

# 3. Review and analysis

## Introduction

- 3.1 This chapter considers the evidence received by the Committee. There was widespread support for the *Paris Agreement* from a diverse range of stakeholders. The Agreement is seen as an important collective step by the global community in combating the effects of anthropogenic climate change.
- 3.2 The Committee heard some concerns about the implementation of the Agreement. In particular, questions were raised about whether Australia's current climate change policy framework will be able to meet Australia's commitments under the Agreement. Despite these concerns, a range of opportunities were identified for Australia to successfully adapt to the changing conditions and to take advantage of the transition to a global low-carbon economy.

## Impact of climate change on Australia

- 3.3 Australia has been identified as 'among the most exposed and vulnerable' of the developed countries to climate change due to its 'hot, dry climate and environmental extremes'.<sup>1</sup> The Climate Council warns that Australia is on the 'front line of climate change'.<sup>2</sup> Australia is prone to extreme weather

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<sup>1</sup>Australian Psychological Society (APS), *Submission 16*, p. 1 (quoting from a report of the International Panel on Climate Change (IPCC), *Climate Change 2014: Impacts, Adaptation and Vulnerability*, Chapter 25).

<sup>2</sup>Climate Council, *Submission 24*, p. 3.

events which could increase in frequency and severity due to climate change, exacerbating the occurrence of fire and flood.<sup>3</sup>

- 3.4 Given the concentration of urban development around Australia's coastline, exposure to rising sea levels and increased storm surges could pose a significant threat. Local councils are factoring these concerns into forward planning and the risk is influencing insurance industry decisions.<sup>4</sup> Australia's agricultural sector is being forced to adapt to changing weather patterns. This could present a future threat to food security, both for Australia and its international trading partners.<sup>5</sup>
- 3.5 Of major concern is the possible impact of climate change on the health of Australians. A number of health professionals identify climate change as 'arguably the biggest health threat of the 21st Century.'<sup>6</sup> They make a direct link between climate change and a range of detrimental effects on physical and mental health:

These risks follow an increase in extreme weather events and natural disasters, changing distribution of flora and fauna, increases in infectious disease outbreaks, respiratory, cardiovascular and mental health stressors, reduced food security and volatility in the Asia-Pacific region.<sup>7</sup>

- 3.6 The flow on effect could impact significantly on health service delivery, both resources and personnel:

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<sup>3</sup>Climate Council, *Submission 24*, p. 3.

<sup>4</sup>Professor Matthew England, Deputy Director, Climate Change Research Centre, University of New South Wales, *Committee Hansard*, Sydney, 27 September 2016, p. 20.

<sup>5</sup>Professor England, *Committee Hansard*, Sydney, 27 September 2016, pp. 17–18; Dr Mark Zirnsak, Director, Justice and International Mission Unit, Synod of Victoria and Tasmania, Uniting Church in Australia, *Committee Hansard*, Melbourne, 6 October 2016, p. 7; Ms Fiona Armstrong, Executive Director, Climate and Health Alliance (CAHA), *Committee Hansard*, Melbourne, 6 October 2016, p. 1; Ms Chloe Aldenhoven, Coal and Gas Community Campaigner, Friends of the Earth Australia, *Committee Hansard*, Melbourne, 6 October 2016, p. 22.

<sup>6</sup>APS, *Submission 16*, p. 2; Australian Medical Students' Association (AMSA), *Submission 19*; Cohealth, *Submission 39*.

<sup>7</sup>Climate and Health Alliance (CAHA), *Supplementary Submission 10.1*, p. 5.

Adverse health effects on individuals and communities will obviously also impact health systems and health care delivery, with the treatment of climate change-related health conditions adding to the burden of an already stretched Australian health care workforce.<sup>8</sup>

- 3.7 However, there are some who question the existence of climate change altogether and others who question the anthropogenic nature of the phenomenon. The use of model based evidence for climate change has been called into question, as has the extent of consensus among scientists on the evidence.<sup>9</sup>

### **Text of the *Paris Agreement***

- 3.8 The *Paris Agreement* has been welcomed as a positive step forward, supporting collective action on an issue that is considered a global concern. The Agreement provides a common framework for action, eliminating the distinction between developed and developing countries and establishing clear targets:

- The Paris Agreement covers over 190 nations, includes all the major emitters and both developed and developing nations.
- It includes clear goals against which progress can be tracked, including the aim of limiting global warming to less than 2°C and the ambition of a net zero emissions economy by the second half of the century.
- It establishes a realistic process and pathway for ongoing decarbonisation, which builds upon the nationally determined contributions of each country and works within a process of ever increasing ambition through the review and ratchet mechanism.<sup>10</sup>

- 3.9 Although support for the Agreement is widespread some have raised concerns. It is suggested that the Agreement does not adequately convey the urgency of the situation and may not go far enough to successfully combat climate change.<sup>11</sup> The current pledges may be too little to confine the global

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<sup>8</sup>Australian Nursing & Midwifery Federation (ANMF), *Submission 13*, p. 2.

<sup>9</sup>Mr John McLean, *Submission 30*, p. 3; Mr Philip S. Clark, *Submission 34*.

<sup>10</sup>Investor Group on Climate Change (IGCC), *Submission 27*, p. 3.

<sup>11</sup>Mr Peter Sainsbury, *Submission 25*; Dr Elizabeth Hanna, *Submission 44*.

temperature rise to 2°C by 2050 and the preferred 1.5°C target may have already been missed.<sup>12</sup> In light of this information, the Centre for Climate Safety considers that the target of ‘below 2° C’ is not enough to be effective in preventing severe disruption.<sup>13</sup>

- 3.10 The use of non-binding pledges instead of substantive legal obligations is also questioned. The binding obligations are mostly administrative and communicative and do not cover the emission targets or financial commitments.<sup>14</sup> Although pledge and review systems have worked successfully for other areas, they may not be appropriate for a ‘problem that is of the scale and difficulty of climate change’.<sup>15</sup> When questioned, the Department of Foreign Affairs and Trade (DFAT), suggested that many countries would not have been comfortable making commitments under a legally binding mechanism.<sup>16</sup> However, the use of a pledge and review system allowed the process to move forward without threatening the sovereignty of individual countries:

So the mechanism that the Paris Agreement came up with was that every country would, of its own sovereign decision, come up with a plan for how it was going to address the impacts of climate change, and that that should be reviewed. That was the great success of Paris ...<sup>17</sup>

## Australia’s targets

- 3.11 Australia has committed to reduce emissions by 26 to 28 per cent below 2005 levels by 2030.<sup>18</sup> Submitters from non-government groups have raised

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<sup>12</sup>Justice and International Mission, Uniting Church of Australia, Synod of Victoria and Tasmania, *Submission 9*.

<sup>13</sup>Centre for Climate Safety, *Submission 31*, p. 1.

<sup>14</sup>Dr Luke Kemp, *Committee Hansard*, Canberra, 28 September 2016, p. 7; Australian Industry Greenhouse Network Ltd (AIGN), *Submission 18*, p. 6.

<sup>15</sup>Dr Kemp, *Committee Hansard*, Canberra, 28 September 2016, p. 9.

<sup>16</sup>Ambassador Patrick Suckling, Ambassador for the Environment, Department of Foreign Affairs and Trade (DFAT), *Committee Hansard*, Canberra, 28 September 2016, p. 27.

<sup>17</sup>Ambassador Suckling, DFAT, *Committee Hansard*, Canberra, 28 September 2016, p. 27.

<sup>18</sup>National Interest Analysis [2016] ATNIA 10 with attachment on consultation Paris Agreement, done at Paris on 12 December 2015 [2016] ATNIF 31 (hereafter referred to as ‘Paris NIA’), para 9.

concerns that this target is not a sufficient contribution to meet the global target of below 2°C and ideally 1.5°C set by the *Paris Agreement*.<sup>19</sup> A number of submissions referred the Committee to the Climate Change Authority's recommendation for Australia to aim for a 45 to 65 per cent reduction below 2005 levels by 2030.<sup>20</sup>

- 3.12 The Investor Group on Climate Change (IGCC) cautioned that the existing target is not ideal from an investor's perspective as it may not encourage a smooth transition to a carbon neutral economy:

We think it will involve quite a steep drop-off at some point in the next 20 years, which is the trajectory that we look at. So it is not a question of whether it is appropriate or not; it is a question of what kind of transition you want. Do you want one that is sharp and abrupt, or do you want one which is smooth and gradual? You probably could increase the level of the ambition of the targets in order to meet the Paris Agreement and have a smoother transition over the entire period.<sup>21</sup>

- 3.13 The Department of the Environment and Energy (DEE) maintained that modelling undertaken for the United Nations Framework Convention on Climate Change (UNFCCC) Taskforce at the Department of Prime Minister and Cabinet for its inquiry into setting a post 2020 target indicated that 'in per capita terms and per unit of output in our economy our targets represent very ambitious and very large reductions'.<sup>22</sup>

- 3.14 The Minerals Council of Australia (MCA) drew attention to the difference between Australia's emissions profile and that of many other developed

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<sup>19</sup>Dr Zirnsak, Uniting Church in Australia, *Committee Hansard*, Melbourne, 6 October 2016, p. 6; Ms Grace FitzGerald, *Submission 17*; Australian Ethical Investment Limited, *Submission 23*; Doctors for the Environment Australia, *Submission 40*, p. 3.

<sup>20</sup>Professor Lesley Hughes, Councillor, Climate Council of Australia, *Committee Hansard*, Sydney, 27 September 2016, p. 13; Professor Tim Stephens, *Submission 5*; Climate Council, *Submission 24*, p. 3; Mr Franklin Bruinstroop, *Submission 33*.

<sup>21</sup>Ms Emma Herd, Chief Executive Officer, Investor Group on Climate Change (IGCC), *Committee Hansard*, Sydney, 27 September 2016, p. 4.

<sup>22</sup>Mr Brad Archer, First Assistant Secretary, International Climate Change and Energy Innovation Division, Department of Environment and Energy (DEE), *Committee Hansard*, Canberra, 28 September 2016, p. 22.

countries and the role this should play in setting Australia's emissions targets. Australia has a 'commodity-exporting economy with strong economic and population growth' compared to 'post-industrial service economies' with slowing population growth and economies that 'largely import commodities and industrial goods'.<sup>23</sup> Considering this difference, the MCA suggests that the Australian target is 'credible and ambitious' and 'commensurate with the efforts of' peer nations:

The cold, hard reality is that meeting our targets will impose greater costs on the Australian economy than the costs borne by many other developed nations in meeting their respective targets. There is a fundamentally important point to make here. Identical targets do not mean comparable sacrifice. No two nations are the same in economic and population growth, and no two nations are the same in terms of their economic structure and contribution to global commerce.<sup>24</sup>

## Implementation

### *Current policy framework*

3.15 The National Interest Analysis (NIA) for the *Paris Agreement* maintains that existing legislation, policies and measures will enable Australia to achieve its Nationally Determined Contributions (NDCs) and meet its obligations. These include the Emissions Reduction Fund and its Safeguard Mechanism, a Renewable Energy Target and a National Energy Productivity Plan.<sup>25</sup> The claim is based on modelling and analysis undertaken for the UNFCCC Taskforce in 2015.<sup>26</sup>

3.16 However, a number of witnesses disagreed with this assessment of the current policy framework.<sup>27</sup> The Business Council of Australia (BCA)

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<sup>23</sup>Mr Brendan Pearson, Chief Executive, Minerals Council of Australia (MCA), *Committee Hansard*, Canberra, 28 September 2016, p. 13.

<sup>24</sup>Mr Pearson, MCA, *Committee Hansard*, Canberra, 28 September 2016, p. 13.

<sup>25</sup>Paris NIA, para 39.

<sup>26</sup>Department of Environment and Energy (DEE), *Submission 46*, pp. 2–3.

<sup>27</sup>Dr Kemp, *Committee Hansard*, Canberra, 28 September 2016, p. 11; Professor Tim Stephens, *Submission 5*.

suggests that the 'existing suite of policies is unlikely to be sufficient' to meet Australia's target.<sup>28</sup> A number of submitters cited recent warnings by RepuTex, a division of Standard and Poors, that the existing policy framework will not meet Australia's NDC objectives.<sup>29</sup>

3.17 There was also wider criticism of the current policy framework's overall approach. The BCA considers that to date, Australia's climate change policy has been 'largely uncoordinated and inconsistent with broader energy policy' and 'poorly costed', pointing out that at one stage there were 'over 200 government programs aimed at addressing climate change'. It blames this framework for higher costs, 'hindered transformational change in Australia's greenhouse gas emissions' and 'enduring dysfunction in sectors such as electricity'.<sup>30</sup>

3.18 While the Committee notes the criticism of the current policy framework, it is aware that Australia has a strong track record in meeting its commitments in similar situations. For example, Australia met its commitments under the Kyoto Protocol and is expected to meet its target under the second commitment period of the Protocol.<sup>31</sup> The MCA points out that Australia's growth in total carbon emissions has been lower than most developing and developed nations over the past 25 years:

Under the Kyoto Protocol commitments, between 1990 and the average of 2008–2012, Australia's CO<sub>2</sub>-e emissions grew by just 3.6 per cent. In contrast, CO<sub>2</sub>-e emissions in the United States grew by 9.3 per cent. Canadian emissions grew by 41.2 per cent, New Zealand's by 11.4 per cent and Japan's grew by 5 per cent.<sup>32</sup>

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<sup>28</sup>Business Council of Australia (BCA), *Submission 36*, p. 2.

<sup>29</sup>Climate Change Balmain-Rozelle, *Submission 8*, p. 2; Climate Action Moreland, *Submission 2*, p. 3; Professor Tim Stephens, *Submission 5*; Electrical Trades Union of Australia (ETU), *Submission 21*.

<sup>30</sup>BCA, *Submission 36*, p. 3.

<sup>31</sup>National Interest Analysis [2016] ATNIA 11 with attachment on consultation Doha Amendment to the Kyoto Protocol done at Doha on 8 December 2012 [2016] ATNIF 24 (hereafter referred to as 'Kyoto NIA'), paragraphs 8 and 14; Mr Pearson, MCA, *Committee Hansard*, Canberra, 28 September 2016, p. 13; AIGN, *Submission 18*, p. 4.

<sup>32</sup>MCA, *Submission 20*.

### *Future policy development*

3.19 The Committee was urged to consider the impact on investment flows of future policy development.<sup>33</sup> A ‘long term, stable and predictable’ policy framework is required to ensure the investment in emissions reduction measures critical to Australia meeting its commitments under the *Paris Agreement*.<sup>34</sup> The Australian Climate Roundtable laid out a comprehensive set of principles for climate policy, emphasising that the volatility of current policy in the area is hindering Australia’s progress:

The most serious and immediate barrier to Australia’s successful transition is not the technical or economic challenges involved, substantial though they are. It is the absence of broad political agreement on a scalable approach to climate and energy policy. The required reductions in Australia’s emissions will require major private investment in long-lived assets. Such investment simply will not take place unless it is underpinned by a credible domestic policy framework that investors expect to last through multiple election cycles. Delayed, unpredictable and piecemeal action will increase the costs and challenge of achieving Australia’s goals. It will also exacerbate investment uncertainty and drive capital flows offshore.<sup>35</sup>

3.20 A number of submitters repeated the call for a stable, bipartisan approach to future policy that is durable and scalable.<sup>36</sup> The relevant assets need a capital intensive, long term investment, and investors need a policy environment that encourages certainty:

But [the investments] are capital intensive. This means that investors need the certainty that there is a need and demand and stable policy settings over the life of that asset so that they can recover the capital investment over their life.<sup>37</sup>

3.21 The formulation of future policy will also affect Australia’s trade competitiveness. The approach taken by Australia’s major trading partners

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<sup>33</sup>IGCC, *Submission 27*, p. 2.

<sup>34</sup>AIGN, *Submission 18*, p. 2.

<sup>35</sup> Australian Climate Roundtable, *Submission 29*, p. 2.

<sup>36</sup>IGCC, *Submission 27*, p. 4; BCA, *Submission 36*, pp. 3–4.

<sup>37</sup>Mr Kane Thornton, Chief Executive Officer, Clean Energy Council (CEC), *Committee Hansard*, 6 October 2016, p. 17.

‘must play a part in determining how we meet our commitments’.<sup>38</sup> The BCA warns that the policy approach taken by other countries could expose Australian industries to carbon leakage or to a carbon cost disadvantage.<sup>39</sup>

3.22 The need to ensure harmony between federal and state mitigation policies was also emphasised. A number of states and territories have set their own emissions reduction targets and initiated renewable energy initiatives.<sup>40</sup> However, there is a danger that discrepancies in renewable energy targets may foster distortions across the national market, prompting calls for consistency.<sup>41</sup>

3.23 The health sector drew attention to the preamble of the *Paris Agreement* and the commitment to recognise the ‘right to health’, advocating for a National Strategy on Climate, Health and Wellbeing to ensure a coordinated approach to the effects of climate change on health. The Climate and Health Alliance (CAHA), supported by a range of other health professionals and organisations, has suggested that such a strategy should encompass a range of policy areas, including:

- meaningful national emissions reduction targets and policies;
- establishment of effective governance arrangements for the development and implementation of the National Strategy;
- development of a sustainable and resilient healthcare sector;
- promotion of education and awareness about climate change and health across the health sector and broader community;
- strengthening of communication and collaboration between federal, state, local and community health agencies; and
- re-establishment of national climate change and health research capacity.<sup>42</sup>

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<sup>38</sup>AIGN, *Submission 18*, p. 7.

<sup>39</sup>BCA, *Submission 36*, p. 5. (Carbon leakage occurs when carbon policies in one country force the relocation of an industry to another country resulting in a global emissions rise.)

<sup>40</sup>Victoria State Government, *Submission 47*.

<sup>41</sup>AIGN, *Submission 18*, p. 11; BCA, *Submission 36*, p. 4; Victoria State Government, *Submission 47*.

<sup>42</sup>CAHA, *Supplementary Submission 10.1*, p. 9. See also Emeritus Professor Rae Walker, *Submission 12*; ANMF, *Submission 13*; APS, *Submission 16*; Ms Grace FitzGerald, *Submission 17*; AMSA,

- 3.24 In more general terms, a price on carbon and a cap on emissions were suggested.<sup>43</sup> There was also substantial support for a focus on research and development from a range of sectors.<sup>44</sup>

### *Transition to a low-carbon economy*

- 3.25 The *Paris Agreement* is acknowledged as a clear indication of a global transition to a low-carbon economy.<sup>45</sup> That transition is expected to provide a range of opportunities for Australia. However, the transition phase needs to be handled carefully to ensure that those opportunities are shared by all Australians:

There is a transition to clean energy underway globally ... one of the important supporting elements behind Paris is that the actual technology is becoming more and more affordable and accessible, and Australia has significant opportunities in that regard ... we are world leaders ... Our work, though, with companies, with the unions and with the Council of Social Service highlights the importance of having a good plan for the transition. We do need to maintain competitiveness. We are a high-carbon economy and we have communities dependent on some of those industries, so it is very important that we have a proper transition, a planned transition, in that regard.<sup>46</sup>

- 3.26 The union movement emphasised the commitment in the preamble to the *Agreement for Australia* to provide a 'just transition' for the workforce that includes 'decent work and quality jobs in accordance with nationally

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*Submission 19; Mr Franklin Bruinstroop, Submission 33; Dr Deborah Parkinson, Submission 37; Cohealth Ltd., Submission 39*

<sup>43</sup>Professor Tim Stephens, *Submission 5*; Justice and International Mission, *Submission 9*.

<sup>44</sup>MCA, *Submission 20*; Ms Jacqueline Knowles, Manager, Natural Resources Policy, National Farmers' Federation (NFF), *Committee Hansard*, Melbourne, 6 October 2016, p. 11; Mr Thornton, CEC, *Committee Hansard*, 6 October 2016, p. 20.

<sup>45</sup>Ms Herd, IGCC, *Committee Hansard*, Sydney, 27 September 2016, p. 2.

<sup>46</sup>Mr John Connor, Chief Executive Officer, Climate Institute, *Committee Hansard*, Sydney, 27 September 2016, p. 23.

defined development priorities'.<sup>47</sup> The Australian Council of Trade Unions suggested that such a transition would include:

- equitable sharing of responsibilities and fair distribution of the costs across society;
- institutionalised, formal consultations with relevant stakeholders, including trade unions, employers and communities at national and regional level;
- the promotion of clean job opportunities and the greening of existing jobs and industries through public and private investment in low-carbon development strategies and technologies;
- formal education, training, retraining and lifelong learning for working people, their families and their communities;
- organised, economic and employment diversification policies within sectors and communities at risk;
- social protection measures, active labour market policies, access to health services and social insurances; and
- respect for and protection of human and labour rights.<sup>48</sup>

3.27 While the focus of the Agreement is on combating climate change, it provides Australia with an opportunity for industry modernisation, growth and job creation.<sup>49</sup> The Electrical Trades Union (ETU) explained that the transition for a town currently focussed on coal generation could be planned to include a range of options that would accommodate the existing skills of the workforce:

In terms of what we can do, some of my colleagues have intimated that we can establish or re-establish manufacturing in these towns around the renewable energy sector, whether it is going to be wind turbines, large-scale solar, solar thermal or solar arrays, all of these types of medium and large scale generation plants. At the moment we tend to import the components from overseas and assemble them here. With the right assistance from the

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<sup>47</sup>Australian Manufacturing Workers Union (AMWU), *Submission 6*; Australian Council of Trade Unions (ACTU), *Submission 22*.

<sup>48</sup>Ms Ged Kearney, President, Australian Council of Trade Unions (ACTU), *Committee Hansard*, Canberra, 17 October 2016, p. 2.

<sup>49</sup>AMWU, *Submission 6*.

government that can change and we can build on our already world-leading intellectual knowledge when it comes to driving renewable energy.<sup>50</sup>

### *Opportunities*

- 3.28 Globally, investors are increasingly turning to renewable energy sources rather than fossil fuel based energy sources.<sup>51</sup> Australian companies are looked to as leaders in ‘understanding climate change risks for their operations’ and are well placed to take advantage of the opportunities presented by the estimated \$6 trillion global low-emissions economy.<sup>52</sup>
- 3.29 Australia has traditionally relied heavily on carbon-intensive fossil fuels for its domestic energy needs and as an important export commodity. While the replacement of the current energy system with 100 per cent renewables by 2030 is considered unrealistic, the MCA suggests a more workable solution will involve a mix of renewables, gas and coal.<sup>53</sup> Meanwhile, important steps are being taken towards reducing emissions. For example, there are opportunities to replace ageing, high-emissions plants with new high-efficiency, low-emissions coal generation plants to support baseload low-cost generation.<sup>54</sup>
- 3.30 The MCA also advocates lifting the ban on considering nuclear energy in Australia and allowing its merits to be openly debated. According to the MCA, Australia hosts 30 per cent of the world’s uranium reserves and global demand for nuclear energy is expected to grow from approximately 11 per cent currently to approximately 16 per cent by 2040.<sup>55</sup> Australia’s uranium

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<sup>50</sup>Mr Lance McCallum, National Policy Officer, Electrical Trades Union of Australia (ETU), *Committee Hansard*, Canberra, 17 October 2016, p. 7.

<sup>51</sup>Ms Herd, IGCC, *Committee Hansard*, Sydney, 27 September 2016, p. 3.

<sup>52</sup>Ms Herd, IGCC, *Committee Hansard*, Sydney, 27 September 2016, p. 3; Ambassador Suckling, DFAT, *Committee Hansard*, Canberra, 28 September 2016, p. 19.

<sup>53</sup>Mr Pearson, MCA, *Committee Hansard*, 28 September 2016, p. 14.

<sup>54</sup>Mr Pearson, MCA, *Committee Hansard*, 28 September 2016, p. 16.

<sup>55</sup>Mr Pearson, MCA, *Committee Hansard*, Canberra, 28 September 2016, p. 14.

reserves 'provide an opportunity for Australia to make a contribution to lower its own emissions and those of other countries'.<sup>56</sup>

- 3.31 Despite the imposition being placed on coal by the commitments in the *Paris Agreement*, the MCA has identified a range of opportunities for the Australian mining industry, including its contribution to renewable technology:

The new generation of High Efficiency Low Emissions (HELE) coal use the higher quality coal that Australia produces. There is up to 220 tonnes of coal in large wind turbines. Fifteen minerals and metals go into the manufacture of solar panels. And new batteries technologies focus on a range of minerals products. The growth of nuclear power around the world means more demand for uranium.<sup>57</sup>

- 3.32 The Clean Energy Council (CEC) reiterated the need for a mix of sources to supply Australia's energy requirements, including renewables and coal.<sup>58</sup> The CEC emphasised Australia has the 'best resources anywhere on the globe' to be able to undertake the transition to clean generation with abundant renewable power sources: solar, wind and hydro power.<sup>59</sup>

- 3.33 The CEC refuted claims that clean energy generation was not economically feasible, stating that it is now the method of choice for a reliable energy source in many parts of the world.<sup>60</sup> As evidence of the lower cost of renewable energy sources, the CEC pointed to investment flows:

If you look at where the investment is now around the world and indeed in this country, private sector players are making purely economic decisions into which technology they might invest their capital. That is going into things like large-scale solar, which has reduced in cost very, very substantially around the world and here in Australia over the last couple of years. Large-scale solar and

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<sup>56</sup>MCA, *Submission 20*.

<sup>57</sup>MCA, *Submission 20*.

<sup>58</sup>Mr Thornton, CEC, *Committee Hansard*, Melbourne, 6 October 2016, p. 17.

<sup>59</sup>Mr Thornton, CEC, *Committee Hansard*, Melbourne, 6 October 2016, p. 16.

<sup>60</sup>Mr Thornton, CEC, *Committee Hansard*, Melbourne, 6 October 2016, pp. 16–17.

large-scale wind are the two technologies that have reduced in cost the most substantially.<sup>61</sup>

- 3.34 A further opportunity for the Australian economy is the development and supply of battery storage for sources of clean energy generation. The technology is becoming commercially viable, even for retail consumers, and Australian companies are well positioned to take advantage of the market. CEC noted that many well-known brands have already recognised the significance of the Australian market and prioritise the launch of their new products here.<sup>62</sup>

### *Climate finance*

- 3.35 Under Articles 9, 10 and 11 of the *Paris Agreement* Australia has obligations to provide climate finance, technology transfer and development and capacity building programs to assist developing countries. The NIA states that Australia has committed at least \$1 billion over five years from Australia's existing aid budget to meet these commitments. Specifically, Australia has pledged \$200 million over four years to the Green Climate Fund to support developing countries to adapt to climate change and sustainably grow their economies.<sup>63</sup>
- 3.36 The Committee asked DFAT to clarify the connection between Australia's commitment to climate finance under the Agreement and its official development assistance (ODA), specifically the potential for 'cost shifting' or an overall reduction in support for these countries. DFAT explained that the definition of 'climate finance' is still evolving but that there is no doubt that developing countries, particularly in the Pacific, are prioritising climate change initiatives. The Department provided an example of the difficulties involved in separating the two types of support:

Take for example building a road in Fiji. If you build it in a certain area it may be more prone to damage caused by cyclones, so you do some studies which show that the road should be built not along the coastline but slightly up the hill and through a couple of valleys. You still build the road but you have

<sup>61</sup>Mr Thornton, CEC, *Committee Hansard*, Melbourne, 6 October 2016, p. 18.

<sup>62</sup>Mr Thornton, CEC, *Committee Hansard*, Melbourne, 6 October 2016, p. 20.

<sup>63</sup>Paris NIA, para 42.

climate proofed it in terms of it being much more resilient to cyclones. The additional cost to climate proof that road might be marginal —it might be three or four per cent of the total project cost—but the impact would be very significant because you have climate proofed the whole road. Then when you talk about which elements were climate finance and which were infrastructure you could just count the additional three per cent spend that climate proofed the road.<sup>64</sup>

3.37 DFAT offered assurance that developing countries would not receive less support from Australia under the arrangements for the Agreement:

We are looking at doing a better job at integrating the aid moneys at the moment. But it is not one or the other. If there is a choice then it is guided by the priorities of the country in question. So if the country says, 'Look, we would prefer, if you are going to have a separate spend on a specific, dedicated climate finance spend of this rather than that,' then we will be guided by their priorities.<sup>65</sup>

3.38 There has been some criticism that the level of finance to be provided by developed countries has not been specified, leaving it up to individual countries to determine their own commitment.<sup>66</sup> In its submission the Uniting Church in Australia supports a recommendation by the Climate Institute that Australia's contributions should be closer to \$1.5 billion a year from the current \$1 billion over 5 years.<sup>67</sup>

3.39 The Climate Institute highlighted the importance of climate finance in promoting regional stability and stressed that this type of finance refers to both public and private money.<sup>68</sup> This point was also alluded to by the IGCC, particularly in the context of adaptation finance where Australia has already developed expertise:

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<sup>64</sup>Ambassador Suckling, DFAT, *Committee Hansard*, Canberra, 28 September 2016, p. 26.

<sup>65</sup>Ambassador Suckling, DFAT, *Committee Hansard*, 28 September 2016, p. 27.

<sup>66</sup>Dr Zirnsak, Uniting Church in Australia, *Committee Hansard*, 6 October 2016, p. 6; Ms Aldenhoven, Friends of the Earth Australia, *Committee Hansard*, 6 October 2016, p. 23.

<sup>67</sup>Justice and International Mission, *Submission 9*. (See Climate Institute, *Policy Brief: The Paris climate agreement and implications for Australia*, December 2015, p. 6.)

<sup>68</sup>Mr Connor, Climate Institute, *Committee Hansard*, 27 September 2016, p. 23.

One of the key components of the Paris Agreement is increased support for adaptation finance, and currently, globally, there is very little understanding of what adaptation finance actually is, what kinds of projects it goes towards, what the current baseline levels are or how we track it. There is huge opportunity for Australia to play a really significant capacity building role in not only our immediate region but also in our wider region around applying our core expertise of measurement capabilities, baselines and frameworks—expertise that we already have in Australia—to this particular conundrum.<sup>69</sup>

## Review

3.40 Article 14 of the *Paris Agreement* mandates a five yearly global stocktaking process commencing in 2023. The stocktake will assess collective progress towards meeting the purpose of the Agreement and its long term goals. Australia will then be obliged to take the result of that stocktake into consideration when updating its own progress and determining its NDCs for the next period.<sup>70</sup>

3.41 This mechanism is an important component of the Agreement, enabling Australia to take into account future policy developments, technological developments and the ‘availability and price of international permits’ and adapt its emissions reduction target accordingly.<sup>71</sup>

3.42 In a separate move, the current Government has already announced a review of Australia’s emission reduction policies in 2017 to ‘ensure that they provide the right settings to put Australia on track to meet the 2030 target’.<sup>72</sup>

## Ratification

3.43 There is overwhelming support for the ratification of the *Paris Agreement*. Of the 47 submissions from a diverse range of stakeholders received by the Committee for its inquiry into the Agreement, only three were against ratification. Many witnesses stressed the urgency of the situation and the

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<sup>69</sup>Ms Herd, IGCC, *Committee Hansard*, 27 September 2016, p. 5.

<sup>70</sup>Paris NIA, para 34.

<sup>71</sup>BCA, *Submission 36*, p. 2; Ambassador Suckling, DFAT, *Committee Hansard*, Canberra, 28 September 2016, p. 22.

<sup>72</sup>Mr Archer, DEE, *Committee Hansard*, Canberra, 28 September 2016, p. 21.

need to act quickly to ensure that the Agreement comes into force without delay.<sup>73</sup> A further consideration was to make sure that Australia is involved in future planning and implementation:

Delays in ratification mean that Australia will be excluded from early negotiations on the implementation framework for the Paris Agreement. This creates the risk that decisions will be made which are not advantageous to Australian business and the investment community.<sup>74</sup>

- 3.44 Failure to ratify could seriously damage Australia's international reputation, exclude the country from market-mechanisms created under the Agreement and undermine international efforts to address anthropogenic climate change.<sup>75</sup>

## Conclusion

- 3.45 The Committee acknowledges the strong domestic support for the *Paris Agreement* and the international support that has been shown by the rapid ratification of the Agreement. The fact that it will enter into force less than twelve months after it was adopted by 197 countries, is indicative of the urgency with which the world views the issue of anthropogenic climate change.
- 3.46 Notwithstanding this almost universal acceptance of the need for the Agreement, the Committee is aware that Australia faces a number of complex and complicated issues that will require careful consideration. Practical solutions have to be found to address the social and economic challenges facing Australia as a user and exporter of carbon intensive commodities. The issue of electricity prices is another issue that will require attention.

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<sup>73</sup>Don Morris and Fiona H. Spence-Lyda, *Submission 1*; Michael Streatfeild, *Submission 7*; Andrew Laird, *Submission 11*; Justice and International Mission, *Submission 9*; CAHA, *Supplementary Submission 10.1*, p. 9.

<sup>74</sup>IGCC, *Submission 27*, p. 3; Professor Stephens, University of Sydney, *Committee Hansard*, Canberra, 27 September 2016, p. 11.

<sup>75</sup>Dr Luke Kemp, *Submission 3*, p. 1.

- 3.47 It has been made clear to the Committee that the policy framework required to ensure Australia lives up to its strong reputation for meeting commitments in the area of climate change will need careful consideration. The Committee urges the Government to take note of the suggestions put forward in this report when undertaking its planned 2017 review of Australia's emissions reduction targets and the development of the NDCs for the next period.
- 3.48 The Committee notes the value of early ratification of the Agreement in order to ensure that Australia has 'a place at the table' for the future planning stages of implementation.
- 3.49 The Committee supports the *Paris Agreement* and recommends binding treaty action be taken.

### **Recommendation 1**

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- 3.50 The Committee supports the *Paris Agreement* and recommends that binding treaty action be taken.**
- 3.51 The Committee also supports the *Doha Amendment to the Kyoto Protocol to the United Nations Framework Convention on Climate Change* and recommends that binding treaty action be taken.

### **Recommendation 2**

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- 3.52 The Committee supports the *Doha Amendment to the Kyoto Protocol to the United Nations Framework Convention on Climate Change* and recommends that binding treaty action be taken.**

The Hon Stuart Robert

Chair