



Public Health Association  
AUSTRALIA

## Public Health Association of Australia: Policy-at-a-glance – Health Effects of Fossil Fuels Policy

**Key message:** PHAA will:

1. Promote healthy and ecologically sustainable energy options and development goals.
2. Raise awareness about the potentially serious and poorly assessed threats to human wellbeing, health and the environment from fossil fuel extraction and use.
3. Advocate that protection of human wellbeing, health and the environment from existing fossil fuel exploration, extraction, transportation and burning, should be put in place before further fossil fuel developments are approved
4. Work with government and other organisations in achieving these ends.

**Summary:** There is a clear link between fossil fuel exploration, extraction, transportation and burning, and adverse health impacts. A rapid transition to more efficient energy use and renewable energy sources is urgently needed. In regards to the potential for detrimental fossil fuel effects upon ecosystems, food production, human health and societal effects, research should be undertaken to quantify and characterise these risks.

**Audience:** Federal, State, Territory and Local Governments, policy makers, and program managers.

**Responsibility:** PHAA's Ecology & Environment Special Interest Group (SIG).

**Date policy adopted:** September 2015

**Contact:** Peter Tait, Convenor, Environment and Ecology SIG –  
[aspetert@bigpond.com](mailto:aspetert@bigpond.com)

## Health Effects of Fossil Fuels Policy

*See also the Safe Climate, Preparing for Peak Oil, and Nuclear Energy as a response to Global Warming Policies*

***The Public Health Association of Australia (PHAA) notes:***

1. Fossil fuels have been the essential energy source for enabling modern complex industrial society. As such, their use is embedded in government energy policy and practice. Further, industry has invested heavily in extraction, distribution and use infrastructures. Both Government and industry see Australia's coal and gas reserves as an ongoing energy source for Australia and a source of export revenue for the future <sup>1,2</sup>.
2. Fossil fuels use however has large scale detrimental effects by generating greenhouse gases (GHG) which are amplifying the greenhouse effect on our planet and causing global warming <sup>3</sup>. The detrimental effects of global warming upon human health are already apparent <sup>4,5,6</sup>.
3. Life cycle (mining, transport and combustion) impacts of fossil fuels, are also detrimental to human health, causing a range of problems from dust, particulates and volatile chemical exposures; accidents in mining, heavy metal dispersion, (eg mercury <sup>7,8,9</sup>).
4. The use of natural gas has been put forward as a temporary transition fuel with less GHG emissions than coal, but the expanding use of unconventional gas (coal seam, shale and tight gas) bring health and environmental impacts that offset its potential benefits <sup>10</sup>. These effects include air, water and soil contamination from chemicals used in drilling and hydraulic fracturing, large quantities of salts from waste fluids, and volatile gases. These potentially affect humans and livestock, and can compromise agriculture<sup>11</sup>. Further, many of the chemicals used are known to have adverse health effects and most have not been fully assessed for use by the National Industrial Chemicals Notification and Assessment Scheme - NICNAS<sup>12</sup>.
5. There is widespread concern among the general public and growing concern among health professionals about the serious yet poorly assessed threats to health and the environment from fossil fuel mining, extraction and use<sup>13</sup>.
6. There are concerns about the effects of hydraulic fracturing (use of high pressure liquid slurries to crack rock to improve the flow of gas; also known as fracking) on aquifer integrity, and use of scarce water for extraction operations with both loss and contamination of ground water. Relatively scarce water is also diverted away from agricultural and other uses to industry. Both compromise water quality for human and livestock consumption and agricultural use<sup>14,15</sup>.
7. The government has a national Harmonised Framework for Coal Seam Gas <sup>16</sup> to guide and an Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Developments (the IESC) to research and provide advice to the Federal and State/Territory Environment Ministers.

**PHAA believes that:**

8. A rapid transition to more efficient energy use and renewable energy sources needs to happen urgently (see *Safe Climate Policy*) and that expansion of unconventional gas and coal use are delaying that transition, while the harming the health of Australians .
9. Research is needed on the ecosystem, environmental, food production, human health and societal effects, of fossil fuel use. In light of the precautionary principle and current evidence of health risk, existing fossil fuel industries should be phased out.

**PHAA recognises that:**

Ongoing government policy and planning for further expansion of the fossil fuel industry does not support ecologically sustainable development goals, exacerbates climate change concerns, and is not in the best interests of public health

**PHAA resolves:**

The Ecology and Environment Special Interest Group will work with National Office and State and Territory Branches to -

10. promote healthy and eco-sustainable energy options and development goals.
11. raise awareness about the potentially serious and poorly assessed threats to human wellbeing and health and to the environment from fossil fuel extraction and use.
12. advocate that protection of human wellbeing, health and the environment from the deleterious effects of fossil fuel developments should be put in place before further fossil fuel developments occur
13. work with government and other organisations in achieving these ends.

**References**

1. Coal is 'good for humanity', says Tony Abbott, October 13, 2014, *Brisbane Times*, (accessed 26/3/2015 at <http://www.brisbanetimes.com.au/federal-politics/political-news/coal-is-good-for-humanity-says-tony-abbott-at-mine-opening-20141013-115bgs.html> )
2. GISERA 2012, Gas Industry Social & Environmental Research Alliance (GISERA), (accessed 7/6/2012 at <http://www.gisera.org.au> )
3. Lewis SC, Karoly DJ. The Role of Anthropogenic Forcing in the Record 2013 Australia-Wide Annual and Spring Temperature. *Bulletin of the American Meteorological Society*. 2014. **95**(9): S31-S34.
4. PHAA 2013, Safe Climate Policy, at [http://www.phaa.net.au/documents/policy/101215\\_Safe%20Climate%20Policy.pdf](http://www.phaa.net.au/documents/policy/101215_Safe%20Climate%20Policy.pdf) (accessed 15/2/2015)
5. World Economic Forum. 2015, *Global risks 2015: tenth edition*. WEF.
6. WMO, WHO. 2014, *WMO and WHO Establish Joint Office for Climate and Health*. WMO Press Release No. 996. Geneva. World Meteorological Organisation, World Health Organisation.
7. Castleden, WM, Shearman, D, Crisp, G & Finch, P, 2011, "The mining and burning of coal: effects on health and the environment," *Medical Journal of Australia* **195**(6): 333-335

8. Epstein, PR, Buonocore, JJ, Eckerle, K, Hendryx, M, Stout, BMI, Heinberg, R, et al, 2011, Full cost accounting for the life cycle of coal. *Annals of New York Academy of Sciences* **1219**: 73-98
9. McKenzie, Lisa M, Witter, Roxana Z, Newman, Lee S, Adgate John L, Human health risk assessment of air emissions from development of unconventional natural gas resources, *Science of the Total Environment*, 2012, **424**: 79–87
10. Armstrong F, Haworth E, Tait P, Barker H. 2013, *Health and Energy Policy. Climate and Health Alliance, Report*. Melbourne.
11. Bamberger, M & Oswald, RE, 2012, Impacts of Gas Drilling on Human and Animal Health, *New Solutions: A Journal of Environmental and Occupational Health Policy*: **22**: 51-77.
12. Lloyd-Smith, M & Senjen, R, 2011, Hydraulic Fracturing in Coal Seam Gas Mining: The Risks to Our Health, Communities, Environment and Climate, *Briefing paper*, National Toxics Network.
13. Lock the Gate Alliance, 2012 (accessed 1/6/12, at <http://lockthegate.org.au/groups/> )
14. Osborn, S, Vengosh, A, Warner, N & Jackson, R, 2011, Methane contamination of drinking water accompanying gas-well drilling and hydraulic fracturing, *Proceedings of the National Academy of Sciences* **108**(20): 8172
15. Entekin, Sally, Evans-White, Michelle, Johnson, Brent & Hagenbuch, Elisabeth, 2011, Rapid expansion of natural gas development poses a threat to surface waters, *Frontiers in Ecology and the Environment*, 9(9): 503–511
16. Standing Council on Energy and Resources (SCER) 2012), (accessed 16/4/2015, at <http://www.scer.gov.au/workstreams/land-access/coal-seam-gas/>)

**ADOPTED 2012, REVISED AND RE-ENDORSED IN 2015**

***First adopted at the 2012 Annual General Meeting of the Public Health Association of Australia.  
The latest revision has been undertaken as part of the 2015 policy review process.***