



Australian Academy of Science

Ian Potter House, Gordon Street, Canberra ACT 2601

Inquiry Secretary
Senate Standing Committee on Economics
PO Box 6100
Parliament House
Canberra ACT 2600

By email: economics.sen@aph.gov.au

Dear Secretary,

Australian Academy of Science Submission on the *National Radioactive Waste Management Amendment (Site Specification, Community Fund and Other Measures) Bill 2020 [Provisions]*

The Australian Academy of Science welcomes the opportunity to address the *National Radioactive Waste Management Amendment (Site Specification, Community Fund and Other Measures) Bill 2020 [Provisions]*, currently subject to a legislation inquiry by the Senate Standing Committee on Economics.

The Academy acknowledges the national need for safe, reliable, and affordable storage for radioactive waste. The Bill before the Senate provides for a site for National radioactive waste management facility at the “Napandee” property near Kimba in South Australia.

As noted in the Explanatory Memorandum, Australia’s radioactive waste (both low-level waste and intermediate level waste) are byproducts of a range of processes, most notably nuclear medicine. Nuclear technology is used in the diagnosis of heart disease, skeletal injuries and a range of cancers.

Current Australian nuclear capability includes the ANSTO OPAL reactor and nuclear medicine manufacturing facilities in Sydney. The current situation is not sustainable over the long term as waste from these sites is stored at more than 100 sites around Australia. Further, as APRANSA has made clear, it is not possible for the waste that is currently stored at ANSTO in Lucas Heights to remain there indefinitely. A new site will allow stable, safe, long-term storage of the waste, which is necessary given the nature of the material.

The selection of the Napandee site represents the culmination of a long process in which many sites were examined for their suitability. The government has had regard to an extensive body of research, study and experience with international radioactive waste disposal facilities, and the advice of Australian nuclear science organisations such as the Australian Radiation Protection and Safety Authority (ARPANSA) and the Australian Nuclear Science and Technology Organisation (ANSTO). The new facility will need to comply with international requirements set by the International Atomic Energy Agency (IAEA) that address the risks associated with the heat and radiation that the spent fuel produces, and with Australia’s robust nuclear protection legislation framework, which supports and empowers ARPANSA as Australia’s nuclear technology regulator.

The Academy supports the Bill and believes it reflects the underlying scientific evidence base for the disposal of nuclear waste. In going forward, however, the Academy notes that it will be important to

maintain the high standards set by the IAEA and the national regulatory framework in order to maintain safety and public confidence.

To discuss or clarify any aspect of this submission, please contact Dr Stuart Barrow at

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Yours sincerely,

Professor John Shine AC PresAA

President

The Australian Academy of Science