CLIMATE *READY* HOBART

BACKGROUND BRIEF

WHAT CLIMATE CHANGE MEANS FOR HOBART

hobartcity.com.au/climate-ready

City *of* HOBART



ACKNOWLEDGEMENT OF COUNTRY

In recognition of the deep history and culture of our city, we acknowledge the Tasmanian Aboriginal people as the Traditional Custodians of this land.

We acknowledge the determination and resilience of the Palawa people of Tasmania who have survived invasion and dispossession and continue to maintain their identity, culture and rights.

We recognise that we have much to learn from Aboriginal people today, who represent the world's oldest continuing culture.

We pay our sincere respects to Elders past and present and to all Aboriginal people living in and around Hobart.

Picture: Graham Freeman

PURPOSE OF THIS BRIEF

This brief aims to help the members of the Hobart Climate Assembly to prepare for the weekend. We have shared introductory information about what climate change means for Hobart.

The Assembly is made up of a diverse and representative group, who have different levels of knowledge and perspectives on climate change. We do not expect you to be an expert, but some of you may be.

During the Assembly, we will take time to answer questions that you have. Together we will develop a shared understanding of climate change and how we can respond to the risks and opportunities it presents.

We are pleased you can join us for the Hobart Climate Assembly. We look forward to working with you to shape a climate ready Hobart.

THE HOBART COMMUNITY VISION STATEMENT

Hobart breathes.

Connections between nature, history, culture, businesses and each other are the heart of our city.

We are brave and caring.

We resist mediocrity and sameness.

As we grow, we remember what makes this place special.

We walk in the fresh air between all the best things in life.

The Hobart Community Vision guides all of the City of Hobart's work and was developed through Hobart's first community panel convened in 2018.

It describes what people love and value about Hobart and how they want it to evolve.

It is also a reminder of what is at risk from climate change, but also the opportunity of what we can shape together as we respond to a changing climate.

You can review the full document 'Hobart: A Community Vision for our Island Capital' here:
hobartcity.com.au/Council/Strategies-and-plans/Hobart-A-community-vision-for-our-island-capital

WHY A NEW CLIMATE STRATEGY?

The City of Hobart has led on climate solutions for more than twenty years. We are committed to moving toward a zero emissions and climate-resilient future.

In June 2019, the City of Hobart declared a global climate and biodiversity emergency. We made a promise to future generations that we will address:

- Catastrophic climate change, and
- Biodiversity loss (meaning the loss of living things – nature, plants, animals)

We will do this through ongoing policies, strategies and leadership.

Tackling this emergency requires everyone to act. That is why the Council is working with the community to figure out how we can respond to this emergency together.

The Hobart Climate Assembly will play an important role in shaping the new Climate Strategy to reflect community concerns and priorities.

WHAT WILL THE NEW STRATEGY DO?

The 2040 Climate Ready Hobart Strategy will guide what the Council and community can do to respond to the global climate and biodiversity emergency. It will be based on evidence of what the science says we need to do and informed by the community.

The Strategy aims to provide:

- A clear statement of what we hope to achieve together. This will include clear and measurable targets to measure progress.
- A set of priorities on how to best respond to climate change and how to make the biggest impact where it matters most.
- Guidelines on how to make decisions and best use of resources (such as money, time, staff).
- A clear way of bringing the range of climate change priorities into one strategy, with nature and community being core to this strategy.
- A plan that is aligned to our community vision as well as national and international standards on climate change and drawing on international best practices.

HOW IS THE NEW STRATEGY BEING DEVELOPED?

The Hobart Climate Assembly is an important stage in developing the new climate strategy. The work the Assembly will do will build on a one-year period of preparation, research and community engagement. Below is a summary of the work that has been done to date.

2023

To inform the strategy, the City has:

- **Conducted research** to understand what we would need to do to achieve a zero emissions Hobart.
- **Conducted a Climate Risk and Vulnerability Assessment** to understand the risks climate change poses to Hobart.
- **Worked with City of Hobart staff** to understand how to respond to climate change across city operations.
- **Worked with Hobart's climate leaders** to learn how the strategy can amplify and complement existing and future efforts.
- **Community engagement.** Over three months, we heard directly from over 800 Hobart community members about their priorities in responding to climate change; and reached tens of thousands of people with our message to shape a climate ready Hobart.

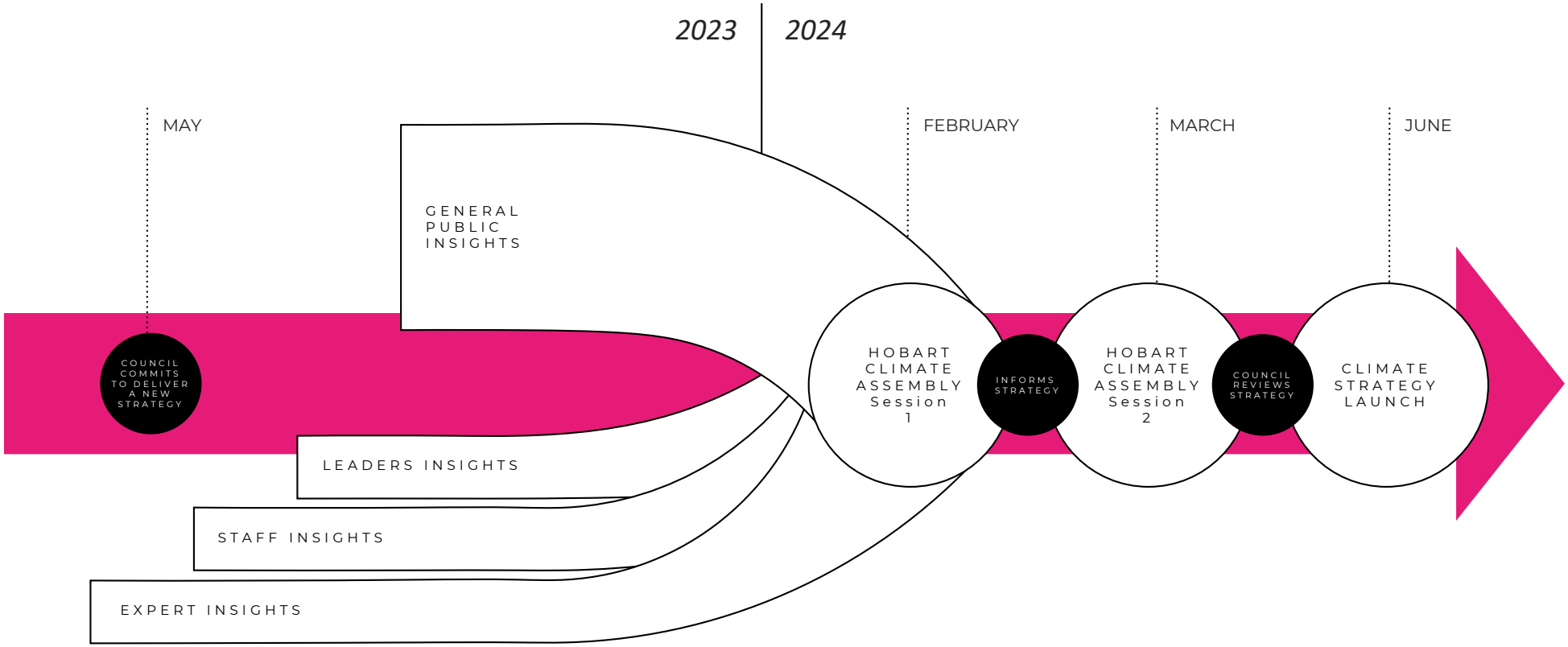
This is what we call our 'evidence-base' to inform the Strategy. We will take time during the Assembly to help you understand this body of work.

2024

In 2024, we will complete the climate strategy by:

- Hobart Climate Assembly – 17 & 18 February
- Hobart Climate Assembly - 16 & 17 March
- Elected Member Workshop to share recommendations from the Hobart Climate Assembly – 22 April
- Council considers the new Climate Strategy for endorsement - June

HOW IS THE NEW STRATEGY BEING DEVELOPED?





Climate change is impacting our lives now

WHAT THE SCIENCE SAYS

The science of climate change has been settled for decades. Climate change is a reality.

- Humans have caused global warming through emitting greenhouse gas emissions mainly from burning fossil fuels – coal, oil and gas.
- Climate change is a threat to human well-being and planetary health.

2023 was the hottest year on record, and the world is currently on course for between **2.5** to **4.5** degrees of warming or more.

Global warming is already resulting in massive destabilisation with catastrophic bushfires, floods, and heatwaves devastating communities around the world.

These extreme weather events and climate shocks are taking place at a greater frequency and intensity.

Every fraction of a degree of additional warming puts our lives at risk.

Source: The Intergovernmental Panel on Climate Change Sixth Assessment Report (2023). The IPCC prepares comprehensive Assessment Reports about the state of scientific knowledge on climate change. The reports are developed through a rigorous process of scoping, drafting and review, and approved by the 195 IPCC member governments. https://www.ipcc.ch/assessment-report/ar6/

WHAT THE SCIENCE SAYS WE NEED TO DO

The world is committed to maintain below **1.5** degrees of warming via the United Nations Paris Agreement. However, the world is significantly offtrack in meeting this goal. Australia's climate has warmed on average by **1.47 ± 0.24 °C** since national records began in 1910.

The chance we have to take action is closing.

There is a small window of time to secure a liveable and sustainable future for everyone.

To do this we need to mobilise climate leaders to:

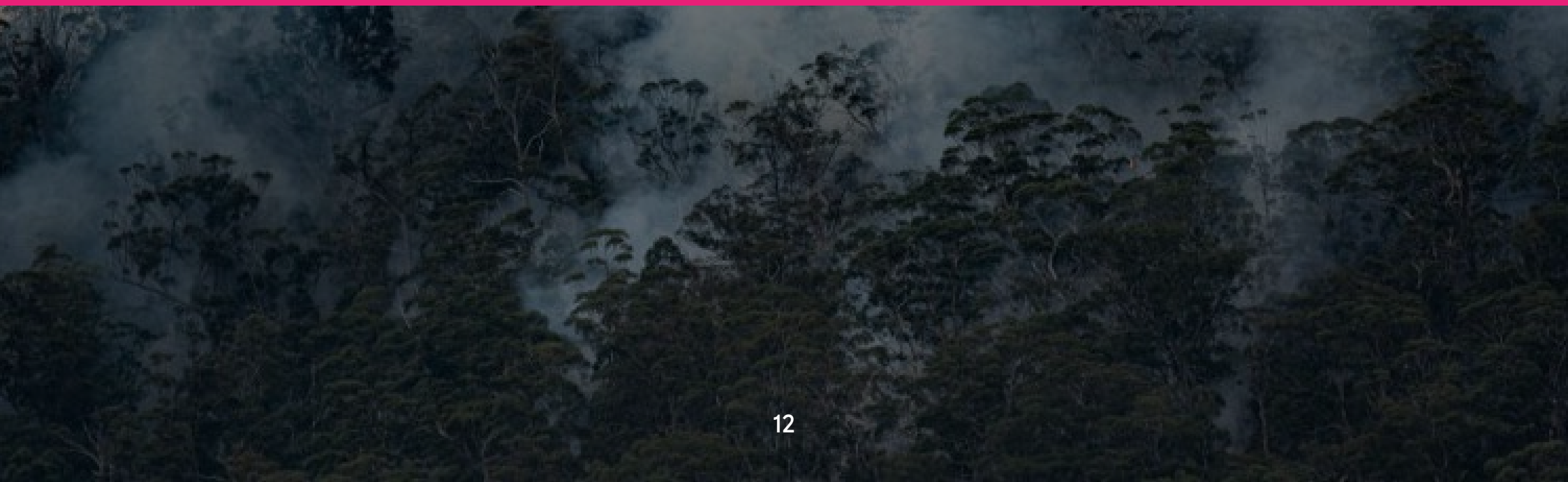
- Rapidly and deeply reduce emissions this decade
- Build resilience by being prepared for the extreme weather events and climate-related shocks
- Restore natural systems
- Ensure that no one is left behind

What we do now matters.

Source: "Australia's climate has warmed on average by 1.47" CSIRO State of the Climate 2022.
https://www.csiro.au/en/research/environmental-impacts/climate-change/state-of-the-climate



Shaping a Climate Ready Hobart



DRAFT

CLIMATE READY HOBART FRAMEWORK

Based on the research and consultation to date, we have developed a draft Climate Ready Hobart Framework to provide some structure to how we can think about and respond to climate change. This Framework is a draft and open to being changed by the Hobart Climate Assembly.

VISION

A CLIMATE READY HOBART

PRIORITIES

ZERO EMISSIONS HOBART	BUILD CLIMATE RESILIENCE	RESTORE NATURE	SUPPORT EQUITABLE TRANSITIONS
Zero emissions across the city by rapidly reducing greenhouse gas emissions through transforming transport, electrifying and retrofitting our communities, reducing waste and having a well-designed compact city.	Build climate resilience across the city by understanding possible future scenarios, planning and preparing for change, and building capacity to adapt through increased knowledge, connection, security and wellbeing.	Restore natural systems to better absorb carbon, increase biodiversity and withstand climate shocks and stressors by protecting and enhancing bushland, wetlands, coasts and urban green spaces.	Supporting equitable transitions through equal access to climate solutions, participation in new jobs, livelihoods and economies, and ensuring that society's most vulnerable are not further disadvantaged by climate impacts.

HOW WE MOBILISE

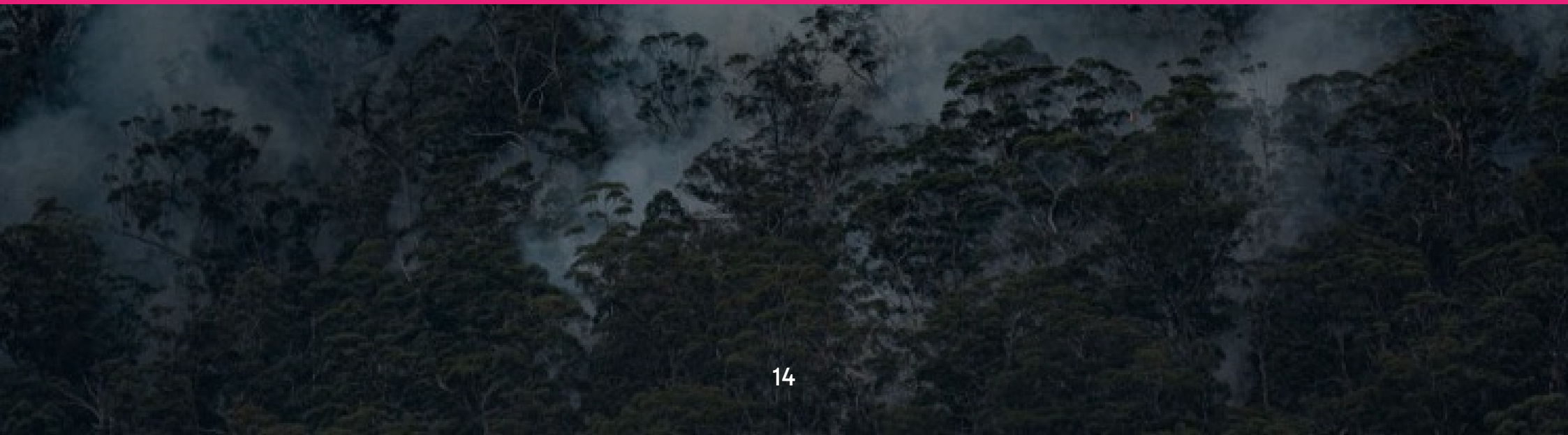
MOBILISE CLIMATE LEADERS

LEAD AS A COUNCIL

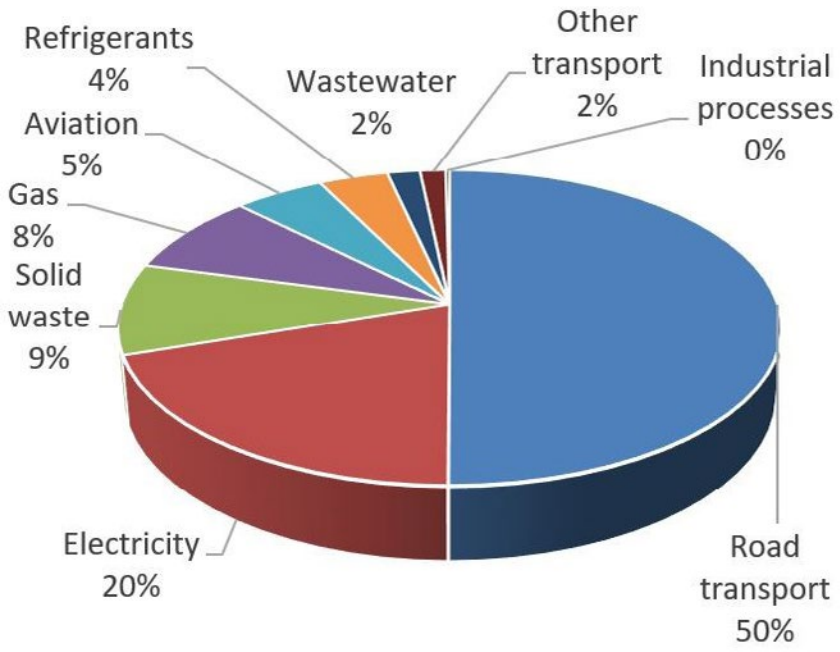


Zero emissions Hobart

To shape a zero emissions Hobart we need to understand where our emissions come from



HOBART COMMUNITY EMISSIONS



The Hobart community generated approximately **435,000** tonnes of greenhouse gas emissions in financial year **2020.**

Hobart's highest emissions are:

1. Transport – **57%** of emissions come from transport

2. Electricity – **20%** of emissions come from electricity

3. Waste – **9%** of emissions come from waste

We can generate **100%** renewable electricity to be self-sufficient in Tasmania but half of our energy comes from fossil fuels.

Climate solutions need to be underpinned by good planning and design of our City.

Source: Strategy.Policy.Research. Emissions Pathways Report 2023.

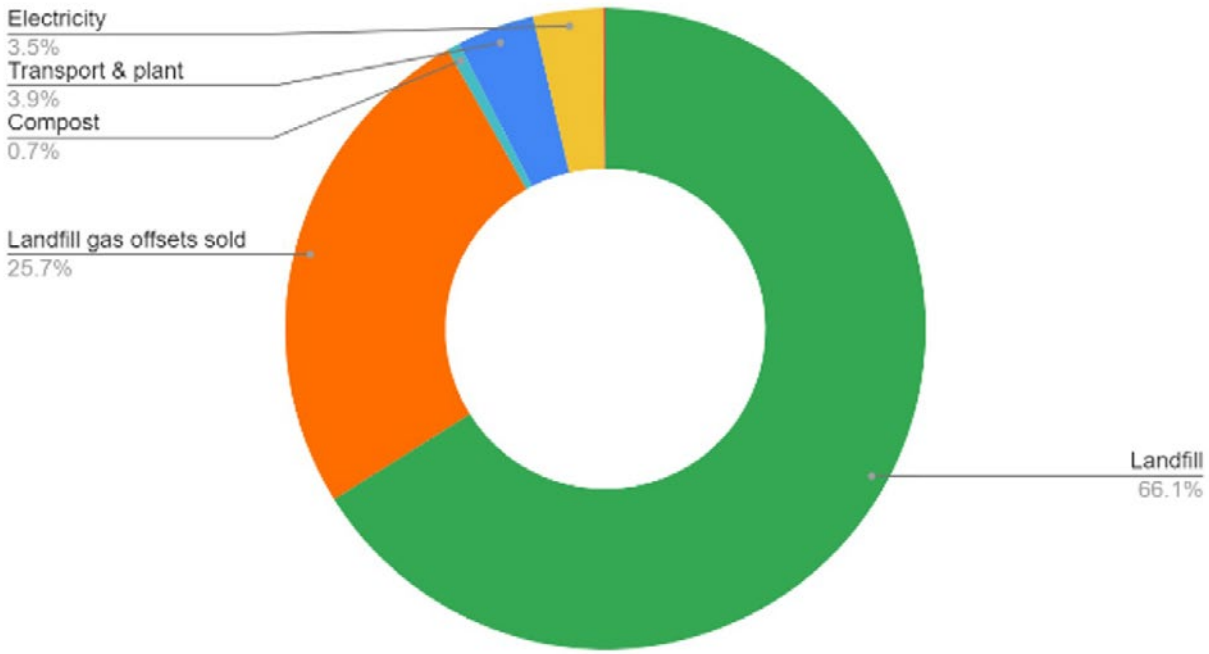
CITY OPERATIONS EMISSIONS

The City of Hobart operations currently generate **9%** of the total community emissions.

City operations generated **41,024** tonnes of greenhouse gas emissions in financial year **2023.**

92% of City operations emissions are from waste, largely as methane released as organic waste decomposes.

This is due to the City being responsible for the emissions from McRobies Waste Management Station, a shared problem between the Council and community.



Source: City of Hobart Annual Report 2023, page 58.
https://www.hobartcity.com.au/Council/Strategies-and-plans/Annual-Report

GOOD NEWS STORIES

The City of Hobart has led numerous impactful climate change initiatives.

In 2020, City operations achieved its corporate energy and greenhouse gas emissions targets by:

- reducing energy use by **40.4%**, exceeding its **35%** target;
- and reduced emissions by **19.9%**, exceeding its **17%** target.
- This builds on its earlier target where it reduced its emissions by **70%** from 2000 levels by 2010.

The City operations efforts have resulted in saving $1.2million annually on our energy bills, since 2016.

This was achieved by installing LED streetlights and close to a megawatt of solar PV on our roofs, along with increasing the efficiency of the City's buildings. For example, the City heats the aquatic centre and the annex with a heat exchange from the waste-water pipeline.

Since 2006, the City has captured and converted up to **60%** of landfill emissions to energy which is exported to the grid. In 2023, **43%** of landfill emissions were converted to energy.

Composting and organic waste collection has led to **61%** waste reduction to landfill.

The City operations has transitioned almost 2/3 of the fleet's passenger vehicles to EV or hybrid.

WANT TO LEARN MORE?

You aren't required to 'study' for the Hobart Climate Assembly but if you are keen to learn more about how we can get to zero emissions, we recommend:

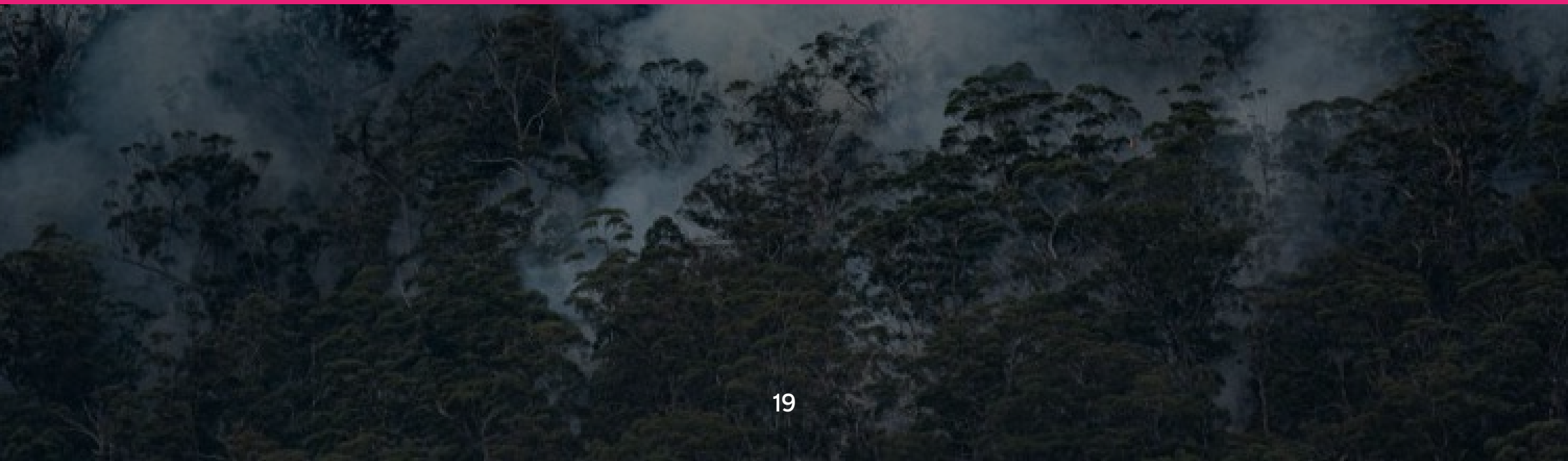
City of Hobart Annual Report - pages 58-59 is the Climate Report on our corporate emissions.
https://www.hobartcity.com.au/Council/Strategies-and-plans/Annual-Report

Tasmanian Government Climate Change Office - https://recfit.tas.gov.au/climate



Building climate resilience

To build climate resilience we need to understand how climate change is a threat to Hobart



CLIMATE CHANGE RISKS

Climate change is a clear and present danger that threatens our city, people, nature and economy, particularly the most vulnerable.

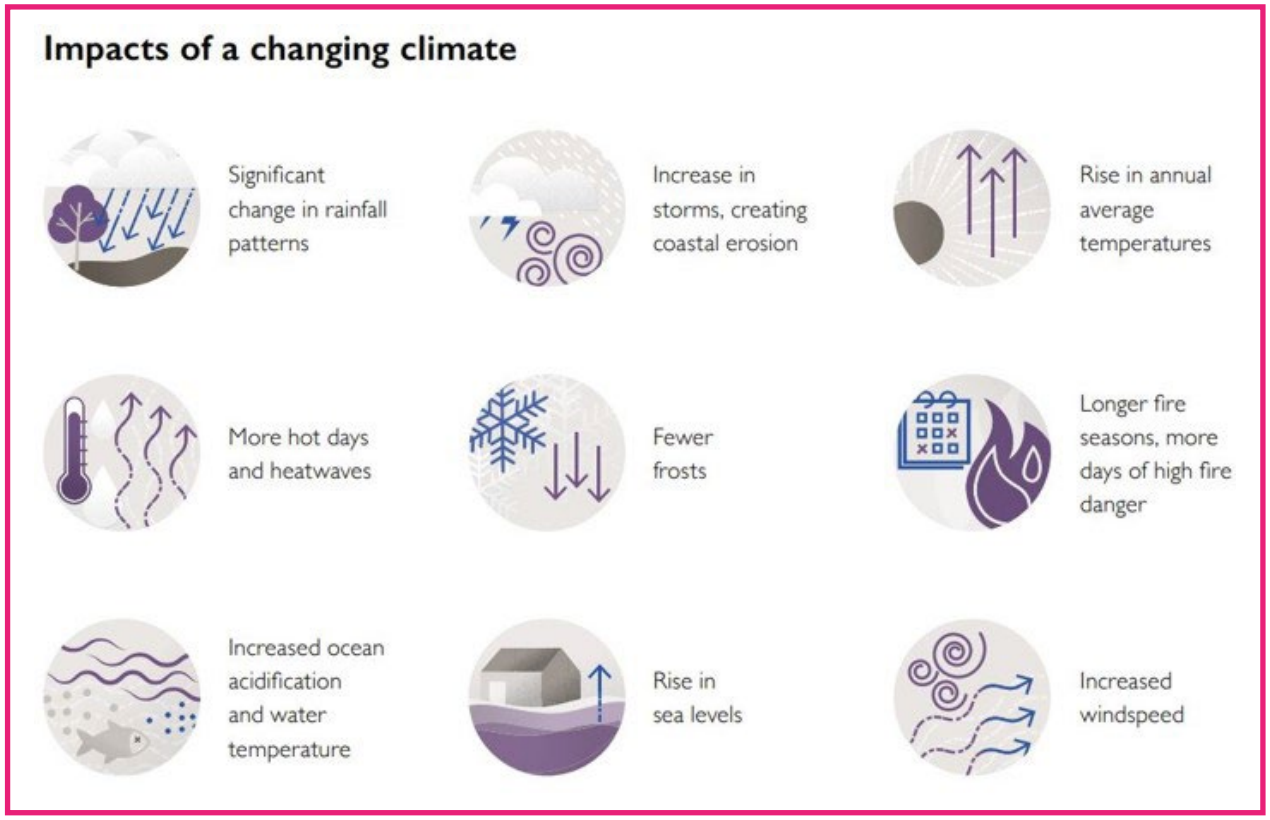
Hobart is experiencing more extreme weather events and climate-related shocks.

The main hazards are:

- Bushfire
- Floods
- Heatwaves

Other climate-related hazards for Hobart include wind, extreme storms, reduced frosts, drought, sea level rise and coastal hazards.

These hazards are made more severe by climate change. Hobart is experiencing these events with greater frequency and intensity.



Increasingly, it is recognised that risks are becoming complex with events occurring simultaneously, more frequently and/or interacting with each other.

Compounded risks refer to connection between events, while cascading risks refer to risks that generate a chain of events in society.

CLIMATE CHANGE AND BUSHFIRE

Hobart is one of the most bushfire prone cities in the world and the most bushfire prone city in Australia.

Bushfire is a function of weather, fuel and topography.

Destructive fires can occur independent of drought.

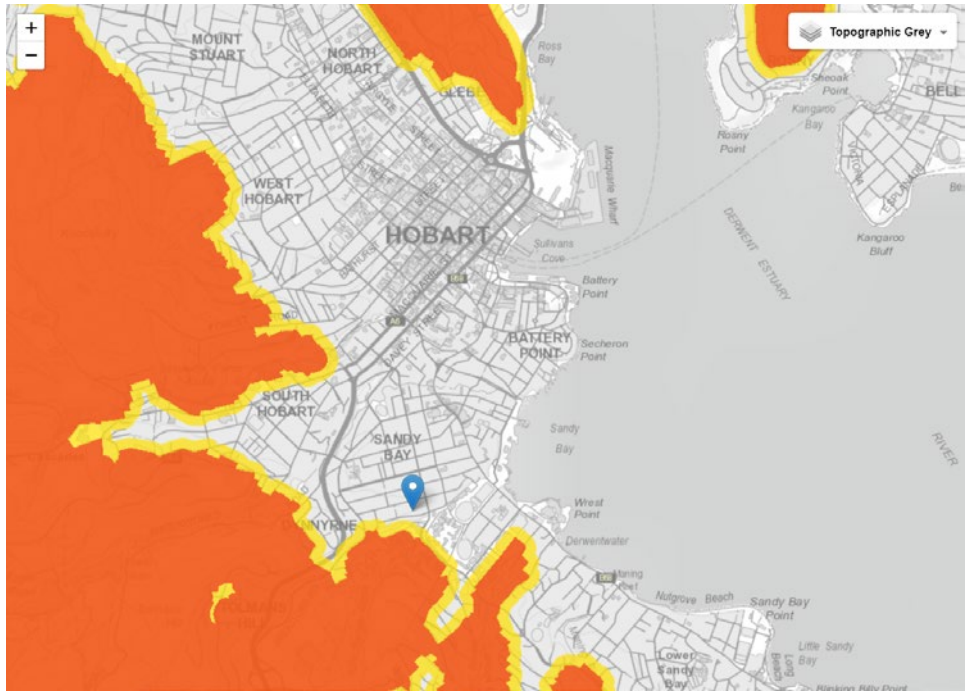
Bushfire risk is especially high for Hobart when there are wet springs followed by dry summers (fuel), combined with weather patterns that bring strong, hot and dry winds from Central Australia.

It is predicted that the number of high fire danger days in Tasmania will increase by **40%** by 2050, and that fire seasons will be longer, and more days will be spent at the highest range of fire danger.

Hobart will face more extreme fire days in the future, and this puts human life, flora, fauna, property and economic activity at risk.

Australia's Black Summer exemplifies how the consequences of bushfires can be substantial.

Bushfire prone areas of Hobart



Source: TasAlert Risk Ready https://alert.tas.gov.au/

CLIMATE CHANGE AND FLOODS

In Hobart extreme precipitation is the major cause of flooding. Climate change will result in more frequent and intense extreme rainfall events, and flood risk is expected to become more frequent and severe.

Because of Hobart's location between kunanyi/Mt Wellington and the Derwent Estuary, the city is prone to flash flooding, especially around the Hobart rivulet. These floods are characterised by the rapid water flow, rather than depth.

When storm surges coincide with heavy rainfall, they can exacerbate river flooding because higher sea levels can impede water flow out to sea.

Flooding in the Hobart CBD in May 2018 left **12,000** homes and businesses without power, 19 schools were closed.

This resulted in more than **$45m** worth of insurance claims. Many businesses were forced to remain closed, leaving their employees without work and incomes.

Projected flood extent for Hobart in 2100



CLIMATE CHANGE AND HEAT

By 2050, Hobart will have 8 days above 30 degrees, compared to 4-5 in 2010.

There will be more heat waves, and they will be more severe. In the urban environment (areas close to town), the temperature can be 10 to 15 degrees Celsius higher than the temperature in the surrounding non-urban (bushy) areas. This is partly because there aren't many trees on our streets (limited canopy cover), and there are dark surfaces.

Heatwaves are calculated by making comparisons to what is typically hot for a certain location. So, while Hobart may not become as hot as Darwin, it is the relative heat that impacts how well communities cope.

If nothing is done, urban heat can lead to:

- heat-related deaths and illness
- increased demand on health services
- increased demand for energy to cool buildings

The urban heat will be worse unless Hobart's growth is proactively managed. As the population of Hobart grows, we need to make sure new buildings and infrastructure consider heat waves.

Vulnerable community members are most at risk. This includes older people and people experiencing homelessness.

A recent study found ambulance dispatches in Tasmania increase by:

- 34% during extreme heatwaves
- 10% during severe heatwaves
- 4% during low-intensity heatwaves

CLIMATE CHANGE RISKS AND LOCAL GOVERNMENT

The increasing severity of climate change is leading local governments, such as the City of Hobart, into uncharted territory.

If these risks are not properly understood or considered in decision making, it will result in:

- greater exposure to climate impacts,
- increased damages to the community (injuries, death)
- risks to the long-term financial viability of Council as an organisation

For example, extreme rainfall and flooding poses risks across several domains, with the potential to cause extensive damage across public and private properties.

The maintenance of public infrastructure in this context may become more expensive, and the financial viability of Council could be threatened.



GOOD NEWS STORIES

The City of Hobart is committed to adapting to a changing climate and building resilience.

Some actions include:

- **Sparking Conversations, Igniting Action** is a bushfire resilience initiative to help people better understand and prepare for bushfire. The initiative uses a range of community events, demonstrations to ensure we are all safer and better prepared for the threat of bushfire.
- **Urban Tree Canopy Strategy** including a commitment to increase the canopy cover across Hobart's urban areas from 16.7 per cent to 40 per cent by 2046.
- **Coastal adaptation** – The City led coordination of the *Regional Strategy – adapting to a changing coastline in Tasmania* launched in August 2022 and is endorsed by the 10 southern coastal councils. The City is localising this work to assist them in understanding local impacts and responses, and developing nine coastal response plans with Hobart communities.

Guided by a series of strategic documents, the City of Hobart's multi-faceted approach integrates climate considerations into all aspects of its planning and operations.

WANT TO LEARN MORE?

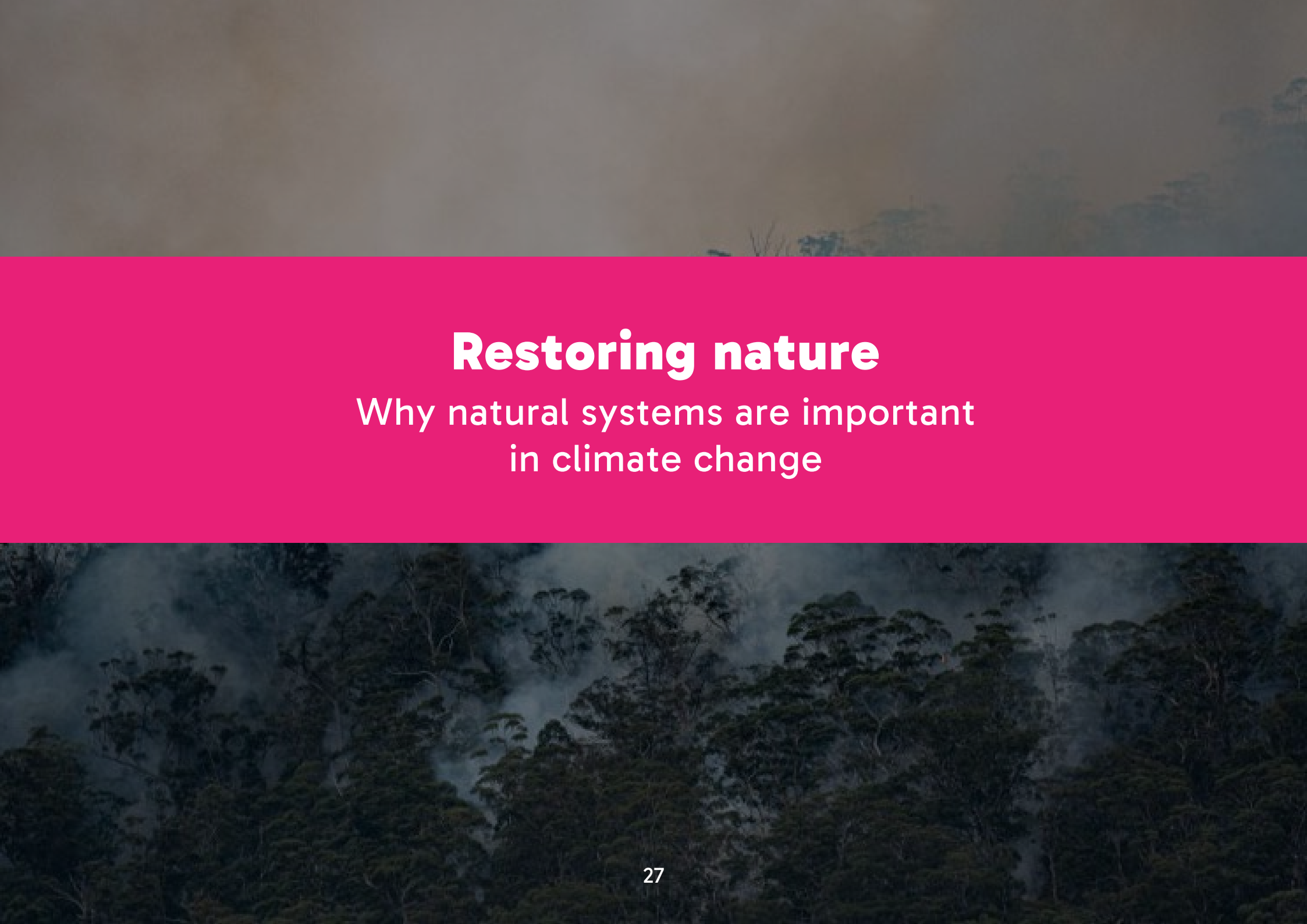
If you are keen to learn more about how climate change and extreme weather events could impact Hobart and Tasmania, we recommend:

Tasmanian Government – What are the projected climate change impacts for Tasmania?

https://recfit.tas.gov.au/what_are_the_projected_impacts_for_tasmania

TasAlert - the Risk Ready tools aim to improve community resilience to natural hazards.

https://alert.tas.gov.au/get-ready/



Restoring nature

Why natural systems are important in climate change

WHY IS NATURE IMPORTANT IN CLIMATE CHANGE?

Climate change is a result of exceeding environmental tipping points. Our natural systems play a critical role in helping to absorb emissions as well as build resilience to extreme weather and climate shocks.

Urbanisation contributes to and exacerbates the effects of natural disasters such as flooding, whereas restoring nature can help to buffer and absorb the affects to improve resilience. For example, street trees can help cool the city in summer and improve permeability of surfaces to reduce flood impacts.

Our natural systems are under enormous pressure from urbanisation, invasive species, population growth and pollution, all compounded by a changing climate.

We can restore natural systems to better absorb carbon, increase biodiversity and withstand climate shocks and stressors by protecting and enhancing bushland, wetlands, coasts and urban green spaces.

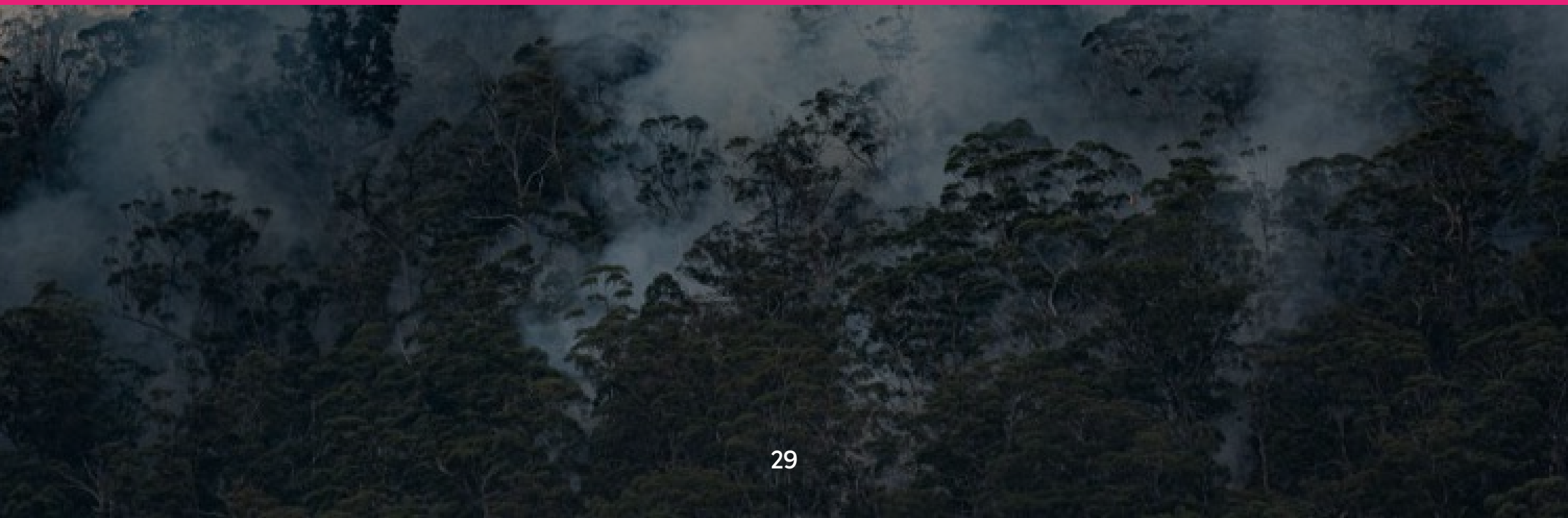
We can actively protect and restore nature by:

- Engaging with, listening to and empowering First Nations people
- Urban greening throughout the city
- Conserving, managing and restoring bushland reserves and open spaces
- Improving the natural health of waterways and the Derwent Estuary



Supporting an equitable transition

Why we need to make sure no one is left behind



WHY IS EQUITY IMPORTANT IN CLIMATE CHANGE?

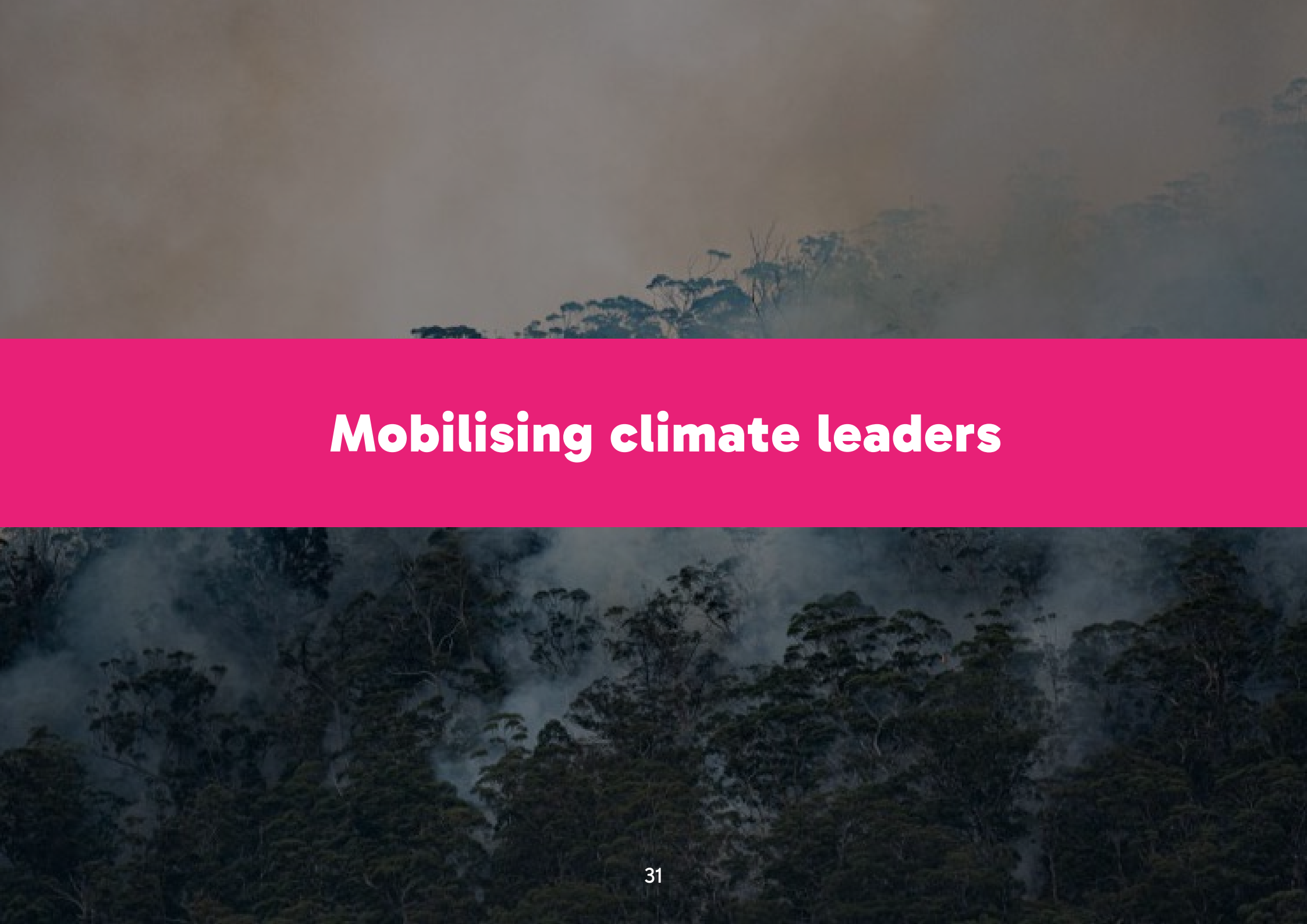
Climate change can exacerbate social inequities, and impact vulnerable communities disproportionately. For example:

- Low-income communities often have less resilient homes, making them more susceptible to damage from extreme weather events like storms and floods.
- Low-income communities may not have access to insurance and face increased risk of displacement due to climate-induced events leading to housing insecurity.
- Vulnerable populations, such as the elderly and those with pre-existing health conditions, may be more susceptible to harm due to climate-induced events.

Specific policies and solutions are required to limit this to ensure that all people across Hobart and Tasmania can access the benefits of a climate positive lifestyle.

The transition to a zero emissions economy means some jobs and skills will change. For example, we will need electricians to retrofit homes and service electric cars; petrol stations will gradually be replaced with zero emissions alternatives. We need to consider how we can support vulnerable workers to have skills in the new economy.

When we consider how we respond to climate change, we need to make sure that no one is left behind.



Mobilising climate leaders

WHY WE NEED TO MOBILISE CLIMATE LEADERS

The impacts of climate change affect all of us, and we will need a collective effort to achieve a climate ready Hobart.

The City of Hobart as an organisation can make changes to its programs, services, infrastructure, governance and operations.

Equally as important is the role our community will play in responding to this challenge.

With the right support we can all contribute in different ways and become climate leaders.

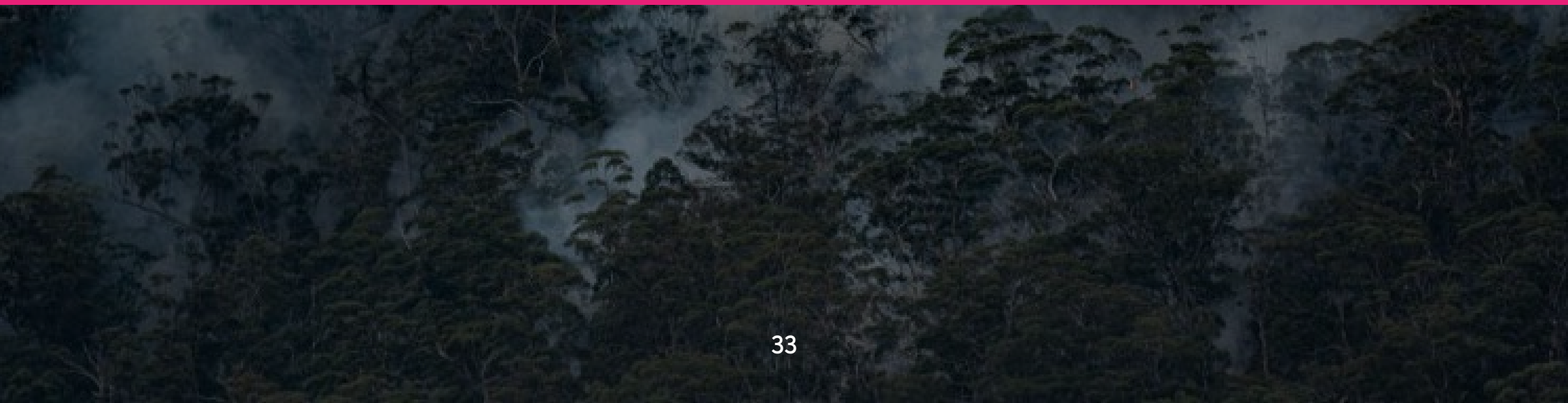
Together we can mobilise to make changes in our households, neighbourhoods, organisations and across our city.

- In our households we can build, retrofit and electrify our homes to be more efficient, consume less, reuse and recycle more, grow food, shift the ways we travel, and prepare for bushfires, floods and other climate risks.
- At the neighbourhood level we can share resources, plan for the future, organise and work on projects together to make cleaner, more liveable places and stronger communities.
- Through our workplaces, businesses and organisations we can work to shift planning, infrastructure and operations towards circular economies and climate readiness.
- As a whole city, we can better collaborate, plan, invest and make decisions together so we can achieve our targets in a way that works for everyone.

Through better access to information and education about climate risks and solutions; through increased incentives and supports for households, neighbourhoods and businesses; and through stronger and more diverse networks of collaboration and leadership – we can nurture a city-wide network of citizens leading the way to a climate ready future.



What we do now matters.
We can all make a difference.




CLIMATE
READY
HOBART
SEE YOU AT THE
HOBART CLIMATE ASSEMBLY
hobartcity.com.au/climate-ready
City of HOBART