

Northern Territory's Climate Change Response: Towards 2050

Annual Progress Report – September 2021



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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.

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:

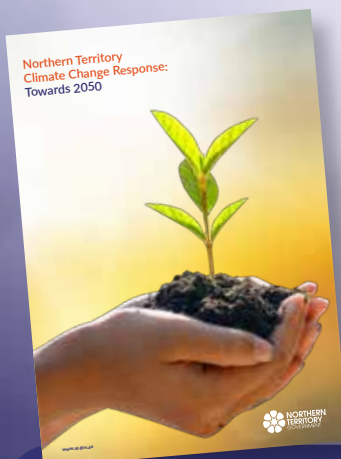
Policy Objectives

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 supports the Climate Change Response. It identifies actions under each of the policy objectives which serve to establish the foundations required to deliver an enduring and effective climate change response.

Since the release of the Climate Change Response, the Territory Economic Reconstruction Commission (TERC) provided its report to Government with its recommendations for securing the sustained economic growth and development of the Northern Territory (NT). The TERC Report recognises the economic advantages of pursuing the objectives in the Climate Change Response, as Australia and the international community transitions to a low emission economy.

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.

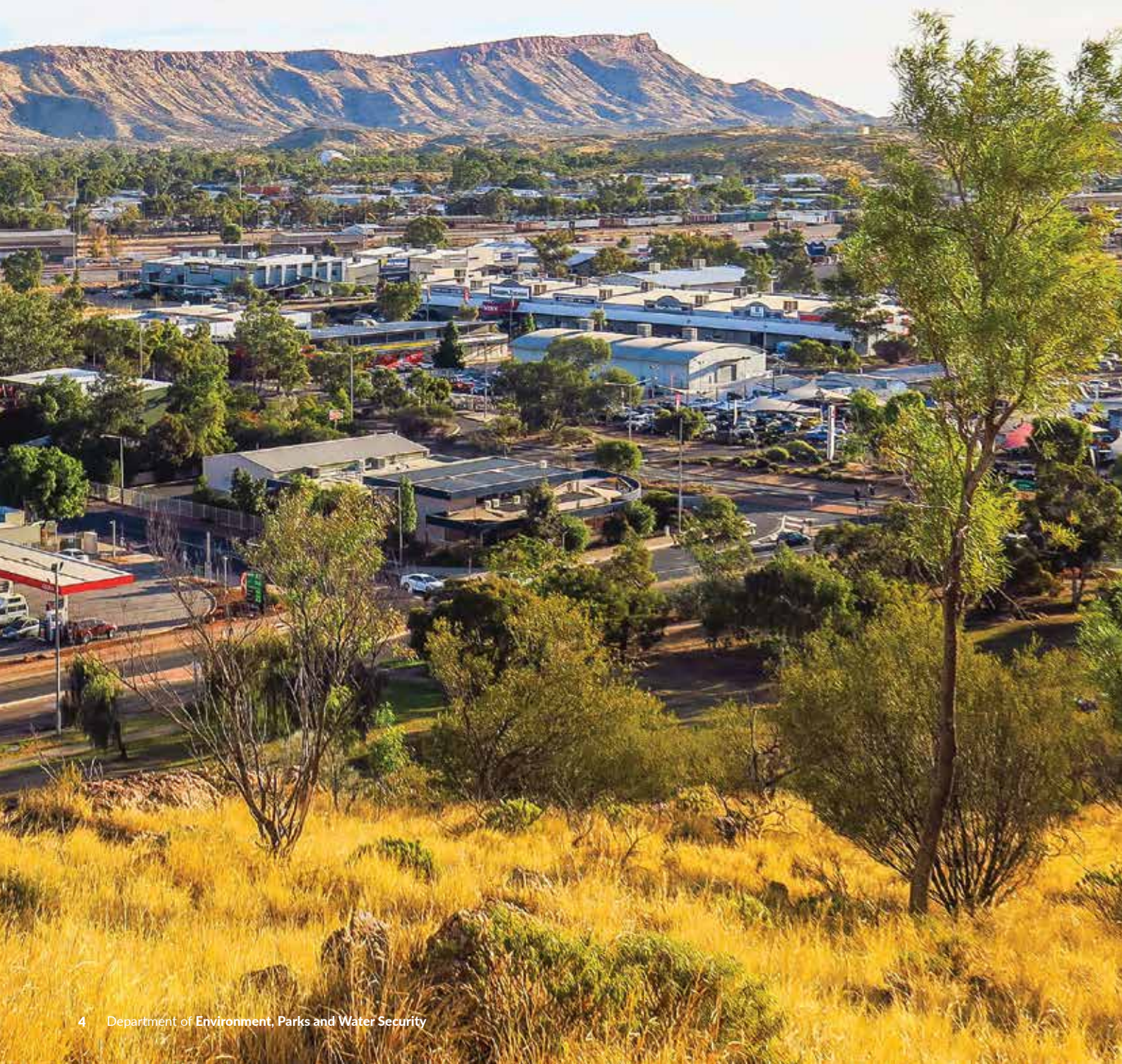


Northern Territory Climate Change Response: Towards 2050. Released 2020.

Achieving net zero emissions by 2050

The Northern Territory's Climate Change Response establishes the economy-wide target of net zero greenhouse gas emissions by 2050. This target is aligned with every other state and territory in Australia – and with over 130 countries.

As outlined by the TERC report, this target provides an opportunity for the Territory to harness the economic opportunities associated with decarbonisation.



Greenhouse Gas Emissions Management for New and Expanding Large Emitters policy. Released in September 2021.

Reducing our emissions

Growing the NT economy while achieving the target of net zero emissions by 2050 will require a well-planned transition. An Emissions Reduction Strategy for the NT is being developed that will establish interim emission targets and a pathway that steps the NT towards achieving the net zero emissions by 2050 target.

The Emissions Reduction Strategy will be informed by work underway to identify key emission sources for the NT and to model likely emissions out to 2050 under a number of development scenarios. This work is on track to be completed by the end of 2021, with the Emissions Reduction Strategy to be finalised in 2022.

The NT Government has 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.

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 released for public consultation. The Emissions Offsets Policy is due to be finalised by the end of 2021.

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.	In progress: <ul style="list-style-type: none"> > Experts undertaking modelling and analysis to understand projected emissions in the Territory according to different development scenarios and to advise on reduction strategies. > Report due at the end of 2021.
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, 1.3.1, 1.3.2 and 1.5.1) underway. > On track to be completed by mid-2022.
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"> > The policy 'Greenhouse Gas Emissions Management for New and Expanding Large Emitters' (The Large Emitters Policy) was released in September 2021
	1.3.2 Develop a Greenhouse Gas Emissions Offsets Policy to guide the application and administration of carbon offsets in the Northern Territory.	In progress: <ul style="list-style-type: none"> > Consultation draft was released in September 2021. > Final policy due for release by the end of 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.

The Government is currently undertaking a number of initiatives to future proof the NT's electricity systems to facilitate additional renewable energy deployment, commercial micro-grids and residential virtual power plants:

- Continuation of the successful Home and Business Battery Scheme.
- In consultation with key stakeholders the Government is prioritising and implementing reforms to the NT electricity market.
- Electricity system plans are currently being developed for Darwin to Katherine as well as Alice Springs. These will be released by end of 2021 and in mid-2022.
- A battery energy storage system for the Darwin to Katherine electricity system is currently being procured. It will be operational in 2022.

Work is underway to transition remote power systems for 72 remote communities to renewable-based systems by 2030. Government investments include \$2.3 million over the next four years to commence the work necessary to ensure future energy demands and community benefits are realised. A further \$2 million has been allocated over the next two years to establish a framework to support external investment and advance the implementation of remote renewable power systems.

Additionally, the Government has approved \$4.3 million over two years, for the installation of solar generation and energy storage systems at Wurrumiyanga.

These initiatives build on existing Government renewable energy investments and programs, including:

- The \$59 million Solar Energy Transformation Program (SETuP), co-funded by the Northern Territory Government and the Australian Renewable Energy Agency (ARENA), that delivered 10 megawatts of solar generation to remote communities in the Territory between 2017-2019.
- \$8.3 million Alice Springs Battery Energy Storage System (BESS).
- \$5 million Rooftop Solar in Schools program, tied to solar technology educational programs and the savings in energy costs are reinvested back into schools.

The global transition to low emissions energy represents a market opportunity for the NT, as recognised by the TERC Report.

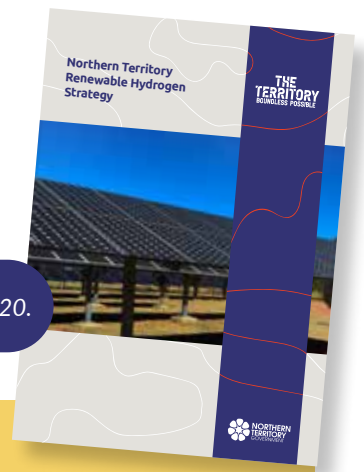
The Government released a [Renewable Hydrogen Strategy in 2020](#). It supports the NT's aspiration to be an international scale renewable hydrogen technology research, production and downstream manufacturing centre.

The Northern Territory Renewable Hydrogen Master Plan will be released by the end of 2021.



The global transition to low emissions energy is a market opportunity for the Territory, particularly in respect to large-scale solar and renewable hydrogen development.

The NT Renewable Hydrogen Strategy. Released in July 2020.



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: <ul style="list-style-type: none"> > Capital works funding of \$4.3 million has been approved for the installation of additional solar generation and energy storage systems at Wurrumiyanga community power station. > \$2.3 million has been allocated for the next four years to implement the Remote Power System Strategy. > \$2 million has been allocated for the next two years to establish a framework to help deliver the Strategy.
	1.4.2 Develop a Hydrogen Strategy for the Northern Territory to take advantage of this emerging sustainable energy source.	Completed: <ul style="list-style-type: none"> > The <u>NT Renewable Hydrogen Strategy</u> was released in July 2020. In progress: <ul style="list-style-type: none"> > An NT Renewable Hydrogen Master Plan is being drafted and to be released by the end of 2021.
	1.4.3 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: <ul style="list-style-type: none"> > A policy position paper on priority changes was released in January 2021. > Stakeholder consultation occurred in February 2021. > A final policy position on priority changes to reliability and essential system services is in draft.
	1.4.4 Deliver a competitive battery energy storage system for the Darwin–Katherine electricity system (DKIS grid) to deliver cost savings, reduce annual emissions and provide system security, reliability and stability.	In progress: <ul style="list-style-type: none"> > The procurement of the battery energy storage system is underway. > The battery energy storage system is expected to be operational in 2022.
	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: <ul style="list-style-type: none"> > The Darwin Katherine Electricity System Plan is due to be released by the end of 2021. > The Alice Springs Future Grid project, comprising of five sub-projects commenced in October 2020. > The Alice Springs Future Grid project is due for completion by end of 2022.

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. This aligns with the Territory Economic Reconstruction Commission recommendations

A project is underway to calculate the Government's greenhouse gas emissions resulting from its operations and services. As part of this work, strategies will be developed aimed at reducing emissions and providing a pathway for the Government to achieve carbon neutrality. Systems will also be developed to allow each government agency to monitor and report on their annual emissions.

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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.	In progress: <ul style="list-style-type: none">> Calculation of NT Government emissions and advice on reduction strategies to achieve the 2030 target.> Consultant's report due to be completed by early 2022.

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 recently 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.

Reducing our reliance on fossil fuels within the transport sector is another opportunity for emissions reduction.

At a glance

Our priorities	Deliverables	STATUS
1.6 Incentivise the uptake of electric vehicles in the Territory	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.	Completed: <ul style="list-style-type: none">> A consultation draft was released at the end of 2019.> The final Strategy was released July 2021 with a five year implementation plan.



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 report was released in 2020 by the Earth Systems and Climate Change Hub of the National Environmental Science Programme titled 'Northern Territory – State of the science and climate change impacts' (State of the Science report). It provides information on the current and expected changes to the NT's climate and the impacts to the NT's community, environment, economic sectors and assets.

The Government is drafting a Climate Change Adaptation Strategy for the NT, due to be released for public consultation later in 2021. The Strategy is being developed to grow the NT's understanding of climate change risk and to build its resilience to climate change impacts.

The Adaptation Strategy will be supported by a number of other initiatives to be completed in 2022:

- Release of technical guidance to assist all sectors on how to conduct a climate change risk assessment process.
- The adoption of climate change risk assessment processes into government agencies' risk governance structures.
- Identifying key climate change risks for major industry sectors in the NT to facilitate adaptation action.

Climate change will be challenging for the Northern Territory, if it continues on a business as usual pathway.



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 is under development and is due to be released in late 2021. > A final Strategy is due for release by mid-2022.
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.	To commence: <ul style="list-style-type: none"> > These deliverables will be undertaken as one project, commencing in 2022.
	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 in development due for completion by mid 2022. > A 10 year plan for cyclone shelters in priority vulnerable communities is under development.
	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. > Work to be delivered by mid-2022.
	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"> > Climate risk assessment framework being used to identify vulnerable species and ecosystems.
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.	In progress <ul style="list-style-type: none"> > Climate Change Health Advisory Group established within Department of Health to provide oversight of human health impacts and appropriate responses.
	2.5.2 Work with the community services sector to develop climate change risk adaptation and response frameworks.	In progress <ul style="list-style-type: none"> > The climate change risk assessment frameworks are being developed as part of the broader Adaptation Strategy.

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.

The TERC Report recognises the opportunities available to the NT from global commitments to net zero emissions.

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 an important role in critical minerals supply chains moving forward.

The Northern Territory has extensive experience in the carbon industry – the Territory is home to the world-leading Aboriginal Carbon Industry. The strong demand for carbon credits across the world as entities seek to move to becoming carbon neutral presents an additional opportunity for NT land managers to engage in the carbon market. Participation in the carbon market can lead to sustainable practices being integrated with existing operations while also providing additional revenue opportunities and improved productivity.



Climate Change NT website. Published July 2021.

At a glance

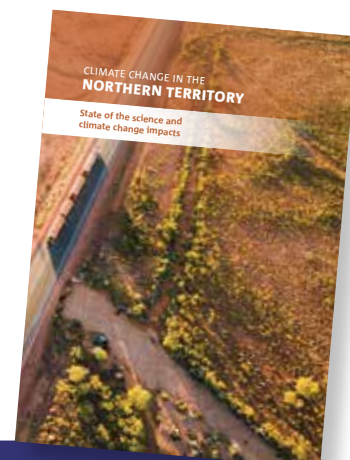
Our priorities	Deliverables	STATUS
3.1 Harness opportunities associated with the Territory's natural assets	3.1.1 Deliver a Critical Minerals Strategy for the Territory to support 'The Territory Critical Minerals Plan' and drive investment to support renewable energy and battery technology.	In progress: <ul style="list-style-type: none"> > The strategy is being developed as part of a broader Minerals Development Strategy expected mid-2022.
	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"> > Work to identify policy and regulatory changes required to facilitate reliable, renewable generation for energy intensive industry is underway.
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"> > A Climate Change website was published in July 2021. > The Climate Change 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. > 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"> > Carbon industry mapping is underway to inform how to grow the local market and to identify the associated skills requirements. > Work is underway to identify and address the needs of priority low carbon sectors. > 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 recently 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 was released in 2020 and is available on the Northern Territory Climate Change website.
	4.1.2 Establish a Climate Change website to inform and connect with Territorians about impacts and opportunities.	Completed: > The Climate Change 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 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.

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 will be able to provide 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.

Annual progress reports will be provided by the Minister for Climate Change.

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

