ClimateWorks Australia Submission to the Senate Standing Committee on Environment and Communication Inquiry into the Clean Energy Legislation (Carbon Tax Repeal) Bill 2013 and related bills

22 November 2013

ClimateWorks Australia is an independent, evidence-based research institute, a partnership between Monash University and The Myer Foundation. This submission presents the implications of ClimateWorks Australia's research in relation to the Clean Energy Legislation (Carbon Tax Repeal) Bill 2013 and related bills.

1. **In 2011, ClimateWorks' research identified that the Clean Energy Future package had the potential to deliver 124 $MtCO_2e$ emissions reductions annually in Australia by 2020. If it is repealed, the emissions reductions that would have been delivered by the package (and more) will need to be found in order to meet Australia's minimum 5 per cent target.**

ClimateWorks' report *The Impact of the Carbon Price Package*[1], published in August 2011, modelled the potential emissions reductions that could be delivered through the Clean Energy Future package if optimally implemented. This package includes the carbon price, as well as complementary measures such as grants, financing assistance, information and upskilling.

The report found that the carbon price package, if optimally implemented, had the potential to unlock 124 $MtCO_2e$ of additional emissions reductions (above business-as-usual). This represented over three quarters of the emissions reductions required then to meet the bipartisan minimum 5 per cent national emissions reduction target annually by 2020 in Australia, and almost half what was required to meet the 25 per cent target. The legislation ensures that any remainder of the target not delivered through Australian emissions reductions would be achieved through international offsets.

[1] Available via www.climateworksaustralia.org/project/national-plan/impact-carbon-price-package.

The domestic potential from the Clean Energy Future package modelled by ClimateWorks includes the abatement that could be delivered through measures in the Clean Energy Futures which would:

- Improve the economics of most opportunities, by introducing a price on carbon.
- Create a signalling effect for long-life assets, again through the introduction of a price on carbon.
- Provide additional financial support through grants and financing assistance such as low interest loans.
- Address non-price barriers through information, upskilling and changes in governance and regulation.

If this legislation is repealed, it will need to be replaced with measures that will deliver equivalent emissions reductions (and more), and which address both the price and non-price barriers to achievement of emissions reductions.

2. Repealing the Clean Energy Future package will create delay in implementation of emissions reductions, and thus increase the cost of achieving national emissions reduction targets.

A strong finding of much of ClimateWorks' and others' research is that delay in the implementation of emissions reduction opportunities increases the ultimate cost of delivering abatement.

ClimateWorks' update to the *Low Carbon Growth Plan for Australia*[2], published in April 2011, found that one year of delay in implementing the opportunities identified in the *Low Carbon Growth Plan* meant that 5MtCO_2e of known abatement potential – the equivalent of taking 1 million cars off the road – was lost and could not be recovered before 2020. This loss resulted in a cost to Australian households and businesses of $5 million per week of delay, mostly because achievable energy efficiency opportunities which save money are not undertaken. The update report also found that if no further action were taken before 2015, the cost of reaching the minimum 5 per cent emissions reduction target within Australia in 2020 would be increased by $5.5 billion per annum for businesses and households.

Delay may lock in certain emissions that cannot be reduced by 2020. For example, one opportunity is an improvement of the fuel efficiency of new vehicles. If this is delayed, new cars with lower fuel efficiency than required by the *Low Carbon Growth Plan* will be bought.

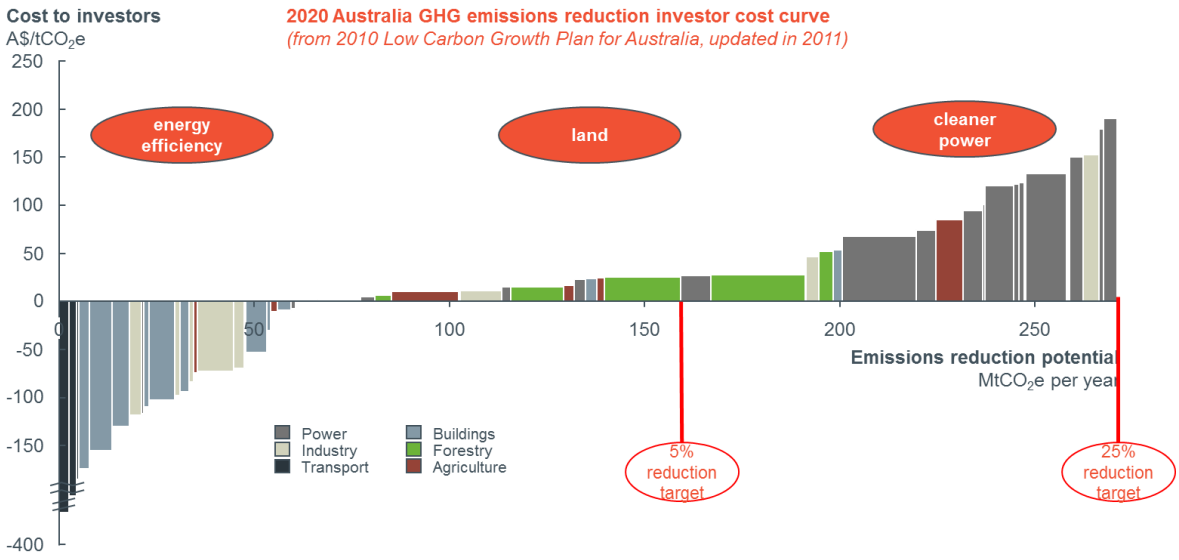
[2] Available via www.climateworksaustralia.org/project/national-plan/low-carbon-growth-plan-australia.

Given that cars stay on the roads for 20 years on average, the potential emissions savings corresponding to upgrading those cars are lost for 2020. In these cases extra emissions are locked-in.

More generally, many emissions reduction opportunities rely on improving technology, products and infrastructure at lowest cost—which is often when existing stock is retired, replaced or overhauled. Emissions are considered to be 'locked-in' if the cost of remedial measures is prohibitive once this favourable time has passed. Examples include replacing heating and cooling systems in buildings and electronics upgrades. Similarly, if an area of land is cleared, the opportunity to reduce emissions from avoiding deforestation on that area of land is completely lost.

Delay has the effect of "shrinking" most of the abatement opportunities a bit more every year. To achieve a target, this means that after a year of delay, opportunities that were originally situated to the "right" of the abatement target will need to be brought in to catch up for the loss (see diagram below).

Simplified 2020 GHG emissions reduction investor cost curve[3]



The chart above also demonstrates that abatement from carbon farming (including forestry) is required in order to achieve a least cost approach to achieving even the 5 per cent minimum 2020 target. If carbon farming is not delivered by 2020, more of the higher cost power sector investments will be required in order to meet the 2020 target. To avoid this, it will be essential to ensure that the maximum potential of carbon forestry is achieved. Delay

[3] This diagram is taken from the August 2011 update to ClimateWorks' *Low Carbon Growth Plan for Australia*, available via www.climateworksaustralia.org/sites/default/files/documents/publications/climateworks_lcgp_impact_of_the_carbon_price_package_revised_edition_aug2011.pdf.

of more than one year from now will prevent this, because many forestry projects take around six to seven years to reach their maximum volumes of abatement. Forestry and other opportunities with similarly long lead times need to be implemented immediately if they are to contribute any substantial abatement by 2020.

3. **Scientific advice indicates that deep decarbonisation will be required by 2050. A trajectory to deep decarbonisation in 2050 will require deeper emissions reductions than 5 per cent by 2020. The Clean Energy Future package is flexible enough to enable achievement of at least a 25% target by 2020 and beyond – any replacement policy much be equally flexible and long term.**

Australia's 2020 target should enable ongoing emissions reductions beyond 2020 to be consistent with the internationally agreed commitment to limit global warming to 2^{o} Celsius – which requires deep decarbonisation of the economy by 2050.

The most cost-effective pathway for achieving this requires a 2020 target substantially greater than 5 per cent – according to the Climate Change Authority's *Targets and Progress Review Draft Report*[4], "a 5 per cent target would leave such large reductions for later that future Australians would either face a very large emissions reduction task or have to abandon the long term national emissions budget." Further, any delay in capturing abatement or setting a clear trajectory will increase the later costs of achieving the same abatement. The Climate Change Authority's report advises that a 25 per cent target by 2020 is the only one which provides a trajectory to 2050 that does not need to be sharply accelerated after 2020.

The Clean Energy Future legislation is flexible in that it includes a 2050 emissions reduction target and provides a mechanism for setting Australia on an achievable trajectory to deliver deep decarbonisation by 2050, including through adjustment of the 2020 emissions reduction target. Any replacement legislation needs to both retain a 2050 target and provide a mechanism for enabling an achievable pathway to the 2050 target and adjusting the 2020 target to one that will not impose higher and unnecessary costs in the future.

[4] Available via http://climatechangeauthority.gov.au/caps.

4. The Clean Energy Future package led to the creation of architecture and institutions of the kind that will be required to achieve a cost-effective transition to a low carbon economy. Removing and remaking these institutions would add unnecessary cost to the task.

As ClimateWorks' 2013 *Tracking Progress Towards a Low Carbon Economy*[5] report revealed, Australia is currently on track to achieve just over 40 per cent of the minimum 5 per cent 2020 emissions reduction target. Assuming current trends in emissions reduction activity can be maintained, a further 108 $MtCO_2e$ will need to be found in order to meet the minimum 5 per cent target, and 221 $MtCO_2e$ will be required to meet a 25 per cent target, which is the minimum recommended by scientists for developed countries such as Australia and which is likely required in order to enable an achievable pathway to achievement of deep decarbonisation by 2050.

Achieving Australia's medium- and long-term emissions reduction targets and designing cost-effective policies to support this objective will require a range of expert advice and enabling measures such as access to finance. In addition to the institutional expertise within the Federal Government Departments which have been administering the Clean Energy Future package, organisations such as the Climate Change Authority and the Clean Energy Finance Corporation have developed highly valuable expertise, relationships, momentum and track record in relation to emissions reduction policy and program design. This expertise will help deliver least cost emissions reductions, and there is a strong case for retaining the existing knowledge and skills in organisations such as these in order to avoid the cost involved in setting up new organisations to perform these functions.

Likewise, the architecture established as part of the Clean Energy Future Package, such as the mechanisms and approaches to setting baselines and caps and developing emissions reduction activity methodologies, should be retained as part of any new policy arrangements in order to avoid unnecessary cost and delay in establishing new architecture.

5. Australia has an important role in international negotiations, and should consider the impact that this repeal will have on our ability to influence other nations to adopt ambitious emissions reductions goals.

Not only is Australia one of the world's highest per capita emitters of greenhouse gases, Australia's total emissions are comparable with some of the world's largest economies.

Australia has played an important role in international negotiations on emissions reductions efforts to date, and has been instrumental in much of the progress that has occurred in

[5] Available via www.climateworksaustralia.org/tracking-progress.

recent years. There is substantial evidence that momentum is building not only within Australia but globally, and there is a strong risk that the formal repeal of Australia's emissions reduction legislative arrangements will be seen as a negative signal globally and impair Australia's ability to influence other countries, including developing nations, to adopt more ambitious emissions reduction targets.