

28 May 2015

Climate Change Consultation Contribution
Ministry for the Environment
PO Box 10362
Wellington 6143

SUBMISSION ON CLIMATE CHANGE CONTRIBUTION

1. Dunedin City Council welcomes the opportunity to submit on the discussion document, *New Zealand's Climate Change Target*, as the Government develops New Zealand's 'intended nationally determined contribution' (hereafter its 'contribution' or 'climate change target') prior to the international climate change conference in Paris in December this year.

Mitigating climate change

2. The Dunedin City Council supports the proposal that New Zealand consider a more ambitious contribution to reduce emissions in an international context to mitigate global climate change.
3. The Dunedin City Council notes that while there will be shorter term economic costs of mitigating climate change, there are also transitional economic opportunities that can diversify and strengthen the economy in the longer term. The Dunedin City Council would welcome further consultation on domestic policies to help achieve any new contribution.
4. The Dunedin City Council also submits that the Government's approach to determining New Zealand's next climate change target must take account of the potential longer term costs of adaptation in the absence of effective climate change mitigation. Given the relationship between mitigation and adaptation costs, the Dunedin City Council submits that it would be better for the Government's investment and measures on climate change mitigation to be increased.

The costs of adapting to climate change in Dunedin

5. The Intergovernmental Panel on Climate Change's fifth assessment Synthesis Report states that without additional mitigation efforts, warming will lead to a "very high risk of severe, widespread and irreversible impacts globally", and that while mitigation involves risks, these risks are not as great as those from climate change (p 17).
6. A report on projected climate change impacts by the IPCC's lead author and University of Otago Professor Blair Fitzharris, identified that Dunedin is expected to face more extreme rainfall events, storm surges, droughts, fires, and extreme winds as global warming continues. Key parts of the city at risk from projected climate change impacts include: low-lying, densely populated urban areas; coastal communities; major transport infrastructure (including Dunedin airport); and natural ecosystems. The report does not include the indirect impacts of climate change on the community.
7. As a result of the report, the Dunedin City Council has begun work to investigate options for managing the impacts of sea level rise in the areas of the city most at risk: Harbourside and South City. An initial valuation of Dunedin City Council and privately-owned assets and

infrastructure in these areas is estimated at \$4.3 billion, including 5,150 residential properties housing approximately 10,000 residents. Engineered protection options, if viable, have been estimated (in 2014) to cost in the region of \$10 million against a 0.3 metre sea level rise (above 1990 levels), increasing to \$150 million to protect against a sea level rise of 1.6 metres (above 1990 levels)¹. This is an example of the adaptation costs that communities may face in the absence of effective international climate change mitigation.

8. The Dunedin City Council is actively planning for adaptation, including through its draft second generation District Plan. A significant amount of work is still to be done before the Dunedin City Council and the community will be in a position to make decisions on whether to invest in protection measures and, if so, what measures should be taken and how they will be paid for. This work will involve balancing costs between present and future ratepayers while ensuring communities and businesses are safe and resilient.
9. While adaptation resourcing decisions are long term, the potential costs should be considered now when determining the Government's new contribution to climate change mitigation. The wide range of estimated costs for adaptation in the example above (\$10 million against a 0.3 metre sea level rise compared to \$150 million against a 1.6 metre sea level rise) suggests that more effective mitigation could significantly reduce potential future adaptation costs and proposes that the Government consider investing more in climate change mitigation. The Government should also consider whether technological change, for example more efficient renewable energy production and storage, means that the costs of mitigation may decrease relative to adaptation costs, such as construction or relocation.
10. Accordingly, the Dunedin City Council wishes to ensure that the Government's approach to determining New Zealand's next climate change target takes into account the potential longer term costs of adaptation, in the absence of effective climate change mitigation.

Responses to questions in the discussion document

Do you agree with the objectives for our contribution? What is most important to you?

11. The Dunedin City Council agrees with the proposed objectives for New Zealand's contribution. The Dunedin City Council notes the Government's support for international agreements seeking to limit global warming to 2 degrees centigrade above pre-industrial levels, and requests that the Government's target is consistent with the degree of global action required to achieve this.
12. A further objective could be to achieve any new contribution through more domestic activity, for example, around energy efficiency. The Dunedin City Council notes the Ministry for the Environment has reported that New Zealand is relying on the purchase of international offsets to achieve its current international commitment.
13. The Dunedin City Council supports balancing the economic impacts of any new contribution between different sectors and between different households to ensure equity. Again, this should acknowledge the significant costs of adaptation in the absence of effective mitigation, recognising that it may be harder to balance adaptation costs between different sectors and between different households than it is to balance mitigation costs.
14. The Dunedin City Council supports a contribution which recognises and maximises transitional economic opportunities. The Dunedin City Council also supports a transition that minimises negative impacts on international economic competitiveness, noting that this will in part be

¹ *Assessment of Options for Protecting Harbourside and South City from Direct Impacts of Sea Level Rise*, Beca Ltd, 8 July 2014

achieved through effective international contributions by all parties, and future-proofing businesses to minimise climate change impacts.

What do you think the nature of New Zealand's emissions and economy means for the level of target we set?

15. While the New Zealand economy is more economically dependent relative to other nations on an emissions-intensive agricultural sector, it also has a relatively lower emissions-intensive energy sector, and these circumstances may change over time. The agricultural sector plays a vital role in Dunedin's economy and, with support from the Government, needs to continue significant investment to find solutions to bio-emissions as the economy grows and technology improves. The Dunedin City Council suggests that targets for agricultural emissions and non-agricultural emissions be disaggregated, noting that the action New Zealand can take to reduce non-agricultural emissions can and should be more ambitious.
16. The Dunedin City Council is working on ways to diversify the local economy, for example, through digital economy and education sector initiatives. Similarly, the Dunedin City Council suggests that the Government can play a greater role in diversifying the national economy over the long term to reduce economic reliance on any one sector.

What level of cost is appropriate for New Zealand to reduce its greenhouse gas emissions? For example, what would be a reasonable reduction in annual household consumption?

17. The Dunedin City Council stresses that the Government's approach to determining New Zealand's contribution should recognise the potential future costs of adaptation. While adaptation resourcing decisions are long term, the potential costs need to be considered now when determining New Zealand's mitigation contribution and investment. Further, the Dunedin City Council proposes that any cost/benefit analyses consider the co-benefits of emissions reduction efforts in areas like health, alongside the costs associated with adaptation.
18. The Dunedin City Council also supports an equitable distribution of the economic impacts of any contribution between different sectors and different households. Again, this should recognise the significant costs of adaptation in the absence of effective mitigation. Adaptation costs also need to be shared as fairly as possible between different sectors and different households.

Of these opportunities which do you think are the most likely to occur, or be important for New Zealand? How should New Zealand take into account the future uncertainties of technologies and costs when setting its target?

19. Activities the Dunedin City Council are undertaking to help mitigate Dunedin's contribution to emissions include increasing transportation alternatives, improving energy efficiency, encouraging or developing renewable energy sources, reducing waste-related emissions, and developing an Energy Plan for the city.
20. In addition to the domestic policies outlined in the discussion document, the Dunedin City Council suggests that other policies, such as greater investment in public transport and rail freight, are relevant to climate change mitigation. Again, the Dunedin City Council notes that while there will be economic costs to mitigate climate change, there are also transitional economic opportunities that can diversify and strengthen the economy in the longer term.
21. As stated above, the Dunedin City Council suggests that potential adaptation costs need to be considered now when determining mitigation contributions. Further, technological change and

other factors suggest that the cost of mitigation may decline over the medium to long term while the costs of adaptation, including relocation and construction costs, are likely to increase.

22. The Dunedin City Council proposes that whatever target is adopted, an associated action plan to achieve the target is developed and regularly reported against.
23. Finally, the Dunedin City Council notes that the timeframe for submissions has prevented the Dunedin City Council from formulating a more comprehensive submission, and looks forward to further consultation opportunities and discussions about how local government can best support work in this area.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Dave Cull', with a stylized, cursive script.

Dave Cull
Mayor of Dunedin