CLIMATE AND HEALTH ALLIANCE

Submission to the Independent Review into the Future Security of the National Electricity Market

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Contact:
CAHA Executive Director
Fiona Armstrong
fiona.armstrong@caha.org.au
0438900005
www.caha.org.au

About the Climate and Health Alliance

The Climate and Health Alliance (CAHA) is a not-for-profit organisation that is a national alliance of organisations and people in the health sector working together to raise awareness about the health risks of climate change and the health benefits of emissions reductions.

CAHA's members recognise that health care stakeholders have a particular responsibility to the community in advocating for public policy that will promote and protect human health.

Membership of the Climate and Health Alliance includes a broad cross section of the health sector with 28 organisational members, representing hundreds of thousands of health care professionals from a range of disciplines, health care service providers, institutions, academics, researchers, and health consumers.

The Climate and Health Alliance, as it name suggests, is concerned with the health threats from climate change, and the organisation works to raise awareness of those risks and advocate for effective societal responses, including public policies, to reduce risks to health.

The Climate and Health Alliance has produced a number of reports and publications. It produced the Coal and Health in the Hunter: Lessons from One Valley for the World report in 2015; led the development of the multi-stakeholder Joint Position Statement and Background Paper on Health and Energy Choices in 2014; produced the joint report 'Our Uncashed Dividend' with The Climate Institute in 2012 on the health benefits of reducing greenhouse gas emissions; conducted a national Roundtable on the Health Implications of Energy Policy; prepared a Briefing Paper on the same topic; produced a film on the risks to health and climate from coal and gas, The Human Cost of Power; conducted a national Forum on Climate and Health: Research, Policy and Advocacy in 2013; jointly hosted a Public Seminar on Protecting Health from Climate Change in 2014; organised the 2015 Our Climate Our Health Seminar, featuring an innovative thought experiment: Imagining 2030 as a healthy low carbon world; and contributes to conferences, community dialogues, and forums, both nationally and internationally on these issues.

For more information about the membership and governance of the Climate and Health Alliance, please see Appendix A. For further information see www.caha.org.au

Overview / Introduction

The relevance of this submission to the Review of the Future Security of the National Electricity Market pertains to the immense benefits to consumers, industry and government in prioritizing the health and wellbeing of the community.

The health and wellbeing of the community and social equity must be considered in all energy policy decisions

In Australia, the health implications are not currently considered in policy decisions regarding energy generation and distribution. People's health is significantly influenced by how energy is generated and distributed and the health implications of energy policy decisions should be measured and costed when considering, for instance the National Electricity Market, the allocation of energy sector subsidies, new energy infrastructure projects, and energy trade. When decisions are made that harm health it is nearly always the most disadvantaged and vulnerable people in society who suffer the most and the most severe health consequences.

It is imperative that policy shaping the National Energy Market explicitly addresses health and equity, and is informed by Australia' s obligations under the 2015 UNFCCC Paris Agreement to apply a "health lens" to climate policies[1, 2]. This requires that energy and climate policies:

- *protect the health of all Australians, with particular care taken to protect the most vulnerable individuals and communities;*
- *avoid disproportionate impacts on vulnerable people, low income households and the organisations that support them; and*
- *assist the successful transition of communities that are especially vulnerable to economic shocks, economic and industry changes or physical risks as a result of climate change or climate policy.*

Our current patterns of energy use have significant implications for human health

The routine release of pollutants from energy production, distribution and use has significant implications for human health, both directly as local environmental health impacts (e.g. air pollution) as well as indirectly through impacts on ecosystems and global environmental change.

Fossil fuels and the energy generated from them only appears cheap because the externalities of fossil fuel dependence - health, social and environmental costs – are not accounted for in the market price of electricity or fuel costs but are nonetheless borne by the community and by taxpayers.

Ill health and premature death associated with fossil fuel use is costing the Australian and global community billions of dollars annually from respiratory, cardiovascular and nervous system diseases caused by exposure to the extraction, transportation and combustion of coal, oil and gas [3, 4]. Indeed

The Lancet estimates that 24 people die for every TWh of coal combusted, from the harmful effects of the airborne particulates, nitrogen oxide, and toxic metals such as mercury and lead released [5].

Australian data suggests that the adverse health impacts from coal fired electricity generation – from respiratory, cardiovascular, and nervous system diseases – currently costs the community at least A$2.6 billion annually [6]. The long-term health costs attributable to increasing climate change caused by continuing fossil fuel mining and burning are likely to be much higher [7-9]. Indeed the burden of ill health attributable to climate change has prompted *The Lancet* to describe tackling climate change as the greatest health opportunity of the 21st century [10].

The monetary costs of ill health attributable to fossil fuel generation can be drastically reduced by policy interventions. A 2015 New Climate Economy report estimates reducing emissions from coal sources would deliver health benefits worth US$100 for every tonne of CO2 abated in developed countries [11]. Canadian modelling suggest that a national phase-out of coal-fired electricity generation no later than 2030 would prevent 1,008 premature deaths and 871 emergency department visits, and harmful health outcomes valued at nearly CAD$5 billion (including health care costs and lower productivity costs) would be avoided between 2015 and 2035 [12].

Energy supply does not need to harm health

Renewable energy helps deliver lower emissions energy options, produces less pollution, poses fewer risks to health and wellbeing, and poses less occupational health and safety risks than existing energy supply systems [4]. Importantly, solar energy has minimal health and environmental impacts, particularly when compared with fossil fuels [13]. Australia's own NHMRC concludes that there is currently no consistent evidence that wind farms cause adverse health effects in humans [14].

Importantly, the health community has significant concerns regarding the safety of natural gas as a source of electricity – envisaging at best a "a cautious transitional role for natural gas." [10, 15]Given the urgency of the need to reduce carbon emissions, there is great concern regarding modest reductions in emission intensity that may be achieved through "low emissions coal technologies", which is more emission intensive than gas, and markedly more polluting than wind, solar photovoltaic or hydroelectric power [16].

The health co-benefits of a transition to a decarbonised economy are immense and readily achievable [10]. Australia's vast renewable energy potential is well documented, and numerous scenarios modeling a transition to 100% renewable energy have demonstrated our capacity to do so in a short time frame [17, 18].

Decisions about the National Electricity Market should take full account of the health and wellbeing of the community and the promotion of social equity. This requires:

1. A co-ordinated, national approach to the National Electricity Market (and energy policy in general) that safeguards equitable, sustainable access to reliable energy without contributing to the burden of disease
2. Expansion of research capacity to better estimate the impact of our energy market on human health and wellbeing
3. Regular analysis of and reporting on the health, environmental and social impacts of our energy market
4. A firm commitment to and policies for renewable energy development and installation that will ensure market confidence and encourage further research and development in this area
5. Closure of Australian coal fired power stations and careful transition planning to ensure justice to the communities affected
6. A national moratorium on unconventional and marine gas exploration and mining
7. The rapid removal of all subsidies towards fossil fuel industries so that the true costs of fossil fuels to the community are reflected in the price of the energy generated
8. A national carbon price that accounted for the social and environmental externalities of fossil fuel generation could reduce the burden of these costs on the community, offset the costs of expansion of renewable energy sources and be used for health promotion activities
9. Rigorous evaluation and public reporting of independent health impact assessments on all proposed electricity and energy policies

Conclusion

The National Electricity Market must be designed in such a way that does not harm the health and wellbeing of the community. To that end, the operations of the NEM must be in line with Australia's international commitments to limit global warming to 2°C and to recognise the value of health co-benefits in mitigation actions. Australia faces neither technological nor economic barriers

to a transition away from increasingly unreliable fossil fuel dependence. Firm political commitment to a transition towards renewable energy will ensure access to a sustainable, healthy and equitable energy supply.

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APPENDIX A

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