[UNCLASSIFIED]



Official Information request reference: 2021-015

23 March 2021

Email:

Dear

Thank you for your Official Information Act 1982 (the Act) request, received on 24 February 2021 for the following:

- 1. "Please supply the data that proves" manmade carbon dioxide is causing dangerous global warming".
- 2. Please supply the data that proves "methane has a GWP of 28' if that is the figure you use.
- 3. Why did you not tell webinar participants that CO2 is the basis of all life on earth, essential for all plant growth, grass, crops, trees and flowers?
- 4. If the New Zealand methane reductions were achieved what would be the measurable global temperature reduction?
- 5. Any reduction in New Zealand food production defies Article 2 of the Paris Accord. Why was this not covered?"

The table below lists the different parts of your query and the answers provided.

ltem	Response
1.	The Climate Change Commission (the Commission) bases its assessment of the causes and impacts of climate change on established peer-reviewed scientific literature, and the summarised view of the world's scientific community.
	A key part of the establishment of scientific knowledge is the continual testing, refining or rejecting of hypotheses and theories based on new data and information. Indeed, this is a key strength of the Intergovernmental Panel on Climate Change (IPCC) process, where conclusions and scientific understanding are continually updated as new evidence is reviewed and incorporated, and the uncertainty around the conclusions is refined accordingly.
	On the basis of this process, the summarised view of the world's climate scientists is that the earth is warming, and humans are primarily responsible. For a range of statements of that scientific position, see https://climate.nasa.gov/scientific-consensus/.
	The Commission is satisfied that the body of evidence of human-driven increases in global energy content is clear and unequivocal.
2.	The Commission used the GWP100 figure of 25 in its draft advice. This is the metric used in the current National Greenhouse Gas Inventory. The data and analysis that produced this figure is contained in the IPCC's Fourth Assessment Report. See https://www.ipcc.ch/assessment-report/ar4/
3.	The topic of the webinar held on 18 January 2021 was "meet the sector teams" rather than a discussion on the science or plant biology.
4.	It is not possible to provide an unequivocal answer to the question of what the measurable global temperature reduction would be if New Zealand methane reduction targets were achieved. This is because the impact reducing methane in New Zealand would have on global temperatures depends on a range of





	factors, including background atmospheric concentrations of methane, carbon dioxide and other greenhouse gases. This will in turn depend on the level of action other countries take to reduce emissions of the different greenhouse gases. If other countries take strong action to reduce emissions, then the warming impact of each tonne of methane New Zealand emits will be bigger.
	The warming impact of a certain level of methane emissions will also be affected by other interactions. This includes, for example, the impact the warming caused by methane and other greenhouse gases disturbs the global carbon cycle – a warmer atmosphere causes carbon dioxide already in the atmosphere to remain there for longer, and leads to more carbon dioxide being released into the atmosphere from the biosphere and from oceans.
	Please see Chapter 4 in our draft advice report for a discussion of the warming impacts of methane and the other GHGs. You may also be interested in IPCC AR5 to see a more detailed discussion on this issue. See https://www.ipcc.ch/assessment-report/ar5/
5.	The Commission's draft advice aligns with Article 2(1)(b) of the Paris Agreement (which aims)to foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production. Our draft advice report discusses the food production aspect of agriculture and climate change. Our analysis shows that we can reach the methane targets using existing technologies and practices without compromising milk and meat production.

Please note that the Commission has a policy to proactively release OIA responses to help others have access to more information. Consequently, this letter will be published on our website with your name and contact details redacted to protect your privacy.

Kind regards

j & Hendy

Jo Hendy Chief Executive Climate Change Commission

