# NT Climate Discussion Paper – Suggested Answers – Written by Climate Scientist Ellin Lede

**Evidence-based answers to the questions presented on the Have Your Say website**

The following answers have been prepared informed by the best available scientific evidence. Those questions that require responses based on personal preferences are not included here.

**What (if any) GHG emissions target should the Northern Territory adopt?**

A science-based emissions reduction target of net zero by 2050 should be legislated. It should include interim targets to ensure the overarching target is achieved and integrate sector-specific targets (with the recognition that some sectors are more difficult to decarbonise than others).

**What should business and governments be doing to reduce their emissions?**

Deep and rapid emissions reductions targets are required across all sectors and at all levels[[1]](#footnote-1). In short, they need to be doing everything they can to decarbonise and transition to a low-carbon economy.

The Government needs to set a net zero emissions reduction target to provide investor certainty[[2]](#footnote-2).

**What potential opportunities do you see emerging from climate change in the Territory?**

There are extensive opportunities that can be harnessed (in addition to mitigating severe climate risks) if the Northern Territory transitions to a low-carbon economy. They include, but are not limited to:

* Protecting and improving the health of Territorians[[3]](#footnote-3)
* Protecting the ecosystems we rely on (e.g. the NT’s marine and coastal ecosystem contribute AU$1 billion per year to the economy[[4]](#footnote-4). Marine ecosystems are at high risk with rising temperatures[[5]](#footnote-5))
* Significant cost savings could be realised (e.g. savings realised through energy efficiency; savings realised from maximising renewable energy generation)[[6]](#footnote-6)
* Stimulate new investment in low-carbon sectors and encourage technological innovation[[7]](#footnote-7)
* Increase in energy security[[8]](#footnote-8) and water security[[9]](#footnote-9)
* New jobs and industries created (e.g. the NT could be a net renewable energy exporter)[[10]](#footnote-10)
* Cost savings for Territorians (e.g. if renewable energy generation is maximised)[[11]](#footnote-11)
* Safer and climate smart infrastructure could be established[[12]](#footnote-12)
* Making communities more sustainable[[13]](#footnote-13)
* The NT could be established as a leading international solar/renewable energy research hub[[14]](#footnote-14)
* The UN’s Sustainable Development Goals could be simultaneously achieved if carefully integrated into climate action planning and implementation[[15]](#footnote-15)

**How can the fossil fuel industry further reduce emissions from energy production?**

In line with the science-based Paris Agreement target, fossil fuels must be phased out by 2050[[16]](#footnote-16). New extraction of fossil fuels - including natural gas - is incompatible with reducing climate risk and limiting warming to 1.5oC[[17]](#footnote-17).

To achieve the Paris Agreement target, there can be no new fossil fuel extraction and any existing fossil fuel operations will need to adhere to strict mandated targets to ensure reductions are achieved that are in line with the target (complete phase-out by 2050).

**What type of regulations do you think would assist industry in being accountable for their impact on climate change?**

The Corporate Leaders Group - bringing together business leaders to accelerate progress - has called for governments to adopt a net zero emissions target by 2050[[18]](#footnote-18). They argue this target will send a strong signal and galvanise business action; unlocking the innovation and creativity required to transition to a low-carbon economy. Members include: Unilever; Coca Cola; GSK; and Lloyds Banking Group.

In addition to setting a net zero emissions by 2050 target, the Government could determine sector-specific emissions. These would take into account that some industries are easier to decarbonise than others.

**What support do you need to help you mitigate or adapt to climate change?**

First, it is crucial Territorians understand the risks posed by climate change. Without this knowledge, it is not possible to address climate risk.

Then, tailored strategies must be developed - with extensive stakeholder engagement - to reduce the risks and optimise the co-benefits. These strategies should be people-centred[[19]](#footnote-19) and informed by best-practice in other regions in Australia and internationally.

Territorians then need to be made aware of the best ways to mitigate and adapt to climate change. In addition, mechanisms need to be available to access finance and develop skills (and the required capacity) to implement climate solutions.

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1. Intergovernmental Panel on Climate Change (IPCC), *IPCC Special Report on Global Warming of 1.5oC*. [↑](#footnote-ref-1)
2. The Prince of Wales’ Corporate Leaders Group, “Global Climate Action Summit: Governments Must Aim for Net Zero Carbon Emissions Before 2050, Say Business Leaders.” [↑](#footnote-ref-2)
3. Hanna and Ogge, *Cooked with Gas: Extreme Heat in Darwin*. [↑](#footnote-ref-3)
4. Crossman et al., *Economic Values of the Northern Territory Marine and Coastal Environments*. [↑](#footnote-ref-4)
5. Intergovernmental Panel on Climate Change (IPCC), *IPCC Special Report on Global Warming of 1.5oC*. [↑](#footnote-ref-5)
6. Ibid.; The Global Commission on the Economy and Climate, *Unlocking the Inclusive Growth Story of the 21st Century*. [↑](#footnote-ref-6)
7. CSIRO, *National Hydrogen Roadmap: Pathways to an Economically Sustainable Hydrogen Industry in Australia*; Valladares, “Global Trends and Outlook for Hydrogen.” [↑](#footnote-ref-7)
8. CSIRO and Energy Networks Australia, *Electricity Network Transformation Roadmap: Final Report*. [↑](#footnote-ref-8)
9. Intergovernmental Panel on Climate Change (IPCC), *IPCC Special Report on Global Warming of 1.5oC*. [↑](#footnote-ref-9)
10. IRENA, *Hydrogen from Renewable Power: Technology Outlook for the Energy Transition*; Valladares, “Global Trends and Outlook for Hydrogen.” [↑](#footnote-ref-10)
11. CSIRO and Energy Networks Australia, *Electricity Network Transformation Roadmap: Final Report*. [↑](#footnote-ref-11)
12. The Global Commission on the Economy and Climate, *Unlocking the Inclusive Growth Story of the 21st Century*. [↑](#footnote-ref-12)
13. Intergovernmental Panel on Climate Change (IPCC), *IPCC Special Report on Global Warming of 1.5oC*. [↑](#footnote-ref-13)
14. Langworthy et al., *Roadmap to Renewables: Fifty per Cent by 2030*. [↑](#footnote-ref-14)
15. Intergovernmental Panel on Climate Change (IPCC), *IPCC Special Report on Global Warming of 1.5oC*. [↑](#footnote-ref-15)
16. Ibid. [↑](#footnote-ref-16)
17. Tyndall Centre for Climate Change Research Manchester et al., *Natural Gas and Climate Change*. [↑](#footnote-ref-17)
18. The Prince of Wales’ Corporate Leaders Group, “Global Climate Action Summit: Governments Must Aim for Net Zero Carbon Emissions Before 2050, Say Business Leaders.” [↑](#footnote-ref-18)
19. Intergovernmental Panel on Climate Change (IPCC), *IPCC Special Report on Global Warming of 1.5oC*. [↑](#footnote-ref-19)