaptation measures.
- New actions identified for implementation will be incorporated into Council's internal monitoring and reporting processes and reported to the community through the Annual Summary Report (see Monitoring & Reporting section for further details).

Funding of Action Plan

- Council's Notice of Motion (28th January 2020) declaring a *Climate and Ecological Emergency* states that priority is to be given by Council to responding swiftly to climate change, in order to meet the Paris Agreement target of limiting the rise in global average temperatures to below 1.5°C.
- Council is already implementing a wide range of actions that are already directly or indirectly facilitating the response to climate change. In this instance, actions identified in the Action Plan may already be funded. Where there is a specific allocation of funds in the Council Budget 2020/21, these figures have been included in the Action Plan.
- Additional measures required in order to deliver this Strategy, whether new actions or the expansion of existing measures, will require operational or capital funding. Where additional operational or capital funds are required, budget submissions will be considered as part of Council's annual budget process.
- For Council to accelerate our response to this climate emergency, additional resources will be required to be identified. While Council is already exploring potential opportunities, the declaration of a *Climate and Ecological Emergency* increases the urgency for increased advocacy to Federal and State Government for additional support, resources and action.
- The funding to implement the action plan is subject to the support and funding of operational and capital works bids as part of Council's annual budget process.

Governance

- For this Strategy to be successful there needs to be significant cross-organisational and community support and oversight.
- Council's internal Sustainability Advisory Group will have the responsibility for overseeing and driving the implementation of this Strategy.
- Council's external Sustainability Advisory Group will facilitate community oversight of the strategy's implementation and community engagement and involvement.

Monitoring, Reporting, Evaluation and Review

- Council's corporate reporting system will provide the framework for the annual monitoring and reporting of the *Action Plan's implementation*.
- Progress on the actions in the *Action Plan* will be reported publicly through an *Annual Summary Report*. The report will provide a summary of the key achievements of the past 12 months and progress to date.
- An internal operational evaluation of this Climate Emergency Strategy and Action Plan will occur after 5 years (2025-26) to enable a review of the effectiveness and relevance of the objectives and actions. A report on the five-year evaluation and review will be tabled at a Council meeting for noting.

Integrated planning framework

All levels of Government (Federal, State and Local) have a role in preventing the worst impacts of climate change and preparing their communities for its unavoidable impacts. We will prepare by implementing an integrated planning framework.

Imagine 2030 Community Plan

Imagine 2030 is the City of Greater Dandenong's community plan. Updated in 2017, this plan outlines the community's long-term aspirations for our city and outlines the city they want to see in 2030.

Council Plan

The Council Plan 2017-21 sets the strategic direction of the City of Greater Dandenong and describes how the community's vision of a safe, vibrant city of opportunity for all will be achieved.

It outlines Council's key objectives for the next four years and the resources required to achieve them. Council's performance against these objectives is reported to Council and the community each year through the Annual Report.

Annual Plan and Budget

Each year an Annual Plan and Budget are developed to outline the specific actions Council will undertake to deliver on its four-year objectives and how these will be funded

Sustainability Strategy

The 2030 Sustainability Strategy sets the vision for the City of Greater Dandenong to be one of the most sustainable cities in Australia by 2030.

It outlines Councils key corporate and community sustainability objectives across 10 themes, including Climate Change.

Climate Emergency Strategy and Action Plan

The Climate Emergency Strategy sets the vision for the City of Greater Dandenong in response to the Climate Emergency.

It provides the strategic framework for to achieve this vision, through its objectives, targets and areas of focus across eight themes.

The Action Plan will guide Council's implementation of the Strategy for the next five years.

Annual Climate Emergency Summary Report

The annual report provides an annual summary of the progress towards the implementation of the Climate Emergency Strategy by reporting on the targets and key initiatives and outcomes. This report will be made publicly available each year.

IMAGINE a city that the community is proud of, as a result of the actions by Council and the Community to tackle Climate Change.
(Leadership & Governance)

IMAGINE a city where people are healthy and the likelihood of illness due to extreme heat, pollution and disease from climate change is minimal.
(Community Wellbeing & Culture)

IMAGINE a city where innovation in clean technologies has transformed local businesses to operate efficiently with minimal impact on the environment.
(Business & Economy)

IMAGINE a city where housing, buildings and transport use minimal energy and are all powered by renewable energy.
(Energy & Buildings)

IMAGINE a city with cool green space places that benefit our community's health and wellbeing and where native wildlife and vegetation are thriving
(Biodiversity & Open Space)

IMAGINE a city where transport is powered by clean renewable energy, it is easy, safe and affordable to walk and cycle around, and is well connected to public transport.
(Transport & Movement)

IMAGINE a city where buildings, housing, roads and other infrastructure are resilient to severe weather.
(Assets, Infrastructure & Land Development)

IMAGINE a city that has transitioned to a circular economy that has enabled us to treat all forms of current waste as a valuable resource that is reused or recycled indefinitely.
(Waste & Resources)

THEME 1: Leadership & Governance

GOAL: A city leading its community's climate change response

While climate change is a global issue, its direct impacts are felt by local communities and their environments, which is why local governments have long been recognised for their leadership in tackling climate change at the local level.

STRATEGIC OBJECTIVE 1.1:

Council: Lead the City of Greater Dandenong's efforts to reduce emissions and increase resilience to climate change.

TARGETS:

- Reduce Council carbon emissions to Net Zero Carbon by 2025.
- Embedding consideration of inherent risks and impacts of climate change into all relevant Council policies, strategies and plans by 2025.

What Council will be focusing on in the next five years to achieve these targets:

- Highly engaged staff supporting a whole of organisation response to climate change.
- Embedding consideration of climate change impacts and risks into Council's key governance documents and decision-making processes.
- Demonstrating leadership through Council's actions to achieve net zero carbon emissions across its operations by 2025.
- Providing a forum to increase Greater Dandenong's adaptive capacity to respond to the climate emergency and interrelated challenges.

STRATEGIC OBJECTIVE 1.2:

Community: An engaged and mobilised community responding to the climate emergency.

TARGETS:

- Increased recognition by our community of the importance of responding to climate change

What Council and the community will be working on together for the next five years:

- An engaged and mobilised community actively supporting efforts to make Greater Dandenong a resilient city doing its fair share to limit global warming to below 1.5°C.
- Council plans and policies provide a framework to assist in supporting an integrated and inclusive approach to community mitigation and adaptation.
- Work with key stakeholders to participate in collaborative mitigation and adaptation opportunities across the municipality and region.

WHAT OTHERS NEED TO DO:

Commonwealth Government:

- Provide national, state and regional change data and information to enable informed decisions.
- Provide national policy frameworks, standards and incentives for climate change responses in partnership with state and local governments.
- Provide or improve access to finances to support actions by state and local governments and the community.
- Strengthen state and local governments capacity and governance structures.

Victorian Government:

- Support capacity of local governments to deal with climate change risks through embedding climate change considerations into organisational governance processes.
- Produce data and information to support local governments and the community to make informed decisions.
- Provide leadership, policy direction and technical and financial support to local governments.
- Facilitate effective action through partnerships between government and local communities.
- Clarify the roles and responsibilities of local governments and the community.
- Clarify the legal liability of local governments and the processes required to manage that liability.
- Reduce barriers limiting local governments ability to respond to climate change.

Greater Dandenong Households and Businesses:

- Inform governments of your local needs and priorities with regards to climate change.

THEME 2: Community Wellbeing & Culture

GOAL: A climate resilient city shaped by its community's shared values.

Victorian local governments are required to have municipal plans for '*Health and Wellbeing*' and '*Emergency Management*'. Council has established plans to manage weather-related health and safety risks faced by our community. Managing the additional impacts from climate change, particularly for vulnerable community members, will require Council to update existing plans and processes and implement changes to take account of the new reality.

STRATEGIC OBJECTIVE 2.1:

Council: Council's services supporting the community to remain resilient under a range of climate scenarios.

TARGETS:

- Assessment of the vulnerability to climate change of key health and emergency management services provided by Council to its community.

What Council will be focusing on in the next five years to achieve these targets:

- Increasing awareness within Council of the risks to health and well-being associated with climate change.
- Enhancing the capability and capacity of Council's services to respond to climate change's impacts on the community's health and wellbeing.
- Enhancing Council's emergency management capability and capacity to increase community resilience to climate change impacts.

STRATEGIC OBJECTIVE 2.2:

Community: An engaged community taking action to stay healthy in a changing climate.

TARGETS:

- A reduction in the vulnerability of our community to the impacts of climate change.

What Council and the community will be working on together for the next five years:

- Increased community awareness of risks to health and well-being from climate change and their ability to manage these risks.
- Support that helps facilitate a prepared and resilient community managing their climate change risks.
- Support that facilitates accessible and equitable climate responses for our community.
- Advocacy that helps address our community's climate change related health and safety needs and priorities.

WHAT OTHERS NEED TO DO:

Commonwealth Government:

- Support state and local governments to manage emergencies, including funding or relief, recovery and betterment.
- Create an environment that supports and promotes private adaption to manage climate change risks.
- Consider the needs of vulnerable communities to climate change through measures such as maintaining a well targeted social safety net to assist those who otherwise would have difficulty in adapting.

Victorian Government:

- Lead state-wide emergency management in preparing, responding and recovering from natural disasters.
- Ensure equitable responses to climate change.
- Collaborate with Commonwealth and local governments to develop information, tools and programs to strengthen vulnerable communities.
- Promote climate change risk management responses.

Greater Dandenong Households and Businesses:

- Continue to take responsibility for their own actions, assets and risks.
- Be aware of the climate change risks and their responsibility for managing them.
- Identify and implement plans and actions to manage these risks.

THEME 3: Business & Economy

GOAL: A City with a thriving and resilient net zero carbon economy.

With climate change a foreseeable risk, businesses will need to understand and manage their risks. They will also need to adapt to growing regulatory, environmental and consumer pressures. On a local level, a large proportion of our emissions come from local businesses, particularly the Dandenong South Industrial Area. Supporting local businesses to be sustainable and prosperous in a net-zero carbon future will help support local jobs and a thriving, resilient local economy, as well as making a significant contribution to reducing the overall carbon footprint of the municipality.

STRATEGIC OBJECTIVE 3.1:

Council: Council's services supporting the local economy to remain resilient under a range of climate scenarios.

TARGETS:

- Increase Council's understanding of the impacts of climate change on local businesses and the economy
- Increase Council's sustainable procurement through local businesses

What Council will be focusing on in the next five years to achieve these targets:

- Increased awareness within Council of the impacts to local businesses of climate change, the transition to a net zero carbon emissions economy and the need to manage exposure to risks.
- Council services supporting our local economy and businesses to remain resilient as climate change impacts increase.
- Council's purchasing power supports sustainable local businesses.

STRATEGIC OBJECTIVE 3.2:

Community: Engaged local business and industry taking action to increase resilience and transition to a net zero carbon economy.

TARGETS:

- Achieve a net zero carbon emissions local economy by 2040
- Increase the percentage of Greater Dandenong residents employed locally.
- Maintain Greater Dandenong's role as an employment hub in the region.

What Council and the community will be working on together for the next five years:

- Increased business awareness of climate change risks, opportunities and the transition to a net zero carbon emissions economy.
- Support that facilitates action by local businesses to reduce their carbon emissions and increase their resilience to climate change impacts.

WHAT OTHERS NEED TO DO:

Commonwealth Government:

- Provide clear, stable legislation that enables businesses to understand and plan for the potential impacts of the legislation.
- Provide data, tools and guidance that support businesses make informed decisions and disclosures regarding their exposure to climate risks.
- Support regulators implement appropriate standards to address climate risk and compliance by businesses.
- Support emission intensive businesses and industries transition to a low-carbon economy.

Victorian Government:

- Provide clear, stable legislation.
- Support businesses and industries to develop their own solutions that maximise growth and resilience
- Support businesses and industries transition to a low-carbon economy.

Greater Dandenong Households and Businesses:

- Increase awareness of climate change impacts.
- Establish carbon emission reduction targets and an implementation plan.
- Take a proactive approach to assess how climate change will affect your business and how you can manage these risks.
- Inform governments of your local needs and priorities.
- Help drive innovation in sustainable products and services.
- Help drive change through your influence with customers, suppliers and investment decisions.

THEME 4: Energy & Buildings

GOAL: A City of energy efficient buildings powered by clean energy.

The low-quality brown coal that powers Victoria's houses, businesses and industries has resulted in a much higher carbon intensity from electricity than cities in other parts of Australia and the world. This low-cost energy source is also a factor in Australia being less productive with the energy we use, such as our buildings having lower energy efficiency levels than other countries. We need to rapidly move away from fossil fuels like coal and gas that add more greenhouse gases to our atmosphere.

STRATEGIC OBJECTIVE 4.1:

Council: Reducing Council's carbon emissions through efficient use of clean renewable energy.

TARGETS:

- Net zero carbon emissions from Council's buildings and streetlights by 2025.
- 20% reduction in energy use from Council's buildings by 2025.
- Increase the capacity of solar systems in Council buildings to 1mW by 2025.
- All Council's streets and park lights to use energy efficient lighting by 2027.

What Council will be focusing on in the next five years to achieve these targets:

- Increased awareness and uptake of energy efficiency and renewable energy within Council to transition to a net zero carbon emissions future.
- All new Council buildings energy use designed to be net zero carbon emissions from 2020.
- All existing Council buildings energy use to be net zero carbon emissions by 2025.Council services supporting our local economy and businesses to remain resilient as climate change impacts increase.
- All Council's electricity usage from clean, renewable energy sources by 2025.
- Transition Council's energy use away from natural gas.
- All Council's street and park lights to use energy efficient lighting technology by 2027.

STRATEGIC OBJECTIVE 4.2:

Community: A reduction in the community's carbon emissions through efficient use of clean renewable energy.

TARGETS:

- Net zero carbon emissions from the municipality's buildings by 2040.
- 100% renewable energy for the City by 2040.
- 75,000kW small scale onsite renewable energy generation capacity for the City by 2025.

What Council and the community will be working on together for the next five years:

- Increased awareness within the community of energy efficiency and renewable energy to facilitate the transition to a net zero carbon emission city.
- Support that helps the community transition to energy efficient net zero carbon emission buildings by 2040.
- Support the community to transition to 100% renewable energy sources by 2040.
- Advocacy that supports the achievement of a net zero carbon city by 2040.

WHAT OTHERS NEED TO DO:

Commonwealth Government:

- Establish GHG emission reductions in line with climate science.
- Increase energy efficiency provisions for new residential and commercial buildings.
- Improve compliance of buildings with energy efficiency regulations.
- Improve national energy productivity and efficiency.
- Strengthen renewable energy targets.
- Ensure a clean, reliable and affordable national energy system.

Victorian Government:

- Strengthen renewable energy targets.
- Ensure a clean, reliable and affordable energy system for Victoria.
- Support the transition to zero carbon buildings.
- Help households and businesses increase energy efficiency and uptake of renewable energy.
- Improve building energy ratings and disclosure.
- Increase support for business and household Energy Upgrade programs.
- Develop industry capability in constructing energy efficient buildings and compliance standards.

Greater Dandenong Households and Businesses:

- Make changes where you can to reduce your energy usage and bills.
- Consider installing clean energy systems.
- Consider the energy efficiency of buildings and equipment when making purchases.
- Consider switching from natural gas appliances to high efficiency electric alternatives.

THEME 5: Biodiversity and Open Space

GOAL: A City that is cool and green.

Healthy ecosystems and rich biodiversity are fundamental to life on our planet. Unmitigated climate change is likely to be severe and negatively impact biodiversity, our food production systems and our urban environments. The urban heat-island effect is created by the surfaces such as roads and buildings in the built environment absorbing, trapping and, in some cases, directly emitting heat. This effect can cause urban areas to be up to 4°C hotter than surrounding non-urban areas. Increasing levels of development within our urban areas will add to existing urban heat-island effects unless measures are put in place. Greening the city through using plants and water can increase carbon storage levels, provide cooling benefits and increase the community's resilience to extreme heat events.

STRATEGIC OBJECTIVE 5.1:

Council: Increased canopy cover and carbon storage through Council's streets and open spaces.

TARGETS:

- Minimum of 2,178 street trees and 18,000 indigenous seedlings planted.
- Establish benchmark of Carbon stored in Council's trees and reserves to offset its Carbon emissions by 2025.

What Council will be focusing on in the next five years to achieve these targets:

- Increasing awareness within Council of the impacts of climate change and the benefits of local biodiversity and a greener, cooler environment.
- Increased canopy cover storage across Council's streets and open spaces.
- Increased use of water sensitive urban design used to support resilience of biodiversity and green spaces on Council land.
- Increased resilience of biodiversity on Council land to climate change impacts.

STRATEGIC OBJECTIVE 5.2:

Community: A greener, cooler city reducing urban heat island impacts and helping to drawdown carbon levels.

TARGETS:

- Increase canopy cover across Greater Dandenong. (15% by 2028).
- Achieve a reduction in the 2018 average summer Urban Heat Island reading of 9.26°C by 2028.

What Council and the community will be working on together for the next five years:

- Increased awareness within the community of the benefits of local biodiversity and a greener, cooler environment.
- Increased awareness within the community of the benefits of urban food production.
- Increased use of greenery and integrated water management to provide cooling effects to create a more liveable, urban environment and drawdown carbon levels.
- Increased resilience of biodiversity across the municipality to impacts of climate change.
- Advocacy that supports conservation of Greater Dandenong's local biodiversity and transition to a greener, cooler city.

WHAT OTHERS NEED TO DO:

Commonwealth Government:

- Increase recognition and support to reduce pressure on Australia's declining biodiversity.
- Provide tools and guidance that enable local governments to utilise tree plantings and increased soil carbon levels as carbon offsets and to help drawdown carbon from the atmosphere.

Victorian Government:

- Strengthen protection for remnant native vegetation of state, regional and local significance.
- Increased support for measures that increase the quality and quantity of local biodiversity.
- Provision of appropriate mapping to monitor and measure local urban vegetation cover and the urban heat island effect.
- Support the creation and expansion of urban greening and cooling measures throughout Metropolitan Melbourne.

Greater Dandenong Households and Businesses:

- Protect existing significant trees and local biodiversity on private property.
- Increase vegetation cover on private property.
- Increase local biodiversity on private property.
- Reducing the amount of household food that is sent to waste (and save money at the same time).
- Find out more about becoming involved in a community garden near you.
- Start growing your own food at home.
- Get involved in community tree planting days.

THEME 6: Transport & Movement

GOAL: A City well connected through low carbon transport.

Vehicles using petrol and diesel fuel generate significantly more carbon emissions per person as opposed to using public transport, active forms of transport (walking or cycling) or electric vehicles powered by renewable energy.

Increased use of low carbon forms of transport will reduce carbon emissions as well as provide a range of other benefits, such as reducing congestion on the road, reduced pollution – improving local air quality and improved health and well-being of the local community.

STRATEGIC OBJECTIVE 6.1:

Council: Increasing Council's use of active and low carbon transport options.

TARGETS:

- 20% decrease in the use of single occupancy private vehicles as a method of travel to work for Council staff by 2025.
- Vulnerability to the impact of climate change assessed and part of management plans for all critical Transport related assets and services by 2025.
- Council fleet 100% low emission vehicles by 2030.

What Council will be focusing on in the next five years to achieve these targets:

- Increasing awareness within Council of the benefits of active and low carbon transport.
- Increased staff usage of active and low carbon transport options.
- Increased awareness within Council of impacts of climate change on Transport service delivery.
- A reduction in GHG emissions from Council's vehicle fleet.

STRATEGIC OBJECTIVE 6.2:

Community: Community: Increasing community access to and use of active and low carbon transport options.

TARGETS:

- 15% increase in public transport use within Greater Dandenong by 2030.
- 10% reduction in single occupancy private vehicles as method of travel to work by 2028.
- Completion of the Strategic Cycling Corridors by 2030 and upgrade and completion of new path networks
- Double the number of trips to work undertaken by bicycle by 2028.

What Council and the community will be working on together for the next five years:

- Increased community awareness of the benefits from use of active and low carbon transport.
- Increased travel by modes other than single occupant vehicle trips within Greater Dandenong to reduce emissions and build resilience.
- Increased uptake by the Greater Dandenong community of low emission vehicles.
- Reduced car ownership across the municipality.

WHAT OTHERS NEED TO DO:

Commonwealth Government:

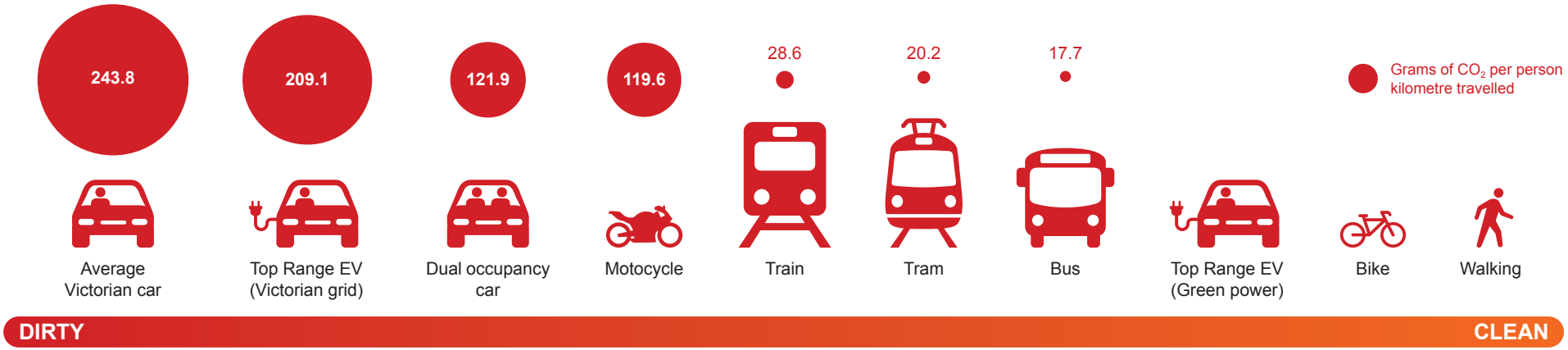
- Increase petrol and diesel vehicle Fuel Efficiency Standards.
- Facilitate accelerated uptake of electric vehicles and other low carbon vehicle technologies.
- Work with the Victorian Government to improve and expand public transport.

Victorian Government:

- Improve public transport infrastructure and services.
- Increase the bicycle network and associated infrastructure.
- Support increased urban densities in activity areas well serviced by public and active transport.
- Building regulations that support home electric vehicle charging.
- Transition public transport to clean, renewable energy.

Greater Dandenong Households and Businesses:

- Try different ways to travel around.
- Utilise active public transport where possible.
- Consider fuel efficiency of vehicles when purchasing.
- Respect pedestrians and cyclists.



THEME 7: Assets, Infrastructure & Land Development

GOAL: A city with a built environment supporting the community's resilience to climate change.

Infrastructure is the basic facilities our community needs to live in our modern society. It includes physical assets which provide our transport, water, energy and communications needs, as well as assets that support our social needs; such as parks, community buildings and recreational facilities. Whilst these assets have high costs, they are vital to our community's needs. While this infrastructure will be affected by the physical impacts of climate change, it will also play an essential role in building resilience to those impacts (such as extreme weather events) and the transition to a net zero carbon economy. Incorporating climate change considerations into infrastructure decision making processes to increase resilience will reduce the direct impacts and financial costs, as well as the indirect costs of disruption. Even more importantly, resilient infrastructure plays a key role in supporting local communities withstand, respond to and recover from natural disasters.

STRATEGIC OBJECTIVE 7.1:

Council: Reducing risks from climate change impacts to Council's assets and infrastructure.

TARGETS:

- That all Council asset management plans address climate change impacts by 2025.

What Council will be focusing on in the next five years to achieve these targets:

- Increasing awareness within Council of the impacts from climate change on assets, infrastructure and land use development.
- Increased understanding of the vulnerability of Council's assets and infrastructure to climate change risks.
- Embedding of climate change risks into Council's asset management plans and processes.
- Advocacy that supports investment in Council's infrastructure that helps build the local community's resilience to the impacts of climate change.
- Embedding consideration of climate change impacts and risks into Council's Land Use planning processes.

STRATEGIC OBJECTIVE 7.2:

Community: Reducing climate change risks to our community through resilient assets and infrastructure.

TARGETS:

- A reduction in the vulnerability of our community to the impacts of climate change.

What Council and the community will be working on together for the next five years:

- Increased awareness across the municipality of the risks of climate change to assets and land use.
- A community better prepared to manage risks that climate change impacts may have on their assets and land use.
- Advocacy that supports investment in local and regional infrastructure that helps build the local community's resilience to the impacts of climate change.

WHAT OTHERS NEED TO DO:

Commonwealth Government:

- Develop and implement regulations, policies, guidelines and tools that facilitate resilient infrastructure.
- Promote and coordinate consideration of climate change across relevant federal, state and local governments and industry sectors responsible for infrastructure.
- Develop long-term national infrastructure plans that manage population change and climate risks and ensure equitable access.

Victorian Government:

- Manage climate change risks and build resilience through implementation of state infrastructure regulatory frameworks, strategies and plans.
- Develop and implement policies, guidelines, tools and funding that support resilient local government infrastructure.
- Improvement of climate change adaptation and risk-mitigation strategies in the Victorian Planning Provisions.

Greater Dandenong Households and Businesses:

- Increased awareness of climate change impacts on private infrastructure and opportunities to manage these risks.
- Be prepared for prolonged disruptions to infrastructure without external assistance.

THEME 8: Waste & Resources

GOAL: A City of low waste through efficient resource use.

The amount of waste Australia generates has been growing, driven by factors such as increasing population growth, levels of consumption and packaging. Reducing waste will help reduce pollution entering our environment, reduce greenhouse gas emissions and help control our unsustainable use of natural resources.

STRATEGIC OBJECTIVE 8.1:

Council: Reducing the environmental impacts from Council's use of resources.

TARGETS:

- Reduce office waste to landfill to 30% by 2025.
- Increase office waste recycled to 70% by 2025.

What Council will be focusing on in the next five years to achieve these targets:

- Increased awareness within Council of the environmental impacts resulting from use of resources as well as opportunities to reduce generation of waste.
- Reducing waste sent to landfill from Council's facilities and events.
- Sustainable procurement practices that positively influence Council's supply chain.

STRATEGIC OBJECTIVE 8.2:

Community: Reducing the impacts from our community's use of resources and generation of waste.

TARGETS:

- A 10% reduction in household kerbside waste collected by 2025.
- 50% household kerbside waste to landfill by 2025.
- 50% household kerbside waste diverted from landfill by 2025.

What Council and the community will be working on together for the next five years:

- Increasing our community's awareness of the environmental impacts of their resource use and waste management.
- Increasing services and infrastructure to support our community's efforts to reduce the amount of waste sent to landfill.
- A reduction in community greenhouse gas emissions from food waste.

WHAT OTHERS NEED TO DO:

Commonwealth Government:

- Support the implementation of the National Waste Strategy and its focus on a circular economy.
- Advocate to the Australian Government for mandatory product stewardship requirements for all toxic and other relevant products to lower their lifecycle impacts.
- Facilitate greater participation and collaboration between governments, businesses, the waste and resource recovery industries and the community.

Victorian Government:

- Support implementation of the Metropolitan Waste and Resource Recovery Implementation Plan.
- Review planning and building systems to improve waste management outcomes from building construction and operation.
- Improve planning provisions for waste management and resource recovery for medium/high density residential and mixed-use developments.

Greater Dandenong Households and Businesses:

- To take environmental issues into account when purchasing or manufacturing goods and services.
- Support use of recycled materials and products containing recycled content.
- Actively seek to avoid generation of waste and re-use or recycle wherever possible.

COUNCIL'S SUPPORTING STRATEGIC DOCUMENTS

Council's supporting documents that have a role in facilitating the implementation of the Climate Emergency Strategy include:	Publicly available?	Leadership & Governance	Community Wellbeing & Culture	Business & Economy	Energy & Buildings	Biodiversity & Open Space	Transport & Movement	Assets, Infrastructure & Land Use Planning	Waste & Resources
Imagine 2030 Community Plan	Yes	✓	✓	✓	✓	✓	✓	✓	
Council Plan	Yes	✓	✓	✓	✓	✓	✓	✓	✓
Council Annual Plan and Annual Budget	Yes	✓	✓	✓	✓	✓	✓	✓	✓
Long-Term Financial Strategy (Annual)	Yes	✓	✓	✓	✓	✓	✓	✓	✓
Financial Management Policy 2012	Yes	✓	✓	✓	✓	✓	✓	✓	✓
Fixed Asset Accounting Policy	Yes	✓			✓			✓	
Investment Policy	Yes	✓							
Corporate Risk Register		✓	✓	✓	✓	✓	✓	✓	✓
Climate Change Risk Register		✓	✓	✓	✓	✓	✓	✓	✓
Risk Management Policy 2015	Yes	✓	✓	✓	✓	✓	✓	✓	
Risk Management Strategy 2014-18	Yes	✓	✓	✓	✓	✓	✓	✓	
Risk Management Procedure 2015		✓	✓	✓	✓	✓	✓	✓	✓
Overarching Business Continuity Plan		✓	✓	✓	✓	✓	✓	✓	✓
Occupational Health & Safety Policy	Yes	✓	✓						
OH&S Policy – Extreme Weather Guidelines 2016		✓	✓						
Municipal Emergency Management Plan 2018		✓	✓						
CGD Heatwave Sub Plan 2016			✓						
Community Safety Plan 2015-22	Yes		✓				✓		
Fire Management Plan 2015-17	Yes				✓	✓			
Road Management Plan 2018-22	Yes						✓		
Community Wellbeing Plan 2017-21	Yes	✓	✓		✓	✓	✓	✓	✓
Community Engagement Policy & Framework	Yes	✓	✓	✓	✓	✓	✓	✓	✓
Community Development Framework	Yes	✓	✓						
Community Response Grants Policy	Yes		✓						
Community Partnership Funding Policy	Yes		✓						
Local Economic and Development Policy	Yes			✓			✓		
Economic & Employment Develop. Strategy 2011	Yes	✓	✓	✓	✓	✓	✓	✓	
Regional Food Strategy 2015-18	Yes			✓					
Greater Dandenong Planning Scheme	Yes	✓	✓	✓	✓	✓	✓	✓	✓

Council's supporting documents that have a role in facilitating the implementation of the Climate Emergency Strategy include:	Publicly available?	Leadership & Governance	Community Wellbeing & Culture	Business & Economy	Energy & Buildings	Biodiversity & Open Space	Transport & Movement	Assets, Infrastructure & Land Use Planning	Waste & Resources
Procurement Policy 2017	Yes	✓		✓	✓	✓	✓	✓	✓
Asset Management Policy 2015	Yes			✓	✓	✓	✓	✓	
Asset Management Strategy 2015-22	Yes	✓	✓	✓	✓	✓	✓	✓	✓
Asset Management Plan – Public Lighting 2018			✓		✓			✓	
Asset Management Plan – Buildings and Facilities 2015	Yes			✓	✓	✓	✓	✓	
Asset Management Plan – Stormwater Drainage 2015			✓					✓	
Road Asset Management Plan 2015	Yes						✓		
Activity Centre's Placemaking Framework 2016			✓		✓	✓		✓	
Greening our City - Urban Tree Strategy 2018-28	Yes		✓			✓		✓	
Open Space Strategy 2009 (*currently in review)*	Yes		✓			✓	✓	✓	
Sustainable Building Policy 2020	Yes		✓		✓			✓	
Building Energy Management Plan		✓			✓			✓	
Sustainable Stormwater Strategy 2017	Yes		✓		✓	✓		✓	
Dandenong Flood Management Plan 2018			✓					✓	
Design Manual for the Subdivision of Land 2017	Yes							✓	
Civil Engineering Standard Drawings	Yes							✓	
Integrated Transport Plan 2017-22	Yes		✓				✓	✓	
Walking Strategy 2015	Yes		✓		✓		✓	✓	
Cycling Strategy 2017	Yes		✓		✓		✓	✓	
Public Car Share Policy	Yes						✓		
Public Electric Vehicle Charging Infrastructure Policy	Yes						✓		
Staff Green Travel Plan							✓		
Waste & Litter Strategy 2015-20	Yes		✓						✓
Plastic Use Policy	Yes								✓
Sustainability Strategy 2016-30	Yes	✓	✓	✓	✓	✓	✓	✓	✓
Activate – Sport & Active Recreation Strategy 2014-19	Yes		✓			✓	✓	✓	
Arts & Cultural Heritage Strategy	Yes		✓		✓			✓	
Digital Strategy 2016	Yes							✓	

For the purpose of this document

Adaptive Capacity – the capacity of individuals, groups or organisations to adjust changes, to potential damage, to take advantage of opportunities, or to cope with the consequences in order to continue to thrive; a function of resilience.

Adaptation – Climate Change Adaptation involves taking action to manage risks from the impacts of climate change to protect and increase the resilience of the natural environment, communities and the economy.

Biodiversity – the variety of living species found on Earth, including plants, animals, bacteria, and fungi. Biodiversity can be measured globally or in smaller settings, such as within a reserve or wetland. Biodiversity also has a role to play in the stability of the ecosystem and global climate, as every organism has a role to play in its ecosystem.

Carbon – Carbon is a very abundant chemical element. It exists in its pure form as diamonds and graphite – but can also combine with other elements to form molecules. These carbon-based molecules are the basic building blocks of humans, animals, plants, trees and soils. Some greenhouse gases, such as Carbon dioxide and methane, also consist of carbon-based molecules, as do fossil fuels, which are largely made up of hydrocarbons (molecules consisting of hydrogen and carbon).

Carbon dioxide – Carbon dioxide (CO_2) is a chemical compound composed of one carbon and two oxygen atoms. It is an odourless and colourless gas naturally present in the earth's atmosphere at low concentrations (about 0.03 per cent). There are multiple sources for the carbon in the atmosphere, including the respiration processes of living organisms and the burning of organic matter containing carbon. Man-made sources of carbon dioxide come mainly from the burning of various fossil fuels for power generation and transport use.

Carbon emissions – Man-made sources of carbon dioxide emissions are a result of the burning of fossil fuels and the manufacture of cement.

Capacity – the ability of an individual, group, organisation or system to deliver intended outcomes. while capacity building refers to improving the ability of the entity to perform

Capacity Building – (or capacity development) is the process of developing and strengthening the ability of individuals, organisations and communities to obtain, improve, and retain the skills, knowledge, tools, equipment and other resources needed to do their jobs competently or to a greater capacity (larger scale, larger audience, larger impact, etc), or to survive and adapt. Capacity-building seeks to be transformational, sustained change over time that goes beyond performing specific tasks to a change in mindset and attitudes.

Climate and Ecological Emergency – recognition that climate change is causing significant damage to the economy, society and the environment, and that action is required urgently to avoid potentially irreversible environmental damage resulting from it.

Climate Change – the long-term change in the Earth's weather patterns as a result of global warming, resulting in fluctuating temperatures and more frequent extreme weather events.

Climate Change Scenarios – as it is not known what future greenhouse gas emissions will be, estimates are made based on a range of possible global economic and social responses to reduce greenhouse gas emissions. They are not predictions of future outcomes, but are used to describe possible future trends in emissions of greenhouse gases into the atmosphere.

Drawdown – efforts to reverse climate change and reduce the rise in average global temperatures by achieving a decline in atmospheric concentration of greenhouse gases.

Ecological – how living organisms interact with one another and to their physical surroundings.

Environmentally Sustainable Design (ESD) – design of buildings to reduce the impacts on the environment from their construction and use while also improving inhabitants comfort levels.

Fossil Fuels – such as oil, coal, and natural gas, are formed from the remains of dead plants and animals. While fossil fuels supply much of the world's energy, the carbon dioxide emissions generated contribute to global warming.

Global warming – the long-term rise in the average temperature of the earth which affects the climate at a regional and global scale. the freezing temperatures of space. Without the greenhouse effect, the Earth's average temperature would be about 33°C cooler.

Greenhouse effect – The greenhouse effect is a natural process that warms the surface of the earth. As such, all life on Earth depends on the greenhouse effect as it insulates the surface of the planet from the freezing temperatures of space. Without the greenhouse effect, the Earth's average temperature would be about 33°C cooler.

Greenhouse Gas (GHG) – any gas in the atmosphere that can absorb and re-radiate much of infrared heat energy being emitted from the Earth's surface. Common greenhouse gases include carbon dioxide and methane. The additional greenhouse gases from human activity are contributing to global warming and to global warming and associated climatic changes.

Greenhouse Gas Emissions – the release of greenhouse gases (GHG) into the Earth's atmosphere of various gases, especially carbon dioxide, that contribute to the greenhouse effect.

GPC inventory – A GHG inventory enables cities to understand the contribution of different activities in the community to the cities GHG emissions profile. The Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC Inventory) provides a framework to calculate and report on city-wide GHG emissions.

Intergovernmental Panel on Climate Change (IPCC) – An organisation of governments that are members of the United Nations dedicated to providing scientific information on climate change, its impacts and possible responses.

Mitigation – Climate Change Mitigation involves efforts to reduce or prevent the emission of greenhouse gases to minimise the impacts of global warming on our environment, society and economy. Mitigation addresses the root causes of climate change by reducing greenhouse gas emissions, while adaptation seeks to lower the risks posed by the consequences of changes to the climate.

Negative Emissions Technologies – a range of techniques for removing carbon dioxide from the air, such as the planting of trees and use of biochar.

Net Zero Carbon Emissions – causing or resulting in no net release of carbon dioxide into the atmosphere.

Net Zero Carbon Building – buildings defined as having no net annual emissions from direct fuel combustion (e.g. burning natural gas) and electricity use from operation of the building.

Paris Agreement – A 2015 landmark agreement bringing all nations into a common cause to combat climate change and to accelerate actions to reduce carbon emissions. The agreements set a target of keeping a global temperature rise this century well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C.

Power Purchase Agreement – a contract between a generator of energy and the purchaser of that energy.

Renewable energy – energy from sources that can be naturally replenished, such as sunlight, wind, rain, waves, and geothermal heat.

Renewable Power Purchase Agreement – where the purchaser of electricity agrees to purchase electricity generated from renewable sources to reduce carbon emissions.

Resilience – To be able to withstand or recover quickly from difficult conditions.

Safe climate – a climate that allows existing and future generations, communities and ecosystems to survive.

Stationary energy – largely refers to energy used to create electricity, but also includes energy created by the direct combustion of fuels for energy in industrial processes and domestic heating.

TCO_2e savings p.a. – Tonnes of Carbon Dioxide Equivalent, which is a measure that allows you to compare the emissions of other greenhouse gases relative to one unit of Carbon Dioxide.

CLIMATE CHANGE

Think globally, act locally

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