

Northern Territory's Climate Change Response: Towards 2050

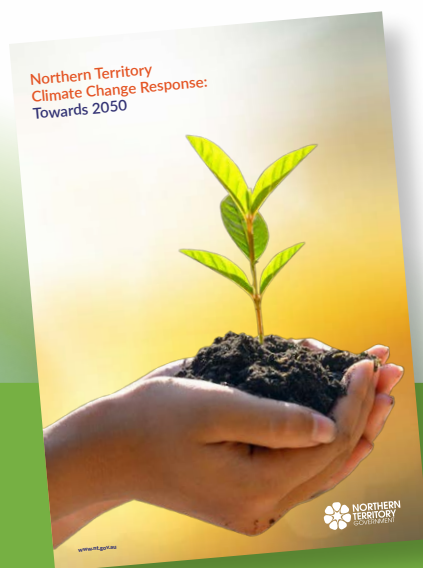
Annual Progress Report – September 2022

Contents

Purpose	3
Context	3
Achieving net zero emissions by 2050	4
Reducing our emissions	4
At a glance	4
Achieving the 50% renewable energy target	6
At a glance	7
Reducing emissions from Government	8
At a glance	8
Reducing emissions from transport	9
Achieving a resilient Northern Territory	10
At a glance	10
Unlocking the opportunities	12
At a glance	13
Ensuring information and involvement	14
At a glance	14
Moving forwards	15

Purpose

This progress report has been prepared to provide a public account of the action of the Northern Territory Government in its response to climate change.



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.

Policy Objectives

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 also published in 2020. It identifies actions under each of the policy objectives that will be taken by Government, providing the foundation to deliver an enduring and effective climate change response.

While this Progress Report only provides information relating to the Three Year Action Plan, 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.

Achieving net zero emissions by 2050

The Northern Territory's (NT) Climate Change Response establishes the economy-wide target of net zero greenhouse gas emissions by 2050. This target is aligned with the Australian Government and every other state and territory in Australia.

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. An Emissions Reduction Strategy for the NT is being developed to build on those foundations and establish the mechanisms which will support the NT to achieve the target.

A key step in delivering the Emissions Reduction Strategy is close to completion – a study that identifies and calculates the NT emissions sources and maps the NT's emissions trajectories (to 2050) under different economic development scenarios.

This study also includes an analysis and assessment of potential emissions reduction actions which could be implemented to take the Territory to net zero emissions by 2050.

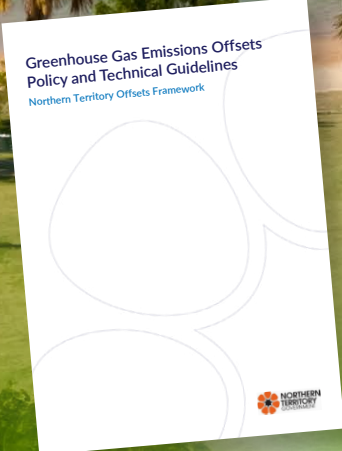
The NT Government has finalised and released its Greenhouse Gas Emissions Management for New and Expanding Large Emitters Policy. The policy establishes the Government's minimum expectations on all new and expanding developments with the potential to emit large amounts of greenhouse gas emissions to 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.

To complement the policy for large emitters, and provide opportunity and flexibility for the NT in how it will achieve its net zero target, a Greenhouse Gas Emissions Offsets Policy (Emissions Offsets Policy) has been developed.

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.	Near completion: <ul style="list-style-type: none"> > Experts have mapped the NT emissions sources, and completed modelling and analysis to understand the NT's projected emissions under different development scenarios. > Assessment and advice on reduction strategies for the NT are being finalised.
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: <ul style="list-style-type: none"> > Key inputs of the ERS deliverables (1.1.1) near completion > A draft of the ERS to be publicly available in 2023.
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: <ul style="list-style-type: none"> > Policy released October 2021.
	1.3.2 Develop a Greenhouse Gas Emissions Offsets Policy to guide the application and administration of carbon offsets in the Northern Territory.	Completed <ul style="list-style-type: none"> > Policy finalised and released September 2022.



Greenhouse Gas Emissions Offsets Policy | Department of Environment, Parks and Water Security. Finalised in 2022.



Greenhouse Gas Emissions Management for New and Expanding Large Emitters Policy. Released in October 2021.

Achieving the 50% renewable energy target

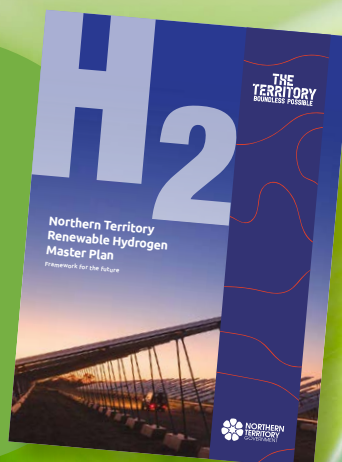
The NT Government has a target of achieving 50% renewable energy for grid connected electricity consumption by 2030. This is being delivered through a number of initiatives:

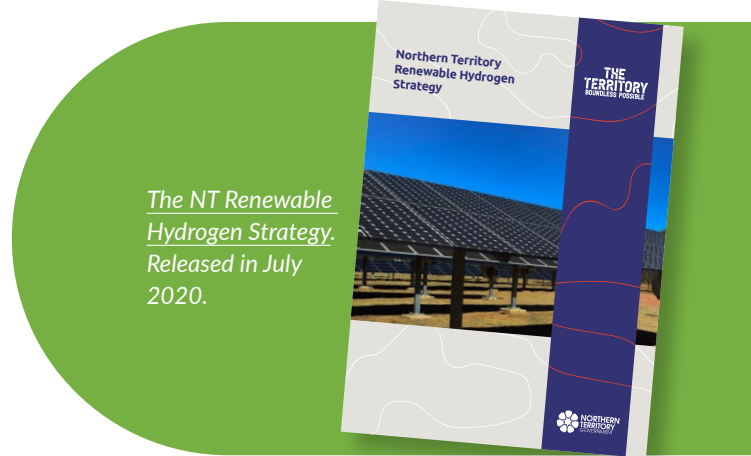
- Electricity system plans
 - The first biennial Darwin-Katherine Electricity System Plan was published in 2021 and maps a coordinated pathway to achieving the renewable energy target in the Territory's largest electricity system. The System Plan has the following focus areas to be addressed over a 10-year 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 solar during the day 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 in 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 Territory 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 transition to renewable hydrogen
 - The NT Renewable Hydrogen Master Plan, published in 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 consumers' needs and to improve the efficiency of the provision of essential power system security services.



Darwin-Katherine Electricity System Plan.
Published in 2021.

NT Renewable Hydrogen Master Plan.
Published in 2021.





At a glance

Our priorities	Deliverables	STATUS
<p>1.4 Deliver priority actions to achieve the 50% renewable energy target by 2030</p>	<p>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.</p>	<p>In progress:</p> <ul style="list-style-type: none"> > The current focus is on the implementation and delivery of the Remote Power System Strategy. > Work is progressing on mapping the optimal renewables development pathway, considering existing energy assets, community aspirations, electricity demand profiles and forecast growth. > High level engagement with community leaders is planned for the end of 2022.
	<p>1.4.2 Develop a Hydrogen Strategy for the Northern Territory to take advantage of this emerging sustainable energy source.</p>	<p>Completed:</p> <ul style="list-style-type: none"> > Budget allocated to support the implementation of the <u>NT Renewable Hydrogen Master Plan</u> (published 2021) to accelerate and expand the NT's hydrogen industry.
	<p>1.4.3 Deliver actions under the inaugural Darwin-Katherine Electricity System Plan.</p>	<p>In progress:</p> <ul style="list-style-type: none"> > Work is progressing on developing a business case for the first renewable energy hub. > Procurement of a 35MW high spec security battery has been completed. Battery expected to be operational in 2023.
	<p>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.</p>	<p>In progress:</p> <ul style="list-style-type: none"> > Final policy position paper on Dispatch and Settlement has been developed. > Final policy position paper on Essential System Services and draft policy position paper on Capacity are well advanced. > A Gateway Review has been commissioned ahead of implementation.
	<p>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.</p>	<p>In progress:</p> <ul style="list-style-type: none"> > The <u>Darwin Katherine Electricity System Plan</u> 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.

A project to calculate the Government's greenhouse gas emissions resulting from its operations and services will be completed by the end of 2022. As part of this work, strategies are being developed aimed at reducing emissions and providing a pathway for the Government to reduce its own emissions.

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.	In progress: <ul style="list-style-type: none">> A project to calculate NT Government emissions and advise on reduction strategies to achieve an emissions reduction target is near completion.> An emissions reduction target for NT Government operations will be considered later in 2022.

The NT Government will undertake a review of emissions across all NT Government agencies to identify opportunities to reduce emissions.

Reducing emissions from transport

Decarbonisation within the transport sector is another opportunity for emissions reduction.

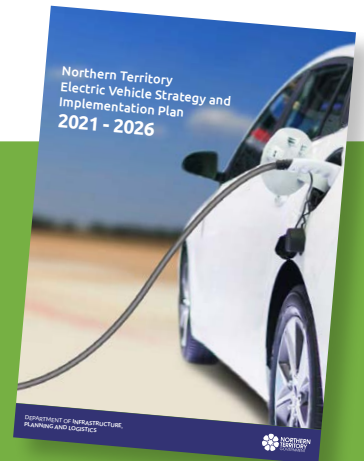
Electric vehicles are increasingly being recognised as a viable alternative to internal combustion vehicles and many car companies have announced that they are phasing out the sale of combustion vehicles in the next 10 years.

In anticipation of the growing normality of electric vehicles and the opportunities provided to further reduce greenhouse gas emissions the NT Government released its Electric Vehicle Strategy and Implementation Plan. The Strategy will help realise the full potential of electric vehicle use in the NT and provides an opportunity for Territorians to reduce their personal greenhouse gas emissions.

At a glance

Our priorities	Deliverables	STATUS
<p>1.6 Incentivise the uptake of electric vehicles in the Territory.</p>	<p>1.6.1 Finalise the <u>Electric Vehicle Strategy</u> 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.</p>	<p>Completed:</p> <ul style="list-style-type: none"> > The final Strategy was released July 2021 with a five year 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.

Electric Vehicle Strategy.
Released in July 2021.



Achieving a resilient Northern Territory

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

A Climate Change Adaptation Strategy for the NT and accompanying climate risk guide are being developed and will be released for public consultation in 2023.

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: <ul style="list-style-type: none"> > A consultation draft and associated implementation plan will be released in 2023 coupled with a draft climate risk ready guide.
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: <ul style="list-style-type: none"> > Industry sector-specific fact sheets are being drafted and will be published on the Climate Change NT website. > Preliminary planning for the delivery of this priority has commenced.
	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.	
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: <ul style="list-style-type: none"> > An NT Natural Hazards Risk Assessment Framework is currently being finalised and anticipated to be released at the end of 2022.
	2.3.2 Identify and prioritise Territory Government infrastructure, assets and services at risk from impacts associated with climate change.	In progress <ul style="list-style-type: none"> > Officers across government have completed a Certificate IV course on Climate Change Risk Readiness to support these efforts. > Preliminary planning for the delivery of these actions has commenced.
	2.3.3 Deliver Agency specific infrastructure, assets and services climate adaptation frameworks.	
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 <ul style="list-style-type: none"> > Work has commenced to scope this study, with the assistance of the National Environmental Science Program Climate Systems Hub.
	2.4.2 Deliver a Biodiversity Maintenance and Restoration Strategy to guide effort and actions in building landscape resilience.	To be informed by the outcomes of item 2.4.1

Our priorities	Deliverables	STATUS
<p>2.5 Support Territorians to respond and adapt to the impacts of climate change</p>	<p>2.5.1 Identify and prioritise risks to human health associated with climate change.</p>	<p>In progress</p> <ul style="list-style-type: none"> > Climate Change Health Advisory Committee established within Department of Health to provide oversight of human health impacts and appropriate responses.
	<p>2.5.2 Work with the community services sector to develop climate change risk adaptation and response frameworks.</p>	<p>In progress</p> <ul style="list-style-type: none"> > Community sector-specific fact sheets are being drafted and will be published on the Climate Change NT website. > Preliminary planning for the delivery of this action has commenced.
	<p>2.5.3 Incorporate climate responsive designs and initiatives into our urban and community landscapes.</p>	<p>Ongoing:</p> <ul style="list-style-type: none"> > Initiatives have been incorporated into the Planning Scheme aimed at urban cooling. > Strategic directions policy documents are currently being developed by the NT Planning Commission.

The Northern Territory Government aims to increase their preparedness to respond to the impacts of climate change.

Unlocking the opportunities

Responding to climate change risks 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 for the NT. A critical minerals strategy is being developed as part of the NT Government's Minerals Development Strategy and with these resources, the Northern Territory is projected to play a key role in critical minerals supply chains moving forward.

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.	In progress: <ul style="list-style-type: none"> > The Government has established an industry-led Mineral Development Taskforce. > Through the Resourcing the Territory initiative the Government is supporting exploration associated with critical mineral development.
	3.1.2 Facilitate establishment of a manufacturing hub that leverages low cost renewable energy and attracts private investment.	In progress: <ul style="list-style-type: none"> > The Government is working with industry and the Australian Government to develop a sustainable development-ready industrial precinct. > The project is currently in the planning, design and environmental assessment stage.
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: <ul style="list-style-type: none"> > 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 Continue to support the growth and development of the Territory's carbon market industry and promote Aboriginal jobs on country.	In progress: <ul style="list-style-type: none"> > A Land Based Carbon Abatement Program is under development to increase participation in the carbon market and grow the environmental services industry. > Monetary support is being provided to Indigenous Carbon Industry Network and the 10 Deserts Project to develop carbon abatement methodology and capacity building.
	3.3.2 Identify opportunities to grow the environmental services industry.	
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: <ul style="list-style-type: none"> > The Strategy is due to be delivered at the end of 2022.

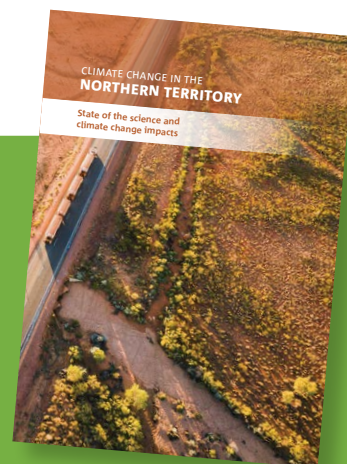
Ensuring information and involvement

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.

*State of the Science report.
Released in 2020.*



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: > The Climate Change website 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 is under development (see 3.3). It will support land managers to adopt sustainable practices. > Extension officers have been employed to provide advice and assistance to land managers.
	4.2.2 Incentivise climate conscious land management practices through delivery of targeted grant programs.	In progress: > A Land Based Carbon Abatement program is under development (see 3.3). A component of the program will be grants to support climate conscious land management activities.

Moving forwards

The Government acknowledges the urgency of taking action on climate change and proactively leading in the NT's response to climate change.

Through the actions identified in the Three Year Action Plan, the NT Government is setting the foundations for the potential pathways, systems and support for all sectors within the Territory to step up, reduce their greenhouse gas emissions and

be climate change ready. The Emissions Reduction Strategy and Adaptation Strategy under development will build on these actions to deliver a sustained response to climate change.

Annual progress reports will be provided by the Minister for Environment, Climate Change and Water Security.



