Northern Territory's Climate Change Response: Towards 2050

Progress Report – October 2023

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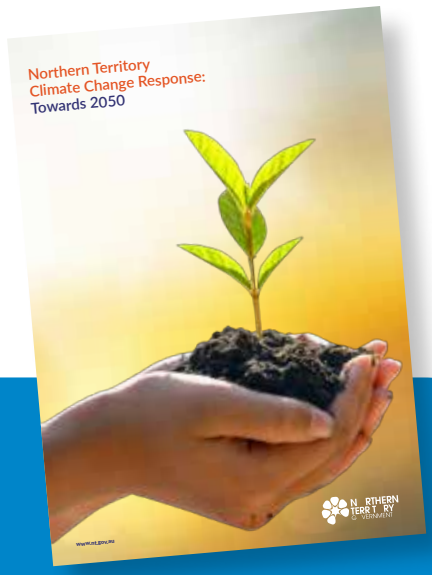
NORTHERN TERRITORY GOVERNMENT

Contents

Purpose

This report has been prepared to provide a public account of the Northern Territory (NT) Government's progress in delivering its climate change response outlined in the Delivering the Climate Change Response: Towards 2050 A Three-Year Action Plan for the Northern Territory Government.



Northern Territory Climate Change Response: Towards 2050. Released 2020.

Context

The Northern Territory Climate Change Response: Towards 2050 (the Climate Change Response) was released in 2020.

The document establishes four policy objectives to maximise the economic, social and environmental well-being of Territorians while responding proactively to the risks and opportunities of climate change:

1. **Net zero emissions by 2050**
2. **A resilient Territory**
3. **Opportunities from a low carbon future**
4. **Inform and involve all Territorians**

A Three Year Action Plan to support the Climate Change Response was published in 2020 which identify actions under each of the policy objectives that will be taken by the NT Government, providing the foundation to deliver an enduring and effective climate change response.

There is substantial work underway across Government – and external to Government – that contributes to the Territory's low-carbon economic growth trajectory and the Territory's climate resilience.

Objective 1: Achieving net zero emissions by 2050

The Climate Change Response establishes the economy-wide target of net zero greenhouse gas emissions by 2050. This target is aligned with the Australian Government's legislated national target.

Reducing our emissions

Growing the NT economy while achieving the target of net zero emissions by 2050 will require a well-planned transition. The foundations for that transition are being set through implementation of the Three-Year Action Plan.

The NT Government's Greenhouse Gas Emissions Management for New and Expanding Large Emitters Policy commenced in 2021. The policy establishes the Government's minimum expectations on all new and expanding developments with the potential to emit large amounts of greenhouse gas emissions to manage their emissions and contribute to the net zero emissions target. The policy has informed the assessment and approval of development proposals, including the approval of onshore petroleum exploration activities.

Further expectations on the management of greenhouse gas emissions from onshore petroleum production in the NT are established in the Management of Greenhouse Gas Emissions from the Onshore Gas Industry Policy Statement.

To complement these policies, and provide opportunity and flexibility for the NT in how it will achieve its net zero target, a Greenhouse Gas Emissions Offsets Policy and Technical Guidelines (Emissions Offsets Policy) was released in 2022. The Emissions Offsets Policy provides for consistent and transparent use of greenhouse gas emissions offsets under Territory legislation.

Both the Large Emitters Policy and the Emissions Offsets Policy are publicly available.

At a glance

Our priorities		Deliverables		STATUS
1.1	**Understand our emissions profile and trajectory**	1.1.1	Undertake detailed analysis to understand the Territory's existing and projected emissions profile to understand the trajectory towards net zero and enable identification of potential suitable interim targets and timeframes.	**Completed:** > The Territory's emissions profile and potential emissions trajectories to 2050 under low, medium and high emissions scenarios will inform the development of a net zero transition plan for the NT (currently underway).
1.2	**Determine a pathway to reduce the Territory's emissions**	1.2.1	Develop an Emissions Reduction Strategy (ERS). Taking into account the detailed emissions analysis, the ERS will identify stages, interim targets, timeframes, and potential approaches/ mechanisms to achieve the net zero emissions by 2050 target and maximise the opportunities for Territorians.	**In progress:** > Work is underway to develop a net zero plan for the NT that provides a transition pathway for economic growth through decarbonisation and achieving net zero emissions by 2050.
1.3	**Establish policy positions that support the emissions reduction target**	1.3.1	Develop a policy outlining Government's expectations for the mitigation and management of emissions from new and expanding large greenhouse gas emitters.	**Completed:** > The Greenhouse Gas Emissions Management for New and Expanding Large Emitters Policy commenced in 2021. > The Policy Statement Management of Greenhouse Gas Emissions from the Onshore Gas Industry was released in May 2023.
		1.3.2	Develop a Greenhouse Gas Emissions Offsets Policy to guide the application and administration of carbon offsets in the Northern Territory.	**Completed:** > The Greenhouse Gas Emissions Offsets Policy was released September 2022.

Achieving the 50% renewable energy target

The NT Government has a target of achieving 50% renewable energy for grid connected electricity consumption by 2030. This is being delivered through a number of initiatives:

- **Electricity system plans** – the first biennial Darwin –Katherine Electricity System Plan was published in 2021 and maps a coordinated pathway to achieving the renewable energy target in the Territory's largest electricity system. The System has the following focus areas to be addressed over a 10 year period:
  - Renewable Energy Hubs located close to the existing network and close to demand centres to maximise generation potential and reduce costs.
  - Thermal generation that is smaller, more agile and hydrogen-capable.
  - Battery storage to capture surplus daytime solar so that the stored energy can be used at night.
  - 'High spec' security batteries to support system security.
  - Virtual Power Plants that combine small-scale solar, home batteries and customer appliances and assets including electric vehicles.
  - The Alice Springs Future Grid project, due for completion late 2023, is focused on removing barriers to further renewable energy penetration in the Alice Springs power system. The project is being led by the Intyalheme Centre for Future Energy established with funding from the NT Government, and will provide the foundations for a plan for the Alice Springs power system – the Alice Springs Roadmap to 2030.
- **The Remote Power System Strategy** – targeting an average 70% renewable energy by 2030 in remote communities serviced by Indigenous Essential Services.
- **Hydrogen** – The NT Renewable Hydrogen Strategy, published in 2020, sets the vision for the Territory to be recognised as a leader in the world's transition to renewable hydrogen. The NT Renewable Hydrogen Master Plan (2021) outlines the foundational activities to enable external investment and support for the establishment of a local and export renewable hydrogen industry.
- **Electricity reforms** – to improve coordination of solar and gas-fired generators, to ensure there is sufficient generation capacity available to meet consumer needs and to improve the efficiency of the provision of essential power system security services.

At a glance

Our priorities		Deliverables		STATUS
1.4	**Deliver priority actions to achieve the 50% renewable energy target by 2030**	**1.4.1**	Develop and implement a Remote Power System Strategy to integrate renewables technology into remote indigenous essential services communities to target 70% penetration.	**In progress:** > Work is progressing on the business case for the implementation of the Remote Power System Strategy. > Focus is on mapping the optimal renewables development pathway, considering existing energy assets, community aspirations, electricity demand profiles and forecast growth. > High level engagement with community stakeholders is planned for late 2023.
		1.4.2	Develop a Hydrogen Strategy for the Northern Territory to take advantage of this emerging sustainable energy source.	**Completed:** > The NT Renewable Hydrogen Strategy was released 2020. > The NT Renewable Hydrogen Master Plan was released 2021.
		1.4.3	Deliver actions under the inaugural Darwin-Katherine Electricity System Plan.	**In progress:** > Work is progressing on land development studies and the business case for the first renewable energy hub. > Procurement and installation of a 35MW high spec security battery has been completed. Following commissioning and testing, the Battery is expected to be operational in 2024. > The first 12MWh of home and community storage has been installed.
		1.4.4	Implement reforms to the Northern Territory Electricity Market to improve financial transparency, provide cost reflective ancillary services, quality and efficient service delivery and reduce costs.	**In progress:** > Gateway Review of Northern Territory Electricity Market reforms completed and stakeholder consultation on recommendations is underway. > Implementation Taskforce established to oversee the finalisation of the market model and implementation of the reform program. > Further advice to industry expected in late 2023.
		1.4.5	Deliver power systems plans for the DKIS and Alice Springs grids to facilitate additional renewable energy deployment, commercial micro-grids, and residential virtual power plants.	**In progress:** > The Darwin Katherine Electricity System Plan was published in October 2021. > The Alice Springs Future Grid project, comprising of five sub-projects to inform the development of the Alice Springs Roadmap to 2030 is due for completion in 2023.

Reducing emissions from Government

Government operations and services contribute to the NT's emission profile and accordingly, the Three Year Action Plan identified a project aimed at reducing the NT Government's emissions.

An inventory of NT Government's greenhouse gas emissions from its operations and services has been undertaken using the baseline year of 2021. As expected with the first emissions inventory for an organisation there are data gaps. The inventory provides the opportunity to identify the data gaps and work towards data improvements. The inventory and identified opportunities for emissions reductions are being used to identify pathways to reduce NT Government emissions and support the NT net zero target.

All NT Government departments have established plans to improve their emissions data and identify and action emissions reduction opportunities. Agencies will continue to update their work on climate change activities through their annual reports.

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At a glance

Our priorities	Deliverables	STATUS
1.5 Reduce emissions associated with NT Government operations and services	**1.5.1** Undertake a review of emissions across all NT Government agencies to identify opportunities to reduce emissions, and inform development of agency specific action plans to reduce emissions.	**Completed:** > A baseline inventory of NT Government emissions for the 2020—21 financial year has been established. > Opportunities for emissions reduction have been identified and incorporated in a modelling tool to consider potential trajectories of NT Government emissions reductions by 2030. > Government departments have developed plans to improve emissions data and take action to reduce their operational emissions.

Reducing emissions from transport

Decarbonisation within the transport sector is another opportunity for emissions reduction. Electric vehicles (EVs) provide a viable alternative to internal combustion vehicles and many car companies have announced that they are phasing out the sale of combustion vehicles.

The NT Government released an Electric Vehicle Strategy and Implementation Plan in July 2021. The Strategy aims to support the uptake of EVs in the NT and provides an opportunity for Territorians to reduce their personal greenhouse gas emissions.

Good progress is being made on the Implementation Plan. Key initiatives commenced on 1 July 2022 including reduced registration and stamp duty fees for EVs and an EV charger grants scheme for homes and businesses. Number plate labels for electric, hybrid and hydrogen vehicles were introduced on 1 March 2023. In an emergency, the labels will help emergency responders to quickly identify the vehicle's power source so they can respond appropriately.

There has been rapid uptake of EVs in the NT. At 30 June 2023, there were 301 passenger and commercial EVs registered in the NT, compared with 95 vehicles at the same time in 2022. The number of the EVs in the NT Government fleet is also increasing with 45 vehicles in the fleet at 30 June and ongoing installation of EV chargers in NT Government buildings. EV fast chargers are now operational at Marrara and in the Darwin CBD.

At a glance

Our priorities		Deliverables		STATUS
1.6	**Incentivise the uptake of electric vehicles in the Territory**	1.6.1	Finalise the Electric Vehicle Strategy and develop an Implementation Plan to ensure that the right levers are in place to maximise the full potential of electric vehicle use in the Territory. This includes ensuring that the required electric vehicle charging infrastructure is made available across the Territory.	**Completed:** > The Electric Vehicle Strategy and Implementation Plan 2021—2026 was released in 2021. > NT EV numbers have tripled going from 95 at the end of June 2022 to 301 at end of June 2023.

Objective 2: Achieving a resilient Northern Territory

Proactively responding to climate risk and adapting to the observed and projected impacts is a priority.

Strategies to adapt to a changing climate are being developed. A first-pass climate change risk assessment for the NT is also underway that will inform adaptation strategies. An accompanying climate risk ready guide to help guide communities and businesses through a climate risk assessment is also being developed.

At a glance

Our priorities		Deliverables		STATUS
2.1	**Ensure a targeted and strategic approach to building resilience in the Territory**	2.1.1	Deliver an overarching strategy for the Territory to increase its preparedness to respond and adapt to climate change in the immediate and long term futures.	**In progress:** > A draft climate change adaptation strategy will be released in early 2024. > The Climate Change Risk Ready Guide will be released in early 2024. > A first pass climate change risk assessment for the NT has commenced that will identify and prioritise the key risks to liveability in the Territory resulting from a changing climate. The risk assessment will inform actions that support adaptation measures.
2.2	**Promote industry resilience to climate change**	2.2.1	Identify and prioritise key risks to industry associated with climate change, including work health and safety concerns, and biosecurity risks.	**In progress:** > To be informed by the outcomes of 2.1.1 climate change risk assessment. > Industry sector-specific fact sheets are in development and will be published on the Climate Change NT website. > Funded the NT Cattlemen's Association (NTCA) to provide advice and assist pastoralists in preparing for and responding to climate change impacts.
		2.2.2	Identify key industries and sectors at risk from impacts associated with climate change.	
		2.2.3	Work with industry and relevant sectors to assist in developing and coordinating Industry/Sector Specific Climate Adaptation Frameworks.	

Our priorities		Deliverables		STATUS
2.3	**Increase the Territory Government's preparedness to respond to the impacts of climate change**	**2.3.1**	Deliver a 10-year Emergency Response Strategy to address the risks of extreme weather events and climate change on our remote communities.	**In progress:** > The Territory Emergency Management Council has endorsed the Northern Territory Natural Hazard Risk Management Framework. It provides responsible authorities with a framework to assess the likely impacts of natural hazards against an agreed consequence table and allocate risk treatments to owner entities through a consultative process. A public facing component of the Framework will be available on the NT Emergency Services website late 2023.
		2.3.2 **2.3.3**	Identify and prioritise Territory Government infrastructure, assets and services at risk from impacts associated with climate change. Deliver Agency specific infrastructure, assets and services climate adaptation frameworks.	**In progress:** > A first pass climate change risk assessment for the NT has commenced that will identify and prioritise the key risks to liveability in the Territory resulting from a changing climate. The risk assessment will inform the development of an NT Government adaptation action plan. > The Department of Infrastructure, Planning and Logistics (DIPL) has established an across agency working group to guide actions required for emissions reduction, resilience and adaptation. > The Department of Environment, Parks and Water Security (DEPWS) has commenced a climate risk assessment to identify and address those climate risks which have the potential to impact the future operations, staff and assets of the agency. > Other agencies are planning to undertake climate risk assessments using a similar process to reduce their vulnerability to the impacts of a changing climate.
2.4	**Improve landscape resilience to climate change impacts**	**2.4.1**	Identify and prioritise high value ecosystems and biodiversity at risk from climate change	**In progress:** > DEPWS has commenced a project to identify and prioritise NT biodiversity and ecosystems that are most susceptible to climate change related impacts and propose measures for risk mitigation and adaptation that can enhance the resilience of biodiversity and natural ecosystems to the impacts of climate change.
		2.4.2	Deliver a Biodiversity Maintenance and Restoration Strategy to guide effort and actions in building landscape resilience.	**In progress:** > To be informed by the outcomes of item 2.4.1

Our priorities		Deliverables		STATUS
2.5	**Support Territorians to respond and adapt to the impacts of climate change**	**2.5.1**	Identify and prioritise risks to human health associated with climate change.	**Ongoing:** > A Climate Change Health Advisory Committee has been established within Department of Health to provide oversight of human health impacts and appropriate responses. > A Heatwave Management Plan has been developed and is being implemented to help Territorians adapt to and reduce the health impacts of extreme heat.
		2.5.2	Work with the community services sector to develop climate change risk adaptation and response frameworks.	**In progress:** > Development of community sector-specific fact sheets are in development and will be published on the Climate Change NT website.
		2.5.3	Incorporate climate responsive designs and initiatives into our urban and community landscapes.	**Ongoing:** > A non-statutory Landscaping Guideline is being prepared to provide guidance on water efficient climatically appropriate landscaping to support NT Planning Scheme 2020 (NTPS) provisions. > In 2023, improved NTPS provisions for apartment, mixed use and commercial developments across the Territory came into effect. These enhance landscaping outcomes, facilitate greater breeze penetration and providing shade to reduce heat capture of paved surfaces. > Strategic directions policy documents are being developed by the NT Planning Commission to help communities thrive in the face of climate change impacts. Policies may include: facilitating compact settlements, enabling viable alternatives to private vehicles for short trips, and delivering a network of green spaces within urban and community landscapes to carbon sequestration and reduce the heat island effect.

Objective 3: Unlocking the opportunities

Responding to climate change risks and the fast pace of technological advancement in emissions reduction and adaptation has the potential to open up economic and development opportunities for the NT. This has been identified as a key objective in the Climate Change Response.

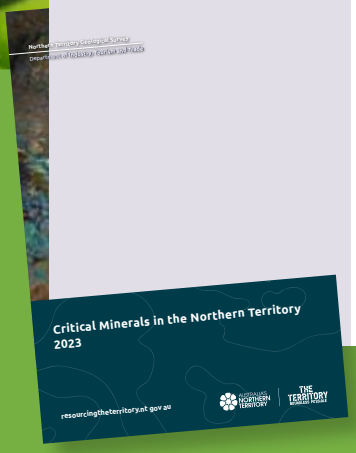
Developing the NT's renewable energy sector has the potential for flow-on industry growth and investment across a range of existing and emerging sectors, including advanced manufacturing, zero-emissions data centres and data services, and renewable energy exports.

The national and global transition to renewable energy opens up opportunity in the critical minerals sector in the NT. The NT Government established an industry-led Mineral Development Taskforce to consider these opportunities given the NT is projected to play a key role in critical mineral supply chains. To promote the Territory's potential in this space, the NT Government released a critical minerals guide 'Critical Minerals in the Northern Territory 2023' documenting the current resource endowment and emerging exploration potential for critical minerals in the Territory.

The strong demand for carbon credits across the world as entities seek to move to becoming carbon neutral presents additional opportunities for NT land managers to engage in the carbon market.

At a glance

Our priorities		Deliverables		STATUS
3.1	**Harness opportunities associated with the Territory's natural assets**	3.1.1	Deliver a Critical Minerals Strategy for the Territory to support 'The Territory Critical Minerals Plan' and drive investment to support renewable energy and battery technology.	**Completed:** > The Government established an industry-led Mineral Development Taskforce, which reported in December 2022. > Through the Resourcing the Territory initiative the Government is supporting critical minerals exploration. > The Critical Minerals Guide for the NT has been released to showcase critical mineral opportunities in the Territory. This will be followed by development of a strategic document to attract and facilitate investment in critical mineral projects as part of the broader Mineral Development Taskforce work program.
		3.1.2	Facilitate establishment of a manufacturing hub that leverages low cost renewable energy and attracts private investment.	**In progress:** > The Government is working with industry and the Australian Government to develop a sustainable development-ready industrial precinct on Middle Arm Peninsula. > The project is currently in the planning, design and environmental assessment stage. > The Middle Arm Sustainable Development Precinct is undergoing strategic environmental assessment under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).



Minerals in the
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Our priorities		Deliverables		STATUS
3.2	**Connect Territorians to funding opportunities**	3.2.1	Identify and promote opportunities for Territorians and the private sector to access sources of funding to reduce greenhouse gas emissions and invest in low carbon technologies and initiatives.	**Ongoing:** > The Climate Change NT website will continue to be updated to build the Territory's knowledge and understanding and will host information on opportunities to access funding sources.
3.3	**Develop the Territory's environmental services industries**	3.3.1 3.3.2	Continue to support the growth and development of the Territory's carbon market industry and promote Aboriginal jobs on country. Identify opportunities to grow the environmental services industry	**Ongoing:** > A Land Based Carbon Abatement Program is supporting projects designed to increase participation in the carbon market and grow the environmental services industry. > Funding has been provided to Indigenous Carbon Industry Network (ICIN) to increase opportunities for Aboriginal Territorians to have input into Government climate policies and programs and participate in carbon markets. > Funded the NT Cattlemen's Association (NTCA) to work with and assist pastoralists to reduce their emissions while improving productivity, and engage in the carbon market.
3.4	**Skills development to support emerging green and low carbon industries**	3.4.1	Deliver a skills development strategy to capitalise on new and emerging opportunities associated with low carbon economies.	**In progress:** > Funding has been provided to the Indigenous Carbon Industry Network (ICIN) and is committed to for the next five years to support policy development capabilities. An initial focus of ICIN has been developing skills and sharing information. It is the peak industry body for organisations involved in greenhouse gas emissions abatement projects on Aboriginal land across northern Australia.

Objective 4: Ensuring information and involvement

The Northern Territory State of the Science Report provides insights into the future climate projections for the Northern Territory.

The NT Government has published a website dedicated to climate change information distribution. The website is a resource for Territorians to access the most up to date science and studies on climate change and will continue to be updated, allowing the NT to build its knowledge and understanding.

The website also allows Government to keep the public up to date on the action it is taking in response to climate change.

At a glance

Our priorities		Deliverables		STATUS
4.1	**Promote climate conscious behaviours in Territorians**	4.1.1	Deliver a state of the climate science report identifying observed and expected impacts of climate change in the Northern Territory.	**Completed:** > The State of the Science report is available on the Climate Change NT website.
		4.1.2	Establish a Climate change website to inform and connect with Territorians about impacts and opportunities.	**Completed:** > A Climate Change NT website was published in 2021 and will continue to be updated.
		4.1.3	Raise awareness about climate change with Territorians through accessible education and awareness material and communications.	**Ongoing:** > Information and resources will be delivered through the Climate Change NT website.
4.2	**Assist large landholders to take action to manage the risks of climate change**	4.2.1	Provide advice and extension services to assist land managers to manage climate change risks from key threatening processes.	**In progress:** > A Land Based Carbon Abatement program has provided funding to the NTCA to support the delivery of information and advice to pastoralists on carbon abatement and responding to the risks and opportunities posed by climate change. > Extension support has been established within Government to support the development of climate change action on Territory properties and land holdings.
		4.2.2	Incentivise climate conscious land management practices through delivery of targeted grant programs.	**In progress:** > The Land Based Carbon Abatement program provides grants to support climate conscious land management activities including the development of new methodologies for emissions abatement that may be accepted under reputable carbon credit schemes.

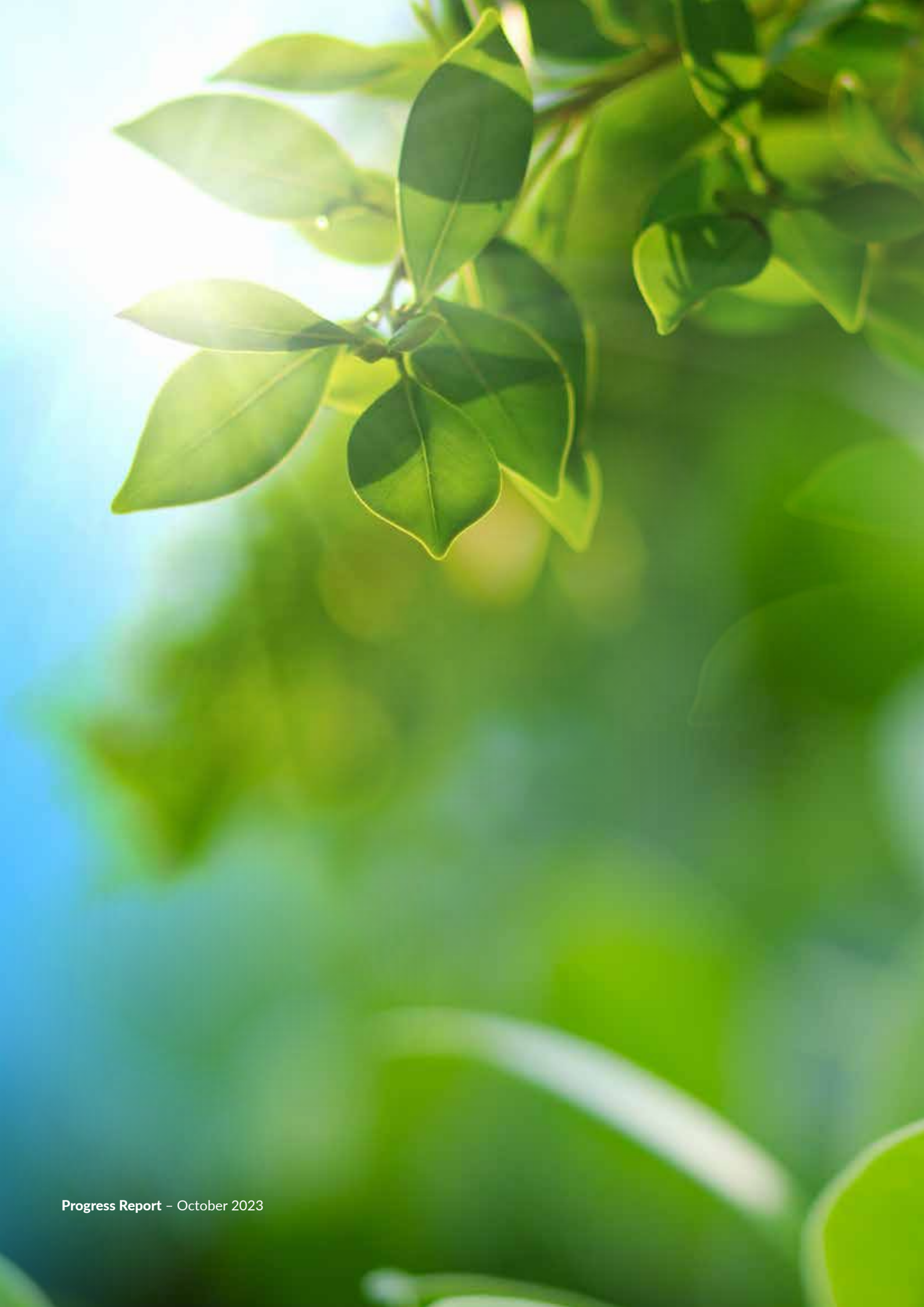
Moving Forward

The NT Government is proactively leading in the NT's response to climate change.

In delivering on the actions identified in the Three-Year Action Plan, the NT Government has been building the foundations for the potential pathways, systems and support for all sectors within the Territory to reduce their greenhouse gas emissions and be climate change ready.

These actions have prepared us for the next steps in the Territory's journey to net zero by 2050 and build climate change resilience.

Implementation of actions in the Three-Year Action Plan will continue, with some of those commitments such as the net zero transition plan and climate change adaptation strategies, setting the future direction for the NT Government's climate change response.



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