CLIMATE CHANGE RESPONSE PLAN 2024-2030





City of Charles Sturt

MEANS THE WORLD

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RAIL

EXECUTIVE SUMMARY

Climate change poses a significant risk to the City of Charles Sturt and its residents. We are already experiencing higher temperatures, changing rainfall patterns, more intense storms, and increasingly frequent and severe heatwaves and droughts. The Intergovernmental Panel on Climate Change, along with over 99.9% of scientific studies, has made it clear that climate change is predominantly caused by human activities, particularly the burning of fossil fuels and deforestation.

Recognising the urgent need for direct and effective action at all levels of government, we unanimously declared a Climate Emergency in December 2019. This declaration signalled our commitment to respond to climate change and drive efforts to mitigate and adapt within our community.

To tackle the root causes and impacts of climate change, the City has developed an ambitious plan to reduce emissions and implement measures that enhance community resilience. This approach was shaped by hundreds of conversations with our community, industry stakeholders, and experts, allowing us to prioritise our actions up to 2030.

We are dedicated to taking meaningful steps to reduce our carbon footprint and mitigate the impacts of climate change on both the Council and our community. While we have made significant progress in reducing emissions since the Climate Emergency Declaration, much more remains to be done. This Plan outlines our plan to achieve these goals, ensuring we continue to play our part now and into the future.

OUR PLAN

CLIMATE THINKING

Our climate change response will be central to our decision making, ensuring policies, systems and our people align to enable greater outcomes

Plan 1
Council's decision-making systems will enable positive climate change outcomes

Plan 2
We will monitor and implement initiatives to reduce corporate emissions

Plan 3
We will create a climate informed workforce

RESILIENT SERVICES, ASSETS AND LANDSCAPES

Our city is designed, built and maintained to regenerate our environment and to create places that are connected, climate resilient and safe

Plan 4
Manage the vulnerability of our services and assets for the changing climate

Plan 5
Protect and support living resilient landscapes

ACTION TOGETHER

Together with our commuity we will collectively face the challenges of climate change

Plan 6
Enable our community to transition to a low emissions future

Plan 7
Build our community's resilience to the impacts of climate change

Plan 8
Work in partnerships to reduce waste and strengthen the circular economy

ALIGNMENT WITH COUNCIL PLANS

Our Community Vision provides a clear, shared understanding of the future direction for our City. It is a public commitment to work together to make this vision a reality. The Vision is centred around five key themes:



The Climate Change Response Plan aligns with the Community Vision themes to ensure the work we do contributes by building resilience, adapting to change, now and into the future.

The Climate Change Response Plan will work alongside several other plans and strategies to deliver positive outcomes for our community.

These include, but are not limited to:

- Tree Canopy Improvement Strategy 2021-2045
- Open Space Strategy 2025
- Transport Plan 2016-2031
- Asset Management Plans
- Biodiversity Action Plan 2017-2030
- Public Health Plan 2020-2025
- Your Neighbourhood Plan 2020

CLIMATE RISKS

Climate change is a key corporate risk. Climate change has evolved from mainly a concern for the natural environment, to an increasing concern also for human health and wellbeing and presenting material financial and strategic risks for organisations globally and locally.

Climate change risks are commonly described in two categories - 'physical' and 'transition' risks. The physical risks are those we can see and feel such as sea level rise and increased temperatures. Transition risks come about from the global transition to a low carbon economy, and can include risks from changing markets, government policies and technological advancements and innovations.

PHYSICAL CLIMATE RISKS

We are already seeing the impacts of climate change in our environment, and climate modelling suggests these will continue and intensify over the coming years and decades (Infographic overleaf).

In 2022, the South Australian Government released the latest climate change projections for the State and Greater Adelaide which shows that we will continue to see:

- Increasing maximum, minimum and average temperatures
- Warmer spring temperatures
- Increased evapo-transpiration
- Hotter and more frequent hot days
- Declining rainfall
- Lower spring rainfall
- More intense heavy rainfall events
- Sea level rise

For the City of Charles Sturt, these conditions will impact on (to name a few):

- Our wildlife and natural environments
- Our beaches
- The health and vibrancy of our open spaces and vegetation due to heat and water stress
- The walkability of our neighbourhoods, and access to cool refuges
- Our health
- Our stormwater management systems
- Our access to water
- Our assets – their function, use and useful life
- Our need to prepare for and respond to more frequent and intense extreme weather events

This plan will ensure we are both aware of the impacts and we are prepared for change.

Source: Guide to climate projections for risk assessment and planning in South Australia in 2022, Department of Environment and Water Department for Environment and Water - Latest climate projections for...

TRANSITION CLIMATE RISKS

As the world lowers emissions the impacts of changing policies, technological alternatives and innovations, and customer preferences change. This is important to think about as there are long term financial implications and decisions we need plan for now to manage these varying risks.

For the City of Charles Sturt, transition risks may present issues for:

- The cost of energy, and accessing affordable and reliable 100% renewable energy
- Impacts to business continuity with higher vulnerability to power outages due to heat impacts on energy infrastructure
- The cost and access to alternative vehicles for Council's heavy vehicle and passenger fleet to transition away from fossil fuels
- The cost and product availability of low carbon emission products
- The costs and impacts of the shifts to a circular economy
- The increasing cost and access to insurance of assets for climate-related events
- Exposure to carbon emission pricing (existing international schemes or future regulation) through our operations and supply chain
- Access to finance / loans which are increasingly being assessed based on exposure and management of climate change risks

ADDRESSING CLIMATE CHANGE FROM A RISK-BASED APPROACH

This Plan has been informed by the outcomes of a whole-of-council climate change risk assessment undertaken in 2023/24. Key risks identified as needing our sustained focus include:

- coastal management and sea level rise
- Increasing energy costs and an unpredictable energy market
- Compounding heatlh impacts, for example from heat related exposure and lack of food security
- Disruptions in delivery of council services due to the impacts of extreme weather events locally and beyond our region
- Water security and urban heat management
- Flooding
- Nature and biodiversity loss and degradation

The actions in this Plan have been proposed to address these focus areas.

Visit our website for more information about our climate action - **click here**


BIKE REPAIR STATION
BIKE REPAIR STATION
City of Charles Sturt
www.all4cycling.com.au

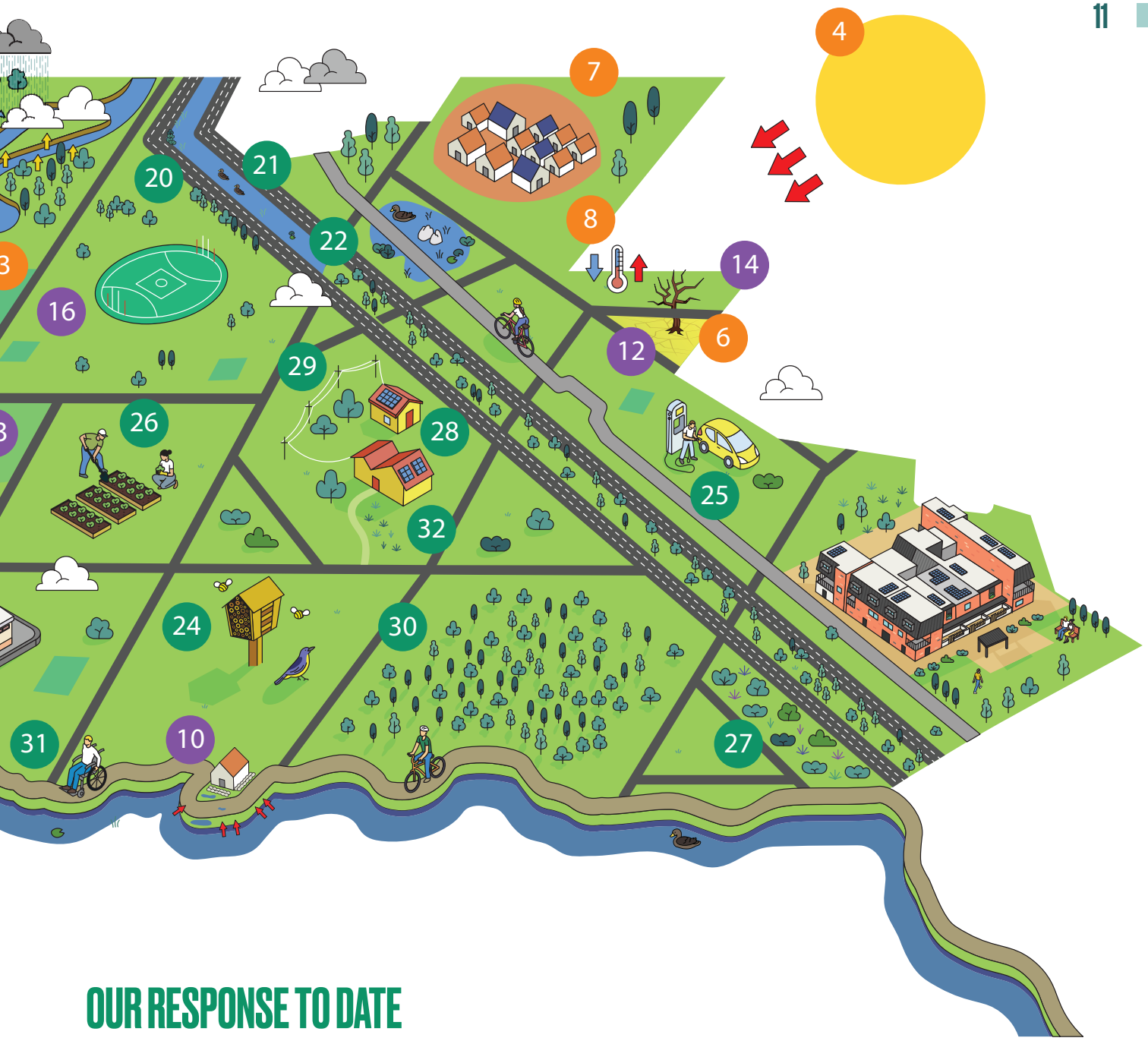


CLIMATE CHANGE HAZARDS

1. Sea surface temperature rise
2. Sea level rise
3. More intense heavy rainfall events
4. Hotter and more frequent hot days
5. Increased evapotranspiration
6. Declining/ reduced annual rainfall
7. Urban heat island effect in built up areas
8. Increasing maximum, minimum and average temperatures

IMPACT TO THE CITY OF CHARLES STURT

9. Increased risk of coastal erosion
10. Increased risk of flooding
11. Reduced walkability of our neighbourhoods, and access to cool refuges
12. Decreased wildlife and health of natural environments
13. Increased risk to our health
14. Increased heat stress to our natural and built environments
15. Increased risk to our stormwater management systems
16. Reduced rainfall, particularly in Spring, increases need to access water for irrigation of parks, trees and sporting fields
17. Increased need to prepare for and respond to more frequent and intense natural disasters



OUR RESPONSE TO DATE

18. Understanding the impact on our assets – their function, use and useful life
19. ESD Requirements for Council buildings – creating more sustainable and climate resilient council buildings
20. Stormwater harvesting, storage and reuse for water security
21. Stormwater Management Plans – to prioritise the management options for reducing flood risks and improve water quality
22. Wetlands
23. AdaptWest 'My Cool Home' tool for residents and developers to use
24. Supporting Biodiversity – using indigenous plant species in public realm, habitat support such as bee hotels and fauna boxes
25. EV charging stations for community to use
26. Community Gardens
27. Verges Alive – nature strips
28. Established a Bulk buy solar and battery program for residents
29. Supporting a Virtual Power Plant in our community
30. Increase tree canopy
31. Cycling and walking paths
32. Raingardens and permeable paving for water sensitive urban design
33. Community education and resilience building irrigation of parks, trees and sporting fields

OUR PLAN

Implementing this Climate Change Response Plan will progress our Council's vision for our community. How we plan for climate change needs to be woven into themes within our Community Vision – Vibrant Places, Valuing Nature, Local Neighbourhoods, Connection and Belonging and Our Transforming City.

To enable climate change informed thinking, three key areas have been developed – Climate Thinking, Resilient Services, Assets and Landscapes & Action Together.

The plan, our approach and understanding what success will look like provides a consolidated mechanism to deliver climate change response outcomes, for our community and our organisation.

CLIMATE THINKING

CLIMATE THINKING

Our climate change response will be central to our decision making, ensuring policies, systems and our people align to enable greater outcomes

Plan 1	Plan 2	Plan 3
Council's decision-making systems will enable positive climate change outcomes	We will monitor and implement initiatives to reduce corporate emissions	We will create a climate informed workforce
Our approach: Develop internal procedures and review systems to align with international standards for climate reporting (ISSB IFRS S2)	**Our approach:** Develop an emissions reduction plan to reduce Council emissions and standardise reporting across the organisation	**Our approach:** Develop knowledge and awareness within our workforce to enable climate change solutions
Success is: Align to IFRS (S2) reporting standards by 2030	**Success is:** Reporting procedures have been developed by 2025 Our Emissions Reduction Plan has achieved a 60% reduction in corporate emissions by 2030	**Success is:** Capacity building programs have been implemented by 2030

RESILIENT SERVICES, ASSETS AND LANDSCAPES

RESILIENT SERVICES, ASSETS AND LANDSCAPES

Our city is designed, built and maintained to regenerate our environment and to create places that are connected, climate resilient and safe

Plan 4

Manage the vulnerability of our services and assets for the changing climate

Our approach:

Pilot an integrated response to council assets and services that are highly exposed to climate risks

Success is:

By 2030, Council will strengthen infrastructure, open spaces, and natural environments to withstand climate impacts while continuing to provide for community wellbeing, amenity and ecosystem services

Our approach:

Maximise renewable energy through appropriate energy agreements and capital infrastructure to minimise energy cost and ensure reliability for council's energy needs.

Success is:

Utilise a renewable energy Power Purchase Agreement (PPA) to minimise Council's energy costs

Plan 5

Protect and support living resilient landscapes

Our approach:

In partnership, protect and enhance our coastline through best practice coastal hazard adaptation planning

Success is:

In partnership, develop Coastal Hazard Adaptation Plans by 2030

Our approach:

Increase the condition and extent of our living assets and support nature

Success is:

An ecological linkages plan is developed and implemented to connect fragmented natural areas, habitats and species, including private gardens, to protect and enhance biodiversity

ACTION TOGETHER

ACTION TOGETHER

Together with our community we will collectively face the challenges of climate change

Plan 6

Enable our community to transition to a low emissions future

Our approach:

Support our residents and businesses to make informed decisions to create energy efficient homes and businesses

Success is:

By 2026, our community will have access to an energy advisory service enabling meaningful action to build resilience and prepare for a low carbon future

Plan 7

Build our community's resilience to the impacts of climate change

Our approach:

Council collaborates with and influences a range of private, community and public sector partners to drive adaptation and build climate resilience

Success is:

By 2030, climate resilience building programs have been delivered for businesses and vulnerable communities

Plan 8

Work in partnerships to reduce waste and strengthen the circular economy

Our approach:

Develop and implement a Circular Economy and Waste Plan

Success is:

The Circular Economy and Waste Plan is being implemented by 2027

Our approach:

Extend the FOGO trial to reduce food and organic waste going to landfill

Success is:

We have achieved a 65 - 70% waste to landfill diversion target by 2030

DELIVERY

This Climate Change Response Plan is our overarching approach to ensuring we anticipate and mitigate the effects of a changing climate.

This Plan guides a range of planned and proposed actions that ensure we implement measures to adapt for a changing climate and build community climate resilience.

These actions will be implemented over the life of the plan from 2024 through to 2030 and are subject to available funding and responsive to contemporary need.

This Plan is intended to be dynamic and interface with other plans and strategies of Council to amplify (and not duplicate) effort.

Regular reporting on outcomes of actions will be provided to Council and the community.





GREENHOUSE GAS EMISSIONS REDUCTION

ACHIEVED A

56%

REDUCTION

in council/operational greenhouse gas emissions in five years from our three key emission sources: electricity, gas and transport fuel.

OUR ACHIEVEMENTS

Significant achievements and targets have been reached through our adaptation and mitigation response including:

TRANSPORT

45%

of our passenger **fleet vehicles are hybrid**

11

EV passenger vehicles in our fleet

10

Jolt EV fast chargers installed across the City



Use of **telemetric in fleet vehicles** to reduce fuel consumption



E Scooters being trailed across the City

160

new **bus shelters installed** to encourage sustainable transport use

WASTE & RECYCLING

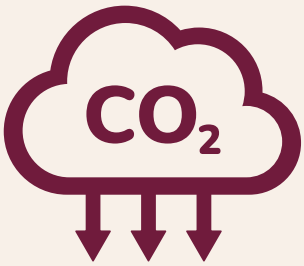
Improved recycling opportunities at all council sites including our sporting clubs

FOGO
FOOD ORGANICS GARDEN ORGANICS

Weekly Food Organics Green Organics (FOGO) trials being undertaken across 1000 properties

Improved sorting of recyclable materials through **partnership with PAE and CAWRA facility**

COMMUNITY EDUCATION AND ENABLING



Community group established and working towards a **GHG emissions reduction target** and Community Action Plan



Various community workshops, tours and webinars held to **increase knowledge and action** on climate change



Supported Sustainable West in the use of their **recycle stations** at 19 on Green and Hindmarsh Library



Hosted the AdaptNow event including working directly with local businesses to enable improved climate hazard risk reduction



Through **AdaptWest regional partnership** developed the My Cool Home & My Cool Yard tools



Trialed the **Responsible Cafes program** with local businesses to reduce waste, increase energy efficiency and enable sustainable choices for customers



Encouraged **Circular Economy** practices through information and educational tours of CAWRA



Climate Ready Community program delivered with **Red Cross**

SUPPORTING URBAN NATURE



Implementation of our **Tree Canopy Improvement Strategy** to increase canopy cover to 25% by 2045



Coastal Revegetation projects



10 for 10 indigenous plant subsidy programs, and treebate program



Spring Garden Celebration



Encouraging Verges Alive, increasing community native planting across our verges



Expanding our **Community Garden Network**



Increasing number of rain **gardens and managing our wetlands**



With Green Adelaide and City of West Torrens delivering the **Breakout Creek regeneration project**

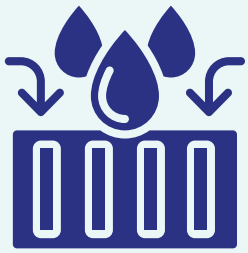


Biodiversity Action Plan 2017-2030 and local species biodiversity scores

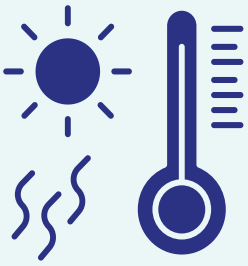
RESPONDING TO CLIMATE HAZARDS



Coastal Hazards Study 2022



West Lakes **Stormwater Management Plan** implementation



Community well-being checks during heatwaves



Heat & Tree Canopy Mapping to support the Tree Canopy Improvement Strategy



Waterproofing the West project

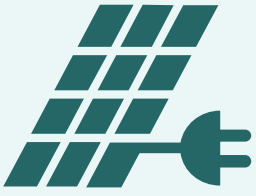
ENERGY AND BUILDINGS



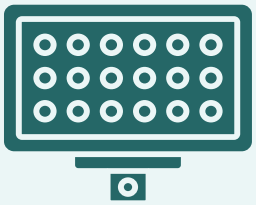
Environmentally Sustainable Design Requirements for all council building projects



100% renewable energy purchased from 2023



700 Solar PV panels installed on 18 Council facilities



Over **10,500 streetlights** changed to **LED**

UNDERSTANDING CLIMATE RISKS

Climate Change
Risk & Governance
Assessment 2022

Whole of Council **Risk**
Assessment framework

Climate Risk workshops
with Leadership and
Elected members

Climate Risk & Vulnerability Assessment
tool embedded in Asset Management Plans



GLOSSARY/ACRONYMS

Adaptation	Adaptation in the process of adjusting to actual or expected changes in climate to reduce or avoid climate impacts, or exploit beneficial opportunities. (National Climate Resilience and Adaptation Strategy 2021 to 2025 (dcceew.gov.au))
ASRS	Australian Sustainability Reporting Standards. The Australian Government's introduction of mandatory climate-related financial disclosures legislation in September 2024 and the forthcoming Australian Sustainability Reporting Standards (ASRS), mean transparency and accountability in climate-related reporting are now mandatory for a large cohort of Australian businesses.
Climate Change	Climate change is any change in the climate, lasting for several decades or longer, including changes in temperature, rainfall or wind patterns (What is climate change and what can we do about it? I Climate Council)
Climate Emergency	Climate Emergency is a situation in which urgent action is required to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it (Oxford Dictionary)
Circular Economy	A circular economy aims to sustainably reuse materials through reuse, repurposing, recycling and remanufacturing (Advancing the Circular Economy - CSIRO)
Cool refuge (from map)	Cool refuge (from map): A cool refuge is an air-conditioned place that can provide individuals relief from extreme heat weather. They are a place to go to keep cool and save during these extreme weather events. Cool Refuge Project - Let's Beat the Heat I Connect 2 Campbelltown.
Emissions	Emissions refer to greenhouse gas emissions, released into the atmosphere primarily due to human activities such as the burning of fossil fuels (coal, oil, and natural gas), agriculture, and land clearing. (modified from Understanding climate change - DCCEEW)
ESD (from map)	Environmentally sustainable development (ESD) are council requirements to guide the design, construction, renovation, and maintenance of our council buildings. ESD aims to reduce the impacts construction and buildings have on the environment by designing are appropriate for our changing climate, have minimal environmental impacts, and are healthy and comfortable for building users. Sustainable Buildings I City of Charles Sturt.
ESG/ Environmental, Social and Governance	Environmental, Social & Governance (ESG) is the movement for businesses to operate in a transparent, environmentally and socially responsible way and to practice good governance. (Environmental, Social and Governance (ESG) I Standards Australia)
Evapotranspiration (from map)	The loss of water from the soil both by evaporation from the soil surface and by transpiration from the leaves of the plants growing on it. Evapotranspiration I Water Cycle, Precipitation & Climate I Britannica .

FOGO	FOGO stands for Food Organics and Garden Organics. This is the green lid bin, where all food scraps and garden clippings can be disposed of. This waste is then processed into compost product rather than going to landfill. Weekly FOGO Trial I City of Charles Sturt.
Greenhouse Gas	Greenhouse gases include carbon dioxide, methane, nitrous oxide, ozone and some artificial chemicals such as chlorofluorocarbons (CFCs) (Understanding climate change - DCCEEW)
IPCC	Intergovernmental Panel on Climate Change. The IPCC The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change.
ISSB IFRS (S2) IFRS	International Sustainability Standards Board (ISSB) IFRS S2 requires an entity to disclose information about climate-related risks and opportunities that could reasonably be expected to affect the entity's cash flows, its access to finance or cost of capital over the short, medium or long term
Mitigate/Mitigation	The action we take to limit changes in global climate caused by human activities. (National Climate Resilience and Adaptation Strategy 2021-2025 - DCCEEW)
PPA/Power Purchase Agreement	Under a Corporate PPA, electricity buyers agree to buy power and/or Large Generation Certificates from a renewable energy project (currently solar or wind farms) at a fixed price over a longer-term (Corporate Renewable Power Purchase Agreements in Australia - State of the Market 2019 - Australian Renewable Energy Agency (ARENA))
Renewable Energy	Renewable energy is energy produced using natural resources that are constantly replaced and never run out (What is renewable energy? - Australian Renewable Energy Agency (ARENA))
Resilience	Resilience is the capacity of communities, environments and economies to cope with a hazardous event or disturbance, while maintaining their essential functions and structure. (National Climate Resilience and Adaptation Strategy 2021-2025 - DCCEEW)
Urban heat island effect	The urban heat island effect is a metropolitan area that is warmer than the rural areas surrounding it. This is due to the density or movement of people, cars, buildings, infrastructure and less green space. This density, movement and mass amount of hard and dark surfaces holds in heat, making the area much hotter than the green spaces around it, creating an 'urban heat island'. Urban Heat Island (nationalgeographic.org).

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City of Charles Sturt

MEANS THE WORLD