

INQUIRY INTO URANIUM MINING AND NUCLEAR FACILITIES (PROHIBITIONS) REPEAL BILL 2019

Organisation: NSW Minerals Council

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NSW MINERALS COUNCIL
ABN 42 002 500 316
PO BOX H367, Australia Square, NSW 1215

T 02 9274 1400
f b t
nswmining.com.au

Inquiry into the Uranium Mining and Nuclear Facilities (Prohibitions) Repeal Bill 2019

NSW Minerals Council Submission – October 2019

The NSW Minerals Council (NSWMC) is the peak industry association representing the NSW minerals industry, including the owners and operators of coal, metalliferous and mineral sands mines, mineral explorers and associated service providers. NSWMC has around 90 member companies.

NSWMC works closely with government, industry groups and business and community leaders to foster a sustainable mining industry in NSW. NSWMC supports the development of a strong and diverse state economy and an effective regulatory framework in which the industry can operate profitably and make a meaningful contribution to the state and the people of NSW.

NSWMC supports the *Uranium Mining and Nuclear Facilities (Prohibitions) Repeal Bill 2019* (the Bill), which will overturn the prohibitions on uranium mining and nuclear power generation that are contained in the NSW legislative framework.

Prohibition on uranium mining

The prohibition on uranium mining in NSW is illogical for several reasons:

- While uranium cannot be mined in NSW, across the border in South Australia it is mined legally and safely, contributing to the South Australian economy.
- While there is a prohibition on uranium mining in NSW, the ban on uranium exploration was overturned in 2012, supposedly to encourage investment in uranium exploration. However, it is unrealistic to expect any significant investment in exploration when there is no prospect of being able to mine it in future.

NSW should be able to compete with other Australian and international jurisdictions in the supply of uranium. However, while the prohibition on uranium mining remains in place, the potential for NSW to take advantage of this economic opportunity will remain unknown.

Prohibition on nuclear power

All available technologies should be able to compete to deliver a secure, reliable and low emissions electricity system at least cost. Globally, nuclear power has increasingly proven to be a secure, reliable, affordable and zero emissions power source.

The scale of the task to reduce emissions to 'net zero' by 2050, in line with the NSW Government's commitment, is significant. Achieving emission reductions in the electricity sector is unlikely to be achieved by renewables and storage alone.

Modelling of the total system costs of various forms of generation technologies for the National Electricity Market¹ demonstrates that while wind and solar PV initially provide the least-cost emissions reductions, their integration costs increase exponentially as they are deployed more broadly.

The increased deployment of intermittent wind and solar PV into the electricity system presents real challenges to grid stability and energy supply. Wind and solar PV can fluctuate from oversupplying demand to making a minimal contribution in a matter of hours. Wind and solar PV can also experience prolonged 'wind droughts' or overcast conditions. This intermittence necessitates ever increasing volumes of installed capacity, storage, backup generation and transmission infrastructure to ensure reliability. Furthermore, operating the grid within its technical limits (e.g. frequency and voltage) becomes more challenging and requires additional infrastructure to be added to the grid. This all adds to the total system costs of wind and solar PV which will be passed on to taxpayers and consumers.

As the total system costs of integrating a growing share of renewables increase, other low emission technologies will become more competitive, including coal or gas with carbon capture and storage, or potentially nuclear power. These dispatchable technologies do not carry the same integration complexities and costs as wind and solar PV and add to grid security.

Arguments about the economics of nuclear energy are largely irrelevant to this inquiry. The legislative framework needs to set NSW up for long term success and allow for the full and proper consideration and potential development of all technologies including those that could become more advantageous or competitive in the future.

The prohibition on nuclear power should therefore be overturned at both the State and Commonwealth levels.

NSW Minerals Council

October 2019

¹Boston, A., Bongers, G., Byrom, S., and Staffell, I. (2017) Managing Flexibility Whilst Decarbonising Electricity – The Australian NEM is Changing, Gamma Energy Technology <http://anlecrd.com.au/wp-content/uploads/2017/07/Managing-Flexibility-NEM-2017-Report.pdf>