

THE CLIMATE CHANGE AUTHORITY'S SPECIAL REVIEW ON AUSTRALIA'S CLIMATE GOALS AND POLICIES: TOWARDS A CLIMATE POLICY TOOLKIT

MINORITY REPORT

5 SEPTEMBER 2016

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1. Introduction

1. As Members of the Climate Change Authority who have participated fully in the processes of the Special Review, we have reached the conclusion that the majority report does not respond adequately to the Review's terms of reference and has not followed the principles set out on the Climate Change Authority Act (Section 12). We also disagree with several, but not all, of the major recommendations and conclusions of the majority report. We find the analysis used to defend some of the report's recommendations inadequate. Overall, we view the majority report as a recipe for further delay in responding to the urgent need to reduce Australia's greenhouse gas emissions.

2. We regret that a consensus report has not been possible but feel that in good conscience we cannot lend our names to the majority report. After consideration, we have therefore decided to write a minority report.

3. There is a great deal of valuable background material in the majority report and we do not intend to reproduce it in our report. We confine ourselves to the major points of disagreement and a brief statement of our alternative policy recommendations and the reasons for them.

2. Australia's carbon budget

1. The basis of our disagreement with the majority report is its failure to recognise the importance of the constraint put on all future emission reduction targets and policies by Australia's carbon budget. The final report of the Special Review should, but does not, address the relationship between its recommendations, the global carbon budget consistent with the Paris Agreement, and Australia's carbon

budget consistent with a fair and equitable national contribution to the global budget. This is all the more regrettable because the requirement to do so is embedded in the Special Review's terms of reference and was analysed in the First Report of this Special Review released in April 2015 and confirmed in July 2015 (before the appointment of six new Members to the Authority in October 2015). In effect, the First Report of the Special Review has been ignored in formulating the recommendations of the Third Report.

2. In its First Report of the Special Review, the Authority reaffirmed the importance of a budget approach to setting emission reduction targets, referring to its major *Targets and Progress* report of February 2014. It saw no reason to change its estimate of Australia's greenhouse gas emissions budget through to 2050. That budget was based on an assessment of:

- the cumulative global emissions that would provide a 67 per cent chance of limiting global warming to 2°C above pre-industrial levels;
- Australia's commitment under the Copenhagen Accord to join global efforts to keep warming below 2°C; and
- an equity principle of 'modified contraction and convergence' consistent with the principles embodied in the UN Framework Convention on Climate Change and the Kyoto Protocol.

3. In its 2014 review the Authority recommended an Australian emissions budget of 10.1 Gt CO₂-e for the period 2013-2050. On this basis, it recommended that, in order to achieve a feasible transition to net zero emissions, Australia should set an emissions reduction trajectory that included:

- its previous recommended 2020 target of 19% below 2000 levels (compared with the current Government's 5% target);
- a 2025 target of 30 per cent below 2000 levels (or 36 per cent below 2005 levels); and
- a 2030 target range of 40-60% below 2000 levels (at the lower end a 45% reduction below 2005 levels, compared with the current Government's 26-28% target).

4. There are two reasons why the budget of 10.1 Gt CO₂-e (over 2013-2050) should now be revised downwards:

- some of that budget has been used since 2013; and

- in Paris last year Australia committed itself to join global efforts not only to hold the global average temperature ‘*well below 2°C*’ but also to pursue efforts ‘to limit the temperature increase to 1.5°C above pre-industrial levels’.

5. Against the constraints of the carbon budget, set out in the Special Review’s First Report, the Third Report by the Authority’s majority accepts the Government’s current target (set by the Abbott Government) of a reduction in Australia’s emissions of 26-28% on 2005 levels in 2030. For example, it states:

Baselines for all facilities should decline linearly at a uniform rate consistent with meeting Australia’s INDC to reduce emissions by 26 to 28 per cent below 2005 levels by 2030 and to position these sectors for further emission reductions that are likely to be needed beyond 2030 in line with Australia’s obligations under the Paris Agreement (p9).¹

Accepting the 26-28% target for 2030 is consistent neither with the Authority’s own advice to government nor with Australia’s commitment under the Paris Agreement to play its role in holding warming below 2°C. This target and the 5% reduction by 2020 are manifestly inadequate and inconsistent with the nation’s international obligations.

6. Figure 1 below shows the carbon budget for Australia put forward by the Climate Change Authority in the First Report of the Special Review, updated to show the effect of the current Government’s target of a 28% reduction on 2005 levels by 2030. (The budget is the area under the curve.) The pie chart shows the sliver of emissions that would remain to cover the 20-year period after 2030. More than 90% of Australia’s carbon budget to 2050 is used up by 2030 even with a 28% (as opposed to a 26%) reduction target relative to 2005. To meet the budget constraint, Australia’s emissions would have to decline precipitously and reach net zero by 2035.² Such a dramatic reduction would be impossible to achieve. It is therefore apparent that the current Government’s target of 26-28%, one endorsed by the majority report, lacks credibility because it is wholly inconsistent with Australia’s international obligations.

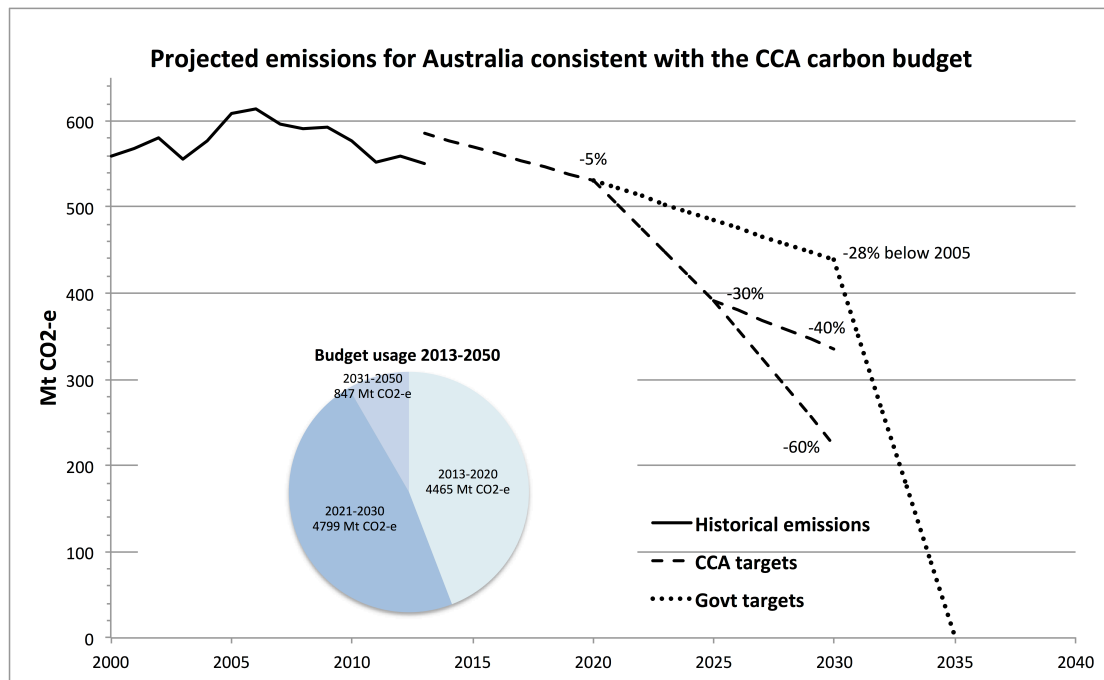


Figure 1 Australia’s 2013-2050 carbon budget and associated emission reduction trajectories (based on Climate Change Authority, Draft First Report for the Special Review, Figure 8, updated).

7. Clearly, acknowledging the carbon budget injects urgency into Australia’s climate policy objectives. Each year of delay, or each year in which emissions are reduced at a leisurely pace, means the slope of the emissions reduction curve becomes steeper as the time approaches at which the carbon budget is totally exhausted. This is likely to lead to a policy crisis in a decade or less. In our view, the failure of the majority report of the Authority to make this clear to government and the public contravenes the Authority’s obligation under its Act to deliver independent advice and to recommend measures that are ‘environmentally effective’ and based on science. The majority report’s analysis and recommendations give the impression that Australia has plenty of time to implement measures to bring Australia’s emissions sharply down. The carbon budget of Figure 1 shows that this is untrue and dangerous to Australia’s interests.

8. We believe that the effect of the majority report will be to sanction further delay and a slow pace of action with serious consequences for the nation. Those consequences include one or both of: very severe and costly emission cuts in the mid-to-late 2020s; or, repudiation of Australia’s international commitments and free riding

on the efforts of the rest of the world. The latter would weaken global momentum for an effective response to climate change and harm the nation diplomatically.

3. Terms of reference

1. The majority report is not based on the conclusions and recommendations of the First Report of the Special Review. Yet a fair reading of the terms of reference of the Special Review requires that the two be integrated so that the recommendations of the Third Report reflect the analysis of the First. According to its terms of reference (sent to the Authority on 15 December 2014 by the Minister for the Environment, Mr Greg Hunt), the principal task of the Special Review is to: ‘Assess whether Australia should have an Emissions Trading Scheme in the future and what conditions should trigger the introduction of such a Scheme’. In making this assessment the review must consider, *inter alia*,

what future emissions reduction targets Australia should commit to as part of an effective and equitable global effort to achieve the objective of the UNFCCC (Article 2) or subsequent agreement to which Australia is a party.³

The majority report does not consider what future targets Australia should commit to. In fact, it ignores that question, regarding it as no more than part of the Authority’s history.

2. Assessing those future emissions reduction targets is especially important because even the best policy or policy ‘toolkit’ will prove inadequate unless it brings about reductions in the nation’s greenhouse gas emissions consistent with a fair and equitable contribution by Australia to global efforts to limit dangerous climate change, as defined by our international legal obligations.

3. We note that the Paris Agreement of December 2015 reaffirmed and strengthened Australia’s formal commitment to making a fair and equitable contribution to global efforts to prevent dangerous climate change. It did so:

- by strengthening the global objective by committing Parties to hold the ‘increase in the global average temperature to *well below* 2°C above pre-industrial levels’ and, for the first time, included the more stringent commitment to pursue efforts to limit the temperature increase to 1.5°C; and

- by reaffirming the equity principles of all climate change negotiations, both in Article 4.4 ('Developed country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets') and by recalling Parties' obligations under Article 3.1 of the Convention, that is, their common but differentiated responsibilities.

4. In fact, the Australian Government made incompatible promises at the Paris Conference. Its promised target or Intended Nationally Determined Contribution (INDC) of reducing emissions by 26-28% by 2030 is not consistent with its commitment to play an equitable role in holding the global temperature rise below 2°C, let alone 1.5°C. The majority report frequently states that its recommendations 'will allow Australia to meet its Paris commitments', yet chooses to interpret those commitments as consisting only of meeting its INDC of reducing emissions by 26-28% by 2030 on 2005 levels. Unless Australia's emission reduction targets are increased sharply, Australia will not play its role in meeting the global objective of limiting warming to well below 2°C and pursuing efforts to limit warming to 1.5°C.

5. This omission is conspicuous in the majority report's Summary where, after noting that in Paris 'the Government committed Australia to reduce emissions by 26 to 28 per cent on 2005 levels by 2030', and noting the provision for five-yearly reviews, it states:

Accordingly, as well as needing policies to meet its 2030 target, Australia will need policies that are capable of being scaled up to meet more ambitious goals in the decades ahead and to play its part in action to decarbonise the global economy (p2).

If Australia is to play its part, there are no 'decades ahead' of 2030 for climate policy if Australia stays with its 26-28% target. Australia's carbon budget will be all but exhausted. The Authority ought to be making this crystal clear to policy makers and the public rather than giving the impression that the hard work can be left for the decades beyond 2030, that is, passing responsibility to the next generation.

6. Treating our 'Paris commitment' as if it were only the 26-28% target and not the commitment to hold warming to well below 2°C is convenient for the current Government's domestic agenda, but it contradicts the nation's international legal obligations and national interest in avoiding dangerous climate change. Nor is it

consistent with the statutory obligations of the Climate Change Authority. We note that the Explanatory Memorandum attached to the Climate Change Authority Bill 2011 (Section 1.35) states that:

it is important for the Authority's work to seek to support momentum for an effective global response to climate change, while being consistent with Australia's international obligations, trade objectives and foreign policy.

7. We are concerned that the majority report not only fails to respond to the term of reference concerning future emission reduction targets but also takes no account of Australia's obligations under Article 3.1 of the UNFCCC:

Parties should protect the climate system... on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change.

4. Political independence

1. The Climate Change Authority was established in 2012 by an Act of Parliament, with the support of Members and Senators with a variety of allegiances. Its reports ought to be aimed at informing and persuading the Parliament as well as the Government and, beyond both, the Australian public.

2. When framing recommendations, it is prudent for a statutory body like the Climate Change Authority to take into consideration the broad political and social parameters of the time. Nevertheless, it is obliged above all to base its advice on the best available scientific and economic evidence.

3. In our view, the recommendations of the majority report are framed to suit a particular assessment of the political circumstances prevailing in the current parliament. We believe that it is inappropriate and often counter-productive to attempt to second-guess political negotiations, especially for a new and uncertain parliament. Doing so can unduly narrow the focus of an authority's advice and risks miscalculation. In our view, attempts to craft 'politically realistic' policies risk being seen as partisan and damage the Authority's reputation for independence.

4. We draw attention to the strong emphasis on the *independence* of the Authority in the Explanatory Memorandum accompanying the Climate Change

Authority Bill 2011 (Sections 1.9-1.11). We also note the Minister's second reading speech at the time of the Authority's formation.

The authority will be independent from government. ... This means that climate change policy will be directed by evidence and facts, rather than fear and political opportunism. It will take the politics out of the debate. ... Australians also deserve an approach to tackling climate change that respects the scientific and economic consensus, where facts and not fear set public policy.⁴

5. The Parliament's clear direction on independence in establishing the Authority has been a guiding principle for our own work as Members. We believe that the unduly narrow focus of the majority report, seemingly based on a reading from a political crystal ball, has ruled out policies that have a proven capacity to respond most effectively to the nation's climate change goals. In particular, we believe that the report privileges 'policy stability' and 'political feasibility' over environmental effectiveness and economic efficiency (required by Section 12 of the Climate Change Authority Act), and makes recommendations that are not soundly based on climate science. Nervousness arising from the policy uncertainty of the recent past and the desire to 'tread carefully' has the lamentable consequence of acceding to the evisceration of effective policy by those who would prefer to do nothing, at a time when the urgency to act has never been greater and the rest of the world is pursuing a bolder and more determined path.

5. The main recommendations of the majority report

1. While we agree with some of the majority report's recommendations, we disagree with some of the more important ones and with the overall thrust of the report. At the centre of the majority report's recommendations is the retention of the current Direct Action policy as the basis for further action. Its recommendations are built around the two pillars of the current policy, the Emissions Reduction Fund (ERF) and the Safeguard Mechanism.⁵ The recommendation to retain the structure of existing policy despite its inadequacies (discussed next) gives little reason to be confident that it can be modified to achieve the very considerable task in front of us.

2. The majority report's recommendations have three main components.

- In the electricity sector, elaboration of the existing Safeguard Mechanism into a baseline-and-credit emissions trading system with a declining emissions-intensity baseline. The scheme provides two means by which generators may buy their way out of emission reduction obligations – credits from energy efficiency white certificate schemes and credits from energy efficiency ERF projects.
- In the direct combustion, industrial processes and fugitive emissions sectors, the report recommends a ‘baseline but no credit’ scheme building on the existing Safeguard Mechanism with a declining baseline (though not of an emissions-intensity type). It is not an emissions trading system, but aims for a ‘middle ground’ between regulation and a trading scheme. Covered entities would not be able to generate credits by going below the baseline but they would be able to meet their obligations by purchasing credits from abroad, or by generating credits under the ERF, or by buying domestic offsets generated by the ERF.
- A major expansion and extension of the ERF so that the Federal Government (or safeguard facilities) would pay for emission reduction projects in the electricity, transport, land use, agriculture, landfill waste and synthetic greenhouse gases sectors (until other policies are in place in some of them). In other words, virtually all emitting sectors would be integrated into the ERF.

3. The Review’s terms of reference direct the Authority to assess whether Australia should have an emissions trading system. The majority report’s answer is ‘yes’ in electricity and ‘no but maybe later’ in other energy sectors. In our view, the majority report does not provide a balanced assessment of the strengths and weaknesses of its preferred emissions-intensity emissions trading system and enhanced Safeguard Mechanism as against a cap-and-trade emissions trading system or a carbon tax. In particular, the drawbacks of emissions-intensity schemes and the Safeguard Mechanism are downplayed. The proposed baseline-but-no-credits scheme for the other energy sectors strikes us as inelegant, ineffective and bureaucratic.

4. A constant refrain of the majority report is the need for policy stability, a ‘durable policy architecture’, and certainty for investors. Yet it recommends (**majority Recommendation 10**) that ‘the policy toolkit as a whole’ be subject to a

review in 2022. This strikes us as injecting *more* uncertainty into climate policy, leaving investors in limbo.

6. Drawbacks of an emissions-intensity scheme for electricity

1. It is an almost impossible task to set credible emissions-intensity baselines for industries and firms that do not produce homogeneous or near-homogeneous goods, which means every energy sector other than electricity and petroleum. So an emissions-intensity scheme is feasible for electricity. In the majority report, its principal virtue is the lower price rises it causes and so its putative political acceptability. Yet compared with cap-and-trade schemes, emissions-intensity schemes have a number of drawbacks.

- Emissions-intensity schemes do not set a trajectory for absolute emissions and are therefore not tied to a carbon budget. A firm whose output and emissions are growing more quickly would not be required to buy credits from firms whose emissions are declining, because each may have the same emissions intensity of output.
- Assuming the same trajectories, under an emissions-intensity scheme the polluter does not pay for the full costs of the damage caused by the pollution, because in effect free permits are allocated for emissions up to the baseline. Under a cap-and-trade scheme polluters pay the full cost of their emissions. An advantage of emissions-intensity schemes is that they are likely to meet less resistance because price increases are lower.
- Because the price effect is muted, the demand effects of emissions intensity schemes are much weaker, compromising their environmental effectiveness, and requiring (as in the case of the majority report) additional, less efficient policy interventions that may impose higher costs on the economy.
- The absence of a revenue flow to the government means that the government has no room to lower other taxes, assist households and fund regional adjustment programs.
- It is unlikely that other nations with cap-and-trade schemes would allow linkages to a unique emissions-intensity scheme in Australia whose rules and operation would be incompatible.

2. It is for these kinds of reasons that no country in the world has adopted an emissions-intensity baseline-and-credit scheme, while many have adopted cap-and-trade schemes. Cap-and-trade schemes are not without their drawbacks but they are well known and the solutions to their weaknesses have been tried and tested. From 2012 Australia had a carbon pricing mechanism in operation, which was about to evolve into a full cap-and-trade system scheme before there was a change of government in 2013. All of the major industry sectors were prepared to participate in the scheme. According to new research, since Australia's carbon price was abolished and replaced with the Direct Action policy, Australia's largest listed, carbon-intensive companies lost focus on carbon matters, abandoned energy projects, and lost interest in long-term strategic action on reducing emissions.⁶

7. Problems with the enhanced Safeguard Mechanism

1. The majority report's proposed enhanced Safeguard Mechanism for the non-electricity energy sectors is not an emissions trading scheme. It does not allow for covered entities to generate credits by reducing their emissions below their baselines. The report acknowledges that this comes at an economic cost (p69), and so it puts forward a 'middle ground' or hybrid regulation-market mechanism scheme to attempt to respond to this obvious weakness. The resulting scheme, designed to 'build on' the existing Direct Action policy, is a dog's breakfast, with a complex array of incentives and regulatory requirements that covered entities would have to negotiate. Its details are left opaque in the majority report, perhaps for this reason.

2. In addition to the manifestly inadequate 2030 target for these sectors recommended by the majority report, the principal difficulties of the proposed scheme are as follows.

- There is no incentive for liable entities to reduce their emissions below their baselines.
- For many entities it will be cheaper and more predictable to aim for emissions above their baselines and store up credits for the difference. There are three methods in the scheme to allow for this. They can purchase credits from abroad, generate credits themselves under the ERF (and so being paid by the government) or buy domestic offsets generated by the ERF. This structure is likely to mean that the transition of these important energy industries,

accounting for 31% of Australia's total emissions, to a low-carbon future is seriously delayed.

- To set credible baselines would require a substantial cohort of bureaucrats continuously gathering large amounts of data on emissions per unit of physical output or value for each liable firm. There may be dozens of different baselines, and every one would be subject to lobbying, special pleading and incentives for deception. Monitoring compliance would require another bureaucratic structure, one much more extensive than would be required for a cap-and-trade system.

8. Flaws in the Emissions Reduction Fund

1. The majority report's policy 'toolkit' relies heavily on an expanded ERF. Under this policy the cost to the federal budget will increase the more seriously the Government commits to our Paris obligations. Using the ERF to achieve the same emissions reduction achievable under a carbon price would be, in Professor Garnaut's words, 'an immense drain on the budget'.⁷ In such a situation Treasury, fiscal conservatives and 'the markets' would have a strong interest in opposing any ramp up in our carbon abatement ambitions on the grounds of Australia's worsening national debt and credit rating. We believe it is unwise to make Australia's climate policy hostage to disputes over fiscal policy.

2. The majority report anticipates that the fiscal drain would be moderated by the creation of new sources of demand for ERF credits, namely, entities in the electricity and other energy sectors obliged to reduce emissions under an expanded Safeguard Mechanism or other policy constraints. This exposes a contradiction in the approach. To the extent that the budgetary burden is eased because firms (as well as the government) become purchasers of ERF credits, the transition to a low-carbon future in those sectors will be slowed down because they are 'outsourcing' their emission reduction obligations. A more steeply declining baseline is likely to increase private demand for ERF credits, easing the fiscal burden but undermining the aim of the policy.

3. As a rule, the replacement of the widely accepted 'polluter pays' principle with the ERF's 'pay the polluter' principle is bad economics, bad ethics and bad policy. Moreover, there are significant practical drawbacks and problems with the

ERF that are not, or not sufficiently, acknowledged in the majority report. In addition to those mentioned above, the main ones are as follows.

- The ERF requires a bureaucracy of experts – ‘an elite unit of baseline guessers working into the night’, in the words of two experts⁸ – to evaluate each project submitted and then to monitor, over several years, each successful project to ensure that the emissions reductions promised actually eventuate. This is expensive and unreliable, and encourages the emergence of an army of consultants who know how to work the system.
- There are serious and continuing concerns about the permanence of emissions reductions and their ‘additionality’. It is hard to know whether the Commonwealth is wasting money by paying for emission reductions that would have taken place anyway.⁹ In the private sector, new investment projects that involve emission reductions are initiated all the time, so why wouldn’t the businesses planning them submit them for a subsidy, claiming that they will not undertake them unless subsidised?¹⁰
- In particular, among major ERF recipients are landowners who are paid not to clear land. But who can be sure that they were planning to clear the land? A far more effective and proven approach is to tighten restrictions on land clearing, as some state governments have been doing. We recommend that the Commonwealth take a strong role here.
- Other projects to receive funding involve revegetation. Trees absorb carbon as they grow but sooner or later they die or are burnt and release their carbon back into the atmosphere.

4. Despite the serious shortcomings of the ERF, few of which are mentioned in the majority report let alone responded to,¹¹ the majority report recommends a very large expansion of the scheme, to the point where Australia’s entire emissions abatement effort, at least for several years, would depend on it.

9. Additional recommendations of the majority

Electricity

1. Some of the drawbacks of emissions-intensity trading schemes apply with reduced force to the electricity sector. The baseline is easier to specify due to the homogeneous product and monitoring would be relatively straightforward. An

emissions-intensity scheme for electricity does, however, have the disadvantage of a much lower demand effect. And we note that ring fencing an electricity sector trading scheme from the rest of the economy would result in a thinner market for emission permits in the other energy sectors. On the other hand, such a scheme would enjoy the benefit – both political and in equity terms – of inducing lower price rises.

2. On balance, we support the introduction of a cap-and-trade emissions trading scheme in the electricity sector, one integrated with the other energy sectors. We believe that a case could be made for separating the electricity sector from other energy-intensive industries – other things being equal, it would allow higher permit prices – in which case an energy-intensity scheme has some benefits. We also conclude that the decarbonisation of electricity can be hastened and facilitated by a strengthened and extended Renewable Energy Target (RET) (see below).

3. However, we reject **majority Recommendation 3** that the ‘baseline for electricity should decline linearly over time and reach zero well before 2050, consistent with Australia’s Paris Agreement obligations’ because it is clear from the carbon budget recommended in the First Report of the Special Review that electricity emissions must fall to zero by 2035, and that such a rate of decarbonisation is consistent with Australia’s Paris Agreement obligations properly understood.

4. We do not agree with **majority Recommendation 4** that the electricity emissions trading scheme should be open for liable entities to meet their emission reduction obligation by buying credits internationally, except under a strict limit, or from domestic offset schemes, including the ERF.

5. The majority report recommends that credits generated by energy efficiency white certificate schemes be permitted as a means of meeting obligations in the electricity sector. We have concerns about the risks of financializing some hard-to-measure and verify energy savings. We also have concerns about the risks of ensuring the additionality and the permanence of emission savings.¹²

6. The majority report dismisses too easily one of the most effective policy instruments in the electricity sector, namely, direct payments for the retirement of coal-fired power plants, a policy that would be very effective in the current circumstances of the electricity market where old coal-fired power plants with the dirtiest emissions profile are economically marginal and are driving gas-fired generation out of the market. The Authority’s own analysis shows that combining regulated closure with a market mechanism can be a cost-effective means of bringing

about an accelerated transition, an approach that enjoys widespread support from within the industry and outside.¹³ The reasons given in the majority report (p116) for rejecting regulated closures seem to us to be either straw men or easily overcome by good policy implementation, especially clear policies set out and adhered to by the government.¹⁴

7. The electricity market has been changing rapidly and will continue to do so. Yet the prevailing infrastructure and regulatory framework were developed under very different conditions. The strain is becoming intense and we support the proposal for an Electricity Modernisation Review (to be implemented as soon as practicable) to advise on urgent changes to the National Electricity Market so that it can accommodate and facilitate the rapid pace of change.

8. The majority report recommends no change to the current settings for the Large-scale Renewable Energy Target (LRET) (**majority Recommendation 22**), which is to stabilise at the currently legislated 33,000 GWh of generation in 2020 and end in 2030. The RET had been a highly effective policy leading the transition to a low-carbon electricity sector, until it was slashed by the Abbott Government, despite widespread public support for it and acceptance by industry. In its December 2012 review of the RET, the Climate Change Authority recommended that the then-target of 41,000 GWh in 2020 be left unchanged. In its December 2014 RET review the Authority recommended that (after investment had slowed due to policy wrangling) the LRET target of 41,000 GWh be retained but that the date be pushed back to around 2023. It also recommended that the government consider increasing and extending targets beyond 2023, and expanding arrangements to cover a wider set of technologies. We recommend increasing the RET target in 2020 and 2030 and consider extending it to 2035 (see below).

Direct combustion, industrial processes and fugitive emissions sectors

9. The majority report recommends an elaboration of the Direct Action program's Safeguard Mechanism to turn it into a semi-marketised form of regulation for the direct combustion, industrial processes and fugitive emissions sectors ('other energy') (**majority Recommendations 7, 8 and 9**). In the light of the serious drawbacks of the Safeguard Mechanism (pointed out in Section 7 above), we believe that this hybrid scheme is put forward largely for political reasons.

10. For other energy sectors, **majority Recommendation 6** would allow access to international permits subject to ‘a quantitative limit to ensure that the transition to a lower carbon [it should be ‘low carbon’] economy is not delayed’. But the majority report provides no guidance as to what this quantitative limit would mean in practice. Nor does it canvas overseas experience with this kind of quantitative limit.

11. For the reasons given above, we do not believe that the extension of the Safeguard Mechanism into a hybrid regulatory-market mechanism scheme for non-electricity sectors (as per **majority Recommendations 5, 6, 7, 8 and 9**) is practicable or environmentally effective. Nor do we accept that, if there were such a scheme in operation, liable entities should be able to buy credits from ERF projects. We recommend a cap-and-trade scheme for these sectors (see below).

12. We place more emphasis than the majority report on the need to ensure that access to international permits does not slow the decarbonisation of the Australian energy economy, but only smooths the transition. In the words of the Authority’s *Targets and Progress Review*: ‘Over-reliance on international emissions reductions could delay Australia’s domestic transition, increasing the risk of disruptive and costly adjustment in the future’ (p13).

13. So in supporting access to international permits for these sectors we recommend:

- more stringent restrictions on the quality of credits to guarantee their additionality; and
- an annual limit (averaged over any three-year period) on international permits and domestic offsets of no more than 5% of total permits that any entity may use in order to meet its emission reduction obligations.

14. We disagree with **majority Recommendation 35** that emissions-intensive, trade-exposed (EITE) facilities be given *carte blanche* to buy their way out of emission reduction obligations with unlimited access to international permits. If this recommendation were implemented, the incentive would be for EITEs to buy up and bank large quantities of cheap credits then sit back for years and do nothing. This would undermine the policy goal of inducing all emissions-intensive industries to take the path to a low-emissions future. Moreover, the history of policy in this area shows that the problems of carbon leakage and competitive disadvantage have been grossly

overstated by firms and industries for the purpose of extracting unnecessary concessions or large cash payouts.

15. We disagree with **majority Recommendation 12** to establish a government fund to buy international offset credits and permits to help meet Australia's 2030 emission reduction target.¹⁵ The establishment of such a fund would create a moral hazard by taking pressure off industry, as there would always be a taxpayer-funded safety valve if industry did not meet its obligations. This would delay the transition of the Australian energy sector to a low-emissions future. Moreover, Australia has spent the last 20 years using dubious accounting to meet its obligations (especially via Article 3.7 of the Kyoto Protocol concerning accounting for emissions from land clearing¹⁶). The proposal to acquire now a stock of cheap credits from poor countries with a view to buying our way out of our commitments in 2030 would be yet another display of bad faith by Australia.

Other recommendations

16. We agree with some of the recommendations for other sectors in the majority report, and will indicate which ones below. However, we have a general difficulty with the majority report's heavy reliance on the ERF for securing emissions reductions in the electricity sector, other energy sectors, transport, land use, agriculture, landfill waste and synthetic greenhouse gases sectors, sectors that account for the bulk of Australia's emissions. It is an enormous burden for a flawed scheme to carry, even if the majority report anticipates it will be asked to carry some of that burden only until other regulatory measures come into effect.

17. We reject the majority report's almost exclusive reliance on the ERF to bring about reductions in emissions from Australia's *agriculture and land use sectors* (**majority Recommendations 28, 29 and 30**). These sectors will occupy a growing share of Australia's total emissions as policies in energy sectors bring down their emissions. Emissions from land clearing are expected to rise rapidly in coming years, largely due to abolition of restrictions by some state governments (see majority report Figure 5).¹⁷ Moreover, there is a lower limit to emission reduction possibilities in certain agricultural activities (notably meat production) that will eventually need to be fully offset by other changes in these sectors. Australia is at present poorly prepared

for these forthcoming changes and in our view the majority report's failure to address the issue risks perpetuating this lack of preparedness.

18. We are concerned by the majority report's evasion of the worsening land-clearing problem that is eroding gains in other parts of the economy. The majority report correctly notes (p134) that restrictions on land clearing have been very effective at reducing emissions. But it then goes on to say that those restrictions do not enjoy 'universal support' because farmers' organisations oppose restrictions. As a result 'an alternative approach' should be pursued (**majority Recommendation 30**). This strikes us as a capitulation to sectional lobbying and contrary to the Authority's obligation to act independently.

10. Our recommendations

Carbon budget

R1. We strongly recommend that the Australian government formally adopt a budget approach to setting climate change policy. We endorse (subject to updating) the carbon budget put forward in the First Report of this Special Review and its use to shape and constrain implementation of climate policies. Emission reduction targets for 2020, 2025 and 2030 should be set consistent with the budget constraint in order to achieve a smooth transition to a net zero carbon economy consistent with our international obligations.

Electricity sector

R2. We recommend the introduction in 2018, or as soon as practicable, a cap-and-trade scheme for electricity, with liable entities requiring permits to emit up to the cap. The Commonwealth should consider whether the electricity scheme should be integrated with the emissions-trading scheme (described below) for other energy sectors, or whether there is a case to keep it separate in order to have a higher permit price. If it is separated then consideration could be given to an emissions-intensity baseline in the electricity sector.

R3. The baseline for the electricity sector should be set so that it reaches zero at a time consistent with electricity making its fair contribution to meeting Australia's carbon budget constraint, and probably before 2035.

R4. The emissions trading scheme in electricity should be closed (no international or domestic offsets). We also recommend no opening of the scheme to credits generated by white certificate schemes for energy efficiency (as per **majority Recommendation 4**), at least until existing white certificate schemes are carefully reviewed and reformed to ensure that all credits are generated by energy savings that are additional, verifiable and permanent.

R5. We recommend that the Large-scale Renewable Energy Target (LRET) be increased. Subject to more detailed analysis, we propose setting the target at 37,000 GWh in 2020 and 65% of electricity generation in 2030. The latter translates into approximately 104,000 GWh, with the option of a higher 2035 target to be assessed in a review in 2025. A 2030 renewable energy target around this level is feasible economically and technically.¹⁸

R6. The Commonwealth should consider closing down, within the next few years, selected coal-fired power plants (mainly brown-coal plants) through a bidding process for a closure payment. The payments would be funded by a mandatory charge on other generators.¹⁹

R7. We recommend a Commonwealth-State review tasked with developing a plan for transforming Australia's electricity infrastructure and national market to facilitate the rapid changes taking place, including the decline of coal-fired power stations, growth of renewables, spread of distributed generation and expansion of new forms of storage.

Direct combustion, industrial processes, fugitives, waste water

R8. We recommend the introduction, in 2018 or as soon as practicable, a cap-and-trade emissions trading system on emissions from the direct combustion, industrial processes and fugitive emissions sectors. It would also cover transport emissions and be applied to upstream facilities. The cap should decline consistent with Australia's carbon budget. It would apply to entities responsible for emissions of 25,000 t CO₂-e per annum or more.

R9. Entities covered by the cap-and-trade scheme would be able to meet their obligations with credits generated by domestic offsets up to an annual limit (averaged

over any three-year period) of 5% of total permits that any entity may lodge in order to meet its emission reduction obligations. Credits from white certificate schemes would not be eligible.

R10. Linking of Australia’s emissions trading scheme to other trading schemes abroad should be considered on its merits but subject to an assessment that trade in permits does not unduly slow Australia’s transition to a net zero carbon economy.

R11. We recommend that emissions-intensive, trade-exposed (EITE) facilities be allocated enough free permits to allow them to meet any new, genuine competitive disadvantage that the cap-and-trade scheme may cause (but not simply because they are more emissions intensive than some producers elsewhere in the world). Vigilance against excessive claims ought to be high in order that the burden of emissions reductions is shared equally in the economy. We endorse **majority Recommendation 37** that competitiveness assistance to EITEs should be simple and transparent and **majority Recommendation 38** that time limits should be imposed on assistance to EITEs (consistent with tightening climate policies in competitor nations).

R12. We recommend abolition of the ERF, while supporting the Carbon Farming Initiative (see below).

Land use and agriculture

R13. We recommend the development of a comprehensive set of policies to cover emissions from land use and agriculture.

R14. We recommend that the Commonwealth coordinate with and support states and territories to strengthen restrictions on land clearing with a view to reducing net land clearing emissions to zero by 2020.

R15. We recommend insertion of a ‘greenhouse trigger’ into the Environmental Protection and Biodiversity Conservation Act, one that would also cover land-clearing emissions.

R16. We believe there is a continuing role for the Carbon Farming Initiative (in its form before it was incorporated into the ERF) for generating carbon credits from land, reforestation and agriculture, subject to strict additionality and permanence

conditions.²⁰ Credits could be used by entities in energy sectors to meet their obligations, although only up to the 5% quantitative limit.

Transport and cities

R17. We agree with **majority Recommendation 25** calling for emission standards for light and heavy vehicles but urge that, since Australia will by 2018 be entirely dependent on imports of vehicles, these standards should be the most stringent that apply internationally. We go beyond **majority Recommendation 26** calling for a cost-benefit analysis of heavy vehicle standards and recommend their introduction as soon as practicable, noting that such standards are expected in the transport industry.

R18. We note that the majority report makes no recommendations in favour of greater investment in public transport systems despite their ability to make a major contribution to cutting Australia's emissions. Investment in public transport systems (along with progress towards decarbonised private transport) are essential to comprehensive planning of Australia's cities for a zero-carbon future in a warming world. So we recommend that the Commonwealth play a much more active role in assisting the states and territories make this transition through a major program of public and public-private investment.

R19. We support **majority Recommendation 17** calling for regular updates of the national construction code, but we also call for the code to be strengthened to world-best practice.

Energy efficiency

R20. We endorse **majority Recommendation 15** calling for harmonisation of white certificate schemes among states, and recommend the NSW scheme as a model. However, we also recommend a thorough independent review be conducted to tighten up these schemes to ensure greater additionality and permanence of energy savings.

R21. We also endorse **majority Recommendation 18** calling for regular updating of energy efficiency standards for appliances, but we call for them to be strengthened to match world-best standards.

Negative emissions

R22. We endorse **majority Recommendation 20** to support low-emissions technology innovation with public funding and note the importance of the CEFC in this regard.

R23. All scenarios aimed at meeting the 1.5°C target require negative emissions to come on stream well before 2050 and most 2°C scenarios require negative emissions on a substantial scale by or soon after 2050. We also note that, with a large land area and low population, Australia may be expected to play a disproportionately large role in global efforts to sequester carbon from the atmosphere. Some serious potential difficulties have been identified in the literature concerning negative emissions technologies. We recommend that Australia begin a research program to investigate the applicability of negative emissions technologies. However, we stress that negative emissions technologies should not be regarded as a substitute for emissions reductions but only as a necessity to draw down historical carbon emissions.

Landfill waste and synthetics

R24. We accept **majority Recommendation 31** calling for the harmonisation of regulations on landfill methane emission, with an additional recommendation for stronger regulations limiting emissions.

R25. We recommend the use of more stringent regulation to continue the phase down of synthetic greenhouse gases and accelerate the phase down of HFCs.

Social impacts

R26. We do not support **majority Recommendation 19** calling for ‘investigation’ of best-practice improvements to energy-efficiency for low-income households, including costs of retrofits. The solutions in this domain are well known and need no further investigation. We recommend enhanced Commonwealth efforts to implement energy efficiency improvements for low-income households.

R27. We endorse **majority Recommendation 39** for the federal government to consider transitional assistance to affected regions (in addition to income support, job

search assistance and training subsidies) and majority Recommendation 40 to consider additional income support for low-income households.

R28. However, we believe a more pro-active approach is needed to manage the economic transition in areas heavily affected by the shutdown of coal-fired power plants and associated coalmines. We recommend the use government levers, including funding from the Clean Energy Finance Corporation and revenue from the recommended cap-and-trade scheme, to encourage, where feasible and not unduly inefficient, a greater share than otherwise of new low-carbon investment in regions adversely affected by climate change policies. Policies should include local training programs to provide skilled workers for new industries.

¹ Acceptance of the 26-28% target by 2030 is also implied for the electricity sector on p68 and Recommendation 3. We note that the recommendation of a ‘linear’ decline in baselines is nonsensical with a budget constraint.

² We note that this carbon budget, and its implications, have been independently replicated in work by the respected Berlin-based research organisation Climate Analytics, as reported by the Climate Institute in its recent briefing paper *Beyond the Limits: Australia in a 1.5-2°C world* (Climate Institute, August 2016).

³ Article 2 requires ‘stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.’

⁴ <http://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22chamber%2Fhansard%2F9d23419d-b801-43c9-b4d4-20152cc8bff9%2F0075%22>

⁵ ‘At the core [of the Direct Action policy] is the \$2.55 billion Emissions Reduction Fund and its Safeguard Mechanism. This is complemented by the Renewable Energy Target, energy efficiency improvements, phasing out very potent synthetic greenhouse gases, and direct support for investment in low emissions technologies and practices.’ <https://www.environment.gov.au/climate-change/publications/factsheet-australias-2030-climate-change-target>

⁶ <https://theconversation.com/direct-action-not-as-motivating-as-carbon-tax-say-some-of-australias-biggest-emitters-64562>

⁷ Ross Garnaut, Inquiry into the Government's Direct Action Plan, Submission 105, 6 March 2014

⁸ Frank Jotzo and Paul Burke, ‘Direct Action subsidies: wrong way, go back’, Inside Story, 17 March 2014 <http://insidestory.org.au/direct-action-subsidies-wrong-way-go-back>

⁹ Tristan Edis, ‘Why the Direct Action auction has a suspicious whiff of rubbish abatement’, *Business Spectator*, May 28, 2015

¹⁰ Paul Burke, ‘Undermined by Adverse Selection: Australia's Direct Action Abatement Subsidies’, *Economic Papers*, May 2016; and, <https://theconversation.com/direct-action-not-giving-us-bang-for-our-buck-on-climate-change-59308>

¹¹ See Box 1, p48. One or two of them are glossed over in the second report of the Special Review (pp21-23)

<http://climatechangeauthority.gov.au/sites/prod.climatechangeauthority.gov.au/files/SpecialReport2/Options%20paper%20Final.pdf>

¹² See http://ceem.unsw.edu.au/sites/default/files/documents/eceee_wceect_MacGill_final.pdf The NSW scheme, which focuses more on commercial energy users than households, is better than other state schemes.

¹³ CCA, *Policy Options for Australia's Electricity Supply Sector*, August 2016, section 5.2

¹⁴ The claim (p116) that regulated closures would be too expensive ‘in isolation’ may be true, except that no one is proposing that. The claim that taxpayers would have to pay fails to note the Jotzo and Mazouz proposal that other generators be required to meet the cost.

¹⁵ The Authority's *Targets and Progress* report endorsed a similar proposal.

¹⁶ Clive Hamilton and Lins Vellen, Land-use Change in Australia and the Kyoto Protocol, *Environmental Science & Policy* 2(2):145-152 May 1999

¹⁷ In 2014 emissions from ‘afforestation, reforestation and deforestation’ (mainly land clearing) amounted to 27 Mt CO₂-e, or 5% of Australia's total (majority report Table 3).

¹⁸ The most recent National Electricity Forecasting Report from AEMO projects total sent out demand of about 192,000 GWh plus 20,000 GWh rooftop solar photovoltaic (PV) in the National Electricity Market in 2030. Assuming 22,000 GWh plus 6,000 GWh rooftop solar for other grids, this makes a total of 214,000 + 26,000 GWh rooftop solar. Hence, to get 65% renewable, including the 26,000 GWh from rooftop solar, would require another 130,000 GWh from other renewables. In the year to July 2016 renewables delivered about 26,000 GWh plus 5-6,000 GWh from rooftop solar. So another 106,000 GWh non-rooftop solar renewables would be needed. Is the implied amount of investment feasible? Achieving an additional 67,000 GWh in 2030 (above the 37,000 in 2020) would require an additional investment of roughly \$130 billion over 10 years. By way of comparison, this is less than the total investment in LNG projects over somewhat less than the past 10 years. For example, the Gorgon project alone has now invested \$74 billion, Wheatstone has invested \$33 billion, and Inpex \$35 billion plus for the Ichthys project.

¹⁹ The proposal put forward by Jotzo and Mazouz (2015) and described in the Authority's electricity report (pp62-3).

²⁰ Our views are based on the Climate Change Authority's December 2014 *Carbon Farming Initiative Review*.