



## Climate Council of Australia

### Submission to:

**Energy Security Board National Energy Guarantee Draft Detailed Design Consultation Paper**

### Addressed to:

[info@esb.org.au](mailto:info@esb.org.au)

### Submission from:

Professor Andrew Stock, Climate Councillor  
Greg Bourne, Climate Councillor

Climate Council of Australia Pty Ltd  
PO Box 1267  
Potts Point 2011

Tel: 02 93 56 84 93

Email: [info@climatecouncil.org.au](mailto:info@climatecouncil.org.au)

4 July 2018

### About the Climate Council

The Climate Council is an independent non-profit organisation that provides authoritative, expert advice to the Australian public on climate change.

To find out more about the Climate Council's work, visit [www.climatecouncil.org.au](http://www.climatecouncil.org.au)

### About the Climate Councillors

#### **Professor Andrew Stock**

Andrew Stock is a Climate Councillor and energy expert with over 40 years experience in executive roles in energy businesses, spanning traditional energy supplies, emerging energy technologies and renewables, including managing billion dollar energy developments.

Andrew is a past director of numerous energy companies and current Chair of the Melbourne Energy Institute Advisory Board at the University of Melbourne. He was the founding National President of the Australian Business Council for Sustainable Energy (now Clean Energy Council) and has served on numerous research and energy advisory committees and university advisory boards. His executive career was with Origin Energy and predecessor companies. Andrew is a former Board Member of the Clean Energy Finance Corporation.

With an honours Chemical Engineering degree from the University of Adelaide, Andrew has completed postgraduate courses at IMD, Switzerland, and the University of Western Australia. He is a Fellow of the Institution of Engineers Australia, and a Graduate Member of the Australian Institute of Company Directors.

#### **Greg Bourne**

Greg Bourne has worked at the nexus of climate change, energy business and policy for over 30 years. With BP he lived and worked in the UK, Middle East, USA, Canada, Ireland, Brazil, China, Venezuela and Australia. For two years he was Special Adviser on Energy and Transport to Prime Minister Margaret Thatcher. He returned to Australia in 1999 as Regional President, BP Australasia and worked with business and governments on the climate change agenda. Greg was CEO of WWF Australia for six years and later a non-executive director of Carnegie Wave Energy. He is the former Chair of the Australian Renewable Energy Agency.

A Fellow of the Australian Institute of Company Directors and a Member of the Australian Institute of Energy he was awarded the Centenary Medal for services to the environment and an Honorary Doctorate from the University of Western Australia for services to international business.

## Climate Council Submission

Australia is already experiencing the impacts of climate change. The world has just experienced the hottest five year period (2013-2017) ever recorded. This record is part of a sharp, long-term upswing in global temperatures, with 17 of the 18 hottest years on record all occurring in this century. Increasing global temperatures, driven primarily by higher carbon dioxide levels from the burning of fossil fuels, is exacerbating extreme weather events around the globe and in Australia. Heatwaves are now hotter, lasting longer and occurring more often. Rising ocean temperatures are triggering coral bleaching events on the Great Barrier Reef. Climate change is also increasing extreme bushfire weather in southern and eastern Australia, while climate change is likely worsening drought conditions in southwest and southeast Australia. Across Australia, extreme weather events are projected to worsen as the climate warms further, increasing adverse economic impacts including the vulnerability of Australia's ageing energy infrastructure to blackouts.

Quick, decisive national action is required by Australia to tackle climate change effectively.

Australia lacks an enduring, credible, national climate and energy policy to reduce greenhouse gas pollution from the electricity sector.

In March 2018, the Climate Council provided a [submission](#) in response to the Energy Security Board's National Energy Guarantee Consultation Paper. In our submission we outlined key policy principles for credible climate and energy policy, and why the proposed National Energy Guarantee, in its current form, fails when measured against each of these policy principles.

Despite these issues being raised in the Climate Council's March submission, the detailed design consultation documents (released by the Australian Government and the Energy Security Board in June 2018) provide no improvements to the National Energy Guarantee in relation to tackling climate change effectively.

In short, none of the Climate Council's concerns raised in our previous submission have been addressed. The proposed National Energy Guarantee continues to fail against key policy principles for credible climate and energy policy.

The Climate Council's policy principles for climate and energy policy are detailed in our report [Clean & Reliable Power: Roadmap to a Renewable Future](#).

Any policy designed to effectively tackle climate change should, as a minimum:

1. Accept the need for deep greenhouse gas pollution cuts from the electricity sector, in order to limit global temperature rise to 1.5 to 2°C and tackle climate change.
2. Reduce greenhouse gas pollution from the electricity sector by 60% by 2030 (on 2005 levels).

3. Set emissions reduction targets beyond 2030 and a specific trajectory reaching net zero emissions well before 2050. This is in line with National Electricity Market state and territory commitments to reaching net zero emissions economy wide by 2050.
4. Any emissions reduction target must act as a floor, not a ceiling for greenhouse gas pollution cuts. Any target must be able to be easily ramped up in the future (not locked in until 2030). This is important for investor certainty.
5. Achieve a minimum range of 50 - 70% renewable energy across Australia by 2030.
6. Meet or exceed the aggregate level of state and territory renewable energy and emissions reduction targets, to have any effect on reducing greenhouse gas pollution (and not just add bureaucratic red tape).
7. Encourage investment in new clean, renewable power supply - when and where needed, well in advance of coal closures to deliver real emissions reductions in Australia. The use of "offsets" should be disallowed, as these will not achieve or contribute materially to the electricity industry transition in Australia.
8. Be workable and underpinned by straightforward, regular and transparent tracking and reporting of emissions.

The Climate Council cannot support the proposed National Energy Guarantee in its current form; this proposal continues to fall short when it comes to delivering reliable, affordable power while tackling climate change.

We provide further detail on the National Energy Guarantee's failure to respond to key policy principles in the Attachment.

## Attachment - National Energy Guarantee's failure to respond to key policy principles

Principles for Credible Climate and Energy Policy	Approach proposed by National Energy Guarantee detailed design	Climate Council Response
<p>1. Accept the need for deep greenhouse gas pollution cuts from the electricity sector in order to limit global temperature rise to 1.5 to 2°C and tackle climate change.</p>	<p>No discussion provided in the Australian Government or Energy Security Board documents.</p>	<p>The National Energy Guarantee fails to accept the need for deep greenhouse gas pollution cuts both economy-wide and from the electricity sector.</p> <p>Australia's current economy wide 26-28% emissions reduction target for 2030 on a 2005 baseline is not adequate to limit global temperature rise in line with the Paris Climate Agreement. In July 2015, the Climate Change Authority, when it had climate expertise on its panel, recommended a 45-65% emissions reduction target for 2030 below 2005 levels for Australia to do its fair share to reduce emissions.</p> <p>In order to achieve the Climate Change Authority recommended targets, the electricity sector should reduce greenhouse gas pollution by at least 60% by 2030 (on 2005 levels).</p> <p>For more information see:  Climate Council (2018) <a href="#">Clean &amp; Reliable Power: Roadmap to a Renewable Future</a>  Climate Council (2018) <a href="#">Australia's Rising Greenhouse Gas Emissions</a>  Climate Council (2017) <a href="#">Critical Decade 2017: Accelerating Climate Action</a>  ClimateWorks (2017) <a href="#">PowerUp</a></p>
<p>2. Reduce greenhouse gas pollution from the electricity sector by 60% by 2030 (on 2005 levels).</p>	<p><i>"The annual targets will be consistent with achieving a 26 per cent reduction on 2005 levels by 2030"</i> (pg 5)</p>	<p>The National Energy Guarantee's proposed approach for a 26% 'pro rata' reduction for the electricity sector, locked in for a decade, falls far short of the emissions reductions required. This approach would very likely result in Australia failing to meet even its current economy wide 26-28% emissions reduction target for 2030 and therefore failing its Paris Agreement</p>

Principles for Credible Climate and Energy Policy	Approach proposed by National Energy Guarantee detailed design	Climate Council Response
	<p><i>“The Government proposes to set the annual emissions targets for the first ten years of the Guarantee in Commonwealth legislation. The targets would be extended by 2025 for the period 2031 to 2035 and every five years thereafter.” (pg 7)</i></p> <p>Australian Government <i>National Energy Guarantee Draft Detailed Design for Consultation Commonwealth Elements</i></p>	<p>commitments. It should be noted that if all other countries were to have similar climate policies to Australia’s, then global average temperature could reach over 3°C and up to 4°C above pre-industrial levels. A four degree world would make it very difficult for human civilisation to cope, putting billions of lives in danger.</p> <p>A 26% ‘pro rata’ emissions reduction from each sector by 2030 means almost every other sector of the economy will need to reduce emissions far more than the electricity sector over the next decade. Compared to Government Business as Usual forecasts, greenhouse gas emissions reductions from 2017 levels will need to be:</p> <ul style="list-style-type: none"> <li>• 8% in electricity, but</li> <li>• 33% in transport</li> <li>• 31% in stationary energy</li> <li>• 23% in agriculture</li> <li>• 33% in fugitive emissions</li> <li>• 22% in industrial processes, and</li> <li>• 5% in waste.</li> </ul> <p>Australia’s greenhouse gas pollution levels are rising, and there are minimal policies proposed or in place to reduce emissions in other non-electricity sectors.</p> <p>For more information see: Climate Council (2018) <a href="#">Australia’s Rising Greenhouse Gas Emissions</a></p>
3. Set emissions reduction targets beyond 2030 towards reaching net zero	There is no discussion of a pathway beyond 2030 provided in the Australian Government or	All states and territories in the National Electricity Market have announced net zero emissions targets for 2050. The proposed National Energy Guarantee is inconsistent with these commitments.

<b>Principles for Credible Climate and Energy Policy</b>	<b>Approach proposed by National Energy Guarantee detailed design</b>	<b>Climate Council Response</b>
<p>emissions well before 2050. This is in line with National Electricity Market state and territory commitments to reaching net zero emissions economy wide by 2050.</p>	<p>Energy Security Board documents.</p>	<p>Reducing emissions by 26% by 2030 on a 2005 baseline would still leave Australia with a significant task of reaching net zero emissions in the electricity sector well before 2050. There is no emissions trajectory envisaged under the proposed National Energy Guarantee beyond 2030 to reflect the state commitments nor as required to meet longer term climate change emissions mitigation imperatives.</p> <p>For more information see: Climate Council (2018) <a href="#">Clean &amp; Reliable Power: Roadmap to a Renewable Future</a></p>
<p>4. Any emissions reduction target must act as a floor, not a ceiling for greenhouse gas pollution cuts. Any target must be able to be easily ramped up in the future (not locked in until 2030). This is important for investor certainty.</p>	<p><i>“The Government proposes to set the annual emissions targets for the first ten years of the Guarantee in Commonwealth legislation. The targets would be extended by 2025 for the period 2031 to 2035 and every five years thereafter.” (pg 7)</i></p> <p>Australian Government <i>National Energy Guarantee Draft Detailed Design for Consultation Commonwealth Elements</i></p>	<p>The National Energy Guarantee’s inadequate emissions reduction target would be effectively locked in through to 2030, requiring five years advance notice for any future changes beyond 2030. This proposed approach is inflexible and limits the ability to ratchet up greenhouse gas pollution cuts over the next ten years.</p> <p>Furthermore, state and corporate initiatives which reduce emissions intensity of electricity purchased beyond the annual target will be classified as “over-achieving” and will be forced to divest some of their zero emissions electricity allocations to other under achievers, effectively ensuring that the National Energy Guarantee’s emissions intensity target is all that is achieved. This ensures that state and corporate initiatives to increase renewable energy and reduce emissions more are made ineffective. Given the imperative to address climate change emissions at source, this is a major design flaw. The Energy Security Board does contemplate “over-achievement” being possible in principle as it recognizes it will need to do so when it deals with Greenpower schemes. That mechanism should also be used to manage</p>

Principles for Credible Climate and Energy Policy	Approach proposed by National Energy Guarantee detailed design	Climate Council Response
		emissions reduction “over-achievement” by states and corporates.
<p>5. Achieve a minimum range of 50 - 70% renewable energy across Australia by 2030.</p>	<p><i>“In 2030 it is expected that the power mix of different types of generation would be in the order of 28-36% renewables (including hydro and solar PV)”(pg 8)</i></p> <p>Energy Security Board (2017) <a href="#">Advice on a Retailer Reliability Emissions Guarantee and Affordability</a></p> <p><i>“Under the Guarantee, renewables account for 32-36 per cent of output in 2030, depending on assumptions about future demand. These figures include rooftop solar.”</i></p> <p>Energy Security Board (2017) <a href="#">Advice The National Energy Guarantee</a></p>	<p>The National Energy Guarantee will not deliver the level of renewable energy required in 2030 to tackle climate change. In fact, at the low-end of its projections (28% in 2030), the National Energy Guarantee would result in less renewable energy than is expected under ‘business as usual’ conditions.</p> <p>Economic modelling indicates the level of renewable energy under the National Energy Guarantee would result in 20,000 fewer jobs, compared to 50% renewable energy by 2030. At the National Energy Guarantee’s low-end projection of 28% renewable energy in 2030 this would mean 6,600 fewer jobs in the entire electricity sector compared to ‘business as usual’.</p> <p>States and territories are already leading the transition to renewable energy in the absence of credible climate and energy policy from the Commonwealth Government.</p> <p>State and territory based renewable energy targets are already in place and being implemented in Victoria (40% by 2025), Queensland (50% by 2030), Tasmania (100% by 2022) and the Australian Capital Territory (100% by 2020).</p> <p>The Victorian and Queensland renewable energy targets (if fulfilled) alone are expected to reduce emissions in the National Electricity Market alone by 36% - 10 percentage points more than the National Energy Guarantee’s woefully inadequate emissions reduction target.</p> <p>Most investment in new renewable energy capacity will occur regardless of whether the National Energy Guarantee exists. Furthermore, the National</p>



Principles for Credible Climate and Energy Policy	Approach proposed by National Energy Guarantee detailed design	Climate Council Response
		<p>Energy Guarantee is unlikely to drive any additional investment and may hamper state and territory action.</p> <p>For more information see: Climate Council and EY (2017) <a href="#">Renewable Energy Jobs: Future Growth in Australia 2017 Supplement</a>. Jotzo, Mazouz, McConnell, Saddler (2018) <a href="#">Submission to the Energy Security Board's National Energy Guarantee Draft Design Consultation Paper</a></p>
<p>6. Meet or exceed the aggregate level of state and territory renewable energy and emissions reduction targets, to have any effect on reducing greenhouse gas pollution (and not just add bureaucratic red tape).</p>	<p><i>"If states and territories choose to pursue their own renewable energy targets, the Government's position is that this would not affect the electricity emissions targets that would operate under the Guarantee."</i> (pg 7)</p> <p>Australian Government's <i>National Energy Guarantee Draft Detailed Design for Consultation Commonwealth Elements</i></p> <p><i>"All State and Territory renewable energy schemes can operate with the Guarantee and contribute towards achieving the emissions reduction trajectory for the Guarantee."</i> (pg 19)</p>	<p>As currently proposed, the National Energy Guarantee would effectively set an upper limit on state and territory government ambition and uptake of renewable energy, with the Commonwealth Government stating these policies would be contributing to the National Energy Guarantee's emissions target (and that state and territory schemes would not affect the electricity emissions target under the National Energy Guarantee).</p> <p>Given the woefully inadequate emissions reduction target proposed by the National Energy Guarantee, it is essential states and territories along with others (local government, businesses, households) are not restricted by the National Energy Guarantee design from continuing to lead the energy transition in Australia (the current "over-achievement" provisions proposed will do exactly that).</p> <p>The Energy Security Board should clearly outline how states, territories and corporates can reduce emissions beyond the National Energy Guarantee's inadequate target, as is proposed to be accommodated for Greenpower consumer purchases (in a way that reflects the original additionality of the Greenpower scheme design).</p>

Principles for Credible Climate and Energy Policy	Approach proposed by National Energy Guarantee detailed design	Climate Council Response
	<p><i>“The ESB intends to work with the National GreenPower Steering Group to find a way to achieve the policy goal of additionality within the framework of the Guarantee.”</i> (pg 24)</p> <p>Energy Security Board’s <i>National Energy Guarantee Draft Detailed Design Consultation Paper</i></p>	<p>Action by states, territory and local governments as well as renewable energy purchased by corporations should be able to be recognised as “additional”. Increasingly around the world, states and territories are leading emissions reduction initiatives when national governments fail to act (eg USA), while major global corporates now increasingly have 100% renewable energy purchases to run their operations as corporate policy.</p> <p>Some of the largest and fastest growing companies in the world have 100% renewable energy polices (eg Google, Apple). Companies in 75 countries actively sourced 465 terawatt hours (TWh) of renewable energy in 2017, an amount close to the overall electricity demand of France, according to a <a href="#">new report</a> from the International Renewable Energy Agency (IRENA 2018).</p> <p>Noting the ESB’s intention to achieve “additionality” within the framework of the National Energy Guarantee for the purposes of GreenPower, such a mechanism should be made available for states, territories and corporates.</p>
<p>7. Encourage investment in new clean, renewable power supply - when and where needed, well in advance of coal closures to deliver real emissions reductions in Australia. The use of “offsets” should be disallowed, as these will not achieve or contribute materially to the electricity industry transition in</p>	<p><i>“The Government is continuing to consider whether offsets should be allowed under the Guarantee.”</i></p> <p>Australian Government’s <i>National Energy Guarantee Draft Detailed Design for Consultation Commonwealth Elements</i></p> <p>No discussion of transition</p>	<p>The proposed National Energy Guarantee does not address the critical issue of the future reliability of supply in the electricity sector. That is, to ensure ageing and inefficient coal and gas fired power stations are replaced with a mix of clean renewable energy and storage - where and when needed - and well before these fossil fuel power stations close or fail. The National Energy Guarantee’s proposed emissions reduction target will not drive the investment needed in additional renewable energy capacity in advance of coal closures, and even the reliability guarantee will fail to assure supplies when old power stations suffer catastrophic failures.</p> <p>Given the weakness of the proposed National Energy Guarantee emissions reduction target there is no justification for the use of offsets. With the</p>

<b>Principles for Credible Climate and Energy Policy</b>	<b>Approach proposed by National Energy Guarantee detailed design</b>	<b>Climate Council Response</b>
Australia.	planning provided in the Australian Government or Energy Security Board documents.	<p>inclusion of offsets, the target would likely be met with little or no additional investment in the transformation of the electricity sector and their inclusion would create an additional and unnecessary level of complexity.</p> <p>As the Hon Julie Bishop raised in 2011, if offsets are to be included under the National Energy Guarantee, then it will be important to <i>"detail the measures and safeguards which will have to be put in place to ensure that the tens of billions of Australian taxpayer dollars committed to purchasing international carbon credits do not end up in the clutches of the carbon cowboys."</i> (<a href="#">Julie Bishop 2011</a>)</p>
8. Be workable and underpinned by straightforward, regular and transparent tracking and reporting of emissions.	<p><i>"The registry will only be accessible to market customers and generators. Some information will be made public at given intervals"</i> (pg 26)</p> <p>Energy Security Board's <i>National Energy Guarantee Draft Detailed Design Consultation Paper</i></p>	<p>Third parties including energy consumers should have access to detailed information in the emissions registry.</p> <p>The Energy Security Board has proposed an emissions registry to provide the necessary information to facilitate compliance with the emissions reduction requirement under the National Energy Guarantee. It allows energy retailers and some larger energy users to be allocated a share of an electricity generator's output and its associated emissions.</p> <p>However, the current proposal that the registry only be accessible to these market customers and electricity generators does not allow third parties to access the registry. This will undermine public confidence in the mechanism, limit external scrutiny and will not facilitate the efficient operation of the National Energy Guarantee (hence increasing costs to consumers). Consumers will be the ones that pay for the costs of introducing a National Energy Guarantee scheme. They should be able to see transparent information on what the prices of the transactions are.</p>

