



Australian Network of Environmental
Defender's Offices Inc

Submission on the Draft Energy White Paper

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The Australian Network of Environmental Defender's Offices (ANEDO) consists of nine independently constituted and managed community environmental law centres located in each State and Territory of Australia.

Each EDO is dedicated to protecting the environment in the public interest. EDOs provide legal representation and advice, take an active role in environmental law reform and policy formulation, and offer a significant education program designed to facilitate public participation in environmental decision making.

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Introduction

The Australian Network of Environmental Defender's Offices (ANEDO) welcomes the opportunity to contribute to consultations on the Australian Government's Draft Energy White Paper (White Paper).¹

The White Paper must be viewed in the light of an increasing global imperative to take decisive action to combat climate change. The OECD has noted that through continued global dependence on fossil fuels, carbon dioxide emissions from electricity generation are predicted to rise by 70% to 2050. In turn, this is likely to lead to global average temperature increases of 3-6°C, above the globally-agreed maximum of 2°C.² Any energy policy developed by Australia must therefore have transition to a low carbon economy as a fundamental goal. As Australia's Climate Commission has noted, "...if the 2 °C guardrail is to be achieved, then there is no time for delay in investing in low and no-carbon technologies for energy generation, built infrastructure and transport."³ The energy decisions made today will reverberate over the decades to come, and early action to reduce emissions will be less costly than delayed action.⁴

As a network of environmental lawyers, our focus is on matters of legal and regulatory policy. We have therefore limited our comment to six key areas of the White Paper, and make the following recommendations:

- 1. The externalities of non-renewable generation must be properly accounted for**
- 2. Mandatory emissions standards should be imposed on all new power generation in Australia**
- 3. The electricity transmission and distribution network must be reformed, in order to encourage renewable energy investment**
- 4. The mandate of the Independent Expert Scientific Committee should be expanded to consider environmental impacts beyond water**
- 5. The Government should take a leadership role and encourage the reduction or removal of regulatory barriers to the establishment of renewable generational sources (especially wind power), as compared to mining and CSG**
- 6. The White Paper should avoid prioritising carbon capture and storage (CCS) technology at the expense of more renewable generation.**

We discuss each of these areas in turn.

¹ Commonwealth of Australia, *Draft Energy White Paper 2011: Strengthening the Foundations for Australia's Energy Future*, http://www.ret.gov.au/energy/facts/white_paper/Pages/energy_white_paper.aspx ("White Paper").

² OECD, *Environmental Outlook to 2050: the Consequences of Inaction*, 72.

³ Australian Government's Climate Change Commission, *The Critical Decade* (2011), p 60.

⁴ See, eg, Garnaut R., *The Garnaut Climate Change Review: Final Report* (Cambridge University Press, 2008); Climate Change Commission, *The Critical Decade* (2011); Australian Government Department of Sustainability (SEWPaC), *State of the Environment Report 2011* (December 2011), at <http://www.environment.gov.au/soe/2011/summary/atmosphere.html#ib3>.

1. The externalities of non-renewable generation must be properly accounted for

ANEDO is concerned that the White Paper's emphasis on non-renewable energy sources⁵ does not provide adequate consideration of the environmental and health impacts of non-renewable resource extraction and power generation,⁶ including contributions to climate change. The costs of these phenomena must be taken into account in the market price of electricity and the energy policy framework set out by government.⁷

A failure to take environmental and health implications into account means that they are devalued in any comparison with the economic gains to be made from the exploitation of non-renewable resources. To counter this tendency, strong environmental impact assessment procedures must be maintained for all energy resource development projects, including full environmental costing.⁸ The White Paper needs to increase its emphasis on, and acknowledgement of, these environmental considerations. In promoting integrated energy and environmental policy frameworks, the White Paper must also ensure that any purported streamlining of industry regulation does not come at the expense of robust environmental assessment, project transparency and public participation.⁹

2. Mandatory emissions standards should be imposed on all new power generation in Australia

The White Paper states that

in light of the passage of legislation to introduce a carbon price from 1 July 2012, the Australian Government has taken a decision not to proceed with the introduction of an emissions standard or carbon capture and storage standard for future coal-fired generation investment.¹⁰

⁵ See, for example, White Paper, xii, 79-81.

⁶ William M Castleden, David Shearman, George Crisp and Phillip Finch, 'The Mining and Burning of Coal: Effects on Health and the Environment', (2011) 195(6) *Medical Journal of Australia*, 333-335.

⁷ Australian Academy of Technological Sciences and Engineering, *The Hidden Costs of Electricity: Externalities of Power Generation in Australia*, i.

⁸ See, eg, The Economics of Ecosystems and Biodiversity, <http://www.teebweb.org/>. The development of liquefied natural gas processing and port facilities in the Great Barrier Reef World Heritage Area presents an example of inadequate management of competing economic and environmental pressures. The approval of extensive LNG processing and port facilities on Curtis Island is a prime example of development approval despite environmental impact assessment (EIA) predicting substantial impacts on matters of national environmental significance under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), and in particular the Great Barrier Reef World Heritage Area (GBRWHA). While EIA on the Curtis Island liquefied natural gas facilities concluded that development would not have a significant impact on the world heritage values of the GBRWHA, the EIA also concluded that there would be direct impacts on subtidal soft bottom communities, saltpan, saltmarsh, seagrass, mangrove and intertidal habitats, as well as potential direct and indirect impact on whales, dolphins, turtles and dugong. Approval of the development on Curtis Island, despite the findings of the environmental impact assessment, prompted the United Nations World Heritage Committee (Committee) to note its "extreme concern" about the development and its impacts on the outstanding universal values of the GBRWHA (decision 35 COM 7B.10). The development approval also triggered a reactive monitoring mission of the Committee and the International Union for Conservation of Nature to investigate the state of conservation of the GBRWHA, and directions from the Committee to initiate a comprehensive strategic assessment of the entire GBRWHA property. (See Department of Environment, Water, Heritage and the Arts, *Notification of Referral Decision and Designated Proponent –controlled action: APLNG Liquefied Natural Gas Plant and onshore marine facilities* (EPBC 2009/4977); World Heritage Committee 11/35.COM/7B.Ad, 21; World Heritage Committee Decision 35 COM 7B.10.)

⁹ See White Paper, pp 235-237.

¹⁰ White Paper, 162.

ANEDO strongly opposes this policy reversal. As we have previously submitted, a performance standard for new power stations is a necessary complement to a carbon price.¹¹ It cannot be assumed that market forces will lead to power generators adopting best-practice emissions standards, even under a legislated carbon price. As the EDO Victoria has previously submitted, the low initial carbon price in the emissions trading scheme, along with policy uncertainty surrounding it, suggests that modifications to corporate behaviour in the early years of the scheme will be limited.¹² Furthermore, emissions intensive generators will also receive generous assistance which may soften the impact of the carbon price.¹³ This means that in the early stages of the scheme, investors are liable to continue to invest in coal or gas-powered power stations, rather than renewable energy.¹⁴ Rigorous emissions standards will prevent investment in inefficient generation, particularly that powered by coal.

The Government should adhere to its election commitment to impose a rigorous emissions intensity standard on new power stations. A standard of 0.5 tCO₂-e/MWh for all new power stations will discourage investment in polluting fossil fuels, and is consistent with the practice of other jurisdictions, such as California, Oregon and Washington.¹⁵ A rigorous emissions standard will prevent unsustainable projects from ‘locking in’ new sources of greenhouse gas emissions for decades. The problem of ‘infrastructure lock-in’ is the single strongest justification for a performance standard for new power stations. While new coal or gas-fired power stations may be attractive investments in the short term (i.e. in the next five years), they may not be so attractive in the future (for example, if gas prices rise, or renewable energy prices fall significantly – both of which are likely). However, because power stations have long lifespans of up to 40 years, investment decisions made in the next five years will be ‘locked in’ for the next 40.

It is therefore critical that the government intervene to ensure that these sorts of mistaken short-term investment decisions are not made. Allowing these kinds of developments in the short-term will only defer the hard work of making deep cuts to our emissions, and make it more expensive to meet Australia’s emissions targets. The global context of the problem of infrastructure lock-in makes it all the more imperative for Australia to take decisive action now, in transitioning to a low carbon economy. The International Energy Agency predicts that, in order to avoid catastrophic climate change, there must be stringent action by 2017 to reduce emissions from generation. If such action is taken, no new power stations can be built after 2017, unless they are zero-carbon.¹⁶

¹¹ Australian Network of Environmental Defender’s Offices, *Submission on the Inter-departmental Task Group Discussion Paper – a Cleaner Future for Power Stations*, December 2010, www.edo.org.au/policy/101224cleaner_future.pdf.

¹² Environment Defenders Office (Victoria) Ltd, *Submission to the Review of the Climate Change Act*, 28 November 2011, www.edovic.org.au/sites/default/files/files/edo_vic_climate_change_act_review_submission.pdf, pp 6, 10.

¹³ Such as through the Energy Security Fund (see www.cleanenergyfuture.gov.au/clean-energy-future/securing-a-clean-energy-future/chapter-7-maintaining-australias-energy-security/).

¹⁴ Environment Defenders Office (Victoria) Ltd, *Submission to the Review of the Climate Change Act*, 28 November 2011, www.edovic.org.au/sites/default/files/files/edo_vic_climate_change_act_review_submission.pdf, 10.

¹⁵ Environment Defenders Office (Victoria) Ltd, *Submission to the Review of the Climate Change Act*, 28 November 2011, www.edovic.org.au/sites/default/files/files/edo_vic_climate_change_act_review_submission.pdf, 10; Australian Conservation Foundation, *A Cleaner Future for Power Stations*, 22 December 2010, <http://www.ret.gov.au/energy/Documents/sustainability-and-climate-change/aust-conservation-foundation.pdf>; Oregon SB101 (2009) ; California SB 1368 (2006); Washington SB 6001 (2007).

¹⁶ International Energy Agency, *World Energy Outlook 2011*, Executive Summary, 2.

3. The electricity transmission and distribution network must be reformed, in order to encourage renewable energy investment

The White Paper discusses the need to expand the functions of the electricity grid to a wider range than it was originally designed for.¹⁷ At present, the regulatory system for electricity transmission distorts markets, favouring conventional coal and gas generation over low emissions technologies.¹⁸ The Grattan Institute has pointed to a number of barriers for low emissions technologies in securing and utilising transmission connections. These sorts of barriers were also identified in a report by the Government's Australian Energy Market Commission.¹⁹ They include systems of subsidies for fossil fuels; a lack of incentives to plan for future needs in network connections in an efficient manner; and the high costs imposed on early movers in new technology.²⁰

In Australia, electricity transmission and distribution is a natural monopoly, regulated by the Australian Energy Regulator. Amendments to this system therefore require government, rather than market-based initiatives, in order to help industries make the most efficient decisions under the carbon pricing framework and other government initiatives.

Accordingly, ANEDO supports reforms to electricity transmission networks that would encourage private sector investment in renewable sources. The system has favoured low volume, high intensity developments and must be reformed so that high volume, low intensity renewable developments are given an equal chance. These reforms must include:

1. Greater flexibility to allow clean generators, such as solar photovoltaic technology, to fully exploit their competitive advantages through time-of-day and locational pricing;
2. Greater support for clusters of projects so that multiple clean energy developments can better share the burden of establishment and grid connection costs;
3. Ranking for congestion that favours renewable sources rather than giving preference to legacy generators;
4. Stronger support for first movers who face high connection costs for extending networks, allowing later developments a 'free ride' on the extended infrastructure.²¹

4. The mandate of the Independent Expert Scientific Committee should be expanded to consider environmental impacts beyond water

The White Paper views with optimism the potential for growth in coal seam gas (CSG).²² The Environmental Defender's Office (NSW) has previously noted a range of potential dangers to the environment and health posed by inadequate regulation of CSG exploration and extraction.²³ While

¹⁷ White Paper, 143.

¹⁸ Tony Wood, Tristan Edis, Daniel Mullerworth and Helen Morrow, *No Easy Choices: Which Way to Australia's Energy Future?* Grattan Institute, February 2012.

¹⁹ AEMC 2009, *Review of Energy Market Frameworks in light of Climate Change Policies: Final Report*, September 2009, Sydney, p. vi, see also pp 13-25.

²⁰ Tony Wood, Tristan Edis, Daniel Mullerworth and Helen Morrow, *No Easy Choices: Which Way to Australia's Energy Future?* Grattan Institute, February 2012, 10-16.

²¹ See Tony Wood, Tristan Edis, Daniel Mullerworth and Helen Morrow, *No Easy Choices: Which Way to Australia's Energy Future?* Grattan Institute, February 2012, 21; AEMC 2009, *Review of Energy Market Frameworks in light of Climate Change Policies: Final Report*, September 2009, Sydney, Chapter 2.

²² See, e.g, pp 86 and 102.

²³ EDO NSW, *Submission to NSW Legislative Council Inquiry into Coal Seam Gas* (September 2011), http://www.edo.org.au/edonsw/site/pdf/subs/110912csg_inquiry.pdf. See also, EDO NSW, *Mining Law in*

we remain cautious about any initiative to increase this exploration and extraction anywhere in Australia, ANEDO supports measures that increase the scientific scrutiny on CSG activities.

In this regard, while we support the implementation of the National Partnership Agreement on Large Coal Mines and Coal Seam Gas, including the Independent Expert Scientific Committee to advise on the effects of CSG on water, the ambit of the committee should be increased to *all* the environmental effects of CSG projects.

5. The Government should take a leadership role and encourage the reduction or removal of regulatory barriers to the establishment of renewable generation sources (especially wind power), as compared to mining and CSG

The focus on land-use conflicts should consider the regulatory barriers to the establishment of renewable generation sources (especially wind power), as compared to the developments required by more emissions-intensive forms of generation, such as coal mines. The tough new planning rules for wind farms recently introduced in Victoria, for example, are the toughest rules ever imposed on that industry – indeed, more stringent than the equivalent rules that apply to other developments including coal mines and CSG fields.²⁴ Similarly disproportionate standards are currently being proposed in NSW, and may be introduced in other states in the near future.²⁵

The discrepancy in approval procedures for wind farms, as opposed to other energy generation projects, has also emerged under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act). Under the EPBC Act, the Minister at his discretion may determine the approach used to conduct assessment of environmental impacts. On numerous occasions involving coal mining projects deemed ‘controlled actions’ under the EPBC Act, the Minister has chosen to conduct environmental impact assessment using the low threshold of preliminary documentation.²⁶ Further, many ‘minor’ construction activities related to a significant mining project have been deemed ‘not controlled actions’ and thus require no environmental impact assessment at all.²⁷ Conversely, the government has recently declared a wind turbine project in Far North Queensland to be a ‘controlled action’ requiring environmental impact assessment subject to extremely extensive preparation guidelines.²⁸ As a general principle, the level of assessment should reflect the potential environmental impact of the development, including the long-term consequences relating to climate change.

Rules and procedures such as those noted above pose an unacceptable barrier to the emerging renewable energy industry. In Victoria, for example, they have led to a complete cessation in new

NSW discussion paper, (June 2011), at www.edo.org.au/edonsw/site/pdf/pubs/110628mining_law_discussion_paper.pdf.

²⁴ Environment Defenders Office (Vic), EDO Briefing Paper, *Wind Farms or Coal Mines: Which One Will Be Subject to Stricter Planning Controls?*

http://www.edovic.org.au/downloads/law%20reform/edo_vic_wind_farm_comparison_paper.pdf. See also Environment Defenders Office (Vic), *Submission to the Inquiry into Greenfields Mineral Exploration and Project Development in Victoria*, 2 September 2011,

http://www.edovic.org.au/downloads/law%20reform/edo_vic_mining_submission.pdf.

²⁵ See *Draft NSW Planning Guidelines: Wind Farms*

<http://www.planning.nsw.gov.au/Development/Onexhibition/tabid/205/ctl/View/mid/1081/ID/66/language/en-AU/Default.aspx>. See also EDO NSW submission on these guidelines:

www.edo.org.au/edonsw/site/policy_submissions.php.

²⁶ EPBC 2008/4468 – infrastructure component of the X110 expansion of Abbot Point Coal Terminal; EPBC 2009/4837 – Multi Cargo Facility including man-made corridor and harbour at Abbot Point

²⁷ EPBC 2008/4438 – dredging component of X110 expansion of Abbot Point Coal Terminal

²⁸ EPBC 2011/6228 – Mt Emerald Wind Farm

wind energy investment. By ending investment in what is currently the most cost-effective and rollout-ready renewable energy technology, these new rules pose a serious threat to Australia's transition to a low-carbon economy.

The Commonwealth has an interest in ensuring that these barriers are removed, if it wants to ensure that its Clean Energy Future policy package is successful in driving renewable energy investment. We therefore submit that, to ensure the success of its own clean energy policies, the Commonwealth should take action to remove or ameliorate these state-based regulatory barriers to renewable energy.

The Commonwealth should take a leadership role in encouraging the removal of these regulatory barriers and redressing the imbalance between the regulatory barriers to renewable energy and to coal and gas. For example, this could be done through the Council of Australian Governments or a National Partnership Agreement directed at removing regulatory barriers to renewable energy. The Commonwealth should also publicly advocate for restrictions on renewable energy to be removed, and may consider taking unilateral action to encourage the States to act.

6. The White Paper should avoid prioritising carbon capture and storage (CCS) technology at the expense of more renewable generation.

The White Paper places reliance on Carbon Capture and Storage (CCS) technology as a major contributor to the reduction of carbon emissions from Australian electricity generators. For example, it considers that by 2050, fossil-fuel based carbon capture and storage could make up a 40 per cent share of Australia's total generation.²⁹

ANEDO has previously expressed concerns over the use of CCS technology as a major mitigating strategy for the electricity sector.³⁰ In particular, we note that this technology is not currently commercially viable, and is an end-of-pipe approach that does not focus on reducing actual emissions. Among other issues, there is significant uncertainty surrounding the long-term environmental viability of CCS, and substantial issues concerning potential liability for adverse environmental outcomes that may be posed by the technology.³¹

We submit that the government's focus should therefore be on promotion of genuinely renewable sources of power, rather than CCS. Nonetheless, if CCS continues to be treated as a viable strategy by the government, then there should be mandatory CCS-ready standards for new coal-fired generators. As noted above, the government has previously committed to impose these standards. We submit that, if CCS is ever to become viable, new generators must be in a position to implement CCS technology. Forward thinking has potential to avoid, or lower, the future costs of retrofitting power stations.

²⁹ White Paper, 40.

³⁰ See Australian Network of Environmental Defender's Offices, *Submission on the Inter-departmental Task Group Discussion Paper – A Cleaner Future for Power Stations*, December 2010, http://www.edo.org.au/policy/101224cleaner_future.pdf; Australian Network of Environmental Defender's Offices, *Submission to the Inquiry into the Offshore Petroleum Amendment (Greenhouse Gas Storage) Bill 2008 & 3 Related Bills*, 15 August 2008, http://www.edo.org.au/policy/080812greenhouse_gas_storage_senate.pdf; Australian Network of Environmental Defender's Offices, *Submission on the Draft Offshore Petroleum Amendment (Greenhouse Gas Storage) Bill*, June 2008, http://www.edo.org.au/policy/080630greenhouse_gas_storage.pdf.

³¹ See Australian Network of Environmental Defender's Offices, *Submission on the Draft Offshore Petroleum Amendment (Greenhouse Gas Storage) Bill*, June 2008, http://www.edo.org.au/policy/080630greenhouse_gas_storage.pdf, 5.