

Committee Secretary
Senate Standing Committees on Environment and Communications
PO Box 6100
Parliament House
Canberra ACT 2600

Dear Sir/Madam,

The Wide Bay Burnett Environment Council Inc (WBPEC) would like to make the following submission on the Coal-Fired Power Funding Prohibition Bill 2017:

Irrespective of any commitments given by Australia at the 2015 United Nations Climate Change Conference (COP21), held in Paris, even a casual examination of climate science suffices to show that anything less than complete elimination of all fossil fuel consumption as rapidly as can be effected is inadequate.

1. Atmospheric CO₂ in excess of 400 ppm (parts per million, a level that was exceeded in about 1989 for the first time in over 3 million years) is associated with a much warmer planet than presently prevails, with sea levels about 25 metres higher than present; Greenland would be ice-free once more, and there would be substantially less ice on Antarctica.
2. That is, in the two centuries or so since the start of the Industrial Revolution – when atmospheric concentration of carbon dioxide (CO₂) was a benign 280 ppm typical of Pleistocene Epoch interglacial periods (<https://en.wikipedia.org/wiki/Interglacial>) - human use of fossil fuels alone has sufficed to increase atmospheric concentration of carbon dioxide (CO₂) to the dangerously high levels with which we now live.
3. An estimate of the upper limit of atmospheric concentration of carbon dioxide (CO₂) that might leave us with a climate approximating that of the Holocene Epoch – the last 11 millennia or so up until the onset of this Anthropocene Epoch (<https://en.wikipedia.org/wiki/Anthropocene>) is 350 ppm – approximately midway between the atmospheric CO₂ that prevailed before the Industrial Revolution and the present Anthropocene.

Accordingly, any proposal that public funding is to be made available for construction, purchase, transfer, improvements or refurbishments to coal-fired power stations (eg "Emissions Reduction Fund review considers opening the scheme to coal-fired power stations", ABC News, 21 June 2019, <https://www.abc.net.au/news/2019-06-21/erf-could-hand-money-to-coal-fired-power-stations-idea-in-review/11230752>) must not be supported. Any such proposal is a poor use of taxpayers' funds, not only because it is an abrogation of responsibility to truthfully respond to the scale and extent of the threat of climate change, but because the emissions reduction that would be achieved per dollar of funding will be either small or negligible, relative to funding renewable power generation alternatives.

1. According to AEMO/CSIRO's GenCost 2018 report, renewables are now the cheapest new-build source of electricity (<https://www.csiro.au/en/News/News-releases/2018/Annual-update-finds-renewables-are-cheapest-new-build-power>) so public money spent on extending the lives of Australia's clapped-out old power stations would be wasted money.
2. Because wind and solar PV don't need cooling water, replacing thermal (coal) power with these renewables frees up water for agriculture and the environment, and in times of drought, possibly for drinking. This is because coal-fired power, like the nuclear power used in other nations, requires availability of water for cooling, and for that water to not be too

warm. However, climate change is already affecting availability and temperature of cooling water in France, according to this article dated 8 July

2019: <https://www.theguardian.com/environment/2019/jul/08/weatherwatch-heatwaves-nuclear-power>.

3. It is true that renewable power generation is intermittent since it is dependent on sunlight or wind, so that they may not be generating power at the exact time that power demand occurs. However, this intermittency is easily addressed by such power storage techniques as Pumped Storage Hydro-electricity ("pumped hydro", https://en.wikipedia.org/wiki/Pumped-storage_hydroelectricity), such as the Snowy 2.0 scheme to which the Federal government is already committed (election promise) and with the installation of a second Basslink cable connecting Tasmanian and Victorian grids, Tasmanian pumped hydro can be the Battery of the Nation (<https://www.hydro.com.au/clean-energy/battery-of-the-nation>). Note that pumped hydro does not "use" water; what it does is pump water from a lower dam when there's excess renewable power in the grid (sun is shining and/or wind is blowing so renewables are providing > 100% of demand at that time, so that's when the pumped hydro operator uses excess power to pump water back up from the bottom dam to the top dam. Then, next time there's more demand on the grid, water can be released from top dam to go through the turbines to the bottom dam, generating power as it goes. The water itself is not evaporated away in cooling towers, so pumped hydro doesn't rely on continued replenishment from rain, so it's more drought-resilient than coal power. (see <http://theconversation.com/five-gifs-that-explain-how-pumped-hydro-actually-works-112610> for more explanation to help slow politicians).

4. Not only does Australia have oodles of space for solar farms and wind turbines, a 2017 ANU study found we've also got over 22,000 sites suitable for pumped hydro storage (<https://www.anu.edu.au/news/all-news/anu-finds-22000-potential-pumped-hydro-sites-in-australia>) - an that's apart from the Snowy 2.0 and Tasmanian Battery of the Nation mentioned previously.

5. If the Australian Government is imprudent enough to waste money on subsidising coal (either a new power station or refurbishment of existing stations) that's money lost. Climate is set to change so rapidly over this next decade the subsidised power station will be shutting down well before its use-by date - ie becoming a "stranded" asset.

Furthermore, allowing public funding to be available to coal-fired power generation creates a moral hazard for owners of those coal-fired power generators to abandon scheduled maintenance of their asset, instead relying on the public purse to provide remedial funding; further, the allocation of taxpayer funds to coal-fired power makes such funds unavailable for zero emission generation proposals. In turn, this limits Australia's trajectory towards and capacity to meet its Paris Accord commitments.

In summary, WBBEC strongly opposes the provision of taxpayer-sourced funds to the coal-fired section of the power industry and strongly supports the intent of the Coal-Fired Power Funding Prohibition Bill 2017.

Thank you for the opportunity to comment.

Yours sincerely,

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Mike Moller
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Wide Bay Burnett Environment Council Inc (WBBEC)