



CULCAIRN
SOLAR FARM

NEOEN

Independent Planning Commission Briefing

25 February 2021

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The image shows two white hard hats. The one in the foreground is in sharp focus and has the word 'NEOEN' printed on its side in a blue and yellow font. The second hard hat is in the background, slightly out of focus. The overall scene is lit with a soft, blueish light, suggesting an industrial or construction environment.

NEOEN

About us
& the project



About Neoen

- Founded 2008 in France; operating in Australia since 2012
- One of Australia's leading renewable energy power producers
- Long-term owner and operator of wind, solar & battery storage projects across Australia
- 11 operating wind, solar & battery storage projects, including 4 solar farms in NSW - over 2.3 GW in operations or under construction
- Developer of choice with 2 community-led projects where farmers asked Neoen to develop wind and solar on their land.
- Undertake sheep grazing on all operating solar farms.



*They're very good,
community-minded people.*

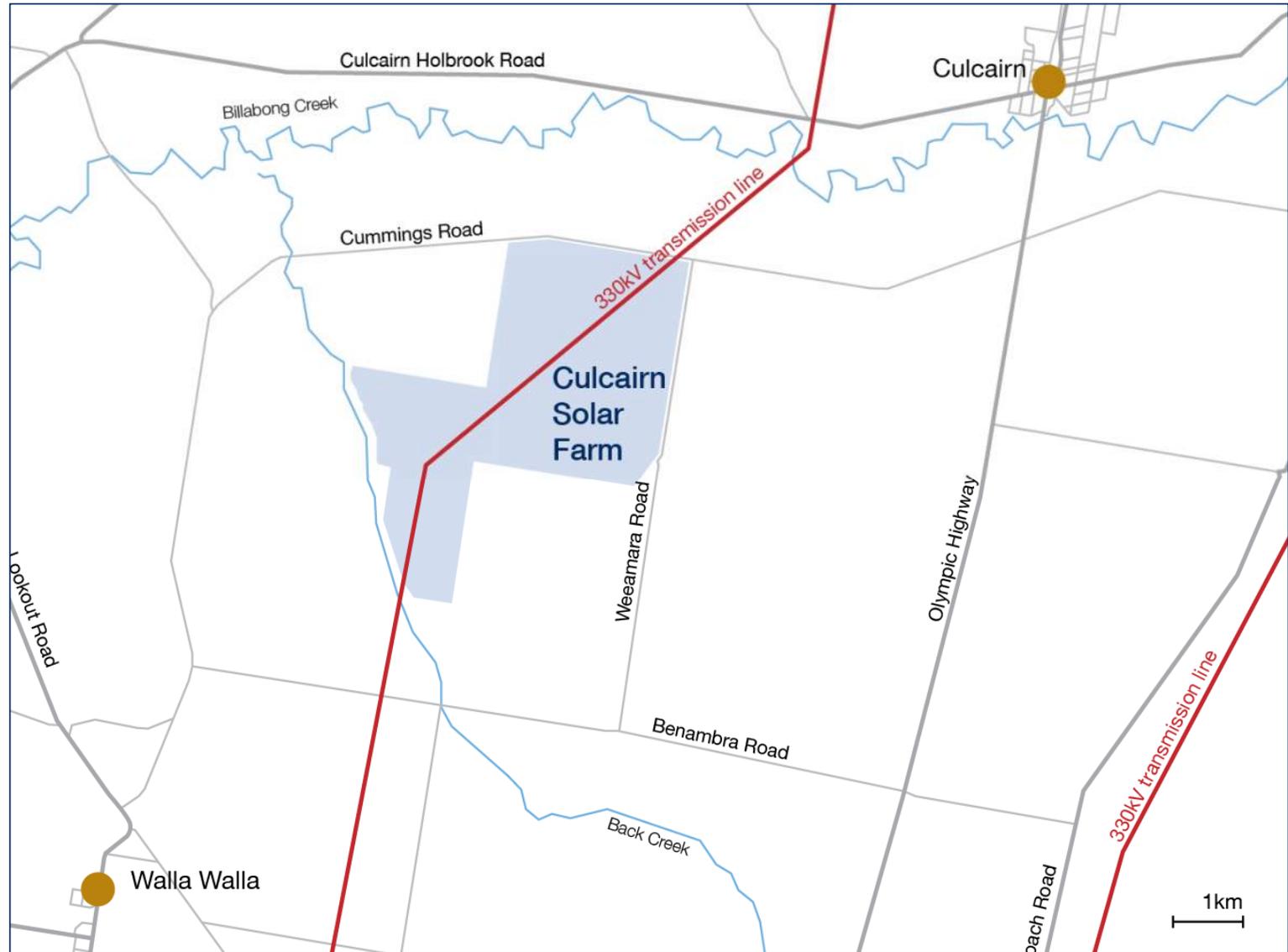
Eddie Rover, Neighbour at Numurkah Solar Farm, VIC

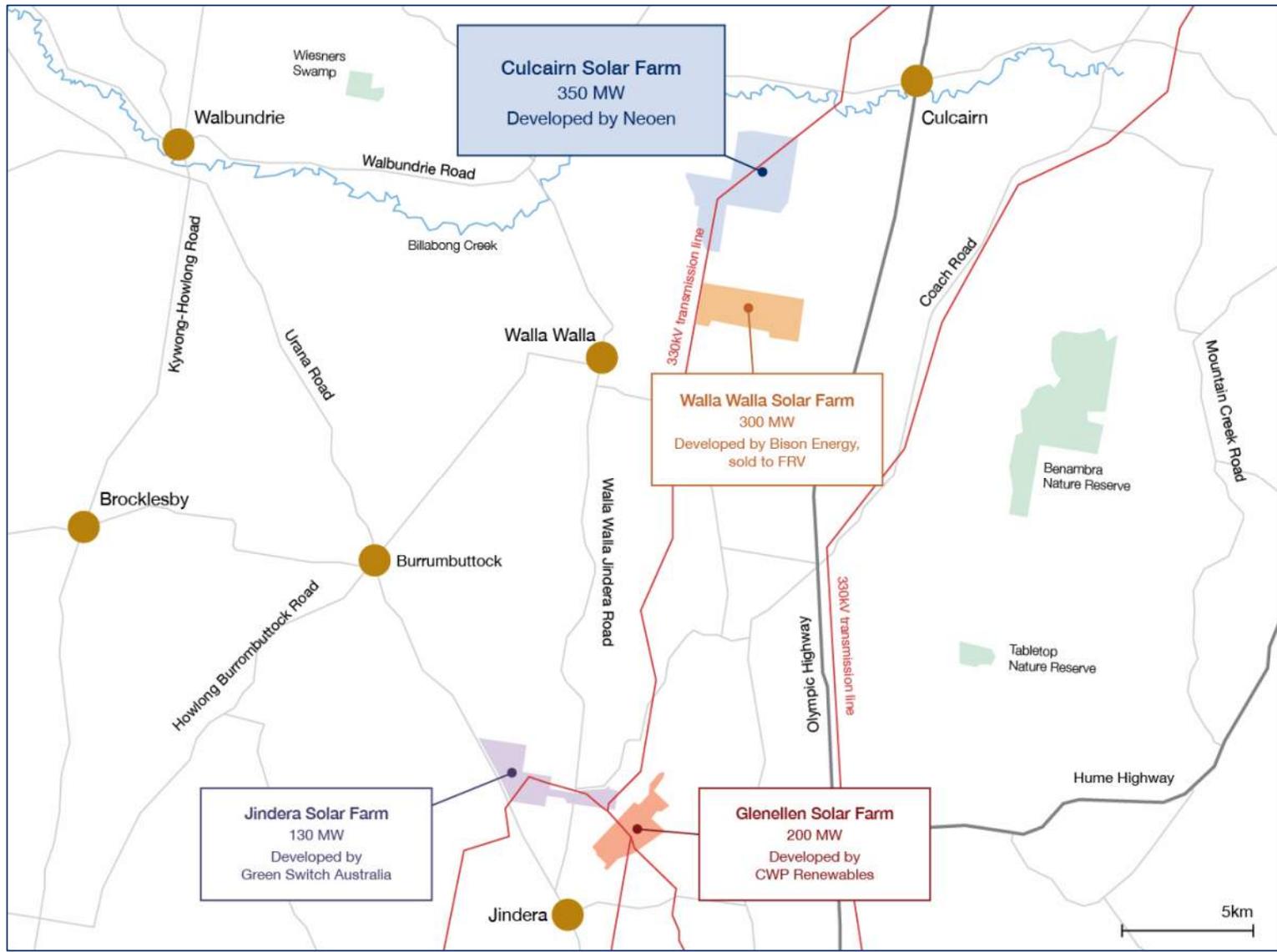
CULCAIRN

SOLAR FARM

Location

- Approximately 4km south-west of Culcairn
- 50km north of Albury
- 80km south west of Wagga
- Located within the Greater Hume Shire Local Government Area
- TransGrid's 330 kV transmission line crosses the site
- Directly north of proposed Walla Walla Solar Farm





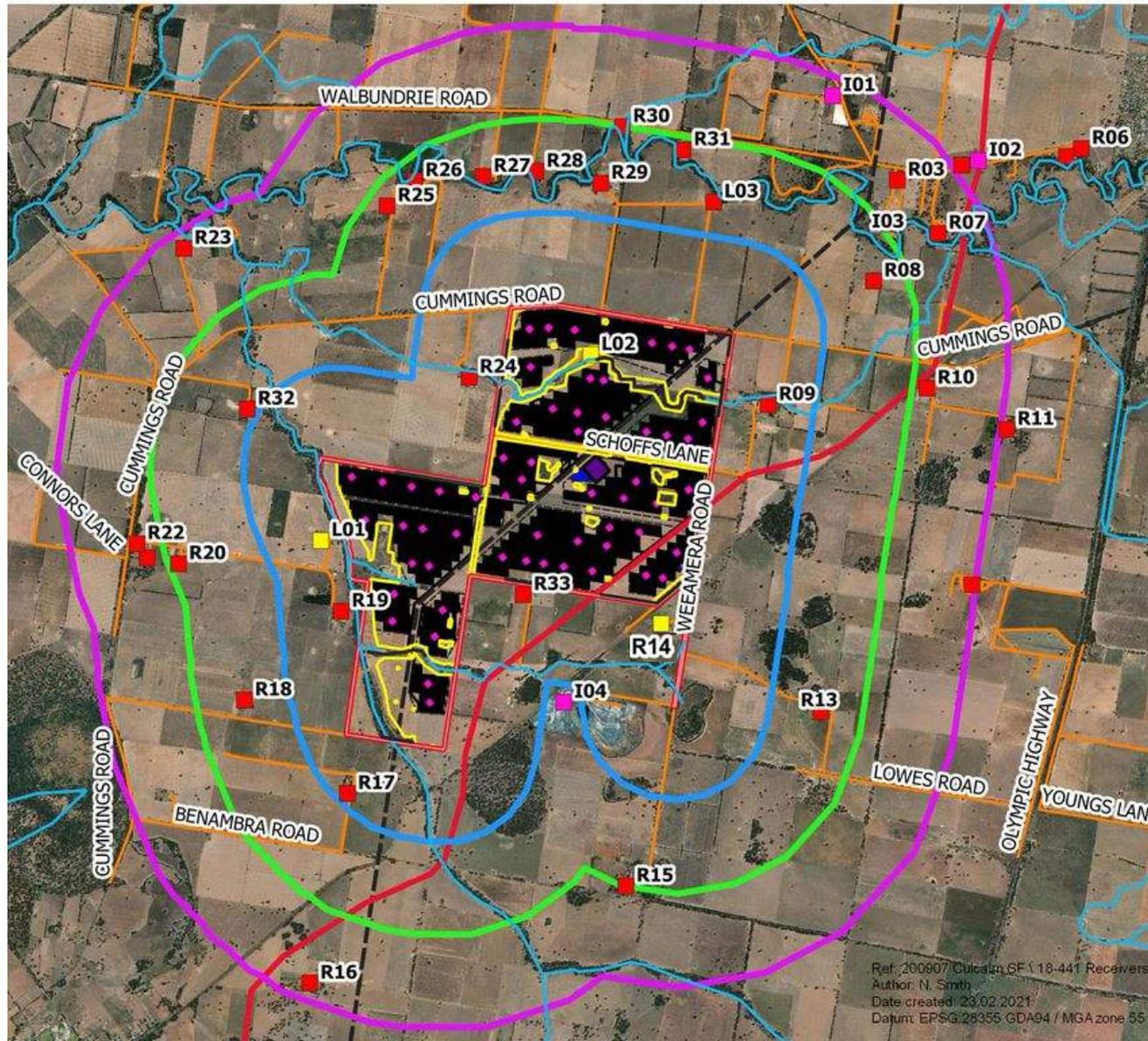
CULCAIRN SOLAR FARM

One of four solar projects proposed in the region

This map was developed to help address community confusion

Reasons for choosing the site

- ✓ Close proximity to TransGrid's 330kV transmission line
- ✓ Close to transport routes & Olympic Hwy
- ✓ Good solar yield
- ✓ Minimal vegetation removal required
- ✓ Low visual impact
- ✓ Low biodiversity impact
- ✓ Low Aboriginal Heritage impact
- ✓ Low number of non-involved receivers within close proximity (5 within 1km)



18-441 Culcairn Solar Farm Sensitive Receivers

Legend

- 1 km Radius
- 2 km Radius
- 3 km Radius

Sensitive Receivers

- associated
- industry
- non associated

- Access
- Compound
- Development Footprint
- Development Site
- Fences
- Internal Roads
- Inverters
- Panel Array

Vegetation Screening

- Visual
- Biodiversity
- Battery Storage
- Control Building
- Substation

- Existing Transmission
- Gas Pipeline
- Roads
- Waterways

Data Attribution
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 © ESRI 2021

0 1 2 km

Ref: 200907_Culcairn_SF_18-441_Recipients
 Author: N. Smith
 Date created: 23.02.2021
 Datum: EPSG:28355 GDA94 / MGA zone 55

CULCAIRN

SOLAR FARM

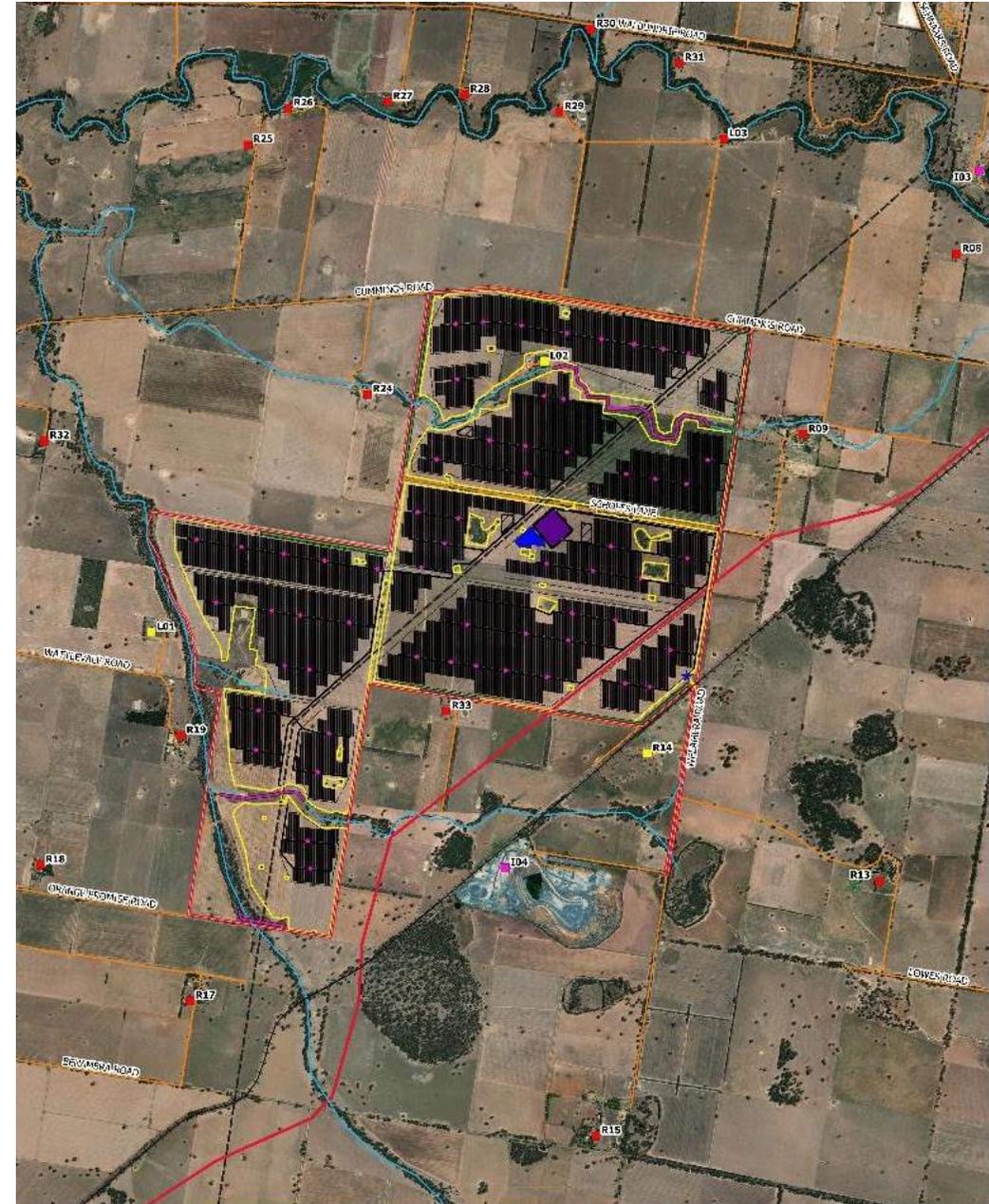


350MW AC solar farm

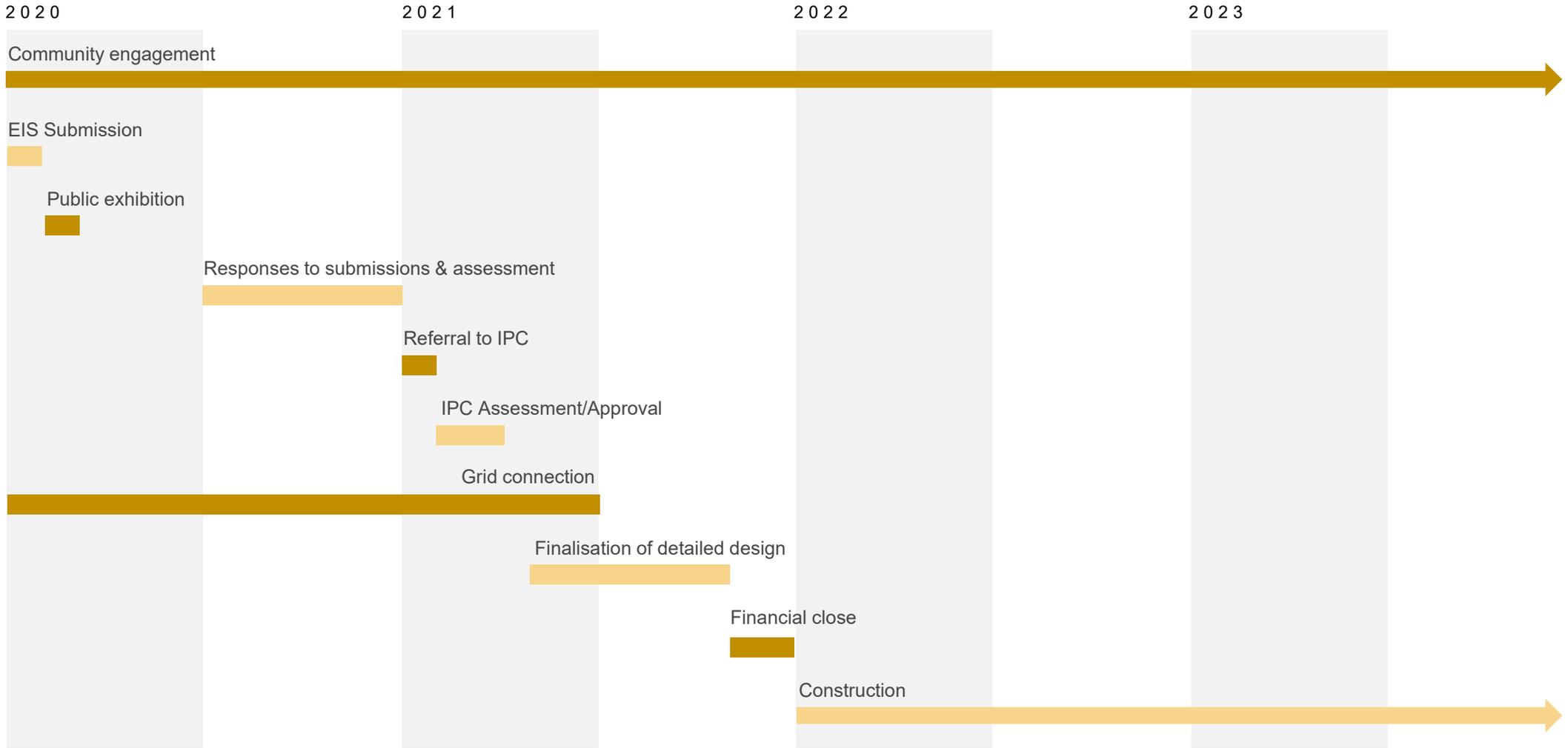


200MWh battery storage

- Expected 800,000 MWh of solar generation annually
- Single axis tracking PV solar panel configuration
- Approximately 900,000 PV modules
- On-site substation
- Project site: 1,039 ha privately-owned agricultural land
- Solar footprint: 892 ha
- RU1 zoned: utilised for cropping with intermittent grazing
- 5 residences located within 1km of the development site



PROPOSED PROJECT TIMELINE



KEY	EIS Environmental Impact Statement	IPC Independent Planning Commission
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Response to public submissions



Summary of submissions

- EIS received 228 submissions (146 objections, 81 supporting and 1 providing comment)
- Greater Hume Shire Council objected to the project due to concerns about loss of agricultural land & amenity impacts to nearby neighbours
- Mayor originally voted in favour of the project, but broke the tie and voted against the project in order to ensure additional scrutiny of the project
- 11 Government agencies provided advice

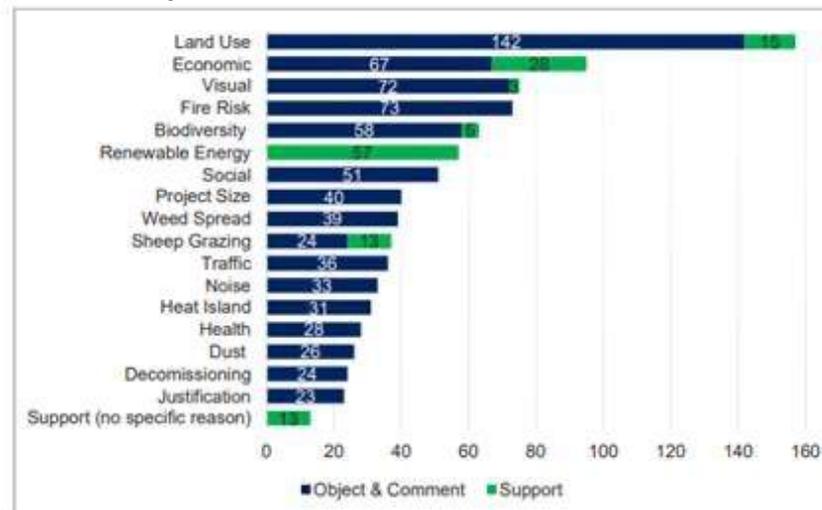
Table 4 | Summary of Community Submissions

Submitter	Object*	Support	Comment	Total
< 2 km	53 (52)	19	0	72
2 – 5 km	25 (24)	9	1	35
5 – 25 km	36 (32)	13	0	49
> 25 km	32 (30)	40	0	72
TOTAL	146 (138)	81	1	228

* Numbers in brackets represent unique submissions

Note: there are 5 non-associated dwellings within 1km; 14 between 1 and 2km

Community concerns



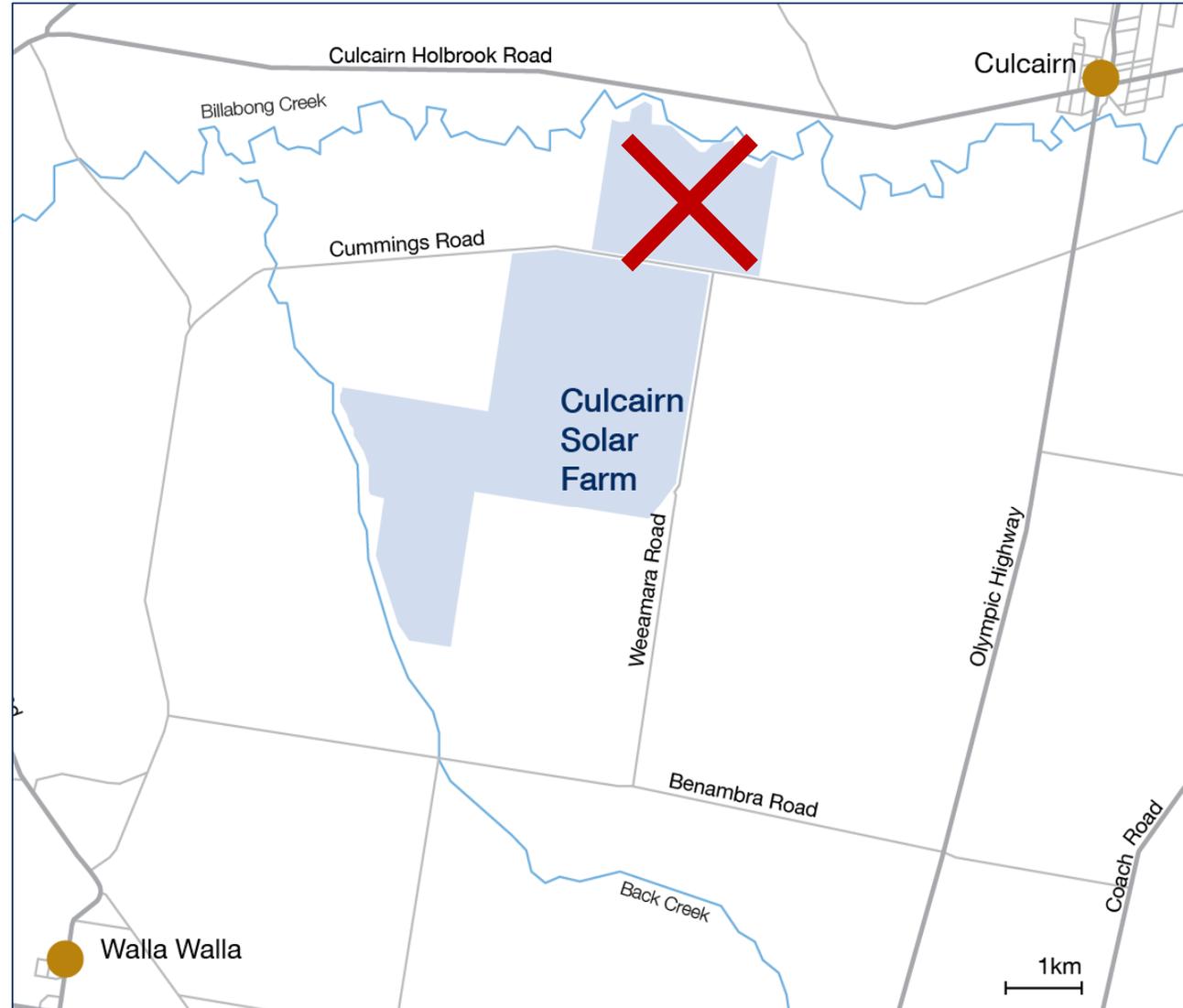
Community themes of support

Theme of Support	Quantity
Renewable energy generation and subsequent environmental benefit	51
Local and regional economic benefits	45
Stance against opposition tactics	32
Continuation of agricultural (sheep grazing) practices within the project site	23
Community Benefit Fund to boost local development initiatives	19
General support for the project	17
Site suitability	17
Beneficial long term implications for the community	4
Additional tree planting efforts to boost local environment	3

Response to submissions

1. Land use & project size

Concern	<ul style="list-style-type: none">• Loss of productive agricultural land• Overall project footprint too big
Theme of support	<ul style="list-style-type: none">• Continuation of agriculture possible with solar farm• Suitable site for solar
Neoen's response	<ul style="list-style-type: none">• Reduction of footprint through the removal of area north of Cummings Road (313 ha)• Reduction of development footprint of 23% to 892 ha• This area was removed as it is more agriculturally productive land and close to biodiversity of creek• No. of neighbours within 1km reduced from 14 to 5 and within 2km reduced from 34 to 14





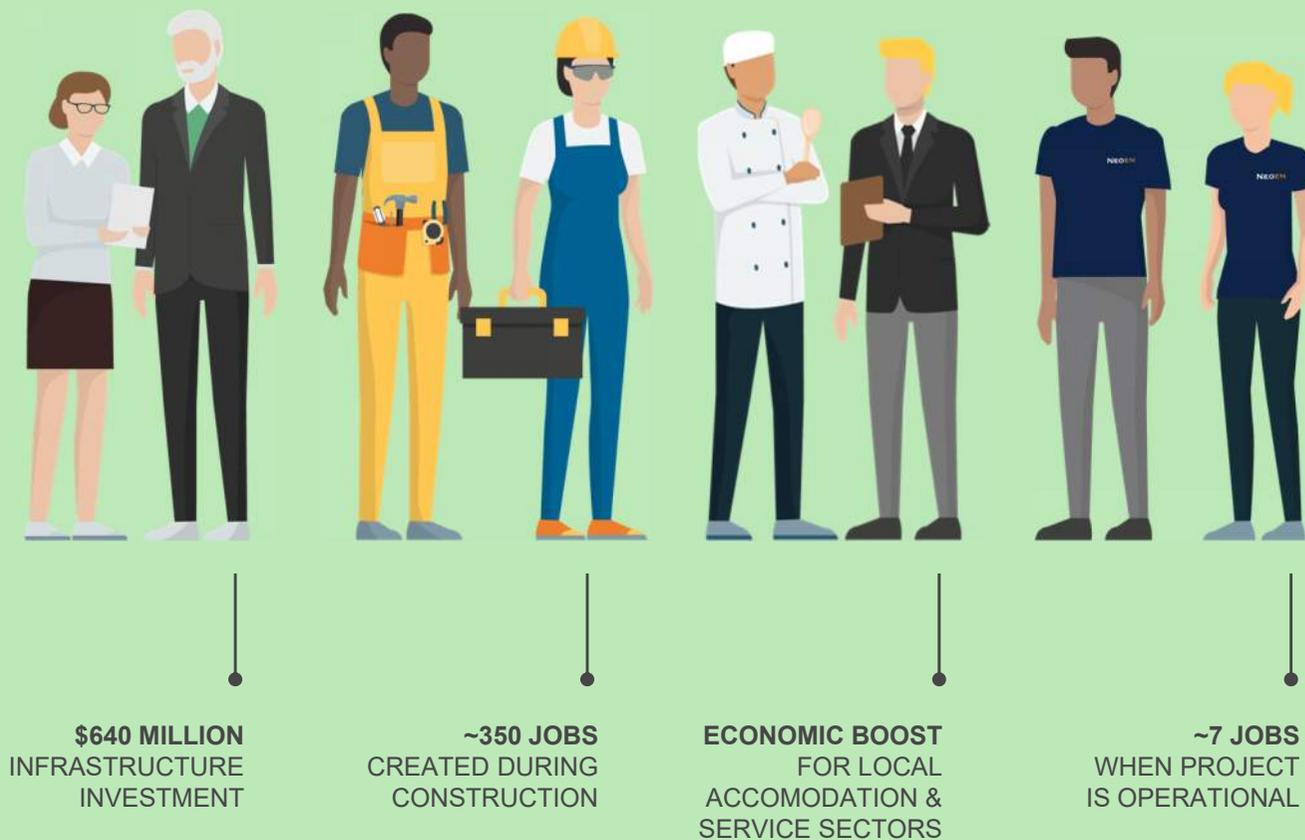
Agrisolar

- AIS indicates est. 10% of the development site would be removed from agricultural production during the operation of the solar farm with the remainder of the site being available for sheep grazing around the solar panels. Overall capacity reduced by est. 25%.
- Neoen and host landholders are committed to the continuation of sheep grazing
- Neoen has a strong proven ability to co-locate sheep within solar as evident at Dubbo, Parkes, Griffith, Coleambally and Numurkah Solar Farms



There are no issues with sheep-grazing co-existing with solar farms. Providing you have the right breed of merino or merino-cross and get stock numbers right, you can reach at least 80% of normal stocking rates. It's an opportunity and a win-win for farmers and renewable energy producers.

Tom Warren, Farmer and Landowner
Dubbo Solar Hub in NSW



Response to submissions

2. Economic impact

Concern	<ul style="list-style-type: none"> • Benefits to community limited to short-term uplift during construction • Property devaluation and insurance liability for neighbours
Theme of support	<ul style="list-style-type: none"> • Local and regional economic benefits in terms of jobs, services & local business • Community will benefit through the funds committed
Neoen's response	<ul style="list-style-type: none"> • \$177million direct spend estimated during construction, of which \$60% million is expected to be spent in Riverina/Murray region • \$15 million direct project spend estimated during operations, of which 90% is expected to be within Riverina/Murray region • Potential to deliver 350 FTE jobs during construction and 7 FTE jobs jobs during operations • Significant indirect impact as spending circulates through wider economy • Local Participation Plan

Expected economic benefits for New South Wales

Predicted impact on NSW's economy when it's being built



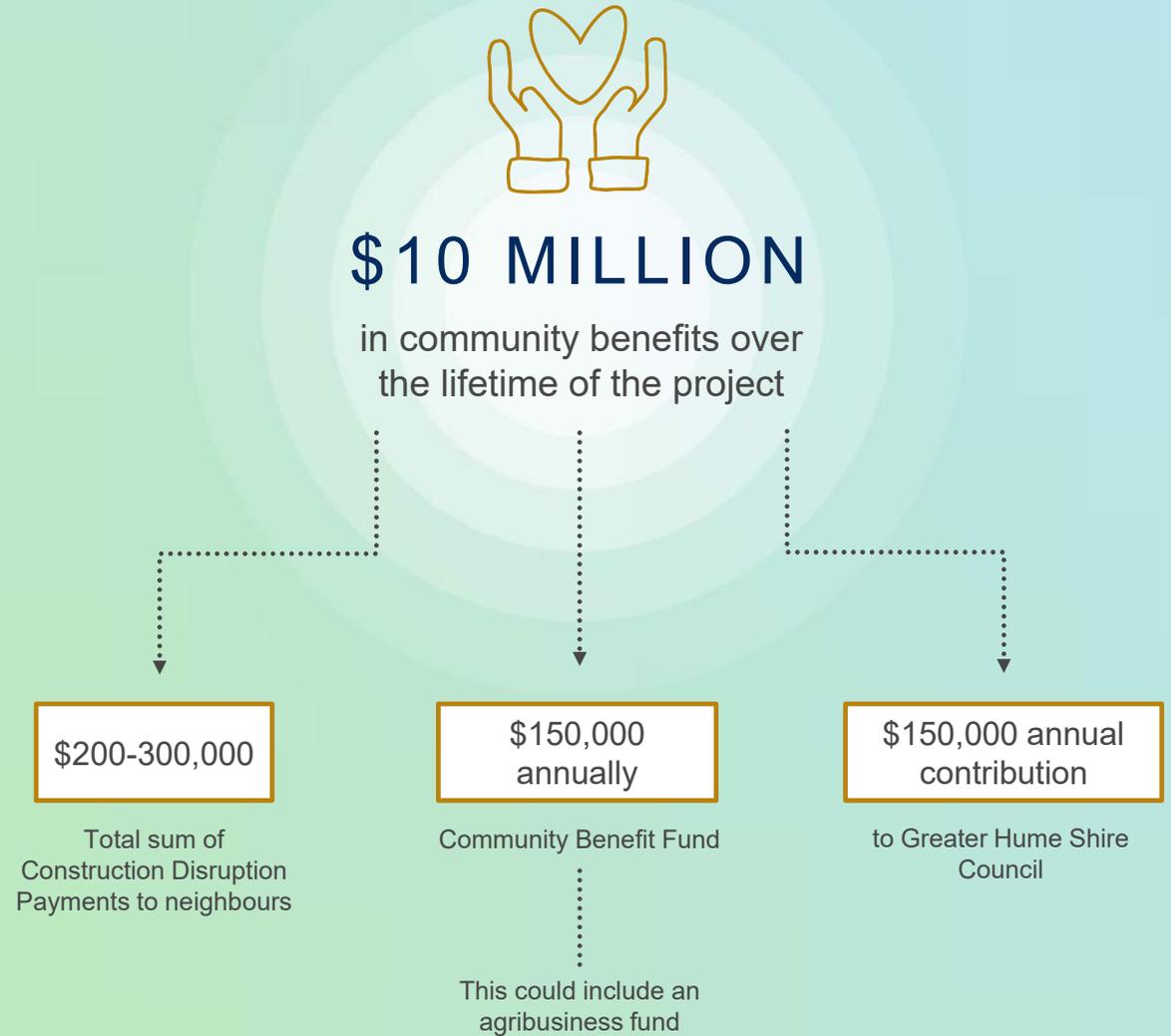
Predicted impact on NSW's economy during operations



Response to submissions

3. Social impact

Concern	<ul style="list-style-type: none"> Local division
Theme of support	<ul style="list-style-type: none"> Beneficial long-term implications for the community Community Benefit Fund to boost local development initiatives Local and regional economic benefits
Neoer's response	<ul style="list-style-type: none"> Over 130 conversations held with neighbours and local community members to identify and address concerns Information booklet was developed to address concerns Community Relations Plan developed Voluntary Planning Agreement with Greater Hume Shire Council Commitment to Community Benefit Fund Construction Disruption Payments for potentially affected residences



In-depth & responsive Community Engagement

2018

Site identification



Landowner meetings

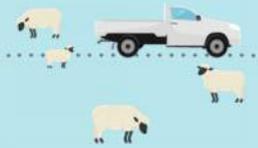
Dedicated project website, email and phone number created

Greater Hume Shire Council meeting



Neighbour meetings

Online feedback form and info flyers made available



NSW Farmers event



Over 130 'kitchen table' discussions mostly in people's homes

Michelle Croker appointed as our local community engagement expert

In response to the drop-in session, we made a change to 'consultation as usual.'



Community drop-in session & feedback survey

2019

Neighbour meetings

Greater Hume Shire Council consultation



Focus on 3 groups: near neighbours, wider community & business community



Site visit to Numurkah Solar Farm, VIC

2020



Discussions led to a total community benefit sharing sum of \$10 million

Community engagement to discuss key concerns/issues



Community booklet developed to map & propose solutions to concerns

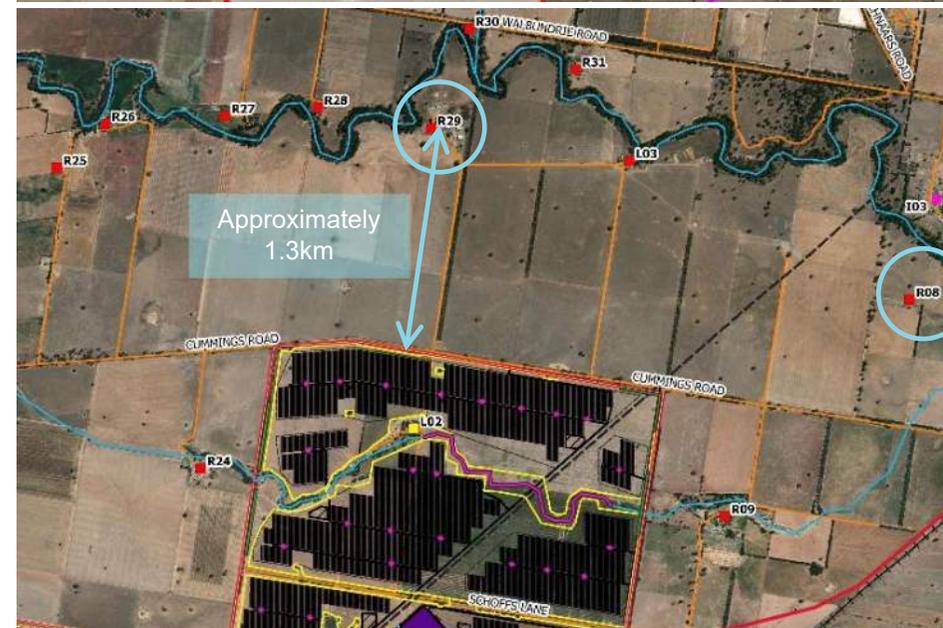


Response to concerns: e.g. reducing project size

Response to submissions

4. Visual impact

Concern	Negative impact on visual amenity
Theme of support	Farming has changed the landscape over the last 150 years. Negative impact is overstated and will not be what is claimed.
Neoen's response	<p>Neoen has proposed the following avoidance and mitigation measures:</p> <ul style="list-style-type: none"> • smaller footprint has removed infrastructure in the vicinity of residences R8 and R29 • supplementary riparian screening in the vicinity of R17 and R19 • reaching an agreement with the landowner for R14 • retaining the native vegetation within the site • prepare a detailed Landscaping Plan





Photomontage view of proposed infrastructure

Response to R24 concerns

- Setback distance from R24 increased by 60m
- Tree screening increased



Extent of visual impact



Photomontage view with proposed tree screening



Response to R33 concerns

- Additional screening
- Additional setback

Proposed Vegetative Screening
Visual Screening



Photomontage view of proposed infrastructure



Extent of visual impact



Photomontage view with proposed tree screening



Response to submissions

5. Biodiversity impact

Concern	<ul style="list-style-type: none"> Impact on biodiversity through clearing of paddock trees, loss of habitat for threatened species
Theme of support	<ul style="list-style-type: none"> Impacts to biodiversity have been reduced with a change to the design of the development footprint within various stages of the proposal.
Neoen's response	<ul style="list-style-type: none"> Smaller footprint has removed infrastructure north of Cummings Road 51 ha native vegetation patches occur within development site, of which only 0.33 ha would be impacted Reduction in paddock trees impacted from 99 in the EIS to 64 following RTS Some trees within panel infrastructure have been further avoided by design 22 HBTs would no longer be impacted Retained vegetation within development site would be enhanced through ongoing rehabilitation

Table 3 | Summary of amendments to the project during the assessment process

Aspect	EIS (January 2020)	Final Proposed Project (October 2020)
Project site (ha)	1,351	1,039
Development footprint (ha)	1,126	892
Number of PV panels	1,100,000	900,000
Distance from R24 to solar panels	437	498
Native vegetation removal (ha)	0.61	0.33
Clearing of paddock trees	99	64
Upgrade to Weeamera Road, between the Quarry entry and the site access (approximately 1.4 km)	Widen to a 6 m paved seal	Widen to 7 m paved seal

Weed spread



Concern

Hairy panic

Theme of support

Hairy panic is already very common in the landscape as a result of past agricultural practices.

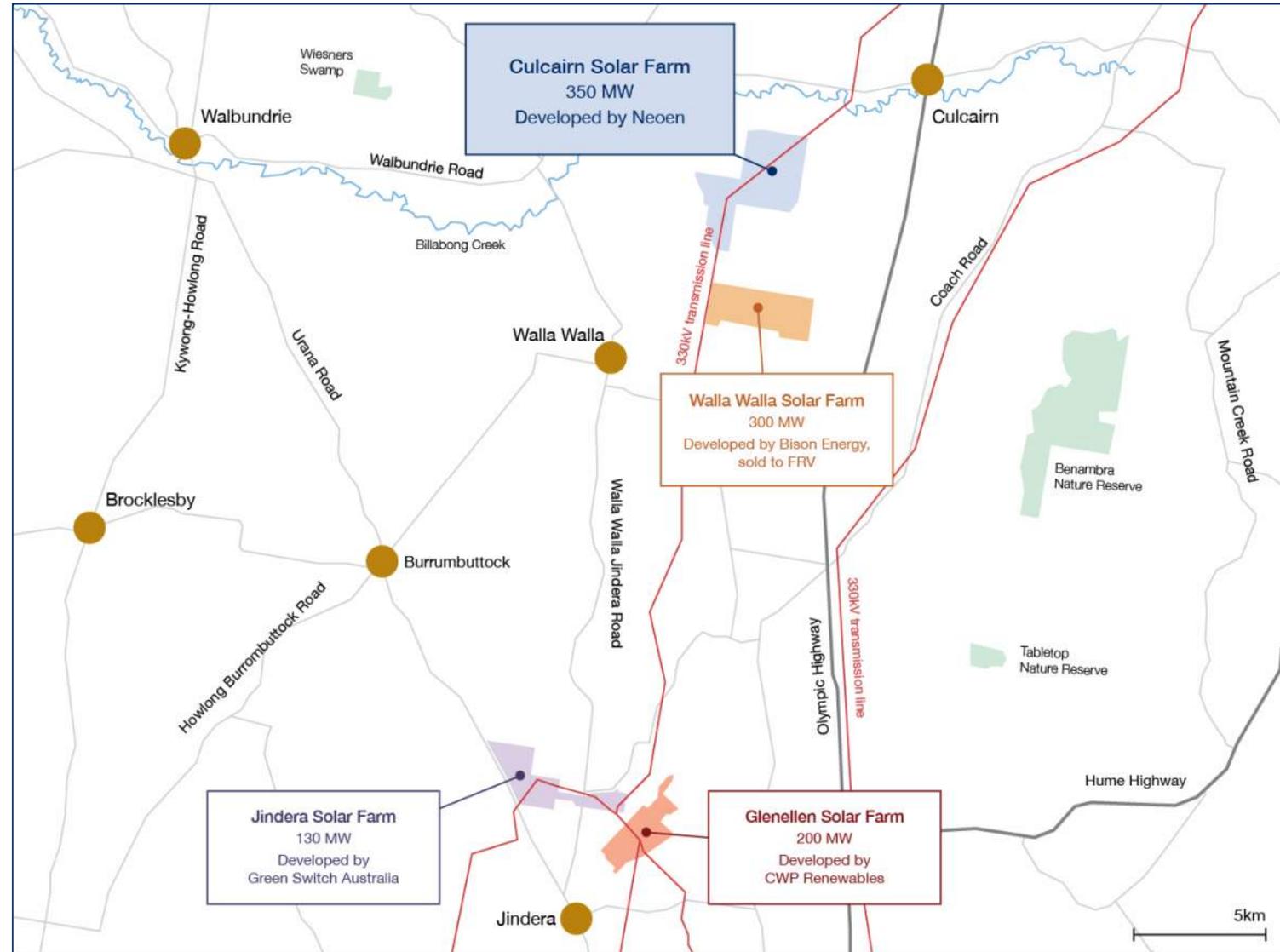
Neoen's response

- Neoen has proposed the following avoidance and mitigation measures to reduce the biosecurity impacts:
- Standard hygiene control measures to reduce biosecurity impacts during construction
- Ongoing weed control during operation
- Grazing beneath panels to control weeds
- Control of Hairy Panic would be of benefit to the operation of the proposal and welfare of stock

Response to Submissions

6. Cumulative Impacts

Concern	<ul style="list-style-type: none"> Cumulative Impacts of four projects
Theme of support	<ul style="list-style-type: none"> Vegetative screening will minimise visual impacts Loss of agricultural land is minimal
Neoen's response	<ul style="list-style-type: none"> Development footprint of all projects farms in region would be ~8,000 ha. This represents 0.09% of land being used for agricultural output in the Riverina Murray Region. Four projects in the Greater Hume LGA would represent 0.59% of land being used for agriculture in this LGA. Sheep grazing can occur under solar panels Community Benefit Fund tailored to Culcairn & Walla Walla community needs



Response to submissions

7. Fire risk & mitigation



Concern	<ul style="list-style-type: none">• Fire risk from electrical equipment in bushfire prone land; increase of ignition points
Theme of support	<ul style="list-style-type: none">• Providing additional fire mitigation measures
Neoen's response	<ul style="list-style-type: none">• On-site fire management workshop held at Numurkah Solar Farm on 18th March 2020 with representatives from the site operations team, Fire and Rescue NSW, Culcairn Fire Station, Country Fire Authority, Greater Hume Shire Council, Rural Fire Service Volunteer and Culcairn Rural Fire Service• Development of a Bush Fire and Management & Emergency Response Plan in consultation with local RFS to be implemented during construction, operation and decommissioning• Plan to include management of activities with a high risk of fire ignition, management of fuel loads, site access points and provision of adequate water supplies for fire protection.• Development of a comprehensive fire safety study (FSS) for the Battery Energy Storage System (BESS) in accordance with the requirement of the Hazardous Industry Planning Advisory Paper No.2 and in consultation with the FRNSW.

Contact



Joanna Murphy
Project Manager

Level 6, 16 Marcus Clarke Street
Canberra ACT 2601
M. +61 (0) 423 976 590
joanna.murphy@neoen.com



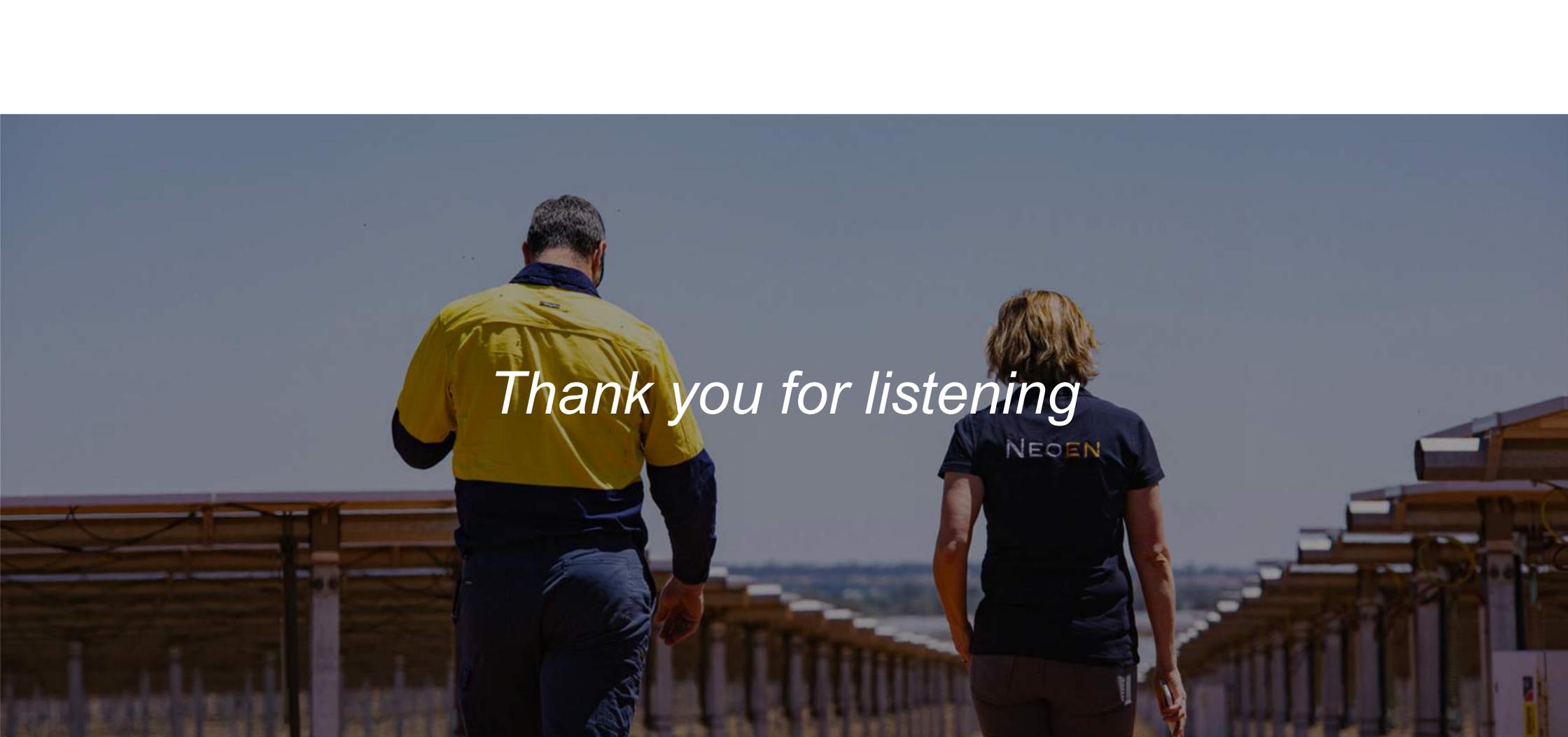
Garth Heron
Head of Development, Australia

Level 6, 16 Marcus Clarke Street
Canberra ACT 2601
M. +61 (0) 408 998 425
garth.heron@neoen.com



Lisa Stiebel
Head of Communications & Engagement

Level 6, 16 Marcus Clarke Street
Canberra ACT 2601
M: +61 (0) 438 529 202
lisa.stiebel@neoen.com



Thank you for listening

NEOEN

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