



The 11th Australian Conference on Life Cycle Assessment  
*Responding to the climate  
emergency: metrics and  
tools for rational action*

19 - 20 July 2023 | Twin Towns, Coolangatta QLD

# Environmental initiatives in Queensland

19 July 2023



Queensland  
Government

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Department of  
**Environment and Science**

Artwork created by  
Elaine Chambers, a Koa (Guwa) and Kuku Yalanji woman

# Global Drivers for Action



Progress assessment for the 17 Goals based on assessed targets, 2023 or latest data

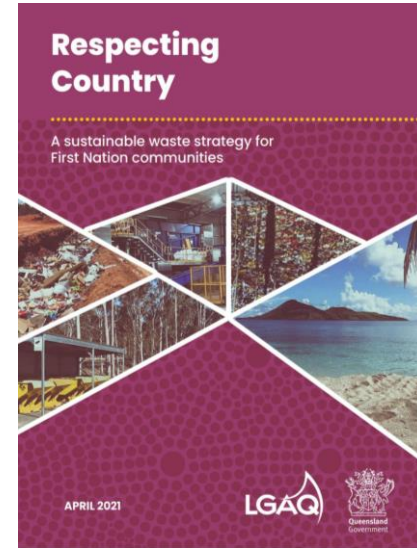
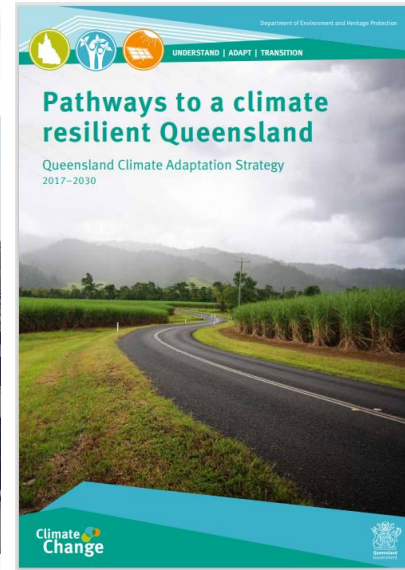
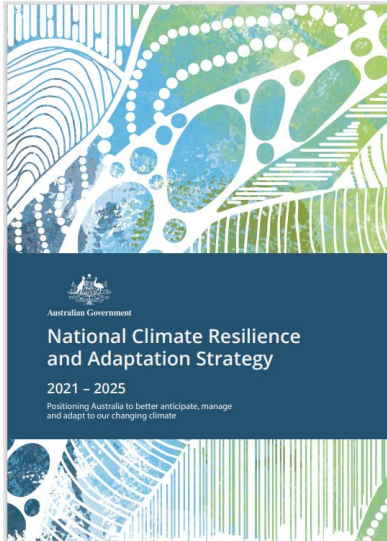
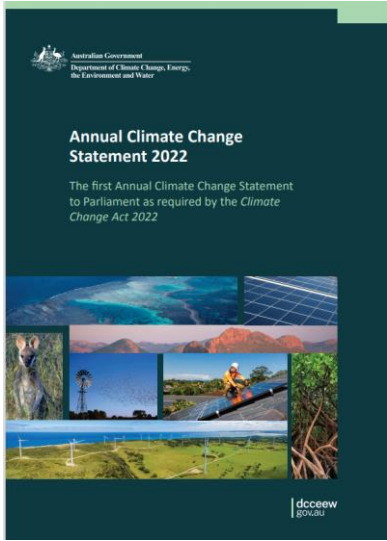


Share of targets assessed

■ On track or target met ■ Fair progress, but acceleration needed ■ Stagnation or regression ■ Insufficient data



# National & Queensland Context





## OUR VISION

Queensland is celebrated as one of the world's most diverse natural environments, for our world-leading science and our welcoming and inclusive communities.

WE SUPPORT THE GOVERNMENT'S OBJECTIVES FOR THE COMMUNITY:



**Good Jobs:** Good, secure jobs in our traditional and emerging industries



**Supporting jobs**



**Backing small business**



**Investing in skills**



**Backing our frontline services**



**Connecting Queensland**



**Protecting the environment**



**Growing our regions**



**Honouring and embracing our rich and ancient cultural history**

**Better services:** Deliver even better services right across Queensland

## OUR PURPOSE

To be effective leaders and partners in managing, protecting, restoring and promoting Queensland's natural environment, cultural heritage and cultural diversity.



**Great lifestyle:** Protect and enhance our Queensland lifestyle as we grow

### Our key objectives:

- Conserve and restore Queensland's unique biodiversity, heritage and protected areas
- **Lead climate action in Queensland**
- **Grow the circular economy**
- Protect World Heritage areas including the Great Barrier Reef
- Empower Queenslanders from culturally and linguistically diverse backgrounds to fully contribute to the economy and the community
- Strengthen and harness Queensland's scientific excellence
- Deliver a world-class environmental, heritage and biodiscovery regulatory system

### We will embrace opportunities to:

- effectively partner with First Nations people to better steward Country and culture and deliver economic, social and cultural impact for all Queenslanders, while walking together on a Path to Treaty
- develop strategy, science and partnerships that leverage increased private sector investment into restoring and protecting Queensland's natural capital
- provide stewardship for future generations through early engagement in the environment, science and heritage
- transform our customer experience and the way we do business through new digital technologies and leading-edge science and social science
- **build partnerships beyond traditional boundaries—global, government and community—to deliver best practice solutions to complex problems**
- build more culturally safe, diverse and capable practices
- partner with all levels of government, industry and communities to create equitable access to economic and social opportunities

WE ARE COMMITTED TO:

- acknowledging Aboriginal peoples and Torres Strait Islander peoples as the Traditional Owners and custodians of the land. We recognise their connection to land, sea and community, and pay our respects to their cultures and Elders past and present.
- respecting, protecting and promoting human rights, and our obligations under the *Human Rights Act 2019*.

### Our key objectives will be enabled by:

- **using leading scientific, behavioural and data insights to improve decision-making and actions**
- strengthening our partnerships with First Nations peoples, local government, culturally and linguistically diverse communities and industry stakeholders
- embedding First Nations peoples' knowledge and leadership in our systems, policies and programs through the Gurra Gurra Framework
- promoting and supporting good governance and the ethical conduct of all employees
- ensuring the safety and wellbeing of staff and creating an inclusive working environment
- delivering efficient and agile services supported by best-in-class Corporate Services

### We will manage our strategic risks by:

- continuously improving our preparedness, response and recovery capability for bushfire and extreme weather events
- **acting as an exemplar in climate change mitigation and adaptation**
- recognising, respecting and embedding First Nations peoples' knowledge and culture in our work
- **delivering a regulatory framework that can adapt to the evolving standards of contemporary environmental regulation and community expectations**
- harnessing leading-edge science, technology and innovation to deliver value to the community
- building staff capability to anticipate and respond to emerging risks and opportunities
- communicating clearly, effectively and in a timely manner

OUR WORK IS GUIDED BY OUR VALUES:



Customer first



Ideas into action



Unleash potential



Be courageous



Empower people

# Department of Environment and Science Strategic Plan 2023–27

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**Better services:** services right at hand



**Backing our frontline services**

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# Queensland Climate Action Plan – some actions underway since 2020 - 2030

## Actions since 2020

Queensland's total emissions for 2021 are 139.7 Mt CO<sub>2</sub>-e, which is 29% below the 2005 baseline. This is 14.2 Mt CO<sub>2</sub>-e less than 2020 levels.

## Underway and still to do

To achieve the 2030 target we need to reduce our current emissions by a further 2.5 MtCO<sub>2</sub>-e.

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## Energy

Released the [Queensland Energy and Jobs Plan](#)

\$145m—committed for [Queensland Renewable Energy Zones \(QREZ\)](#) including:

- \$40m—for upgrades to transmission between Cairns and Townsville to unlock capacity in northern Queensland and support the Kaban Wind Farm to connect, and
- \$20m—to support developing Queensland's green hydrogen and renewables manufacturing industries.

As part of the QREZ:

- \$22m—design and cost analysis for pumped hydro at [Borumba Dam](#)
- \$13m—broaden the scope for engineering, environmental, social and recreational studies and allow an earlier investment decision to be made on the Borumba pumped hydro energy storage project.

\$4.5b—committed for the boosted [Queensland Renewable Energy and Hydrogen Jobs Fund](#)

\$20m—Queensland Apprenticeships Centre for renewable hydrogen

\$147m—[Genex pumped hydro](#)

\$17m—renewable energy training facility

\$2.6m—Queensland Hydrogen Taskforce

Implement the Queensland Energy and Jobs Plan, which outlines how the Queensland Government will achieve our renewable energy targets and ensure a sustainable and affordable energy future for Queenslanders

- Undertake stakeholder consultation on QREZ roadmap
- Drive savings for households and small business through roll-out of targeted programs
- Release guidelines for Queensland Microgrid Pilot Fund
- Consult on draft Regional Energy Transformation Partnerships Framework
- Deliver a Fuels Strategy to accelerate the uptake of sustainable liquid fuels on the pathway towards net zero and beyond

Prioritise investment in infrastructure, including big batteries, long-term development of the world's largest pumped hydro site, further development of the Northern, Central and Southern QREZ and support for clean industries

Drive the growth of the Queensland low carbon hydrogen industry

Complete technical and economic studies to supercharge domestic renewable hydrogen hubs

## Industry

Released the [Queensland new-industry development strategy](#). The strategy identifies decarbonisation opportunities in priority industries. These industries use Queensland's traditional strengths and existing industries to capitalise on global trends. They're industries that will create prosperity for Queenslanders.

Launched the [Queensland Resources Industry Development Plan](#)

\$13.8m across 5 years for the critical minerals initiative

Queensland's Economic Recovery Plan

\$10.6m—Hydrogen and Renewable Energy Training facility at Bohle TAFE campus in Townsville

\$2m—upgrade training facilities at Gladstone State High School to prepare students for jobs in the hydrogen industry

\$5m—Bowen Basin Gas Pipeline concept study to reduce fugitive emissions in the coal industry

Deliver actions in the Queensland Resources Industry Development Plan, supported by \$68.5 million of government investment over 5 years for key initiatives including actions to support critical minerals, circular economy in mining and the development of a Queensland battery industry strategy

Support onshore processing of critical minerals, acceleration of resource recovery and associated manufacturing opportunities

Explore opportunities to decarbonise the resource industry operations and the use of carbon capture and storage to assist decarbonising the economy

Explore the development of circular manufacturing industry

Continue to support skills for the new economy. Continue to develop the Queensland Government priority industries including:

- Aerospace, Biofutures, Biomedical, Defence, METS, Beef Processing, Resource Recovery, Superyachts

## Transport

Released the Zero Emission Vehicle Strategy [2022–2032 and the first Zero Emission Vehicle Action Plan 2022–2024](#), which included a \$55 million funding package

[The Future is Electric](#): Queensland's Electric Vehicle Strategy

\$5.3m—Queensland [Electric Super Highway](#) Phases 1 and 2 completed

Develop a Zero Net Emissions for Transport Roadmap

Deliver \$3.83m for Queensland Electric Super Highway [Phase 3](#) – 24 sites

Continue to improve the sustainability and climate resilience of transport infrastructure, through reducing whole-of-life emissions and expanding the use of [Climate Change Risk Assessments for Infrastructure Projects](#)

## Buildings

\$741m—Resilient Homes Fund (for flooding)

Further \$20m—(Phase 3) to extend the Household Resilience Program (for cyclones)

Determined the building sector's contribution to Queensland's emissions

Develop Zero Net Emissions Infrastructure Plan

Develop Zero Net Emissions 2050 Buildings Plan

Identify potential economic measures to reduce emissions associated with buildings

Prepare for the Brisbane 2032 Climate Positive Olympic and Paralympic Games

Improve standards for new and retrofitted residential buildings

Improve standards for new and retrofitted commercial buildings

Investigate opportunities for residential and commercial building upgrades, including energy efficiency, renewable energy use, and climatic resilience

## Land

[Released the Queensland Low Emissions Agriculture Roadmap 2022-2032](#)

First Round Land Restoration Fund

2019 Marginal Abatement Cost Curve for Queensland Agriculture

\$10.5m—to continue the [Drought and Climate Adaptation Program](#) for a further three years

\$12m—[Farm Business Resilience Planning](#)

\$4m—[Farm Management Grants Program](#)

\$11m—[Drought Preparedness Grants Scheme](#)

\$25m—Second Round Land Restoration Fund

\$35m—Natural Capital Fund

Invest in R&D to scale low carbon agriculture solutions and industry development including: robotics and sensors, micro-macroalgal, net-zero net emissions production systems, supply chain certification and provenance

Deliver an AgTech Roadmap to drive technological innovation within the sector

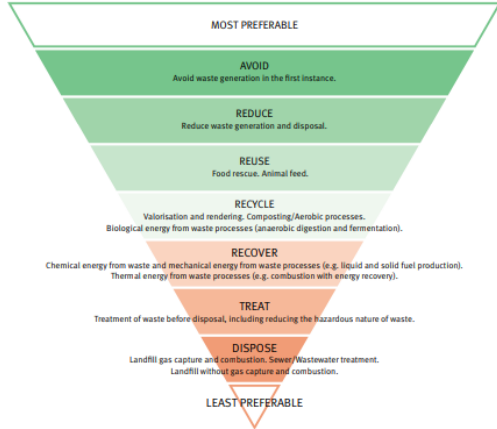
# Circular Economy Strategic Priorities

# → Policies & Initiatives

## Strategic Priority 1

Reducing the impact of waste on the environment

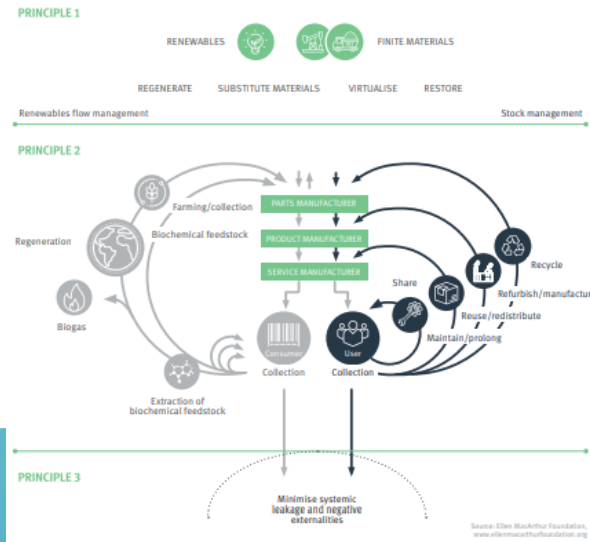
Figure 2: Waste and resource management hierarchy



## Strategic Priority 2

Transitioning to a circular economy for waste

Figure 3: Circular economy principals.



## Strategic Priority 3

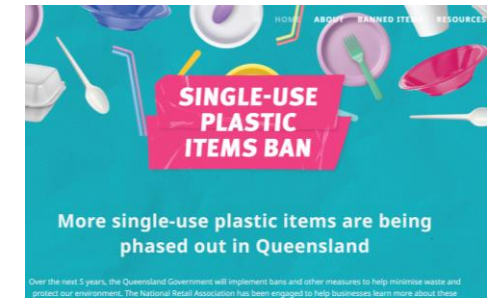
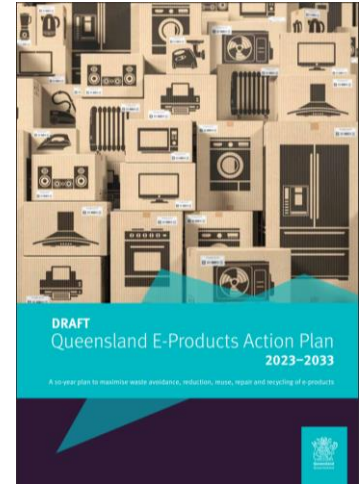
Building economic opportunity

# 2050 Targets

25% reduction in household waste

10% of all wastes going to landfill

75% recycling rates across all waste types





# Questions for conference participants

Join at [menti.com](https://www.menti.com) use code 72 37 02 6

## Instructions

Go to

[www.menti.com](https://www.menti.com)

Enter the code

72 37 02 6



Or use QR code

Following a brief overview of environmental initiatives in Queensland.....

1. How could and where do you see life cycle assessment providing benefit and guidance for this work?
2. In the context of Waste Management Reforms, if the Department was seeking to utilise life cycle assessments to inform future policy, what guidance and recommendations would you suggest for this?
3. Other considerations or suggestions?

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