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Institutional investor interest in this Inquiry

The IGCC represents Australian institutional investors with over $1 trillion of funds under management and other members of the investment community on climate and energy issues. IGCC members are invested across the Australian economy and are part owners of most of Australia's large companies. As managers of retirement savings and pooled investments we are concerned with the evident and increasing impacts of climate change on the global and Australian economies and future investment returns. So as to protect our existing investments and to invest in future low carbon opportunities we are seeking to reduce our exposure to greenhouse gases and the risks of climate change accordingly.

Whatever post 2020 emission reduction targets the Government sets; only a price or volume-driven policy approach will achieve the deeper targeted reductions. Regardless of the approach selected, the Government will need to rely on enlightened, responsible capital allocation and ownership by institutional investors to support the economic transition. We therefore encourage the Government to work closely with the institutional investment community and other large investors to this end.

Summary

Australia's post 2020 emissions reduction target should be consistent with the international community's commitment to limit the increase in global temperature below 2°Celsius this century. Global emissions levels below 2 tonnes CO2 equivalent emissions per capita by 2050 are likely to be necessary and emissions may need to be reduced further to net zero emissions before 2050 to limit warming to 2°C.

Australia has a responsibility to fairly share the burden of acting on climate change given its historic and currently high emissions per capita and the fact that it is a wealthy nation with strong economic and population growth forecast. Australia therefore has the capacity and responsibility to make a strong contribution to global emissions reduction efforts.

By any reasonable science based or long term economic assessment, Australia must achieve significant emissions reductions in coming decades. To put the Australian economy onto a realistic pathway to achieve its share of the global emissions budget, the Australian Government should propose an Intended Nationally Determined Contribution (INDC) of approximately 30% below 2000 levels in 2025 or in the order of 50% below 2000 levels in 2030.

Deep emissions reductions are not expected to harm the Australian economy as a whole. Treasury modeling conducted for Clean Energy Future policies indicating that emissions reductions of 60% by 2050 below 2000 levels are achievable while maintaining GDP growth of 2.1% per annum in 2050.

IGCC considers that Australia's economy has characteristics that are similar to many other economies. On the basis that deep emissions reductions will be challenging for all nations there is no substantial argument for shallow emissions reduction targets based on Australia's economic circumstances.

Attempting to shield a small number of energy intensive industries in Australia through shallow reduction targets would not be sufficient to ensure their competitiveness in international markets and should not be a guiding principle in setting Australia's targets. To the extent that emissions intensive, trade exposed industries may suffer incremental cost pressures as a result of obligations to reduce emissions, the Government should ameliorate the impacts through policy design, not shallow emissions reduction targets.

Further, some activities where Australia may currently see itself as having a competitive advantage, e.g. export of thermal coal, will face structural headwinds as a result of other countries reducing their own greenhouse gas emissions and as a result are likely to make a decreasing contribution to the overall Australian economy. Australia should therefore not hesitate to put forward ambitious, transparent and equitable emissions reduction targets with accountability to domestic and international stakeholders.

The Government's current incremental approach to climate policy development risks locking Australia into an inefficient policy framework. Further the current policy suite, comprised of an Emissions Reduction Fund and the proposed safeguard mechanisms would require substantial redesign in order to achieve even modestly deeper emissions reduction targets in 2025 or 2030. The Government's proposed 22% reduction in the Renewable Energy Target from 41,000 GWh to 32,000 GWh is inconsistent with setting a strong policy framework to deliver the deep emissions reductions needed.

Long term, transparent and predictable policy design can enable deep emissions reductions, a steady economic transition and encourage investment to take advantage of new opportunities for the Australian economy. With such a policy framework, investors will make long term, low carbon investment allocations. Delaying the resolution of a long-term policy framework is already leading to underinvestment in energy and emissions productive industry, limiting Australia's options for economic growth and income in future.

IGCC responds to the three consultation questions in the pages below.

1. What should Australia's post-2020 target be and how should it be expressed? In responding to this question you could consider the base year (e.g. 1990/2000/2005), the end year (e.g. 2025/2030), the type of target and why the suggested target is preferred.

Summary

- Institutional investors are seeking an Australian INDC consistent with global efforts to limit warming to 2°Celsius or less and a sound risk management approach;

- We believe Australia should pledge an INDC consistent with the Climate Change Authority (CCA) recommendation of a 2025 target of minus 30% below 2000 levels, noting;
    - A cumulative emissions budget of 10.1Gt CO_2e from 2013 to 2050 for Australia, as proposed by the CCA, is an instructive and pragmatic approach to interpreting Australia's fair share of a global emissions budget likely to limit warming to 2°C or less;
    - Even if Australia negotiates an inflated level of future domestic emissions over time and emits double the level of other nations on a per capita basis in 2050 (3.8t CO_2e /capita as opposed to 2t CO_2e /capita), a 2025 target of 23% below 2000 levels or 25% below 2005 levels would be required to be consistent with this trajectory;
    - If the Government prefers a 2030 target, it should be set in the order of 50% below 2000 levels, with an appropriate adjustment to 58% if 2005 is chosen as the base year.[1]

- In the interests of transparency and constructive input to the Paris 2015 UNFCCC meetings, Australia in it's INDC, should:
    - Clearly recommit to limiting the increase in global temperature below 2°C by 2050 under the UNFCCC[2];
    - Explain its commitment in terms of 2000 and 2005 base years to allow unambiguous comparison with other nations, particular its major trading partners;
    - Explain its commitment in terms of 2025 and 2030 target years; and
    - Provide a 2050 target or target gateway for emissions reductions, consistent with the approaches taken by the EU (80% to 95% below 1990 levels by 2050) and US (>80% below 2005 levels by 2050).

- Further we note that:
    - The specific base year (1990, 2000, 2005) and target year (2025, 2030) chosen by the government for its INDC are relatively immaterial for expressing the emissions reduction effort facing Australia between now and 2050;
    - Focusing on raw percentage emissions reductions below past base years are of limited meaning unless expressed in terms of a long-term target consistent with limiting warming to below 2°C;
    - Reductions targets below these recommended levels, if pursued by many countries would make limiting warming to 2°C unachievable.

[1] Refer to Table 1 in this submission for IGCC's analysis of future targets for Australia.
[2] The UNFCCC Taskforce Issues Paper reference to the IEA New Policies Scenario is inconsistent with a trajectory to limit warming to 2°C or less. The New Policies Scenario should not be relied upon to set Australia's INDC or climate policies.

Analysis

1.1 The investor perspective on emissions reductions and targets

In assessing Australia's future emissions reduction objectives and targets, institutional investors take a risk-based approach. Our interest is in limiting warming to no more than 2°C given the uncertainty for economic stability that higher levels of warming would bring and ensuring that Australia remains a favoured destination for our capital.

Australia's role in international climate negotiations is to encourage strong actions from all nations, through credible and relatively ambitious policies at home. It is not plausible for the Australian Government to argue for other nations to cut emissions deeply to support a 2°C goal without proposing deep cuts for Australia as well.

Further, investors expect credible, transparent, long-term policy frameworks in order to have confidence to invest. If Australia is to reestablish itself as a preferred destination for low carbon investment, it must restart its stalled policy reform process with a long-term emissions reduction goal, credible interim targets and transparent, long term policies to rebuild investor confidence in Australia's energy and industrial markets.

It is on this basis that we have examined the evidence about the level of emissions reductions required by all nations and Australia to meet the two-degree goal and make the following recommendations.

1.2 The global emissions budget for a likely chance of limiting warming below 2°Celsius should inform Australia's target setting

The 2°C goal is central to determining necessary emissions reductions by all countries. Based on the Government's support for the UNFCCC's objectives, the two-degree goal is a key constraint for setting Australia's post 2020 targets.

A global CO_2e budget is necessary to set and track emissions reduction targets relative to the 2°C goal and at different points in time. As a result, Australia should use a carbon budget to examine and set its future targets.

According to the CCA, Australia's fair share of a global carbon budget is approximately 1% of emissions using a modified contraction and convergence model if a 67% probability of limiting warming to 2°C is to be achieved. In these circumstances Australia's emissions budget would be 10.1Gt C02e budget from 2013-2050, with Australia expending its emissions budget around 2046, reaching a net zero emissions position in that year[3].

On the basis that the CCA budget analysis provides a sound basis for interpreting Australia's likely share of future abatement effort, IGCC endorses the milestone emissions reduction target of a 30% reduction below 2000 levels in 2025.

[3] Net zero emissions means that captured concentrations of CO_2e through offsetting equal emissions in Australia's emissions budget.

1.3 Setting targets without an Australian emissions budget still requires substantial reductions

Should the Government choose not to use an explicit emissions budget for Australia in determining a 2025 target, the emissions reduction targets required to play a reasonable part in international efforts to limit warming to 2°C would still be significant.

For example, the Government may choose to target emissions reductions per capita in 2050 to calibrate is share of effort. Setting a target of 2tCO_2e/capita share of global emissions for Australia in 2050 would be notionally consistent with a 67% chance of limiting warming to 2°C assuming consistent annual reductions. In this circumstance the necessary reduction below 2000 levels would be 88% in 2050.[4]

An 88% reduction by 2050 would require annual emissions reductions of 6.8% per annum, leading in practice to an emissions reduction curve with deeper cuts earlier. As a result, the 2025 target would need to be 31% below 2000 or 34% below 2005 levels. If Australia and other countries chose not to reduce emissions at these levels, either much more aggressive cuts would be required in the period 2030 to 2040 or warming would not be held below 2°C.

Table 1: Emissions reductions targets by 2050 and necessary annual reductions

Targeted reduction below 2000 levels by 2050	Required annual reductions from 2020 to 2050[5]	Resulting 2025 target below 2000 levels	Resulting 2030 target below 2000 levels	Resulting 2025 target below 2005* levels	Resulting 2030 target below 2005* levels
77% (3.8 tCO_2e/cap)	4.8%	23%	41%	25%	45%
88% (2.0 tCO_2e/cap)	6.8%	31%	53%	34%	58%
91% (1.5 tCO_2e/cap)	7.7%	35%	58%	38%	63%

*Note that Australia's 1990 emissions levels are approximately the same as 2000 levels

This analysis of year on year emissions reductions is consistent with analysis by the Tyndall Centre[6], which found that reductions of 8% to 10% per annum would be required by Kyoto Protocol Annex 1 countries from 2013 in order to meet the 2°C goal with Non Annex 1 nations peaking emissions in 2025 and reducing at 6%-8% pa thereafter.

1.4 Special consideration for Australia still requires deep emissions reductions targets

If, due to special consideration from other countries in international negotiations based on Australia's perspective of its own economic circumstances, almost double the level of emissions in tCO_2e/capita were agreed to for Australia in 2050 (3.8tCO_2e/capita versus 2tCO_2e/capita), a still significant 77% reduction in Australian emissions below 2000 levels would be required by 2050. This is the equivalent of 4.8% annual reductions in emissions from 2020 to 2050, equating to a 2025 target of 23% below 2000 levels or 25% below 2005 levels. We note that it would still be in Australia's interest that other nations targeted 2tCO_2e/capita or less in order to limit warming below 2°C even if Australia negotiated this special, inflated emissions budget. IGCC addresses Australia's economic circumstances in the next section.

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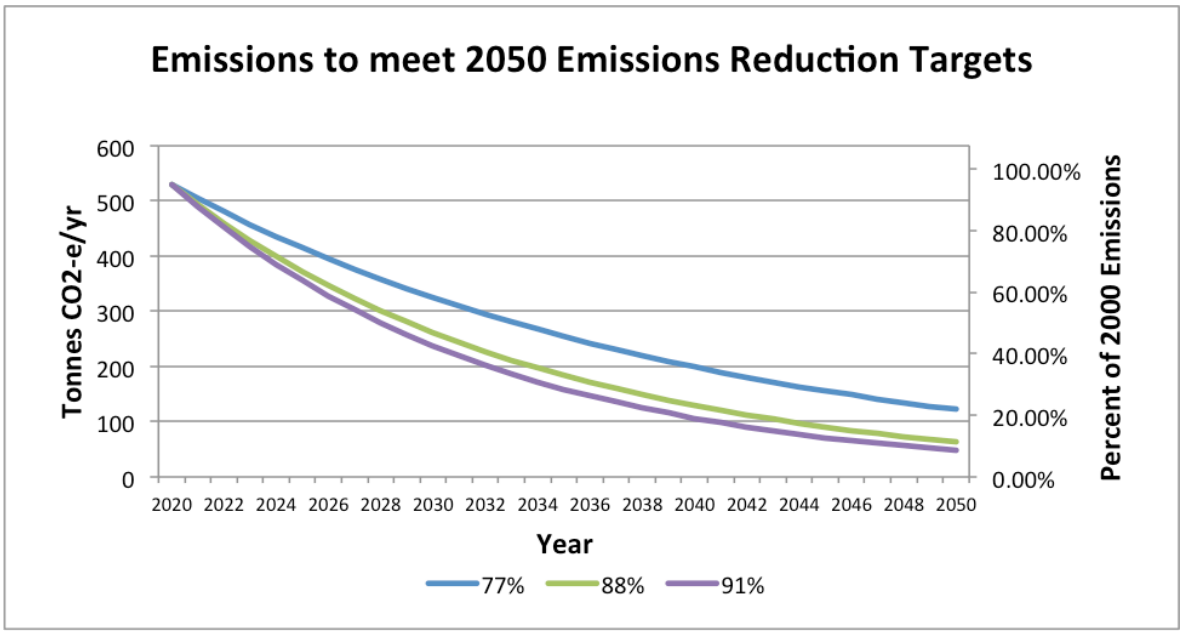
[4] ABS, Population Projections, Australia, 2012-2101, Assuming medium fertility, medium life expectancy and medium overseas migration and an increase population to 37.6m in 2050, http://stat.abs.gov.au//Index.aspx?QueryId=714

[5] Assuming -5% reduction below 2000 levels as the starting point in 2020, without making any assumptions about how the -5% by 2020 target is met.

[6] Andrew Jordan, Tim Rayner, Heike Schroeder, Neil Adger, Kevin Anderson, Alice Bows, Corinne Le Quéré, Manoj Joshi, Sarah Mander, Nem Vaughan & Lorraine Whitmarsh (2013) Going beyond two degrees? The risks and opportunities of alternative options, Climate Policy, 13:6, 751-769, http://dx.doi.org/10.1080/14693062.2013.835705

Figure 1: Emissions to meet 2050 emissions outcomes



While it is notionally possible to take any emissions reduction curve to a 2050 per capita target, unless the reduction curves are of similar shape to those in Figure 1, the contribution to cumulative emissions concentrations in the atmosphere would exceed those allowable for limiting warming to 2°C.

Under both the national budget approach by the CCA and a favorable 2050 target approach for Australia, the emissions cut necessary for Australia is substantial. Any variation below the average annual emissions reduction required under the more generous 2050 target would push significant emissions reduction effort to later years, meaning step reductions to a net zero position, well before 2050.

1.5 Using GDP comparisons requires deeper targets still

IGCC used the above analysis to consider structural changes to the Australian and other major economies by expressing the reductions in terms of tonnes CO_2e/$ GDP. The analysis showed that Australia has the highest emissions intensity in $GDP/capita terms of the eight countries considered.

IGCC compared Australia's abatement task with that of other countries by considering:

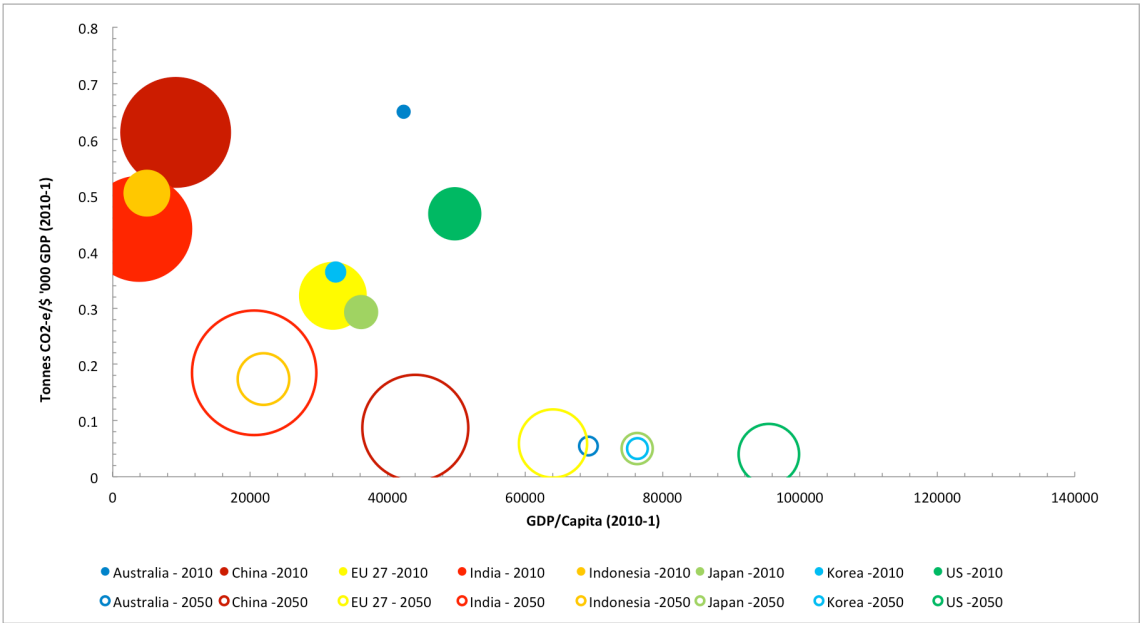
(1) the greenhouse gas intensity of the economy in tonnes CO_2e/$000 GDP
(2) each nation's capacity to pay for abatement expressed in GDP per capita terms and
(3) each country's share of the global carbon budget expressed by total population.[7] In the case of Australia, the analysis assumed 2.7% real growth and a 2050 population of 37.6m.[8]

Figure 2 below illustrates the abatement task for eight key emitters today[9] [10] and in 2050[11], assuming global emissions in 2050 are capped at the lower probability level consistent with a 50% chance of limiting warming to 2°C and assuming that global emissions are distributed on an equal per capita basis

[7] World Bank, Population Estimates, Country population figures, May 2013 http://datatopics.worldbank.org/hnp/popestimates
[8] ABS, Population Projections, Australia, 2012-2101, http://stat.abs.gov.au//Index.aspx?QueryId=714
[9] Climate Change Authority, *Caps and Targets Review – Issues Paper*, Table 3, April 2013
[10] The bubble size in the graph is proportional to the country population
[11] PwC, *World in 2050 - The BRICs and beyond: prospects, challenges and opportunities*, Growth estimates to 2050, January 2013

(consistent with the contraction and convergence model). Figure 2 shows Australia's particular emissions reduction challenge - being a country with highest emissions intensity of any country considered in GDP terms and therefore requiring deeper cuts than almost all other nations.

Figure 2: Abatement task in terms of GDP/Capita for eight countries



The table below summarises the 2050 emissions reductions required from a 2005 baseline for each of the countries in the sample. Using this method we conclude that that Australia would need to reduce its emissions per $/GDP by 92% below 2005 levels in 2050 to be comparable with other nations.

Table 2: Emissions reductions per $GDP (per capita) by 2050

Country	Reduction in absolute emissions	Reduction in emissions per $ GDP
Australia	77%	92%
China	38%	86%
EU 27	63%	82%
India	-209%	58%
Indonesia	-84%	66%
Japan	70%	83%
Korea	70%	86%
United States	80%	92%

The discussion in the recent Energy White Paper around introducing an energy productivity improvement by 2030 is a useful contribution to considering the types of structural changes needed to the Australian economy. However an improvement of 40% will also need to be complemented by a reduction in the greenhouse gas intensity of energy use in Australia if overall greenhouse gas emission reductions in the mid to long term are to be achieved.

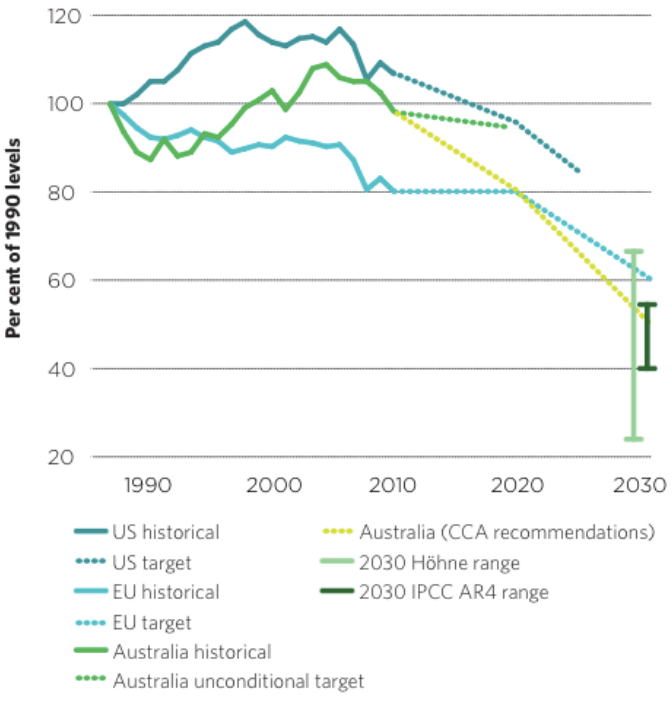
1.6 Taking note of INDC's from other countries implies deep cuts for Australia

Australia should take account of INDC's issued to date by other countries in determining its planned reductions. INDC's from the European Union and the United States and public statements by China indicate that the need to substantially and rapidly reduce emissions has been accepted by key national governments. As a result the necessary structural change in energy markets and industry has already commenced. Gradual tightening of emissions constraints globally is the international environment the Australian Government should be preparing for, with policy settings that address Australia's future need for a competitive, low carbon economy.

Pledged reductions by the EU and US are less ambitious than what is required to meet the two-degree target and will leave deeper reductions for later years if the 2°C goal is to be met. However both the US and EU will have achieved significantly greater reductions than Australia in the period to 2020 from 1990 (EU) and 2005 (US). As a result, the EU and US post 2020 reductions will be comparatively lower than that needed to be undertaken by Australia. Recognising the greater reduction targets Australia has given its higher emission intensity, whether it is measured by tonnes CO_2e/capita or tonnes CO_2e/$GDP, as illustrated earlier in this submission, Australia would have to target and achieve deeper annual reductions than the 2% to 3% range per annum to establish a trajectory similar to that of the EU and US for per capita emissions by 2050.

The lagging emissions reduction trajectory of Australia as compared to the US and EU is illustrated by the CCA in Figure 4 from its recent report, Comparing Countries Emissions Targets.[12]

FIGURE 4: COUNTRIES' EMISSIONS TRAJECTORIES TO 2020 AND 2030 TARGETS, COMPARED WITH ADEQUACY RANGES



[12] Climate Change Authority, *Comparing Countries Emissions Targets – A Practical Guide*, 2015 http://www.climatechangeauthority.gov.au/sites/prod.climatechangeauthority.gov.au/files/CCA_Practical_Guide_Comparing_Countries%20FINAL.pdf

1.7 Selecting and reporting a baseline and target year

Although important for Australia's INDC submission, Australia's past emissions baselines and reductions are less important in practice than Australia's transition from its current emissions profile to a plausible low carbon end goal. As expressed above, investors are interested in a realistic assessment of the long-term emissions reduction objective and suitable policies to support the transition.

Whatever the interim targets chosen by the Government, or the baseline year selected, the Government should identify the implications of those targets for Australia's emissions reduction trajectory and later targets, through to 2050.

Other considerations relevant to the post 2020 target are the UNFCCC agreement to 'progress' emissions reductions, meaning that deeper annual reductions should be achieved in each and every year from 2020 until the target year. Australia's need to deepen reductions from current year on year levels is supported by our analysis above.

2. What would the impact of that target be on Australia? In responding to this question you could, for example, consider the impact on our economy, jobs, business and on the environment.

Summary

Australia's economic structure, prospective growth and resource endowment are not sufficiently different to other countries to warrant shallow emissions reduction targets if major emitters are also reducing their emissions.

Setting emissions reduction targets with the aim of shielding a small number of local emissions intensive industries is unlikely to achieve that outcome. Head winds facing these industries are outside the control of the Australian Government and its emissions reduction targets.

There are economic opportunities for Australia in setting a new target and providing supportive policy. Australia's future competitiveness depends on attracting investment to develop emissions competitive activities and an economy with high energy productivity.

Analysis

2.1 Impacts of reduction targets on Australia

Australia's economic structure, projected economic growth, resource endowments and population growth are not unique relative to many other countries and should not constrain Australia's ability to meet deep emissions reduction targets if other similar countries are also reducing their emissions.

Economic Structure

Concerns that Australia's broader economy would be harmed by obligations to reduce emissions are not supported by analysis of the contributors to Australia's GDP.

Examining the top 15 countries by nominal GDP in 2014 shows that Australia's economic structure in terms of Agriculture, Industrial Production and Services is similar to many other countries (Table 2). Australia generates 71% of its GDP from services, 27% from industry and 2% from agriculture. Australia's level of exposure to GDP from services is similar to that of Brazil (69%) Germany (68%), Japan (73%), Spain (74%) and Italy (74%). Australia's level of income from industry (27%) is similar to that of Japan (26%), Germany (31%), Brazil (25%), India (31%) and Canada (29%). Obligations to reduce emissions would have no greater impact on Australia's Services sector than that of any comparable country and cannot be argued to place undue pressure on Australia's entire economy as a result.[13]

Energy intensity of Australian industry

Australia's energy intensity is higher than that of many other countries, but the economic performance of Australian industry (27% of Australia's GDP) is unlikely to be materially affected by the depth of Australia's emissions reduction targets if reduction policies are well designed (more on policy design in the next section).

[13] World Bank, World Development Indicators, Structure of Output, http://wdi.worldbank.org/table/4.2#

Seeking to shield a small number of energy intensive industries in Australia through shallow targets would not be sufficient to ensure their competitiveness in international markets and should not be a guiding principle in setting those targets. Genuine financial pressures faced by some industries because of competitive pressures are not sufficient reason to avoid necessary emissions reductions.

Australia's energy intensity is higher than many other countries largely because of the presence of industries such as Aluminium and Steel production. These industries already face significant headwinds from relatively efficient international competition, a trend that is likely to intensify in future. Supply and demand dynamics and fundamental factors affecting economic competitiveness such as scale of production and proximity to markets combined with aging Australian plant and equipment relative to competitors are the factors that will define the profitability of these energy intensive industries in Australia in future.

While shallow emissions reduction targets are unlikely to ensure the competitiveness and financial viability of energy intensive industries in Australia, shallow reduction targets and underdeveloped climate policies are already dissuading investment new in low carbon energy and industry. It would be more appropriate for the Government to set targets to encourage deep emissions reductions and attract new investment, while using policy measures to address short term financial impacts from abatement obligations on emissions intensive companies if necessary. Government has an opportunity to establish this approach with its INDC review.

Australia's past economic mix will not ensure the shape of Australia's future economy. Changes underway in energy intensive industries will continue irrespective of emissions reduction targets and related policy in Australia. Future emissions targets should not be the based on attempting to shield uncompetitive industries. This perspective is reflected in the objectives of the Government's recent Energy White paper with its focus on improving energy productivity in the Australian economy.

Table 3: Economic structure for 15 countries in % terms (2013)[14]

	$ GDP (billions)	Agriculture (%)	Industry (%)	Services (%)
World	**75,621.90**	**3**	**27**	**70**
Australia	**1,560.40**	**2**	**27**	**71**
United States	16,768.10	1	21	78
China	9,240.30	10	44	46
Japan	4,919.60	1	26	73
Germany	3,730.30	1	31	68
France	2,806.40	2	20	78
United Kingdom	2,678.50	1	20	79
Brazil	2,245.70	6	25	69
Italy	2,149.50	2	23	74
Russian Federation	2,096.80	4	36	60
India	1,875.10	18	31	51
Canada	1,826.80	2	29	69
Spain	1,393.00	3	23	74
Korea, Rep.	1,304.60	2	39	59
Mexico	1,260.90	3	35	62

[14] World Bank, World Development Indicators, Structure of Output, http://wdi.worldbank.org/table/4.2#

Resource endowment

While Australia earns a relatively high proportion of its national income from natural resources rents compared to a number of developed countries, including Natural Gas, Coal, Minerals, Oil and Forestry (7% of income in 2013) this level is less than Chile (16%), Malaysia (11%), Vietnam (10%) and 67 other countries.[15] Many of these countries have materially higher income exposure to resource exports than Australia. Further, four Annex 1 countries under the Kyoto Protocol earn more or similar levels of income to Australia from natural resource rents (Russia, Norway, Ukraine, Canada). Given these comparisons, the view that Australia may suffer a disproportionate economic impact from action to reduce emissions will be difficult to justify in international negotiations. Further any concern that Australia is subject to a disproportionate duty to fuel the global economy growth does not appear to be warranted.

The more significant challenge for Australia is that its resources will be directly impacted by the policies of other countries to address climate change (e.g. 70% of thermal coal is exported[16]), providing clear reasons to focus on the structural transitions needed within the Australian economy. Even the LNG industry, which may provide a greenhouse benefit to those importing countries in the medium (up to around 2030-2035), will need to consider the broader energy changes required.

To the extent that concerns about Australia's economic mix remain it should be noted that the Australian Government cannot protect export earnings from commodities via emissions reductions policies in Australia. Recent reductions in coal and iron ore prices indicate the fact. Global commodity markets are influenced by supply and demand and largely by policy settings in other countries. Emissions reductions targets in Australia will not influence global commodity markets dynamics.

Furthermore Australia has such an abundance of high quality renewable energy resources to exploit. The annual solar radiation that falls on Australia is the highest per m2 of any continent and is approximately 58 million petajoules (PJ) which is 10,000 times Australia's annual energy consumption. The solar resources within 25km of existing transmission lines are nearly 500 times greater than the annual energy consumption of Australia.[17] In addition wind energy resources are plentiful in most coastal areas and have some of the highest wind speeds and capacity factors in the world.

Industrial competitiveness

We note concerns among some in the resources industry about regulatory arbitrage and first round impacts of emission reduction targets on export revenues. But this is not the major risk to Australia. The much greater risk is that if Australia's major trading partners develop emission reduction strategies that focus on both achieving major energy efficiency gains including through technology and reducing the cost of renewables relative to coal-fired power. In this plausible scenario Australia's competitiveness across all industries will suffer from higher energy input costs.

Trade exposure

Not withstanding comparisons in the previous sections, Australia does earn a material proportion of its income from resource exports and it would not be in Australia's interest to see income undermined if there are reasonable transitional arrangements that can be put in place.

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[15] World Bank 2014: *World Development Indicators*, Contribution of natural resources to gross domestic product http://wdi.worldbank.org/table/3.15#

[16] Australian Department of Industry and Science, Resources, Coal, www.industry.gov.au/resource/Mining/AustralianMineralCommodities/Pages/Coal.aspx

[17] Geoscience Australia, *Australian Energy Resource Assessment*, 2010

The Emissions Intensive Trade Exposed Industry (EITE) arrangements under the Clean Energy Future Act provided suitable transitional arrangements that industry and investors generally thought were fair and well functioning. Policy design will be further addressed in the next section, but to the extent that Australia's resource endowment and trade exposure presents risks for short-term national income, EITE arrangements can address those risks.

Economic Growth

Analysis by Treasury during the development of the *Carbon Pollution Reduction Scheme* and the *Clean Energy Future Act* indicate that economic growth of 2.1% per annum could be maintained while emissions were reduced by 60% by 2020.[18] Concerns that Australia's economic growth is vulnerable to emission reductions are not supported by Treasury modeling.

Population growth

Australia's population is expected to grow by more than the OECD average. It is reasonable to make allowance for this in determining Australia's share of allowable emissions. The contraction and convergence model for distributing emissions on the basis of population in 2050 expressly addresses this aspect of Australia's economic circumstances.

While some allowance should be made for Australia's growing population, given the economic comparisons we conclude that Australia's economy would remain robust in a low carbon transition and would not be subject to undue pressure relative to other countries.

2.2 Implications of shallow targets for the Australian economy and investment

To attract both local and foreign investment, investors need to see stable policy environments. Increasingly institutional investors are factoring climate risk analysis into asset allocation strategies. Funds managers are also including risk premiums for climate policy volatility. These developments in the finance sector mean that over time both the availability and cost of funds will begin to favor jurisdictions with stronger and more stable climate policies. Were Australia to set a shallow post 2020 target, that does not require material progress in climate and energy policy settings, the trends of increased cost and lower availability of finance for low carbon infrastructure investment are likely to continue.

2.3 Opportunities for Australia from deep emissions reductions targets

Encouraging investment is critical to Australia's future economic productivity and performance. Investors have accepted that a rapid low carbon transition is necessary for a stable economy and expect to see policies that reflect this situation. Investor prioritization of this issue is evidenced by the fact that Australia's energy sector is 'unbankable' for new investment because of the lack of substantial climate and energy policy in Australia, which would include the orderly removal of emissions intensive generation capacity. Transparent, predictable, long-term policies would encourage private sector investment. If governments are able to set ambitious targets and provide a suitable policy environment, investors will respond.

[18] Treasury CPRS modeling http://lowpollutionfuture.treasury.gov.au/lowpollutionfuture/report/html/09_AnnexB.asp

Recent growth in the Green Bond Market globally reflects the interest of global investors in low carbon and environmentally sustainable investment allocations. The market for green bonds grew from US$3.1bn in 2012 to US$37bn in 2014. A US$100bn green bond market is projected for 2015. Only two green bonds have been issued to date in Australia and these were for assets shielded from the Government's changes to renewable energy and climate policy.[19]

Further, institutional investors are setting policies to reallocate capital to low carbon activities. At the UN Secretary General's Climate Summit in September 2014, institutional investors and financiers pledged to allocate over $600bn to low carbon activities by 2020. The appetite of global investors for low carbon allocations is strong and growing.[20]

Australia's future competitiveness depends on developing industry that can attract capital away from low carbon competitor nations. At this stage Australia is not an attractive destination for low carbon institutional investment. Stronger emissions reductions targets would indicate that the Australian Government welcomed low carbon investment capital.

2.4 The relationship between targets and cost

The cost of emissions reduction is not correlated with emissions reduction effort, if low cost policies are used. For example, many abatement opportunities in Australia are cost neutral and verified emissions reductions can be purchased in international markets at historic low prices.

[19] Climate Bonds Initiative, www.climatebonds.net
[20] UN Secretary General's Climate Summit 2014, Chair's Summary
http://www.un.org/climatechange/summit/2014/09/2014-climate-change-summary-chairs-summary/

3. Which further policies complementary to the Australian Government's direct action approach should be considered to achieve Australia's post-2020 target and why?

Summary

Market based policies that cap emissions and allow access to least cost abatement are still the best option for Australia. The current Direct Action framework is inadequate for the abatement task ahead.

There is an argument for targeted regulatory interventions in sectors that will not respond to pricing policies. A fuel standard on motor vehicles is one such an area. The Government should also review possible emissions standards for existing energy generation plants. Urgent attention to emissions reductions in the energy sector is needed.

Analysis

3.1 Investor perspectives on current climate policy design

Investors strongly prefer a price based reduction policy that caps emissions and provides international linkages to manage the cost of reductions. An emissions trading scheme would provide these attributes and an appropriate emissions reductions policy for Australia. An emissions trading scheme would allow the post 2020 emissions reduction targets proposed in this submission to be achieved at least cost.

If the Government prefers volume based policy measures in the form of regulation, subsidies or some combination of the two, investors would welcome clarity from the Government on when these policies will be resolved. At this stage the Government is yet to articulate how substantial emissions reductions will be achieved in Australia, how various industries will be impacted and at what time. In this submission IGCC offers alternative policy suggestions to target areas where regulatory interventions may compliment price based policies or also reduce emissions at low cost.

Unsuitable current policy framework

The Federal Government's Direct Action policy framework remains unsuitable to achieve emissions reductions consistent with Australia's contribution to meeting the agreed 2°C goal. The subsidy based Emissions Reduction Fund cannot be scaled up to meet post 2020 targets without a significant budgetary impact and the Government's proposed safeguard mechanisms does not require emissions reductions. IGCC encourages the Government to develop policies capable of reducing emissions beyond 2020, consistent with reductions of more than 80% by 2050, at least economic cost.

Short-term policy development process

Markets rely on Government's to send clear policy signals and provide reliable policy frameworks. Articulating the relationship of various Government policy development processes can assist in this area. The Government is yet to articulate the link between the INDC development process within Prime Minister and Cabinet and the emissions reduction policy development process underway in the Department of the Environment. It would assist investors greatly if the Government would articulate how the INDC process will influence or inform the Department of the Environment's development of the safeguard mechanisms and any other policies necessary to deliver deep emissions reductions in Australia.

Moving from 'baseline and penalty' to 'baseline and credit'

Although the Government has not made it long term intentions clear, it is understood in the private sector that a Baseline and Credit policy design is favoured by the Government for the long term. It is legitimate for the Government to prefer such as scheme to a cap and trade scheme, but developing the policy in a non-transparent and piecemeal way introduces risks for the effectiveness and efficiency of the approach. Difficult design questions and policy tradeoffs must be resolved in establishing any baseline and credit framework. The current lack of transparency about how these matters will be resolved results in an information black hole for investors attempting to make capital allocation decisions in Australia. If the Government proposes to continue to use volume based policies to target emissions reductions (as with the ERF and safeguards mechanism), it would assist investors if the Government would outline which industries would be targeted for reductions and by when. If a baseline and credit carbon price is to be developed, the scheme design should be outlined as soon as possible.

At a minimum a baseline and credit framework would require broad industry coverage and reducing industry baselines so that emissions reductions are achieved cost effectively across the economy. These design elements raise challenging questions about which industries should be included in the scheme, what methodologies should be used to reduce industry baselines and when mandatory obligations will commence. In addition there are questions about how and whether the baseline and credit scheme would allow the importing of credits from international markets and how transitional issues in trade-exposed industry would be addressed.

3.2 Investor perspectives on next steps for the Government

Targeted regulatory interventions

Targeted regulatory interventions can play a role where there are low costs associated with their implementation. One clear opportunity relates to emissions standards for imported motor vehicles. Australia has fallen well behind other nations on vehicle emissions performance levels. In the absence of a domestic motor vehicle industry that may otherwise be required to undertake costly restricting, emissions standards for important vehicles makes good sense.

IGCC has not previously favoured emissions standards for power stations on the basis that carbon pricing would require the retirement of assets. The level of emissions reduction needed from the electricity sector in Australia is significant and without a carbon price or any prospect of such a policy in the near term, emissions standards for existing plants may be necessary. We note the recent public statements of AGL on emissions standards and encourage the Government to explore this policy option.

The role of the Renewable Energy Target

The RET is currently the only long-term emissions reduction policy in Australia. It should be maintained at a level that ensures existing investments restore their value and that ensures a pipeline of future clean energy investment opportunities. The current intention of the Government to cut the Large Scale RET from 41,000GWh to 32,000GWh by 2020 is inconsistent with the objective of achieving deeper emissions reductions in the period to 2030. In the absence of any alternative policies to achieve deeper emissions reduction targets, cutting the RET is an incongruous policy approach to take.

IGCC has on several occasions submitted its views on the Renewable Energy Target.[21] The Government's efforts to undermine the Renewable Energy Target have done significant harm to our past renewable energy investments and to the renewable energy industry in Australia.

[21] IGCC Public Submissions, www.igcc.org.au/igcc-public-submissons

IGCC encourages the Government to reconsider the need for a high proportion of renewable energy in Australia's energy mix and the need to restore investor confidence in this market.

The role of the Clean Energy Finance Corporation (CEFC)

There continues to be a role for the CEFC in Australia because of unresolved energy policy and a range of market failures including information asymmetries and a low experience base for low carbon investing in Australia. As an institution that earns income for the Government rather than being a burden on the federal budget and given its obvious capacity building role in the project development and finance sector, we strongly encourage the Government to rethink its approach to the CEFC. We note the support of the Federal Government for the UN Green Climate Fund, which will itself employ a Private Sector Facility to perform a similar role to the CEFC in developing economies. IGCC has submitted and written extensively on the role of co-financing institutions and is happy to provide further information to the task force.[22]

Fossil fuel subsidies

Subsidies to the fossil fuels industry continue to distort markets and depress private investment in the energy sector globally. These subsidies to oil, coal and gas create an uneven playing field for new low carbon investment opportunities to enter the market and reduce incentives for investors to fund viable renewables energy projects. Exploration, production, resource access and energy subsidies in Australia play a similar distortionary role. Fossil fuel subsidies also encourage excessive energy consumption, and artificially promote capital-intensive industries.[23] IGCC encourages the Government to review the impact of fossil fuel subsidies at the federal and state level on investment and energy markets in Australia.

Energy White Paper

IGCC welcomes the addition of an energy efficiency target to the Government's plans, noting the contributions of other industry groups and un-bankability of the energy sector to this position. The Energy White Paper called for a target of up to 40% increase in Australia's energy productivity as measured by the ratio of real GDP to primary energy consumption by 2030. Federal forecasts show real GDP and primary energy use growing by 2.7% and 1% per annum, respectively. We note this would achieve an energy productivity improvement of 25% as is; raising the target to 40% would infer a reduction in energy growth to around 0.4% per year with constant GDP growth.

Conclusion

We look forward to discussing this submission with the UNFCCC Taskforce and the Government.

Yours faithfully,

Nathan Fabian
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[22] IGCC submission to the expert review panel on the design of the CEFC, 2011, http://www.igcc.org.au/Resources/Documents/IGCC%20Submission_CEFC_111208_Final.pdf
[23] International Monetary Fund, 2013, 'Energy subsidy reform: lessons and implications', http://www.imf.org/external/np/pp/eng/2013/012813.pdf