



**EDOs of Australia**

ABN 85 763 839 004

10 November 2016

Committee Chair  
Senate Standing Committees on Environment and Communications  
PO Box 6100  
Parliament House  
Canberra ACT 2600  
By email:

Dear Committee Members,

### **Inquiry into retirement of coal fired power plants**

1. The Environmental Defender's Offices of Australia (**EDOA**) welcomes the opportunity to make a submission to this Inquiry. We are a network of eight independent community environmental law centres located across the States and Territories. Each EDO is dedicated to protecting the environment in the public interest. We provide legal advice and representation to communities across Australia, take an active role in environmental law reform and policy formulation, community legal education and outreach services.
2. As public interest environmental lawyers, we support open discussions between Australian communities, their representatives and other stakeholders to ensure a just transition to clean energy, productive livelihoods, and a safe and stable climate. A rapid transition is imperative, and if well-managed through coordinated effort, will be positive from an environmental, social and economic point of view.
3. This brief submission focuses on terms of reference (c) and (e) to this Inquiry:
  - c) policy mechanisms to encourage the retirement of coal-fired power stations from the National Electricity Market, having regard to:*
    - (i) the 'Paris Agreement' to keep global warming below 2 degrees Celsius, and ideally below 1.5 degrees Celsius, ...*
    - (ii) any other relevant matters; ...*
  - e) the appropriate role for the Federal Government in respect of the above.*
4. In particular, we discuss and recommend the following:
  - A. NEM laws and decisions must integrate carbon emissions and targets**
  - B. Emissions standards and improved federal oversight to drive clean energy**
  - C. Review of subsidies and supporting communities in transition**
  - D. Links between Paris Agreement and Sustainable Development Goals**

## A. National Energy Market (NEM) laws and decisions must integrate climate change considerations, carbon emissions and targets

5. Australia's Energy and Environment Ministers should work closely to increase the integration of greenhouse emissions reduction into energy policy, as we have previously recommended, in order to limit the costs of a climate-changed world.<sup>1</sup> Recent policies such as the revised federal Energy White Paper (2015) and COAG's National Clean Air Agreement (2015) have not grasped this opportunity.<sup>2</sup> The combined federal energy-environment portfolio presents a further opportunity to integrate Paris commitments and targets into energy policy and legislation.
6. For example, the National Energy Objective (**NEO**) – set out in the National Energy Law as mirrored across the Commonwealth, states and territories – should be amended to include environmental and climate change considerations. This would enable decisions by energy market regulators and participants that better account for immediate and longer-term climate risks and solutions.
7. While the non-binding Australian Energy Market Agreement (2004, as amended) refers to climate change considerations, these are not currently reflected in law in the NEO. The 2004 Agreement includes a goal:<sup>3</sup>

*to address greenhouse emissions from the energy sector in light of the concerns about climate change and the need for a stable long-term framework for investment in energy supplies.*
8. Linking energy legislation objects to climate change goals can lay the groundwork for decision-making in the NEM to integrate emissions targets, while giving flexibility for those targets to increase. Amendments to the NEO would need to be supported by coordinated, national law and policies to meet our Paris targets.

### The role of heavily-polluting 'subcritical' power stations in Australia

9. Australian energy policy should also address planning for high-polluting coal-fired power station closures, supported by national emissions standards (see B below). Advancing age, lagging efficiency, increasing competition and the need for rapid emissions reduction are placing increasing pressures on Australia's highest-emitting power stations. For context, the Committee may wish to consider the paper, *Subcritical Coal in Australia: Risks to Investors and Implications for Policymakers* (2015), from the Oxford University Smith School.<sup>4</sup>
10. In particular, the Smith School paper notes that:
  - (i) By world standards, Australia's power sector is highly exposed to the least-efficient and most-polluting ('*subcritical*'<sup>5</sup>) coal-fired technology;

<sup>1</sup> See EDOs of Australia submissions on climate and energy policy at: <http://www.edo.org.au/energy1>.

<sup>2</sup> <http://ewp.industry.gov.au/>; <https://www.environment.gov.au/protection/air-quality/national-clean-air-agreement>.

<sup>3</sup> AEM Agreement (2004), 2.1(b)(vi). The Agreement contains a longer list of objectives than the NEO.

<sup>4</sup> Available at: [http://www.smithschool.ox.ac.uk/research-programmes/stranded-assets/Subcritical%20Coal%20in%20Australia\\_Investors&Policymakers.pdf](http://www.smithschool.ox.ac.uk/research-programmes/stranded-assets/Subcritical%20Coal%20in%20Australia_Investors&Policymakers.pdf).

<sup>5</sup> See Smith School paper (p 5):

*Subcritical is the least efficient and most polluting form of coal-fired generation - it requires more fuel and water to generate the same amount of power, and creates more pollution as a result. The average*

- (ii) 89% of Australia's coal-fired electricity is from 'subcritical' stations, amounting to around a quarter of national greenhouse gas emissions;
- (iii) These emissions come from 22 power plants owned by 19 companies;
- (iv) Currently, the average age of Australia's subcritical generators is 31 years, with a significant majority aged thirty years or older.<sup>6</sup> Moreover, 46 per cent of boilers 35 years and older are currently "mothballed" due to lower-than-expected energy demand and competition from renewables.<sup>7</sup>
- (v) With a significant portion of SCPs either past or approaching the end of their technical life and the falling energy demand in Australia (Paper, p 12), the working paper considers 3 scenarios for phased closure and decommissioning of least-efficient coal-fired power stations over a 5, 10 and 15 year timeframe, in order to achieve emissions reductions.
- (vi) Major risks include carbon intensity, air pollution and water scarcity;
- (vii) If policymakers are exploring options for early closure, likely calls to 'compensate' power station owners would need clear justification;
- (viii) Stronger emissions standards should reduce the amount of and eligibility for compensation, if any.
- (ix) The paper also puts forward reverse auctions as a policy mechanism for cost-effectively retiring SCPs.

11. The Committee may also wish to consider the Climate Change Authority's analysis of policy scenarios to reduce emissions from electricity generation.<sup>8</sup> As part of a proposed climate policy toolkit, the Authority's majority report put forward a market-based 'emissions intensity scheme' for the electricity sector.<sup>9</sup>

12. We note the Authority considered the potential for additional policies to accelerate progress and reduce the risk of policy uncertainty. These included regulated closure and emissions standards, but the Authority's majority report did not ultimately support these policies.<sup>10</sup> The minority report supported a cap-and-trade emissions scheme for the electricity sector, backed by a carbon budget.<sup>11</sup> It also recommended the Commonwealth consider a bidding process for closure of selected coal-fired power plants, funded by a mandatory charge on other generators.<sup>12</sup>

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*subcritical coal-fired power station (SCPS) emits 75% more carbon pollution than an average advanced ultra-supercritical - the most up-to-date form of coal-fired power station - and uses 67% more water.*

<sup>6</sup> Noting that the operating "lifespan" of an average coal-fired power plant is 40 years.

<sup>7</sup> IEA, 'Energy, Climate Change and Environment' (OECD/IEA Report, 2014).

<sup>8</sup> Climate Change Authority (CCA), *Policy options for Australia's electricity supply sector, Special Review research report*

<http://climatechangeauthority.gov.au/sites/prod.climatechangeauthority.gov.au/files/files/SR%20Electricity%20research%20report/Electricity%20research%20report%20-%20for%20publication.pdf>.

<sup>9</sup> CCA, *Towards a climate policy toolkit: Special Review of Australia's climate goals and policies*

<http://climatechangeauthority.gov.au/sites/prod.climatechangeauthority.gov.au/files/files/Special%20review%20Report%203/Climate%20Change%20Authority%20Special%20Review%20Report%20Three.pdf>.

<sup>10</sup> CCA, *Towards a climate policy toolkit: Special Review of Australia's climate goals and policies*, Chapter 9.

<sup>11</sup> That is, 'with liable entities requiring permits to emit up to the cap'; and where the 'baseline for the electricity sector should be set so that it reaches zero' in line with the carbon budget, 'probably before 2035.' Prof. C. Hamilton and Prof. D. Karoly, *Climate Change Authority's Special Review on Australia's Climate Goals and Policies: Towards a Climate Policy Toolkit: Minority Report*, 5 September 2016 (p 18). The Minority Report (p 19) proposed an integrated or separate cap-and-trade scheme for direct combustion, industrial processes and fugitive emissions sectors.

<sup>12</sup> Prof. C. Hamilton and Prof. D. Karoly, *Climate Change Authority's Special Review on Australia's Climate Goals and Policies: Towards a Climate Policy Toolkit: Minority Report*, 5 September 2016 (pp 14, 18).

## B. Emissions standards and improved federal oversight to drive clean energy

### Emissions standards for power stations

13. There are no mandatory greenhouse efficiency standards for power stations in Australia. Plans to introduce emissions standards were reversed when the carbon price was adopted. Other former initiatives for the electricity sector, such as the GGAS emissions trading scheme in NSW, were also phased out due to the carbon price. Since then, the carbon price reversal has left the heavy-lifting to the federal Direct Action scheme.
14. In other jurisdictions, principles like ‘continual improvement’ and ‘best available technology’ are used to keep environmental standards up to date.<sup>13</sup> This is consistent with the Paris Agreement approach to ‘ratcheting up’ targets via rolling reviews. By way of example, in 2015 the United States Environmental Protection Agency (**US EPA**) imposed national greenhouse gas emissions standards via the Clean Power Plan and *Clean Air Act*.
15. In practice, the US EPA works together with American states to generate specific emission targets for US power plants.<sup>14</sup> The EPA sets interim and final performance rates for coal and gas-fired power plants. Individual states can then decide how best to achieve the new standards (such as via emissions trading schemes). US states need to ensure that either the combined or individual carbon emissions from their power plants reach the interim performance rates between 2022-2029, and final performance rates by 2030.<sup>15</sup>
16. One barrier to this approach in Australia is the lack of a federal EPA. However, COAG could agree to adopt similar approaches by mirroring greenhouse gas emissions standards or limits for power stations in state and federal legislation, as well as further signals to internalise the public costs of pollution, in ways that integrate with the NEM. State or federal development consent conditions on existing power stations could also be modified to require emissions reduction or offsets; and monitoring, auditing and reporting on compliance against standards.

### The regulatory gap: important incentives to drive clean energy are missing

17. In the meantime, there is a significant gap between the Paris Agreement and regulatory action. Planning and pollution laws are generally state-based. But they do not limit energy projects’ greenhouse emissions to meet emissions reduction targets. Nor do state-based laws send market signals by internalising the costs of greenhouse gas pollution, via emissions trading schemes or ‘load-based’ fees. This means important incentives to drive the clean energy transition are missing.

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<sup>13</sup> See further EDOs of Australia, *Submission to the National Clean Air Agreement*, April 2015, p 8 [[PDF 479 KB](#)].

<sup>14</sup> The *Clean Air Act* (US) enables the US EPA to set emission standards for air pollutants from new and existing sources (s 111). US EPA, *Overview of the Clean Air Act and Air Pollution Share* (2015): <https://www.epa.gov/cleanpowerplan/fact-sheet-overview-clean-power-plan>.

<sup>15</sup> US EPA <https://www.epa.gov/cleanpowerplan/fact-sheet-overview-clean-power-plan>.

## EPBC Act should include a greenhouse emissions trigger for federal oversight

18. Australian communities expect their national government to maintain strong environmental regulation and oversight, including in relation to energy projects, be they power stations or coal and gas mines.<sup>16</sup> In the lead-up to the 1998 Environment Protection and Biodiversity Conservation (**EPBC**) Bill being introduced, proposals for a ‘greenhouse trigger’ were discussed to enable greater oversight of emissions in national environmental law. The 10-year independent expert review of the *EPBC Act 1999* also recommended a greenhouse trigger, pending the introduction of a carbon price (as proposed at the time).
19. While the EPBC Act is due for another review in 2018, the absence of a greenhouse or climate change trigger continues to be a serious omission from the national environmental law. This has contributed to Australia’s disconnected climate change responses, and is compounded by gaps in state planning law.

### **C. Review of subsidies and supporting communities in transition**

20. We welcome the Committee’s examination of ways to support regional communities in the transition from carbon-intensive economies, and to plan for a ‘net-zero’ emissions future. This reflects 2050 emissions reduction targets in several states and territories (most recently NSW<sup>17</sup>), and likely others soon.
21. In doing so, the Committee should examine the role of existing public subsidies or tax concessions to fossil fuel production and consumption (broadly defined);<sup>18</sup> and ways to reduce and redirect these concessions to clean energy production, community planning, reskilling of workers, and development and export of renewable technologies. Subsidies or concessions to particular sectors need to be well-designed and regularly reviewed, so that they encourage environmental improvement and discourage (not subsidise) pollution and environmental harm.

### **D. Links between Paris Agreement and Sustainable Development Goals**

22. At the international level, the Committee may wish to consider the ability to integrate the Australian Government’s pursuit of Paris Agreement commitments with pursuit of the Sustainable Development Goals.<sup>19</sup> The 17 Goals aim to integrate economic development, social equity and environmental protection – so are important to the future of Australian and global energy supply.
23. The following Goals are most relevant:

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<sup>16</sup> See for example, Moffat et al. (2014), *Australian attitudes toward mining citizen survey 2014 report*, CSIRO, <http://www.csiro.au/en/Research/MRF/Areas/Community-and-environment/Resources-in-the-community/Attitudes-to-mining-survey>.

<sup>17</sup> NSW Environment Minister, Mark Speakman, ‘\$500 million for NSW’s environmental future’, media release, 3 November 2016 <http://www.environment.nsw.gov.au/news/500-million-for-nsws-environmental-future>

<sup>18</sup> See for example, *OECD-IEA analysis of fossil fuels and other support* (2015), <http://www.oecd.org/site/tadffss/>; OECD, IEA et al *Aligning Policies for a Low-carbon Economy* (2015)

<sup>19</sup> The SDGs succeed the Millennium Development Goals. See for example: <https://sustainabledevelopment.un.org/sdg13>.

- *Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all*
- *Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation*
- *Goal 12: Ensure sustainable production and consumption patterns*
- *Goal 13: Take urgent action to combat climate change and its impacts.*<sup>20</sup>

24. While Australia's efforts to meet these goals at home and abroad need to be mapped out, it is worth considering how funding to meet Paris commitments and the SDGs can complement one another, with regard to the goals above, in the areas of energy production and consumption.

## **Conclusion**

Thank you for considering our submission. For further information from the EDOs of Australia, please contact me or Nari Sahukar, Senior Policy & Law Reform Solicitor, by email or by phone on (02) 9262 6989.

Yours sincerely  
**EDOs of Australia**



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<sup>20</sup> 'Acknowledging that the UN Framework Convention on Climate Change is the primary international intergovernmental forum for negotiating the global response to climate change.'