

19 October 2018

Ms Christine McDonald
Secretary of the Senate Environment and Communications References Committee
Department of the Senate, Parliament House,
Canberra ACT 2600

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Dear Ms McDonald

**Re: QUESTIONS ON NOTICE FROM INQUIRY INTO GREAT BARRIER REEF 2050
PARTNERSHIP PROGRAM**

The Australia Institute and Future Super are pleased to respond to written questions on notice received from the Senate Environment and Communications References Committee (the Committee) on 3 October 2018 regarding the Great Barrier Reef 2050 Partnership Program.

1. ***Are you aware of any work that investigates the potential impact of higher-ambition emissions reduction targets on the Australian economy?***
 - a. *If so, can you table copies of these studies?*
 - b. *Do these studies support the claims made by Mr Grant King of the Great Barrier Reef Foundation in the course of these hearings?*

The Australia Institute raised a number of reports at the committee hearing on 21 September 2018 that explored the potential economic impacts of emission reduction targets greater than the Australian Government's current target of 26-28% reduction on 2005 levels by 2030. As requested, a table has been compiled on known reports that model the impacts.

1. **Are you aware of any work that investigates the potential impact of higher-ambition emissions reduction targets on the Australian economy?**
 - a. **If so, can you table copies of these studies?**

Table 1: Reports that investigate economic impact of high-ambition targets

Report	Modeller
1. Climate Change Authority's 2016 Special Review ¹	Jacobs Group and Victoria University
2. Report 2: 2015 Economic modelling of Australian action under a new global climate change agreement ²	McKibbin Software Group

¹ <http://climatechangeauthority.gov.au/reviews/special-review/modelling-illustrative-electricity-sector-policies>

² <https://dfat.gov.au/about-us/publications/Documents/economic-modelling-australian-action-under-new-global-cc-agreement.pdf>

3. Pathways to Deep Decarbonisation in 2050 (2014) ³	ClimateWorks and the ANU
4. Climate Change Authority's 2014 Targets and Progress Review ⁴	Commonwealth Treasury
5. Australian Government's Strong Growth, Low Pollution report of 2011 ⁵	Commonwealth Treasury
6. Australian Government's Low Pollution Future report of 2008 ⁶	Commonwealth Treasury
7. Deep cuts in greenhouse gas emissions: economic, social and environmental impacts for Australia - report to the Business Roundtable on Climate Change (2006) ⁷	Allens Consulting Group Pty Ltd
8. Jobs in a clean energy future (ACF & ACTU, 2016) [employment specific] ⁸	National Institute of Economic and Industry Research (NIEIR)
9. The Renewable Energy: Future Jobs and Growth (Climate Council & EY, 2016) [employment specific] ⁹	KGM and Associates
10. Tackling climate change and energy affordability for low-income households (ACOSS & BSL, 2018) [sector specific] ¹⁰	Frontier Economics
11. More expensive, more pollution: The impact of the NEG on carbon emissions and power prices (GP, 2018) [sector specific] ¹¹	Reputex
12. 100% Renewable Energy For Australia: Decarbonising Australia's Energy Sector Within One Generation (GetUp & Solar Citizens, 2016) [sector specific] ¹²	UTS: Institute for Sustainable Futures

³ <https://climateworks.com.au/project/national-projects/pathways-deep-decarbonisation-2050-how-australia-can-prosper-low-carbon>

⁴ <http://climatechangeauthority.gov.au/reviews/targets-and-progress-review-3>

⁵ <http://carbonpricemodelling.treasury.gov.au/content/report.asp>

⁶ <http://lowpollutionfuture.treasury.gov.au>

⁷ <https://catalogue.nla.gov.au/Record/3807375>

⁸ https://d3n8a8pro7vhmx.cloudfront.net/auscon/pages/1435/attachments/original/1477355385/ACF_Jobs_in_a_clean_energy_future.Web.pdf

⁹ <https://www.climatecouncil.org.au/resources/renewablesreport/>

¹⁰ <https://www.acoss.org.au/wp-content/uploads/2018/09/ACOSS-BSL-Report-Tackling-climate-change-and-energy-affordability-for-low-income-households.pdf>

¹¹ <https://www.greenpeace.org.au/wp/wp-content/uploads/2018/07/Greenpeace-NEG-report.pdf>

¹² https://www.uts.edu.au/sites/default/files/article/downloads/ISF_100%25_Australian_Renewable_Energy_Report.pdf

Things to note

- These reports all explore higher-ambition emissions reduction targets, including impacts on the Australian economy.
- They are based on different assumptions and models, and are focused on different questions.
- The reports cover different time periods. Where possible we have included reports that cover up to 2030.
- Some of the reports cover economy wide reduction targets and multiple economic parameters while others are focused on a single sector (such as electricity) or economic parameters (such as employment).
- We consider the authors of these reports to be reputable, but cannot vouch for all of the assumptions and inputs to these models.
- Some assumptions have since proven too ambitious (such as the success and scale up of carbon capture and storage).
- Some assumptions have since proven too conservative (such as renewables costs, following the substantial drop in the cost of large-scale wind and solar energy generation).

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b. Do these studies support the claims made by Mr Grant King of the Great Barrier Reef Foundation in the course of these hearings?

During the course of the Committee's hearings, Mr Grant King maintains that, in reference to the 45% reduction on 2005 levels by 2030 there is "very little analysis here in Australia of the effect." Mr King also did not step back from the Business Council of Australia's (BCA) statement that a 45% target was 'economy-wrecking'.

The BCA Chief Executive Jennifer Westacott has also commented (in the Australian Financial Review on 30 August 2018) that "there has been little analysis of the economic cost of adopting a 45% target."

It is surprising the BCA could claim 45% could be "economy-wrecking" given that it claims there is "very little analysis". In any case, this claim is not correct. The list in Table 1 shows there have been numerous reports looking at the economic impacts of more ambitious reduction targets than the current 26-28%.

Moreover, **none** of these reports predict major disruption to the Australian economy, were Australia to adopt a more ambitious emissions reduction target similar to 45%. On the contrary, continued strong growth is expected.

The Abbott Government-commissioned analysis by Professor Warwick McKibbin in 2015 (the second report in Table 1) found that a 45% economy-wide target would result in a change of 0.92% to consumption growth in 2030 relative to a no climate-action scenario. Over the period of change that amounts to less than 0.1% difference per annum. Moreover, the *additional* impact, over the current targets (26-28%), is even less, and is

further reduced if clean energy technology costs fall faster than expected – as they have in the following three years.

Clearly, a policy that imposes less than 0.1% reduction in consumption per year to 2030 is not an ‘economy wrecker’. In fact, it is much smaller than average error in budget forecasts of economic consumption over the last five years. From 2012-2013 to 2016-2017 the average error was 0.56% for the budget year and 0.82% for the following year.

By contrast, the UN’s Intergovernmental Panel on Climate Change estimates an average reduction in 2030 consumption of 1.7% across all countries. This suggests that even emissions reductions of 45% economy wide by 2030 would not see Australia doing our ‘fair share’, let alone wreck the economy.¹³

Other studies show low costs for higher ambition action. The ClimateWorks and ANU *Pathways to Deep Decarbonisation in 2050* report shows how Australia could achieve net zero emissions by 2050 while seeing 2.4% annual GDP growth, growing by 150% to 2050. In other words, over many decades it takes Australia just two years extra to get to the same level of growth. The annual impact to GDP would be 0.19% per annum, and to GNI would be 0.12% per annum.

Mr King, in his comments to the Committee, referred to on one report from the International Monetary Fund. We tabled this during the hearing on 21 September. Mr King states the report shows carbon prices in Australia will need to be higher than US\$70 a tonne in order for Australia to meet its current targets and takes this as evidence that there would be a significant economic impact from such action. The study does not support Mr King’s claim. It shows that carbon prices as high as US\$70 a tonne would have almost no impact on the Australian GDP, coming to less than 0.25% of GDP in 2030.

The Australia Institute and Future Super are happy to provide further analysis of the work available, if that is of interest to the Committee.

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¹³ Merzian and Campbell (2018) *Advance Australia’s fair share: Assessing the fairness of emissions targets*, p 17, <http://www.tai.org.au/content/advance-australias-fair-share>