



# Climate Emergency Action Plan

2023 – 2033



Ironbark Sustainability  
Suite 8, 70-80 Wellington St,  
Collingwood 3066  
ABN: 51 127 566 090  
Ph: 1300 288 262 | [info@realaction.com.au](mailto:info@realaction.com.au)  
[realaction.com.au](http://realaction.com.au)

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# Acknowledgement of Country

The Town of East Fremantle acknowledges the Whadjuk people of the Nyoongar nation as the Traditional Custodians of the lands on which East Fremantle exists. We pay our respects to ancestors and Elders past, present and emerging and acknowledge their continued custodianship of Country. We are committed to honouring Australian Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to the land, water and sea, and their rich contribution to society. We acknowledge the thousands of years of caring for Country.

We acknowledge that Aboriginal and Torres Strait Islander people are often more vulnerable to the impacts of climate change due to the social and economic inequality they experience as a result of colonialism. We acknowledge Aboriginal and Torres Strait Islander culture as the oldest continuous living culture in the world. Responding to the climate emergency offers the opportunity to embrace Aboriginal and Torres Strait Islander perspectives, science, knowledge and work together to ensure sustainable land use practices and climate change mitigation and adaptation.

# Message from the Mayor



*I take immense pride in introducing the Climate Emergency Action Plan 2023-2033 to our vibrant community of East Fremantle, recognising the integral role our community plays in building climate resilience.*

Across the globe, communities have risen to the challenge of combating climate change and in 2019, our Town declared a Climate Emergency, solidifying our commitment to action. To address this the Town formed the Climate Action Reference Group (CARG) in 2020, comprising of subject matter experts and dedicated community members. Driven by the collective vision and input of our community, our Climate Emergency Action Plan follows on from the work completed in the Climate Emergency Strategy and sets ambitious targets for achieving net zero emissions in both Council operations and the wider community. However, our efforts extend beyond mere numbers. We understand that true climate resilience lies in fostering a strong sense of unity and collaboration within our community. CARG has been integral in uniting the community, promoting collaboration, and cultivating a shared sense of purpose in mobilising our community. By leading by example and diligently reducing the Town's own carbon footprint, we strive to empower every member of the East Fremantle community to actively participate in the transition to a low-carbon lifestyle. We recognise that community engagement

is crucial for the success of our initiatives. Through educational programs, informative campaigns, facilitation of sustainable practices, and mobilisation of collective action, we will support and empower our community in embracing a more sustainable future.

As a Council, we are deeply committed to considering the long-term impacts of climate change in all our decisions. This Action Plan serves as a guiding framework, directing our collaborative efforts towards creating a sustainable, liveable, and resilient East Fremantle. I firmly believe that the commitment of each member of our community is essential to create meaningful change. Together, we will leverage our collective voice to advocate for stronger climate policies and legislation at both the state and federal levels, ensuring a better future for generations to come. By valuing and harnessing the strength of our community, we will build a future that safeguards our environment, nurtures our well-being, and preserves the essence of our beloved Town for generations to come.

**Jim O'Neill**  
Mayor







# Message from the Climate Action Reference Group



*The East Fremantle Climate Action Reference Group (CARG) is delighted to witness the steady progress of the Town's climate response in recent years. The collaboration between Council and CARG has ensured that both the Climate Emergency Strategy (CES) and the Climate Emergency Action Plan (CEAP) reflect the valuable input and perspectives of the local community.*

CARG, in partnership with the Town, played a vital role in establishing the seven Strategic Objectives for the CES, which now serve as the foundation for the actions outlined in the CEAP. This comprehensive document outlines a roadmap for addressing the climate emergency with a series of actionable initiatives.

Working alongside the Council on behalf of the residents and ratepayers has been an honour for the CARG. As the custodians of community interests, CARG anticipates

witnessing the implementation of the actions outlined in this plan in the years ahead. The group remains committed to supporting the Council's efforts by actively mobilising the local community and promoting sustainable practices that will contribute to a more resilient and environmentally responsible future. Together, we strive to create a thriving, climate-conscious community in East Fremantle.

# Introduction

***On 19 November 2019 at the Ordinary Council meeting, the Town of East Fremantle recognised the climate emergency and declared its position on reducing its impact on the environment.***

As a result of community requests at the Annual Electors meeting on 17 March 2020, the Town of East Fremantle resolved to develop a Climate Emergency Strategy (CES) and this Climate Emergency Action Plan (CEAP).

The Town of East Fremantle is committed to supporting the community's call to action in reducing the carbon emissions of Council owned assets and operations and to support all residents and ratepayers of East Fremantle in tackling their own carbon footprint.

The first step in this process was the formation of the Climate Action Reference Group (CARG) in 2020. The Town invited local residents and subject matter experts to assist in developing targets, projects and focus areas for the Town to mobilise itself and the local community. Together the CARG and Council formulated the CES in 2022, which identified seven Strategic Objectives. Each objective includes a vision for East Fremantle in 2030, with three components:



## Council

How the Town of East Fremantle will combat and manage the effects of climate change.



## Community

How the Town will assist the community to adapt and mitigate the effects of climate change.



## Advocacy

How the Town will advocate to multidisciplinary organisations and agencies on behalf of the community to ensure climate change has a pivotal focus in East Fremantle's future.

The second step was to develop this CEAP, which includes detailed programs, projects, initiatives and actions to support Council and the community to transition to a low-carbon lifestyle. The CEAP will be reviewed every two years and updated as opportunities to address the climate emergency evolve.

The third step will be to implement the relevant programs, projects and actions identified in this Action Plan. The Town will work with the community over the next seven years to realise its vision for East Fremantle by 2030.

## EAST FREMANTLE'S CLIMATE EMERGENCY DECLARATION

*The Intergovernmental Panel on Climate Change's (IPCC) latest report is a call to act now, emphasising that urgent action is required to reduce or limit emissions to avoid potentially irreversible warming and environmental damage.*

Climate change is evident, and its impacts are already affecting our environment, economy and society. Whilst global efforts to tackle climate change are increasing, the science is clear that action needs to be focused on achieving zero net carbon emissions.

Recognising this, in November 2019 the Town joined a growing number of local governments around Australia and the world by declaring a 'Climate and Ecological Emergency' and demonstrating leadership by setting a target to become a net zero carbon emission Local Government. To guide and assist with this,

Council has developed a Climate Emergency Strategy which aims to align with the Paris Climate Agreement and the international effort to stay below a 1.5°C rise in global average temperatures.

Following the adoption of the Climate Emergency Strategy 2022-2032, this CEAP provides actions, initiatives and programs to deliver and achieve the Strategic Objectives set in the CES. The Town will use this document to ensure the goals set out in the CES by 2030.





# Seven Strategic Objectives

*The CES established 7 Strategic Objectives that serve as a roadmap for Council to drive change, support the community and advocate for broader change. The objectives provide a framework for both Council and the community to navigate and respond to the present and future impacts of the climate emergency.*

The first part of this document outlines the context of the Action Plan and what the climate emergency means for East Fremantle.

The second part of the document describes each Strategic Objective, providing a comprehensive description that defines the problem and presents solutions. This section identifies the necessary actions to achieve these solutions, along with the potential barriers that may arise during the process. It also outlines the role of Council in supporting the community to overcome any associated barriers.

The third part is the Town's Action Plan. This details the programs, projects and actions Council may implement between now and 2030 to achieve its vision for East Fremantle. The implementation of the Plan will be based on the identified strategic goals as agreed by Council and based on the extent of constraints the Town may encounter counter such as availability of resources, including the financial and time constraints of achieving a net zero position by 2030.



Energy



Green Spaces



Water



Transport



Infrastructure



Procurement



Waste



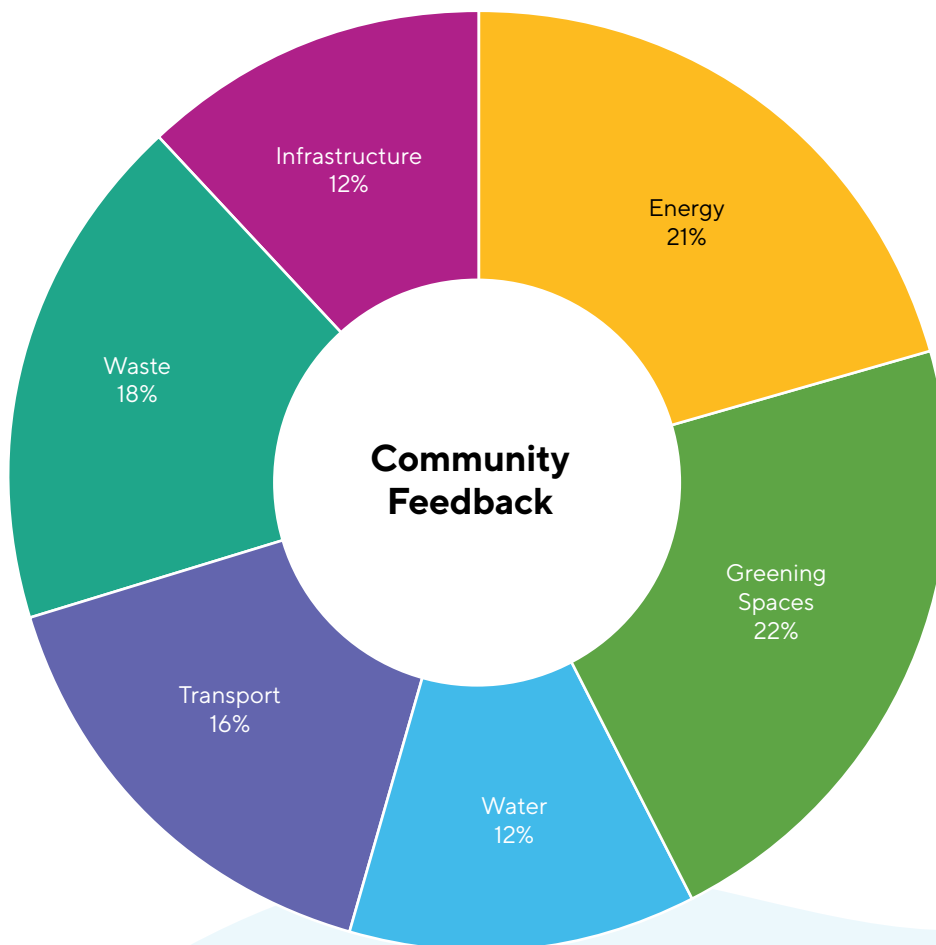
# Community Priorities

*In developing this Action Plan, the Town surveyed the community to understand its priorities in addressing the climate emergency.*

The Town ran a series of community and Council workshops in 2022, as well as a digital survey with over 100 respondents including youth. As shown in Figure 1, engagement with the community demonstrated broad support for all seven Strategic Objectives from the Climate Emergency Strategy 2022-2032. Energy and Green Spaces were identified as high-priority areas, with strong support for actions that assist the community in the switch to renewable energy and the increase in canopy cover across the Town.

The engagement process made it clear that the community wants to know more, with education as a key intervention across a number of objective areas. The Town also has opportunity to advocate on behalf of the community, including for changes to planning legislation and better data on climate change, risks to fresh water supply and infrastructure.

Figure 1: Community feedback on "which areas do you believe Council should focus its time to support the community?"



# Council's Corporate Emissions Profile

*Council's emissions profile considers direct and indirect emissions resulting from activities and operations undertaken by the Town as an organisation. Estimated to be 580 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>-e) for the 2021/22 financial year, the Town contributes 1.3 percent towards East Fremantle's total community emissions profile.*

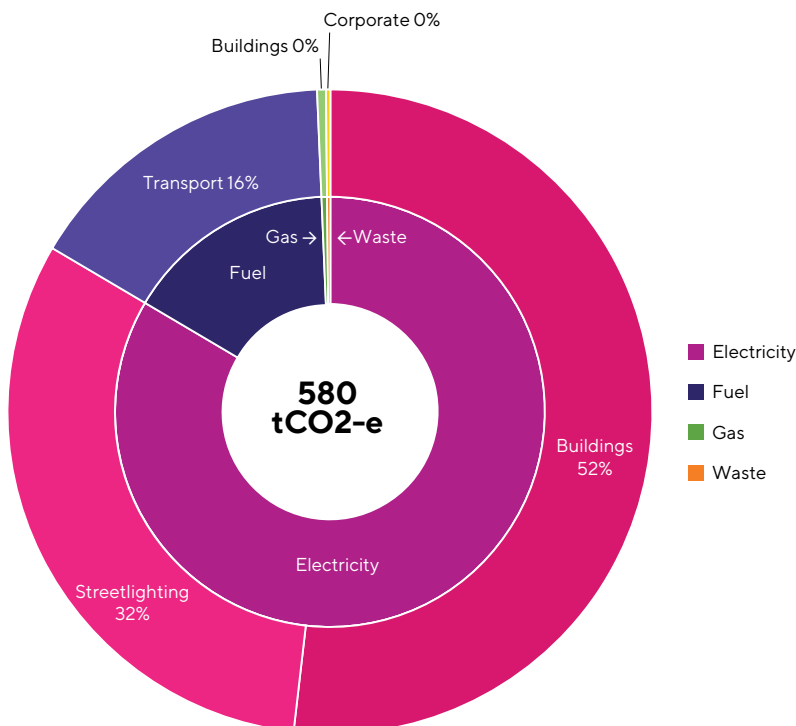
Until 2023, electricity was the main source of emissions for the Town, accounting for over 80 percent of emissions. With the recent purchase of 100 percent renewable energy for all Town electricity supply (including street lights), transport fuel now contributes the majority of emissions to the corporate profile.

The Town's total emissions profile includes some additional sources not currently captured in this data, including concrete and asphalt use and contractor fuels.

Whilst the Town's profile contributes a small proportion of the total emissions in the community, it has a significant role to play in overall emissions reduction.

Implementing actions to bring the Town's own emissions to zero presents a unique opportunity to showcase low emissions solutions to the broader East Fremantle community. Any lessons learnt on the journey can be shared as the Town supports the community in its own transition towards net zero emissions.

Figure 1: The Town's corporate operational emissions 2021/22





# Community Emissions Profile

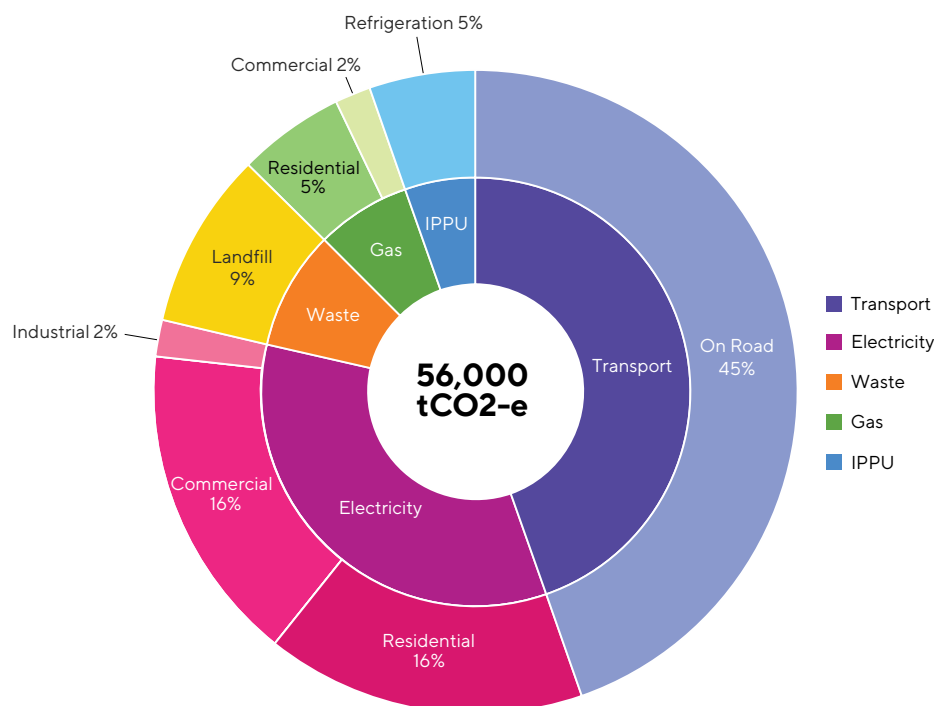
*East Fremantle's community emissions profile is derived from Snapshot<sup>1</sup>, providing estimated emissions profiles for all local governments in Australia.*

The data has been developed according to the Global Protocol for Community-Scale Greenhouse Gas Inventories (GPC) from a broad range of top down or state level data on greenhouse gas emissions and emissions sources.

Figure 2 shows the estimated total greenhouse gas emissions and sources of these emissions within the East Fremantle community. The emissions are presented in carbon dioxide equivalent (CO<sub>2</sub>-e). Community emissions sources include commercial buildings, residential buildings, forms of transport, industrial activities, water and sewage and community landfill waste.

The East Fremantle community released approximately 56,000 tonnes of CO<sub>2</sub>e in the 2020/21 financial year. The largest source of emissions relates to transport, generating 45 per cent of the total profile. These emissions are generated by the combustion of petrol and diesel in vehicles used by the community. The second largest source of emissions is residential and commercial electricity use, which combined account for 40 per cent of all community-based emissions. Waste sent to landfill is the third largest source of emissions, followed by residential and commercial gas use, and industrial processes and product use (IPPU).

Figure 2: Municipal Emissions Snapshot 2020/21



1 snapshotclimate.com.au

# Zero Emission Solutions – Council

*The Town of East Fremantle has committed to net zero greenhouse gas emissions by 2030. Analysis of the Town's FY 21/22 emissions inventory has identified a number of key strategic actions the Town can undertake over the next seven years to significantly reduce its emissions.*

These actions include:



**Upgrade street lighting to LED, including smart lighting for major roads.**



**Phased transition of light fleet to electric vehicles and purchase offsets for heavy fleet.**



**Installation of solar photovoltaic panels (PV) on key Council buildings.**



**Replacement of petrol and diesel equipment.**



**Development and implementation of sustainable building policy for new Town facilities.**

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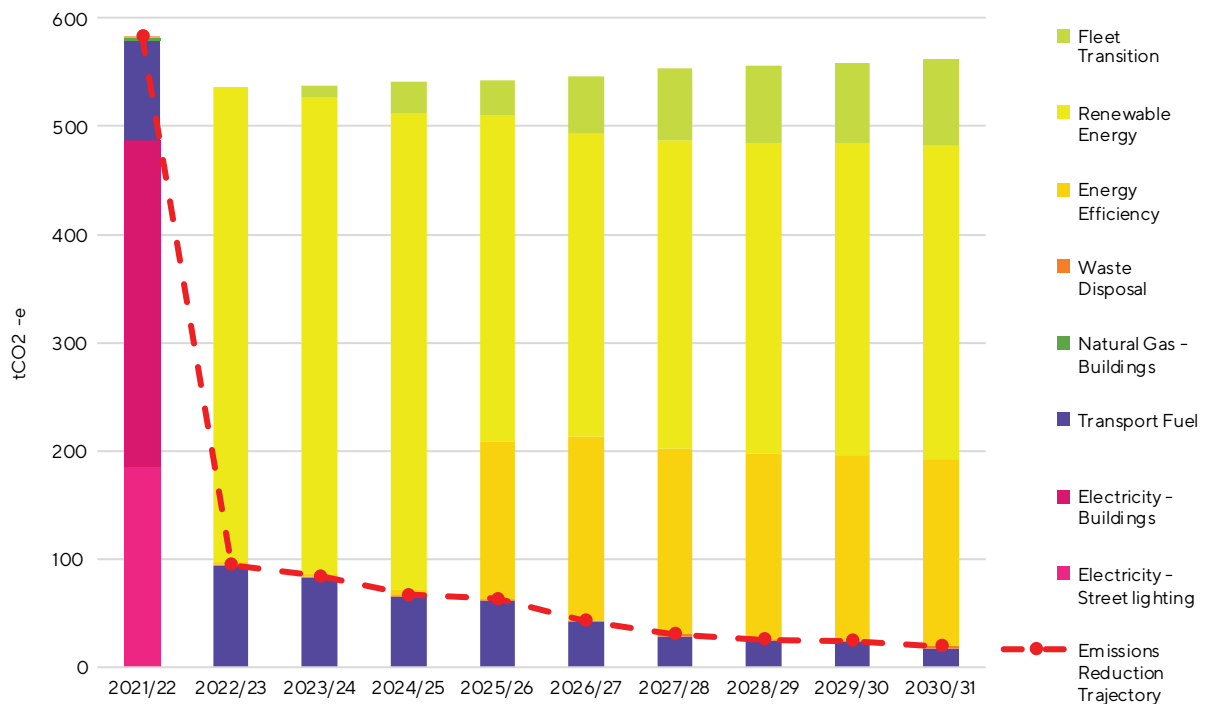
## EMISSIONS REDUCTION PATHWAY COUNCIL EMISSIONS

*The key actions outlined on the previous page can significantly impact on the Town’s emissions inventory up until 2030. As shown in Figure 4, it is estimated that the Town’s annual organisational emissions can reduce by 97 percent by 2030.*

Any residual emissions can be offset to achieve net zero emissions. The extent of offsetting required will depend on the emergence of zero emissions heavy fleet and equipment over the next seven years. Based on the current carbon credit spot price, it would cost the Town between \$550 and \$750 to offset the 15–20 tCO<sub>2</sub>-e of anticipated residual emissions in 2030.<sup>2</sup>

It is important to note that whilst the Town has effectively reduced its energy emissions to zero by removing gas and purchasing renewable electricity, actions to further reduce electricity consumption remain viable. Actions to improve energy efficiency and installing solar panels will reduce electricity costs, which over time can boost funding for other actions.

Figure 4: Council’s Emissions Pathway to Net Zero 2022–2030



<sup>2</sup> Assumes ACCU spot price of \$36.50/tCO<sub>2</sub>-e, per accus.com.au in March 2023

# Zero Emissions Solutions – Community

*Reaching zero emissions by 2030 will require changes in all sectors across the community. Utilising technology available to us today, we can implement solutions to achieve our zero emissions target.*

As a member of the community, you can contribute to making the transition to a net zero East Fremantle happen even faster. You can do this by:



## Transport

- Walking, riding or catching the bus instead of driving for short trips.
- Buying an electric vehicle for your next car.



## Electricity

- Installing solar panels on your roof.
- Purchasing renewable power.
- Choosing an electricity plan that includes renewable energy (e.g. GreenPower).
- Buying appliances with high energy and water efficiency ratings.
- Use less electricity by having better insulation and more efficient appliances (lights, air conditioning, ovens, washing machines and dishwashers).



## Gas

- Replacing gas hot water tanks, heaters, ovens and stovetops with electric ones.



## Waste

- Buy quality products or those that are reusable rather than single use.
- Use less, reuse more.
- Follow directions from the Town to ensure all your waste is separated into the correct bin.
- Separate waste for recycling and composting while limiting waste sent to landfill.

## EMISSIONS REDUCTION PATHWAY COMMUNITY EMISSIONS

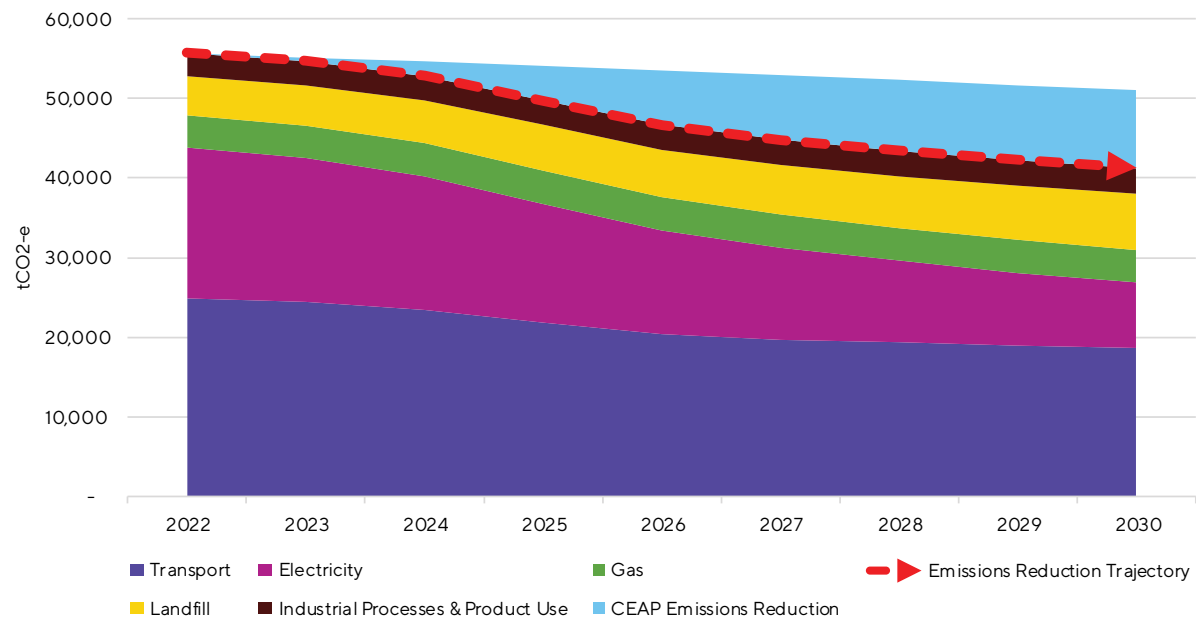
*The Town's role in reducing community based emissions is to support the community and advocate to the State and Federal government to take action.*

In doing this, the Town has the potential to accelerate community emissions reduction by 15 to 20 percent more than if the Town did not act. Between now and 2030, this represents a total of 50,000 tonnes of avoided CO<sub>2</sub>-e emissions into the atmosphere.

The results of high-level modelling of the actions described in this plan are presented in Figure 5, which shows the Town's effect

on emissions reduction against the current business-as-usual (BAU) projection. This BAU trajectory is based on the current rate of electric vehicle uptake and renewable energy generation. It is expected that the transition to low emissions technology will naturally accelerate over the coming years, driving community emissions down even further.

Figure 5: Community Emissions Reduction Pathway 2022-2030



# How does East Fremantle get there?

## THE TOWN'S ROLE

While the Town has control over decisions made about its own operations and assets, the Town does not have control over decisions made by residents and businesses within the Local Government area or actions taken at the State or Federal level. However, as the closest level of government to the community, the Town has an important role in educating, influencing and supporting the local community in making positive climate action. The Town also has a key role in ongoing advocacy to State and Federal governments on behalf of the community and its needs.

## WHAT THE COMMUNITY CAN DO!

Members of the community have an integral role to play in reducing emissions and ensuring we are able to adapt to the changing climate. The Action Plan is designed to be implemented in partnership with the community through the Town's CARG who aim to be a conduit between Council and community. It is the East Fremantle community, including individuals, businesses and community groups such as the CARG that will be driving change on the ground. The opportunities discussed in this Action Plan have been designed to be inclusive, mutually beneficial, and scalable on both a community and individual level. For example, in 2022, the CARG hosted a number of community-based events to educate and inform residents in methods to electrify their own homes with examples from others in the community.



# The Climate Emergency Action Plan

*This plan presents priority actions for the Town to implement over the next seven years to achieve the vision of each Strategic Objective in the Climate Emergency Strategy by 2030.*

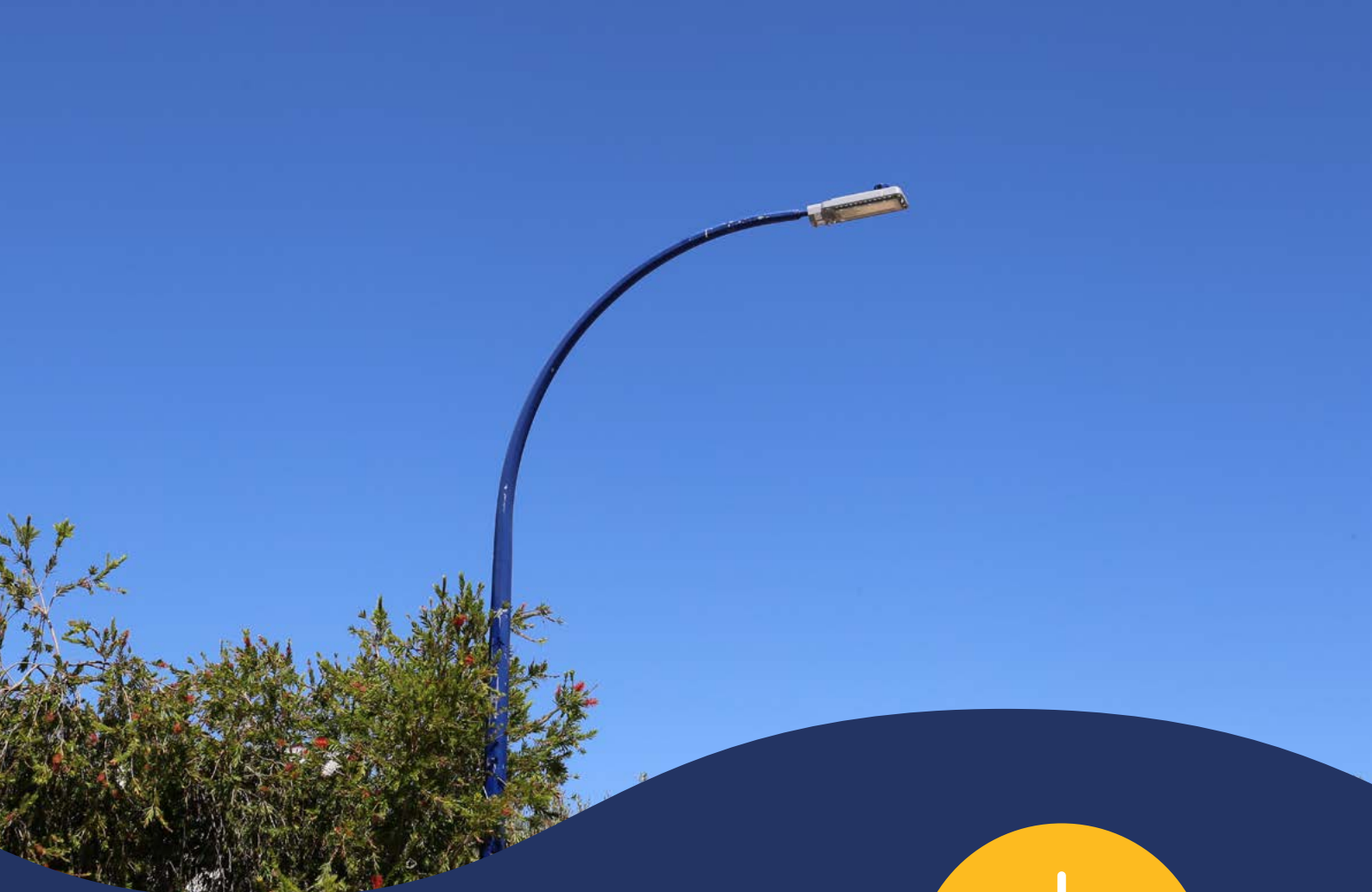
The plan includes actions for the Town to apply to its own operations and assets, actions to support the community, and actions regarding advocacy to the State Government, Federal Government, and local service providers. The Town will endeavour to undertake as many actions as possible as listed in the Action Plan. The Town aspires to achieve all actions but due to available resources and appropriate fiscal management of the Town's resources, the Council will focus on key actions expected to see the largest impact in reducing Council and community emissions.

The proposed commencement years for each action are included, with some actions already underway.

The expected impact of each action has been assessed in terms of emissions avoided or on a scale from low to high, where:

- *Low impact actions* are those that achieve minor gains relative to the issue.
- *Medium impact actions* are typically those that help to reduce risks by increasing awareness or understanding of an issue.
- *High impact actions* are typically those that aim to directly address emissions at a scale that is meaningful to the issue.





## STRATEGIC OBJECTIVE 1: **ENERGY**



*This Strategic Objective addresses stationary energy use, with transport energy being addressed within Strategic Objective 4.*

Together, electricity and gas use make up 40 percent of East Fremantle’s community emissions, making energy a key priority area for emissions reduction. Renewable energy generation is already growing in the Western Australian electricity network, but there remains ample opportunity for the East Fremantle community to accelerate the transition to a zero-carbon energy system with ~35 percent of residential properties currently having photovoltaics systems<sup>3</sup>.

In 2022, the Town fulfilled its commitment to procure 100 percent renewable energy for all Council electricity accounts by signing up to a Power Purchase Agreement with 51 other WA Local Governments. The East Fremantle Oval redevelopment will see the Town complete its transition away from natural gas, with all Town-owned facilities to be fully electric in the future.

### **STRATEGIC VISION (CES)**

- 1.1 Council commits to net zero greenhouse gas emissions and transitioning to renewable energy by 2030.
- 1.2 Council will encourage the community to transition to zero emissions by 2030.
- 1.3 Council will advocate to service and infrastructure providers to accelerate the transition to zero carbon energy for both Council and the community.

<sup>3</sup> <https://pv-map.apvi.org.au/>





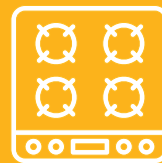
## PROBLEM

*Burning fossil fuels to generate electricity and power gas equipment and appliances emits large quantities of greenhouse gases*



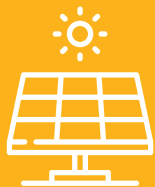
## SOLUTIONS

- Minimise electricity demand
- Stop generating electricity from fossil fuels
- Stop burning natural gas



## BARRIERS

- Limited knowledge of renewable energy and energy efficiency
- Capital cost of solar panels and upgrading appliances
- Ability of renters and social housing residents to engage
- Limited access to 100% renewable energy electricity agreements
- Habit and individual preference for using gas for cooking and space heating
- High availability of gas



## ACTIONS

- Better insulate buildings
- Use more energy efficient appliances
- Install solar panels
- Enable supportive infrastructure and renewable energy trading
- Purchase electricity from renewable sources
- Electrify everything



## COUNCIL'S ROLE IN SUPPORTING THE COMMUNITY

- **Educate** on the types and benefits of electrical appliances and how to self-generate and/or purchase renewable energy.
- **Facilitate** technology purchases for residents, businesses, and property owners.
- **Advocate** for more ambitious sustainability standards in planning legislation, including a ban on new gas connections and infrastructure that enables zero emissions buildings.
- **Advocate** for an accelerated transition to secure renewable energy supply in the South West Interconnected System (SWIS).



DOVENBY HOUSE

## STRATEGIC OBJECTIVE 1: ENERGY

Action ID	Action Description	Responsibility	Start Year	Estimated Annual Impact by 2030 (tCO <sub>2</sub> -e)
<b>Council Operations Actions</b>				
1.1	Upgrade street lights to LED, including Smart Lighting for Major Roads lights.	All Service Units	2024	Medium 160 – 170
1.2	Install additional solar panels on Town facilities.	Regulatory Services	2025	Low 35 – 45
<b>Community Support Actions</b>				
1.3	Incentivise investment property owners and body corporates to install solar panels and enable renewable energy trading between tenants.	Regulatory Services	2025	High 2,800 – 3,200
1.4	Educate businesses and residents on the types and benefits of energy efficiency measures (financial, environmental, health).	Regulatory Services	2023	Medium 380 – 110
1.5	Facilitate bulk buys of renewable energy and battery systems, and electric appliances for business and residents.	Regulatory Services	2026	Medium 270 – 290
1.6	Facilitate business Renewable Energy (e.g. PPA) Buying Groups.	Regulatory Services	2026	Medium 120 – 140
1.7	Develop a guide for residents to purchase renewable energy and install renewable energy generation systems.	Regulatory Services	2023	Low 65 – 75
1.8	Investigate and facilitate community batteries and peer-to-peer energy trading trial for residents without solar infrastructure to access renewable energy.	Regulatory Services	2027	Low
<b>Advocacy Actions</b>				
1.9	Advocate for better Environmental Sustainable Design (ESD) standards for new developments in the Town Planning Scheme (State Government) and National Construction Code (Fed Government).	Regulatory Services	2025	High 1,700 – 1,800
1.10	Advocate for an accelerated transition to secure renewable energy supply in the South West Interconnected System (SWIS).	Regulatory Services	2023	High
1.11	Advocate for a ban on new gas connections in Model Scheme Text (State Government) and National Construction Code (Federal Government).	Regulatory Services	2025	Medium
1.12	Advocate for State-wide energy sharing models that facilitate use of community batteries and solar trading.	Regulatory Services	2028	Low



Samson Tree Festival – WA Tree Festival 2023

## STRATEGIC OBJECTIVE 2: GREEN SPACES



*Urban green spaces include nature reserves, parks, private gardens and street trees; all of which are vital for healthy and sustainable communities.*

These spaces act as the lungs for urban environments, aiding in the filtration of pollutants, reducing the levels of urban heat, providing habitat for wildlife, improving aesthetics and improving the physical and mental health of the community.

Interconnected green spaces across public and private land are crucial to creating resilient communities in light of the current and future effects of climate change. Dark and hard surfaces such as roads, pavement and building roofs contribute to the urban heat island effect by absorbing and radiating heat more than vegetated areas. With over 60 percent of the Town's area comprising of hard surfaces and only 16 percent green canopy cover, East Fremantle has been identified as a place of significant urban greening opportunity.

### STRATEGIC VISION (CES)

- 2.1 Council commits to increasing the Town's total vegetation canopy cover to 30 percent by 2030.
- 2.2 Council will support greening initiatives on both public and private land.
- 2.3 Council will collaborate with multi-disciplinary organisations to increase and protect green spaces.



## PROBLEM

*Insufficient green space and canopy cover exacerbates urban heating, threatens biodiversity and human health*



## SOLUTIONS

- Increase number of large canopy trees
- Increase density of low-level vegetation
- Limit removal of existing trees and vegetation



## BARRIERS

- Costs of procurement, planting, and maintenance
- Conflicting priorities for space use
- High density urban areas
- Rights and amenity preference of landowners



## ACTIONS

- Plant trees and vegetation
- Only remove established trees when crucial to safety or infrastructure improvements
- Offset necessary tree removals with nearby replacements



## COUNCIL'S ROLE IN SUPPORTING THE COMMUNITY

- **Implement** policies and strategies to improve low-level vegetation and canopy cover on public and private land and promote biodiversity corridors and habitat.
- **Educate** residents and land owners on the benefits of urban canopy cover, and selection of appropriate plant species.
- **Advocate** for legislation and planning that protects and improves green space on private land.



## STRATEGIC OBJECTIVE 2: GREEN SPACE

Action ID	Action Description	Responsibility	Start Year	Estimated Annual Impact by 2030 (tCO <sub>2</sub> -e)
<b>Council Operations Actions</b>				
2.1	<p>Develop and implement an Urban Forest Strategy, which should include:</p> <ul style="list-style-type: none"> <li>• Tree registry including species, age, health and expected lifespan.</li> <li>• Climate tolerant vegetation with prioritisation of planting in areas of high pedestrian and cycling use.</li> <li>• Plant more native and climate tolerant vegetation along the river to treat and improve quality of stormwater run-off and reduce shoreline erosion.</li> <li>• Tree removal offset options.</li> </ul>	Regulatory Services/ Technical Services	2024	High
2.2	Review and update the Town of East Fremantle's strategies and management plans to incorporate urban greening where relevant.	Regulatory Services	2024	Low
2.3	Collaborate with other Local Governments and organisations on effective urban greening strategies.	Regulatory Services/ Technical Services	2025	Low
<b>Community Support Actions</b>				
2.4	Incentivise community-based solutions e.g. adopt a verge program, community planting days, community gardens, memorial tree planting.	Regulatory Services/ Technical Services	2025	Medium
2.5	Develop a planning policy to recommend a minimum tree canopy or plant density for all new developments and avoid clearing trees where practical.	Regulatory Services	2024	Low
2.6	Education campaign on plant species appropriate to the changing climate, waterwise gardens and verges and the benefits of shrubs and trees over lawns.	Regulatory Services	2024	Low
<b>Advocacy Actions</b>				
2.7	Advocate for Model Scheme text to set minimum requirements for green space, canopy cover and offsetting of any removed trees for new developments.	Regulatory Services	2024	Medium
2.8	Advocate for protection of green areas on private land in relevant State legislation.	Office of the CEO	2024	Low



Gold Waterwise Accreditation – 2023



## STRATEGIC OBJECTIVE 3: WATER

*As one of the most arid areas in Australia, the south-west region of Western Australia is already experiencing an increase in extreme weather events and a noticeable decrease in rainfall.*

High intensity rainfall events present flooding risks, overwhelming drainage infrastructure and causing damage to homes and businesses.

Low rainfall reduces groundwater and surface water resources, leading to a growing dependency on energy intensive water sources such as desalination and wastewater recycling. The health of water bodies is also threatened from declining rainfall and increasing pressure on water resources.

Already endorsed and recognised as a Gold accredited Waterwise Council<sup>4</sup>, the Town is committed to implementing water efficiency measures and assisting the community to reduce both scheme and groundwater consumption. Water consumption is also associated with energy demand, due to pumping and treatment of water and sewerage.

### STRATEGIC VISION (CES)

- 3.1 Council will reduce the consumption of scheme and groundwater by 3 percent per year.
- 3.2 Council will support the community with incentives and education to reduce water consumption.
- 3.3 Council will collaborate with stakeholders and external organisations to protect and preserve the state's water supplies.

<sup>4</sup> <https://www.eastfremantle.wa.gov.au/services/sustainability-and-environment/waterwise-council-program.aspx>





## PROBLEM

*Declining rainfall reduces availability of fresh water and impacts the health of aquatic ecosystems*



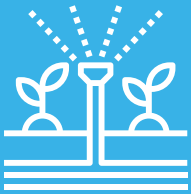
## SOLUTIONS

- Reduce the Town's consumption of scheme and groundwater
- Minimise community's use of potable water
- Improve catchment protection and local water infiltration



## BARRIERS

- Lack of standards for water efficiency
- Limited understanding of water conservation
- Low pricing signal to reduce water consumption
- Limited understanding of Water Sensitive Urban Design



## ACTIONS

- Use water efficient fixtures and appliances, and reduce water use
- Plant climate-adapted species
- Water the garden early in the morning or at dusk
- Implement Water Sensitive Urban Design



## COUNCIL'S ROLE IN SUPPORTING THE COMMUNITY

- **Demonstrate** best practice in water and land management and planning.
- **Educate** residents and businesses on water conservation.
- **Advocate** for inclusion of water sensitive urban design (WSUD) requirements in planning legislation and coordinated approaches to water resource protection.



### STRATEGIC OBJECTIVE 3: WATER

Action ID	Action Description	Responsibility	Start Year	Estimated Annual Impact by 2030 (tCO2-e)
<b>Council Operations Actions</b>				
3.1	Implement the resulting actions following the Water Sensitive Cities Benchmarking Assessment.	Regulatory Services/ Technical Services	2023	Medium
3.2	Develop and implement an irrigation policy that defines minimum requirements for system efficiency, centralised control to respond to rainfall and seasonal changes, and optimised mulch regimes at Council parks and open spaces.	Technical Services	2024	Medium
3.3	Install water sub-meters and leak detection systems at sites with high water demand.	Technical Services	2024	Medium
3.4	Implement Water Sensitive Urban Design (WSUD) principles in all new Council developments, streetscaping and upgrades, including increasing local infiltration and use of stormwater.	Technical Services	2026	Medium
3.5	Train relevant Council staff on the Water Sensitive Cities Index, waterwise irrigation and Water Sensitive Urban Design.	Regulatory Services	2025	Low
3.6	Maintain Gold Waterwise Council accreditation by implementing the goals set in the Water Corporations Waterwise Councils Program and reporting.	Regulatory Services/ Technical Services	2023	Low
<b>Community Support Actions</b>				
3.7	Educate residents and businesses on water conservation, including water efficient fixtures, rainwater and recycled water use, waterwise gardening, appropriate use of pool covers and bores and monitoring for leaks.	Regulatory Services	2024	Low
<b>Advocacy Actions</b>				
3.8	Advocate to relevant agencies, such as the Department of Water and Environmental Regulation (DWER), for mapping of groundwater levels, salinity and subsidence risks so that appropriate planning considerations may be made.	Regulatory Services	2027	Medium
3.9	Advocate for Model Scheme text to require Water Sensitive Urban Design (WSUD) in new developments and the public realm.	Regulatory Services	2028	Medium
3.10	Advocate for planning mechanisms regarding residential bore water, and greywater/ blackwater treatment and reuse.	Regulatory Services	2027	Medium



## STRATEGIC OBJECTIVE 4: TRANSPORT

*Almost half of East Fremantle's community emissions come from transport, making it the community's largest source of emissions.*

Electric vehicles (EVs), particularly when charged using renewable energy, are currently the most effective way to reduce emissions associated with transport.

Electric vehicles are growing in popularity in Western Australia, but in 2022 still represented less than 3 percent of new car sales<sup>5</sup>. All levels of government have a role to play in accelerating the take up of zero emission vehicles in Australia, and the Town has committed to transition its own fleet by 2030. The Town will support the community's transition through upgrades to infrastructure, ongoing education and increased advocacy.

### STRATEGIC VISION (CES)

- 4.1 Council commits to no greenhouse emissions from its fleet by 2030.
- 4.2 Council will enhance active transport infrastructure and encourage active and public transport options.
- 4.3 Council will advocate for better access to public transport with lower emissions technology.

<sup>5</sup> Are We There Yet? Clean Transport Scorecard For Australian States And Territories, Climate Council of Australia, 2022, pp.1  
<[climatecouncil.org.au/wp-content/uploads/2022/11/Are-We-There-Yet\\_-Clean-Transport-Scorecard-for-States-and-Territories\\_November-2022.pdf](https://climatecouncil.org.au/wp-content/uploads/2022/11/Are-We-There-Yet_-Clean-Transport-Scorecard-for-States-and-Territories_November-2022.pdf)>



## PROBLEM

*Internal combustion vehicles are becoming the most significant source of greenhouse gas emissions.*



## SOLUTIONS

- A reduction in car ownership and number/distance of car trips
- All vehicles are zero emission
- Extensive EV charging network



## BARRIERS

- Long life of vehicles and prohibitive replacement costs
- Limited access to charging infrastructure
- Range anxiety
- Habits and resistance to change
- EV supply constraints
- Lack of fuel efficiency standards
- Limits to active and public transport accessibility
- Lack of consideration of EV needs during planning



## ACTIONS

- Walk, cycle and catch public transport for short trips
- Plan and build infrastructure that encourages active transport
- Use electric rather than petrol or diesel powered cars



## COUNCIL'S ROLE IN SUPPORTING THE COMMUNITY

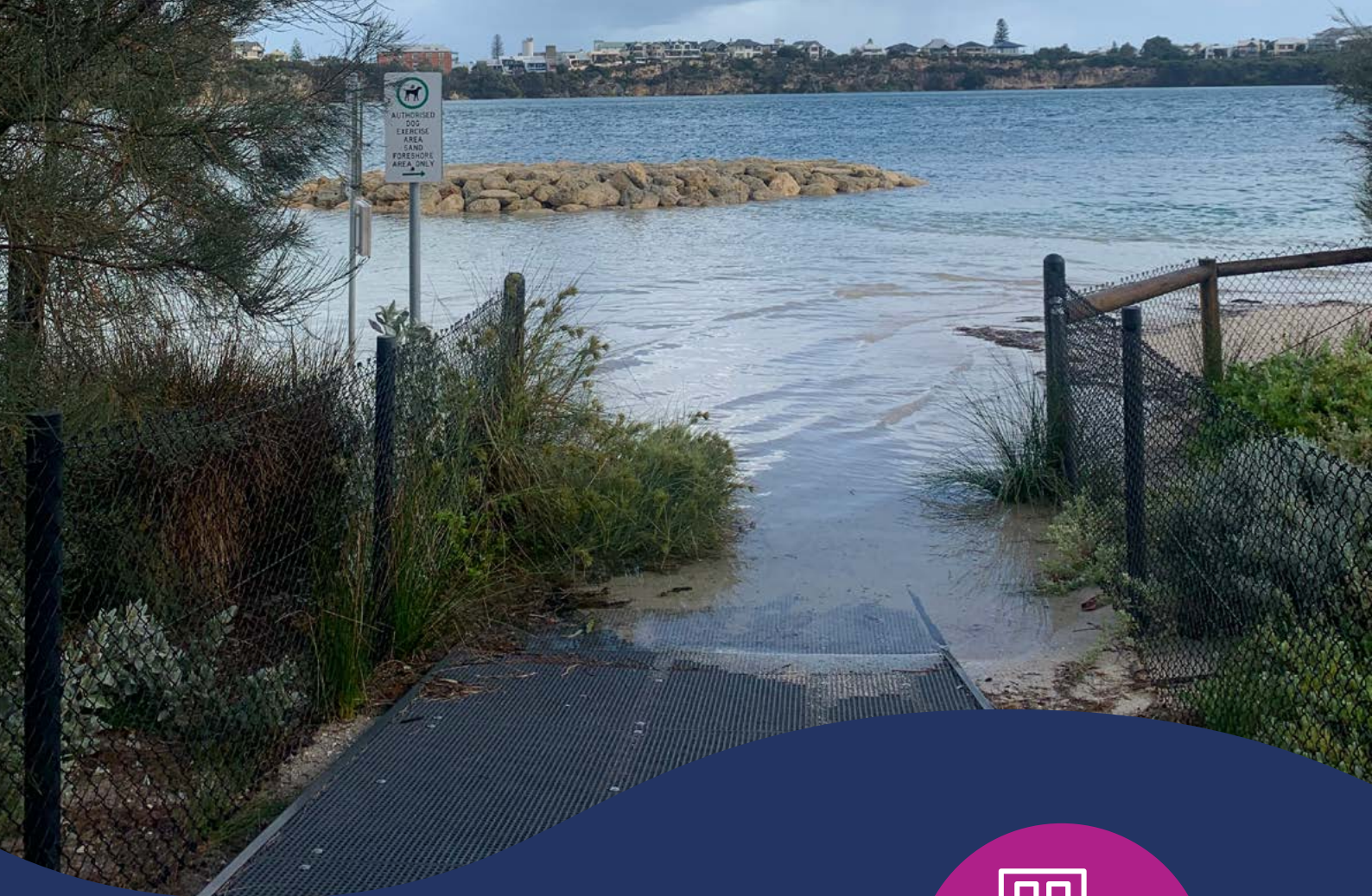
- **Build** infrastructure and amenities to support active transport and the transition to electric vehicles.
- **Educate** on the benefits of low emissions transport options.
- **Advocate** for state and federal policies and legislation that enable an accelerated uptake of electric vehicles and improve active and public transport safety, availability and connectivity.

## STRATEGIC OBJECTIVE 4: TRANSPORT

Action ID	Action Description	Responsibility	Start Year	Estimated Annual Impact by 2030 (tCO <sub>2</sub> -e)
<b>Council Operations Actions</b>				
4.1	Install electric vehicle chargers at Town facilities, incentivise other facilities to install chargers.	Technical Services	2024	High 720 – 750
4.2	Replace all passenger fleet (sedan, hatch and wagons) with electric vehicles.	Technical Services	2023	Medium 20 – 25
4.3	Replace all light fleet (utes, buses and vans) with electric vehicles.	Technical Services	2024	Medium 40 – 50
4.4	Replace all heavy fleet (i.e. trucks) with zero emissions vehicles, or offset fossil fuel use where alternatives are not feasible.	Technical Services	2029	Medium 35 – 45
4.5	Work with Council service providers (e.g. waste contractors) to accelerate their own transition to zero emissions vehicles.	Technical Services	2026	Medium
4.6	Replace petrol and diesel plant with electric alternatives.	Technical Services	2028	Low 10 – 15
4.7	Develop and implement a Sustainable Transport Policy, aimed to limit fuel consumption of fleet vehicles and plant materials.	Regulatory Services/ Technical Services	2024	Low 3 – 4
<b>Community Support Actions</b>				
4.8	Education campaign on EV range capacity, availability of public chargers across WA, dispel myths about cost and difficulty of charging at home, coordinate EV test drives at local car dealerships, and showcasing at public events (e.g. George Street Festival).	Regulatory Services	2024	Medium 450 – 470
4.9	Partner with car and bike/E scooter share companies to increase their presence in the Town and offer zero emissions transport alternatives.	Regulatory Services	2025	Medium 450 – 480
4.10	Install cycling infrastructure (bike lanes, bike parking), widen footpaths, shared user paths, reduce speed limits, vehicle traffic calming measures, improve supportive street amenity.	Technical Services	2025	Medium 280 – 320
4.11	Educate on the benefits and availability of public transport options.	Regulatory Services	2024	Low 130 – 150
4.12	Educate on the benefits and availability of active transport options (walking, cycling).	Regulatory Services	2024	Low 90 – 110

Action ID	Action Description	Responsibility	Start Year	Estimated Annual Impact by 2030 (tCO2-e)
<b>Advocacy Actions</b>				
4.13	Advocate to State and Federal Governments for policy settings that promote uptake of zero emissions technology, e.g. rebates for purchase of EV technology (incl. home charging infrastructure), tax incentives for EV ownership, bi-directional charging etc.	Office of the CEO/Regulatory Services	2023	High 1,250 - 1,300
4.14	Advocate for the introduction of National or State-wide fuel efficiency standards.	Regulatory Services/ Technical Services	2023	Medium 600 - 640
4.15	Collaborate with neighbouring Local Governments to coordinate improved cycling and walking safety and connectivity.	Regulatory Services	2026	Low
4.16	Advocate to Main Roads WA for safety improvements to active transport infrastructure and pedestrian access along major roads.	Regulatory Services	2024	Low
4.17	Partner with other Local Governments to advocate for light rail infrastructure.	Regulatory Services	2027	Low





## STRATEGIC OBJECTIVE 5: INFRASTRUCTURE



*Infrastructure is the physical aspects of our community and includes buildings, roads, paths, sporting fields and drainage systems.*

The role of infrastructure in responding to the climate emergency is twofold. The Town's existing infrastructure needs to be upgraded and adapted to ensure it is resilient to a changed climate, particularly in the face of extreme weather events. In addition to adaptation, new infrastructure must also be planned, constructed, and managed in a way that minimises emissions, water use and waste. The Town is committed to adapting its own assets in response to future climate trends, including upgrading drainage and protecting assets along the Swan River from inundation and erosion.

The Town will also support resilient, low emission developments in the community. This will be undertaken through policies and planning to encourage Ecologically Sustainable Design (ESD), education and advocating for changes to state and federal planning legislation.

### STRATEGIC VISION (CES)

- 5.1 Council commits to ensure adaptation and mitigation measures in all new and modified Council assets and infrastructure.
- 5.2 Council will encourage the use of "Environmental Sustainable Design" through policy and incentives to promote green commercial premises and residential dwellings.
- 5.3 Council will advocate and work with other government agencies to adapt and mitigate infrastructure to the impacts of climate change.





## PROBLEM

*Existing infrastructure is not adequately adapted to the changing climate and new infrastructure is a source of embodied greenhouse gas emissions.*



## SOLUTIONS

- Infrastructure is designed and constructed to withstand expected changes due to climate change
- Construction and operation of infrastructure with minimal contribution of greenhouse gases



## BARRIERS

- Limited understanding of infrastructure impacts on greenhouse gas emissions and the environment
- Limited understanding of design and operation of infrastructure to adapt to climate change
- Cost of adaptation
- Availability and cost of low emissions materials



## ACTIONS

- Upgrade and build infrastructure to be more resilient to climate change
- Build and operate infrastructure to minimise greenhouse gas emissions and other environmental impacts



## COUNCIL'S ROLE IN SUPPORTING THE COMMUNITY

- **Build and upgrade** council infrastructure to adapt to increased flooding, longer droughts and hotter temperatures and to mitigate environmental impacts.
- **Educate** on the benefits of sustainable and resilient building design and operation.
- **Advocate** for support from the state government to better understand climate risks and planning that fosters climate adaptation.



## STRATEGIC OBJECTIVE 5: INFRASTRUCTURE

Action ID	Action Description	Responsibility	Start Year	Estimated Annual Impact by 2030 (tCO <sub>2</sub> -e)
<b>Council Operations Actions</b>				
5.1	<p>Develop and implement a resilient infrastructure policy that includes:</p> <ul style="list-style-type: none"> <li>Upgrading public infrastructure to account for more extreme weather events, including flooding, storms and heat waves.</li> <li>Phasing in appropriate upgrades to Council owned drainage systems to cope with flash flooding.</li> </ul>	Regulatory Services/ Technical Services	2026	High
5.2	Integrate climate change projections and considerations into the planning and design of capital works to manage risks.	Regulatory Services/ Technical Services	2024	High
5.3	Follow the actions identified in the Coastal Hazards Risk Management Action Plan (CHRMAP).	Regulatory Services/ Technical Services	2025	Medium
5.4	<p>Develop and implement a sustainable infrastructure policy that:</p> <ul style="list-style-type: none"> <li>Requires Ecologically Sustainable Design (ESD) considerations for Council's infrastructure projects.</li> <li>Prioritises urban planning that is walkable, cyclable, energy, water and food sensitive, and provides access to local services and amenities.</li> <li>Prioritises permeable, extreme heat tolerant hard surfaces.</li> </ul>	Regulatory Services	2026	Medium
5.5	Develop and implement a Sustainable Buildings Policy for all council new builds and upgrades.	Regulatory Services	2025	Low
<b>Community Support Actions</b>				
5.6	Limit developments in areas at risk of future inundation.	Regulatory Services	2025	High
5.7	Education campaign to promote and encourage sustainable design and climate adaptation principles in new developments, renovations and existing buildings.	Regulatory Services	2024	Low
<b>Advocacy Actions</b>				
5.8	Advocate to Main Roads to phase in appropriate upgrades to drainage systems to cope with flash flooding as part of the resilient infrastructure policy in 5.1.	Technical Services	2026	High
5.9	Advocate for Model Scheme text to require all new buildings and refurbishments to incorporate Ecologically Sustainable Design (ESD) principles.	Regulatory Services	2025	Medium
5.10	Advocate to relevant agencies such as the DWER for more specific flood modelling and early warnings, including the influence of sea level rise and storm surge, so that Council can introduce more robust and appropriate adaptation measures.	Regulatory Services	2027	Medium



## STRATEGIC OBJECTIVE 6: **PROCUREMENT**



*Sustainable procurement is the process of making purchasing decisions that prioritise goods and services with positive social, environmental and economic impacts.*

Sustainable procurement policies can foster a circular economy, whereby materials are reused and recycled rather than sent to landfill.

The Town has begun incorporating sustainability considerations into its procurement processes, including a 2016 motion to preference financial institutions that have divested from the fossil fuel industry.

In 2022, the Town procured renewable energy for all Council electricity accounts by signing up to a Power Purchase Agreement.

The Town is also committed to supporting residents and businesses change their own purchasing behaviours by providing information on how to identify more sustainable products and services.

### STRATEGIC VISION (CES)

- 6.1 Council commits to incorporating sustainable procurement and circular economy principles as key considerations for procurement.
- 6.2 Council will support the community in making informed environmentally responsible purchasing decisions through education and information programs.
- 6.3 Council will advocate to service providers for environmentally responsible purchase and investment decision making.



## PROBLEM

*Goods and services can have a detrimental impact on society, the environment, and the economy.*



## SOLUTIONS

- Prioritise sustainability considerations during procurement of goods and services
- Prioritise suppliers with sustainability credentials, including zero emissions accreditation
- Produce goods with less plastic packaging



## BARRIERS

- Cost and availability of sustainable products and services
- Limited understanding how to access sustainable products and services
- Credibility of the green credentials of goods and services



## ACTIONS

- Change purchasing decision-making to prioritise sustainability
- Seek out products that do not use plastic and have a low environmental impact
- Include shadow pricing of carbon emissions during major purchasing decisions



## COUNCIL'S ROLE IN SUPPORTING THE COMMUNITY

- **Implement** procurement and investment policies that prioritise sustainable goods and services.
- **Educate** on how and why to adopt responsible purchasing practices.
- **Advocate** for local sustainable options for goods, services, and investment.



## STRATEGIC OBJECTIVE 6: PROCUREMENT

Action ID	Action Description	Responsibility	Start Year	Estimated Annual Impact by 2030 (tCO <sub>2</sub> -e)
<b>Council Operations Actions</b>				
6.1	Negotiate a new Power Purchase Agreement to secure 100% renewable energy to 2030.	Corporate Services	2026	High
6.2	Review Council's Procurement policy and divestment from fossil fuels.	Corporate Services	2024	Medium
6.3	Incorporate climate change considerations (including emergency management, climate adaptation) into the budget planning cycle and operation of infrastructure.	Corporate Services	2024	Medium
6.4	Review and update Council's Procurement Policy to include consideration of circular economy principles for goods and services and prioritise sustainable materials selection.	Corporate Services	2024	Low
6.5	Include criteria for Council contracts to preference suppliers of goods and services with credible emissions reduction practices, minimisation of waste and use low impact materials.	Corporate Services	2026	Low
<b>Community Support Actions</b>				
6.6	Provide information and education to encourage responsible purchasing, e.g. zero emission vehicles and equipment, waste minimisation, water saving, circular economy and sustainable materials selection.	Regulatory Services	2025	Low
6.7	Educate on the opportunities and impact of divesting from banks and superannuation funds that invest in fossil fuel companies and projects.	Regulatory Services	2024	Low
<b>Advocacy Actions</b>				
6.8	Work with local contractors and service providers to encourage use of more sustainable materials.	Technical Services	2026	Low
6.9	Advocate to local financial institutions to provide fossil free investment options.	Corporate Services	2025	Low
6.10	Partner with neighbouring local governments to deliver services more efficiently across a larger area.	Technical Services	2027	Low
6.11	Advocate for Western Australian Local Government Association (WALGA) to lobby council staff superannuation funds to divest from fossil fuels.	Technical Services	2024	Low



Plastic Free July, Mayors Pledge - 2023

## STRATEGIC OBJECTIVE 7: WASTE



*Waste decomposing in landfill constitutes nine percent of East Fremantle's emissions profile and is expected to increase over the next decade.*

The State Waste Avoidance and Resource Recovery Strategy 2030 introduced significant transformations aimed at WA becoming a circular economy, with a greater focus on avoidance by setting targets for materials recovery and environmental protection in addition to landfill diversion. A key factor of the Waste Strategy is for a consistent three-bin kerbside system, which separates food organics and garden organics from other waste bins across all local governments in the Perth and Peel regions by 2025.

In 2019, the Town rolled out a Food Organics Garden Organics (FOGO) three-bin system to residents, commercial properties and community groups consistent with the State Waste Strategy. In the future, the Town will send its residual waste (red top bin) to Energy from Waste processing which will convert waste to an energy product. The Town continues to support the community in reducing the amount of waste it produces through rebates, programs, educational workshops, and waste facility

tours to change behaviours around waste production and disposal. The Town continues to collect various hard-to-recycle items with over 500kg worth of items diverted from landfill in 2022 alone.

### STRATEGIC VISION (CES)

- 7.1 Council aims to achieve zero waste to landfill by 2030.
- 7.2 Council will support community groups, residents, and commercial operations to achieve zero waste to landfill by 2030.
- 7.3 Council will advocate for waste management solutions to achieve zero waste to landfill by 2030.





## PROBLEM

*Waste decomposing in landfill emits methane, a highly potent greenhouse gas.*



## SOLUTIONS

- Minimise waste generation
- Optimise recovery, recycling and reuse



## BARRIERS

- Limited understanding or care for what happens to waste
- Effort of separating and diverting waste streams from landfill



## ACTIONS

- Prioritise use of products and materials that can be reused or recycled
- Recycle products at end of life
- Improve waste stream separation



## COUNCIL'S ROLE IN SUPPORTING THE COMMUNITY

- **Provide** collection services for separated waste streams (paper, glass, plastic, organic waste).
- **Educate** on best practice waste minimisation.
- **Advocate** for regional waste solutions and better organic wastes management by food businesses.



## STRATEGIC OBJECTIVE 7: WASTE

Action ID	Action Description	Responsibility	Start Year	Estimated Annual Impact by 2030 (tCO2-e)
<b>Council Operations Actions</b>				
7.1	Ongoing FOGO education to the community (businesses, residents and community groups etc.).	Regulatory Services	2023	Medium
7.2	Ongoing rollout of FOGO to new multi-unit developments and commercial premises in the Town.	Regulatory Services/ Technical Services	2023	Medium
<b>Community Support Actions</b>				
7.3	Educate residents and businesses regarding correct separation of waste utilising principles from the waste hierarchy.	Regulatory Services	2024	Low
7.4	Require new developments to demonstrate effective management of waste streams.	Regulatory Services	2024	Low
<b>Advocacy Actions</b>				
7.5	Advocate for recovery and reuse of construction and demolition waste conditions for development applications in Local Planning Scheme.	Regulatory Services	2026	Medium
7.7	Coordinate with neighbouring local governments to develop a regional waste solution, including waste to energy, methane flaring, circular packaging standards and stewardship.	Regulatory Services	2026	Medium
7.6	Work with WALGA and other organisations regarding Western Australia's Plan for Plastics.	Regulatory Services	2024	Low



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