



Energy White Paper 2014 – Issues Paper submission template

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Issues for comment are listed against each of the Chapter Headings. In making your submission, you are welcome to make comment against some or all of issues in the fields provided. A field for general comments is provided at the end of the template.

Framework of the Issues Paper

The framing of the White Paper consultation process is fundamentally flawed in so far as energy policy is divorced from climate and emission reductions policies. The two are inextricably linked. Energy production at present is overwhelmingly based on fossil fuels which are the primary cause of increasing atmospheric greenhouse gas concentrations. The Issues Paper is deficient in that:

- energy production and consumption is discussed as if its greenhouse gas emission consequences did not exist;
- environmental consequences of oil and gas consumption and exploration are given lip service and little more;
- Economic benefits of fossil fuel sector are overplayed and their negative impacts on the wider economy ignored.
- There is no recognition of the need for an orderly transition away from fossil fuels.

Climate consequences of greenhouse gas emissions from fossil fuels

Humanity currently transfers into the atmosphere, ten gigatonnes of carbon (equivalent to 36 gigatonnes of carbon dioxide) every year, mainly from the combustion of fossil fuels. This is increasing at around 2% per year. Approximately half this carbon remains in the atmosphere for decades to centuries and a quarter is taken up by the oceans, increasing acidity which threatens many marine species. The recent Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report projects that continued historical rates of emissions will increase global atmospheric temperature between 3.2 and 5.4 degrees Celsius. Such an increase could be catastrophic for the earth's living systems. Already, the global mean temperature has increased by almost one degree, with 2013 being the 4th to 7th hottest ever (depending on which climate record is used).

Australia experienced its hottest ever year in 2013. Currently parts of Queensland, NSW and SA are experiencing severe drought. Recent research suggests El Nino events which bring drought to Australia may double under the influence of a warming climate. In recent years, there have been devastating fires in southern Australia. The frequency of such events will increase as the climate warms. In short, Australia is especially vulnerable to climate change. It should therefore be a vigorous proponent of emission abatement measures globally and an exemplar nationally.

Fossil fuel environmental costs

In canvassing cost issues, there is no recognition in the Issues Paper that fossil fuels are effectively subsidised unless a carbon price is applied. Environmental harm of carbon dioxide emissions can be inferred from the 2006 Stern Review to be in the region of \$100 per tonne. The Paper foreshadows the removal of the carbon price which effectively confers a subsidy of this amount to fossil fuel energy sources.

Renewable Energy Targets and carbon prices are portrayed as cost penalties on energy. They have been adopted simply because governments have been unable to contemplate pricing carbon at its full environmental cost. If it were so priced, RETs

and other measures would be unnecessary. Until true carbon pricing is achieved, measures such as RETs must be retained and enhanced to meet emission reduction goals demanded by science.

Economic importance of fossil fuel energy resources

The Issues paper suggests that energy industries are a key to Australia's current and future prosperity. This should be put in context by considering some relevant facts from ABS and other data:

- Coal Oil and gas together amount to less than 4% of GVA (similar to GDP);
- Income to workers in this sector is similarly about 4% of the national total;
- Mining accounts for around 2% of government revenue, so oil, coal and gas would be a fraction of this;
- Employment in the mining sector is a similar figure - about 2%.

Because of the rapid growth in mining investment and volumes of exports in recent years, there has been a damaging impact on other sectors of the economy through a high exchange rate for the \$A and distortion of the labour market in some skill areas. Additionally, there are substantial costs to the economy through diesel fuel rebates and tax deduction allowances to the mining industry.

Long term vision for industrial development

The Issues Paper displays a vision based upon the risky assumption that the global community will develop in the future as it developed historically - built upon abundant and cheap, mainly fossil based energy. Climate science now informs us that between 60% and 80% of known fossil fuel reserves cannot be utilised if the globally agreed atmospheric temperature rise of 2 degrees (above pre-industrial) is to be achieved.

To meet this goal, a global transition to non emitting energy technologies must occur. Concurrently, energy efficiency must increase substantially and energy use must recognise the true cost of its production.

Australia's choice is fairly clear: continue with legacy systems and technologies in the hope that the worst climate scenarios do not eventuate and/or that other countries will make the required transitions, or, recognise that future prosperity lies in being an innovator and early adopter of renewable and low emission energy systems.

The required transition to clean energy will be a challenging and decades long undertaking. The alternative of avoiding this challenge will be to lead Australia to becoming a technological and economic backwater.

Summary

The Issues paper provides a backward looking and likely dead end vision for Australia's energy future. It should be discarded and rewritten with a vision befitting scientific, environmental and economic realities.