

Wednesday 29th May 2013

Climate Change Authority
GPO Box 1944
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Online submission: <http://consultation.climatechangeauthority.gov.au/>

Re: Clean Energy Council (CEC) Submission | Caps and Targets Review | Climate Change Authority

The Clean Energy Council (CEC) is the peak body representing Australia's renewable energy and energy efficiency industries.

Its priorities are to:

- Create the optimal conditions in Australia to stimulate investment in the development and deployment in Australia of the world's best clean energy technologies;
- Develop effective legislation and regulation to improve energy efficiency; and
- To work to reduce costs and remove all other barriers to accessing clean energy.

The CEC works with members and the government to identify and address the barriers to efficient industry development in the energy efficiency and stationary energy sector. The clean energy industry and its members contribute to the generation of electricity using wind, hydro, solar, biomass, geothermal and ocean energy as well as other emerging technologies and service providers in the energy efficiency sector including solar hot water and cogeneration.

The CEC welcomes the opportunity to provide comment on the Caps and Targets Review Issues Paper (the Review).

1. What should Australia's 2020 emissions reductions target be? Why?

The CEC believes Australia's current emissions reduction target of 5 per cent by 2020 is not consistent with the longer-term goal of an 80 per cent reduction by 2050. Accordingly, Australia's 2020 emissions reduction target should be more stringent than its current level.

An increase on the current 5 per cent target is conditional on the extent of international action. A quick scan around the globe shows that many countries—and all the major emitters—are acting now to reduce greenhouse gas emissions.

Australia's top five trading partners—China, Japan, the United States (US), the Republic of Korea and Singapore—and another eight of our top twenty trading partners (New Zealand, the UK, Germany, Italy, France, the Netherlands, Switzerland and Canada) have implemented or are piloting carbon trading or taxation schemes at national, state or the city

level. Not to mention the EU Emissions Trading Scheme (ETS) which covers all 27 EU member states. Additionally, many countries have renewable energy targets, including fifteen of Australia's top twenty trading partners; and energy efficiency standards are now widespread.

In particular, China and India have undertaken ambitious emissions reduction actions. China has announced it will introduce emissions trading progressively, commencing in a number of key cities and provinces, including Beijing, Shanghai and Guangdong (covering over 200 million people). It also has more renewable electricity generation capacity than any other country and leads the world in the production of many low emissions technologies.ⁱ Meanwhile, India has a national carbon tax on coal and has displayed the fastest expansion in investment of any large renewables market in the world, with 62% growth in 2011.ⁱⁱ It now sits in the top five countries for new capacity investment alongside China, the US, Germany and Italy.ⁱⁱⁱ

In the absence of a robust global agreement, these countries have committed to verifiable domestic action. The level of global ambition to reduce emissions is clear. If Australia does not follow suite and adjust its current 5 per cent target accordingly, it risks being isolated in global efforts to reduce greenhouse gas emissions. Failure to do so will see Australia overtaken by its competitors who are already transitioning to low carbon economies.

Additional emissions reductions goals

The CEC welcomes the inclusion of stationary energy under Australia's emission reductions goals and carbon price mechanism. Nonetheless, there should also be an expectation that all sectors can contribute towards lowering Australia's emissions. Additional emissions reductions goals can help ensure uncovered sectors play a role in emission reductions.

Stationary energy under Australia's emission reduction goals

It is broadly recognised that putting a price on carbon pollution will reduce the level of emission at the lowest cost. However, a price on carbon is only part of the solution. As recognised by the Stern Review and the Garnaut Review, complementary measures working in parallel with a carbon price will also be needed to assist the transition to a low-carbon economy.^{iv}

In particular, the Renewable Energy Target (RET) will accelerate the use of renewable energy technologies and enable such technologies to be readily deployed when carbon price signals make them cost-competitive. Analysis by SKM MMA has shown that the RET has already unlocked more than \$18 billion in clean energy investment and ongoing policy commitment and stability to the RET will unlock over \$18 billion of investment to come.^v This investment stability is only possible if both the Small-scale RET and the Large-scale RET of 41,000GWh remain as legislated.

The 2008-2012 period in which Australia has come under its Kyoto target aligns with an unexpected and large drop-off in energy demand across the country. This is little surprise given that stationary energy accounts for around one-half of Australia's emissions. While it's difficult to determine the precise causes, reasons for this drop-off vary from the greater

contribution of energy efficiency, increased penetration of solar PV, the success of the RET, consistently mild weather, challenging economic conditions and declines in business activity.

This unexpected drop-off in electricity usage indicates that forecasts of electricity demand are highly speculative and as a result, so is the ability to accurately forecast the impact of energy demand on Australia's emissions levels. This makes an ambitious target and tight budget critical for investor confidence. Irrespective of fluctuating future energy demand, a high target and tight cap will provide the incentive needed to continue the transformation in Australia's energy sector. Consequently, the CEC believes the extra units should be taken into account in determining Australia's 2020 goals to set a more ambitious target and budget.

2. What should Australia's annual emissions limits (the trajectory) and total emissions (the budget) be between 2013 and 2020? Why?

For numerous reasons, the CEC supports a trajectory with an early emissions peak:

1. As concluded in the Stern Review, the benefits of early action on climate change far outweigh the costs.^{vi} An early emissions peak will minimise the abrupt and disruptive economic and social change that will likely be required if Australia opts to delay its emissions reductions with a later emissions peak.
2. Policy measures supporting Australia's emissions reduction targets have long lead times and so require early action. For example, carefully targeted measures to address clearly identified market barriers faced by clean energy technologies require long-term policy solutions as they span from the research and development stage through to the demonstration and commercialisation phase.

A later emissions peak will potentially delay the measures needed to address these barriers. This reduces or delays investment in clean energy technologies, thereby increasing the risk of energy security as Australia scrambles to transform its energy sector within a limited timeframe. Additionally, early action on emissions reduction makes sense if these measures have immediate, robust and cost-efficient benefits – such as increased clean energy and low-emissions deployment.

3. Furthermore, Australia's key trading partners are acting now to reduce emissions through a range of measures such as carbon trading, taxation schemes, renewable energy targets and energy efficiency standards. If Australia does not follow suit, it risks the relocation of clean energy investment and jobs from Australia to its low carbon competitors. An earlier emissions peak obliges Australia to act to reduce emissions now. This allows Australia to capture the opportunities for growth in transitioning to a low carbon economy now, and reduces the risk of Australia being overtaken by its competitors who are already transitioning to low carbon economies.

4. What should Australia's annual emissions caps for the carbon pricing mechanism be for 2015/16 and 2019/20? Why?

As stated in the Issues Paper, the Government's intention in setting five years of binding caps for the period 2019-20 is to reduce risks to investors by providing some guidance on Australia's future policy. However, experience domestically and overseas has shown that short-term policy actions fail to provide confidence and reduce risk for clean energy and low-emissions investment in Australia.

Consequently, the Government should commit to emissions caps for the carbon pricing mechanism beyond 2015/16 and 2019/20 to provide firm guidance on Australia's future policy. Without such long-term guidance, it will be very difficult to commercialise clean energy and low-emission projects that generally have an investment life beyond 15 years .

Australia's annual emissions caps for the carbon price mechanism should align with the level of action required to achieve Australia's emissions reductions targets. The level at which emissions are capped will determine the consequent price of carbon, and as such should be set at a level that incentivises the transition to a low carbon economy. In this regard, it is estimated that once a price on carbon of around \$65-\$70/tCO₂-e is reached, the price gap between the wholesale energy price and the levelised cost needed to ensure the financial viability of least-cost renewable energy projects (such as wind) will no longer exist. This will be the point at which the cap and the consequent carbon price will be operating to incentivise the investment needed for Australia to achieve its emissions reductions targets.

5. What guidance should the Authority provide the Government on emissions reductions post-2020? Over what timeframe, and in what form?

Long-term policy and political commitment is needed for Australia to achieve its emissions reduction targets from now out to 2050.

Long-term policy action provides confidence and reduces risk for clean energy and low-emissions investment in Australia. As such, the Authority should recommend the Government to commit to Australia's 80 per cent reduction target rate for 2050 to provide firm guidance on Australia's future policy. This will maximise outcomes for clean energy and low-emissions development and deployment in Australia.

The Authority should assist the Government to look beyond the short-term target of 2020 and set out a Roadmap for achieving the 80 per cent reduction target rate for 2050. The Roadmap should set milestones which form a cost-effective pathway to this goal – targets of the order of 40 per cent by 2030 and 60 per cent by 2040. This aligns with the European Commission's *Roadmap for moving to a competitive low-carbon economy in 2050*.^{vii} This Roadmap would provide an early indication of future recommendations on caps for the carbon pricing mechanism, thereby reducing uncertainty for investors and long-lived assets (such as energy generators).

Without the long-term certainty of a committed 80 per cent reduction target rate for 2050, it will be difficult for Australia to attract the investment needed for Australia to achieve its emissions reductions targets.

6. What should the Authority consider in assessing Australia's progress against its medium (2020) and long term (2050) emissions reduction targets?

The CEC welcomes the Authority's role in reviewing Australia's progress every year. The Authority should establish a framework for evaluating progress out to 2050 so as to reinforce long-term guidance on Australia's future policy.

CEC comments on the issues the Authority has indicated it will consider in its annual review and when setting strategic emissions reduction milestones for the electricity sector are outlined below.

Regulatory settings

As mentioned above, energy demand has been falling across Australia for the past four years. While it's difficult to determine the precise causes of this drop-off, greater energy efficiency, increased penetration of solar PV and the success of the RET have all played a critical role.

The progress at which clean energy and energy efficiency has impacted energy demand is directly linked to the current policy framework supporting these technologies. Ongoing and long-term support for a robust policy framework needs to be in place for this fall in demand to continue. This includes continued support for:

- the RET in its current form
- ARENA
- the CEFC; and
- a price on carbon
- strengthened and enhanced action to lock in demand side savings

A carbon price alone is insufficient to drive the transition required to keep this fall in energy demand continuing. Complementary measures working in parallel with a carbon price are also needed to assist the transition for progress in the electricity sector to continue.

Availability of the requisite skills

Although Australia's clean energy industry is rapidly expanding in line with the government's commitment of 20% by 2020, it needs to be able to sustain this growth. Sustained and continuous growth can only be achieved with the support of a skilled workforce.

However, a CEC survey of the renewable energy industry to ascertain the current skills base and the future training requirements of the industry showed a clear lack of available training. As a result, the CEC produced a training strategy for industry growth that summarises the skills and training likely to be needed in the clean energy sector to 2020. This strategy details specific training requirements in relation to the six technologies – grid-connected solar PV, off-grid solar PV, solar hot water, bioenergy, concentrated solar power and wind. The strategy also identifies what training resources will be required, including trainers, teaching material and training facilities.

The Authority is invited to adopt the recommendations in the *Australian Renewable Energy Training and Workforce Strategy for 2020* when considering the progress of, and developing milestones for, the energy sector.^{viii}

Australia's domestic emissions

Domestic action such as transitioning to clean energy and energy efficiency will drive a significant proportion of the emissions reductions required to meet Australia's targets. Focusing on domestic action as a measure of progress will prevent Australia relying on the purchase of international permits from Australian competitors who are already transitioning to low carbon economies. In turn, this will compel Australia to capture the opportunities for growth in transitioning to a low carbon economy.

International developments

Given the relatively limited scale of clean energy deployment to date in Australia, international developments in such technologies influence their costs and technological progress here in Australia. For example, due to the global deployment of solar PV panels, panel prices have dropped by upwards of 80 per cent in the past three years.^{ix} Similarly due to the widespread deployment of utility-scale wind across Europe, the cost of wind installations is dropping to the point where it is now competitive with gas and coal-fired power in many regions.^x In both instances, the benefits of this has been transferred to the Australian context. Furthermore, global developments currently occurring in technologies such as energy storage, hybrid systems and emerging technologies are also expected to transfer to the Australian context, thereby further driving their deployment across the country.

Australia's emissions reduction opportunities

In considering Australia's emissions reductions opportunities, the Authority should have regard to the recent modelling which indicates it is possible for Australia to transition the NEM to 100 per cent renewable energy at 2030 and 2050.^{xi} It is estimated the wholesale electricity price required to support the 100 per cent renewable energy system would be \$111 to \$133 per megawatt-hour which is roughly on par with Treasury's carbon price modelling projected under government policy for 2030, and lower than what it projected for 2050, noting that Treasury's electricity system had much higher use of fossil fuels and much higher emissions.^{xii} Given stationary energy currently accounts for around one-half of Australia's emissions, the reduction opportunities in moving to 100 per cent renewable energy are enormous.

International linkage of Australia's carbon pricing scheme

The CEC supports the linking of Australia's carbon pricing scheme with international emissions trading systems. International linking allows Australian businesses to access emissions reductions opportunities at least cost. With international linking, the carbon price in Australia will essentially be set by international supply and demand for abatement. As a result, Australia's carbon price will remain consistent with the international carbon price which in turn will reflect the degree of global ambition to tackle climate change.

The EU ETS currently takes up between 84% and 98% of the value of all carbon markets.^{xiii} Other than Australia, the EU ETS is also linked with Norway, Liechtenstein and Iceland schemes, and the EU has been discussing linkages to the Californian and Swiss ETSS, with a view to an OECD-wide carbon market by 2015, extended to developing countries by 2020.^{xiv} These linkages are important because it increases efficiency and sets a path toward a global carbon price and a level playing field for economies.

The recent drop in the EU permit price increases the likelihood of the EU permit price being significantly lower than the domestic permit price of AUD\$25.40 when the Australian scheme links to the EU ETS in July 2014. However, the Authority can help increase the market price for carbon permits by setting targets out to 2050 that are more in line with achieving an 80 per cent reduction by mid-century. This in turn will tighten up the availability of emission permits within both the domestic and EU schemes while aligning Australia's emission reduction targets to the science on climate change.

1. Please provide general comments regarding the Caps and Targets Review here (in particular reflecting on issues identified in Chapter 6 of the Issues Paper)

The CEC and its members would be happy to discuss these issues further with you as your review progresses. If you have any further questions please contact Ange Nichols via telephone on 03 9929-4109 or by email: anichols@cleanenergycouncil.org.au

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ⁱ Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education, China: Acting on Climate Change, 2012, Found at: <http://www.climatechange.gov.au/en/government/international/global-action-facts-and-fiction/~media/government/international/global-action-facts-and-fiction/13029WEBchina133Mayaccessible.pdf>

ⁱⁱ REN21, Renewables 2012 Global Status Report, 2012, Found at: http://www.ren21.net/Portals/0/documents/Resources/GSR2012_low%20res_FINAL.pdf

ⁱⁱⁱ REN21, Renewables 2012 Global Status Report, 2012, Found at: http://www.ren21.net/Portals/0/documents/Resources/GSR2012_low%20res_FINAL.pdf

^{iv} HM Treasury, Stern Review Report on the Economics of Climate Change, 2006; Garnaut Climate Change Review, 2011

^v SKM MMA, Benefit of the Renewable Energy Target to Australia's Energy Markets and Economy, 2012

^{viii} HM Treasury, Stern Review Report on the Economics of Climate Change, 2006.

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- ^{vii} Roadmap for moving to a competitive low-carbon economy in 2050
- ^{viii} Clean Energy Council, Australian Renewable Energy Training and Workforce Strategy for 2020, 2009
- ^{ix} Climate Spectator, Special report: Electricity demand collapse - Part 2, April 2012, Found at:
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<http://www.bloomberg.com/news/2013-02-06/australia-wind-energy-cheaper-than-coal-natural-gas-bnef-says.html>
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