EDO Qld.
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Using the law to protect our environment.

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Committee Secretary
State Development, Natural Resources and Agricultural Industry Development Committee

Sent via email only: sdnraidc@parliament.qld.gov.au

Dear Chair and Committee Members

Submission to the Mineral Resources (Galilee Basin) Amendment Bill 2018 Inquiry

We welcome the opportunity to provide submissions to the inquiry into all aspects of the Mineral Resources (Galilee Basin) Amendment Bill 2018.

Environmental Defenders Office Qld

The Environmental Defenders Office Qld (**EDO Qld**) is an independent community legal centre specialising in empowering the community to protect their environment and health through the use of the law. We achieve this through working with all sectors of the community to provide advocacy, education, representation and advice on environmental laws and access to justice. Through this role EDO Qld is an appropriate entity to provide commentary and deliberation in relation to the protection of the environment from the impacts of coal mining in the Galilee Basin.

In summary, our submissions are:

1. Implementation of this Bill will appropriately amend the *Mineral Resources Act 1989* (Qld) to align its operation with its objectives;
2. Implementation of the Bill will address the findings of the latest IPCC Report, and Australia's international climate obligations;
3. Implementation of the Bill makes good economic sense; and
4. Environmental protection afforded by the Bill could be improved by instituting a moratorium on all thermal coal and gas projects in Queensland.

Our submissions in this letter are provided in detail in **Appendix 1.**

EDO Qld would welcome the opportunity to present to the Committee in the public hearing of this inquiry.

Yours faithfully,

Jo-Anne Bragg

Jo-Anne Bragg
CEO, Solicitor
Environmental Defenders Office (Qld) Inc

APPENDIX 1 – EDO Qld submissions in detail

1. Implementation of this Bill will appropriately amend the *Mineral Resources Act 1989* (Qld) (MR Act) to align its operation with its objectives

Although the section 234 of the MR Act encourages the grant of mining leases in line with the Act's objectives to encourage the mining of minerals, enhance knowledge of mineral resources, and increase state revenue,[1] it also includes additional objectives to ensure environmental protection. Relevantly, the Act lists among its principal objectives: to 'encourage environmental responsibility', and 'encourage responsible land care management'.[2]

Currently, the MR Act caters extensively to fulfilling its objectives to encourage mining, whilst most of the environmental protection aspirations are relegated to the *Environmental Protection Act 1994* (Qld). The amendment of the MR Act in line with the Bill, is therefore necessary to insert environmental protection provisions in the Act itself, better aligning its operation with its objectives. The achievement of environmental objectives is key, especially in light of the Intergovernmental Panel on Climate Change's Global Warming of 1.5°C report (**IPCC Report**) considered further below.

2. Implementation of the Bill will address the findings of the latest IPCC Report, and Australia's international climate obligations

According to the *IPCC Report*, to limit global warming to 1.5°C it is necessary to reduce the use of coal to 0-2% of global electricity production by 2050.[3] Currently, coal provides 63% of Australia's power.[4] To address this, it is imperative – both for environmental protection, and to adhere to Australia's international climate obligations[5] – that Queensland acts now to reduce the production of coal within the State.

Without a decrease in the current global warming trajectory, Queensland in particular is facing dire consequences. The *IPCC Report* modelling predicts (with very high confidence) that a temperature increase of as little as 1°C could have an irreversible impact on warm-water corals[6] – i.e. the foundation of the Great Barrier Reef. An increase of 2°C will have the same irreversible effects on unique and threatened systems, and coastal flooding.[7] Other areas with a severe negative effect include extreme weather events (which Queensland is experiencing already), small scale, low-latitude fisheries, terrestrial ecosystems, fluvial flooding, and crop yields.[8] Tourism, and heat-related morbidity and mortality will also be detrimentally affected.[9]

The reality is that coal mining is inextricably linked as a substantial contributor to climate change, not just through the physical destruction of habitat and the environment to make way for the mines

[1]MR Act section 2(a)-(b),(e).
[2]Ibid section 2(d),(g).
[3]Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C: Summary for Policymakers* (IPCC, 2018) C2.2.
[4]The Climate Council, *Pollution and Price: The Cost of Investing in Gas* (The Climate Council of Australia Ltd, 2017) 29.
[5]See e.g. the *Paris Agreement* under the *United Nations Framework Convention on Climate Change* opened for signature 4 June 1992, 1771 UNTS 107 (entered into force 21 March 1994).
[6]Intergovernmental Panel on Climate Change, above n 3, 13.
[7]Ibid 13.
[8]Ibid 13.
[9]Ibid 13.

through the resultant greenhouse gas (**GHG**) emissions. In particular, methane is produced during the mining phase (comprising 11% of methane produced globally), and later, carbon dioxide is released in huge amounts through the combustion of the resultant coal (making up 40% of carbon dioxide produced globally).[10] Methane, at 18%, and carbon dioxide, at 73%, are the top contributors to overall GHG emissions,[11] and the role that coal plays in contributing to this cannot be ignored.

With this in mind, the viability of mines like Adani's Carmichael mine in the Galilee Basin must be evaluated with a view to the necessity reducing GHG effects, and decreasing the global reliance on coal before 2050. The Carmichael Mine has an estimated life of 60 years,[12] taking the mine's operation well past the 2050 cut-off. Even in the absence of any action undertaken by Queensland to address the IPCC Report recommendations, should other countries implement changes (e.g. to meet their own international obligations), the coal produced by the Carmichael mine would no longer have any economic utility, which would also have further ramifications for the state, and Australia as a whole.

3. Implementation of the Bill would make good economic sense

Too often regulatory economic analysis focusses on direct profits and does not adequately factor in the environmental costs. As described above, opening up the Galilee Basin to thermal coal operations will result in significant environmental costs, including ongoing impacts from climate change, and the resulting costs to society will outweigh any monetary benefits. It is our submission that this Bill should be subject to a thorough economic assessment of the benefits to society of reducing GHG emissions, for example by including a default social cost of carbon.[13]

Using basic economic theory, the price of a product will rise when demand exceeds supply. Conversely, when the supply of a product surpasses demand, prices will drop. This theory forms the basis of the economic case for a moratorium on coal mining. Currently, although demand for coal has marginally increased, global coal use has already peaked.[14] Australia is in the top two exporters of coal globally, with most coal coming from Queensland. Restraining the operation of future coal mines in Queensland will reduce supply, and increase the demand for coal – driving up prices (and royalties).[15] High prices will then encourage reduced consumption, thereby reducing emissions. Therefore, restraint on the operation of coal mines is beneficial both for stakeholders in existing mines, as well as in advancing environmental imperatives.

A moratorium on coal mining would bypass the need for mass extraction and financial subsidies, to ensure the short-term viability of existing mining leaseholders. Such action would both protect the market from incumbents, and allow existing coal reserves to be sold at an increased price.[16]

[10]Jos Olivier and Jeroen Peters, *Trends in Global CO_2 and Total Greenhouse Gas Emissions* (PBL, Netherlands Environmental Assessment Agency, 2018) 9.
[11]Ibid.
[12]Coordinator-General, *Coordinator-General's Evaluation Report on the Environmental Impact Statement* (May 2014), 2.2.3 < https://www.dsdmip.qld.gov.au/resources/project/carmichael/carmichael-coal-mine-and-rail-cg-report-may2014.pdf>
[13]Keck, JM (ed.) 2014, Social Cost of Carbon Estimates for Regulatory Impact Analysis : Development and Technical Assessment, Nova Science Publishers, Incorporated, Hauppauge. Available from: ProQuest Ebook Central. [31 January 2019].
[14]Caroline Lee, 'Where Are We on the Road to Clean Energy?, *International Energy Agency*, 4 May 2018 < https://www.iea.org/newsroom/news/2018/may/commentary-where-are-we-on-the-road-to-clean-energy html>.
[15]Richard Denniss, *When You're in a Hole – Stop Digging!* (The Australia Institute, 2015) at 11.
[16]Ibid 13.

Realistically, those who bear the costs of a moratorium are limited to future mining lease applicants,[17] although in light of the IPCC Report and the already disproportionate number of coal power plant closures,[18] the prevention of new mines cannot be classified as a cost. Coal mines no longer have long term viability,[19] and restraint of entrance into the market is more protective than anything else. In the Galilee Basin in particular, the low quality of the coal (high ash and low energy) and the fact that it is marketed specifically for Indian coal plants (where demand is also decreasing) means that mines are unlikely to positively contribute to economic growth – especially given the increased cost of operating for seaborne coal.

Prevention of such mines from going ahead also helps to secure the financial interests of creditors, including the government, who lend money or provide subsidies to mining projects that are not financially viable. [20] Such protection has the additional benefit of aligning with the principal objectives of the MR Act. [21] Further, a restraint on coal mining does not prevent a prospective company from breaking into the Australian energy market. There are a plethora of investment opportunities in renewal energy sources, the development of which will be overwhelmingly more beneficial for both the company itself, and for the Queensland (and Australian) public interest.

In terms of advancing environmental imperatives, aside from the obvious reduction in GHG emissions, a coal mining moratorium would channel energy demand into more sustainable avenues, such as renewables.[22] It can assist in maintaining other important Queensland industries such as tourism (especially around the Great Barrier Reef), and agriculture, as well as improving human health.[23]

4. Environmental protection afforded by the Bill could be improved by instituting a moratorium on all thermal coal and gas projects in Queensland

Although the cessation of coal mining in the Galilee Basin advances environmental imperatives, given the urgency of reducing the effects of global warming, it is necessary to extend the moratorium on thermal coal mining to include gas projects, and to cover the whole State. A moratorium has been used as a tool in other jurisdictions to address GHG emissions, for example New Zealand's recent moratorium on oil and gas exploration.[24]

Like coal, GHG emissions in the production of gas have a huge impact on global warming. Gas production and distribution comprises 13% of all methane emissions, and combustion makes up 18% of carbon dioxide emissions.[25] Please note that in this context, methane emissions are notoriously underreported.[26]Given the science behind the aim of reducing coal's contribution to electricity production to below 2%,[27] it follows that gas must be similarly limited. This will also assist in encouraging a move toward renewable, carbon neutral,[28] energy sources as an alternative.[29]

[17]Caroline Lee, 'Where Are We on the Road to Clean Energy?, *International Energy Agency*, 4 May 2018 at 6 < https://www.iea.org/newsroom/news/2018/may/commentary-where-are-we-on-the-road-to-clean-energy html>..
[18]Christine Shearer, 'Peak Coal Getting Closer, Latest Figures Show', *Carbon Brief,* 31 July 2018 < https://www.carbonbrief.org/guest-post-peak-coal-is-getting-closer-latest-figures-show>.
[19]Intergovernmental Panel on Climate Change, above n 3.
[20]Denniss, above n 15, 16.
[21]Section 2(e).
[22]Denniss, above n 15, 16.
[23]Ibid 16.
[24]https://www.abc net.au/news/2018-04-12/new-zealand-no-longer-issuing-oil-and-gas-exploration-permits/9645092
[25]Olivier and Peters, above n 10, 9.
[26]The Climate Council, above n 4, 10.
[27]Intergovernmental Panel on Climate Change, above n 3C2.2.
[28]The Climate Council, above n 4, 11.
[29]Ibid 46.

Existing approvals of coal, oil and gas are already sufficient to take the world to 2 degrees Celsius gloabal warming. Pursuing efforts to limit this to 1.5 degrees Celsius (as most of the world has agreed to under the Paris Agreement) means no further approvals of coal, oil or gas should be allowed.

With the inclusion of gas, and the extension of the moratorium on coal mining to encompass the whole of Queensland, the state will showcase its commitment to both environmental, and economic viability. As a current hub for thermal mining activities, the Galilee Basin is a crucial starting point for encouraging a coal mining moratorium; however, this does not mean that Queensland's efforts to improve environmental protections should stop there. In order to meet the 1.5°C limitation imposed by the IPCC Report, it is key that the Queensland Government legislates to continue to limit coal mining activities, to increase the aforementioned environmental and economic gains.