



New South Wales Government
Independent Planning Commission

Culcairn Solar Farm SSD 10288

Statement of Reasons for Decision

Andrew Hutton (Chair)
Professor Zada Lipman

25 March 2021

Culcairn Solar Farm SSD 10288 Final Report ©
State of New South Wales through the Independent Planning Commission 2021

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DEFINED TERMS

ABBREVIATION	DEFINITION
Applicant	Neoen Australia Pty Ltd
Application	Culcairn Solar Farm SSD 10288
AR	Department's Assessment Report, dated January 2021
BSAL	Biophysical Strategic Agricultural Land
CIV	Capital Investment Value
Commission	Independent Planning Commission of NSW
Council	Greater Hume Council
Department	NSW Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
Greater Hume LEP 2012	<i>Greater Hume Local Environmental Plan 2012</i>
ICNG	<i>Interim Construction Noise Guideline 2009</i>
Infrastructure SEPP	<i>State Environmental Planning Policy Infrastructure 2007</i>
Koala SEPP	<i>State Environmental Planning Policy (Koala Habitat Protection) 2020</i>
kV	Kilovolt
LEP	Local Environmental Plan
LGA	Local Government Area
Minister	Minister for Planning and Public Spaces
MW	Megawatts
NEM	National Electricity Market
Noise Policy	<i>NSW Noise Policy for Industry 2017</i>
PP&RD SEPP	<i>State Environmental Planning Policy (Primary Production and Rural Development) 2019</i>
Project	Proposed solar farm at Culcairn, as defined at Section 2.1.
Regulations	<i>Environmental Planning and Assessment Regulations 2000</i>
Relevant Considerations	Relevant matters for consideration, as provided in section 4.15(1) of the EP&A Act
Renewable Energy Action Plan	<i>NSW Renewable Energy Action Plan 2013</i>
RFI	Request for Information
RTS	Response to Submissions
SEPP	State Environmental Planning Policy
SEPP 55	<i>State Environmental Planning Policy No. 55 – Remediation of Land</i>
Site	Project site at Culcairn, as defined at Section 2.1.
Solar Energy Guideline	<i>Large Scale Solar Energy Guideline 2018</i>
SRD SEPP	<i>State Environmental Planning Policy (State and Regional Development) 2011</i>
SSD	State Significant Development
VPA	Voluntary Planning Agreement

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1 INTRODUCTION

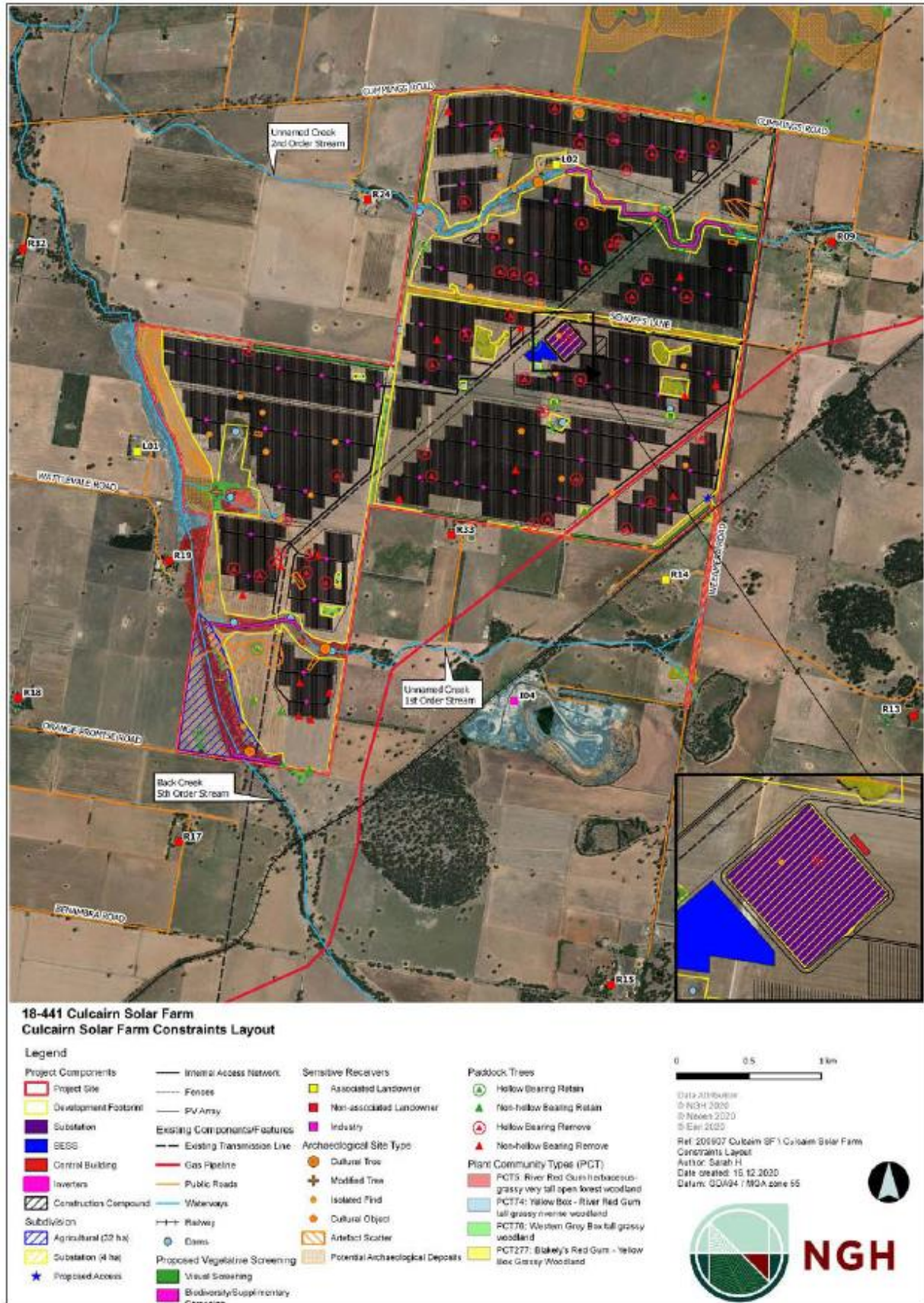
1. On 28 January 2021, the NSW Independent Planning Commission (**Commission**) received from the NSW Department of Planning, Industry and Environment (the **Department**) a State significant development application (SSD 10288) (**Application**) made by Neoen Australia Pty Ltd (**Applicant**) seeking approval for the Culcairn Solar Farm (**Project**) under section 4.36 of the *Environmental Planning and Assessment Act 1979* (**EP&A Act**).
2. The Applicant sought amendments to the Application in June and October 2020 under clause 55 of the *Environmental Planning and Assessment Regulation 2000*. The amendments to the Application were agreed by the Department under delegation from the Commission. Accordingly, the Commission has now determined the Application as amended by the Applicant.
3. The Commission is the consent authority in respect of the Application under section 4.5(a) of the EP&A Act and clause 8A of the *State Environmental Planning Policy (State and Regional Development) 2011* (**SRD SEPP**). This is because:
 - the Project constitutes State significant development (**SSD**) under section 4.36 of the EP&A Act;
 - the Department received more than 50 unique submissions from the public objecting to the Application; and
 - Greater Hume Council (**Council**) objected to the Application.
4. Professor Mary O’Kane AC, Chair of the Commission, nominated Mr Andrew Hutton (Chair), and Professor Zada Lipman to constitute the Commission Panel determining the Application.

2 THE APPLICATION

2.1 Site and Locality

5. The site comprises 1,039 hectares (ha) and is located within the Riverina Murray region of NSW (**Site**), approximately four kilometres (km) south-west of Culcairn in the Greater Hume Local Government Area (**LGA**).
6. Paragraph 2.1.1 of the Department’s Assessment Report (**AR**) identifies that the site is zoned RU1 Primary Production under the *Greater Hume Local Environmental Plan 2012* (**Greater Hume LEP 2012**) and is currently used for agricultural purposes, such as cropping of wheat and canola, and intermittent sheep grazing.
7. Paragraph 2.1.3 of the AR describes the land as generally flat to gently undulating land, predominantly cleared of vegetation and cultivated for cropping. Furthermore, it identifies the site as being located within the Murray River catchment with three watercourses traversing the site, including Back Creek to the south-west and two unnamed ephemeral tributaries flowing from east to west in the centre and south of the site.
8. Paragraph 2.1.5 of the AR identifies that Weeamera Road and Cummings Road run along the eastern and northern boundaries of the site. A ‘paper road’ (Schoffs Lane) dissects the site in an east-west direction. An unnamed Crown Road runs north-south within the project footprint between Lot 1 in DP171815 and Lot 53 in DP753735. Benambra Road is located approximately 3km south and the Olympic Highway is about 4km east of the site.
9. The Site is illustrated at **Figure 1** below.

Figure 1 – Project Layout (Source: Department's Assessment Report)



2.2 The Project

10. The AR describes the Project in Paragraph 1.1.2 as follows:

“The project involves the construction of a new solar farm with a generating capacity of approximately 350 megawatts (MW) and 100 MW / 200 MW-hour (MWh) of battery storage. It also involves the upgrading and decommissioning of infrastructure and equipment over time.”

11. The main components of the Project are set out at Table 1 of the AR. The Project is also set out in **Appendix A** of this Statement of Reasons.

12. The AR identifies that the Applicant made amendments to the Project following consideration of submissions received after the public exhibition period (30 January 2020 to 27 February 2020). The Commission notes that the Project was amended by the Applicant on two separate occasions as outlined in the Applicant’s Amendment Report, dated 3 June 2020, and Amendment Letter, dated 9 October 2020.

13. Paragraph 4.4.2 of the AR provides a summary of the amendments made to the Project:

“The amended application includes:

- *removing all project infrastructure north of Cummings Road (313 ha);*
- *total reduction of the development footprint by 234 ha (from 1,126 ha to 892 ha);*
- *an additional 60 m setback from residence R24, resulting in a separation distance of 498m, including an additional 5 m of vegetation screening (resulting in 20 m wide screening);*
- *additional riparian screening in the vicinity of residences R17 to increase habitat connectivity across the site and reduce visual impacts;*
- *reduction in proposed clearing of paddock trees by 35 (from 99 to 64);*
- *reduction of native vegetation clearing from 0.61 ha to 0.33 ha;*
- *upgrading a section (1.4 km) of Weeamera Road from 6 m to 7m width.”*

14. Paragraph 4.4.4 and 4.4.5 of the AR states:

“Despite the proposed changes, the generating capacity of the project would remain the same as Neoen proposes to use more efficient solar panels than originally proposed.

The Department provided the Amendment Report and Amendment Letter to government agencies for review and comment and made both documents available on the Department’s website. As the project amendments would reduce the impacts of the project as a whole the Department did not exhibit the Amendment Report and Amendment Letter.”

15. The Project presented to the Commission consisted of the following, as summarised in Table 1 of the AR:

“The project includes:

- *approximately 900,000 single axis tracking solar panels (up to 4.2 m high) and up to 67 inverters (up to 2.5 m high);*
- *a lithium-ion battery storage facility (up to 100 MW / 200 MWh);*
- *an on-site substation and connection to TransGrid’s 330 kV transmission line;*
- *site office, maintenance building (up to 4 m high), switch room (up to 4 m high), storage shed (up to 6 m high), internal access tracks, laydown area, car park, vegetation screening and security fencing (up to 3.5 m high);*
- *subdivision of land within the site for the solar farm, substation and to be retained by the landowner.”*

16. Table 1 of the AR provides that the Capital Investment Value (**CIV**) of the Project is \$636.6 million and the Project is projected to generate up to 500 construction jobs during the 18-month construction period and 10 ongoing operational jobs for the life of the Project, which is expected to be approximately 30 years.

17. During the Public Meeting on 25 February 2021, the Applicant presented some additional information relating to employment generation. Specifically, it identified that the Project had the potential to deliver 350 full-time jobs during construction and seven full-time jobs during operations.
18. Further clarification was provided by the Applicant in relation to employment generation figures in a letter to the Commission dated 5 March 2021. The letter addressed discrepancies between employment generation figures given by the Department and the Applicant. The letter identified that the job numbers given by the Department were based on average figures per MW of a solar farm, while the figures provided by the Applicant were derived from a report commissioned specifically in relation to the Project. The report indicated that 350 on-site jobs and 1,546 indirect jobs would be created during construction, and 6 on-site and 113 indirect jobs during operations.

2.3 Need and Strategic Context

19. The Applicant's Environmental Impact Statement (**EIS**), dated 19 January 2020, identifies the strategic need for the project in section 2.1 while section 2.2 outlines the project's benefits.
20. Paragraphs 2.3.1 – 2.3.10 of the AR provide an overview of the international, national, and NSW energy context for the Project. The overview provided identifies that there is an increasing focus on reducing reliance on fossil fuels and encouraging the transition to renewable energy.
21. Paragraph 2.3.10 of the AR identifies that *"the project would be located in close proximity to the South West Energy Zone and would have access to the electrical grid at a location with available network capacity (even if the other projects in the Greater Hume LGA proceed). With a capacity of 350 MW, the project would generate enough electricity to power over 131,000 homes and is therefore consistent with the NSW Climate Change Policy Framework and Net Zero Plan Stage 1: 2020 - 2030."*
22. Paragraph 5.1.6 of the AR states *"The project is consistent with the Department's Riverina Murray Regional Plan 2036, which identifies the development of renewable energy as a growth opportunity for the region"*.
23. Paragraph 5.1.5 of the AR identifies that the project is consistent with the Greater Hume Local Strategic Planning Statement (LSPS) as the LSPS encourages renewable energy development.

3 COMMUNITY PARTICIPATION & PUBLIC SUBMISSIONS

3.1 The Department's Assessment

24. The Department's AR describes their engagement and consultation process with the community and relevant stakeholders in the Executive Summary, which states:

"The Department exhibited the EIS for the project and received 230 submissions, including two from special interest groups (one objection and one comment) and 228 from the general public (146 objections, 81 supporting and 1 providing comment). One objection was received from Council and 11 government agencies provided advice.

The Department also consulted with Council and the relevant government agencies on key issues and inspected the site, met with surrounding landowners and held a community information session on 7 November 2019."

25. The Commission has given consideration to the submissions received by the Department, as published on their website.

3.2 Community Attendance at the Site Inspection

26. On 29 October 2020, the Commission conducted an inspection of the project site. The Commission invited adjoining property owners and representatives of local community groups to attend and observe at the site inspection. The Applicant was also in attendance.
27. On 30 October 2020, the Commissioners also visited the property known as R24 to understand the resident's concerns in relation to the Project. Site inspection notes were made available on the Commission's website on 28 January 2021.

3.3 Public Meeting

28. The Commission's Public Meeting was undertaken on 2 March 2021 and was held electronically. Twenty-five (25) speakers registered to present to the Commission at the Public Meeting. Twenty-two (22) of them were representatives of community groups and members of the public.
29. Presentations made at the Public Meeting have been considered by the Commission as submissions on the Application and are referenced below in Section 3.4.

3.4 Public Submissions

30. All persons were offered the opportunity to provide written submissions to the Commission up until 9 March 2021. The Commission received a total of 274 written public submissions. A breakdown of the submissions received by the Commission is provided below:
- 102 submissions in support of the Application;
 - 170 objections to the Application; and
 - three comments on the Application.
31. The Commission also heard from speakers at the Public Meeting. Key comments about the proposal related to:
- land use compatibility;
 - loss of agricultural land;
 - impact on neighbouring properties;
 - visual and amenity impacts;
 - biodiversity and environmental impacts;
 - bushfire risk;
 - heat island effect;
 - traffic impacts;
 - land values;

- economic impacts; and
- the benefits and need for renewable energy projects as part of a response to climate change.

Comments made by the public have been summarised below.

Land Use Compatibility

32. The Commission heard concerns from speakers at the Public Meeting and received written comments raising concern about the use of the Site for a solar farm. Key concerns included:
- Perceived inconsistency with the Greater Hume LEP 2012;
 - Concern that the site is located outside of the NSW Government's three renewable energy zones as described in the NSW Government's *Transmission Infrastructure Strategy*; and
 - Loss of agricultural land.
33. At the Public Meeting, a member of the community commented on the perceived inconsistency of the Project with the RU1 Primary Production land use zone, stating:
- “the recommendation (of the AR) totally misses the LEP aims it contradicts, being to encourage sustainable primary industry production, to minimise conflict between land uses and to maintain the rural character of the land.”*
34. At the Public Meeting, a member of the community commented on the renewable energy zones, stating:
- “The government has named three main renewable energy zones within New South Wales, however, the Culcairn solar development is not even within 200 kilometres of the nearest zone. What is the point of setting up these renewable energy zones if the Department of Planning recommend a development so far outside these zones? The number of solar development proposals on prime agricultural land in New South Wales is growing daily. Eventually at some point in time somebody will say ‘enough’.”*
35. In a written submission, a member of the community stated:
- “I understand there is a need for solar energy. What I can't understand is why this solar farm would be put in the middle of some of the region's best agricultural land. This solar farm can be built in other areas where the land is not suitable for farming. Prime farming land has been the backbone to Australia and country regions for so long, and this will take away that land for ever, and won't/can't be reversed.”*
36. Another written submission stated:
- “the chosen site for this solar farm is priceless agricultural land. In our country we already face severe droughts on a more and more frequent basis. Culcairn sits in a belt that consistently performs, year on year. It achieves higher rainfall than the land to the west and therefore is vital to this country's food bowl. I can think of millions and millions of acres of far less productive land and unusable land that this project could be set up on.”*
37. Written submissions received in support of the Project alternatively noted that the site was appropriate for use as a solar farm and could be used concurrently for agricultural purposes during the operation of the Project. In a written submission, a member of the community stated:
- “The land on which the solar farm is to be constructed is low lying and prone to water logging. It is therefore far from the most productive land in the local area. Sheep grazing will occur on the land so its agriculturally productive value will remain.”*

38. Another written submission stated:

“A completely smart and perfect use of land. From all accounts, the farm land with which this project is being stated for has not produced elite cropping for multiple years, it has been subject to flooding so the creation of a solar farm would be a sensible decision. It would help our nation with its desire to become less fossil fuel reliant and allow the far-less than ideal cropping land, be used for solar energy and for livestock. A no-brainer in my opinion.”

Loss of Agricultural Land

39. The Commission heard from speakers at the public meeting and received written comments raising concern about the impacts of the project in relation to the loss of agricultural land. In a written submission, a member of the community stated:

“I fundamentally object to the use of prime agricultural land for solar farms given the scarcity of high quality ag land in Australia. While I strongly support the renewable energy sector, and indeed through my work am actively involved in a large scale wind farm project located within a commercial timber plantation, I do not agree with dedicating scarce high quality ag land to solar at the expense of agricultural productivity.”

40. Another written submission objecting to the project because of agricultural land loss stated:

“I understand there is a need for solar energy. What I cant (sic) understand is why this solar farm would be put in the middle of some of the regions (sic) best agricultural land. This solar farm can be built in other areas where the land is not suitable for farming. Prime farming land has been the backbone to Australia and country regions for so long, and this will take away that land for ever, and wont/cant (sic) be reversed.”

41. Written submissions received in support of the Project alternatively noted that the loss of agricultural land was not a concern, with one submission stating:

“A completely smart and perfect use of land. From all accounts, the farm land with which this project is being stated (sic) for has not produced elite cropping for multiple years, it has been subject to flooding so the creation of a solar farm would be a sensible decision. It would help our nation with its desire to become less fossil fuel reliant, and allow the far-less than ideal cropping land, be used for solar energy and for livestock. A no-brainer in my opinion.”

Impacts on Neighbouring Properties

42. The Commission heard from speakers at the Public Meeting and received written comments raising concern about the impacts of the solar farm on neighbouring properties. A number of issues were raised including the generation of heat, dust and noise, water-shedding, as well as concerns around weed management and contamination. In a written submission, a member of the community stated:

“There are so many unanswered questions on the detrimental impact of such a large-scale solar facility and how it will affect neighbouring properties. There are insufficient information and answers concerning the heat island effect, management of weeds within the solar facility impacting neighbours, fire risk associated with a lack of access within solar facilities, and entrapment risks for volunteer firefighters. Dust and noise pollution during a two-year construction phase, flood mitigation due to enormous shedding of rain events, glare and loss of visual amenity, and possible devaluation of neighbouring properties.”

43. At the Public Meeting, a member of the community stated:

“The real threat of increased air temperature, known as a heat island effect, increased wind speed, increased water run-off and erosion, panel glare both night and day are all stark realities associated with this development and to this point lacks scientific research and measurable constraints to manage them.”

44. At the Public Meeting, another member of the community stated:

“It would be difficult and labour-intensive to control the weed, insects and disease which can take over in these conditions and impact neighbouring agricultural operations, which are a serious threat and can be toxic or harmful to livestock and constitute a significant cost to Australian agriculture each year both in terms of control and loss of productivity.”

Visual and Amenity Impacts

45. The Commission heard concerns from multiple speakers at the Public Meeting and received written comments regarding the visual and amenity impacts of the Project on adjoining properties as a result of glare, noise, dust and the overall scale of the Project.

46. In a written submission, a member of the community stated:

“This is a large area of land sandwiched tightly between our small towns here of Culcairn and Walla Walla. These solar farms are ugly huge industrial complexes in our beautiful landscape that we have chosen to make our homes in. They provide very few jobs once established. However, they will degrade the amenity of our natural landscape here, and they will have a net reduction of the fabric of our small town.”

47. Another written submission stated:

“The surrounding productive farms will have to suffer with the effects, e.g. noise during construction phase, the glare from the galvanised posts and panels, visual impact, heat signature from the panels”

48. At the Public Meeting, members of the public commented that the proposed vegetation buffers would not successfully mitigate visual impacts, stating:

“The landscaping plans defining vegetation as a minimum of two rows shows such disregard. Without spacing or how many trees there is no comfort of alleviating any visual or heat impact. There is absolutely no way possible that within three years the miniscule number of tubestock trees suggested will be able to meet the Department’s recommendation to minimise view.”

49. Another member of the community stated:

“the proposed environmental mitigation efforts seem grossly inadequate. Neighbouring landholders are given token considerations when it comes to the mitigation of our efforts outlined in the proposed solar farm. Shielding trees planted will take up to 10 years to be effective. Weed control is taken by nature. Details are almost deliberately vague, written in a way that will satisfy a bureaucrat and/or politician but never really stand up in the real-world environment.”

Biodiversity and Environmental Impacts

50. The Commission heard concerns from speakers at the Public Meeting and received written comments raising concern about biodiversity and environmental impacts. At the Public meeting, a member of the community stated:

“I consider the true environmental impact of this development as hypocrisy, destroying the environment to save the environment. So many trees will be removed. I don’t think there has been enough realisation of the ecological impact here. The bird is unreal. We have migratory birds come to the lagoon, including the impressive Brolgas, Spoonbill and Cormorant, Pelicans, Herons and more. And we regularly see many different animals such as Echidnas and Goannas. We know there are Swift Parrots and we believe we’ve seen a Curlew. Squirrel gliders locally exist and although we are not environmental greenies the words, ‘You don’t know what you’ve got until it has gone’ rings heavily in our ears.”

51. The Commission also heard concerns from speakers at the Public Meeting raising concern about the management of weeds associated with the Project, particularly “Silver Leaf Nightshade” and “Hairy Panic”. At the Public Meeting, a member of the community stated:

“The land on the Culcairn solar development – is situated on is infested with a serious weed problem of silver leaf nightshade. This weed is incredibly difficult to control and is highly invasive as it has a small pea like berry that can be spread by birds dropping the seeds. I am, and I think quite understandably, high concerned that under this development it will become prolific and a massive seed bank will develop impacting our property.”

Bushfire Risk

52. The Commission heard concerns from speakers at the Public Meeting and received written comments raising concern about bushfire risk. A written submission states:

“The ability to respond to a Bushfire within the site and the ability to prevent a fast-moving grass fire entering the site will be extremely problematic. The inability to suppress a fire poses a significant risk to adjoining landholders and the ability to respond to a fire safely within the site will be problematic due to the size of firefighting appliances.”

53. At the Public Meeting, a member of the community stated:

“The increase in fire risk is a real concern, given the size and layout of the proposal, not only to near neighbours but to the wider community. The security fencing proposed and the connection rods between the panels ensure the area is a death trap and, as such, will not be entered. With this in mind the fire needs to exit the – exit the facility before rural fire services will engage.”

54. Another member of the community stated:

“A fire recently occurred on the solar site at the rear of our property. We now see much greater risk. Under panels that day fire suppression could not have occurred. The 10 metre APZ would not protect us from embers and whirlwind. That creek is mapped as bushfire prone with limited access and will be surrounded by volatile fire risk of crops and trees. A bushfire emergency management and operations plan is required to be considered as part of the approval process for such a massive development to ensure communities and towns are safe.”

Traffic Impacts

55. The Commission heard concerns from speakers at the Public Meeting and received written comments raising concern about increased traffic impacts during the construction and operational phases of the Project. Particular concern was raised by the community about cumulative impacts associated with the approved Walla Walla Solar Farm, as well as road safety impacts as a result of glare.

56. At the Public Meeting, a member of the community stated:

“With the approved Walla Solar development less than one kilometre away the same road access is nominated for both projects. You’re asking the same people, geographically, to take the strain of not one but two potentially huge industrial developments.”

57. Concerns regarding safety on local roads were also raised in the Public Meeting. A member of the community at the Public Meeting stated:

“The increase in traffic and large trucks and machinery will place my family at risk as we travel to and from our home. The surrounding roads are insufficient to safely handle this type of traffic.”

58. In a written submission, a member of the community stated:

“Increased traffic on local roads will also put this infrastructure at risk; local roads break up during high traffic times such as harvest, let alone the significant increase with construction traffic.”

Land Values

59. The Commission heard from speakers at the Public Meeting and received written comments in relation to the potential loss of current and future land value. Members of the community considered that the Project would have a detrimental impact on their property values. Some members of the community stated that they would expect compensation to be paid to them as a result.

Economic Impacts

60. The Commission received written submissions raising concern that the economic benefits of the Project would be limited to short term and limited benefits. In the Public Meeting, a member of the community stated:

“Unfortunately, the local communities are being marketed with false and enticing information. The local businesses should realise if they do benefit from this it will only be for a short period.”

61. Members of the community in support of the Project commented on its positive economic impacts. In a written submission, a member of the community stated:

“This will bring more employment opportunities for locals and bring new members into our communities. This will have a flow on effect of a positive nature, financial increase to businesses, increase of students at schools, more people that become invested into rural communities, support local sporting teams, community groups, committees, the increase of homes being bought or built, the potential of new businesses and creative possibilities or new initiatives would only add to our communities not take away.”

62. Another written submission stated:

“We need to support farmers rights to individually diversify their land use and support the generation of renewable energy in regional Australia. This project is placed perfectly to do both, and will offer the local area a significant injection of cash and infrastructure, which is so desperately in need where population growth has been steady/increasing. A significantly amount of people could benefit from this project in the coming years, both through infrastructure and ongoing economical benefit.”

Renewable Energy

63. The Commission received written submissions from the community in support of the Project as a renewable energy source that will contribute to a reduction in greenhouse gas emissions. In a written submission, a member of the community stated:

“This is the forward thinking that needs to happen for sustainable energy to be a realistic consideration not just a wish list, I personally believe it’s for the greater good of our community and future generations to move away from non-renewable fossil fuels and utilising the power of the sun is a brilliant way forward.”

64. At the Public Meeting, a member of the community stated:

“Reaching zero net carbon emissions globally is one of the most effective things we can do to stop global temperatures rising. Reducing carbon emissions caused by fossil fuel production and upscaling renewable energy is essential.”

4 THE COMMISSION'S CONSIDERATION

4.1 The Commission's Meetings

65. As part of its determination process, the Commission met with various persons, as set out in Table 1 below and undertook a site inspection. All meeting transcripts and site inspection notes were made available on the Commission's website.

Table 1 – Commission's Meetings

Meeting	Date of Meeting	Date Transcript / Notes were made available on the Commission's website
Site Inspection	29 October 2020	28 January 2021
Department	25 February 2021	26 February 2021
Greater Hume Council	25 February 2021	26 February 2021
Applicant	25 February 2021	1 March 2021
Public Meeting	2 March 2021	4 March 2021

4.2 Material Considered by the Commission

66. In this determination, the Commission has carefully considered the following material (**Material**) along with other documents referred to in this Statement of Reasons:

- the Applicant's EIS dated 19 January 2020 and its accompanying appendices (including any amendments);
- all submissions made to the Department in respect of the proposed Application during public exhibition, 30 January 2020 – 27 February 2020;
- the Applicant's Submissions Report, dated 03 June 2020;
- the Applicant's Amendment Report and Letter, dated 03 June and 09 October 2020;
- the Applicant's Response to Request for Information, dated 25 November 2020;
- the Department's AR, dated January 2021, including appendices and material considered in that report;
- Department's draft recommended development consent conditions received by the Commission on 28 January 2021;
- transcripts of the meetings identified in Table 1 and the Applicant's presentation material;
- all speaker comments made to the Commission at the Public Meeting held on 02 March 2021, as well as presentation material at that meeting;
- all written submissions received by the Commission until Friday 9 March 2021;
- correspondence received from the Applicant titled '2021505 Neoen Culcairn Questions IPC', dated 5 March 2021; and
- matters for consideration specified by the EP&A Act.

4.3 Statutory Context

4.3.1 Permissibility

67. The Site is located within Greater Hume LGA on land zoned RU1 Primary Production under the Greater Hume LEP 2012. The Commission notes that electricity generating works are not permitted with or without consent on RU1 land and are therefore a prohibited development under the LEP. Paragraph 3.3.1 of the Department's AR notes that *"the LEP expressly references the State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP) and acknowledges that electricity generating works are regulated by the Infrastructure SEPP, rather than the LEP."*

68. The Commission notes that clause 34(1)(b) of the Infrastructure SEPP states that “*development for the purpose of electricity generating works may be carried out by any person with consent on ... any land in a prescribed rural, industrial or special use zone*”. Clause 33 of the Infrastructure SEPP lists RU1 Primary Production as a ‘prescribed rural zone, industrial or special use zone’.
69. The Commission therefore finds that the Project is permissible with development consent.

4.3.2 Integrated and Other NSW Approvals

70. As per section 3.4 of the Department’s AR, the Commission notes the Department has consulted with the relevant government authorities that are responsible for providing integrated and other approvals.
71. The Commission acknowledges that the Applicant may require other approvals which are not integrated into the SSD process. In particular, an approval under the *Roads Act 1993* will be required to facilitate road upgrades and construction of the site access.

4.4 Mandatory Considerations

72. In determining this application, the Commission is required by section 4.15(1) of the EP&A Act to take into consideration such of the following matters as are of relevance to the development the subject of the Application (mandatory considerations):
- the provisions of:
 - any Environmental Planning Instrument (**EPI**):
 - proposed instruments that are or have been the subject of public consultation under the EP&A Act and that have been notified to the Commission (unless the Secretary has notified the Commission that the making of the proposed instrument has been deferred indefinitely or has not been approved);
 - development control plans;
 - any planning agreements that have been entered into under s 7.4 of the EP&A Act, and draft planning agreements that a developer has offered to enter into under s 7.4; and
 - the *Environmental Planning and Assessment Regulations 2000* (**Regulations**) to the extent that they prescribe matters for the purposes of s 4.15(1) of the EP&A Act;
 - the likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality;
 - the suitability of the site for development;
 - submissions made in accordance with the EP&A Act and Regulations; and
 - the public interest.
73. In accordance with section 4.15(1) of the EP&A Act, the Commission has considered the mandatory considerations. They are addressed in the following sections.
74. The mandatory considerations are not an exhaustive statement of the matters the Commission is permitted to consider in determining the Project. To the extent that any of the Material raises matters that do not fall within the mandatory considerations, the Commission has considered that Material where it is permitted to do so, having regard to the subject matter, scope and purpose of the EP&A Act.

4.4.1 Relevant Environmental Planning Instruments

75. The Commission has taken into consideration the following EPIs:
- Infrastructure SEPP;
 - SRD SEPP;
 - *State Environmental Planning Policy (Primary Production and Rural Development) 2019 (PP&RD SEPP)*;
 - *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (H&OD SEPP)*;
 - *State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)*;
 - *State Environmental Planning Policy No. 44 – Koala Habitat Protection (Koala SEPP)*;
 - and
 - Greater Hume LEP 2012.
76. The Commission agrees with the Department's assessment in relation to EPIs as set out in Appendix H of the Department's AR.

4.4.2 Relevant Planning Agreements

77. The Commission notes that the Applicant has committed to a Voluntary Planning Agreement (VPA) with Council which would consist of an initial payment of \$150,000 at the commencement of construction, followed by a further \$150,000 annually to be paid for the duration of the project's operation. The Commission has given consideration to the VPA in section 4.6.12 below.
78. The Commission also notes that the Applicant has committed to pay approximately \$4.8 million to a community benefit fund which would be administered by a non-profit community foundation with Council having representation on the committee.

4.4.3 The Likely Impacts of the Development

79. The likely impacts of the Project have been considered in section 4.6 below.

4.4.4 The Suitability of the Site for the Development

80. The Commission has considered the suitability of the Site. The Commission finds that the Site is suitable for the purpose of a solar farm for the following reasons:
- the site is on land zoned RU1, which is a prescribed zone permitting electricity generating works with consent under the Infrastructure SEPP;
 - the site is an area of abundant solar resources with minimal constraints;
 - the site is located in close proximity to the South West Energy Zone and would have access to the electrical grid at a location with available network capacity.
 - adverse impacts on surrounding receivers have been assessed and would be further managed and mitigated by the imposed conditions of consent;
 - the Site is located on soils classified as Class 4 under Land and Soil Capability Mapping in NSW (OEH, 2017), meaning that the land requires active management to sustain cultivation on a rotational basis;
 - the Site does not include any mapped Biophysical Strategic Agricultural Land (BSAL);
 - impacts on biodiversity have been minimised and mitigated where possible and residual impacts would be offset in accordance with the Biodiversity Offsets Scheme of the *Biodiversity Conservation Act 2016* (BC Act);
 - the inherent agricultural capability of the land will not be affected in the long term and decommissioning and rehabilitation to ensure the return of the land to its pre-existing use are required by conditions of consent;
 - the Project does not preclude the use of the land for agriculture and managed grazing during the operation of the Project;
 - the development of the Site for the purpose of electricity generation (via solar methods)

- is an orderly and economic use and development of land; and
- the development of the Site for the purpose of electricity generation will allow the anticipated social and economic benefits to be realised.
- the development of the Site will contribute to the orderly transition from traditional coal and gas fired power generation, to power generation with lower emissions and assist in meeting the aspirational objective for NSW to achieve net zero emissions by 2050 as identified in the NSW *Climate Change Policy Framework* released in November 2016.

4.5 Additional Considerations

81. In determining this application, the Commission has also considered:

- Interim Construction Noise Guideline 2009 (**ICNG**);
- NSW Large Scale Solar Energy Guideline 2018 (**Solar Energy Guideline**);
- NSW Noise Policy for Industry 2017 (**Noise Policy**);
- NSW Renewable Energy Action Plan 2013 (**Renewable Energy Action Plan**);
- Environmental Protection and Biodiversity Act 1999 (**EPBC Act**);
- NSW Biodiversity Offset Scheme.

4.6 Key Issues

4.6.1 Compatibility of Proposed Land Use

Land Use Planning Considerations

82. The Commission acknowledges that the compatibility of the use of the land for the project was a key concern raised by the community in submissions and in representations made during the Public Meeting, as described in paragraph 3.4 above.

83. The Commission also notes that Council, in its submission to the Department dated 20 February 2020, raised concerns relating to the Project and associated loss of what they state is high-quality agricultural land. Council identified that while the site is located on soil capability class 4 land under the Land and Soil Capability Mapping, they had been advised previously that the land would be mapped as important agricultural land under the Riverina Murray Draft Important Agricultural Land Mapping project in the future. On this basis, Council was of the view that the land should be considered constrained under the Solar Energy Guideline and that the Project may be inconsistent with the RU1 zoning objectives of the Greater Hume LEP.

84. The Commission notes that the Applicant is of the view that the Project is a compatible land use. The Applicant's EIS identifies that the project is permissible in accordance with the Infrastructure SEPP and has regard for the objectives of the Greater Hume LEP. In particular, the EIS states:

“For the life of the proposal, the development site would harness a renewable natural resource (solar energy). The activity would impact on land availability for primary production, however, would be developed in a way that would minimise fragmentation and alienation of resource land and minimise land use conflict. Being reversible and involving limited ground disturbance, it would not remove the potential to use the land for primary production at the end of the life of the development. Upon decommissioning of the proposal, the development footprint would be rehabilitated to restore land capability to pre-existing agricultural use.”

85. The Commission notes the Department's assessment of the Project's compatibility with surrounding land uses in paragraphs 5.1.5 - 5.1.7 of the Department's AR:

“...the introduction of solar energy generation would contribute to a more diverse local industry, thereby supporting the local economy and community. In addition, the proposed solar farm would encourage renewable energy development which is consistent with the Greater Hume Local Strategic Planning Statement 2018.

The project is consistent with the Department's Riverina Murray Regional Plan 2036, which identifies the development of renewable energy generation as a future growth opportunity for the region.

The Department considers that the development would not fragment or alienate any resource lands in the LGA, as the land could be easily returned to agricultural land following decommissioning as the inherent agricultural capability of the land would not be affected in the long term."

86. The Commission notes the Department's view as stated in Paragraph 5.1.23 of the Department's AR that:
- "...the proposed solar farm represents a reasonable use of the land that is generally consistent with the broader and specific land use planning objectives for the site and the region under relevant planning instruments and strategies."*
87. The Commission is of the view that the proposed land use is appropriate for the site for the reasons set out in Paragraphs 84–86, and in section 4.4.4 above. The Commission finds that the proposed solar farm is generally consistent with the land use planning objectives for the site and the region under relevant planning instruments and strategies.
88. The Commission understands that the Department of Primary Industries is currently undertaking a review of the agricultural mapping program across NSW to assist with identifying important agricultural land. The mapping is yet to be finalised, exhibited or adopted by the NSW Government and therefore the Commission agrees with the Department that this should not be considered in the assessment of this project.

Impact on Agricultural Land

89. Paragraph 5.1.12 of the Department's AR identifies that *"while the site is not mapped as Biophysical Strategic Agricultural Land (BSAL), the Department notes that both Council and many members of the public considered that the site should be classified as prime or important agricultural land"*. This view was held albeit the land being mapped as Class 4 under the existing *Land and Soil Capability Mapping in NSW*. Class 4 land is described in the AR as *"land with moderate to severe limitations for some land uses, requiring specialised management practices, expertise, inputs and technology to prevent soil and land degradation."*
90. Paragraph 5.1.4 of the Department's AR states the following in relation to the Class 4 assessment of the land:
- "Importantly, the assessment is based on soil sampling and assessment undertaken in accordance [with] the Land and Soil Capability Assessment Scheme (OEH 2012) and a subsequent agricultural impact statement (AIS) prepared by Riverina Agriconsultants. The assessment validated the mapped Class 4 land (moderate limitations), which can support grazing but requires active management to sustain cultivation on a rotational basis. DPI Agriculture has accepted the conclusions of the soil and agricultural studies and agreed that the productivity of the land is limited due to waterlogging issues."*
91. Paragraph 5.1.19 of the Department's AR states:
- "The inherent agricultural capability of the land would also not be affected by the project due to the relatively low scale of the development. To this end, the Department has included requirements to maintain the land capability of the site (including groundcover and maintaining grazing within the development footprint), and to return the land to agricultural use following decommissioning."*
92. The Applicant provided a report to the Commission on 5 March 2021 prepared by McMahon Earth Sciences which was undertaken to assess the land at the subject site. The report further validates that the land is Class 4 and is not BSAL.

93. The Commission acknowledges that the loss of agricultural land was a key concern raised during submissions and raised in the public meeting as identified in section 3.4. In addition, the Commission notes that DPI Agriculture has accepted the conclusions of the soil and agricultural studies undertaken deeming the land to be Class 4.
94. Paragraph 5.1.16 of the Department's AR identifies that the Applicant proposes to manage the land for sheep grazing during the operation of the development and that only 25% of the site would be removed from agricultural production for the operational term of the development.
95. Paragraph 5.1.17 of the Department's AR also identifies that the project amendment which removed a 313ha section of the project north of Cummings Road will ensure large portions of the broader site remain in commercial agricultural production.
96. Paragraph 5.1.20 of the Department's AR states "*Neoen would be required to return the land back to existing levels of agricultural capability and the Department has included rehabilitation objectives in the recommended conditions to maintain the productivity of the agricultural land during the construction and operation of the project, and to fully reinstate the agricultural capability of the land following decommissioning of the project.*"
97. Regarding potential cumulative impacts, Paragraph 5.1.21 of the AR identifies that "*the development footprint of the project combined with other operational, approved and proposed SSD solar farms in the Riverina Murray region would be approximately 8,000 ha. The loss of 8,000 ha of agricultural land represents a very small fraction (0.09%) of the 9.1 million ha of land being used for agricultural output in the Riverina Murray region, and would result in a negligible reduction in the overall productivity of the region.*"
98. Paragraph 5.1.22 of the AR identifies that "*If all four proposed SSD solar projects within Greater Hume LGA proceed, they would have a combined development footprint of approximately 2,000 ha, which is approximately 0.59% of the 335,000 ha of land being used for agriculture within the Greater Hume LGA.*"
99. Furthermore, Paragraph 5.1.23 of the Department's AR states the following:
"The potential loss of a small area of cropping and grazing land in the region must be balanced against:
- *the broader strategic goals of the Commonwealth and NSW governments for the development of renewable energy into the future;*
 - *the environmental benefits of solar energy, particularly in relation to reducing greenhouse gas emissions; and*
 - *the environmental benefits of solar energy in an area with good solar resources and capacity in the existing electricity infrastructure."*
100. The Commission agrees with the Department's AR and finds that the potential loss of a small area of cropping and grazing land represents a reasonable use of the land in the circumstances. Furthermore, the Commission agrees with paragraph 5.1.19 of the AR, which states that the inherent agricultural capability of the land would not be affected by the project due to the relatively low scale of the development and that the cumulative loss of agricultural land within the Greater Hume LGA would not be substantial enough to warrant concern.
101. In order to ensure the agricultural capacity of the site is maintained during the operation of the Project, the Commission imposes Schedule 3, Condition 12, which requires the establishment of ground cover (within three months following completion of any construction or upgrading) with appropriate perennial species, weed management and maintaining grazing where possible.
102. The Commission also imposes Schedule 3, Condition 34, which requires the preparation of a decommissioning and rehabilitation plan for the development within 3 years of the commencement of operation.

4.6.2 Impacts on neighbouring agricultural activities

103. The Commission acknowledges that the potential impacts of the project on neighbouring agricultural activities was a key concern raised by the community in submissions and in representations made at the public meeting. Concerns raised included potential impacts on livestock and cropping from the spread of weeds, increased flooding, erosion, and potential changes to the microclimate resulting from the solar panels, also referred to as the “Photovoltaic Heat Island Effect” (PVHI).
104. Paragraphs 5.1.26 – 5.1.27 of the Department’s AR state the following in relation to PVHI:
- “While evidence shows that solar panels can increase air temperatures above solar panels a study commissioned by Greater Shepparton Council on the Shepparton Solar Farm (referenced in Neoen’s EIS) found that lateral temperatures drop very quickly from the perimeter of a solar farm in part due to natural convections, which take warm air upwards”.*
- The study found that changes to air temperatures would be negligible within 30 m of the development footprint, and that any impacts would be further reduced once vegetation screening at the project boundary became effective. In addition, Neoen has located the development footprint more than 30 m away from the boundary of adjacent private properties.”*
105. Paragraph 5.1.28 of the Department’s AR states that “with the implementation of the recommended conditions of consent, including setback distances and vegetation screening, the project would not significantly impact the agricultural operations of neighbouring landholders given the relatively low impacts associated with the solar farm”.
106. Paragraph 5.1.29 of the Department’s AR states that “The Department has recommended strict land management conditions to control the growth of weeds, reducing the potential spread of weeds to neighbouring properties. This groundcover would be required to be maintained to an acceptable standard, to reduce the risk of erosion and loss of soil from the project site.”
107. The Commission agrees with the Department’s views in relation to the impacts on neighbouring agricultural activities. Accordingly, the Commission has imposed Schedule 3, Condition 10, with minor amendments. This condition requires the Applicant to establish landscape screening at the location outlined in Appendix 1 of the consent.
108. The Commission also imposes Schedule 3, Condition 12 as identified in Paragraph 101 above, which requires the maintenance of ground cover with appropriate perennial species, weed management and maintaining grazing where possible.

4.6.3 Visual Amenity

109. The Commission acknowledged that visual impact is a key concern raised by the community in submissions and in representations made during the public meeting. The Commission notes that paragraph 5.2.11 of the Department’s AR states:
- “Concerns about visual impacts were raised in approximately half (49%) of the public submissions objecting to the project. These concerns included the proximity of the project to surrounding residences and potential impacts on the scenic quality, landscape and rural outlook of the area due to multiple proposed solar farms within the locality. Council also raised concerns about visual impacts specifically to R14 and R17. Some submissions (6%) raised concerns regarding the potential visual impacts associated with glint and glare from the project.”*
110. The Applicant’s EIS and Amendment Report include a visual impact assessment (VIA) based on 12 representative viewpoints, including photomontages from nine surrounding residences that were initially identified to have potential visual impacts and three public viewpoints (at Weeamera Road, Cummings Road and Morgan’s Lookout). The VIA found that due to distance, topography and vegetation, it is not likely that the project would be visible from any other residences.

111. Table 5 of the Department's AR summarises the anticipated visual impacts to surrounding residences, including the proposed setback distances of the development to each residence, mitigating factors and a visual impact rating. This includes R9, R17, R19, R24 and R33.
112. The Department's AR identifies (in paragraph 5.2.8) that the Applicant has proposed the following avoidance and mitigation measures to reduce the potential visual impacts on surrounding receivers:
- *“removing all project infrastructure north of Cummings Road, which has removed infrastructure in the vicinity of residences R8 and R29;*
 - *setting back project infrastructure from residence R24 by a further 60 m, providing a minimum separation distance of 498 m between the project and the residence;*
 - *supplementary riparian screening in the vicinity of R17 and R19 to increase habitat connectivity and quality and reduce visual impacts;*
 - *setting back project infrastructure from R33 by a further 120 m, providing a separation distance of 250 m;*
 - *reaching an agreement with the landowner for R14;*
 - *retaining the native vegetation within the site; and*
 - *planting vegetation screening along sensitive parts of the site boundary in order to screen views of the project from nearby receivers and road users. All proposed screening would be to a minimum depth of 5 m with more extensive landscaping to a depth of 20 m to reduce views from the most affected receivers (i.e. R9, R17, R24 and R33);*
 - *using non-reflecting materials and paints to reduce glint and glare; and*
 - *minimising unnecessary night-time lighting of the development and using lower intensity lighting to reduce disturbance to neighbouring properties.”*
113. Paragraph 5.2.33 of the Department's AR identifies that for assessment purposes R14 is an associated residence as the Applicant was able to reach an agreement with the landowner to accept the impacts of the project. This was confirmed in writing to the Department.
114. Paragraph 5.2.2 of the Department's AR states that R24 is located 498m west and 780 metres north of the nearest solar infrastructure as the project would have an 'L' shape in the vicinity of this residence. However, in the Applicant's letter received on 5 March 2021 the following clarification was provided:
- “The distance to the non-associated receiver R24 located on the western side of the proposed Culcairn Solar Farm is approximately 544 metres. This distance is measured between the residential dwelling of R24 and the proposed security fence within Culcairn Solar Farm's development footprint. The distance of 498 metres may have resulted from measuring the distance from the development footprint to the R24 icon on the map, which is located further away from the house amongst other buildings owned by this receiver... The distance from the residential dwelling of R24 to the proposed security fence directly south is 1,155 metres.”*
115. The Commission accepts that, with the setbacks and other factors identified in paragraph 5.2.2 of the Department's AR, the visual impact on R24 will be low.
116. In relation to cumulative impacts, paragraphs 5.2.41 to 5.2.43 of the Department's AR state the following:
- “R17 would be located approximately 800 m from the development footprint of each projects. Due to the distance, existing vegetation and topography of the area, views from R17 to both projects would be limited and both projects would be relatively low lying, with panels up to 4.2 m in height.*
- The Department notes that Neoen has committed to further mitigate visual impacts to R17 by supplementing the existing riparian vegetation with 20 m deep planting along the onsite watercourses to increase habitat connectivity and mitigate loss of paddock trees which would further minimise visual impacts by screening the views of solar panels for R17.”*

117. The Commission acknowledges that while R17 may be subject to cumulative impacts, it agrees with the Department's assessment provided in paragraph 5.2.44 of the Department's AR, that the impacts would not be significant.
118. The Commission agrees that the Applicant's amendments reduce visual impact. The Commission acknowledges paragraph 5.2.46 of the Department's AR which notes additional avoidance and mitigation measures proposed to be implemented to reduce the potential visual impacts of the project on surrounding residences and to preserve the visual quality of the area. The Commission finds that this is appropriate in ensuring that visual impacts on nearby properties are adequately mitigated and that the rural character and visual quality of the area would be preserved as far as practicable.
119. The Commission imposes Schedule 3, Condition 19(a) and 19(b) which requires the Applicant to minimise the visual impacts of the development by reducing the potential for any glint, glare or reflection and to ensure the visual appearance of all ancillary infrastructure blends with the natural surroundings as far as possible.
120. The Commission also imposes Schedule 3, Condition 10 (with amendments) which relates to the Applicant's responsibility to establish and maintain landscape screening. Amendments to ensure visual impacts of the project are addressed include a requirement that the landscape screening must be properly maintained with a replanting programme being undertaken where the vegetation fails to establish.

4.6.4 Biodiversity

121. The Commission acknowledges that the Project's potential impact on threatened species habitat, biodiversity corridors and the loss of vegetation was a concern raised by the community in submissions and in representations made during the Public Meeting.
122. The Commission acknowledges that Council in its submission to the Department dated 20 February 2020, stated that while it was satisfied with the rigour of the biodiversity impact assessment, the removal of 0.61 hectares of native vegetation and paddock trees demonstrates the constrained nature of the site and that it is therefore unsuitable for the project.
123. The Applicant's EIS included a Biodiversity Development Assessment Report (BDAR) dated 27 November 2019, prepared by NGH. The BDAR followed the Biodiversity Assessment Methodology (**BAM**) as the development triggered the NSW Biodiversity Offsets Scheme under the NSW *Biodiversity Conservation Act 2016* (BC Act). The BDAR also addresses the assessment requirements of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (**EPBC Act**).
124. The BDAR was further updated in response to a submission received from DPIE's Biodiversity Conservation Division (**BCD**) during public exhibition of the Application and submitted with the Amendment Report in June 2020. It included details of design refinements which further avoided removal of an additional 22 paddock trees and reduced the clearing of vegetation from 0.61ha to 0.37ha. A further revised BDAR was submitted accompanying amendments made in October 2020.
125. As per Table 6 of the Department's AR, the Commission notes that the Project has been designed to avoid:
 - 70.53 ha out of 70.86 ha of native vegetation;
 - 72 out of 136 paddock trees occurring within the site;
 - all 16 farm dams present on site which would remain in situ and continue to provide riparian habitat; and
 - any impact to Billabong Creek by removing all infrastructure north of Cummings Road.
126. Table 3 of the Department's AR identifies that the Project would disturb 0.33 ha of native vegetation, including:

- “0.32 ha of Blakely’s Red Gum – Yellow Box grassy tall woodland (Box-gum Woodland) (PCT 277) in low to moderate condition;
 - 0.01 ha of River Red Gum herbaceous-grassy very tall open forest wetland (PCT 5); and
 - 64 paddock trees, including 49 hollow bearing, consisting of Box-gum Woodland (46 trees, including 35 hollow bearing) and Western Grey Box tall grassy woodland (PCT 76) (18 trees, including 14 hollow bearing).”
127. Table 6 of the Department’s AR states that “BCD acknowledged that further avoidance of removal of Box-gum Woodland and additional proposed connectivity plantings within the site would reduce the potential for further fragmentation due to the loss of scattered paddock trees and minimise the likelihood for significant impacts on the vegetation community.”
128. The Commission is satisfied that the Applicant has designed the Project to avoid and minimise adverse impacts on biodiversity, and that all unavoidable impacts would be adequately offset in accordance with the NSW Biodiversity Offsets Scheme or appropriate mitigation measures.
129. The Commission agrees with the Department’s recommendation and imposes Schedule 3, condition 15, which requires the Applicant to prepare a Biodiversity Management Plan for the development in consultation with BCD, and to the satisfaction of the Planning Secretary prior to the commencement of construction.

4.6.5 Traffic and Transport

130. The Commission acknowledges that traffic impacts on local roads were a concern raised by the community in submissions. In particular, the impact of the project on local roads, insufficient road upgrades and potential cumulative impacts associated with the Walla Walla Solar Farm if both projects are to be constructed at the same time was raised.
131. The Commission agrees with the Department’s AR that the main increase in traffic volumes is expected to occur during the 18-month construction period where up to 100 heavy vehicle movements per day and 150 light vehicle movements per day can be expected during the peak period. During operations, traffic generated would be negligible with up to five heavy and five light vehicle movements per day expected.
132. The Commission notes the letter from Neoen dated 5 March 2021 which states that water trucks were not included in the total heavy vehicle counts quoted in the EIS report. Given that there will be a requirement of up to 62 ML of water required for the project, the Commission has included water carts in Schedule 3 Condition 1 and Condition 2 so that they are required to be counted as part of the daily total heavy movements along the transport route.
133. The Commission notes that TfNSW are required to be consulted on the final design of the non-operational rail corridor crossing of Weeamera Road which the Applicant has committed to.
134. In relation to cumulative impacts, the Commission acknowledges that the Applicant’s Traffic Impact Assessment indicates that Benambra Road would have sufficient capacity to accommodate traffic volumes for both the Walla Walla Solar Farm and the Project based on a worst-case scenario. Furthermore, the Commission notes that this was also acknowledged by Council in the meeting undertaken on 25 February 2021.
135. The Commission agrees with the Department’s recommendations outlined in Table 3 of the Department’s AR in relation to traffic and transport which include:
- “Construct the primary site access point as rural property access type treatment.
 - Upgrade Weeamera Road between the access to the Quarry and the site access point to a 7 m wide sealed pavement.
 - Restrict the number of vehicles during construction, upgrading or decommissioning to the peak volumes identified within the EIS.
 - Ensure the length of vehicles does not exceed 26 m.

- *Prepare and implement a Traffic Management Plan in consultation with TfNSW and Council, including measures that would be implemented to address road safety, details of the employee shuttle bus service and strategies to encourage use of the shuttle bus service and car-pooling.*
- *Undertake road dilapidation surveys and repair any damage identified to the satisfaction of Council.”*

The above recommendations have subsequently been imposed by the Commission as corresponding conditions of consent within Schedule 3, Conditions 2 to 9 (with minor amendments).

4.6.6 Noise

136. Table 3 of the Department’s AR identifies the following in relation to noise generation during construction of the project:

“During construction two residences located within 1 km (R19 and R33) were predicted to experience noise levels above the ‘noise management level’ of 50 dB(A) in the EPA’s Interim Construction Noise Guideline (ICNG) and would be 54 and 63 dB(A) respectively. These exceedances would be short-term (approximately two to three weeks), intermittent (two to three hours per day) and limited to standard daytime construction hours.

Noise generated during construction, upgrading and decommissioning activities would be below the ‘highly noise affected’ criterion of 75 dB(A) in the ICNG at all nearby residences.”

137. The Commission notes that the Applicant has committed to implement the noise mitigation work practices set out in the ICNG, including scheduling activities to minimise noise, using quieter equipment, and establishing a complaints handling procedure.
138. Table 3 of the Department’s AR identifies that *“under the normal operation of the project during day and night hours there would be no exceedances in operational noise levels (i.e. the noise level would not exceed 35 dB(A) LAeq,15min for any non-associated residences)”*.
139. Notwithstanding the above, Table 3 of the Department’s AR identifies that under the worst-case scenario modelled during night-time hours, at full output, the Battery Energy Storage System (BESS) would potentially be audible at receiver R33. Paragraph 5.2.24 of the Department’s AR notes that this residence is currently unoccupied and in a dilapidated state.
140. In relation to cumulative noise impacts, the Department’s AR states *“Consideration of cumulative noise impacts found that no receivers would experience exceedances of the noise affected criterion in the event that both the Walla Walla Solar Farm and Culcairn Solar Farm are approved and constructed concurrently.”*
141. To ensure that no adverse impacts in relation to noise result on any non-associated residences, the Commission adopts the Department’s recommendation for a condition requiring the Applicant to comply with the project noise trigger level at any non-associated residences. The Commission acknowledges that the Applicant would need to consider this in choosing final equipment and may need to implement noise mitigation measures (such as noise attenuation or enclosures) to achieve these levels.
142. The Commission has therefore imposed the Department’s recommendation of Schedule 3, Condition 17.

4.6.7 Water and Erosion

143. Paragraph 4.5.8 of the Department’s AR identifies that DPIE Water made a number of recommendations regarding the Project’s water supply, on-site watercourse crossings and riparian buffers, flood mitigation, and erosion and sediment control.
144. The Commission notes the Department’s comments in Table 6 of the Department’s AR regarding the following in relation to water demand:

“...the project would require around 62 megalitres (ML) of water during construction (primarily for dust suppression) and 2.5 ML of potable water. Around 1 ML per year of water would be required during operation (primarily for panel cleaning and plant watering). A static water supply (40,000 litres) would be established and maintained for fire protection.

It is proposed that the water would be sourced from the Greater Hume Shire (sic) Council standpipe and/or the nearby Quarry which has been agreed in principle with Council and the Quarry, and stored on-site in a tank.”

145. The Commission agrees with the Department and is of the view that subject to the recommended conditions, the Project would not result in any significant impacts on water resources. The Commission has therefore imposed Schedule 3, Conditions 24 to 26 to ensure that water resources are appropriately managed and to ensure there is sufficient water for all stages of the development.

4.6.8 Historic Heritage & Aboriginal Heritage

146. The Commission acknowledges that surveys undertaken identified 52 Aboriginal heritage sites, including 26 isolated finds, 16 artefact scatters, five cultural sites, three modified trees, one cultural stone and one potential deposit (PAD). The Commission notes that the Project avoids 21 items and that the Applicant has committed to salvage and relocate the 31 impacted items prior to the commencement of construction.
147. The Commission agrees with the Department’s AR recommended conditions requiring the Applicant to salvage and relocate Aboriginal items in consultation with Registered Aboriginal Parties (RAPs), to cease works and notify the NSW Police and OEH if human remains are identified over the life of the Project, and to prepare and implement a heritage management plan, including procedures for unexpected finds in consultations with RAPs.
148. The Commission agrees with the Department and finds that the Project would not significantly impact the heritage values of the locality. The Commission therefore agrees with the Department’s recommendation and imposes Schedule 3, Condition 21 which requires the Applicant to ensure that the Project does not cause any direct or indirect impacts on the Aboriginal heritage items identified in Appendix 6, Table 1 of the Consent or any Aboriginal heritage items located outside the approved development footprint.
149. The Commission notes that surveys undertaken by the Applicant did not identify any historic heritage items on site and is therefore satisfied that there will not be any adverse impacts in this respect.

4.6.9 Dust

150. The Commission notes that Public submissions raised concern that the Project would result in unacceptable dust generated during construction and during operation of the Project.
151. The Commission agrees with the Department’s AR that dust generated during construction of the Project could be suitably managed via the use of water trucks and covering loads as well as daily visual monitoring during construction of the Project, which the Applicant has committed to.
152. The Commission therefore imposes the Department’s recommended condition for dust minimisation via Schedule 3, Condition 18.

4.6.10 Hazards

153. The Commission notes that riparian vegetation along Back Creek is classified as bushfire prone land under the Greater Hume LEP and NSW RFS mapping. The Commission agrees with the Department that bushfire risks can be suitably controlled through the implementation of standard fire management procedures and recommendations made by the NSW Rural Fire Service and Fire and Rescue NSW. The Commission has therefore imposed Schedule 3, Condition 30 which sets out specific Bush Fire Management requirements for the Project.

154. The Commission agrees with the Department's recommendation and imposes Schedule 3, Condition 27 which requires a Fire Safety Study for the development prior to commencing construction of the battery storage facility. This is to be prepared in consultation with Fire and Rescue NSW and Rural Fire Services.
155. The Commission is satisfied that the development does not constitute a potentially hazardous industry based on the preliminary hazard analysis undertaken for the project.

4.6.11 Workforce Accommodation & Local Employment

156. The Amended Report dated 3 June 2020 states that the Applicant has committed to a local participation and procurement plan via a local participation plan.
157. Table 6 of the Department's AR states that 500 workers would be required for the construction of the project in which the Applicant has committed to sourcing local and regional workers where possible in accordance with the local participation and procurement plan that has been committed to.
158. During the Commission's meeting with the Applicant on 25 February 2021 details of job generation resulting from the project were further clarified. In a presentation provided by the Applicant it was confirmed that the project would generate 350 full-time jobs during construction and seven full time jobs during operations.
159. The Commission agrees with the Department's assessment that in order to manage cumulative impacts associated with multiple projects in the region and to encourage the employment of locally sourced workers, The Applicant should develop an Accommodation and Employment Strategy, in consultation with Council.
160. The Commission has therefore imposed the Department's recommended conditions under Schedule 3, Condition 33 requiring the Applicant to prepare an Accommodation and Employment Strategy for the Project in consultation with Council, with consideration given to prioritising the employment of local workers.

4.6.12 Socio-economic impacts

161. The Commission notes that concerns were raised via community submissions that following construction, there will be a lack of employment opportunities and potential negative impacts to agricultural related businesses. However, as identified in the Department's AR, while 67 community objections raised economic impacts issues, it is noted that 28 community submissions supporting the project noted positive socio-economic impact and benefits to the local economy as a result of the project creating jobs and supporting local business.
162. Table 3 of the Department's AR states:

"The project would generate direct and indirect benefits to the local community, including:

 - *up to 500 jobs during the 18 months construction period and up to 10 ongoing full-time jobs during operation of the project;*
 - *expenditure on accommodation and businesses in the local economy by workers who would reside in Greater Hume LGA or the adjoining Albury and Wagga Wagga LGAs; and*
 - *the procurement of goods and services by Neoen and associated contractors."*
163. As per the Applicant's presentation provided at the meeting with the Commission on 25 February 2021, it was confirmed that the Project would generate 350 full time jobs during construction and 7 full time jobs during operations.
164. The Applicant provided further revised figures in relation to employment generation in a letter to the Commission dated 5 March 2021. This indicated that 350 on-site jobs and 1,546 indirect jobs would be created during construction, and 6 on-site and 113 indirect jobs during operations.

165. The Commission also acknowledges that the Applicant has negotiated a VPA with Council totalling \$5 million including a one-off payment of \$150,000 at the commencement of construction and \$150,000 annual contribution per annum during operation (to be adjusted for inflation).
166. In addition, the Commission notes that the Applicant has committed a further \$4.8 million towards a community benefit fund to be administered by a non-for-profit community foundation to support locally based projects. The Commission agrees with the Department's assessment that the Project would generate a range of benefits for the local community and has therefore adopted the Department's recommended conditions of consent requiring the Applicant to enter into a VPA with Council under Schedule 2, Condition 12.
167. The Commission notes the Applicant's statement during the meeting with the Commission on 25 February 2021 that if the Project is approved it is the Applicant's intention to continue community engagement.

The Commission have imposed Schedule 3, Condition 13, which requires a community communication strategy to be prepared by the Applicant prior to commencement of construction. The Applicant is required to implement the community communication strategy for the duration of construction.

4.6.13 Subdivision

168. Table 6 of the Department's AR states that the Applicant proposes to subdivide and then amalgamate two lots (Lots 70 and 71 DP 753764) located in the south-western portion of the project site. The newly created northern lot would be used for project infrastructure and the southern lot (approximately 32 ha) would continue to be used for agricultural practices. In addition, the proposed subdivision of Lot 54 DP 573735 in the middle of the site for the internal substation is required to enable the proposed substation to be transferred to TransGrid (approximately 4 ha).
169. The Commission acknowledges that the project will result in the creation of a lot less than the minimum lot size of 100ha stipulated by the Greater Hume LEP 2012. Notwithstanding the departure from development standards with the LEP, under s 4.38(3) of the EP&A Act, development consent for the Project can be granted despite the subdivision component being prohibited.
170. The Commission agrees with the Department's assessment of the subdivision proposal within Table 6 of the Department's AR and imposes the recommended conditions including the requirement for the Applicant to prepare and submit detailed subdivision plans to the Secretary for approval.

4.6.14 Land Values

171. Table 6 of the Department's AR states the following:

- *“property values are influenced by a number of factors;*
- *there is no clear evidence to suggest that solar farms in NSW are adversely affecting property values;*
- *the project is permissible with development consent under the Infrastructure SEPP;*
- *a detailed assessment of the merits of the project has found that the project is unlikely to generate significant economic, environmental or social impacts;*
- *the impacts of the project can be further minimised by imposing suitable conditions on the project, and requiring a range of standard mitigation measures, such as vegetation screening, to be implemented; and*
- *the Department considers that the visual impacts of the project on the surrounding residences and road users would not be significant.”*

172. The Commission notes that absent expert evidence, community concerns regarding the diminution of land values is not a planning matter for consideration, and agrees with the Department's assessment in relation to the impact of solar farms on land values.

4.6.15 Decommissioning and Rehabilitation

173. The Commission notes that public submissions raised concerns about decommissioning, rehabilitation and use of land.
174. The Department states that it *"has developed strict conditions for solar farms to cover this stage of the project life cycle, including clear decommissioning triggers and rehabilitation objectives such as restoring land capability to its pre-existing agricultural use"*.
175. The Commission has therefore imposed conditions relating to rehabilitation under Schedule 3, Condition 34, which require the preparation of a Decommissioning and Rehabilitation Plan within three years of commencement of operation to the satisfaction of the Planning Secretary. The Applicant must decommission and rehabilitate the Site in accordance with the approved Decommissioning and Rehabilitation Plan. In addition, this condition requires the Applicant to rehabilitate the Site to the satisfaction of the Planning Secretary within 18 months of the cessation of operations.
176. The Commission has also amended the Department's recommended conditions to specify that all solar farm infrastructure, including underground cabling, is to be removed following the cessation of operations.

4.6.16 Objects of the EP&A Act & Public Interest

177. In this determination, the Commission has carefully considered the Objects of the EP&A Act. The Commission agrees with the Department's assessment of the Application against the Objects of the EP&A Act provided at Appendix H of the AR (Statutory Considerations), which finds that the Application can be approved in a manner that is consistent with those Objects. The Commission adopts the Department's assessment and is of the view that the Application is in accordance with the Objects of the EP&A Act.
178. The Commission finds the Application has been assessed in accordance with relevant environmental planning instruments and is capable of complying with the required mitigation measures to achieve consistency with the Objects of the EP&A Act.

4.6.17 Public Interest

179. Paragraphs 7.1.12 and 7.1.13 of the Department's AR state:

"The Department considers that the project achieves an appropriate balance between maximizing the efficiency of the solar resource development and minimising the potential impacts on surrounding land uses and the environment. The project would also stimulate economic investment in renewable energy and provide flow-on benefits to the local community, through job creation, capital investment and substantial contributions to Council for community enhancement projects.

On balance, the Department considers that the project is in the public interest and is approvable, subject to the recommended conditions of consent."

180. The Commission finds that on balance, and when weighed against the Objects of the EP&A Act, principles of ecologically sustainable development (ESD) and benefits, the impacts of the Project are acceptable and capable of being appropriately mitigated through the measures required under the conditions of consent imposed by the Commission. The Commission is of the view that the Project is in the public interest.

5 CONCLUSION: THE COMMISSION'S FINDINGS AND DETERMINATION

182. The views of the community were expressed through public submissions and written comments (received as part of exhibition and as part of the Commission's determination process), as well as in oral presentations to the Commission at the public meeting on 2 March 2021. The Commission carefully considered all of these views as part of making its decision. The way in which these concerns were taken into account by the Commission is set out in section 4 above.
183. The Commission has carefully considered the Material before it.
184. For the reasons set out in this Statement of Reasons, the Commission has determined that the Application should be granted consent subject to conditions which have been designed to:
- prevent, minimise and/or offset adverse environmental impacts;
 - set standards and performance measures for acceptable environmental performance;
 - outline how the land will be returned to its current use following decommissioning and rehabilitation of the site;
 - require regular monitoring and reporting; and
 - provide for the ongoing environmental management of the development.
185. The reasons for the Decision are given in this Statement of Reasons for Decision dated 25 March 2021.



Andrew Hutton (Chair)
Member of the Commission



Professor Zada Lipman
Member of the Commission

APPENDIX A

Main Components of the Project (Source: Department's AR, dated January 2021)

Aspect	Description
Project summary	<p>The project includes:</p> <ul style="list-style-type: none"> • approximately 900,000 single axis tracking solar panels (up to 4.2 m high) and up to 67 inverters (up to 2.5 m high); • a lithium-ion battery storage facility (up to 100 MW / 200 MWh); • an on-site substation and connection to TransGrid's 330 kV transmission line; • site office, maintenance building (up to 4 m high), switch room (up to 4 m high), storage shed (up to 6 m high), internal access tracks, laydown area, car park, vegetation screening and security fencing (up to 3.5 m high); • subdivision of land within the site for the solar farm, substation and to be retained by the landowner.
Project area	<ul style="list-style-type: none"> • 1,039 hectares (ha) (with an 892 ha development footprint)
Access route	Over-dimensional and heavy vehicles would access the site via the Olympic Highway, Benambra Road and Weeamera Road.
Site entry and road upgrades	<ul style="list-style-type: none"> • A new site access would be constructed off Weeamera Road with a Rural Property Access type treatment. • Upgrades to a section of Weeamera Road from north of the access to the Hurricane Hill Quarry to the site access point (approximately 1.4 km) to a 7 m sealed pavement to allow for two-way heavy vehicle movements.
Construction	<ul style="list-style-type: none"> • The construction period would last for up to 18 months, including a peak period of eight to 12 months. • Construction hours would be limited to Monday to Friday 7 am to 6 pm, and Saturday 8 am to 1 pm.
Operation	The expected operational life is approximately 30 years. However, the project may involve infrastructure upgrades that could extend the operational life.
Decommissioning and rehabilitation	The project includes decommissioning at the end of the project life, which would involve removing all infrastructure.
Hours of operation	Daily operations and maintenance would be undertaken Monday to Friday 7 am to 6 pm, and on Saturday 8 am to 1 pm.
Employment	Up to 500 construction jobs and up to 10 operational jobs.
Capital investment value	\$636.6 million