

City of DAREBIN

the place to live

# Darebin Climate Emergency Plan 2024-2030



## **Acknowledgement of Country**

This Climate Emergency Plan (Plan) has been written on the unceded lands of the Wurundjeri Woi-wurrung people - the Traditional Owners and custodians of the land, waters and multiple layers of Country we now call Darebin.

Darebin Council wholeheartedly affirms and acknowledges that Wurundjeri Woi-wurrung people have lived on this Country for millennia, practicing customs and ceremonies of celebration, initiation and renewal.

We recognise unreservedly that it is important to move beyond words of Acknowledgement, and to build relationships and connections with Traditional Owners. We will ensure that their wisdom, and holistic ways of understanding Country guide our response to the climate emergency.

Invasion and colonisation disrupted Traditional Owners' custodial and caring responsibilities to and for Country. As a step towards decolonisation and self-determination, the Wurundjeri Woi-wurrung people were the first to see, review and comment upon a full draft of this Plan. We thank the Elders for their generosity in allowing us to listen, understand and incorporate their priorities for caring for Country and the people who live, work and play here.

We pay our respects to Elders past and present and we pay our respects to all Aboriginal and Torres Strait Islander peoples who have a connection to Darebin. We affirm our commitment to respectful collaboration, knowledge sharing and two-way learning that centres caring for Country and cultural practices of the Wurundjeri Woi-wurrung custodians as we work together to mitigate and adapt to the climate emergency.

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## **Introducing Darebin's Climate Emergency Plan**

In December 2016, Darebin Council was the first jurisdiction in the world to declare a climate emergency and to develop a climate emergency plan. At the time Council was alone in advocating that climate change be officially considered an emergency requiring urgent action by all levels of government. Eight years on, this message has been taken up by 2,356 governments around the world,<sup>1</sup> resulting in a more focused and collaborative effort to stop runaway climate change and minimise its impacts.

Under our first Climate Emergency Plan, Council supported the Darebin community and influenced others to accelerate climate action by delivering ambitious and practical projects including Solar Saver, leading the Victorian Energy Collaboration, and building the all-electric, renewable power, 6 green star Northcote Aquatic and Recreation Centre.

Implementation of the 2017–2022 Climate Emergency Plan showed what can be achieved when one committed local government works with its community to take ambitious action on the climate emergency.

There is more work to do though, and responding to the climate emergency remains an urgent challenge. In 2023, the Intergovernmental Panel on Climate Change found that: "...widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred. Human-caused climate change is already affecting many weather and climate extremes in every region across the globe. This has led to widespread adverse impacts and related losses and damages to nature and people (high confidence). Vulnerable communities who have historically contributed the least to current climate change are disproportionately affected...".2

Climate change is already impacting people in Darebin, as many shared during community consultations. The science shows that locally we will continue to see increases in average temperatures, heatwaves, smoke exposure from bushfires, and storms, and less rainfall. The effects of these extreme conditions and related disasters will have a wide and far-reaching impact on the services Council provides, and on the community's health and wellbeing.

All local governments have a legislative responsibility to protect, promote and improve public health and the wellbeing of the community (see page 41). We also have a duty of care to take foreseeable risks into account. This new Climate Emergency Plan 2024-2030 sets out detailed and achievable actions that broaden and deepen our response to the climate emergency. We focus on goals and actions we can take as a local Council and with the community to address and minimise climate change and to help support and protect community health and wellbeing. Where important directions are beyond Council's scope, we have developed specific actions to guide collaboration and Council's strategic advocacy in calling on the Victorian and Australian governments to deliver policies, programs and resources to meet these needs (see page 38). Collaboration and advocacy are crucial for delivery of ambitious emissions reductions targets as well as the community resilience, innovation and leadership actions required to respond to the climate emergency.



1 https://climateemergencydeclaration.org/climate-emergency-declarations-cover-15-million-citizens/

2 AR6 Synthesis Report, Headline Statements, IPCC, accessed on 30 November 2023 at <AR6 WGI Headline Statements from the Summary for Policymakers (ipcc.ch)

#### DAREBIN 2041 COMMUNITY VISION

In 2021, our community developed a community vision to set the aspirations for the future Darebin, and the community we want to be 20 years from now.

More than 1,600 community members told us what they wanted to see for the municipality in 2041, and 38 residents and business owners formed a Deliberative Panel to shape that feedback into our vision and key pillars/themes.

Council's commitment to addressing the climate emergency is expressed through the Darebin 2041 Community Vision:

## *"Darebin is an equitable, vibrant and connected community.*

Darebin respects and supports First Nations People, values country, our diverse communities and places.

Darebin commits to mitigating the climate emergency, creating prosperity for current and future generations."

This Plan is a vital part of bringing this Community Vision to life.

### **Developing the Scope and Vision of this Plan**

## This Plan has been built from the ground up.

Every vision, goal and action is informed by the priorities and visions of the Darebin community. We received more than 1,000 contributions from the Darebin community through workshops, surveys, in-depth community conversations and written feedback. The Plan also had input from the Wurundjeri Woi-wurrung Traditional Owners, community advisory committees, Council partners, community groups and local businesses as well as drawing on research and expert advice. Nearly 300 people responded to our call to describe a climate safe Darebin in 2030 and beyond. Community members painted a rich picture of Darebin's future, and together we hold a clear vision and a strong ambition to live in a thriving, healthy place enriched by nature and a connected diverse community. The words below come directly from community contributions and they have inspired this Plan.

> Streets are safe, liveable places because fewer cars are needed. We use reliable and accessible electrified public transport, walk, ride bikes or access community electric car shares.

Darebin is green, tranquil and cool. Streets are lined with native trees, and our paths to shops, parks, workplaces and public transport are shaded so that being in our neighbourhoods is a pleasure. Our green spaces and waterways are flourishing. Wildlife thrives in restored habitat corridors and backyards; we hear birds sing in the day and possums and bats at night. We have listened with trust and respect to the invitation from the Wurundjeri Woi-wurrung and other Aboriginal and Torres Strait Islander people living in Darebin to 'listen to our mob, understand our knowledge' about caring for Country and culture and how to be safe and well in the environment. In partnership with Wurundjeri Woi-wurrung custodians, we have learnt to value and protect nature, culture and Country, and to feel deeply connected to the land and the places we love.

We feel safe in Darebin because everyone has somewhere to be that is safe and cool in summer and warm in winter.

All buildings, homes and businesses are high quality, energy efficient, fully electric and comfortable places to live and work. Those most vulnerable to the impacts of climate change and those renting or unable to make changes in their homes have been supported and we have achieved a transition to affordable renewable energy where no one has been left behind.

5

Businesses have invested in sustainability and circular economy initiatives and people shop locally in support. We are a thriving, connected community working together to reduce emissions. Locally grown food is widely shared. Tools, skills and knowledge to reuse, repair and minimise waste are readily available.

Darebin Climate Emergency Plan 2024-2030

### **Setting Directions**

There is widespread agreement across Australian and State governments, and in the Australian community, that acting on climate change in this decade is critical. The Darebin community endorses this view, overwhelmingly supporting Council to take strong action on climate.

Several clear themes emerged during consultations that have directly shaped this Plan. As a Council and a community we seek to:

- 1. Support a sustained relationship with the Wurundjeri Woi-wurrung Traditional Owners to embed their cultural knowledge, acknowledge their ongoing custodianship and work together to ensure that our community thrives.
- 2. Focus on emissions reduction, transitioning our homes and businesses from fossil fuels to renewable electricity.
- 3. Build a strong resilient community and especially support those most impacted by climate change to adapt.
- 4. Prepare for climate change by improving the amenity and safety of our streets and neighbourhoods, protecting and enhancing biodiversity and taking care of our health and wellbeing.

We recognise that the impacts of climate change are not felt equally, with many members of our community at a greater risk than others including outdoor workers, children, elderly people, and people living with illness or a disability. We bring an equity lens to this climate work to ensure that those with the fewest resources and least capacity to adapt are supported.

Whilst this Plan focuses on reducing the risks and impacts of climate change for the community, there are also considerable social and economic opportunities. These include transforming to a renewable, circular economy, increasing community safety and cohesion, new ideas and leadership, and embedding traditional owner cultural knowledge in our biodiversity and conservation work.

Our community will continue to play an important role in ensuring Darebin is on track to reach the visions and goals we have set out in this Plan.

We are confident that by working together with trust and respect we can deliver the urgent actions required to heal and protect Country, reduce our emissions, support each other to adapt to climate change, lead by example and foster innovation in a thriving Darebin.

## **Climate Emergency Plan Goals and Actions**

In this Plan we outline:

- what we will do as a Council
- how we will support our community to take action and stay safe
- where we will continue to collaborate and advocate for stronger action from the Australian and Victorian governments.

#### Four pillars of action

We have divided the actions into four pillars. These pillars represent the key areas on which Council will focus to address climate change and its impacts. These pillars are the result of many discussions with the Darebin community, community organisations, climate and community experts, Traditional Owners and Custodians, and advisory bodies (see page 51 for details of these consultations).

These four pillars will shape our focus over the next decade:

#### 1. Caring for Country

Wurundjeri Woi-wurrung and all Aboriginal and Torres Strait Islander people with a connection to Darebin are empowered and supported to maintain and share their culture and knowledge to protect, preserve, revitalise, and heal Country, which supports self-determination, benefits everyone and maintains a thriving, resilient natural environment.



#### 2. Towards zero emissions Darebin

Darebin homes, businesses, transportation, and Council operations and buildings are efficient, fossil fuel-free and powered by renewables, allowing for a healthy, liveable and thriving community.

#### **3. Community resilience** and adaptation

Darebin's community is connected, safe and resilient to the changing climate, and has safe places to live, work and play.

#### 4. Leadership and Innovation

Darebin Council drives innovation and opportunity through strategic climate advocacy and partnerships across all sectors and is recognised as a Sustainable Climate Economy hub, with a climate-focused and skilled workforce.

#### EACH PILLAR CONTAINS:

- A vision
- A description
- Big picture goals, what we are aiming to achieve by 2030; and
- Actions for the first three years to take us towards the goals

At the end of this Plan we provide the background information on how these pillars and actions were developed, why they are important, and how we will measure our progress

(author)

Darebin homes, businesses, and transport, and Council operations and buildings are efficient, fossil fuel-free and powered by renewables, allowing for a healthy, liveable and thriving community.

### **Caring for Country**

Wurundjeri Woi Wurrung and all Aboriginal and Torres Strait Islander people with a connection to Darebin are empowered and supported to maintain and share their culture and knowledge to protect, preserve, revitalise and heal Country, which supports self-determination, benefits everyone and maintains a thriving, resilient natural environment.

## **Community Resilience**

Darebin's community is connected, safe and resilient to the changing climate, and has safe places to live, work and play.

Figure 1. Climate Emergency Plan Pillars and Visions

## **Leadership and Innovation**

Darebin Council drives innovation and opportunity through strategic climate advocacy and partnerships across all sectors and is recognised as a Sustainable Climate Economy hub, with a climate-focused and skilled workforce.

### **Towards Zero Emissions Darebin**

# 1. Caring for Country

Vision: Wurundjeri Woi-wurrung and all Aboriginal and Torres Strait Islander people with a connection to Darebin are empowered and supported to maintain and share their culture and knowledge to protect, preserve, revitalise, and heal Country, which supports self-determination, benefits everyone and maintains a thriving, resilient natural environment.

#### Aunty Di Kerr OAM Wurundjeri Woi-wurrung Traditional Owner

First and foremost we have to understand Mother Earth. The earth is our mother. The waterways are her veins. They're sick because we're not looking after her. That's why we're seeing all these disasters.

We need to care for Country every day. Unless we journey together it won't work. We have to respect each other and show respect.

It's important that this journey is urgent. Everyone has a similar passion to care for Country. We have our future generations to think of.

The more we sing Country, do ceremony on Country, the more we heal Country. Our names were taken from us, which was about caring for

#### 2030 GOALS

 Wurundjeri Woi-wurrung cultural knowledge is embedded and reflected in Council's approach to conservation, biodiversity and land management

Bordered by the Merri and Darebin Creeks, the natural songlines of the land, the City of Darebin has diverse ecosystems of plants, animals and other organisms all living together on the unceded lands of the Wurundjeri Woi-wurrung people. A thriving and resilient natural environment supports a thriving community. When we care for Country we are also caring for people.



Country. My mother's name is Wollert and that means possum and that is now my sister and my responsibility.

We don't have to share our sacred everything, it means we are taught to share and care - and as part of our journey to care for Country it is to allow others to share that journey.

*Journey together, all caring for Country, that is our priority.* 

- Darebin's natural environment is diverse, resilient and thriving
- Darebin's neighbourhoods are green, safe and liveable

At Darebin Council we are on a journey to acknowledge and address the impacts of colonisation on this Country and the Wurundjeri Woi-wurrung Traditional Owners as reflected in our Statement of Commitment to Aboriginal and Torres Strait Islander people and our Darebin Aboriginal and Torres Strait Islander Action Plan 2017-2021.



In our environmental work this involves placing Wurundjeri Woi-wurrung cultural knowledge and culturally appropriate practices such as storytelling and art at the heart of our conservation and biodiversity work, and identifying opportunities for partnership, collaboration and leadership.

This Plan is being developed alongside Council's new Aboriginal Action Plan.<sup>3</sup> Both plans will be important in continuing to bring to life to Council's commitment to Traditional Owners and Aboriginal and Torres Strait Islander people.

We are guided by the principles in the Victorian Aboriginal and Local Government Strategy 2021-2026 which states that partnerships based on mutual control, shared power and decision-making, fairness, respect, and trust are essential for self-determination. For Darebin this means ensuring priorities of Traditional Owners are regularly reviewed and being delivered through actions. We are also guided by the Caring for Country principles of the Narrap Unit at the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation. These principles centre Traditional Owner knowledge and recognise that colonisation severely disrupted connections to culture and place.

Caring for Country principles ensure that Traditional Owners:

- have first right to identify and deliver natural resource management works
- are engaged early in any project
- can attend Country throughout natural resource management works; and
- are supported in ongoing building of knowledge and skills in caring for Country.

This is a journey of recognition, self-determination, knowledge sharing and two-way learning.

We acknowledge that this work isn't easy, and Council won't always get it right. There is a lot to learn, and non-Aboriginal community members can bring colonial cultural assumptions and world views. But we know we will be stronger, fairer and more resilient if we walk side by side with each other.

#### DAREBIN COUNCIL'S CARING FOR COUNTRY PROJECTS

The Narrap (Country) Unit is the Natural Resource Management team of the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation. Darebin City Council has been working with the Narrap Rangers since 2021, caring for Country in three significant conservation areas of grassland remnants – the Cherry Street Grassland Reserve, Ngarri djarrang Grassland and Bundoora Park Grassland.

We have worked together in revegetation activities and controlling weeds. Fire break maintenance for environment and community safety is another ongoing part of our work. A management practice known as ecological thinning has also been undertaken at Cherry Street Grassland Reserve to increase local biodiversity. Ecological thinning consists of reducing the density of regrowth trees in altered environments and restoring the conditions of natural grasslands, a habitat typically dominated by grasses with little tree cover.

Ecological thinning applied to enhance grasslands creates room and sunlight for other indigenous species to grow and flourish. This practice requires sound knowledge of the local environment - combining the skills of the Narrap Rangers and Council officers is key to its success. In the short time that we have been doing this landscape restoration and regeneration work, we can see improvements in ground cover, including greater diversity and increased flowering of native species.

3 Darebin Aboriginal Action Plan https://www.darebin.vic.gov.au/Community-and-pets/Aboriginal-Darebin/ Our-commitment/Action-plans From this partnership, other opportunities for collaboration arise. For example, at Bundoora Park, Council officers recently supported Narrap in preparing for and facilitating a planting day with local schools to reinvigorate the Wurundjeri Garden. The garden will become an important site to display and learn more about indigenous species and their traditional usages.

The Narrap Rangers and the Bushland crew have shown us that Caring for Country involves people coming together, exchanging knowledge, learning about culture and building social connections through shared projects which benefit us all.



Wurundieri Woi-wurrung cultural knowledge is embedded and reflected in Council's approach to conservation, biodiversity and natural resource management

#### **Number Actions**

1.1 By 2030 Council has made a sustained investment in a strong and respectful working relationship between Council and the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation that centres Traditional Owner cultural knowledge and rights in relation to natural resource management and climate programs and supports two-way learning.

> **1.1.1** Work with the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation and Aboriginal and Torres Strait Islander people in Darebin to support the delivery of the actions within this pillar, build strong relationships and identify additional opportunities to achieve climate justice.

**1.1.2** Work with Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation, including their Policy and Partnerships sub-committee, to look into opportunities for Wurundjeri Woi-wurrung management of Country in line with Council's Aboriginal Action Plan.

**1.1.3** Work with the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation to develop an agreed framework for integrating Traditional Owner knowledge, caring for Country principles and climate resilience principles into Councils' existing and future conservation and biodiversity focused strategies and services.

1.2 By 2030, Council practices are culturally safe and key Council strategies, processes, programs and resources in relation to biodiversity and land management reflect Traditional Owner knowledge and priorities.

> **1.2.1** Develop Aboriginal cultural training on climate, men's and women's business and caring for Country and commence roll out to Council officers whose roles relate to land management and/or the natural environment by 2025. This will promote cultural safety in climate and biodiversity work practices and systems.

**1.2.2** By 2027-28 commence program design to support integration of Traditional Owner knowledge and embedding of caring for Country principles into community engagement programs and resources aimed at protecting and enhancing biodiversity, and increase broad community awareness and understanding of the culture, history, songlines and language of this Country.

#### Darebin's natural environment is diverse, resilient and thriving

1.4

1.3	By 2030 Darebin has significant canopy and biodiversity, with cli

**1.3.1** Continue to increase canopy cover in streets across Darebin, prioritising street planting in locations where the Urban Heat Vulnerability index is highest, that are priority walking or cycling routes, and where canopy cover is low.

**1.3.2** Continue to implement Darebin's Open Space Strategy Breathing Space, including its key directions to enhance biodiversity within the open space network and to increase nearby access to cooling open spaces for community.

#### By 2030 community initiatives that promote connection to, and improvement of, the natural environment, are flourishing and supported by Council.

1.4.1 By 2025 be supporting at least 5 community initiatives or volunteer opportunities across our diverse communities, to strengthen community connection to the natural environment.

#### Darebin's neighbourhoods are green, safe and liveable

## 1.5

**1.5.1** By 2026 review Council's strategies relating to the urban forest, including identifying a pathway for mitigating risk to our community in areas affected by the urban heat island effect, and for maintaining urban forest and ecological connectivity in the face of severe and extreme heat risk to vegetation.

**1.5.2** By 2026 implement the updated Environmentally Sustainable Development (ESD) Building and Infrastructure Policy to integrate nature-based solutions into Council's building and design projects that support habitat creation and increase resilience to drought and heat.

**1.5.3** Advocate to the Victorian Government for funding towards protecting and enhancing urban forests to help facilitate more trees across the northern region to address the urban heat island effect and improve canopy equity.

**1.5.4** Advocate for funding for projects that increase water quality, address urban cooling and/or promote habitat.

ly increased its green spaces, tree imate resilience as a priority outcome.

By 2030, the built environment across Darebin incorporates natural elements that contribute to climate resilience and enhance liveability.



# 2. Towards Zero Emissions Darebin

Vision: Darebin homes, businesses, and transport, and Council operations and buildings, are efficient, fossil fuel-free and powered by renewables, allowing for a healthy, liveable and thriving community.

#### 2030 GOALS

- Darebin has transformed into a clean, liveable city that supports the transition to zero-emissions.
- Darebin is achieving best practice environmentally sustainable development (ESD) outcomes and aiming for zero carbon buildings and assets

Darebin Council is committed to urgently reducing Council and community emissions to tackle climate change. We're already seeing the effects of climate change with more frequent bushfires, floods, and extreme weather events. It's more important than ever to reduce greenhouse gases and to minimise global warming. This will help maintain a safe and liveable climate for everyone.

We need to act quickly to prevent irreversible damage. If we don't, we'll have to spend more time and resources in the future protecting our community from climate change, instead of being able to take up economic opportunities and build a more positive future.

What does this mean for Darebin? Our community has told us they want to see significant change this decade. Local governments play a major role in helping communities reduce their emissions and stop using fossil fuels. In the first three years of this Plan we're aiming to cut emissions in Darebin by 7% each year. This approach realises Council's climate emergency declaration by setting progress milestones. Our targets are based on expert advice and

4 Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16-1104.

5 Ironbark Report 2023 to Darebin Council

6 Public disclosure statement, Darebin City Council, Organisation Certification FYD021-2022, https://www.climateactive.org.au/buy-climate-active/certified-members/city-darebin

Darebin Climate Emergency Plan 2024-2030

- Darebin is moving towards zero-emissions transport, and reducing congestion and dependence on cars
- Darebin is building a local circular economy that reduces waste and supply chain emissions

are in line with the Paris Agreement.<sup>4</sup> They are set to be achievable, allowing us to invest now in measures to build our community's resilience to climate impacts and mitigate risks to Council and community assets.<sup>5</sup>

We will continue to seek opportunities to accelerate emissions reduction through advocacy to the Australian and Victorian governments to urgently deliver the necessary policy, regulations, programs and funding for a smooth transition to renewable energy and to surpass the 7% target.

Council's emissions account for less than 0.5%<sup>6</sup> of total emissions in Darebin, so our focus is on supporting and inspiring everyone in the community to reduce emissions and switch from gas and other fossil fuels to clean, renewable energy (see Appendix A for Darebin's current emissions profile and projections).

The Australian and Victorian governments are already investing substantially in ensuring our electricity grid is powered by renewable energy rather than coal. This will help cut down Australia's emissions from electricity in the next ten years.

But gas use in Darebin, which produces 26% of our emissions, is expected to increase.<sup>7</sup> So our main goal in this Plan is to reduce our community's use of gas and other fossil fuels. By shifting to electric options, we're not just cutting down emissions; we're embracing a future of cleaner energy and lower bills. The benefits will grow as more of our electricity comes from renewable sources.

This means supporting Darebin households to switch from gas to electric appliances, our businesses to adopt electric technologies, and ensuring our industries are powered by renewable energy. It will also require ambitious policies, programs and investment from other decision makers, including the Australian and Victorian governments, industry leaders and financial institutions. For example, we know that without intervention, the Australian Government's Net Zero plan expects transport emissions to be the largest source of greenhouse gas emissions in Australia by 2030<sup>8</sup>.

Council will lead by example, continuing to use 100% renewable electricity in our operations and working towards electrifying our buildings and assets.

To meet our targets we need to switch 3,700 homes, 374 businesses, and 6.300 cars from fossil fuels to renewable energy every year.

We are committed to supporting Darebin's residents and businesses to go electric through programs, education, and advice, using our experience from the Solar Saver program.

We will also work on lowering emissions from our supply chains, transport, and waste services through collaboration with other local councils and organisations.

All actions and advocacy to other levels of government in this pillar will set Darebin up to continue our ambition to drive Council's and community emissions downward in future action plans developed for the later years of this Plan.

To ensure our efforts remain focused, emissions targets will be reviewed in 2027. We aim to build on the achievements of the first action plan and to confirm that our ambitions continue to reflect expert scientific advice and our communities' values and needs.

Figure 2 shows Council's emissions reduction achieved to the end of Council's first Climate Emergency Plan and a prediction of how emissions will continue to go down under this new Plan.



7 Darebin municipal emissions, Snapshot report 2021/22

Australian Government's Transport and Infrastructure Net Zero Consultation Roadmap 2024

Long term goals of

Emissions remaining being addressed by actions such as 2.1.2 and 2.1.3 on heavy vehicles e.g. garbage

homes for when staff is working from home

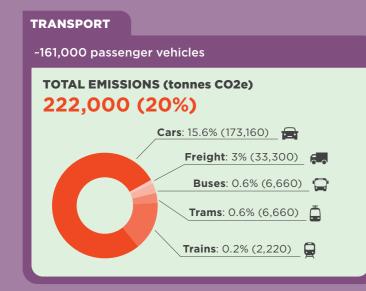
Figure 2. Darebin Council's CO2 emissions and big actions on climate

# **Darebin's Pathway to Zero Emissions**

#### **ENERGY SOURCES**



68% fossils fuels and 32% renewables in our electricity grid (Australia Energy Update, 2023)

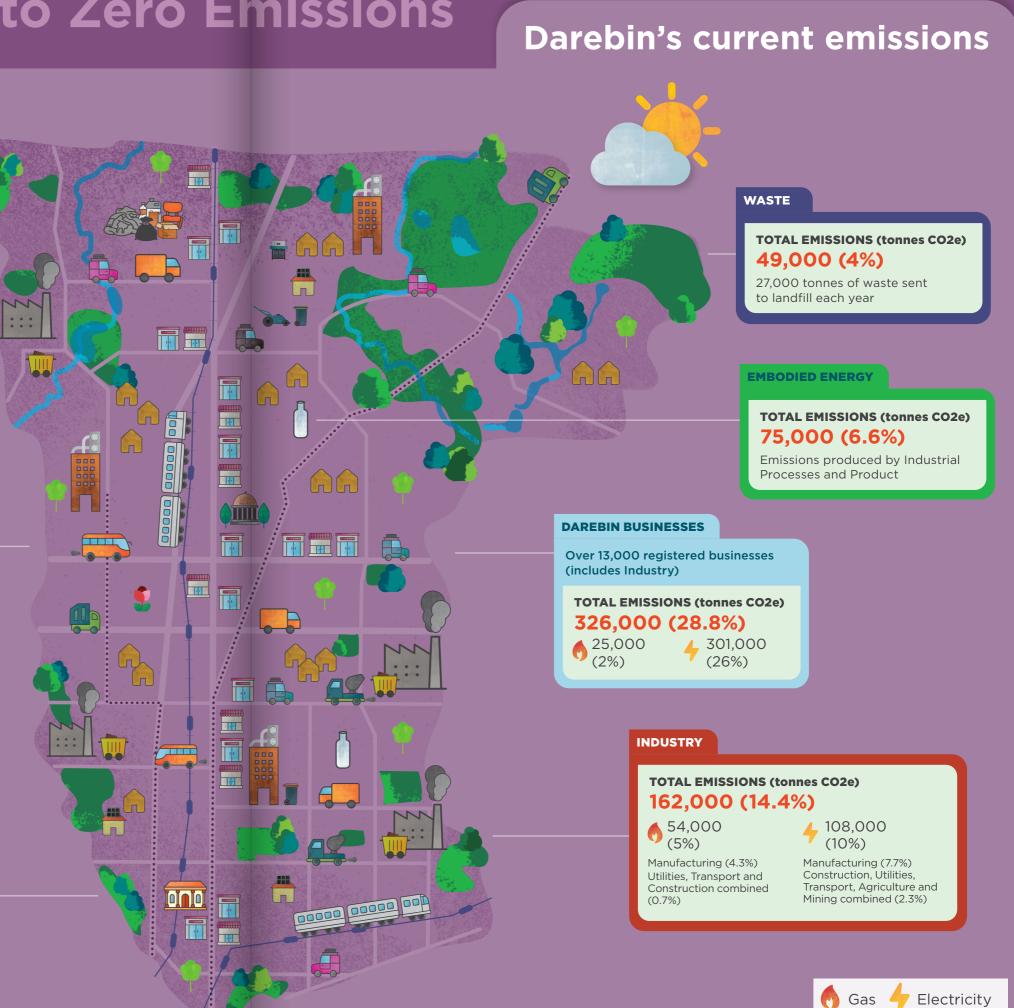


#### **DAREBIN HOMES**

51,958 homes (76%) in Darebin still on gas

**TOTAL EMISSIONS (tonnes CO2e) from residential appliances** 295,000 (26.2%) 216,000 **/** 79,000 Lower





# **Darebin's Pathway to Zero Emissions**



# **Solutions**

#### **TURNING WASTE INTO A CIRCULAR ECONOMY**

#### SOLUTION

• No resources sent to landfill

#### WHOSE ROLE IS IT?

• All levels of government collaborate to implement incentives and regulations for businesses and industry



#### DAREBIN BUSINESSES

#### SOLUTION

- Electrify all appliances
- Solar PV and solar battery storage where possible
- Battery storage for solar

#### WHOSE ROLE IS IT?

• Businesses with support from Local, State and Federal governments

#### JOB OPPORTUNITIES AND TRAINING

#### SOLUTION

 New local iobs and training in electric, renewable and circular economy trades

#### WHOSE ROLE IS IT?

 State government. universities and TAFES

- 500-1000 commercial heating and cooling systems to switch to renewable energy
- Other industrial technologies

#### WHOSE ROLE IS IT? • Businesses with support from State and Federal

#### MULTI-BILLION \$ ECONOMY INTO DAREBIN

#### SOLUTION

• Attracting new and support existing industry and business to Darebin as a sustainable economic hub

#### WHOSE ROLE IS IT?

- - Local and State government - planning schemes and city design

Darebin has transformed into a clean, liveable city that supports the transition to zero-emissions

Number	Actions
2.1	By 2030, Council buildings, assets and fleet are electric, efficient, and run on 100% renewable energy.
	<b>2.1.1</b> Progressively fully electrify Council buildings currently connected to the gas network with the aim of having all Council owned or managed buildings off gas by 2030, aiming for minimum 40% completion by 2027.
	<b>2.1.2</b> Annually review new technology options to reduce emissions from heavy vehicles in Council's fleet, acknowledging that for some functions there are not currently readily available alternatives.
	<b>2.1.3</b> Progressively transition to a full electric vehicle fleet and full electric suite of small plant (such as leaf blowers) for the delivery of Council services (both in house delivered or contracted) with the aim of having transitioned by 2030 as technologies become available, aiming for 40% emissions reduction by 2027 of Council's light fleet.
	<b>2.1.4</b> Develop a policy and procedure to guide purchasing of local carbon offsets or emission reduction projects, equivalent in value to the cost of suitable offsets for abating Council's annual operating emissions. This policy will include annual monitoring and public reporting of Council's operating emissions, the local offsets or emissions reduction projects supported, and will transition away from carbon neutrality and certification.
2.2	By 2030, Darebin's households (including renters), businesses, and community organisations have strong support from Council, Australian and Victorian governments to electrify, improve efficiency, access affordable 100% renewable energy, and Darebin's gas emissions are dramatically reduced and approaching zero.
	<b>2.2.1</b> Create a program that provides tailored support and a financing mechanism to support electrification and renewable energy for both households and transport, with a target of engaging 1000 Darebin households per year.
	<b>2.2.2</b> By 2025 develop and begin delivery of an education campaign supporting Darebin households and businesses to electrify, improve efficiency and access affordable 100% renewable energy.
	<b>2.2.3</b> Advocate to other levels of government to accelerate households going electric.
	<b>2.2.4</b> Advocate for funding to electrify and install renewable energy in public and social housing. Access funding from Australian and

ELECTRIFYING DAREBIN'S HOUSEHOLDS

Renewable energy is energy from natural sources that are replenished at a higher rate than they are consumed.<sup>9</sup>

The most common sources in Australia are the sun (solar power), wind (wind power) and water (hydropower). Running our homes, businesses and industry on electricity generated from renewable sources rather than from non-renewable fossil fuels (such as coal, oil or gas) significantly reduces greenhouse emissions, and is key to tackling climate change.

The Australian and Victorian governments have incentives to encourage this transition from fossil fuels to renewable energy and our electricity grid is rapidly changing to include more renewables.

New efficient technologies also reduce the amount of energy used by common appliances such as hot water services, heating and cooling, and cooktops, so switching to efficient electric appliances is the best way to reduce energy bills and emissions. These include:

• Heat pump hot water systems, which absorb warmth from the air and transfer it to heat water. They use around 60 to 75% less electricity than traditional electric hot water systems. Unlike solar hot water systems they don't require roof space or boosting with gas in winter. They have a

#### See *www.darebin.vic.gov.au/go-electric* for more information on electrifying your home.

9 https://www.un.org/en/climatechange/what-is-renewable-energy

Victorian government programs.

higher up-front cost but save money over time, especially when programmed to heat up during the day to make use of solar power.

- Reverse cycle air conditioners, a type of heat pump. As well as cooling your home, they are the most cost-effective and energyefficient way to heat your home.
- Induction cooktops, which use electro-magnetic energy to heat cookware. They heat up faster than gas or electric stoves, have a wide temperature range and are easy to clean. They are also safe to use as they switch off automatically when cookware is taken off, and don't have a naked flame or hot element. Unlike gas stoves, induction cooktops don't produce harmful nitrogen dioxide which can contribute to asthma and other respiratory illnesses.
- Electric vehicles, which are fast replacing internal combustion engine vehicles worldwide. Electric cars use rechargeable batteries instead of petrol or diesel, and they can be used as a backup power source when other sources are not available. They are cleaner, guieter and cheaper to run than petrol or diesel vehicles.

#### Darebin is achieving best practice environmentally sustainable development (ESD) outcomes and aiming for zero carbon buildings and assets

#### 2.3 By 2030, become a leading Council with zero carbon development requirements.

**2.3.1** Update Darebin's environmentally sustainable development (ESD) Building and Infrastructure Policy to reflect best-practice and introduce minimum standards for Council building projects, appliances and assets, and share this best practice guide with the community.

**2.3.2** Update the Darebin Design Excellence Guidelines and Program to include environmentally sustainable development principles and improve community builds through an education and compliance program that reduces barriers, and monitors and enforces minimum requirements while celebrating best practice.

Darebin is moving towards zero-emissions transport, and reducing congestion and dependence on cars

2.4 By 2030, Darebin's community has access to social and economic opportunities through infrastructure and programs that remove barriers to active and sustainable transport, and zero-emissions vehicles for all people, resulting in safer and more connected communities that reduces transport emissions by at least 45%.

> **2.4.1** Develop a new Integrated Transport and Land Use Strategy to replace the current Darebin Transport Strategy by no later than 2026. The new strategy will include an accelerated pathway to achieve zero carbon transport emissions by 2030 through an uplift in active transport infrastructure including segregated bike lanes and programs, micro-mobility, lower speed limits and supporting the community to access and use electric transport, including public transport.

> **2.4.2** Continue to implement the Darebin Electric Vehicle Policy to facilitate the expansion of the electric vehicle network by partnering with the Northern Council Alliance to implement the Community Electric Vehicle Transition Plan for public car charging including facilitating the installation of 66 public electric vehicle chargers within Darebin.

**2.4.3** Advocate to the Victorian Government to give people real transport choices through:

- increased funding for cycling and walking infrastructure and programs
- improved access to electrified public transport, particularly for underserved communities, including an electric orbital bus route along the proposed Suburban Rail Loop corridor and extending the Number 11 tram route to Reservoir Train Station.

**2.4.4** Advocate to the Australian government for a strengthened New Vehicle Efficiency Standard to improve vehicle efficiency and lower emissions from transport.

#### Darebin is building a local circular economy that reduces waste and supply chain emissions

2.5 reducing waste emissions by 50%.

> **2.5.1** Develop a plan to measure and report on Council's emissions from our supply chain, services, travel and other indirect operational emissions and set reduction targets.

**2.5.2** Through the Economic Development Strategy, support and facilitate businesses in Darebin to transition to renewable energy, electric technologies and circular material use.

**2.5.3** By 2025 develop and deliver an education campaign supporting Darebin households and businesses to reduce consumption, increase reuse and repair and support a circular economy.



By 2030, transition Darebin towards zero waste with a goal of

27

# 3. Community Resilience

Vision: Darebin's community is connected, safe and resilient to the changing climate, and has safe places to live, work and play

#### 2030 GOALS

- Darebin is developing and delivering best-practice climate planning for buildings, infrastructure and public spaces in Darebin.
- Darebin is building a stronger and more connected community through climate projects and programs

As we work together to tackle climate change, we're already feeling its effects. Our climate is getting hotter, and we're seeing unpredictable rainfall, and more storms, droughts, and flash flooding. The quality of our air is affected by bushfires, our water sources are under pressure and our ability to access fresh, local and affordable food is reduced.

A key role for local governments is to plan, prepare and adapt to these climate-related impacts. This pillar contains actions about Council buildings and services and sets out a plan to address the risks facing our community because of climate change. We aim to ensure our city, people and businesses are as resilient as possible to future shocks and stressors.

Resilience is the ability to avoid, withstand, and recover from climate impacts, and 'bounce forward' to a better adapted state. Focusing on resilience means strengthening our community's capacity to work towards a positive future, as well as ensuring we are prepared for shocks and stressors.

Climate change directly impacts Council services and assets in a number of ways, including:

- safety for staff working outdoors during heatwaves
- maintenance costs for sporting grounds during drought periods

 Public health risks are managed improving Darebin's emergency management response and preparedness for severe and extreme weather events.

- designing floodwater systems that are fit for purpose
- ensuring we have safe and stable facilities during power outages.

Climate change also impacts residents and business owners. As outlined in the recent National Health and Climate Strategy (2023), heatwaves and other climate-related events have a negative impact on people's health and wellbeing, particularly people with a disability, babies and young children, older people and people with chronic health conditions. Aboriginal and Torres Strait Islander people are impacted disproportionally due to the ongoing impacts of colonisation on Country and the poorer health outcomes experienced.

Rates of family violence and mental ill health increase, and access to fresh food is impacted. We heard from our community that during heatwaves people are becoming increasingly isolated as they stay home to shelter from the heat. Renters are also vulnerable as they have less ability to make changes to their homes and businesses, housing quality is variable and the rising cost of living makes high energy bills difficult to pay. Businesses face risks from the shift to a net-zero economy including changes in demand for goods and services, and higher energy, material, and operating costs.

#### **CLIMATE AND HEALTH**

The actions in this pillar are aligned with the National Health and Climate Strategy which was released in December 2023. The Strategy is the first national strategy to address the health and wellbeing impacts of climate change, and outlines priorities for the next 5 years.

It identifies the following national-level risks to population health and wellbeing:

- Risks from climate-related disasters and extreme weather events. including bushfires and floods
- Risks from increased heat, including both heatwaves and incremental increases in temperature
- Risks from reduced air quality driven by climate change
- Risks from climate-sensitive non-communicable disease (such as respiratory and cardiovascular disease) and communicable diseases (such as tropical and vector-borne diseases)

- Risks to mental health and wellbeing
- Risks from reduced food and water security
- Risks from poor-quality or inappropriate housing and infrastructure.

The Strategy identifies priority communities, and sets out actions which will build healthy, climate-resilient communities, and a sustainable, resilient, high-quality, net zero health system.

The Strategy can be accessed here: National Health and Climate Strategy

| Australian Government Department of Health and Aged Care

In alignment with the National Health and Climate Strategy, we bring an equity lens to our climate resilience work. This recognises that climate impacts are felt differently by different people, and that factors like gender. age, Aboriginal and Torres Strait Islander status, health, mobility and disability, income, social connectedness, housing, migrant and refugee status, language and literacy proficiency, and quality and proximity to high-risk flood or bushfire regions affect someone's vulnerability and the likely impacts on health and wellbeing. Those most at risk of experiencing severe impacts are often those with the fewest resources to address them.

A connected and inclusive community is more resilient to whatever comes its way. That's why our plan is not just about infrastructure; it's about strengthening our community to ensure that everyone is informed, safe, and part of our resilient future. We will do this by working closely with our community members and groups, community service organisations, Neighbourhood Houses, multicultural and faith leaders, Aboriginal and Torres Strait Islander services, local businesses and neighbouring local government areas, who are all key to strengthening climate resilience in Darebin.



## Darebin is getting warmer and drier. In the future we can expect:





to increase all year around







Annual rainfall to reduce

**Increased frequency** and intensity of rainfall events. leading to increased risk of flooding

### What does this mean for the Darebin community?





Increase in heatrelated health issues, particularly for older people and voung children, and people with chronic illnesses



Impacts on people. animals and Country of changing natural environment





Drier soils that result in weakened infrastructure foundations, making buildings less safe



Days over 40°C to increase by 2030



Number of heatwaves to increase from an average of 10 per year to 14-15 per year by 2030s



**Increase in bushfires** leading to poorer air quality in Darebin



**Increase in intense** storms resulting in more power outages and infrastructure damage



Increased need for community services and spaces to keep the community safe



**Higher energy bills** to keep homes and workplaces cool and safe



#### Long-term drought and water restrictions



Increase in insurance premiums for residents and businesses

31

Darebin is developing and delivering best-practice climate planning for buildings, infrastructure and public spaces in Darebin.

Number	Actions	
3.1	By 2030 all Council owned buildings and infrastructure are climate resilient, ensuring safety for our staff and community.	
	<b>3.1.1</b> Use the Victorian Climate Projections 2019 RCP 8.8 high scenario (or subsequent RCP 8.5 projections) to inform planning and delivery of all Council services.	
	<b>3.1.2</b> By 1 July 2026 integrate assessment of climate risk and building resilience into building infrastructure renewal and upgrade planning, and strategic property decisions including decisions such as whether to relocate services or facilities and where to best locate facilities into the future.	
	<b>3.1.3</b> Apply a detailed climate risk analysis to service disruption and business continuity planning for all Council services, and by 2025 embed climate risk into business continuity plans for all critical Council services to ensure Council can continue to provide priority services during hot days and extreme weather events.	
3.2	By 2030, Darebin neighbourhoods and key active transport routes are safe, cool, green spaces, with every home within 500m of shaded greenspace.	
	<b>3.2.1</b> By 2027 identify, start to develop, and promote a network of outdoor safe and cool active transit routes, public transport stops and open spaces to provide refuge from the heat in Darebin. We will achieve this by increasing shade, shelter, tree and plant cover and drinking fountains, and prioritising areas with higher heat vulnerability. This action is guided by Council's Breathing Space – Open Space strategy and Urban Forest strategy.	

management that incorporates climate risk to ensure future resilience.

3.3

**3.3.1** Incorporate 2019 climate projections (RCP 8.5) and climate adaptive water management practices into the new integrated water management strategy (after Watershed sunsets in 2025).

**3.3.2** Implement a best practice water sensitive urban design voluntary contributions scheme to improve stormwater quality and promote urban cooling.

By 2030, all new private developments in Darebin are climate resilient. Darebin's Environmentally Sustainable Development (ESD) policies and guidelines are fully implemented by all developers and home builders ensuring best practice in Darebin by 2030 and future climate-related development needs in Darebin are considered.

**3.4.1** Develop Darebin's ESD Design Excellence Guidelines by the end of 2025 to include best practice climate resilience principles.

3.4.2 As part of Council's Housing Strategy (currently under development) consider the sustainability and resilience of Darebin's built environment when planning for growth and change by focusing and prioritising residential growth in more sustainable locations close to existing shops and services, facilities, and transport infrastructure.



By 2030, Council uses a best practice approach to water

#### **CLIMATE EXPLAINER**

#### **RCP8.5** definition:

The term RCP8.5 refers to the worstcase greenhouse gas emission scenario for climate change. This scenario will happen if rapid changes to policy and practices are not made, resulting in continued and sustained growth in atmospheric greenhouse gas concentrations. The highest-risk scenario is used by Council, and most government agencies, to ensure that potential climate risks are accounted for in all our future projects.<sup>10</sup>

#### **Climate risk**

Climate risk refers to the potential for negative consequences to occur due to climate change. These can include physical risks such as:

- intense rainfall impacting roads, services and households,
- severe heatwaves increasing the likelihood of heat-related illnesses in the community, increasing risk to transporting and storing food safely, and making it harder to keep homes and businesses safe and cool, or
- droughts that cause our parks, sports fields and natural ecosystems to dry up and habitat to be lost.

It also includes transition risks that can occur due to the global economy transitioning to low carbon. For example, having insufficient resources to support low-carbon transition requirements, and increased risk of liability if an organisation does not incorporate climate into risk management processes.

We measure climate risk by looking at the likelihood that a risk will happen and what the impact will be. The higher the likelihood and impact, the greater the risk. We prioritise risks to ensure the highest risks are reduced as much as possible, to keep our community, businesses, and ecosystems safe.

#### LOW **INTENSITY** Most people can cope $\bigcirc \bigcirc \bigcirc \bigcirc$

SEVERE INTENSITY Vulnerable people at risk 

In this plan we focus on severe and extreme intensity climate risks, to ensure people who are most vulnerable to risk in the community are protected.

#### **Climate justice**

Climate justice means putting equity and human rights at the centre of tackling climate change (United Nations Development Programme 2024). This involves considering who in our community will be the most impacted by climate change and ensuring that they are prioritised when developing climate solutions. Council's Towards Equality Framework includes Climate Justice as its sixth principle.

In Darebin, Aboriginal and Torres Strait Islander peoples, those who have recently arrived or migrated to Australia, people in low-income households, people with a disability or chronic illness, older residents, and young children are most at risk of experiencing climate impacts. Without climate justice, climate action is likely to make social inequality worse as those who can afford to take action benefit more from the solutions and others are left behind. Centring human rights in climate action enables us to address and improve social and economic equity in our community.

EXTREME INTENSITY Everyone is at risk 

#### **Climate resilience**

Climate resilience is about successfully coping with the impacts of climate change while also continuing to prevent the impacts of climate change from getting worse. A climate resilient community produces very low emissions, uses renewable energy for powering homes, businesses, and transport, and ensures people are safe and able to cope during periods of extreme weather (e.g. heatwaves, floods, and droughts) and connected to others to provide support in times of need.

Darebin is building a stronger and more connected community through climate projects and programs

Number	Actions		<ul><li>least financial capacity to adapt th</li><li>Enforced minimum building stan</li></ul>
3.5	By 2030 the Darebin community service sector has developed capacity to support climate resilience both within their own		incentives for landlords to retrof
	organisations and within the communities they serve.		<b>3.7.3</b> By 2025 work with local busi
	<b>3.5.1</b> By 2025 work with community service organisations in Darebin to support a network to build capacity, knowledge and to drive		<ul> <li>Develop a program and material business to be safe, climate resili associated with the shift to a net</li> </ul>
	community initiatives which increase connectedness and climate resilience. Measure the effectiveness and apply and adapt projects to meet the best outcomes for the community.		Support business continuity plan weather events
	<b>3.5.2</b> Advocate to the Australian and Victorian governments for		<ul> <li>Advocate to Victorian and Feder support climate resilience in sma</li> </ul>
	funding for community service organisations to support communities most at risk of climate change impacts and food inequality through community sector adaptation initiatives.		ealth risks are managed by improving e and preparedness for severe and ex
3.6	By 2030 the Darebin community is connected and resilient with thriving community-led climate projects and programs reaching everyone in the community.	3.8	By 2030 Council has a gender-ser coordinated accessible and inclus ensuring that all Darebin residents businesses are safe and resilient to
	<b>3.6.1</b> Deliver community education and capacity-building campaigns on energy literacy and efficiency, food resilience, and water saving, that reach at least 5,000 residents annually, prioritising people in Darebin who are most vulnerable to heat stress, food inequity and energy inequity.		<b>3.8.1</b> Develop, facilitate and promo buildings, Neighbourhood Houses, other privately owned facilities tha cooling centres in extreme condition heat vulnerability. By 2027 ensure
	<b>3.6.2</b> Develop a scoping study on food resilience and security in the context of a changing climate, to identify opportunities and need in Darebin and implement priority outcomes. This will include addressing food waste and banning genetically modified food, and scoping opportunities for value-driven urban agriculture initiatives and sustainable food-related enterprises in Darebin.		familiar to local communities and a <b>3.8.2</b> By 2025 develop a comprehe support residents most at risk of se developing a communications cam health risk; expanding the reach of supporting at least 5 community o
	<b>3.6.3</b> Support community-led resilience initiatives through community grants, promotion and networks, prioritising initiatives addressing people and communities most at risk.		around heat health; and working w including one health service to dev health for at risk groups.
3.7	By 2030, Darebin residents and business owners are supported by Council, Victorian and Australian governments to become safe and climate resilient, with those most impacted by climate change prioritised.		<b>3.8.3</b> Through Emergency Manage connectivity to ensure Darebin res to respond to, unexpected shocks extreme events. By 2025 integrate related to human health risks and e
	<b>3.7.1</b> Increase climate resilience and energy equity in Darebin through a program to support low-income households and renters to increase energy efficiency and climate resilience, reaching 150 homes per year via direct interventions and engaging with a further 1000 households by 2027.		emergency management practice.
		の一個語であり	

**3.7.2** Advocate to Victorian and Australian governments for additional funding to support the health and safety of those residents with the least financial capacity to adapt through:

tandards for rental properties and crofit their homes.

ousinesses to:

rials to support small and medium esilient and manage transition risks net-zero economy

planning in the case of extreme

ederal governments for funding to small and medium businesses.

ving Darebin's emergency management l extreme weather events.

sensitive, culturally-informed lusive response to climate impacts, ents, community organisations and nt to climate impacts.

omote a network of Council-owned ses, community organisations and that can function as community ditions, prioritising areas with higher ure these buildings are accessible and nd are adequately resourced.

rehensive heat health program to of severe heat impacts including: campaign to raise awareness of heat n of Keep Cool in Darebin campaign; cy organisations to build capacity g with 5 community organisations develop resources/campaigns on heat

agement Planning support community residents are aware of, and know how cks and where to go to get help during rate all climate adaptation actions and extreme weather events in core ice.

# 4. Innovation and Leadership



Vision: Darebin Council drives innovation and opportunity through strategic climate advocacy and partnerships across all sectors and is recognised as a Sustainable Climate Business destination, with a climate-focused and skilled workforce.

#### 2030 GOALS

- Innovation and impact in climate response is driven through strategic advocacy and collaboration.
- Darebin is a leader in climate focused and innovative economic solutions.

Tackling climate change is an opportunity for us to rethink, reinvent, and reimagine a sustainable Darebin. We're proud to have been the first government to declare a climate emergency, and we're committed to being pioneers in creating a greener future. Our focus is on collaboration and innovation, bringing together governments, communities, and businesses to make a lasting impact.

We advocate for changes at higher levels of government for renewable energy targets, improved planning policies, and higher standards for homes, buildings, and vehicles. We're also advocating for innovation through supporting a net-zero precinct for the Northern Innovation and Sustainability Precinct (NISP), establishing a worldleading approach to transitioning a regional economic hub into a thriving, resilient precinct.



• Our climate commitment is integrated into every aspect of Council work, inspiring community action.

Working together with other levels of government, councils, education providers, business and industry groups, and community organisations is key to making real changes. And we're also working at the grassroots level to inspire and engage everyone in Darebin. We're committed to creating a hub of sustainability and innovation, where businesses and residents alike can thrive in a zero-carbon, circular economy.

#### Our vision for Darebin is a community that stands at the forefront of climate action that leads by example.

We're embedding this commitment across all Council operations and inspiring each other to be part of this journey. Together, we're not just facing climate change, we're leading the way to a brighter, more sustainable future. Innovation and impact in climate response is driven through strategic advocacy and collaboration.

#### **Number Actions**

4.1 By 2030 Darebin has trialled a place-based, replicable model to create a low-emissions, climate resilient and economically viable neighbourhood supporting residents and businesses most at risk of experiencing climate impacts. Model is scalable and replicable in other local councils and takes a partnership, whole of community approach.

> **4.1.1** By 2027 research and launch a neighbourhood pilot program in collaboration with external partners for a place-based, replicable model to create a low-emissions, climate resilient and food secure neighbourhood that creates economic, social and cultural opportunities. Seek partners and external funding to help design, implement, roll out and evaluate pilot program.

#### **CLIMATE RESILIENT NEIGHBOURHOOD**

One of the opportunities presented by climate change is to rethink our neighbourhoods through a resilience lens. Resilience means being able to withstand the impacts of increased heat and other extreme weather events, and building a more positive future.

In line with Darebin's Health and Wellbeing Plan 2017-21 and Australia's first National Health and Climate Strategy, launched in December 2023, this ambitious trial initiative will seek opportunities to work with community and industry partners to develop a thriving climate resilient neighbourhood, supporting healthy, climate-resilient and sustainable communities through collaboration. Our intention is to scope and trial a range of initiatives such as:

- electrification and increased efficiency and comfort of homes and businesses
- access to renewable energy
- enhancing greener and safer transport corridors to encourage cycling and walking
- advocating and fostering partnerships to ensure we have a secure and resilient energy system,

e.g. community battery projects and leading neighbourhood scale change projects

- enhancing biodiversity and landscaping to reduce urban heat effects and manage water flows
- improving urban design to improve amenity.

Our intention is that residents in this neighbourhood will experience:

- lower household energy bills
- improved thermal comfort
- increased food resilience and security
- reduced impact of heat on health and wellbeing
- high social cohesion and connectedness

The outcomes from this trial will inform future work within Darebin and beyond.

By 2030	Council	's advocac	y has
and natio	onal dec	ision-make	ers ad
the state	and co	untry.	
		-	

4.2

4.3

4.2.1 A strong climate lens shapes all Council advocacy and partnerships. We will take a strategic ap-proach to climate advocacy by using our strong climate networks and collaborate to influence state and federal government policy and funding.

#### By 2030 Council has amplified climate action through strategic and trusted partnerships.

**4.3.1** Lead, contribute to and make new key alliances/networks and cross-sector partnerships in Victoria and nationally that align with Council priorities, add value, and achieve high levels of impact. Partnership actions could include electrification, our neighbourhood and business pilots, food security and how to remove residual emissions from council and community emission profiles. Review existing partnerships through the partnerships framework action of Darebin's Organisational Strategy.

#### Darebin is a leader in climate focused and innovative economic solutions.

4.4 By 2030 Darebin is a thriving hub for zero-carbon and climate-focused businesses.

4.4.1 Through the Economic Development Strategy, develop and deliver initiatives that progressively positions Darebin to become a Sustainable Climate Business destination, attracting, retaining and supporting sustainable and climate-focused businesses, not for profits and community organisations.

**4.4.2** Advocate for innovative pilots including the Northern Innovation and Sustainability Precinct to evolve as a nationally significant renewable and climate resilient economic and education precinct.

#### 4.5 By 2030 all Darebin businesses are supported to grow and transition to be renewable, circular and climate resilient.

**4.5.1** By 2025 develop annual audits of Council's large and small contracts and suppliers to ensure our Social and Sustainable Procurement Policy process is meeting Council's climate goals. Expand Council's supplier directory with information to help staff access information about local, sustainable and socially responsible suppliers.

#### is played a pivotal role in Victorian ccelerating climate action across

**4.5.2** Focus on leveraging climate best practice from industry-based research and global advances, education, funding and awards that recognise leadership and innovation. Identify and work with key, influential local businesses to set, meet and celebrate ambitious climate and circular economy actions to foster peer to peer inspiration and learning.

**4.6** By 2030 Darebin's workforce is supported through local education, training and certification programs with the skills necessary to support the transition to a zero-carbon circular economy.

**4.6.1** Advocate for funding to support increased training opportunities, including free TAFE programs and workforce training, for local residents to take up job opportunities in the zero-carbon economy.

**4.6.2** Pilot program/s to support sustainable and climate ready skills development and emerging industries and technology in Darebin in partnership with learning organisations

Our climate commitment is integrated into every aspect of Council work, inspiring community action.

#### **Number Actions**

4.7 By 2030 all of Council's policies and strategies embed climate leadership principles and climate risk and council staff have a high level of climate literacy.

**4.7.1** By 2025 all new and revised policies, strategies, programs and plans are informed by climate and caring for Country principles included in this plan, and by a service-specific climate risk assessment.

**4.7.2** Identify and deliver training needs and develop climate training programs that empower Council staff and leadership to embed climate in their work and address health and wellbeing impacts.

**4.8** By 2030, All Council staff and community workers have a strong understanding of climate and how it is relevant to their role, and are confident communicating it to the community.

**4.8.1** By 2025, develop key messages to be used in external communications to show how Council is helping to address the climate emergency, while educating the community about the urgency and how to take action.

**4.8.2** Council will integrate a youth voice in how we consult, engage and work with young people in Darebin in climate action.

## THE NORTHERN INNOVATION AND SUSTAINABILITY PRECINCT (NISP)

With more than 35,500 jobs, 10,000 businesses and an economy of \$9.5B, the Northern Innovation and Sustainability Precinct (NISP) will be a community connected precinct that will embrace Aboriginal cultural heritage and strengthen the environmental and economic resilience of Darebin.

The NISP is a strategic precinct where businesses will be encouraged to work together with educational institutions to achieve an integrated and hyper productive city. This will result in a strong, resilient workforce seeded by nearby institutions to startups and businesses. This is an opportunity to align the research directions of the major education institutions with businesses and startups. This two-way partnership will strengthen their value as retail, services, commercial and social spaces.

Planning and investment within the precinct is an opportunity to provide community infrastructure such as transport, schools, community centres and sporting facilities. Sustainable transport infrastructure options could include exclusive public transport lanes, safely connected bicycle networks, safe pathways for pedestrians and secure arterial roads for cars. Furthermore, development within the precinct should be climate-change resilient using the latest environmentally sustainable designs. This will ensure that it is financially viable, with increase liveability and integrated water cycle management and high environmental benefits.

The precinct will have mixed development, which allows for working spaces to be close to housing. This will ensure the easy access through a range of transport options such as walking, micro mobility, public transport and sustainable transport. This will optimise economic and social participation of the community and will provide choice of employment and housing.

## The bigger picture

#### Why is this decade so important?

Taking strong action on the climate emergency this decade is critical if we are to retain a chance to limit Earth's warming to 1.5°C above pre-industrial levels and minimise the climate impacts we are already facing. Climate change has increased at an unprecedented rate over the past decade, resulting in more extreme weather events including flooding, bushfires, droughts and extreme storms, with these events becoming increasingly common in Australia and globally (IPCC 2022).

Climate change is already impacting everyone within the Darebin community, and every part of Council's operations and services. The impact of extreme weather events could include:

- long heatwaves with several days in a row over 40°C making it difficult to leave your home
- lower air guality from bushfire smoke over summer
- major flooding reducing access to places and community and creating severe damage to homes and businesses
- · storm events cutting out power, damaging property and risking lives.

For Council's operations and services, climate change could mean reduced service delivery during extreme events, difficulty accessing community members to provide support, and increased costs to ensure our buildings and infrastructure are safe for the community.

We have heard from our community that extreme weather events have a range of impacts:

- social impacts such as social isolation
- cost of living pressures due to increased energy bills
- health impacts for members of the community who cannot cool or heat their homes adequately during severe and/or extreme heat and cold
- financial impacts such as increased insurance premiums for properties that are in areas more prone to floods and bushfires.

Mental health is also a major impact of climate change, with many people in the community, particularly younger people, experiencing increased anxiety over the impacts of climate change and what the future will hold.

#### **Climate impacts and** social disadvantage

Some members of our community face a greater risk of climate impacts than others. According to the 2021 Census, Darebin has a significantly higher proportion of people renting - both in private rentals (33%) and social housing (4%) - than the Greater Melbourne average (27%/2.3%).<sup>11</sup> Compared to the Greater Melbourne average, Darebin also has:

- a higher proportion of residents who receive JobSeeker payments (3.9% vs 3.6%)
- a higher proportion of low income workers (21.6% vs 19%)
- a higher proportion of people needing assistance with daily tasks (6.5% vs 5.5%); and
- a higher proportion of people with a long-term health condition (32.4% vs 29.5%).

11 Home | City of Darebin | Community profile (id.com.au)

- 12 https://profile.id.com.au/darebin/birthplace
- 13 2021 Darebin, Census All persons QuickStats, Australian Bureau of Statistics (abs.gov.au)

14 https://profile.id.com.au/darebin/birthplace

Darebin Climate Emergency Plan 2024-2030

Darebin has a significant culturally, linguistically and religiously diverse community. According to the 2021 Census. 31.4% of Darebin residents were born overseas<sup>12</sup> and 58.9% have either one or both parents born overseas<sup>13</sup>. Almost 33% of our community speaks a language other than English at home.<sup>14</sup> Around 6% of these residents do not speak English well at all, which is a higher proportion than in Greater Melbourne (5.4%).

As outlined in the National health and Climate Strategy (2023), these groups are likely to be at greater risk of experiencing impacts to their health and wellbeing. For example, members of these communities often have lower incomes, are more likely to rent and therefore not able to make changes to their home, and experience barriers to accessing information. Climate change can reinforce and worsen existing patterns of disadvantage in our community. In addition, we know that older people, pregnant women, babies and young children are particularly susceptible to heat stress.

Darebin has one of Melbourne's largest populations of Aboriginal and Torres Strait Islander people. According to the 2021 Census, 1,444 people identifying as Aboriginal and/or Torres Strait Islander live in Darebin. A significant proportion of this community (74%) are renters (50.3% private rental, 24% social housing) which is both much higher than the Greater Melbourne average for Aboriginal and Torres Strait Islander people (53.3% renters; 43.5% private and 9.7% social housing) and for the general population in Darebin (37% renters; 33% private and 4% social housing). 21% live in a household without a car compared to 12% of the general population, and 44% of this community lives with at least one long term health condition compared to 32% in the general population. These factors increase the risks of negative climate impacts for Aboriginal and Torres Strait Islander people living in Darebin.

The Traditional Owners, the Wurundjeri Woi-wurrung people, are uniquely and deeply affected as their Country has been and continues to be severely impacted by colonisation, and have had limited opportunities to be at the table and share their cultural knowledge to heal Country.

In this Plan, we acknowledge and seek to address these disparities to support everyone in our community, recognising that an equitable approach means that different groups may need more or different supports to others.



### What are other levels of government doing?

Council's previous Climate Emergency Plan was launched in 2017, in an era of minimal action from the Victorian and Australian governments on climate.

In the past couple of years, we have seen increased efforts from Victorian and now Australian governments. The Victorian Government has a new and ambitious target to reach 95% renewable energy in Victoria by 2035.

## Advocacy to other levels of government

Darebin Council has developed a set of actions to guide our strategic advocacy calling for stronger climate action across all levels of government over the next six years.

#### Advocacy directions within this Plan. Council will:

- Advocate strongly for urgent climate action at all levels of government by working collaboratively with other councils
- Advocate strongly for the needs of Darebin's most at risk of climate impacts
- Advocate to focus resources where they are most needed.
- Advocate and foster partnerships to ensure we have a secure and resilient energy system, e.g. community battery projects and leading neighbourhood scale change projects.
- Advocate to the Australian and Victorian governments to provide the necessary policy, regulations, programs, and funding for a smooth transition.

#### **Direct Advocacy Actions in this Plan:**

- Advocate to the Victorian Government for funding towards protecting and enhancing urban forests to help facilitate more trees across the northern region to address the urban heat island effect and improve canopy equity (Action 1.5.3).
- Advocate for funding for projects that increase water quality, address urban cooling and/or promote habitat (Action 1.5.4)
- Advocate to other levels of government to accelerate households going electric (Action 2.2.3).

Reaching this ambitious goal means closing several coal fired power stations early and a complete exit from coal by 2035. This is exciting news for Victoria.

The Victorian and Australian governments, along with market forces, will play a major role in reducing emissions over the next decade. Their leadership will support Darebin Council to deliver ambitious emissions reductions targets in this and subsequent action plans.

- Advocate for funding to electrify and install renewable energy in public and social housing. Access funding from Australian and Victorian government programs (Action 2.2.4)
- Advocate to the Victorian Government to give people real transport choices through:
- increased funding for cycling and walking infrastructure and programs.
- improved access to electrified public transport, particularly for underserved communities, including an electric orbital bus route along the proposed Suburban Rail Loop corridor and extending the Number 11 tram to Reservoir Train Station (Action 2.4.3). Advocate to the Australian and Victorian governments for funding for community service organisations to support communities most at risk of climate change impacts and food inequality through community sector adaptation initiatives (Action 3.5.2).
- Advocate to Victorian and Australian governments for additional funding to support the health and safety of those residents with the least financial capacity to adapt through:
- Enforced minimum building standards for rental properties and incentives for landlords to retrofit their homes (Action 3.7.2).
- Advocate to Victorian and Federal governments for funding to support climate resilience in small and medium businesses (Action 3.7.3).
- Advocate for innovative pilots including the Northern Innovation and Sustainability Precinct to evolve as a nationally significant renewable and climate resilient economic and education precinct (Action 4.4.2).
- Advocate for funding to support increased training opportunities, including free TAFE programs and workforce training, for local residents to take up job opportunities in the zero-carbon economy (Action 4.6.1).



# What is our role as a local government?

Local governments have a crucial role in making our homes, businesses and organisations fully renewable in the next decade and ensuring that our community is safe and thriving. As part of our previous Climate Emergency Plan, Darebin Council and other progressive councils led by example with initiatives such as the Victorian Energy Collaboration, a local government power purchasing agreement, and our Solar Saver program which has been replicated across the state. We also advocated strongly for faster climate action at all levels of government.

Darebin Climate Emergency Plan 2024-2030

# Legislative responsibilities

Victorian local governments have a legislative responsibility to consider climate risk and mitigation and to protect, promote and improve the public health and wellbeing of their communities. Failure to do so may amount to a breach of duty of care.

Under the Victorian Public Health and Wellbeing Act 2008, local governments are required to develop a Municipal Public Health and Wellbeing Plan which outlines actions to enable residents to achieve maximum health and wellbeing. The Victorian Climate Change Act 2017 requires local governments to consider climate change when undertaking this public health and wellbeing planning. Council must include goals and strategies concerning climate change mitigation or adaptation in relation to public health and wellbeing matters. The Local Government Act 2020 also requires Council to promote the economic, social and environmental sustainability of the municipal district, including mitigation and planning for climate change risks.

This Plan reflects both our legislative responsibilities and our role as a local council to listen to and address our community's priorities.

#### **Connection to community**

As a local government, we have close connections to our community. We know who in our community is more in need of support and which organisations to work with to reach all community members and ensure they are safe and thriving. We also maximise our impact by collaborating with other councils to develop programs and campaigns, and advocate to the Victorian and Australian governments to take more urgent action and to target resources where they're most needed.

It is also essential that we continue to lead by example, and we will do this by ensuring climate action is embedded throughout Council's operations and services. All teams within Council will play a role in the climate emergency response, just as all members of the community do.

Some of the critical roles Council can play in addressing climate change are:

- invest in and work towards a strong and sustainable relationship with the Wurundjeri Woi-wurrung Traditional Owners
- ensure our own Council operationsand services are run on 100% renewable energy

- support the community to increase their use of renewable energy and electrify their homes
- support industry, local businesses and community organisations to electrify and become more climate resilient
- work collaboratively with other councils and advocate for stronger actions and funding at the Victorian and Australian levels
- support and protect our community to ensure they are safe in the face of climate extremes (this speaks to the core of Council's role to care for and serve our community)
- advocate strongly for the needs of Darebin's most at risk of climate impacts
- ensure Council's programs and services align with positive action on climate and provide co-benefits that reduce emissions while also reducing energy costs, increasing the empowerment of residents and increasing air quality through removing gas connections, electrifying transport and increasing active transport use.

### Community engagement process

We delivered the first phase of community engagement in August 2022, with more than 1,000 community members participating both in person and online. We focused on consulting with a range of different language groups and groups in different parts of Darebin to ensure everyone within Darebin is represented within the actions of this Plan.

We reached out to and heard from community members at increased risk of climate impacts including Aboriginal people living in Darebin, people with a disability and older community members. These conversations helped shape Council's actions on community resilience and adaptation, including ensuring we achieve equity and safety, and strengthen our advocacy to support those most at risk of climate impacts.

### Darebin Council's climate emergency principles

The following principles guide our thinking, frameworks and policy reviews to ensure climate emergency is embedded in all Council practices:

- Centre Wurundjeri Woi-wurrung cultural knowledge in our climate, biodiversity and conservation work.
- 2 Council's services, practices and policies support the community to be connected, safe and resilient to the changing climate.
- Council operations are efficient, fossil-fuel free and powered by renewables.
- We foster and support innovation and leadership all Council's services and operations are considered relevant to climate action and resilience.
- 5 We mitigate climate risk for Council and the community and build resilience for the future.

Using these principles we will make informed decisions, engage community, and consider relevant local state legislation relating to the environment, equity, planning and public health and wellbeing.

Through the consultation we heard overwhelming support for Council to continue to take strong action on the climate emergency including mitigation (reducing emissions), adaptation (supporting those most impacted by climate change in the community) and centring caring for Country at the core of this Plan.

This Plan benefitted greatly from the input of the Elders and staff members from Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation, who were the first to see, review and comment upon a completed draft of this Plan. We thank them for their time and their willingness to engage in this process with us.

# How we will measure our progress

To help us measure how we are progressing with each of the actions within this Plan we have created a monitoring and evaluation (ME) framework for each of the Plan's four pillars. These frameworks allow us to monitor progress through tracking our outputs (what we have delivered), and the short term (1-3 year) and long term (2030+) outcomes to our goals and actions. As we are reviewing actions on an ongoing basis, we can extend beyond the three-year period if required. This approach enables Council to ensure that our Plan and actions achieve the changes we want to see at Council, in the community and beyond through advocacy actions.

To do this, we will collect a range of data and indicators that will measure our progress in reducing greenhouse gas emissions, building community resilience, caring for Country, and innovation and leadership. We will share our data, positive changes and stories in our reporting to Council and communications to partners and community members.

Examples of Indicators:

#### **Quantitative data**

- Amount of carbon emissions reduced
- Number of households and Council buildings switched from gas to electricity
- Number of cooling centres
- Number of trees and native plant species planted
- % increase of tree canopy cover
- Number of cooler and safer streets or temperature changes
- Number of solar installations or energy efficiency applications in Darebin

- Number of businesses Council supported to become more sustainable and climate resilient
- Number of new sustainable businesses that have moved to Darebin
- Number of advocacy topics/ campaigns lead by Council
- Number of key climate partnerships fostered or strengthened

## Qualitative data from surveys, focus groups and interviews

As well as collecting quantitative data, we have created qualitative questions for the community to help us understand changes in knowledge, awareness, attitudes, feelings and skills for the community, businesses and Council staff from actions within the Plan.

Qualitative statements can be measured and aggregated to inform % changes in knowledge/awareness, attitudes/feelings and skills in council staff, businesses and community. Measures may include:

- % of community members surveyed that feel safe and equipped in the event of an extreme weather event
- % of businesses that feel climate resilient and empowered to make positive change from being part of our programs and/or support
- How connected the community feels to their natural environment and community
- How supported and empowered the Aboriginal and Torres Strait Islander community, broader community and Traditional Custodians in Darebin feel to care for Country
- How equipped our staff are to deliver culturally safe programs
- % of community members know how to take action on climate change.

#### **Case studies and storytelling**

Case studies and storytelling are great ways to share challenges and success stories in implementing change and project interventions. By following story collection evaluation methods such as 'the Most Significant Change' Council can identify the most effective interventions in a project or program.

### **Strategies and Plans**

This Plan contains references to Darebin strategies and plans, and some external policies that are linked to goals and actions.

#### The following strategies, plans and policies are referenced in this Plan:

#### Darebin's strategies and plans:

- Darebin Electric Vehicle Policy
- Darebin Transport Strategy
- Emergency Management Plan
- ESD Building and Infrastructure Policy
- Integrated Water Management Strategy - Watershed
- Open Space Strategy -Breathing Space
- Social and Sustainable Procurement Policy
- Urban Forest Strategy
- Waste and Recycling Strategy

These different approaches to measuring our success will enable Council to work closely with the community to understand how we are progressing, and what areas we need to improve on for each of our targets.

As the 2027 review approaches, Council will again work with the community to ensure we continue to be ambitious and responsive to the needs of the community.

#### Under development in 2024:

- Aboriginal Action Plan
- Darebin Design Excellence
   Guidelines
- Economic Development Strategy
- Housing and Neighbourhood Strategy

## Strategies and Policies external to Darebin:

- Vic Climate Projection 2019
- <u>Community Electric Vehicle</u> <u>Transition Plan</u>
- National Health and Climate Strategy 2023

# What is the community's role?

In consultations many of you told us that there is a lot more you want to do to live sustainability and to reduce emissions at home, in businesses, and as you travel around Darebin and beyond. This guide gives you some suggestions.

#### At home and in businesses

- <u>Make a plan</u> to electrify your home or business
- <u>Be inspired by others on the</u> <u>electrify journey</u>
- Save energy with Sustainability Victoria's ideas on <u>how to save</u> energy at home
- Check out these <u>Energy Efficiency</u> <u>Tips</u> for renters (hint: these work for everyone too!)
- *Review your banking, insurance and superannuation* and make your money count by switching to companies investing in climate change mitigation initiatives rather than fossil fuels
- Register for Council's <u>Sustainable</u> <u>Business Programs</u> and check out our tips and support for running a sustainable business
- Explore ways you can *live more* sustainably

#### **Out and about**

- Swap driving your car for sustainable transport alternatives such as cycling, public transport and walking where possible
- <u>Ride your bike to work</u> the <u>Darebin</u> <u>TravelSmart Map</u> will help you plan your journey
- Consider a local holiday and visit some of the incredible national parks and beaches we have in Victoria reducing your travel miles and connecting to nature

#### Get together and speak up

- Join a *local climate action* or biodiversity (e.g. Friends of...) or *local food growing* group
- Want to start a new group in your neighbourhood? We can help you get going
- At work try out these <u>tips for</u> <u>creating a more sustainable</u> <u>work-space</u> from 1 Million Women
- Encourage your child's school to join the <u>Victorian Government's Resource</u> <u>Smart Schools Program</u>
- Check out the <u>Australian Parents for</u> <u>Climate Action</u> website and join one of their local groups
- Participate in and share local climate events with your family and friends! Find out what is happening at: <u>City of Darebin</u> - Facebook,
   <u>Darebin Libraries</u> - Facebook,
   <u>@darebincouncil</u> - Instagram;
   <u>Sustainable Darebin</u> E-newsletter and <u>Sustainable Darebin</u> - Facebook

#### **Read up**

- Register for Council's Sustainable Darebin newsletter and Sustainable Darebin Facebook group for local events and tips on taking local climate emergency action
- Learn about the climate emergency and solutions. The following examples are a small selection to get you started<sup>15</sup>:

The Climate Council

Climate Works Australia Beyond Zero Emissions Energy Efficiency Council NAGA

VECO

Australian Conservation Foundation Environment Victoria Climate Change Victoria Department of Climate Change, Energy, Environment and Water



15 Darebin provides links to these external organisations to assist our community in having access to relevant information from organisations working in the field of climate change. Council does not necessarily endorse the work of these organisations or align with their views.

#### Look after yourself

93% of consultation participants shared that they are anxious or worried about the impacts of climate change. Taking any of the actions above can be useful if you are feeling down or anxious about the climate emergency.

As Greta Thunberg says,

#### *"The one thing we need more than hope is action. Once we start to act, hope is everywhere."*

If you are still feeling overwhelmed:

- check out the Australian Conservation Foundation's *list of* guides, books and videos about self-care and coping with climate distress
- Find a specialised mental health professional and other resources through the Australian Psychological Society.

## Glossary

Adaptation	Adaptation refers to adjustments in ecological, social or economic systems in response to actual or expected climatic stimuli and their effects. It refers to changes in processes, practices and structures to moderate potential damages or to benefit from opportunities associated with climate change. In simple terms, countries and communities need to develop adaptation solutions and implement actions to respond to current and future climate change impacts. <sup>16</sup>	RCP8.5
Circular economy	The circular economy is a system where materials never become waste and nature is regenerated. In a circular economy, products and materials are kept in circulation through processes like maintenance, reuse, refurbishment, remanufacture, recycling, and composting. The circular economy tackles climate change and other global challenges, like biodiversity loss, waste, and pollution, by decoupling economic activity from the consumption of finite resources	Scenario
Council assets	(Ellen Macarthur Foundation). Refers to all Council owned buildings, machinery and appliances.	Resilience
Environmentally Sustainable Development (ESD)	Refers to improving the energy and water efficiency of new buildings that supports affordable living, contributes to reduced greenhouse gas emissions and reduces stormwater pollution of our rivers and bays. Our quality of life is enhanced by building design features that make it easier to recycle, support more sustainable transport options and minimise waste and the intrusion of air pollution and noise. <sup>17</sup>	
Mitigation	Refers to efforts to reduce or prevent emission of greenhouse gases. Mitigation can mean using new technologies and renewable energies, making older equipment more energy efficient, or changing management practices or consumer behaviour. It can be as complex as a plan for a new city, or as a simple as improvements to a cook stove design. Efforts underway around the world range from high-tech subway systems to bicycling paths and walkways. <sup>18</sup>	
6 United Nations definition	https://unfccc.int/topics/adaptation-and-resilience/the-big-picture/introduction	

17 Victorian Government: Department of Planning: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www. planning.vic.gov.au/\_\_data/assets/pdf\_file/0038/638399/Environmentally-sustainable-development-of-buildings-andsubdivisions-A-roadmap-for-Victorias-Planning-System.pdf

18 United Nations definition: https://www.unep.org/explore-topics/climate-action/what-we-do/mitigation

19	Based on https://nrmregionsaustralia.com.au/what-is-nrm/
20	https://coastadapt.com.au/how-to-pages/how-to-understand-c
21	Stockholm Resilience Institute

continue to develop".

thinking.21

**Natural resource** 

management

(NRM)

Refers to the integrated management of the natural resources that make up Australia's natural landscapes, such as land, water, soil, plants and animals.

Effectively managing these resources requires a landscape or catchment approach that coordinates a range of land, water and biodiversity programs – in conjunction with traditional owners, local communities, state and territory governments and the Australian Government. Australia's environment provides cultural and spiritual sustenance and is the foundation of our national identity, lifestyle and economy. We rely on our environment for essential services such as food, water and clean air – alongside other crucial ecosystem services such as climate regulation, absorbing and transforming wastes, preventing disease and providing the genetic resources that are the basis for many medicines.<sup>19</sup>

The term RCP8.5 refers to the highest or worst-case greenhouse gas emission scenario for climate change (IPCC). This scenario will happen if rapid changes to policy and practices are not made, resulting in continued and sustained growth in atmospheric greenhouse gas concentrations. The highest-risk scenario is used by Council, and most government agencies to ensure the potential climate risks are accounted for<sup>20</sup> in all our future projects.

"Resilience is the capacity of a system, be it an individual, a forest, a city or an economy, to deal with change and

Resilience expresses the idea that there are complex interdependencies between people and ecosystems and that relationship is central to our future. It is about how humans and nature can use shocks and disturbances like a financial crisis or climate change to spur renewal and inno-vative

d-climate-change-scenarios

Supply chain emissions	Emissions which occur as a consequence of the activities of a facility, from sources not owned or controlled by the facility. For example, the emissions produced from the extraction and production of purchased materials, transportation of purchased fuels, use of sold products and services. These emissions are difficult to calculate and often represent the majority of emissions related to a business or facility (Clean Energy Regulator).
Zero carbon	Concerns the emissions produced from a product or a service – it means eliminating carbon emissions from a certain source or operation.
Zero emissions	Similar to zero carbon, zero emissions refers to eliminating the production of all greenhouse gas emissions, without using offsets to balance out emissions produced.
Zero vs net zero	'Net zero emissions' refers to achieving an overall balance between greenhouse gas emissions produced and greenhouse gas emissions taken out of the atmosphere. To avoid a climate catastrophe, greenhouse gas emissions must be as low as possible. In other words, we need to get as close as possible to real zero, which means avoiding the release of greenhouse gas emissions in the first place. We must only rely on carbon offsetting (e.g. growing trees which remove emissions from the atmosphere) when it is absolutely necessary. <sup>22</sup>

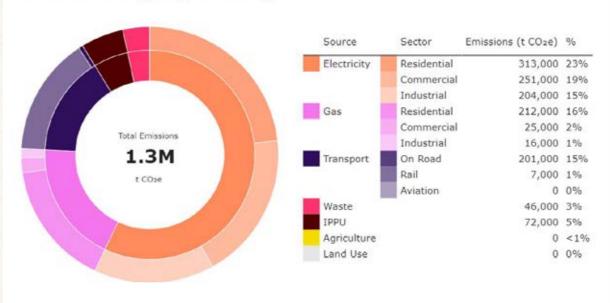
22 Adapted from Clean Energy Council definition: https://www.climatecouncil.org.au/resources/what-does-net-zeroemissions-mean/

## **Appendix A**

## Darebin current emissions profile and projections to 2030

Council engaged a technical expert to estimate Council and the Darebin community's emissions profile and projections by 2030 and provide an understanding on what would be required to reach zero emissions. Council goals for this plan were based on this expert advice. The graphics

#### Emissions Inventory (all figures in t CO2e)



#### Figure 6. 2020-2021 Emissions profile for City of Darebin

The figures below reflect the emissions profile and its projection to 2030 considering business as usual (BAU). BAU refers to no further action being taken by Council and do not reflect any emissions reduction due to the actions in this plan.

Figure 8 compares the BAU emissions projection profile with the sciencederived target to achieve the Paris Agreements targets of a 1.5°C and a 2°C scenario. These scenarios were

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- below are an extract of the information provided by the consultant and form the basis for the goals related to emissions reduction.
- Figure 6 shows the current emissions profile for the City of Darebin and its break down by source and sector.

employed to establish a baseline starting point from which we could determine appropriate actions to put Darebin on track in the first three years of this Plan to achieving significant emissions reductions targets by 2030. Targets are considered 'science-based' if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement - limiting global warming to 1.5°C above pre-industrial levels.

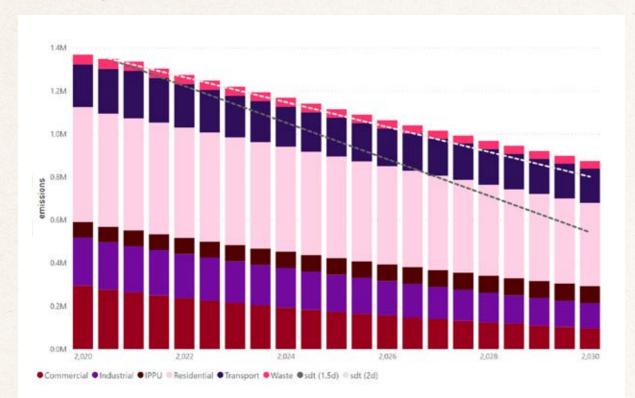




Figure 8 shows that the gas emissions are expected to increase which will have a high impact on Darebin. This will not only result in higher emissions, but also higher cost of living for residents. The electricity emissions, on the contrary, are expected to reduce. As a result, there a strong focus on moving away from gas in this Plan. Similarly, Figure 9 shows that the residential sector will struggle the most to reduce their emissions. This Plan has also focused on the residential sector for this reason.

Sector	Estimated change in emissions	
Electricity	478,000 tCO <sub>2</sub> e reduction	-60%
Gas	24,000 tCO <sub>2</sub> e increase	+9%
Transport	37,000 tCO <sub>2</sub> e reduction	-19%
Waste	11,000 tCO <sub>2</sub> e reduction	-24%
IPPU	9,000 tCO <sub>2</sub> e increase	+13%

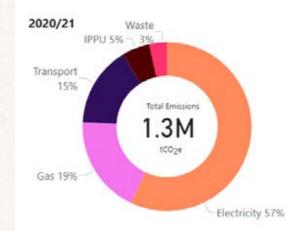


Figure 8. Projected business as usual emissions profile for 2020/2021 and 2030, by source

Source
Residential
Commercial
Industrial

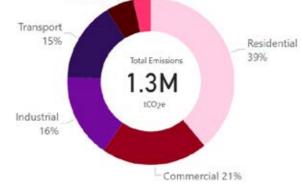
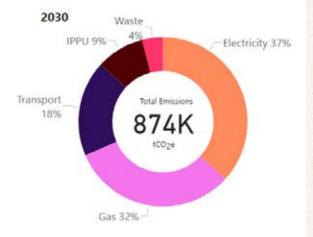
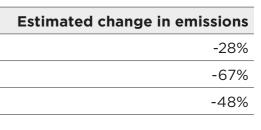


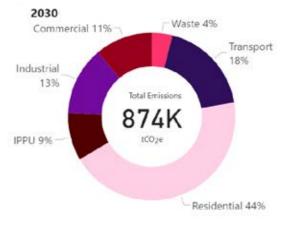
Figure 9: Projected Business as Usual emissions profile for 2020/21 and 2030, by sector

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23 https://sciencebasedtargets.org/.









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## 

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#### Speak Your Language T 8470 8470

العربية	Italiano	Soomalii
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Ελληνικά	नेपाली	اردو
हिंदी	ਪੰਜਾਬੀ	Tiếng Việt