

**From:** [David Arthur](#)  
**To:** [State Development, Natural Resources and Agricultural Industry Development Committee](#)  
**Subject:** Submission on the Mineral Resources (Galilee Basin) Amendment Bill 2018  
**Date:** Tuesday, 29 January 2019 9:47:23 PM

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Dear Chair and Committee Members,

I am writing this submission in support of the Mineral Resources (Galilee Basin) Amendment Bill 2018.

If we are to limit climate change (and hence limit degradation of the Great Barrier Reef), Australia doesn't just need to meet its Paris Accord commitments to limit global warming to below 1.5 degrees, it needs to cease all fossil fuel use as rapidly as it can. The reasoning for this is explained in the following paragraphs 1 to 4.

1) Having exceeded 350 ppm in 1988 for the first time in over 3 million years, atmospheric concentration of carbon dioxide (CO<sub>2</sub>) is now high enough to force earth's climate to states outside human experience.

2) The last time atmospheric CO<sub>2</sub> exceeded 400 ppm was the Pliocene Epoch (<http://en.wikipedia.org/wiki/Pliocene>) over 3 million years ago, at which time the Arctic was essentially ice-free and much less ice covered West Antarctica than present. With much less terrestrial ice, much more water was in the world's oceans, so that sea levels were about 25 metres higher than present (ref: "Mid-Pliocene sea level and continental ice volume based on coupled benthic Mg/Ca palaeotemperatures and oxygen isotopes", Gary S Dwyer & Mark A Chandler, Philosophical Transactions A, Royal Society, DOI: 10.1098/rsta.2008.0222 Published 13 January 2009 (<http://rsta.royalsocietypublishing.org/content/367/1886/157>)).

3) As well as greatly altered patterns of temperature and rainfall, and hence vegetation distribution (forcing completely different agricultural industry) this will also be expressed, over the forthcoming millennium, by rising sea levels due to melting polar ice that risks inundating much low-lying land and coastal settlements and cities.

4) The major cause of the climate change over the last couple of centuries has been excessive use ('consumption') of fossil fuels coal, petroleum oil and mineral ('natural') gas; avoidance of the adverse consequences of this climate change requires that atmospheric CO<sub>2</sub> concentration be allowed to decrease to less than 350 ppm. In turn, this necessitates complete cessation of fossil fuel consumption as rapidly as alternative technologies can be deployed.

It's not just Australia that needs to cease all fossil fuel use, it's also true for India, where Adani's coal-fired power stations are located. What's more, renewable (non-coal) technologies are already less expensive to build than coal-fired plant (in Dec 2018, a CSIRO/AEMO study reported that "wind, solar and storage [are] clearly cheaper than coal"; <https://reneweconomy.com.au/csiro-aemo-study-says-wind-solar-and-storage-clearly-cheaper-than-coal-45724/>). Accordingly, Adani is unlikely to even recoup its capital investment in the Carmichael project before it is shut down because no-one will want to buy the coal; even Adani's own Indian coal-fired power stations will be compelled to shut down sooner rather than later because the combination of wind and solar power, and energy storage technologies is already less expensive than coal-fired power.

Because the Carmichael project will shut down sooner rather than later, there will be no

money to fund site rehabilitation, leaving a degrading, polluting scar on the landscape of the Galilee Basin. Remediation of this mess will have to be funded by Queensland taxpayers - or not done at all.

Mining in the Galilee Basin - an important 'recharge' zone for the Great Artesian Basin - also compromises the security of groundwater availability throughout the Great Artesian Basin. Major environmental assets such as the Doongmabulla Springs are at risk of being degraded and may not recover for several centuries, should coal mining occur in the Galilee Basin. (ref <https://www.abc.net.au/news/2018-03-21/adani-groundwater-plan-risks-permanent-damage-to-desert-springs/9569184>, ABC, Online 21 March 2018).

Further, Adani has a demonstrated track record of paying scant regard to any and all environmental considerations in any of its operations. In 2017, ABC's flagship investigative program "4 Corners" presented an episode on Adani's record (ref "Adani Carmichael coal mine: Former Indian minister sounds alarm on Adani's track record, mega-mine's viability", <https://www.abc.net.au/news/2017-10-02/former-minister-sounds-alarm-on-adanis-track-record-in-india/9005596>); this corporation is demonstrably not a fit and proper entity to be entrusted with stewardship of any location in Australia that isn't in the direct line of site of observers at all times. Matter of fact, they couldn't even wait until final approval for Carmichael was given before they illegally drilled their first dewatering bores (<https://www.abc.net.au/news/2018-12-30/adani-provided-evidence-of-illegal-water-bores-lawyers-say/10673422>).

The Carmichael site is also within the Burdekin River catchment - a major Queensland river that discharges to the Great Barrier Reef (GBR) lagoon. Given that the GNR is already threatened by sediment runoff from Queensland rivers, it beggars belief that this company might be trusted to not add to the sediment burden that afflicts the GBR.

Finally, it is understood that Carmichael may be a "gateway" project for other Galilee Basin projects; as of 2015, there were "nine coal mega-mines proposed for the Galilee Basin, which together make it the second biggest fossil fuel expansion proposed anywhere in the world (after Western China). At full production, the proposed Galilee Basin projects would double Australia's coal exports to over 600 million tonnes a year" (<http://galileebasin.org>). The immediate problem with all this is the impact it will have on the Belyando and hence Burdekin Rivers, as reported in Outcome synthesis for the Galilee subregion (<https://www.bioregionalassessments.gov.au/assessments/5-outcome-synthesis-galilee-subregion>). The headline finding in this assessment is that Cumulative hydrological changes in the Belyando river basin are very likely (greater than 95% chance), and extend farther than previously predicted from impact assessments of individual mines.

I support the Bill's intent to terminate existing coal mining leases in the Galilee Basin, and prohibit grant of new coal mining leases for land in the Galilee Basin. In addition, I believe it should be amended to prevent all new thermal coal and gas projects in Queensland to ensure we are doing all that we can to reduce the risks of dangerous climate change.

Thank you for your consideration of this submission.

Yours sincerely  
David Arthur

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