



**T H E M C K E L L I N S T I T U T E**

Climate Change (Net Zero Future) Bill 2023

*Post-hearing responses*

November 2023

## About the McKell Institute

The McKell Institute is an independent, not-for-profit research organisation dedicated to advancing practical policy solutions to contemporary issues.

For more information call (02) 9113 0944 or visit [www.mckellinstitute.org.au](http://www.mckellinstitute.org.au)

## Acknowledgement of country

The McKell Institute acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional Owners of Country throughout Australia and their continuing connection to both their land and seas

## Portfolio Committee No. 7 - Planning and Environment: Climate Change (Net Zero Future) Bill 2023

The McKell Institute responses to questions taken on notice

Transcript pg 12-13:

**The Hon. JOHN RUDDICK:** I have a question for Mr Cavanough. In your opening statement, your very first sentence states:

Climate change is exacerbating and amplifying a variety of destructive extreme weather events across Australia, contributing to more intense bushfire seasons, severe heatwaves, stronger cyclones, sudden floods, and prolonged droughts.

I believe this is delusional and alarmist. Can you please tell us what data was used to make this statement? We've got very good records across this continent for 200 years, and everything that is happening is—same things were happening 100 years ago; same things were happening 200 years ago. You've actually mentioned cyclones. Everybody knows that cyclones—just because it's a random thing—have been declining in the past 20 years, but you've said we're having much stronger cyclones. The people who believe in global warming are saying, "We're having less cyclones now because of global warming", but you've said we're having more stronger cyclones.

**EDWARD CAVANOUGH:** Yes. So the submission that we put forward cites established climate science, effectively.

**The Hon. JOHN RUDDICK:** I would like to see it. You're saying we're having more severe weather events across the board.

**EDWARD CAVANOUGH:** Yes, I think that's relatively—

**The Hon. JOHN RUDDICK:** You're saying that's accepted. Could you give the Committee that data

that was underpinning that?

**EDWARD CAVANOUGH:** I'm happy—there are citations in the submission, so you can look at those.

**The Hon. JOHN RUDDICK:** There's no footnote with this opening statement. If it's true, there will be plenty of data. You would be easily able to get it to us, I'm sure.

**EDWARD CAVANOUGH:** I can guarantee we could do that, actually. We're more than happy to do so.

**The Hon. JOHN RUDDICK:** Thank you. Terrific.

**EDWARD CAVANOUGH:** It's an interesting comment. I think it speaks to, I guess, the approach that we were discussing earlier. There's an argument to do absolutely nothing on climate, which is one that I assume resonates with the question that you put forward, and that's based in this sort of antiquated denialism, a debate that we have been having for—I mean, I remember watching Q+A and stuff when I was 12, 13 years old and people were making the same arguments that you're making now. The reality is just different. I think the vast majority of your colleagues would agree that the position you're taking and the question you're asking is fringe and based in ideology and opinion, rather than observable fact of what's happening.

**The Hon. JOHN RUDDICK:** All I'm asking for are the facts. I would like to see that you can prove that there has been an increase in floods, an increase in droughts and an increase in cyclones.

**EDWARD CAVANOUGH:** We're happy to take it on notice and put together something.

Response:

The emission of greenhouse gases on a global scale is causing the Earth's climate system to heat up, leading to a higher occurrence and/or greater intensity of weather events.<sup>1</sup>

Climate change is causing an array of adverse extreme weather conditions in various regions of Australia. These include more intense bushfire seasons, severe heatwaves, strengthened future cyclones, increased chances of sudden floods, and the worsening of droughts in certain areas of the country.<sup>2</sup>

While cyclones may be decreasing in number, what our statement said was that they would be 'stronger'. It's the intensity and strength that will get increase, rather than the frequency of this particular extreme weather event.

As stated by the Royal Commission into the National Natural Disaster Arrangements Report, "[t]ropical cyclones are projected to decrease in number, but increase in intensity."<sup>3</sup>

Regarding the overall proof of the escalation of extreme weather events, the Intergovernmental Panel on Climate Change (IPCC) is the United Nations organisation responsible for evaluating the scientific foundation of climate change, its consequences, prospective hazards, and strategies for adjustment and reduction. The IPCC's Assessment Reports encompass comprehensive scientific, technical, and socio-economic evaluations of climate change, and their findings are growing increasingly alarming.

The Fourth Assessment Report (AR4), published in 2007, unequivocally confirmed the warming of the Earth's climate system. Subsequently, the AR5, issued in 2013, declared that human impact on the climate was evident. Subsequent evidence collected after the release of the AR5 demonstrated that the rise in atmospheric levels of CO<sub>2</sub>, methane, and nitrous oxide during the industrial era resulted from human actions, and that human influence was the primary driver behind numerous changes observed in the atmosphere, oceans, cryosphere, and biosphere.<sup>4</sup>

According to the AR6, there is no doubt that emissions of greenhouse gases caused by human activities have resulted in a heightened occurrence and/or severity of certain weather and

climate extremes since 1850.<sup>5</sup> The proof of observed changes and the identification of human influence have become more robust for various categories of extreme events since the AR5. These include extreme rainfall, periods of drought, and compound extremes (including conditions conducive to wildfires).<sup>6</sup>

In the AR6, there is a section dedicated to Australasia, and its findings indicate that Australia stands out as one of the more susceptible developed nations to the consequences of climate change. The chapter from Working Group II reveals that Australians are already witnessing the tangible effects of climate change in their day-to-day experiences, primarily due to the numerous severe and destructive weather events that have significant impacts on communities and ecosystems.

*Climate trends and extreme events have combined with exposure and vulnerabilities to cause major impacts for many natural systems, with some experiencing or at risk of irreversible change in Australia...Further climate change is inevitable, with the rate and magnitude largely dependent on the emission pathway.<sup>7</sup>*

Unsurprisingly, the International Disasters Database reports an increase in extreme weather events attributed to climate change. In 2021, a total of 432 catastrophic events were documented worldwide, marking a notable uptick from the average of 357 annual disaster events recorded between 2001 and 2020.<sup>8</sup> Floods dominated these events, with 223 instances documented, surpassing the average of 163 annual flood occurrences recorded between 2001 and 2020.<sup>9</sup>

This is reflected in the latest Global Risks Report 2022, which lists climate change inaction as the number one long-term global threat, as well as being identified as the risk with the potentially most severe impacts over the next decade.<sup>10</sup>

## References

---

- <sup>1</sup> Turner, M. G., Calder, W. J., Cumming, G. S., Hughes, T. P., Jentsch, A., LaDeau, S. L., ... & Carpenter, S. R. (2020). Climate change, ecosystems and abrupt change: science priorities. *Philosophical Transactions of the Royal Society B*, 375(1794), 20190105. Accessed online: <https://royalsocietypublishing.org/doi/epdf/10.1098/rstb.2019.0105>
- <sup>2</sup> Royal Commission into National Natural Disaster Arrangements. (2020). The Royal Commission into National Natural Disaster Arrangements. *Commonwealth of Australia*. Accessed online: <https://naturaldisaster.royalcommission.gov.au/>
- <sup>3</sup> Royal Commission into National Natural Disaster Arrangements. (2020:22). The Royal Commission into National Natural Disaster Arrangements. *Commonwealth of Australia*. Accessed online: <https://naturaldisaster.royalcommission.gov.au/>
- <sup>4</sup> Arias, P.A., et. al. (2021). Technical Summary. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 33–144. doi:10.1017/9781009157896.002.
- <sup>5</sup> Arias, P.A., et. al. (2021). Technical Summary. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 33–144. doi:10.1017/9781009157896.002.
- <sup>6</sup> Arias, P.A., et. al. (2021). Technical Summary. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 33–144. doi:10.1017/9781009157896.002.
- <sup>7</sup> Lawrence, J., B. Mackey, F. Chiew, M.J. Costello, K. Hennessy, N. Lansbury, U.B. Nidumolu, G. Pecl, L. Rickards, N. Tapper, A. Woodward, and A. Wreford. (2022:1583) Australasia. In: *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 1581–1688, doi:10.1017/9781009325844.013.
- <sup>8</sup> EM-DAT. (2022). Disasters. Year in Review 2021. *Centre for Research on the Epidemiology of Disasters*. Accessed online: <https://cred.be/sites/default/files/CredCrunch66.pdf>
- <sup>9</sup> EM-DAT. (2022). Disasters. Year in Review 2021. *Centre for Research on the Epidemiology of Disasters*. Accessed online: <https://cred.be/sites/default/files/CredCrunch66.pdf>
- <sup>10</sup> World Economic Forum. (2022). The Global Risks Report 2022 17<sup>th</sup> Edition. Insight report. *The World Economic Forum*. Accessed online: [https://www3.weforum.org/docs/WEF\\_The\\_Global\\_Risks\\_Report\\_2022.pdf](https://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2022.pdf)



**T H E M C K E L L I N S T I T U T E**

Climate Change (Net Zero Future) Bill 2023

*Post-hearing responses*

November 2023



## About the McKell Institute

The McKell Institute is an independent, not-for-profit research organisation dedicated to advancing practical policy solutions to contemporary issues.

For more information call (02) 9113 0944 or visit [www.mckellinstitute.org.au](http://www.mckellinstitute.org.au)

## Acknowledgement of country

The McKell Institute acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional Owners of Country throughout Australia and their continuing connection to both their land and seas.

## Portfolio Committee No. 7 - Planning and Environment: Climate Change (Net Zero Future) Bill 2023

The McKell Institute responses to questions taken on notice

Transcript pg 10:

**The Hon. JACQUI MUNRO:** Thank you so much for coming and for your submission. Were you aware of the previous Government's target in regulation that set the 70 per cent target by 2035? Was The McKell Institute aware of that?

**EDWARD CAVANOUGH:** I'm aware of the ambition of the 70percent with the previous Government, yes.

**The Hon. JACQUI MUNRO:** I suppose, from what you've said so far, you'd be supportive of a ban on offshore oil and gas?

**EDWARD CAVANOUGH:** We don't have an official position on that, to be honest. I'd probably take that on notice.

Transcript pg 11:

**The Hon. JACQUI MUNRO:** One of the things that we've heard about is the difference in usefulness of legislation and regulation working together or not working together, as it were, and that, because this bill suggests that there should be a complete removal of regulations as part of the targets that continue, we have a less effective framework for change because everything has to go through legislation every time there is a change or the commission suggests that there should be a different target. That was something that I was keen to draw out in this. The Australia Institute has a view on Eraring and offshore oil and gas, but The McKell Institute will take that on notice?

**EDWARD CAVANOUGH:** Yes. We don't have a formal view on that. We haven't done any specific research on Eraring or on offshore oil and gas. We just don't have a formal position on that that I'd be able to enunciate.

**The Hon. JACQUI MUNRO:** If you could, on notice, provide your thoughts on that, that would be very helpful.

Response:

As a progressive research institute, the McKell Institute supports a country-wide transition to renewable energy to tackle climate change.

Similarly, as a research institute, we base our positions in research. Therefore, we see little value in taking a formal view on a specific power station and its role in the state's complex and evolving energy provisions where we have not conducted research.