



CLIMATE AND
HEALTH
ALLIANCE

Submission in response to
The Australian Government
Department of Resources, Energy and Tourism
Draft Energy White Paper 2011 - Strengthening the
Foundation for Australia's Energy Future

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About the Climate and Health Alliance

The Climate and Health Alliance (CAHA) is a national alliance of organisations and people in the health sector who work 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.

The membership of the Climate and Health Alliance includes a broad cross section of the health sector with over 20 organisational members, representing health care professionals from a range of disciplines, health care service providers, institutions, academics, researchers, and consumers.

The Climate and Health Alliance has a committee of management to guide its work, and an expert advisory committee with senior health and climate researchers to ensure the positions of the Alliance reflect an evidence-based approach.

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

The Climate and Health Alliance will make a brief submission in response to the Draft Energy White Paper addressing the following issues:

- Australia's energy supply and its impact on human health
- Energy policy in the context of the national interest – specifically in relation to health and wellbeing
- The need for future energy systems to serve the interests of the whole community
- Policies needed for healthy sustainable energy systems

Key points

1. Current energy systems in Australia are posing serious risks to health and contribute to emissions growth and subsequent climate change
2. Australia is well positioned to make a transition to a clean renewable energy future from which it can benefit economically
3. Energy policy must be developed cognisant of the broader consequences of energy choices and consistent with the best interests of all Australians
4. A comprehensive suite of policies are needed, in addition to a price on carbon, to develop a healthy, safe, sustainable energy future for Australia

Introduction

The development of energy policy in Australia leads to many consequent outcomes, many of which are unappreciated by the energy industry, but which have significant impacts on the Australian community, the national economy, and for foreign policy.

Current approaches to energy policy development, including those foreshadowed in the Draft Energy White Paper, do not consider broader social, economic and national security dimensions of the perverse consequences of energy policy that lead to harm to human health and damage the Earth's biosphere, and put Australia's economic and national security at risk.

It is in relation to these issues that CAHA, as a body made up of health professionals, health researchers, health care service providers, health policy advocates and health care consumers, seeks to make a contribution to the development of future energy policy in Australia.

Our current energy systems are harming our health

Current energy systems in Australia are posing serious risks to health and contribute to emissions growth and climate change.

The burning of coal for electricity generation and other fossil fuels for transport poses serious direct risks to human health.

The Energy White Paper refers to Australia's demonstrated energy reserves of thermal coal that it suggests can "sustain current production levels beyond 2100". This assertion appears to completely ignore the enormous currently externalised costs associated with fossil fuel combustion, particularly coal, and assumes that since reserves exist that they must be extracted.

Ill health and deaths associated with fossil fuel use is costing the 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. Air pollutants account for a huge proportion of the health costs, contributing to: respiratory diseases such as asthma and lung cancer; cardiovascular diseases which lead to heart attacks; while mercury contributes to developmental delay and permanently reduced intellectual capacity in exposed children.¹

Heavy metals and carcinogens released during the processing of coal also contaminate water and food sources which can lead to long term health problems. In addition, the mining of coal exposes workers and local communities to dangerous coal dust, and it is a dangerous occupation in terms of health and safety.

Research from Europe published in the prestigious medical journal *The Lancet* estimates that 24 people die for every TWh of coal combusted, from the harmful effects of the airborne

¹ Physicians for Social Responsibility, *Coal's Assault on Human Health*, November 2009.

particulates, nitrogen oxide, and toxic metals such as mercury and lead released.² The International Energy Agency estimates that more than 7,500TWh of coal were burnt for electricity generation in 2009.³

A recent study from the Harvard Medical School estimates the economic, health and environmental costs of the life cycle of coal is costing the US public a third to one half of a trillion dollars annually.⁴

The Harvard study looked at the lifecycle costs of coal, including mining, transport, processing and combustion, which are not accounted for by the coal industry and the costs for which fall onto the rest of the community in increased health costs, injuries, illnesses and deaths.

This study found if the estimated health and environmental costs of coal were included in the price of coal-fired electricity it would double or triple its cost, and make safer renewable energy generation cost competitive.

A recent study published in *American Economic Review* found that the gross external damages (largely from increased deaths) caused by coal fired power generation in the US amounted to \$53 billion annually. Even more significantly, it demonstrated coal is costing the US economy more than the industry generates.⁵

This latter study arrived at a lower estimate of the external costs of coal combustion than the Harvard study due to lower estimates of air pollution damages, as well as significant differences in their assumptions of the cost of climate impacts.⁶ Despite this, both studies firmly conclude that due to the externalisation of health and climate costs, the true cost of coal is not reflected in its current price. Stricter regulation and a cost that reflects these damages would therefore benefit the economy.⁷

Somewhat outdated estimates put the health damage from Australian coal-fired power stations for the Australia community at \$A2.6 billion annually. Together with estimates of health damage from fossil fuel powered transport emissions, this amounts to an annual health bill of almost \$6 billion for Australian taxpayers as well as contributing to thousands of deaths each year.⁸

The huge contribution of coal-fired power generation to global warming and the strong evidence of its significant detrimental effects on human health must mean that the coal for power generation should rapidly decline.

² Markandya, A., and Wilkinson, P. Energy and Health 2: Electricity generation and health, *The Lancet*, Sep 15-Sep 21, 2007; 370, 9591.

³ International Energy Agency, Emissions From Fuel Combustion, IEA Statistics, 2011 edition, page 122.

Available at <http://www.iea.org/co2highlights/co2highlights.pdf>

⁴ Epstein, P. Full cost accounting for the life cycle of coal, *Annals of New York Academy of Sciences*, 1219: 73-98.

⁵ Muller, N et al. Environmental Accounting for Pollution in the United States Economy, *American Economic Review*, August 2011, 101, pp.1649–1675

⁶ Skeptical Science, *True Cost of Coal Power - Muller, Mendelsohn, and Nordhaus*, 7 October 2011.

⁷ Skeptical Science, *ibid.*

⁸ Biegler, T. *The hidden costs of electricity: Externalities of power generation in Australia*, Report for the Australian Academy of Technological Sciences and Engineering (ATSE), 2009.

Nor does gas offer a panacea for Australia's emissions woes: market pressure for a shift to conventional fossil gas as an energy source to replace coal and claims that gas is "clean energy" should be viewed with caution. There is emerging evidence that the emissions from gas are much higher than reported levels, with a recent paper indicating gas accounts for 40% of anthropogenic greenhouse gas emissions in the US.⁹ New methods for evaluating methane emissions from gas have produced a two fold increase in reported emissions from the gas industry in the US.¹⁰ In addition, gas from shale deposits is estimated to have a higher greenhouse signature than coal.¹¹

The Energy White Paper refers to one of the objectives of the Australian Energy Market Agreement (AEMA) between the Australian, state and territory governments as "increasing the penetration of natural gas as a way to lower energy costs, improve services and reduce greenhouse gas emissions".¹² In light of concerns around emissions from gas, this should be reviewed, and replaced with an emphasis on renewable energy.

Continuing to rely on fossil fuel powered transport is similarly harmful to health, with air pollution killing more people each year in Australia than the road toll.¹³ Given these health impacts, and with peak oil fast approaching, or possibly already past, Australia should be preparing an energy policy that is post-oil, or at least begins to prepare Australians for a severely constrained oil future.¹⁴

The increasing difficulty in accessing conventional fossil fuels such as oil and gas is leading to an explosion in exploration for unconventional energy resources, including coal seam gas.

Coal seam gas carries potentially significant human health and environmental impacts, with many risks currently unexplored. If the industry continues to expand at its current rate, it is estimated there will be 40,000 gas wells in Australia using 300Gl of water and creating 31 million tonnes of salt waste over the next two decades.¹⁵

⁹ Howarth, R et al. [Methane Emissions from Natural Gas Systems](#), Background Paper Prepared for the National Climate Assessment, February 2012.

¹⁰ Howarth, R. et al. Venting and leaking of methane from shale gas development: response to Cathles et al, *Climatic Change*, 1 February 2012.

¹¹ Howarth, *ibid*.

¹² Australian Government, Department of Energy Resources and Tourism, *Draft Energy White Paper 2011 - Strengthening the Foundation for Australia's Energy Future*, December 2011, [Chapter 6B - Electricity and gas markets](#) p.134.

¹³ Bureau of Transport and Regional Economics, *Health Impacts of Transport Emissions in Australia: Economic Costs*, Working Paper 63, Commonwealth of Australia, 2005.

¹⁴ Australian Government, Bureau of Infrastructure, Transport and Regional Economics (BITRE), [Transport energy futures: long-term oil supply trends and projections, Report 117](#), 2009, Canberra, ACT. Available at: http://aie.org.au/StaticContent/Images/Report_120106.pdf

¹⁵ Carey. M. Coal Seam Gas: future bonanza or toxic legacy? *Viewpoint*, 23 January 2012, p.26-31.

Very few of the chemicals used in coal seam gas mining have been evaluated for their safety with respect to human health.¹⁶

Some of the chemicals used in coal seam gas mining are associated with hormonal disruption, effects on fertility and reproductive systems and implicated in the development of cancer.¹⁷ Other chemicals are associated with damage to kidneys, and harm to the nervous system as well as respiratory and cardiovascular risks.¹⁸ There are also serious concerns about water quality and harm to underground aquifers from coal seam gas mining, as well as serious climate implications from large quantities of fugitive emissions of methane during coal seam gas mining, one of the most powerful of the greenhouse gases.¹⁹

The harm to human health from fossil fuels extends well beyond its immediate health impacts, with climate change posing serious risks to health – and the timeframe for taking effective action rapidly dwindling.

The International Energy Agency has warned that the world has just five years to dramatically alter the way it uses energy, and that unless we stop investing in fossil fuels and begin the wide-scale and rapid deployment of renewable energy technology, we will lose the opportunity to prevent irreversible climate change.²⁰

"The door is closing," Fatih Birol, chief economist at the International Energy Agency, said in November 2011. "I am very worried - if we don't change direction now on how we use energy, we will end up beyond what scientists tell us is the minimum [for safety]. The door will be closed forever."

Clean green energy systems will secure a healthier future

Australia is well positioned to make a transition to a clean renewable energy future from which it can benefit economically.

Australia has abundant renewable energy resources that are the envy of the world. A 2010 report from Geoscience Australia and the [Australian Bureau of Agricultural and Resource Economics \(ABARE\)](#) confirms Australia has a very large and widely distributed renewable resource base, which includes wind, solar, bioenergy, geothermal, wave and tide as well as hydro resources.²¹

¹⁶ Lloyd-Smith, M. and Senjen, R. *Hydraulic Fracturing in Coal Seam Gas Mining: The Risks to Our Health, Communities, Environment and Climate*, Briefing Paper, prepared for the National Toxics Network, February 2011.

¹⁷ Carey, M. Coal Seam Gas: future bonanza or toxic legacy? *Viewpoint*, 23 January 2012, p.26-31.

¹⁸ Shearman, D. Coal seam gas could be a fracking disaster for our health, *The Conversation*, 26 May 2011.

¹⁹ Hunt, C. Coal gas seams good ... until you measure the methane, *the Conversation*, 1 December 2011.

²⁰ Harvey, F. World headed for irreversible climate change in five years, IEA warns, *The Guardian*, 9 November 2011. Available at <http://www.guardian.co.uk/environment/2011/nov/09/fossil-fuel-infrastructure-climate-change>

²¹ Geoscience Australia and ABARE, *Australian Energy Resource Assessment*, 2010, Canberra. Available at https://www.ga.gov.au/image_cache/GA17412.pdf

According to this report, Australia's wind resources are “among the best in the world, primarily located in western, south-western, southern and south-eastern coastal regions but extending hundreds of kilometers inland”.

Our solar resources are also unparalleled: Australia has the highest average solar radiation per square metre than any other continent.²² The amount of the Sun's energy falling on Australia in one day is equal to half the total annual energy required by the whole world.²³

Despite these abundant energy resources, Australia has failed to capitalise on securing our energy future by investing in technologies to harvest the clean, renewable, (and free) energy provided by sun and the wind and the waves.

Veteran environmentalist David Suzuki recently lambasted Australians for our lack of investment in renewable technologies, telling the Fairfax media in February 2012: "You've got something Canadians would kill for called sunlight, and you have to look hard in Sydney or Melbourne for a solar panel anywhere. You shouldn't be heating any water in Sydney with electricity. It should all be heated by sunlight. The fact that Australia has this incredible natural capital and is not using it is absolutely ludicrous."²⁴

The Zero Carbon Australia 2020 Plan developed by the Melbourne Energy Institute (MEI) and research consultancy Beyond Zero Emissions (BZE) in 2010 demonstrates that not only does Australia have sufficient non-fossil renewable energy resources to power its entire stationary energy sector, but shows the transition to 100% renewable energy is affordable and can be accomplished in a short time frame.

This is supported by research from Stanford University that shows that the world could be powered entirely with renewable energy within 20-40 years, using technology that is available today and at a cost comparable to that of conventional, fossil-fuel-based energy.²⁵ Like the MEI/BZE report, the Stanford modelling uses wind and solar as the predominant resources, finding that the barriers to the implementation of policy to deliver this scenario are not technological or financial but social and political.²⁶

Despite the claims of detractors from the fossil fuel sector, as identified in the 2010 report on renewable energy by the Australian Academy of Science, reliable renewable energy technologies such as wind and solar are commercially available right now for electricity generation.²⁷ Wind can achieve a capacity factor of up to 50% in Australian conditions, and solar thermal can provide base load power due to its ability to store power for up to 16 hours.

²² Geoscience Australia and ABARE, chapter 10.

²³ Australian Academy of Science, *Australia's renewable energy future*, December 2009.

²⁴ Chadwick, V. Looking after the web of life, *The Age*, 22 February 2012.

²⁵ Bergeron, L. The world can be powered by alternative energy, using today's technology, in 20-40 years, says Stanford researcher Mark Z. Jacobson, *Stanford Report*, 26 January 2011.

²⁶ Delucchi, M. and Jacobson, M. Providing all global energy with wind, water, and solar power, Part II: Reliability, system and transmission costs, and policies, *Energy Policy* 39 (2011) 1170–1190.

²⁷ Australian Academy of Science *ibid*

A landmark study published in *The Lancet* in 2009 found there are significant health gains possible from decarbonising electricity generation.²⁸

The health gains possible are large: a 2010 study from the University of Wisconsin evaluated the health co-benefits associated with improvement in air quality from strategies to reduce greenhouse gas emissions at an average benefit of \$50 per ton of CO₂ avoided.²⁹

A 2010 report from Europe found the European Union could save €80 billion a year in health costs from cutting emissions through moving to cleaner energy systems.³⁰

The *Acting Now for Better Health* report found that improvement in air quality from moving to cleaner energy systems would deliver significant improvements in population health and lead to more productive workplaces. These benefits are considered to be “only a small proportion of overall health benefits arising from climate policies”, as this report focuses only on the health impacts of reducing several air pollutants (fine particles, NO_x and SO₂), nor did it account for the direct benefits of reducing climate change.

The above evidence demonstrates the harm being caused by an energy policy that privileges and prioritises fossil fuels at the expense of human health and a clean renewable energy industry in Australia.

Shifting to clean renewable energy systems is better for health, and can save billions of dollars annually in avoided ill health and productivity gains.

Wind and solar power in particular offer viable, clean, healthy and safe energy options for Australia. Despite claims to the contrary, wind power does not pose health risks, with over 17 international reviews concluding that there is no credible peer reviewed scientific evidence that demonstrates a direct causal link between wind turbines and adverse health impacts in people.³¹ While a small number of people do claim adverse effects, these effects are generally related to annoyance, while an income from turbines is demonstrated to provide a “protective effect” against annoyance and/or health symptoms.³²

Our national energy strategy should be focused on preparing Australians for that transition. In addition to developing the policy settings to incentive clean energy and discourage harmful and polluting energy technologies, this requires public engagement and education regarding the current implications of our energy supply systems to counter the misinformation from the industry regarding the inability of renewables to supply our energy needs.

²⁸ Markandya, A. Public health benefits of strategies to reduce greenhouse gas emissions: low carbon electricity generation, *The Lancet*, Health and Climate Change Series 3, November 2009.

²⁹ Nemet, G.F. et al. Implications of incorporating air-quality co-benefits into climate change policymaking, *Environmental Research Letters*, 2010, Volume 5, number 1.

³⁰ Health Care Without Harm (HCWH) and the Health and Environment Alliance (HEAL), *Acting Now for Better Health*, 2010, Brussels.

³¹ Climate and Health Alliance, Wind turbines and health, Position Statement, January 2010. Available at: http://caha.org.au/wp-content/uploads/2012/01/CAHA_Position_Statement_on_Wind_final_240112.pdf

³² Chapman, S. 17 reviews on wind turbines and health ... and not a single one referenced, *British Medical Journal*, 11 March 2012. Available at: www.bmj.com/content/344/bmj.e1527/rr/572780

Policy to encourage renewables needs to start with removal of perverse policy incentives such as existing subsidies to fossil fuels, but must include positive incentives to bring forward investment in renewable energy infrastructure development as well as hasten the innovation process by supporting and investing in research and development initiatives.

Energy policy has broad social, economic and security implications

Energy policy must be developed cognisant of the broader consequences of energy choices and consistent with the best interests of all Australians.

There are currently no mechanisms in place in Australia to evaluate and reflect the social costs of carbon.

There are also serious economic risks in failing to plan for a low carbon future for Australia. At present Australia's energy policy assumes an ongoing and expanding market for coal exports. However recent reports suggesting that China intends to cap coal energy consumption by 2015 have serious economic implications for Australia.³³

In contrast to the claims that Australia's economy is threatened by a carbon price, it is more likely that Australia faces serious economic risks by "persisting with an economy not structured for a carbon-constrained future", say analysts at Melbourne's Grattan Institute.³⁴

Energy policy matters to investors: large global financial investors are looking for national energy policy choices that will facilitate investment in the new global green economy based on clean renewable energy resources.

A recent report on [Investment Grade Climate Change Policy](#) from an international group of 285 investors with global assets worth more than \$20 trillion, says "massive investment in low carbon energy is required" with investors calling for greater certainty with respect to climate and energy policy initiatives in order to facilitate private sector investment in low carbon industries.³⁵

The global market for renewables is growing rapidly, with \$251 billion invested globally in clean energy in 2011,³⁶ which followed a 32% rise in green energy investments worldwide in 2010.³⁷

Unless Australia begins to position itself to take advantage of the new low carbon economy, and begins to stimulate serious investment in renewable energy, we risk further entrenching a twentieth century fossil fuel based economy that creates serious carbon liability for Australia in both economic and foreign policy contexts.

³³ Parkinson, G. *China threatens to pierce coal export bubble*, *Reneweconomy*, 12 March 2012. Available at <http://shar.es/gLbjc>

³⁴ Daley, J. and Edis, T. *Restructuring the Australian economy to emit less carbon*, Grattan Institute, April 2010.

³⁵ Sullivan, R. [Investment Grade Climate Change Policy: financing the transition to a low carbon economy](#), report commissioned by Institutional Investors Group on Climate Change, Investor Network on Climate Risk, the Investor Group on Climate Change and the United Nations Environment Programme Finance Initiative, September 2011.

³⁶ Wroe, D. [Global investment in clean energy hits record levels](#), *Sydney Morning Herald*, 14 January 2012.

³⁷ United Nations Environment Program, *Global Trends in Renewable Energy Investment 2011*, July 2011.

Together with the possibility of declining revenue from fossil fuel exports in coming decades, a failure to prepare for petroleum scarcity has the potential to lead to serious economic consequences for Australia.

Australia's reliance on imported oil for industry and transport makes it vulnerable to economic shocks from rapidly rising oil prices. Our society depends on oil for many basic products and services, including healthcare, making it extremely vulnerable to oil price and supply shocks.

Global oil production has not risen in the last six years, despite increasing demand and an expanding global population.³⁸

This energy white paper should be considering how Australia will prepare for and manage the risks of peak oil and declining global supply.

By 2015, it is anticipated that Australia will be importing 80% of its oil, and 95% of current transport options rely on oil.

The Australian Government Bureau of Infrastructure, Transport and Regional Economics anticipates a global decline in oil production by 2017, the resulting task of replacing oil from 2017 described as "challenging to most economies around the world".³⁹

It is therefore unclear what has given rise to the confidence displayed in the Energy White Paper in relation to liquid fuels that "no immediate major strategic policy challenges for the sector are evident".⁴⁰

A recent report from the University of Oxford and the University of Washington, published in the journal, *Nature*, has argued prospects for future economic growth rest on the ability of governments to wean societies off fossil fuels.⁴¹

Energy scarcity associated with diminishing fossil fuel resources as well as a decline in the social licence of fossil fuel use may lead to national and international security problems associated with pressure on personal and state and national budgets.⁴² A failure to cut emissions has been identified as a potential international security threat, with nations that fail to mitigate likely to drive political tensions nationally and internationally.⁴³

A positive example of oil risk planning is demonstrated by the recent work of the City of Stirling in Western Australia. The City's 'Oil Risk Strategy' recognises that "supplies of oil are fast running out, and as they do oil prices will rise steeply, with the price of all the things that depend

³⁸ City of Stirling, [Oil risk strategy, Part 1](#), January 2012.

³⁹ Australian Government, Bureau of Infrastructure, Transport and Regional Economics (BITRE), [Transport energy futures: long-term oil supply trends and projections, Report 117](#), 2009, Canberra, ACT.

⁴⁰ Australian Government, Department of Energy Resources and Tourism, *Draft Energy White Paper 2011 - Strengthening the Foundation for Australia's Energy Future*, December 2011, [Chapter 6A - Liquid fuels](#) p.124.

⁴¹ Murray, J. and King, D. Climate policy: Oil's tipping point has passed, *Nature*, 2012, Vol: 481, pp.433–435.

⁴² http://www.cfr.org/content/publications/attachments/Energy_Security_Workshop_Paper.pdf

⁴³ European Council, Climate Change and International Security, Paper from the High Representative and the European Commission, 14 March 2008.

on it rising as well". The plan anticipates the need to and urgency of "reducing, and eventually eliminating, the dependence of residents, businesses and the City on crude oil".⁴⁴

This kind of preparedness to manage the risk of peak oil is notably absent in the Australian Government Energy White Paper – peak oil is scarcely referred to.⁴⁵

While the US and Canada are currently making significant investments to extract oil from unconventional sources such as tar sands and shale deposits, these activities are particularly energy intensive and environmentally destructive as well as carrying health risks.⁴⁶

The carbon liability and health consequences associated with Australia's energy supply systems mean that a rapid transition away from fossil fuels is necessary to protect health and reduce the economic impost of health and social damages.

The unwillingness of Australian governments to tackle the social and long-term economic risks associated with the nation's dependence on fossil fuels is demonstrably linked to the power and influence of fossil fuel companies.⁴⁷

It is time however the Australian Government acknowledged the adverse health and social and economic consequences of a fossil fuel based economy in a carbon constrained world, and began to act in the interests of its citizens in preparing for a transition to a low then zero emissions economy, to protect the health and wellbeing of the community now and to secure that of coming generations.

Both the cost of local impacts (such as the long-run social and environmental costs of resource exploitation) and global impacts (such as contribution to climate change through carbon emissions) should ideally be included in resource pricing. Without accurate pricing to reflect the full cost of resource use, it is likely that unsustainable decisions regarding resource use will continue.

As stated in the latest Global Risk Assessment: "Both the cost of local impacts (such as the long-run social and environmental costs of resource exploitation) and global impacts (such as contribution to climate change through carbon emissions) should ideally be included in resource pricing. Without accurate pricing to reflect the full cost of resource use, it is likely that unsustainable decisions regarding resource use will continue."⁴⁸

⁴⁴ City of Stirling, [Oil risk strategy, Part 1](#), January 2012.

⁴⁵ Australian Government, [Draft Energy White Paper 2011 - Strengthening the Foundation for Australia's Energy Future](#), December 2011, Canberra, ACT.

⁴⁶ Royal Society of Canada Expert Panel, [Environmental and Health Impacts of Canada's Oil Sands Industry](#), Report for the Royal Society of Canada, December 2010.

⁴⁷ Edwards, T. and Brait, P. *Entrenching Energy Interests, Ferguson's Energy White Paper*, Arena, Feb 2012.

⁴⁸ World Economic Forum (in collaboration with Marsh & McLennan Companies, Swiss Reinsurance Company, Wharton Center for Risk Management, University of Pennsylvania and Zurich Financial Services), *Global Risks 2011*, Sixth Edition, January 2011.

Clean, healthy and sustainable: policy for the 21st century

Energy policy must be developed cognisant of the broader consequences of energy choices and consistent with the best interests of all Australians.

Fossil fuels are causing harm and must be phased out. Industry policy decisions that deliver perverse and negative social outcomes have no place in the strategic directions of a 'clever country' in the 21st century.

The mining, burning, and combustion of fossil fuels for energy production no longer has scientific validation to support it as a sound policy decision, nor does it have a social license to continue.

From the perspective of health stakeholders, the Climate and Health Alliance asserts that there is sufficient grounds of the basis of protecting human health to ban the further development of coal-fired power generation and for governments to take steps to introduce taxes to correct the failure of markets to include the externalised costs of power generation with incentives to encourage technologies that do not cause harm.

The Climate and Health Alliance is concerned by assertions in the Energy White Paper that current policy interventions that were developed in the absence of a carbon price are “adding unnecessary costs to energy bills and creating investment-distorting complexities in energy markets”.

This is misleading, as the current and foreshadowed increases in electricity prices have more to do with the [declining electricity distribution infrastructure and regulatory weaknesses](#) than cost pressures from the carbon price. As pointed out in the recent Garnaut review, “recent electricity price increases have mainly been driven by increases in the costs of transmission and distribution” and “the increase associated with a carbon price is in fact smaller than recent increases”.⁴⁹

The introduction of a price on carbon is an important contribution to climate and energy policy in Australia. However it is manifestly inadequate on its own to bring about the necessary transformation of our energy systems to sources of renewable energy required to reduce the health and climate risks associated with fossil fuels.

However the Energy White Paper seeks that all levels of government agree “not to introduce new measures that are non-complementary”.⁵⁰

The carbon price should not be used as an excuse not to introduce any further measures to reduce emissions – as is acknowledged in most low carbon strategies around the world, a

⁴⁹ Garnaut Climate Change Review, *Update Paper 8: Transforming the electricity sector*, March 2011.

⁵⁰ Australian Government, Department of Energy Resources and Tourism, *Draft Energy White Paper 2011 - Strengthening the Foundation for Australia's Energy Future*, December 2011, Executive Summary, p.xi.

comprehensive suite of policies is necessary in addition to a price on carbon to drive emissions reductions.⁵¹

The floor level of the carbon price foreshadowed in the cap and trade system is too low to make other renewable sources of energy cost competitive with fossil fuels. A range of other policy mechanisms is needed to stimulate wider deployment of renewable energy technologies, many of which would be cost competitive if it were not for the generous subsidies being paid to support fossil fuels and the failure to reflect the currently externalised health and climate costs in the price of fossil fuels such as coal, oil and gas.

Policies that have been demonstrated to effectively stimulate a transition to renewable energy include the feed-in tariff, successfully used in Germany to deliver its 2020 renewable energy target ten years ahead of schedule.

Other important policy tools include emissions standards for power stations and transport, as well as energy efficiency standards for buildings and appliances. New renewable energy infrastructure should be supported by loan guarantees to encourage the financial sector to invest and taxation incentives reformed to ensure clean technologies are encouraged, while polluting technologies are discouraged.

Cleaner, safer, and healthier energy options exist. We need energy policies in Australia that will actually reduce emissions and reduce risks to people's health.

Therefore in addition to a price on carbon that reflects the health and climate costs of using fossil fuels for energy generation and transport, a suite of comprehensive policies must be developed to ensure Australia's future energy security in light of a substantial and imminent carbon liability and to ensure Australia's emissions reductions trajectory is consistent with Australia's fair share of the global responsibility to reduce emissions.

Recommendations

The Climate and Health Alliance calls for:

1. The immediate removal of fossil fuel subsidies, currently estimated at \$12 billion a year⁵²
2. These funds to be redirected to support the roll-out of large scale renewable energy
3. No further approvals for coal fired power generation facilities in Australia
4. All new power generation to require a health impact assessment in addition to an environmental impact assessment
5. A moratorium on coal seam gas exploration until proven safe for human health
6. The creation of additional incentives to encourage clean sustainable technologies and disincentives to discourage those that cause harm
7. The development of a national plan to transform Australia to a zero emissions economy to address the twin challenges of peak oil and climate change

⁵¹ Wiseman, J. and Edwards, T. *Post-carbon pathways: Reviewing post carbon economy transition strategies*, Melbourne Sustainable Societies Institute and Centre for Policy Development, March 2012.

⁵² Webb, R. [Fossil fuel taxes](#), Background Notes, Parliament of Australia, 10 January 2012.

APPENDIX A

Climate and Health Alliance Committee of Management

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Lance Emerson (Australian Research Council for Children and Youth)
Liz Hanna (Royal College of Nursing, Australia)
Bret Hart (Alliance for Future Health)
Ursula King (Australian College of Rural and Remote Medicine)
Michael Moore (Public Health Association of Australia)
Elizabeth Reale (Australian Nursing Federation)
Kristine Olaris (Women's Health East)
Julia Stewart (CRANApplus)

CAHA Organisational Members

Australian Association of Social Workers (AASW)
Australian College of Rural and Remote Medicine (ACRRM)
Australian Council of Social Service (ACOSS)
Australian Hospitals and Healthcare Association (AHHA)
Australian Health Promotion Association (AHPA)
Australian Institute of Health Innovation (AIHI)
Australian Women's Health Network (AWHN)
Australian Nursing Federation (ANF)
Australian Psychological Society
Australian Research Council for Children and Youth (ARACY)
Australian Rural Health Education Network (ARHEN)
CRANApplus
Doctors for the Environment Australia (DEA)
Doctors Reform Society (DRS)
Friends of CAHA
Health Consumers' Network (Qld)
Health Issues Centre (HIC)
Public Health Association of Australia (PHAA)
Royal College of Nursing, Australia (RCNA)
Royal Australasian College of Physicians (RACP)
North Yarra Community Health (NYCH)
Services for Australian Rural and Remote Allied Health (SARRAH)
Women's Health in the North
World Vision

Expert Advisory Committee

Dr Erica Bell, University Department of Rural Health, University of Tasmania
Associate Professor Grant Blashki, Nossal Institute for Global Health
Professor David Karoly, Federation Fellow in the School of Earth Sciences, University of Melbourne
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