



The Environment Centre NT (ECNT) is the peak community sector environment organisation in the Northern Territory, Australia raising awareness amongst community, government, business and industry about environmental issues. We also assist people to reduce their environmental impact and support community members to participate in decision making processes and action.

The ECNT welcomes the opportunity to provide comments on the Northern Territory (NT) Government's Climate Change Discussion Paper but we must stress that we feel the 'Discussion Paper' does not adequately identify the climate damage impacts to the NT, nor address the inherent risks. The report does not go deep enough to successfully mitigate and adapt to the expected risks from climate change in the Northern Territory.

As we write this report, California is recovering from late season bushfires fuelled by record combustible dry vegetation. Cairns, Australia has experienced its hottest day on record and Queensland is in the grip of unprecedented catastrophic fire danger warning. The impacts of climate change are clearly being felt already. As temperatures continue to rise with the release of greenhouse gases into our atmosphere, we can expect worsening extreme weather impacts in Australia, including more frequent and severe bushfires, droughts, heatwaves, coastal flooding and increased intensity of cyclones.

Our submission has been prepared in consultation with climate scientist Dr Ellin Lede and we support the findings in her research¹. The recommendations provided below are also in line with the Paris Agreement, ratified by Australia along with 196 other countries, agreeing to actively work towards limiting global warming to less than 2 degrees Celsius and pursuing efforts to limit warming to 1.5 degrees Celsius.

Scientific evidence to inform the NT Climate Strategy

We urge the NT Government to create a climate strategy that is informed by the *IPCC Special Report on Global Warming of 1.5°C*². This report synthesised the best available scientific evidence; citing more than 6,000 scientific references. Thousands of expert and government reviewers contributed to the process of writing this report to determine the feasibility of limiting warming to 1.5°C.

Net-Zero Emissions by 2050

There is scientific consensus that greenhouse gas emissions need to decline rapidly to net zero by 2050 to ensure climate resilience.³ Rapid, far-reaching, and deep reductions in greenhouse gas emissions are required with a global target of reducing emissions by at least 45% from 2010 levels by

¹ Lede, E. (2018). *Increasing Climate Resilience in the Northern Territory: Harnessing Opportunities and Mitigating Climate Risk. A response to the Northern Territory Government's Climate Change Discussion Paper*. Germany : NewClimate Institute for Climate Policy.

² Intergovernmental Panel on Climate Change (IPCC), *IPCC Special Report on Global Warming of 1.5°C*.

³ Intergovernmental Panel on Climate Change (IPCC), *IPCC Special Report on Global Warming of 1.5°C*; Pachauri et al., *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*; Steffen et al., "Trajectories of the Earth System in the Anthropocene."



2030. This would require wide-sweeping and unprecedented changes in all aspects of society including land; energy; industry; buildings; transport and cities. While extremely challenging and unprecedented in scale, this transition is possible. The technology and expertise to achieve this are available today. However, the longer deep cuts in emissions are delayed, the costlier and more difficult it will become, and the higher the subsequent climate risks. Unless rapid and deep emissions reductions are realised, the 1.5 °C carbon budget threshold could be passed in as little as 15 years. Warming at 1.5 °C is not considered 'safe' for most nations; communities; ecosystems; and sectors and poses significant risks to natural and human systems (when compared to current global warming of 1°C).

Recommendation: Legislate under a 'Climate Change Act' a science-based emissions reduction target of net zero by 2050. Include yearly ministerial reporting with sector-specific interim targets within political election cycles. In the interim, there should be GHG emission triggers within the NT Environment Protection Bill and Planning Act.

Recommendation: Provide yearly comprehensive GHG emissions inventories for the NT, which account for the GHGs from sources within a defined space and time and have these inventories externally verified.

Report Assumptions

We challenge the following assumptions made in the 'Climate Change Discussion Paper' and provide information to the contrary:

1. Expected Climate Change Impacts (page 6). These impacts are unreferenced, and we also challenge their accuracy.
 - # Days over 35 – Analysis of CSIRO data by the Australia Institute⁴ shows CSIRO climate models project that without drastic reductions in greenhouse gas emissions, the number of days over 35 degrees each year in Darwin will increase dramatically to 132 days per year by 2030, 187 days per year by 2050 and 275 days per year by 2070. This impact is greater than the figure quoted in the 'NT Climate Discussion Paper'.

Recommendation: Reference any future reports and seek impact information from wider sources. Refer also to recommendation below regarding more research needed about the future impacts of climate damage for the NT.

2. Asserting that Australia is on track to meet the National GHG emission target of 26-28% below 2005 levels by 2030 (page 10). Despite the Federal Governments reassurance that this target will be met, the following evidence suggests otherwise:
 - Latest Greenhouse Gas accounts⁵ show Australia's emissions have continued to rise in the June quarter, ending the financial year at their highest level since mid-2011.

⁴ Hanna and Ogge, *Cooked with Gas: Extreme Heat in Darwin*. Accessed from: <http://www.tai.org.au/content/cooked-gas>

⁵ Australian Government, *Quarterly Update of Australia's National Greenhouse Gas Inventory: June 2018*, accessed from: <http://www.environment.gov.au/system/files/resources/e2b0a880-74b9-436b-9ddd-941a74d81fad/files/nggi-quarterly-update-june-2018.pdf>



- The UN Emissions Gap report⁶ identified that global CO₂ emissions increased in 2017 and if emission reduction ambitions are not increased before 2030, exceeding the 1.5°C goal can no longer be avoided. The report stated that ‘now more than ever, unprecedented and urgent action is required by all nations’. In respect to Australia, their assessment is that ‘there has been no improvement in Australia’s climate policy since 2017 and emission levels for 2030 are projected to be well above the NDC target. The latest projection published by the government shows that emissions would remain at high levels rather than reducing in line with the 2030 target’.⁷
- The Climate Action Tracker is an independent scientific analysis produced by three research organisations tracking climate action since 2009. They track progress towards the globally agreed aim of holding warming well below 2°C, and pursuing efforts to limit warming to 1.5°C. In their update of 30th April 2018, they assess Australia’s emissions as follows: ‘we rate the NDC target itself “Insufficient”, with a level of ambition that—if followed by all other countries—would lead to global warming of over 2°C and up to 3°C. In addition, if all other countries were to follow Australia’s current policy settings, warming could reach over 3°C and up to 4°C (“highly insufficient”)⁸

Recommendation: Seek information beyond the Federal Government to assess Australia’s emissions reduction performance and adequacy of current National GHG emission reduction targets.

3. Gas as a low carbon fuel to contribute to reducing emissions in other jurisdictions (page 4). We strongly refute that gas is a transition fuel that can reduce emissions by replacing coal providing the following evidence:
 - The Climate Council in their report *Pollution and Price: The Cost of Investing In Gas*⁹ determined that ‘gas is not sufficiently less polluting than coal to garner any climate benefit’. This is because:
 - i. New gas power plants are less polluting than coal, however, when the entire supply chain of gas production is considered, gas is not significantly less polluting than coal;
 - ii. Expanding gas usage is inconsistent with tackling climate change as it locks in emissions for decades into the future;
 - iii. Natural gas is primarily composed of methane, a greenhouse gas with 86 times the global warming effect of CO₂ over a 20- year period

⁶ UN Environment, Emissions Gap Report 2018, accessed from: <https://www.unenvironment.org/resources/emissions-gap-report-2018>

⁷ Ibid page 12

⁸ Accessed from: <https://climateactiontracker.org/countries/australia/>

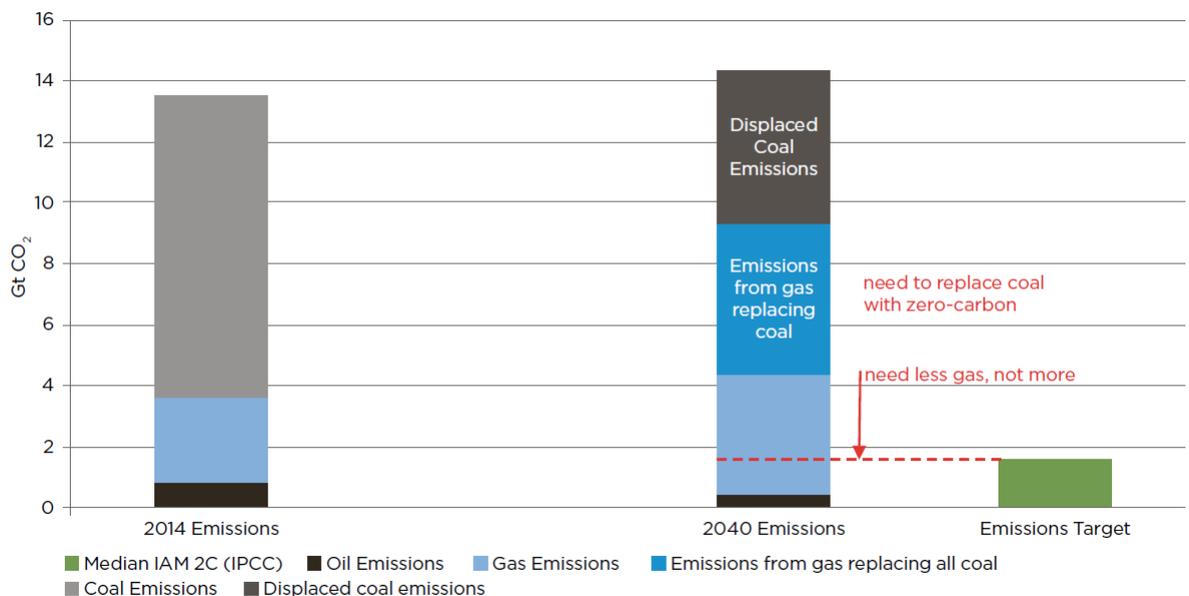
⁹ Climate Council Australia, *Pollution And Price: The Cost Of Investing In Gas*. Accessed from <https://www.climatecouncil.org.au/uploads/2caadc5f073439d49c91131e6da77506.pdf>



- The report ‘Debunked the G20 Gas Myth’¹⁰ concludes:
 - i. If all the International Energy Agency’s (IEA’s) projected coal-fired generation in 2040 is replaced with fossil gas-fired generation, emissions from the power sector would still be more than five times the median of IPCC scenarios for a likely chance of keeping warming below 2 degrees Celsius. Their analysis shows that emissions from oil and gas power alone are too great, meaning that none of the coal can be replaced with fossil gas; it must all be replaced with zero-carbon energy sources;

The following graph clearly demonstrates that coal-fired generation needs to be replaced with no carbon generation¹¹

Figure 3: Global Power Sector Emissions – 2014 and Projected 2040 – Compared with Median IPCC 2040 Power Sector Emissions for 2°C (assuming all coal is displaced by gas)



Source: Oil Change International analysis, using data and projections from IEA²⁸ and IPCC³⁰

- ii. The Oil Change International report also highlighted research¹² that showed when examining scenarios in which U.S. LNG is exported to Asia, the displacement of coal by LNG exports is far from a given, and that, as a result of U.S. exports of LNG, GHG emissions are not likely to decrease and may significantly increase due to greater global energy consumption, higher emissions in the United States, and methane leakage.

¹⁰ Oil Change International, *Debunked the G20 Gas Myth* pg 13-14. Accessed from http://priceofoil.org/content/uploads/2018/06/debunked_g20_eng_07_web.pdf

¹¹ Ibid page 13

¹² Gilbert, A. Q. & Sovacool, B. K., *US liquefied natural gas (LNG) exports: Boom or bust for the global climate?*, Energy, Volume 141, December 15, 2017, pp. 1671-1680. <https://doi.org/10.1016/j.energy.2017.11.098>



Recommendation: Natural gas should not be considered as a low-carbon bridging fuel to reduce emissions by replacing coal.

Actions by business and governments reduce emissions

The Northern Territory must transition to a low-carbon economy (and quickly). The Northern Territory has benefited from the Ichthys LNG project with record levels of private business investment, unprecedented in the Northern Territory's history¹³. Continued investment in new fossil fuel projects, including hydraulic fracturing, poses a risk to jurisdictions not making the transition to low carbon economies, including the Northern Territory. There are significant risks posed for emissions-intensive resource-based economies as the global economy decarbonises (by 2050, all fossil fuels – including natural gas – must be phased out)¹⁴. It is suggested that developing economies explore the potential for technological 'leapfrogging', bypassing emissions-intensive intermediate technology and jump straight to cleaner technologies.¹⁵ The NTG Discussion Paper states the NT needs to play its role in international and national efforts to reduce emissions and adapt to the impacts of our changing climate¹⁶. Australia is a developed nation, and as a developed nation, we have the capacity to commit to deep emissions reductions and realise the economic benefits¹⁷.

With a continued sharp decline in the cost of renewable energy generation and rapid advancements in low-carbon technology, transitioning to a low-carbon economy now makes economic sense¹⁸. The economic costs of not acting are extremely high. For example, climate change will lead to more extreme weather events¹⁹. The estimated cost of extreme weather events in the NT was \$1.3 billion in 2017 (not including heat waves or other climate events)²⁰.

The next 2-3 years is a critical window: when investment and policy decisions will be made that will shape the next 10-15 years and potentially lock-in high emissions trajectories²¹. In 2018, the Global Commission on the Economy and Climate found that bold climate action could yield a direct economic gain of USD26 trillion through to 2030 compared with business as usual. This is likely to be a conservative estimate²². The European Union recently released their 'Vision for a Clean Planet for all'²³ stating that 'immediate and decisive climate action is essential' with a plan to be carbon neutral by 2050. Their action includes phasing out of fossil fuels and providing a just transition for people in those industries. Their plan details action in seven strategic areas including 'energy efficiency; deployment of renewables; clean, safe and connected mobility; competitive industry and circular

¹³ Northern Territory Government, *Northern Territory Economy, 2018*, accessed from:

https://budget.nt.gov.au/_data/assets/pdf_file/0013/501016/2018-19-Economy-book.pdf

¹⁴ Intergovernmental Panel on Climate Change (IPCC), *IPCC Special Report on Global Warming of 1.5°C*.

¹⁵ *ibid*

¹⁶ Northern Territory Government, *Climate Change: Mitigation and Adaptation Opportunities in the Northern Territory*.

¹⁷ Pachauri et al., *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*.

¹⁸ IRENA, *Renewable Power Generation Costs in 2017*; ARENA, *The Business of Renewables*.

¹⁹ Earth Systems and Climate Change Hub, *Climate Change Science for Northern Australia*; Intergovernmental Panel on Climate Change (IPCC), *IPCC Special Report on Global Warming of 1.5°C*.

²⁰ Northern Territory Government, *Climate Change: Mitigation and Adaptation Opportunities in the Northern Territory*.

²¹ Global Commission on the Economy and Climate, "Unlocking the Inclusive Growth Story of the 21st Century: Accelerating Climate Action In Urgent Times"; Intergovernmental Panel on Climate Change (IPCC), *IPCC Special Report on Global Warming of 1.5°C*.

²² The Global Commission on the Economy and Climate, *Unlocking the Inclusive Growth Story of the 21st Century*.

²³ European Commission, *A Clean Planet for all A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy 2018*, accessed from https://ec.europa.eu/clima/policies/strategies/2050_en



economy; infrastructure and interconnections; bio-economy and natural carbon sinks; carbon capture and storage to address remaining emissions'. The Northern Territory is perfectly placed to prioritise development in the applicable strategic areas identified. This is the opportunity for the NT to be at the forefront of the decarbonisation transition, capitalising on first-mover benefits in the Asian region, in a world that will inevitably become increasingly carbon-constrained. The Environment Centre NT is working with Beyond Zero Emissions to develop an evidence-based plan which provides the details and data necessary for the NTG to commit to this transition. The report will explore the NT's potential to use renewables to power local manufacturing and drive energy-intensive export industries, boosting the economy and creating jobs.

We need to transition the NT economy away from fossil fuel extraction, including hydraulic fracturing, towards one that is driven by renewable technologies. It is essential to avoid the 'lock-in' of fossil fuels infrastructure and carbon intensive assets that risk being stranded. Having a climate change strategy that is based on an economy driven by fossil fuel extraction is a dichotomy. The NT Government needs to strategically and quickly consider the long-term infrastructure changes that will be required to move to an economy that has renewables at its centre and put in place a climate strategy that supports this transition. This will also send a strong message to industry and create confidence that the NT is safe place to invest in the low carbon economy. As the world is embracing carbon neutral economies, the NT prioritising the development of the oil and gas industry is heading in the wrong direction. Instead the NT Government needs to put in place the right conditions and incentives for investors to fund projects that include low-carbon and energy-efficient infrastructure.

Recommendations:

Commit to decarbonising the economy, so climate risk can be mitigated and the co-benefits and financial opportunities associated with a low-carbon transition can be realised.

The NTG needs to factor the global low-carbon transition - and the subsequent risk of stranded fossil fuel assets - into government decision-making processes

Establish an independent Climate Resilience Advisory Committee – comprised of experts and relevant stakeholders – to inform the low-carbon transition process

Support and prepare for the removal of fossil fuel subsidies (fuel tax credits), as pledged by the European Union by 2020.

Develop a carbon neutral economic plan, establishing the NT as a first-mover in the decarbonisation transition, leading the Asian region in energy efficiency, renewables, circular economy and a renewable hydrogen industry.



Adaptation

To adapt to climate change, it is crucial climate change risks are determined (Northern Territory-specific) and a comprehensive vulnerability assessment and adaptation plan is developed. Risks from climate change arise from the interaction between a *hazard* (triggered by an event or trend related to climate change), *vulnerability* (susceptibility to harm) and *exposure* (people, assets or ecosystems at risk)²⁴. Climate risks have not been extensively determined for the NT. The severity of the climate change risks posed to Territorians are not properly considered. For example, the Discussion Paper states temperature is expected to rise by 2.7 °C – 4.9 °C by 2100²⁵. This exceeds the Paris Agreement target. Even warming of 1.5 °C is not considered ‘safe’ for most nations; communities; ecosystems; and sectors and poses significant risks to natural and human systems (when compared to current global warming of 1°C)²⁶.

Several climate change impacts could be avoided by limiting global warming to 1.5°C compared to 2°C, or more. For instance, coral reefs would decline by 70-90 percent with global warming of 1.5°C, whereas virtually all (> 99 percent) would be lost with 2°C; at 1.5°C²⁷, the frequency of warm extreme temperatures over land will increase by 149% over Northern Australia, at 2°C, this increases to 406%²⁸. The impacts include outlooks to 2100, yet climate change impacts are already affecting Territorians. For example, globally, 18 of the last 19 years were the warmest on record²⁹. A 2018 report from the Australia Institute found that in the Territory, the number of days over 35 °C per year in Darwin has increased from 5.6 days per year in the early 20th century to over 20 days per year in the last five years (days over 35 °C and with > 70% humidity are considered extremely dangerous). CSIRO climate models predict that without drastic reductions in greenhouse gas emissions, the number of days over 35 °C would increase to 132 over the next 12 years. This would have severe implications on health; productivity; agriculture; construction; and tourism. Ecosystems would be severely affected and the standard of living would greatly decline³⁰. It must be noted, impacts will be felt disproportionately. The worst impacts are expected amongst those with the least resources or capacity to adapt; indigenous people; those working outdoors; children and the elderly; and those with agricultural or coastal dependent livelihoods³¹

The Fourth National Climate Assessment³² for the US provides an exemplary example of assessing the climate change affects on the physical earth, the impacts and mitigation/adaptation responses.

Recommendation: As a matter of urgency, climate change risks for the Northern Territory need to be comprehensively investigated and determined. A climate change vulnerability assessment and adaptation strategy then needs to be developed, taking into account both short- and long-term climate risks

²⁴ Pachauri et al., *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.*

²⁵ Northern Territory Government, *Climate Change: Mitigation and Adaptation Opportunities in the Northern Territory.*

²⁶ Intergovernmental Panel on Climate Change (IPCC), *IPCC Special Report on Global Warming of 1.5°C.*

²⁷ Ibid.

²⁸ Carbon Brief, “The Impacts of Climate Change at 1.5C, 2C and Beyond.”

²⁹ Intergovernmental Panel on Climate Change (IPCC), *IPCC Special Report on Global Warming of 1.5°C.*

³⁰ Hanna and Ogge, *Cooked with Gas: Extreme Heat in Darwin.*

³¹ Intergovernmental Panel on Climate Change (IPCC), *IPCC Special Report on Global Warming of 1.5°C.*

³² US Global Change Research Program, Fourth National Climate Assessment 2018. Accessed from <https://www.globalchange.gov/nca4>



Key Sectors and Systems

Marine Environment and Fisheries

(In consultation with the Australian Marine Conservation Society)

An NT Climate Strategy needs to consider impacts to the marine environment beyond ‘building resilience in the fisheries sector by identifying new harvest targets for species impacted by climate change’. The NT marine and coastal ecosystems are valued at around \$2 billion to the Territory economy³³ and are acutely exposed to the impacts of climate change.

Over the past 15 years the NT marine environment has seen increasing impacts from climate change related events mainly associated with increasing sea surface temperatures and changing weather patterns and sea-levels. This includes coral bleaching, mangrove die back, mud-crab die off, turtle hatchling failure and declining populations of dolphins.

To mitigate and adapt to the ongoing climate change impacts on the marine and coastal environment the NT climate change strategy should include the following actions:

- Ban Seabed mining
- Protect coastal wetlands including mangroves, seagrass meadows and saltmarshes, which play a critical role in storing carbon and protecting against storm damage.
- Support the delivering of an effective Coastal and Marine Management Strategy that considers marine protected areas (MPAs) to mitigate and adapt to climate change impacts and build resilience in marine ecosystems.

Biodiversity and Ecosystems

We endorse the submission of Dr Ellin Lede regarding ‘Land Management’ in the NT and support the following recommendations:

Implement net zero carbon emissions targets and associated carbon offset policies to support emerging carbon farming industries.

Continue to support Indigenous ranger groups to undertake mitigating land management activities such as fire management and maintenance of sea country.

Stop the spread of gamba grass by better resourcing gamba grass control and banning the deliberate spread of gamba grass.

Support the pastoral industry to reduce emissions from raising cattle and to undertake mitigating land management activities by implementing emissions reduction targets.

³³ Crossman, Neville & Stoeckl, Natalie & Sangha, Kamaljit & Costanza, Robert. (2018). *Economic Values of the Northern Territory Marine and Coastal Environments* 2018. Accessed from https://www.researchgate.net/publication/325654133_Economic_Values_of_the_Northern_Territory_Marine_and_Coastal_Environments



Develop legislation to support protection of native vegetation in order to minimise future land clearing where possible.

Where avoidance of land clearing is not possible, the project proponent must be required to offset this clearing through revegetation of the equivalent vegetation type.

Support research toward the development of methodologies for assessing the carbon stored by different vegetation types, as well as fire management and management of sea country.

Undertake detailed mapping and engage with landholders and scientists to identify impacts of climate change upon land management activities and remote communities.

Ban the clearing of mangroves since they provide essential coastal protection services and store vast amounts of carbon.

Where emissions cannot be mitigated by an activity, the polluter should be required to offset emissions, giving priority to locally produced high quality carbon credits.

Built environment and Infrastructure

Please refer to our recommendations made in our COOLmob submission.

NT Climate Response Statement

During August and September 2018, 36 organisations and scientists signed on to the NT Climate Response Statement, urging the Northern Territory Government adopt a climate policy of net zero emissions by 2050.

The NT Climate Response Statement was presented to the Northern Territory Government, by Environment Centre NT and the Arid Lands Environment Centre on the 25th September 2018 in Darwin.

The statement highlighted that all other Australian states and territories have climate policies/legislation and have committed to net zero emissions by 2050, except for Western Australia and the Northern Territory. Victoria has legislated a net zero emissions target by 2050 (with five yearly interim targets to meet the long-term target)³⁴; NSW has committed to net zero by 2050³⁵; Tasmania achieved net zero emissions in 2018³⁶; South Australia has a net zero emissions by 2050 target and a legislated climate change framework³⁷; Queensland has committed to net zero by 2050³⁸; and the ACT recently revised their net zero emissions target from 2050 to 2045³⁹

The full NT Climate Response Statement is presented here, with a list of the signatories.

³⁴ Victoria State Government, "Emissions Reduction Targets."

³⁵ Government of NSW, *Achieving Net-Zero Emissions by 2050*.

³⁶ Tasmanian Government, "Tasmania Achieves Zero Net Emissions for the First Time."

³⁷ Government of South Australia, "South Australian Climate Change Action."

³⁸ Department of Environment and Heritage Protection, *Pathways to a Clean Growth Economy: Queensland Climate Transition Strategy*.

³⁹ Burgess, "ACT Brings Forward Zero Net Emissions Deadline to 2045."



Response to Climate Impacts in the Northern Territory

Dear Chief Minister and Members of the Northern Territory Parliament,

We are calling on you to develop a comprehensive climate policy to:

1. **Achieve net zero emissions by 2050 (mitigation)**
2. **Develop climate resilient communities (adaptation)**

Anthropogenic climate change – climate change directly attributable to human activity – poses a severe risk to the Northern Territory.

Impacts. The impacts of climate change on the NT include: increase in extreme heat days (over 35 degrees Celsius)⁴⁰; increase in severity of extreme weather events; changes to water availability; and an increase in sea-level rise and extreme sea-level events.^{41, 42}

Climate change threatens Territorians: it will impact our food and water security; our health; and the ecosystems we depend on.^{2, 3} This will have adverse long-term economic consequences. We note that the most marginalised and vulnerable members of our community are often the least responsible for ecological risks and threats but are the most affected by their emergence.

Net zero emissions. Consistent with our ratification of the Paris Climate Agreement, we *must* reduce our GHG emissions to net zero. All other Australian States and Territories (except for Western Australia), have committed to reduce emissions to net zero by 2050.

The Northern Territory Government has already shown a commitment to reducing our emissions (*Northern Territory Roadmap to Renewables*). There is substantial potential to further reduce emissions and reduce climate change-related risks posed to Territorians.

Opportunity. We need to manage future risk, make robust decisions, and take advantage of opportunities including: stimulating long-term investment and economic growth; ensuring healthier communities; and protecting our environment and existing infrastructure.

An enforceable whole of government approach needs to be implemented that protects people and country and ensures the ongoing liveability of NT communities.

⁴⁰ Hanna, E., & Ogge, M. (2018). *Cooked with gas: Extreme heat in Darwin*. The Australia Institute. Retrieved from <http://www.tai.org.au/content/cooked-gas-extreme-heat-darwin>

⁴¹ Earth Systems and Climate Change Hub. (2017). *Climate Change Science for Northern Australia*. Aspendale. Retrieved from [www.http://nesplclimate.com.au/climate-change-science-for-northern-australia/](http://www.nesplclimate.com.au/climate-change-science-for-northern-australia/)

⁴² Hennessy, K., Page, C., McInnes, K., Walsh, K., Pittock, B., Bathols, J., ... Suppiah, R. (2004). *Climate Change in the Northern Territory*. CSIRO. Retrieved from http://www.cmar.csiro.au/e-print/open/hennessy_2004a.pdf



We urge the Northern Territory Government to develop a comprehensive climate policy that has emission reduction targets and a plan for a just transition to a low carbon economy.

Signatories:

Wendy Morton	Executive Director, Northern Territory Council of Social Service
Dave Pugh	CEO, Anglicare NT
Julie Edwards	CEO, Jesuit Social Services
Rosalie Schultz	Public Health Association NT Branch
Michael Fonda	Doctors For Environment NT
Stephen Schwer	CEO, Tourism Central Australia
Donna Ah Chee	CEO, Central Australian Aboriginal Congress
Walter Shaw CEO,	Tangentyere Council
Joel Bowden General	General Secretary, The Unions NT Executive
Sue Mckinnon	Chair, Landcare NT Inc.
Tony Burns	CEO, Helping People Achieve
John Patterson	CEO, Aboriginal Medical Services Alliance NT
Shar Molloy	Director, Environment Centre NT
Jimmy Cocking	CEO, Arid Lands Environment Centre
Kelly OShanassy	CEO, Australian Conservation Foundation
Nicola Beynon	Head of Campaigns, Humane Society International
Martin Rice	Acting CEO, The Climate Council
Dominique Rowe	Program Director, Greenpeace Australia Pacific
Lyndon Schneider	National Campaigns Director, The Wilderness Society
Kelly Albion	Campaigns and Communications Director, Australian Youth Climate Coalition



Amelia Telford	National Director SEED
Cam Walker	Campaigns co-ordinator, Friends of the Earth Australia
Joseph Scales	National Director, Solar Citizens
Ben Oquist	Executive Director, The Australia Institute
Blair Palese	CEO, 350.org Australia
Vanessa Petrie	CEO, Beyond Zero Emissions
Donna Luckman	CEO, Alternative Technology Association
Kate Smolski	CEO, Nature Conservation Council of NSW
Mark Wakeham	CEO, Environment Victoria
Craig Wilkins	CEO, Conservation Council SA
David Barnden	Principal, Environmental Justice Australia
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Professor John Quiggin	VC Senior Research Fellow School of Economics, University of Queensland

The Environment Centre NT appreciates the opportunity to provide comments on the NT Climate Change Discussion Paper and we look forward to contributing to the draft of the Northern Territory Climate Change Strategy.