Doctors for the Environment Australia
Protecting health through care for the environment

Election Priorities Victoria 2014

The following are members of our Scientific Committee and support the work of Doctors for the Environment Australia

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Doctors for the Environment Australia

Doctors for the Environment Australia is a voluntary organisation of medical doctors and students. We work to address the diseases – local, national and global – caused by damage to the earth’s environment.

Overview - a critical election for health

DEA is deeply concerned by the risks to the health of Victorians posed by climate change and fossil fuels. In recent years Victoria has experienced severe flooding, bushfires and heatwaves. These events have had major impacts on communities and their health and placed significant strain on our emergency and healthcare systems. Without strong action to mitigate climate change, events such as these will become even more frequent and intense. Climate change is also expected to cause more severe dry spells in Victoria. These climatic shifts can have major impacts on the mental and physical health of individuals and communities.

Fossil fuels damage health directly through the effects of pollution and indirectly by contributing to global climate change. Air pollution from coal mining and combustion, industry and traffic emissions, can affect all major body organ systems and contributes to heart disease, cancer, stroke, and chronic lower respiratory tract disease and asthma. It interferes with lung development in children, and increases the risk of heart attacks and some neurological diseases. Unconventional gas has been introduced as a new energy source without adequate assessment of the safety of this industry, despite documented environmental problems in Australia and concerns about local air pollution and the potential contamination of ground water supplies by hazardous chemicals.

Federal Government policies have proved greatly inadequate to mitigate climate change and do not address the local effects of pollution from coal and coal seam gas. It is therefore essential that the Victorian Government adopt decisive policy to address these issues.

DEA calls upon all parties participating in the Victoria 2014 election to commit to protecting health through maintaining a healthy environment, which will provide safe food, water, air and a stable climate for all Victorians. This must include a commitment to:

- Take strong action to mitigate climate change
- Commit to a significant transition from fossil fuels to renewables as energy sources
- Ensure clean air for all Victorians

DEA has provided more substantive recommendations for the policies necessary to safeguard health in each of these areas. Implementing decisive policy to reduce the health impacts of climate change, fossil fuels and air pollution is vital to ensure a healthy and sustainable future for Victorian communities.
1. Climate change

Climate change is a real threat to the health of Victorians. It is contributing to an increase in the frequency and intensity of extreme weather including heat waves, bush fires, floods, storms and temperature-enhanced levels of urban air pollution.

Currently average global temperatures have increased 0.85°C compared to pre-industrial times. Heat is the leading cause of weather-related deaths in Australia and is the ‘silent’ killer. In Victoria we have already seen an increase in the number of emergency calls, hospitalisations and deaths associated with heat waves. Increased health impacts from a rise in the number and severity of bushfires is also likely. Climate change is also predicted to affect health through a rise in food-borne and water-borne disease, altered air quality (eg. particulate matter, ozone formation and aeroallergens); mental health impacts such as depression in drought-stricken rural areas and thermal stress in some outdoor workers.

Without additional efforts to reduce GHG emissions beyond those in place today global mean surface temperature is expected to be 2.5-7.8°C higher in 2100 compared to pre-industrial times, which central predictions of 3.7 to 4.8°C.

In order to achieve a greater than 2/3 chance to keep temperature change below 2°C (in 2100 relative to pre-industrial levels) substantial cuts in GHG emissions are required by mid-century driven by large-scale changes in energy systems.

DEA Victoria calls on all parties to:

1.1 Recognise the health impacts of climate change and commit to urgent action to mitigate climate change as a public health priority.
1.2 Adopt an emissions reduction target of at least 25% below 1990 levels by 2020

Information resources:
Climate Change 2013: The Physical Science Basis, IPCC, 2014
Climate Change 2014: Impacts, Adaptation, and Vulnerability, IPCC, 2014
Climate change policy, DEA, 2013
Submission to the Climate Change Authority Caps and Targets Review, DEA, 2013

2. Reduce fossil fuel use

Fossil fuels contribute to serious public health harms through the direct impacts of pollution, and by increasing the health impacts of climate change.

In Victoria the regulations inhibiting construction of a wind farm within 2 km of residences are presently far more restricting than for coal or unconventional gas developments: although the evidence of potential adverse health implications from living in close proximity to these fossil fuel industries is far greater.
Air pollution from fossil fuels can affect all major body organ systems and contributes to heart disease, cancer, stroke, and chronic lower respiratory tract disease and asthma. Failure to account for the costs of externalities has lead the market price of coal energy to be calculated significantly below the true cost. The total costs of coal mining, transport and burning includes the healthcare costs of people affected by coal pollution, economic losses and environment damage to water sources, land and food production.

Accounting for the costs of climate change and extreme weather events resulting from coal burning adds yet more to the true cost of coal. A 2009 published peer-reviewed study from the Harvard Medical School estimated that the full life cycle effects of coal and the waste streams generated are costing the US public a 1/3 to a 1/2 of a trillion dollars annually (over US $1,000 per year for every American man, woman and child). Taking the conservative estimates from this Harvard study effectively doubles to triples the price of electricity from coal per kWh. Brown coal mined and burned in Victoria is the least energy efficient form of coal. The recent coal fire involving the disused section of the Hazelwood coal mine demonstrates how dangerous this energy source can be to local communities, not only when being mined and processed for energy, but for many years after.

Unconventional gas (Ugas) extraction is damaging to the environment and to our health. Water and food quality and security are key determinants of health and Ugas threatens both. Contamination of drinking and agricultural water supplies is the greatest concern, with the risks posed by the chemical additives used during drilling and hydraulic fracturing, degradation products, and also the compounds that are mobilised from sediments during the mining process. These chemicals can include toxic, allergenic, mutagenic and carcinogenic substances. There is insufficient information on the use and mobilisation of these chemicals to make adequate health risk assessments. There is a lack of public transparency around the chemicals used, the majority of which have not been assessed for safety, and insufficient monitoring of their use. The extraction of CSG results in the release of ‘fugitive’ methane, which if sufficiently high can negate the increased efficiency of gas-fired power stations, meaning that Ugas is overall not a clean fuel, nor a solution to climate change.

**DEA Victoria calls on the parties to:**

2.1 Commit to rapidly transition the Victorian economy from a reliance on fossil fuel energy generation to low-polluting renewable energy sources. This should involve the development of a comprehensive strategic plan that includes the following measures:

2.1.1 end grants and subsidies for fossil fuel energy generation;
2.1.2 implement a ban on the development and exploration of new coal resources and rule out any new coal allocations for domestic use or export.
2.1.3 adopt a Victorian renewable energy target (VRET) of at least 30% by 2020 to compliment the national RET, and
2.1.4 adopt an emissions reduction target of at least 25% by 2020 from 1990 levels.
2.2 Establish a Parliamentary Inquiry into Unconventional Gas in Victoria with a broad remit examining potential risks and benefits including economic, health, community, water, fire risk and other implications.

2.3 Commit to an expanded moratorium on unconventional gas exploration and operations until the results of the Parliamentary Inquiry demonstrate that:

2.3.1 the health and environmental consequences of potential UG operations are adequately understood and determined to be safe for communities; and

2.3.2 appropriate regulation and infrastructure are established to effectively monitor operations to ensure human health is not adversely affected by unconventional gas development.

Information resources:
How coal burns Australia: The true cost of burning coal DEA, 2013
Policy Statement on Coal Seam Gas Extraction and Health, DEA, 2013
Briefing paper on the health impacts of coal mining and pollution, DEA, 2011

3. Air pollution

Air pollution remains an under-recognised source of illness and premature death. More people die as a result of air pollution than car accidents in Australia each year. Globally the World Health Organisation has estimated that 3.7 million people die as a result of outdoor air pollution each year.

Power generation from fossil fuels results in a range of air pollutants that can be harmful to health, including particulate matter, sulphur dioxide, and nitrogen oxides. These air pollutants can result in increases in hospital admissions and emergency presentations, with health effects occurring even at current air quality standards. The most vulnerable are the young, the old and those with chronic medical conditions. Evidence has implicated various constituents released from coal combustion as contributing to chronic diseases and premature mortality (heart disease, cancer, stroke, respiratory disease). Of particular concern are the combustion-derived small particles, which are inhaled deep into the lungs to cause inflammation and damage, and sulphur dioxide an acute respiratory irritant. There is considered to be no safe levels of either and elevated levels of both are associated with increases in mortality.

Anglesea coal has an extremely high sulphur content leading to large amounts of the SO$_2$ being emitted from its combustion. Anglesea Power Station is within close proximity of the town boundary and primary school. Anglesea power plant emits over 3 times the SO$_2$ amount of Hazelwood power plant although Hazelwood has 10 times the power output.

Electricity generated from Anglesea Power Station is not required to ensure the reliability of Victoria’s electricity supply. The announcement of the closure of the Point Henry Aluminium Smelter provides an important opportunity to close the
Anglesea Power Station and adjacent coal mine to protect the health of the local community from dangerous air pollutants. Furthermore with adequate rehabilitation, steps to prevent a coal fire occurring at Anglesea similar to the recent Hazelwood coal fire could be instigated.

**DEA Victoria calls on the parties to:**

1. Commit to ensuring the closure of Anglesea Power Station and coal mine, given the closure of the Point Henry Aluminium smelter, to protect the health of local residents from ambient air pollution.
2. Commit to actively support the finalisation of the National Plan for Clean Air and implementation of the recommendations of the review of the National Environment Protection Measure on Ambient Air Quality by the end of 2014 as previously agreed to by COAG.
3. Commit to implement recommendations relevant to Victoria of the 2013 Community Affairs reference Committee, Senate Inquiry into ‘Impacts on health of Air Quality in Australia’.

**Information resources:**

Ambient (outdoor) air quality and health, WHO, 2014
Submission opposing the application for an Electricity Generation License for Anglesea Power Station from Alcoa of Australia Limited, 2013

**4. The environmental impact of health care**

The environmental impact of healthcare is not insignificant. Victoria's public hospital sector consumes over 25% of the total energy used by all of its state government departments, produces the waste equivalent of approximately 200,000 households and Melbourne’s public hospitals use 1% of the city’s water. Victoria alone spends $10 million per annum disposing of solid waste from its public hospitals. Relatively minor improvements in resource efficiency and practices within our health systems could have significant environmental, financial, quality and health co-benefits.

The recent Victorian Government’s *Inquiry into the impact of the carbon tax on the health services* had only one recommendation, ‘That the Department of Treasury and Finance notes the importance of improving energy efficiency in Victorian hospitals and ensures that hospitals are given priority in the implementation of the new Efficient Government Buildings program.’

Government leadership is integral for improving the environmental impact of health care, as without the overarching assistance of the Department of Health and the Department of Treasury and Finance it is difficult for individual hospitals and health services for example to: borrow money for initially expensive energy efficiency programs; research the best procurement policies and; tender for the best resource efficiency improvements and procurement products.
DEA Victoria calls on all parties to:

4.1 Form a Sustainable Development Unit, expanding on the present Sustainability Unit to include: comprehensive auditing of environmental impacts; research including the analysis of environmental impacts of comparative procurement lines and clinical procedures; significant clinician involvement; and education of all health workers on environmentally sustainability practices.

4.2 Advocate for the broadening of the Statement of Priorities, the accountability agreements between the Health Minister and Health Services across Victoria to include ‘achieving financial and environmental sustainability and social accountability’.

4.3 Implemented the recommendation of the recent Victorian Government’s Inquiry into the impact of the carbon tax on the health services ‘That the Department of Treasury and Finance notes the importance of improving energy efficiency in Victorian hospitals and ensures that hospitals are given priority in the implementation of the new Efficient Government Buildings program.’

4.4 Consider reinstating the Greener Governments Building Program that was saving significant energy costs across government departments.

Information resources:
Has the Vic Government committed an own goal, Edis T, Business Spectator, 2014
Inquiry into the impact of the carbon tax on health services, Victorian Government, 2014
Promoting change to contain our health costs, Kayak E, Medical Observer, 2013
Sustainable Hospitals: Response to Victorian Climate Change Green Paper, DEA, 2009
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