

PARLIAMENT OF AUSTRALIA - THE SENATE  
ECONOMICS LEGISLATION COMMITTEE

Inquiry into National Radioactive Waste Management Amendment (Site Specification Community Fund and Other Measures) Bill 2020

SUPPLEMENTARY SUBMISSION

This submission is made by Azark Project Pty Ltd (ACN 618 973 792) on behalf of itself and Shire of Leonora and Goldfields Carbon Group Pty Ltd as the joint participants in and proponents of the Azark Project and is supplemental to the submission on behalf of the Azark Project by the Hon. George Gear which was lodged with the Committee Secretariat on 16 March 2020.

INTRODUCTION

The purpose of this submission is to describe and explain the suitability and advantages of the proposed establishment by the Azark Project of an underground facility for the permanent disposal of nuclear waste at Leonora in Western Australia in preference to the federal government's proposed above the ground facility at Napandee in South Australia.

It is considered that this is probably the central and most important issue for consideration by the Senate Economics Legislation Committee in its inquiry since all of the legislative proposals stem from deciding the best and optimum course for Australia to adopt in managing its nuclear waste.

SUBMISSIONS

In summary it is therefore submitted that as a consequence of the Senate having referred the provisions of the National Radioactive Waste Management Amendment (Site Specification, Community Fund and Other Measures) Bill 2020 to the Economics Legislation Committee for inquiry and report the Committee should recommend:

- (a) that the the Bill be withdrawn from the legislative programme;
- (b) that as a result of the Bill being withdrawn the government should immediately discontinue all aspects of the proposed development of the above the ground

nuclear waste facility at Napandee due to its inherent unsuitability in all respects for that purpose;

- (c) that the government should immediately enter into proper and full discussions with the proponents of the Azark Project to conclude an appropriate and acceptable arrangement for the development and operations of an underground facility at Leonora with the facility to be used for the permanent disposal by geological burial of all waste generated or controlled by the government; and
- (d) that the government in all of its guises does everything necessary or appropriate to successfully complete the foregoing recommendations.

## PROJECT BACKGROUND

The Azark Project is developing an underground facility at Leonora in Western Australia for the permanent disposal of nuclear or radioactive waste.

While the Shire of Leonora started the Azark Project and is its main proponent all the administrative and managerial aspects of the Project are undertaken by the company of Azark Project Pty Ltd which was specifically set up for that purpose and is making this submission on behalf of the Project.

In addition the Project participants include Goldfields Carbon Group Pty Ltd as the holder of the pastoral leases comprising the overall Project site.

Even though nuclear and radioactive are virtually interchangeable expressions<sup>(1)</sup> for convenience the reference in this submission will only be to nuclear waste.

## AZARK SITE

1. The Azark site is regarded as probably the best in the world for an underground nuclear waste disposal facility as it is granite hard rock going to a depth of at least five kilometres or more which has not moved for over two billion years with no known seismic activity.
2. This site is located in a remote area 16 kms west of the Leonora township and due to its geophysical setting is incapable of supporting any vegetation or animal habitation.

3. In addition the site has no water table as it is solid rock or any flooding problems as confirmed by historical rainfall records.
4. The site is clear of native title by prior decision and the Aboriginal ancestral holders of the land comprising the site (being the Bardu people) are strongly supportive of and actively involved with the Azark Project.
5. There is the added advantage of the undoubted political stability of Australia by having the facility located in Leonora which as an underground installation would be far better to withstand and repel any terrorist or other untoward actions.

#### LEONORA

6. Leonora is an internationally renowned mining centre in the Goldfields region of Western Australia and lies approximately 200 kms north of Kalgoorlie.
7. The Shire of Leonora district hosts a number of significant resources projects including the major nickel mining operations of BHP at Leinster and at Mount Keith and the deep and prolific gold mine at Sons of Gwalia and the rare earths mining operations of Lynas Corporation at Mount Weld.
8. In addition the district has several substantial mineral deposits with Yeelirrie regarded as one of the best and largest undeveloped uranium resources in the world besides other highly potential uranium and other mineral deposits near Leonora.
9. Being a major mining centre Leonora has all the facilities required for the building and operation of the Azark facility including an experienced workforce and technical knowledge and contracting capacity.
10. Leonora is also a transport hub with road and rail facilities (it being called the country's road train centre) and an airport capable of landing jet planes of up to 300 people carrying capacity.
11. Because of its transport capabilities and its status as a mining centre Leonora already numerous road trains passing through the town every day carrying explosives and cyanide and fuel as well as rare earth minerals with

varying levels of radioactivity while the future development of the Okajee port with a rail link with Leonora is intended for the shipment of the uranium from Yeelirrie.

#### LAND TITLE

12. The land comprising the site is on two separate pastoral stations covered by several pastoral leases and the site boundaries are contained within an exploration licence under the Western Australian mining legislation.

13. This licence has an area of approximately 50 km<sup>2</sup> but the actual facility will be on a smaller portion of that area.

14. The exploration licence has given the Azark Project the ability to undertake technical testing and exploratory work on the site which would not otherwise be allowed under a pastoral lease and the title to the land comprising the facility will when completed be either by freehold title grant or a special grant under state law.

#### OPERATIONAL PROPOSALS

15. The Azark Project intends to operate the disposal facility as a commercial enterprise by providing final disposal for both low and intermediate level nuclear waste generated in Australia.

16. The federal government already has a substantial quantity of legendary intermediate level nuclear waste which could readily be permanently disposed of at the Azark facility.

17. The facility would also cater for future generated waste in Australia and would be capable by size expansion of disposing or at least storing in the most acceptable manner any nuclear waste produced through any eventual nuclear power generation in Australia.

18. The internationally prescribed directives and standards by the International Atomic Energy Agency (IAEA) and adopted in Australia by Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) under treaty obligations are that low and intermediate levels of nuclear waste should be disposed of or at

least stored temporarily by underground geological burial as is intended by the Azark Project.

19. The Azark Project facility would be constructed to the best known engineering and technical expertise with innovations already being examined for providing greater efficiency in its operations and would in certain respects be the most advanced and best developed facility of that nature in the world.

20. In proposing an aboveground facility for the disposal of low-level waste and temporary storage of intermediate level waste the federal government is probably failing to adhere to its own international treaty and convention obligations which were reaffirmed several times since their initial adoption by Australia.

#### COMMUNITY APPROVAL

21. While the Azark site as already stated is not subject to native title it is within the area being the ancestral lands of the Bardu Aboriginal peoples who are very supportive of and actively involved in various capacities with the Azark Project.

22. The Project area has two overlapping heritage sites which would not be affected in any way by the Project and its operations.

23. In addition the Bardu people want to assist with the Project by undertaking heritage and environmental surveys which can be the basis of the final expert reports and subsequently providing a ranger service to monitor and generally look after the overall area.

24. The general Leonora community is also supportive and in favour of the Azark Project as it is recognised that a large part of the revenues from its operations are intended to pay for many badly needed social and civic amenities including setting up an urgently needed comprehensive medical and health care service system throughout the Goldfields region centred on Leonora.

#### FACILITY CONSTRUCTION

25. The construction of the facility for the disposal and storage of nuclear waste would be similar to a normal underground mining operation but the overall cost will be far cheaper as it will not involve any searching for mineral resources.

26. The various engineering aspects of the underground facility construction are being advanced with design plans on a decline system and with accompanying costings.

27. The model of the underground facility will consist of declines to access storage levels in a herringbone arrangement for ventilation at up to 50 metres and 150 metres below surface for the various classifications of the waste.

28. The construction of the Azark facility will be undertaken by a major and well known Western Australian fully comprehensive contractor with extensive mining and resource contracts and projects throughout the world and which is currently undertaking three large mining operations in Leonora including the well-known Sons of Gwalia where mining is now down to more than two kilometres vertical underground by declines.

#### EXPERT CONSULTANTS

29. The Azark Project has the benefit of involvement by internationally regarded consultants and experts for the establishment of its facility including its collaboration with both local and overseas universities and other institutes which are regarded as the world's leaders in nuclear waste disposal methods and research.

30. The consultants and experts involved with the development of the Azark Project are internationally recognised in the field of management and disposal of nuclear waste and are both scientifically and technically far more advanced than the federal government's current expertise.

#### FEDERAL GOVERNMENT

31. Despite the attributes and superiority of the Azark Project the federal government through its Department of Industry Innovation and Science and the Australian Nuclear Science and Technology Organisation (ANSTO) has now chosen the Napandee location near Kimba in South Australia to develop an above the ground nuclear waste facility designated as the National Radioactive Waste Management Facility which would only provide temporary storage of the intermediate level waste.

30. The selection and acquisition of the Napandee site for that facility and its subsequent establishment and operation as the national facility on the site is governed by the *National Radioactive Waste Management Act 2012* which is the legislation sought to be significantly amended by the Bill now the subject of the Committee's inquiry.

32. The government has already spent at least \$55 million over the past four years on the selection of the facility site and intends to spend another \$350 million in building the aboveground facility in South Australia but again has refused to provide any details of its past spending.

33. As against this the Azark Project:

- (a) has undertaken all of the work for identifying and assessing its facility site at Leonora at its own cost without any form of government assistance and has achieved far more than the selection process by the Department;
- (b) has arranged its collaborations and joint undertakings with its consultants and expert advisers completely through the initiative and endeavours of the proponents of the Project; and
- (c) will be able to construct and commission its underground facility for \$40 million as a private undertaking without any cost to taxpayers and already has in principle approval for the necessary development finance.

34. In May 2017 the Department of Industry Innovation and Science requested and encouraged the Azark Project to nominate its site at Leonora for selection for the national management facility in accordance with the enabling legislation and a very full and professionally prepared nomination was lodged with the Department in late July 2017.

35. This was followed by correspondence from the Department requesting additional and rather intricate information to support the nomination but by February 2018 no further word on the nomination was heard by the Azark Project from the Department even though all the requests for information had been met.

36. It was subsequently discovered that the Department and the then responsible minister (Senator the Hon. Matt Canavan) had effectively chosen three sites at

Kimba and Hawker for the national facility and appeared to be relentlessly pursuing their progress despite their disadvantages and the strong community opposition and the substantial and seemingly unwarranted expense.

37. The refusal by the government to consider the Azark Project and the subsequent negotiations showed the intransigence and to some extent the ignorance of the government's personnel which at times seemed quite spiteful as for example the insulting suggestion that the Azark Project was only digging a hole in the ground as a cave for its facility.

38. The Azark Project proponents have also felt a degree of jealousy on the part of the government as to the advances at relative small cost in developing the Project and with the involvement of world renowned experts who would normally not have anything to do with ANSTO.

39. Just one of several situations where the Azark Project has far greater knowledge and available expertise is in the area of transport and logistics for the movement of nuclear waste as this has always been done for the government by outside private contractors some of whom are among the many experts involved with the Azark Project.

## CONCLUSION

The Azark Project site can be very quickly brought to the operational stage of the underground facility for the permanent disposal in the best manner possible of all levels of nuclear waste generated in Australia.

This would be achieved with relative ease due to the advanced stage of planning and a huge financial saving for the government which would provide a permanent and highly efficient and internationally acceptable solution to the government's constant outcries as to the need for management and disposal of its nuclear waste.

Despite this the Azark Project proposals have been persistently rejected by the federal government in its pursuit of the unsuitable and unjustified objectives of establishing an above the ground facility in South Australia which has now been narrowed down to Napandee near Kimba.

The purpose of this submission is among other things to draw attention to and gain public awareness and understanding of the highly appropriate nature and suitability of the establishment of an underground facility for the permanent disposal of nuclear waste at Leonora as proposed by the Azark Project.

#### SUBMISSION RECOMMENDATIONS

This submission is made by Azark Project Pty Ltd on behalf of itself and Shire of Leonora and Goldfields Carbon Group Pty Ltd as the joint proponents of the Azark Project and their recommendations are set out under the heading of SUBMISSION on page 1.

It is suggested that the recommendations be considered as a major part of the referred inquiry into the provisions of the National Radioactive Waste Management Amendment (Site Specification, Community Fund and Other Measures) Bill 2020 as they go to the heart of the proposed Bill and are intrinsic to all aspects of nuclear waste in Australia.

Dated: 8 April 2020

[Electronically signed](#)

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P.J.A. REMTA

(Executive Director)

#### (1) NUCLEAR OR RADIOACTIVE

Normally radioactive waste refers to all waste produced by any industry while nuclear waste is from nuclear power plants and power generation - however in line with common practice I have used nuclear in preference to radioactive for qualifying the waste mentioned in this submission although the expressions are practically interchangeable