



Local action for global change

# Climate Emergency Response

Green Global Connected

CITY OF SYDNEY



# Contents

Introduction	3
1. Lead by example	8
2. Support climate emergency priorities through planning	12
3. Work with and prepare our communities	14
4. Build momentum and advocate	17
Resources	21

# Introduction

“The science is clear that climate change is supercharging natural disasters and we need urgent, coordinated and global action now more than ever.”

– Lord Mayor Clover Moore

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## About this response

The City of Sydney Council declared a climate emergency in June 2019, stating that climate change poses a serious risk to the people of Sydney.

This declaration followed a decade in which the City of Sydney took strong and effective action in response to climate change. As part of our goal to be an environmental leader, we set science-based targets that guided our work to reduce our carbon emissions and make our operations more resilient to climate-related hazards. We also see it as our responsibility to support and empower our communities to reduce their carbon impacts, water use and waste.

This document details our next steps. We follow the lead of the [City of Darebin](#) which is in the northern region of Melbourne, Victoria. The City of Darebin was the first local government in the world to declare a climate emergency, and we acknowledge and thank them for their leadership.

We used Darebin’s [Resource for Effective Local Government Climate Emergency Response: Darebin Council’s Climate Emergency Journey](#) as the framework for developing this document.

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## Climate emergency declaration

When we declared a climate emergency, we were not alone. Around Australia, 85 councils, representing 7.4 million people, had declared a climate emergency at time of publishing. Our councils are among the 1,309 jurisdictions in 25 countries to take this step.<sup>1</sup>

An e-petition submitted to the Australian Parliament in October 2019 is another example of the groundswell of support for action on climate change. It called on the Australian Government to declare a climate emergency. More than 400,000 people signed the petition, making it the biggest parliamentary e-petition in Australian history.

In an emergency, we must all act. Our leaders must rise above fear-based and party-based politics to unite the community and get behind a vision of a zero-carbon economy.

We need to help our city adapt by increasing its resilience to the impacts of our changing climate. At the City, we must speed up our responses in areas where we can have an impact, such as by increasing our canopy cover, protecting and enhancing our biodiversity, and reducing the amount of waste we produce.

<sup>1</sup> According to [Climate Emergency Declaration and Mobilisation in Action](#).





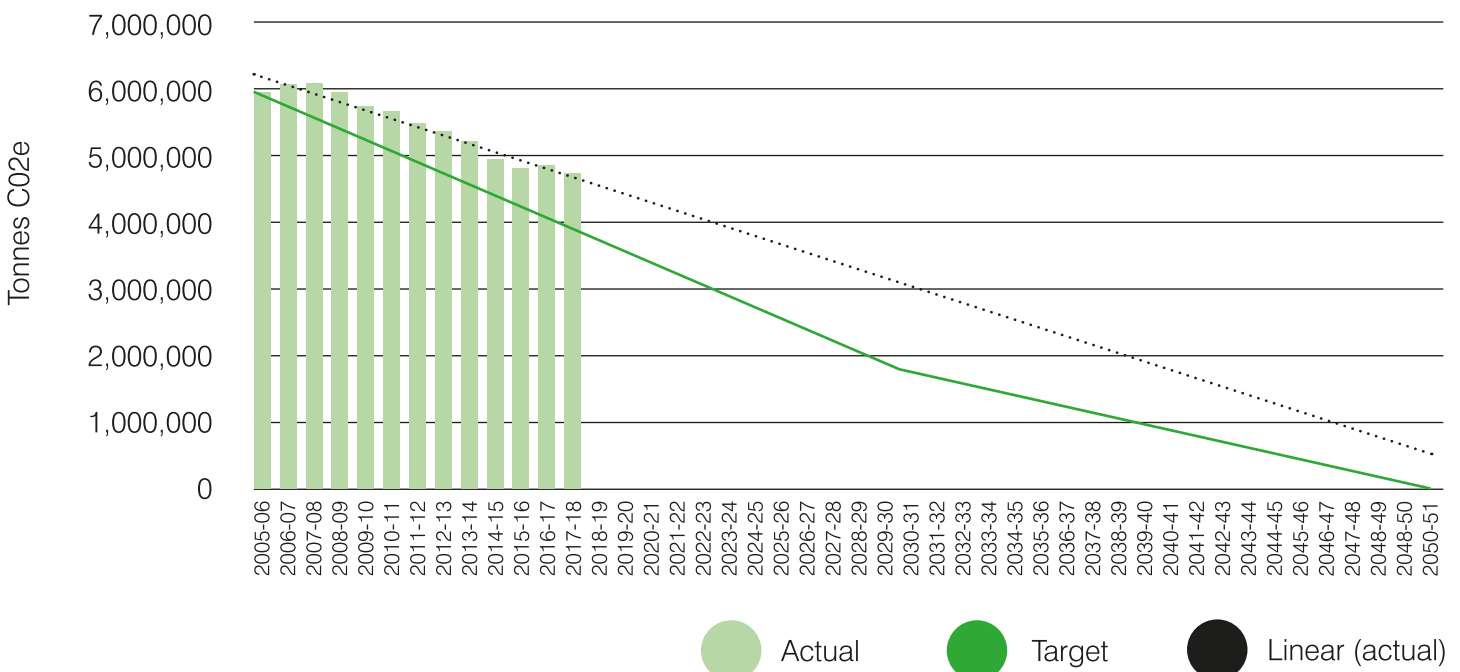
Photograph: Katherine Griffiths

Annual greenhouse gas emissions in our local area have fallen by 21 per cent since 2006, while over the same period there have been 45 per cent more residents, 22 per cent more jobs and more than 50 per cent growth in the economy. This clearly shows that energy and emissions have been decoupled from growth, but the rate of decline is not enough in this climate emergency. We need to find ways to move faster.

The growing number of workers and residents in our local area over the last six years has increased the amount of potable water used for drinking and in water-based cooling systems for buildings. This has made it challenging to meet potable water targets.

## Figure 1. City of Sydney local government area greenhouse gas emissions

Total emissions - local government area





Photograph: VirtualWolf

## Climate emergency threatens civilisation

Global heating has already caused average global temperatures to rise  $1.1^{\circ}\text{C}$ <sup>2</sup> above pre industrial levels, which is having a significant impact on the climate.

Under the Paris Agreement, most countries, including Australia, have agreed to halt warming at well below  $1.5^{\circ}\text{C}$  above pre-industrial levels. However, the United Nations Environment Programme's *Emissions Gap Report 2019* shows that at the current levels of commitment, temperatures can be expected to rise  $3.2^{\circ}\text{C}$  above pre-industrial levels.

The world needs to act now. We urgently need deep global emissions cuts of 7.6 per cent every year from 2020 to 2030, if we don't want to miss a crucial moment in history to limit global warming to  $1.5^{\circ}\text{C}$ .<sup>3</sup> These cuts must be combined with activities that lock away atmospheric carbon, such as avoided deforestation, revegetation and sustainable farming practices.

Any rise above  $2^{\circ}\text{C}$  will have devastating impacts on Australia, including:

- more extreme weather events
- reduced rainfall
- longer, hotter and more frequent heatwaves
- water scarcity
- more extreme bushfires

- increased risks to food production
- reduced biodiversity
- inundation of coastal areas.

We are already seeing the effects of global heating. In 2019, Australia experienced its warmest year on record, with our annual national mean temperature  $1.52^{\circ}\text{C}$  above average. It was also our driest year on record.<sup>4</sup>

We experienced devastating bushfires in 2019–20 that burnt for months, consuming more than 18.6 million hectares, killing at least 34 people and an estimated 1.25 billion animals (potentially driving some species to extinction). The bushfires damaged or destroyed thousands of properties, including more than 2,700 homes, as at late January 2020.

In NSW the Air Quality Index (AQI) reached the hazardous category (with an AQI greater than 200) on a total of 115 days<sup>5</sup>.

Every year that passes without action will increase the scale and severity of the response Australia will need to undertake to mitigate the impacts of global heating.

<sup>2</sup> Bureau of Meteorology [bom.gov.au/climate/current/annualaus/#tabs=Global](https://bom.gov.au/climate/current/annualaus/#tabs=Global)

<sup>3</sup> United Nations Environment Programme's [Emissions Gap Report 2019](#).

<sup>4</sup> Bureau of Meteorology: Annual climate statement 2019. [bom.gov.au/climate/current/annual/aus/](https://bom.gov.au/climate/current/annual/aus/)

<sup>5</sup> NSW Planning, Industry and Environment. [environment.nsw.gov.au/topics/air/air-quality-statement](https://environment.nsw.gov.au/topics/air/air-quality-statement)



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## Principles

We have begun work on developing Sustainable Sydney 2050, a vision for our city and community that builds on Sustainable Sydney 2030.

The forthcoming 2050 vision for the city will include climate emergency as a key principle. This is currently expressed as:

The City of Sydney responds to the climate emergency by taking bold steps to reduce the city's environmental footprint and promoting transformative change in energy production, resource consumption, water use and climate adaptation in a way that is inclusive and supports a just transition across all communities.

Aligned to this overarching principle, the principles below will inform our work as we act to address the climate emergency:

- City actions are at a pace and magnitude commensurate with science-based climate observations and models to limit global heating to less than 1.5°C above pre industrial levels
- Actions are inclusive and acknowledge the First Peoples of Australia and the need for a just transition
- All City functions, activities and decision-making will address the climate emergency
- The City can influence others through its networks, functions and activities
- Staff across the organisation are champions of change
- Pro-active, timely communication and reporting are essential to influence and mobilise action
- An empowered community will take positive climate actions and be more resilient to future challenges



Photograph: Katherine Griffiths

# Our response

# 1. Lead by example

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## What we are doing

The City is committed to building climate resilience. We have taken a strategic approach that includes actions in everything from energy efficiency to keeping an eye on the future.

Our operations have been recognised as carbon neutral by the Australian Government's Climate Active program since 2011. And because of our commitment to 100 per cent renewable electricity, we will achieve our operational targets of reducing emissions by 44 per cent by 2021 and 70 per cent by 2030, based on 2006 levels.

Steps we have taken and continue to take are:

### **Increase energy efficiency and renewable energy:**

- transition our operations to 100 per cent renewable electricity by 1 July 2020
- continue the major properties efficiency project to improve energy efficiency programs for our buildings and aquatic centres, including lighting, equipment, heating and cooling upgrades
- reduce emissions and reliance on the electricity grid through the use of cogeneration and trigeneration at Town Hall House and major aquatic facilities
- installing photovoltaic systems, with more than 6,000 panels on City buildings producing over 1.7 megawatts of power, including 1663 solar panels and a large battery at Alexandra Canal Depot which exports renewable energy, making it carbon positive

Photograph: Sapphire Wind Farm





- continue the replacement of older and inefficient streetlight fittings with more energy-efficient LED street lights in partnership with Ausgrid with 2,000 lights installed to date
- metering, monitoring and reporting energy consumption and solar generation across our buildings, street lighting and parks

### **Increase efficient water use and recycled water:**

- continue to investigate and implement water efficiency improvements across our property portfolio, including:
  - a major properties efficiency project to improve water efficiency across our top 14 water consumption buildings (including commercial buildings, all aquatic centres, community centres and depots)
  - a water efficient fixture upgrade program across these buildings, including upgrades to taps, toilets, showers and urinals
  - rainwater tank upgrades project
  - cooling towers optimisation upgrades
  - tenancy water allocation and a 'user pays' approach
- continue to improve water sustainability across our parks portfolio, including:
  - operate the 19 water recycling schemes in our parks, which harvest stormwater, groundwater and/or rainwater for irrigation of our local parks and sporting fields



Photograph: Katherine Griffiths

- continue improving our irrigation systems and deploy new technology as it becomes available
- implement metering and monitoring systems
- investigate further opportunities to reuse and recycle alternate water sources in our parks.
- continue to improve water quality in our streets by maintaining gross pollutant traps (GPTs) and implementing water sensitive urban design, such as rain gardens.
- continue to improve water metering, monitoring and reporting across the City's parks and buildings portfolio.
- continue to operate our precinct scale recycled water scheme in Green Square town centre, and explore other precinct opportunities, such as Greater Green Square and a city centre water recycling scheme using the George Street pipeline.



Photograph: Katherine Griffiths

### **Enhance our guidelines for construction projects:**

- introduce sustainable design technical guidelines for projects ranging from swimming pools to multi-storey commercial projects
- revise Sydney streets technical specifications, which incorporate climate change assessment recommendations for designing and building all civil infrastructure across the local area

### **Introduce strategies to cool our buildings and streets:**

- commissioned the Cooling Sydney Strategy: Planning for Sydney 2050
- increase greenery
- monitor air quality, heat and pedestrian movement to optimise outcomes when drawing up strategies

### **Reduce the waste we produce and enhancing our sustainability activities:**

- introduce guidelines for sustainable event management for City events
- complete a waste improvement trial at five City buildings before launching a program
- reduce fuel use through diagnostics technology and a plan to replace existing vehicles with 19 fully electric vehicles
- provide sustainability training for all staff
- continue environmental reporting through our biannual Green Environmental Sustainability Progress Report and Carbon Disclosure Project CDP – C40 international reporting

### **Invest in the future:**

- continue to preference socially responsible investments, to promote projects that take action against climate change, within the City's financial sustainability framework
- apply the 100 Resilient Cities' assets and risks tool to determine the shocks and stresses that will have an impact on Sydney in the future.

## What we need to do

To complement our existing commitments, we have set four goals and related actions to further support our climate emergency declaration.

### **Goal 1: Address climate emergency priorities in our major strategies, projects and service delivery**

- Assess all new and revised strategies to ensure they include climate emergency principles, building resilience into the delivery of services to the community.
- Develop and implement a net zero carbon property strategy for City buildings.
- Further embed environmental outcomes into asset management plans for buildings, parks, stormwater systems and civic assets.
- Provide education, inspiration and support to community members, across City services and programs, to take positive climate action and build resilience.
- Develop and implement a plan to support vulnerable communities impacted by climate change.



Photograph: Carolyn Johnstone

### **Goal 2: Decarbonise the City's procurement of products, services and assets**

- Develop a framework to assess our supply chain for climate impacts and take appropriate mitigation actions.
- Create a plan to phase out fossil fuels across our portfolio as technology improves and alternative supplies become available.

### **Goal 3: Empower staff to act more sustainably and become more resilient**

- Develop a sustainability training plan to incorporate into workforce planning.
- Develop a comprehensive and ongoing staff engagement campaign.
- Provide staff with resources to reduce energy and water use, and waste generation

### **Goal 4: Streamline governance processes to support significant climate action**

- Improve existing project management processes to ensure they lead to sustainable outcomes.



# 2.

# Support climate emergency priorities through planning

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## What we are doing

Local government land use planning and development controls can affect the environmental performance of buildings and their surrounding area. Our local planning policies, controls and actions can contribute to reducing greenhouse gas emissions and increasing resilience over the long term.

Actions we have completed or are underway:

- Include clauses in *Sydney Local Environment Plan 2012* that require new buildings to address environmental impacts, including sustainable design.
- Include principles in *Sydney Development Control Plan 2012* for ecologically sustainable development (ESD) and controls to reduce environmental impacts; for example, a NABERS Energy Commitment Agreement for new office buildings and major refurbishments.

- Implement higher site-specific NABERS and the NSW Government's BASIX requirements in association with changes to planning controls (planning proposals).
- Regularly review standard conditions applied to development consents to improve environmental outcomes.

The City's [local strategic planning statement](#) to be implemented by March 2020 includes our climate emergency declaration and our planning related climate change mitigation, adaptation and resilience actions.

Over the next five years, we will take actions to encourage development to increase canopy cover, biodiversity and resilience to natural and urban hazards, and reduce greenhouse gas emissions, waste and potable water consumption.

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## What we need to do

We have set the following goal and actions to support our climate emergency declaration.

### **Goal 5: Use the planning system to support climate emergency priorities**

- Reduce greenhouse gas emissions: implement the performance standard pathways framework to achieve net zero energy buildings in the controls.
- Maximise onsite renewable energy generation – review solar panel and battery storage controls, to increase implementation opportunities.
- Protect and increase tree canopy cover and vegetation across public and private land – review, implement and monitor targets and controls for tree canopy cover on private land with the aim to increase tree canopy.
- Protect and enhance urban bushland and biodiversity, in particular locally native vegetation – review controls to identify biodiversity corridors to improve habitat protection and connectivity within and beyond the city.
- Increase resilience to natural and urban (including environmental) hazards – update floodplain management planning controls to manage risk and achieve good urban design outcomes.



Photograph: Paul Patterson

# 3.

## Work with and prepare our communities

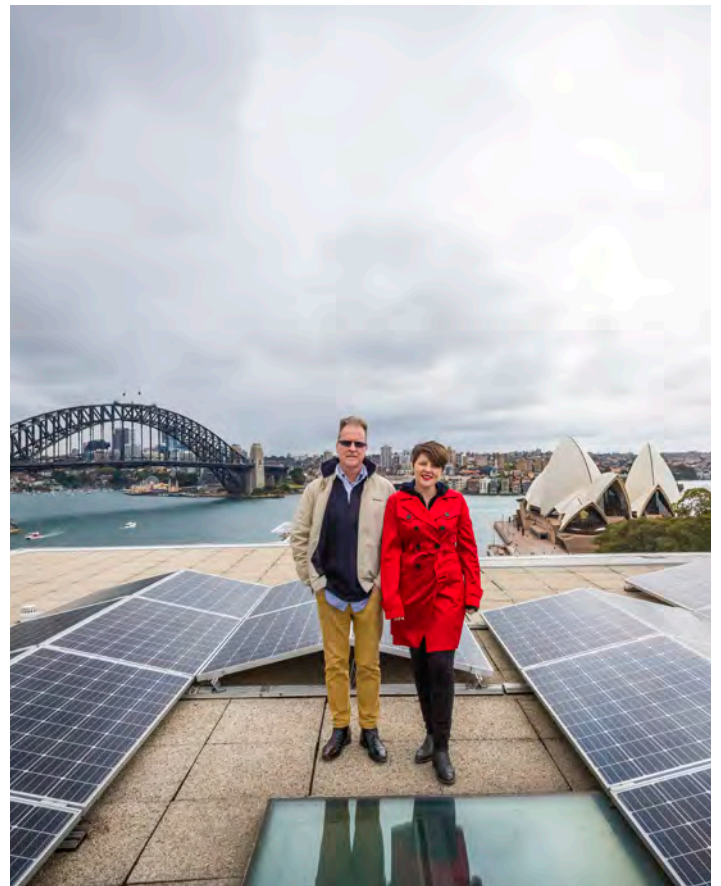
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### What we are doing

The City has a strong history of working with our community, and government and industry partners, to collectively improve our environmental performance. Our community plan, [environmental strategy](#) and sector-specific plans set out clear pathways for programs, services and campaigns to build capacity, address barriers and challenges, and incentivise needed actions and behaviours.

We have targeted three sectors (commercial office, accommodation and entertainment, and residential apartment) in our community. These sectors are collectively responsible for close to 80 per cent of the city's carbon emissions and 80 per cent of potable water consumption.

Photograph: Jessica Lindsay







Photograph: Katherine Griffiths

Our actions include:

- Provide our Smart Green Apartments program to Owners Corporations, with action plans to reduce energy and water consumption and increase renewables in strata, building more resilient residential precincts and communities.
- Work with major property owners and managers in the commercial office sector who are members of our Better Buildings Partnership. These owners are collectively responsible for up to 9 per cent of the city's emissions and can influence a further 9 per cent through relationships with their tenants.
- Provide our CitySwitch Green Office program to engage with tenants within our commercial office buildings and support them to reduce their carbon emissions and environmental impact.
- Work with the owners and managers in the accommodation and entertainment sector who are members of our Sustainable Destination Partnership. These members provide more than 60 per cent of the city's hotel accommodation space.
- Provide grants to incentivise actions that improve the environmental performance of buildings and communities. The City has a dedicated Environmental Performance Grants program that has provided more than 240 grants since 2015. Visit the [City of Sydney data hub](#) for examples of our grants.

## What we need to do

While our communities have been reducing their carbon emissions, we need to increase the pace to respond to the climate emergency. Potable water use in the local government area continues to increase and is 13 per cent above 2006 level as at June 2018, during which time the city's population has grown by 45 per cent.

We need to ramp up our own actions and those of our communities to achieve a mass movement of individuals and businesses that are rapidly decarbonising. The City will model excellence and help drive change throughout the process.

The following are goals and actions outlining further work we will do to support the climate emergency declaration.

### **Goal 6: Develop, prioritise and embed communications about the climate emergency**

- Establish climate emergency messaging, communication principles and a delivery plan as part of the City's Corporate Communications Plan.
- Include information on how to address the key challenges identified in the Resilient Sydney strategy. This includes using the Australian Red Cross' Get Prepared app to increase the resilience of our communities.
- Foster more strategic partnerships with allies within business, not for profit, health, education, and all levels of government to amplify the reach and impact of our messaging.

### **Goal 7: Support the community to take further action to address the climate emergency**

- Mobilise members of our environmental programs and other stakeholders to take more significant action to decarbonise

and adapt their operations, and to engage with their own customers to help empower them to respond to the climate emergency.

### **Goal 8: Help the community access onsite and offsite renewables, including 100 per cent GreenPower**

- Identify and establish further partnerships to achieve maximum scale.
- Communicate and educate on options, particularly for economically vulnerable members of the community.

### **Goal 9: Substantially increase the number of existing buildings that achieve net zero energy use and switch to recycled water within 10 years**

- Investigate frameworks to require progressive decarbonisation of existing buildings through energy efficiency upgrades and the use of renewable energy.



Photograph: Katherine Griffiths



Photograph: Jamie Williams



# 4.

## Build momentum and advocate

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### What we are doing

The City has demonstrated the effect of taking collective climate action. We must now collaborate beyond our boundaries to drive resilience planning and enable adaptation across Australia.

For example, in response to the bushfire crisis in 2019–20, the Office of Local Government partnered with the City, the Resilient Sydney Office and Local Government NSW to provide a disaster recovery council resource coordination service to assist affected councils. This service, the Local Government Bushfire Recovery Support Group, will enable unaffected councils to offer assistance, share resources and deploy temporary relief staff to councils in need.

The City is responding to the climate emergency by using all levers available to local government. However, local government alone cannot deliver the transformative change required. State and federal government policies, legislation and funding need to undergo major changes to reduce greenhouse gas emissions, manage the transition and adapt to the impacts of global heating.

The City has advocated for change in many areas in recent years, including calling for:

- the Independent Pricing and Regulatory Tribunal and the NSW Government to implement progressive pricing structures for Sydney Water that reflect the value of the resource and enable water-sensitive solutions
- the establishment of a NABERS rating tool for apartment buildings, which has since been implemented
- enhanced mandatory disclosure of building environmental performance
- government agencies to adopt policies to procure accommodation and event venues with environmental performance ratings.



Photograph: Jessica Lindsay



## What we need to do

The City will continue to advocate for change by creating an evidence base, building partnerships and contributing to government-led inquiries and reviews. We will join our allies, including other councils declaring a climate emergency, to take collective action to reduce emissions and accelerate a transition to renewables.

We have set two goals and related actions to further support the climate emergency declaration.

### **Goal 10 – Share resources and work collaboratively with other councils**

- Ensure environmental data is available to drive local government strategic decision making across Greater Sydney through the Resilient Sydney Platform.

- Build momentum and collaborate with other councils that have declared a climate emergency.
- Work with Local Government NSW to build stronger relationships with regional councils to contribute to a resilient NSW.

### **Goal 11 – Collaborate with allies to drive change to state and federal policies and regulations to transition to a zero carbon economy, and ensure sustainable waste and water policies**

- Advocate for policies, regulations and market mechanisms to rapidly transition our nation's energy supply to 100 per cent renewable sources.
- Advocate for water efficiency and alternative supplies to ensure reliability in response to changing climate conditions.
- Advocate for improved waste management and circular economy outcomes.

- Advocate for an economic diversification plan for a zero-carbon economy, a national price on carbon and a national emissions target that aligns with the Paris Agreement.
- Advocate for strengthening community resilience through effectively communicating climate risks and ensuring adequate funding for community adaptation initiatives.
- Advocate for legislative and regulatory change (e.g. building codes and planning controls, energy regulations, rating tools, and disclosure and compliance regimes) at all levels of government to achieve net zero carbon buildings.
- Advocate for the use of recycled water for new buildings, particularly in urban renewal areas.



Photograph: Noah Dawson



Photograph: Katherine Griffiths



Photograph: Jack Begbie

When the Council declared a climate emergency, it stated that climate change should be treated as a national emergency. Specifically, the Council called on the Australian and NSW governments to:

- take urgent action to meet the emissions reduction targets contained in the Paris Agreement by reintroducing a price on carbon
- establish an appropriately funded just transition authority to ensure that Australians employed in the fossil fuel industry and small-business owners have viable and appropriate opportunities for alternative employment.

The City and other leaders in our local community cannot make the required changes for Sydney and Australia alone. We need state and national leadership and resources that are appropriate to the task. We must provide opportunities for everyone, including those workers who will be affected by ending our reliance on the fossil fuel industry.

Local governments are fundamental in the climate emergency response.

Experience is showing that local government is the best place to start government commitment to climate emergency action across the world.

– Framework for Effective Local Government, Darebin Council



# Resources

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City of Darebin [Framework for Effective Local Government: Climate Emergency Response](#)

City of Sydney [Green Environmental Sustainability Progress Report](#)

City of Sydney [Environmental Action 2016–2021: Strategy and Action Plan](#)

[Adapting for Climate Change: A long-term strategy for the City of Sydney City Plan 2036 – Draft City of Sydney Local Strategic Planning Statement](#)

[Cooling Sydney Strategy: Planning for Sydney 2050](#)

[Climate Emergency Declaration and Mobilisation in Action](#)

IPCC Report [Strengthening and Implementing the Global Response](#)

Bureau of Meteorology  
[bom.gov.au/climate/current/annual/aus/#tabs=Global](https://bom.gov.au/climate/current/annual/aus/#tabs=Global)

Bureau of Meteorology: Annual climate statement 2019.  
[bom.gov.au/climate/current/annual/aus/](https://bom.gov.au/climate/current/annual/aus/)

NSW Planning, Industry and Environment  
[environment.nsw.gov.au/topics/air/air-quality-statement](https://environment.nsw.gov.au/topics/air/air-quality-statement)

United Nations Environment Programme's [Emissions Gap Report 2019](#)

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