

**Submission
No 74**

INQUIRY INTO CLIMATE CHANGE (NET ZERO FUTURE) BILL 2023

Organisation: Vets for Climate Action

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Portfolio Committee No. 7 – Planning and Environment
NSW Legislative Council Committee
Parliament of New South Wales
6 Macquarie Street
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Dear Chair,

Submission to Inquiry into Climate Change (Net Zero Future) Bill 2023

As the natural guardians of animal welfare, the veterinary community has a responsibility to use our knowledge, skills and influence to protect animals - and the people who care for them - from climate change. At [Vets for Climate Action](https://www.vfca.org.au) (VfCA), we represent over 2000 concerned veterinarians, veterinary nurses, practices and industry partners across Australia, including over 700 in NSW, who want climate action. We are independent, non-profit and non-partisan. We work both within and beyond our industry to educate, collaborate and advocate for effective climate action. We envisage a world where animals and people thrive in a healthy climate.

Veterinary professionals are on the frontline, experiencing climate change firsthand. We see the devastating impacts that floods, bushfires and heat stress have on our livestock, pets and wildlife (such as the inconsolable loss of 3 billion animals in the bushfires of 2019/20). Climate change is an animal health and welfare issue. Many animals have already perished in Australia due to heatwaves and severe weather events. We also understand that animal health has a critical position in our future, whether the diversity of native wildlife contributing to a sustainable environment, the livestock that contribute to our food security or our much-loved pets.

Vets for Climate Action welcomes the opportunity to provide a submission to this inquiry into the Climate Change (Net Zero Future) Bill 2023 (the Bill) and thanks the Committee for its consideration.

In principle, Vets for Climate Action supports the intention of this legislation to

- a) enshrine emissions reduction targets for NSW into law, and
- b) establish a Net Zero Commission to monitor and report on progress towards these targets.

We recognise that the Bill aims to protect our people and animals and to reduce the role of greenhouse gases in climate change. We applaud and commend the NSW Government for its commitment to action on climate change.

However, we provide suggested amendments below that we hope the Government will adopt so that the Bill is ambitious and impactful, and ensures a world where animals and people thrive in a healthy environment.

1. Use Science-Based and Strengthened Targets

Pursuant to s9(1) of the Bill, the net greenhouse gas emission reduction targets to be legislated are:

- (a) by 30 June 2030—to reduce net greenhouse gas emissions in New South Wales by at least 50% from the net greenhouse gas emissions in 2005, and
- (b) by 30 June 2050—to reduce net greenhouse gas emissions in New South Wales to zero.

Vets for Climate Action celebrates the NSW Government's commitment and recognises that its net zero targets are stronger than the previous NSW Government's, and even those legislated by the Federal Government in the *Climate Change Act 2022* (Cth) and the *Climate Change (Consequential Amendments) Act 2022* (Cth).

However, these are not science-based targets.

The importance of reducing greenhouse emissions to zero cannot be overstated. The stated purpose of the Bill is 'to give effect to the international commitment established through the 2015 Paris Agreement'¹ and 'limit the temperature increase to 1.5°C above pre-industrial levels.'² In the scenarios assessed by the IPCC in its *Sixth Assessment Report of the Intergovernmental Panel on Climate Change (6th Assessment Report)* this requires global greenhouse gas emissions to peak before 2025 at the latest, and be reduced by 43% by 2030; at the same time, methane would also need to be reduced by about a third.³

¹Climate Change (Net Zero Future) Bill 2023 (NSW), s3(1).

²Climate Change (Net Zero Future) Bill 2023 (NSW), s3(1)(a).

³ IPCC, 2022: [Summary for Policymakers. In: *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on*](#)

Even if we are to limit global greenhouse gas emissions, it is almost inevitable that we will temporarily exceed 1.5°C and the consequences will be stark: heatwaves, droughts, bushfires and intense rain events will become even more severe. Sea levels will rise, species will become extinct and crop yields and livestock production will fall. This will cause further food and water insecurity, economic disruption, conflict, and terrorism.⁴

Recommendation: Vets for Climate Action recommends these targets are strengthened and NSW legislates to reduce emissions by 75% below 2005 levels by 2030 and reach net zero emissions by 2035⁵ as recommended by climate scientists (and similarly ambitious targets set by the Victorian Government). We also ask that the NSW Government approach these targets as “a floor, not a ceiling” on emission reductions.⁶

This would protect NSW (and Australia) from the worsening effects of climate change including irreversible changes.⁷ There is no safe level of global warming.

2. Introduce a Review Mechanism and set Interim Targets

We believe the Bill should encourage the setting of interim targets. This would require adding a mechanism to the Bill to permit:

- a) regular reviews; and
- b) incremental changes to reduce emissions targets.

We note the *Climate Change Act 2017 (Vic)* provides for greenhouse gas emissions reduction targets to be reviewed every five (5) years.⁸ This would also allow the Bill to meet additional principles from the World Bank’s *Reference Guide to Climate Change Framework Legislation*⁹ (**Reference Guide**). The Reference Guide identifies 12 key elements of effective climate change framework legislation. It would also be in accordance with the Paris Agreement’s established five-year cycle of increased ambition in emissions reductions and the fixed intervals to review global progress to the agreed targets.¹⁰

[Climate Change](#) Cambridge University Press, Cambridge, UK and New York, NY, USA. doi: 10.1017/9781009157926.001, accessed 24 October 2023.

⁴ United Nations, [The Climate Crisis – A Race We Can Win](#), 2020, accessed 24 October 2023.

⁵ Will Steffen, Lesley Hughes, Simon Bradshaw, Dinah Arndt and Martin Rice, [Aim High. Go Fast: Why emissions need to plummet this decade](#), The Climate Council, 2021, accessed 24 October 2023.

⁶ Ellen Ransley, [Chris Bowen: ‘bit to go yet’ on climate bill as government prepares to introduce bill](#), The Australian, 27 July 2022, accessed 24 October 2023.

⁷ Steffen, Hughes et al, *Ibid*.

⁸ Victorian Government, <https://www.climatechange.vic.gov.au/climate-action-targets>, accessed 24 October 2023.

⁹ World Bank, [World Bank Reference Guide to Climate Change Framework Legislation](#), EFI Insight-Governance. Washington, DC, World Bank, 2022, accessed 24 October 2023

¹⁰ *Ibid*.

VfCA also believes the Bill would then reflect the urgency of the situation. In a 2011 report, the then Climate Commission identified 2010 - 2020¹¹ as the critical decade for action to minimise climate change risks. However, the decade to 2020 was marked in Australia by inaction and climate wars. This was symptomatic of a global malaise. As a result, this decade has begun with accelerating emissions and record temperatures. In May 2022 the highest atmospheric carbon dioxide (CO₂) concentrations in the history of humankind were recorded: 421 parts per million. This is 50% higher than pre-industrial levels.¹² And, the last eight years have been the hottest on record with decadal global temperatures at 1.1°C above the average from the start of the industrial revolution.¹³ In fact, July 2023 was the hottest month on record globally. Sea ice was the lowest on record. And, for the fourth consecutive month, the global ocean surface temperature hit a record high.¹⁴ The painful truth is that the latest data indicates the world is on track for a temperature rise of between 2.4°C and 2.6°C or more by the end of this century and there is “no credible pathway to 1.5°C in place” today.¹⁵

Recommendation: Vets for Climate Action recommends that Section 9(3) of Part 2 of the Bill be deleted because this section prevents the NSW Government from setting interim targets via regulation. Instead, we recommend the inclusion of a schedule that permits regular reviews and reassessment of emission reduction targets, similar to that found in the Victorian *Climate Change Act (2017)*.

A discernible slowdown in global warming within around two decades can be achieved by deep, rapid, and sustained reductions in greenhouse gas emissions.

3. Impact on All Animals to be considered

Animals hold no responsibility for the causes of climate change, yet they experience the consequences most strongly. Bushfires, floods, drought, storms and heatwaves in recent years have all had devastating effects on wildlife, pets and livestock. With current warnings of another El Nino system forming, we can expect many more animals to perish. Nor can most animals (companion, livestock and wildlife) just adjust and adapt to the existing and anticipated effects of climate change in time. This risks further extinctions and biodiversity loss. Australia has the unenviable record of the worst mammal extinction rate in the world. The Bramble Cay melomys, a small rodent in the

¹¹ W. Steffen & L. Hughes, [The Critical Decade: New South Wales climate impacts and opportunities](#), The Climate Commission (Department of Climate Change and Energy Efficiency), 2011, accessed 24 October 2022.

¹² US National Oceanic and Atmospheric Administration, [Carbon dioxide now more than 50% higher than pre-industrial levels](#), 3 June 2022, accessed 24 October 2022.

¹³ Josh Davis, [The last eight years have been the hottest on record](#), Natural History Museum, 14 January 2022, accessed 25 October 2022.

¹⁴ World Meteorological Organization, [July 2023 confirmed as hottest month on record](#), 14 August 2023

¹⁵ *Climate Change: No 'credible pathway' to 1.5C, UNEP warns*, [UN News](#), 27 October 2022, access 28 October 2022.

Torres Strait Islands, is the first mammal to become extinct due to climate change. In NSW alone 1,043 species and 115 ecological communities are listed as threatened under the *Biodiversity Conservation Act 2016* (NSW) including 78 species declared extinct since European settlement.¹⁶

The NSW EPA's *State of the Environment 2021 Report*¹⁷ recognises the threat climate change is to a number of our unique species. It identifies the species most at risk from climate change, including those with:

- A narrow range of physiological tolerances
- Low genetic variability and long generation times
- Specialised relationships with other species or narrow geographic ranges
- Limited physical capacity to disperse or move to new habitats¹⁸

While some species and ecosystems may adapt through a range of strategies, such as changing their behaviour, or moving to more suitable climates,¹⁹ the increasing rate of climate change and pre-existing threats (like natural resource exploitation, land clearing and introduction of invasive species) may limit their success. For more detailed information about the impact of climate change on Australia's animals, please see below in **Appendix 1**.

Recommendation: Vets for Climate Action recommends that the Bill include explicit consideration of the impact of the changing climate on animals (wildlife, livestock and companion animals, both terrestrial and marine). The appropriate section would be in the *Guiding principles, targets and objectives* as set out in section 8 of Part 2 of the Bill.

Australia is a nation of animal lovers: 69% of households own a pet,²⁰ over 29.1 million sheep and cattle are farmed in NSW,²¹ and an incalculable number of native animals share the state. Australia lost over 3 billion animals during the bushfires of 2019/2020. We must minimise further loss of our much-loved animals.

4. Further Opportunities for climate action in NSW

Banning offshore oil and gas

Vets for Climate Action supports the Minerals Legislation Amendment (Offshore Drilling and Associated Infrastructure Prohibition) Bill 2023 and the ban on offshore oil and gas,

¹⁶ NSW EPA, [NSW State of the Environment: Threatened Species](#), accessed 29 October 2022.

¹⁷ NSW EPA, [NSW State of the Environment](#), accessed 29 October 2022.

¹⁸ NSW EPA, [Threatened Species](#), *ibid*

¹⁹ *Ibid*.

²⁰ Animal Medicines Australia, 2022, [Pets in Australia: A national survey of pet ownership](#), accessed 24 October 2023.

²¹ MLA, Herd and flock numbers for each region released, 15 Sept 2022, accessed 24 October 2023.

and associated structures in NSW waters. The largest share and growth in gross GHG emissions occurs due to the mining and combustion of fossil fuels.²²

The NSW Government's support of this legislation and ban on fossil fuel extraction in NSW would show clearly how committed the Government is to genuine action on climate change, and play a huge role in reducing the state's greenhouse gas emissions.

Ending native forest logging

Undisturbed native forests in NSW are home to many endangered species, including Greater and Yellow-bellied Gliders, Sooty, Masked and Powerful Owls, Koalas, Quolls and Platypus. Logging of native forests threatens these animals by removing the habitat, shelter and resources they need.

The 2019–20 bushfires burnt 64% of NSW's state forests, devastating wildlife, forest communities and the timber industry.²³

The International Paris Agreement recognised the importance of forests as a carbon sink, absorbing carbon dioxide emissions from burning fossil fuels. At the COP27 meeting in Glasgow in 2021, Australia signed a pledge to halt and reverse forest loss and land degradation by 2030.²⁴

Ending native forest logging in NSW forests would bring NSW into line with Victoria and Western Australia (we applaud the decision of those governments to make such positive changes for our wildlife) and show strong action on climate change and support for our environment.

Conclusion

By implementing a number of changes to the Bill, the NSW Government has the opportunity to drive urgent and real action on climate change. However, it is imperative the final version sets strong, ambitious, science-based targets, and sets out the framework for regular review and assessment. Our concern as veterinarians, vet nurses and animal care professionals is about the impacts and risks of climate change to all animals, and we ask that the Bill also take this into consideration.

²²IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 1-34, doi: 10.59327/IPCC/AR6-9789291691647.001.

²³ <https://www.wwf.org.au/news/news/2022/now-is-the-time-to-transition-out-of-nsw-native-forest-logging#gs.taf6d1>.

²⁴ <https://ukcop26.org/glasgow-leaders-declaration-on-forests-and-land-use/>.

Vets for Climate Action commends the NSW Government for its commitment and welcomes timely action on climate change for the safety of our people and communities, and the animals we love and need.

Vets for Climate Action works alongside thirty-three former Chief Veterinary Officers and Senior Government Veterinarians, allowing mutual exchange of knowledge and experience. VfCA and the former CVO group would be pleased to provide the NSW Government with independent advice at any time, particularly where it relates to animal health and welfare.

We appreciate the opportunity to make this submission.

Yours sincerely,

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Vets for Climate Action

W: www.vfca.org.au

APPENDIX 1

AUSTRALIAN ANIMALS SUFFER AND DIE DUE TO CLIMATE CHANGE

An Australian rodent in the Torres Strait Islands, the Bramble Cay melomys, is the first mammal to become extinct due to climate change. Rising sea levels and storm surges resulted in loss of habitat.

Coral on the Great Barrier Reef has been killed by successive mass bleaching events due to rising ocean temperatures. This brings long term risks not only to the reef itself but to the diversity of marine fauna living within the reef, including dugong and marine turtles.

Green turtles are at risk of extinction as their gender ratio becomes distorted.²⁵ The sex of a sea turtle is determined by the temperature of the sand incubating the eggs. Warmer temperatures of 29.1 degrees Celsius and above produce females and cooler temperatures produce males. Global warming means more females are born, disrupting the natural gender ratio. It is possible that sea turtle hatchlings could be completely female in the near future.

Over 3 billion animals died or were displaced during the 2019-2020 bushfires:

- 143 million mammals;
- 2.46 billion reptiles;
- 180 million birds; and
- 51 million frogs.²⁶

‘This ranks as one of the worst wildlife disasters in modern history,’ reported the WWF.

More than 23,000 spectacled flying foxes were killed²⁷ in far north Queensland, when temperatures were over 42°C, equating to almost one in every three individual animals in the population, which is listed as endangered under the EPBC Act.

127 ringtail possums died²⁸ after they became so dehydrated they drank sea water after 4 days of temperatures in the high 30s, in the Mornington Peninsula, Victoria in early 2019.

Floods in Far North Queensland killed over 600,000 cattle in 2019.²⁹ Those that didn’t drown died of cold exposure in the summer month of February. The damage bill was estimated at \$2 billion.

²⁵ Craig Welch, [Rising Temperatures Cause Sea Turtles to turn Female](#), National Geographic, 9 Jan 2018, access 28 October 2022.

²⁶ p. 2, [Interim Report: Australia’s 2019-2020 Bushfires: The Wildlife Toll](#), WWF, 28 July 2020, accessed 28 October 2022.

²⁷ Sharnie Kim & Adam Stephen, [Extreme heat wipes out almost one third of Australia’s spectacled flying fox population](#), ABC News, 19 Dec 2018, accessed 28 October 2022.

²⁸ Lisa Cox, [‘Falling out of tree’: dozens of dead possums blamed on extreme heat stress](#), The Guardian, 7 March 2019, accessed 28 October 2022.

²⁹ Tom Major, [Cattle infrastructure losses following Queensland floods could near \\$2b. farm lobby says](#), ABC News, 16 April 2019, accessed 28 October 2022.

Flooding in NSW and southern Queensland in 2022 affected an estimated 475,000 cattle (or about 2% of the national herd).³⁰ It also impacted food and feed crops.

Severe flooding in eastern Australia in 2022 trapped and drowned wombats and echidnas (and other burrowing animals) in their burrows. An estimated 475,000 grazing animals (or about 2% of the national herd)³¹ were swept away or starved when dirty water contaminated their pastures. It also impacted food and feed crops. Even marine species, turtles and seabirds were displaced when floodwaters reached the ocean.

Dogs or other pets can develop severe heat stress, brain damage and die in as little as 4 to 6 minutes if left unattended in a vehicle. The risks of this are increasing with more heat waves, as is the probability of dogs burning their footpads when walking, as roads and footpaths heat up so much more than the air.

A United Nations report has determined that about one million animal and plant species are threatened with extinction, many within decades, more than ever before in human history. Biodiversity is essential for the processes that support all life on Earth, including human life. An average 69% decline in monitored wildlife populations has been recorded around the world between 1970 and 2018.³²

Climate change brings new disease threats

One Health is the connection between the health of the environment, people and animals. Climate change will alter disease prevalence, especially when vectors are involved. In the past two years, mosquitoes have moved south in Australia, carrying Japanese encephalitis virus, infecting piggeries and resulting in cases and deaths in humans.³³

Fruit bats are likely to respond to climate change and extreme temperatures by migrating to more suitable areas. Hendra virus, found naturally in fruit bats, has had a huge impact in Queensland and NSW, with fatalities in horses as well as people.³⁴ The virus responsible for the COVID-19 pandemic is thought to have originated from bats with pangolins as an intermediate host.³⁵

³⁰ Natasha May, [Floods and livestock losses leave NSW and Queensland farmers reeling from third disaster in three years](#), The Guardian, 2 March 2022, accessed 28 October 2022.

³¹ Natasha May, [Floods and livestock losses leave NSW and Queensland farmers reeling from third disaster in three years](#), The Guardian, 2 March 2022, accessed 28 October 2022.

³² [UN report on biodiversity loss](#)

³³ <https://www.health.gov.au/health-alerts/japanese-encephalitis-virus-jev/japanese-encephalitis-virus-jev>

³⁴ <https://www.cdc.gov/vhf/hendra/index.html>

³⁵ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9408936/#:~:text=According%20to%20our%20%20current%20%20u,nderstanding,are%20still%20unaddressed%20%5B9%5D> .