

Genevieve Daneel

From: Moody, Annie <Annie.Moody@santos.com>
Sent: Thursday, 10 May 2018 11:31 AM
To: Genevieve Daneel
Subject: RE: Exploration Licence PEL001: Proposed Solar Farm in Gunnedah

Thanks for advising Genevieve, much appreciated.

Rgds, Annie

Annie Moody | Team Leader Community and Land
Narrabri Gas Project | Asia, NSW & WA Oil
Telephone: (02) 6792 9035 | Direct: (02) 6792 9031 | Mobile: +61 407 759 264

From: Genevieve Daneel [mailto:gdaneel@pittsh.com.au]
Sent: Wednesday, 9 May 2018 3:32 PM
To: Moody, Annie <Annie.Moody@santos.com>
Cc: Jessica Berry <jberry@pittsh.com.au>; Malinda Facey <mfacey1@pittsh.com.au>
Subject: RE: Exploration Licence PEL001: Proposed Solar Farm in Gunnedah

Hi Annie,

To provide an update on the project discussed within the attached letter from Santos; The EIS for the Gunnedah Solar Farm has now been submitted to DP&E and is currently on public exhibition.

You will be able to review the documents on the DP&E Major Projects Website:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8658

If you have any further questions, please do not hesitate to get in contact - 0438 693 279.

Kind regards,
Genevieve

Genevieve Daneel

BSc(Hons)

Environmental Consultant

pitt&sherry

| M: 0438 693 279

E: gdaneel@pittsh.com.au | W: www.pittsh.com.au



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Genevieve Daneel

From: Chaffey - Jamie <jamiechaffey@infogunnedah.com.au>
Sent: Tuesday, 24 April 2018 10:30 AM
To: Genevieve Daneel
Cc: Malinda Facey; Pearson - Laura
Subject: RE: Request for Meeting - Gunnedah Solar Farm

Genevieve I appreciate your willingness to discuss your proposal in detail, I would like the briefing to be attended by all nine elected members of the Gunnedah Shire Council and senior executive team members.

Laura please work with Genevieve to lock in a mutually suitable date and time for this meeting to be held in our council chambers, preferably on a Wednesday after lunch.

Regards



Jamie Chaffey | Mayor Gunnedah Shire Council,
PO Box 63 (63 Elgin Street), GUNNEDAH NSW 2380
t 02 6740 2115 | **f** 02 6740 2119 | **e** jamiechaffey@infogunnedah.com.au
Find us at: www.infogunnedah.com.au or www.facebook.com/gunnedahshire

I acknowledge the Kamilaroi Aboriginal Nation as the traditional owners and custodians of the land on which I live, work and play. I pay my respect to Elders past and present and to the young leaders of tomorrow.

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From: Genevieve Daneel [<mailto:gdaneel@pittsh.com.au>]
Sent: Monday, 23 April 2018 5:13 PM
To: Chaffey - Jamie
Cc: Malinda Facey
Subject: Request for Meeting - Gunnedah Solar Farm

Dear Jamie,

I am writing to you on behalf of Photon Energy and Canadian Solar (the proponents), who are proposing to develop and operate a 150-megawatt (MWp) solar photovoltaic (PV) facility including ancillary works and associated infrastructure at 765 Orange Grove Road, Gunnedah (Gunnedah Solar Farm).

The Environmental Impact Statement for the Gunnedah Solar Farm was submitted to the Department of Planning and Environment (DP&E) on April 3rd 2018. It has now been approved by DP&E for public exhibition. The public exhibition period will begin on Friday 27th April and ends on Saturday 26th May 2018.

The proponents would like to organise a meeting with yourself to discuss the proposal and answer any questions you may have. If you are interested in participating in such a meeting, could you please provide indication of any availability you may have during the exhibition period.

I look forward to hearing your response,

Kind regards,
Genevieve

Genevieve Daneel

From: Pearson - Laura <laurapearson@infogunnedah.com.au>
Sent: Tuesday, 22 May 2018 5:15 PM
To: Genevieve Daneel
Subject: RE: Request for Meeting - Gunnedah Solar Farm

Hi Genevieve,

Thank you for your email and the copy of the presentation to council.

Will your team require any other resources for the presentation?

The Council Chambers where the presentation will be conducted has a PC and projection screens available.

The attendees of the meeting will include;

Eric Groth – General Manager
Jamie Chaffey – Mayor
Andrew Johns – Director of Planning and Environmental Services
Carolyn Hunt – Manager Development and Planning
Daniel Noble – Acting Director Infrastructure Services
Damien Connor – Chief Financial Officer
Gae Swain – Deputy Mayor
John Campbell – Councillor
Colleen fuller – Councillor
Owen Hasler – Councillor
Rob Hooke – Councillor
Ann Luke – Councillor
David Moses – Councillor
Murray O’Keefe - Councillor

Kind Regards,

Laura Pearson | Executive Assistant to General Manager and Mayor |
Gunnedah Shire Council, PO Box 63 (63 Elgin Street), GUNNEDAH NSW 2380
t 02 6740 2115 | f 02 6740 2119 | e laurapearson@infogunnedah.com.au

Find us at: www.infogunnedah.com.au or www.facebook.com/gunnedahshire



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Gunnedah Solar Farm: 765 Orange Grove Road



CanadianSolar

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INVESTMENTS



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State Significant Development Approvals Process



Initiation

- Request for Secretary's Environmental Assessment Requirements (SEARS)
- SEARS received

Assessment

- Environmental Impact Assessment (EIS)
- Including: Specialist site visit, community and stakeholder engagement, specialist reports complete & design finalized

Submission

- Submission of the Development Application (EIS) to Department of Planning and the Environment (DP&E)
- EIS Public Exhibition Period (31 days) ★ *Exhibition Period: 27/04/2018 – 26/05/2018*
- Prepare Submission Report in response to submissions within the exhibition period

Determination

- DP&E will assess the submission
- DP&E determination

Construction

- If approved, construction is anticipated to begin late 2018 – early 2019



Need and Justification for the Proposal

- Australia is a signatory - **United Nations Framework Convention on Climate Change** and the **Paris Agreement**.
- NSW and the Australian Government have developed renewable energy targets (RETs) and strategies to meet international agreement targets
- This proposal will contribute to meeting those targets

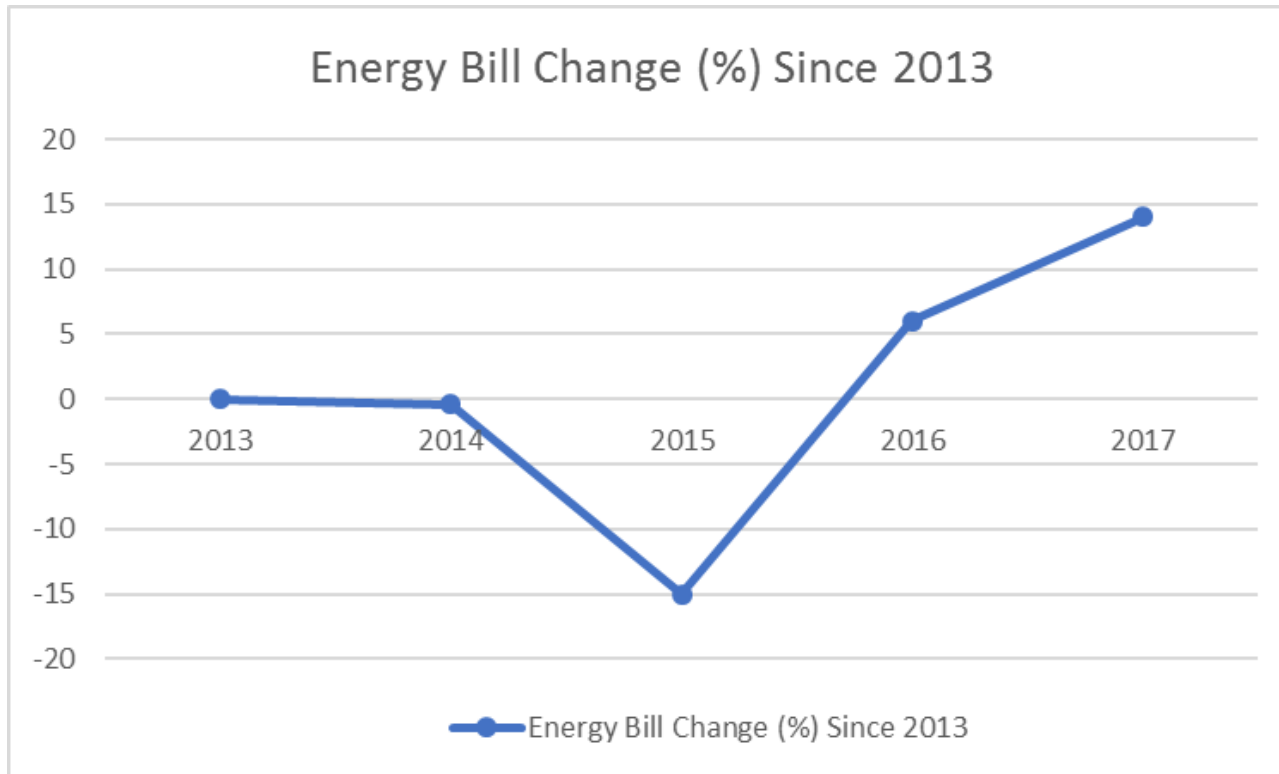
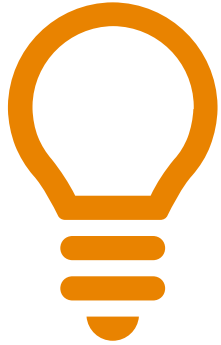


Chart of average residential energy bill across NSW, reported by Independent Pricing and Regulatory Tribunal (IPART 2017)

The RET Scheme aims to:

- ✓ Produce 33 000 GWh from renewable energy sources by 2020
- ✓ Reduce emissions of greenhouse gases in the electricity sector
- ✓ Provide for increased energy security through diversifying the energy mix and transitioning to low carbon intensive energy sources.

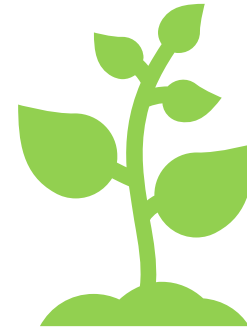
Gunnedah Solar Farm



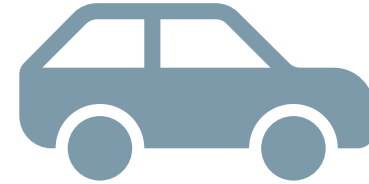
Produce an estimated
300 gigawatt hours
(GWh) per year of
renewable electricity



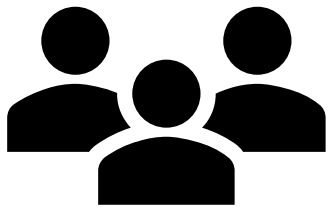
Produce enough electricity to
meet the needs of
approximately 48,000
households annually



Reduce greenhouse gas
emissions by over
290,000 tonnes of CO₂
equivalent per annum



Equivalent to removing
approximately 125,000
cars from the road



Generating employment:

- **150** construction jobs (at peak) as well as indirect supply chain jobs
- Support up to **10** operational jobs.

Encouraging regional development:

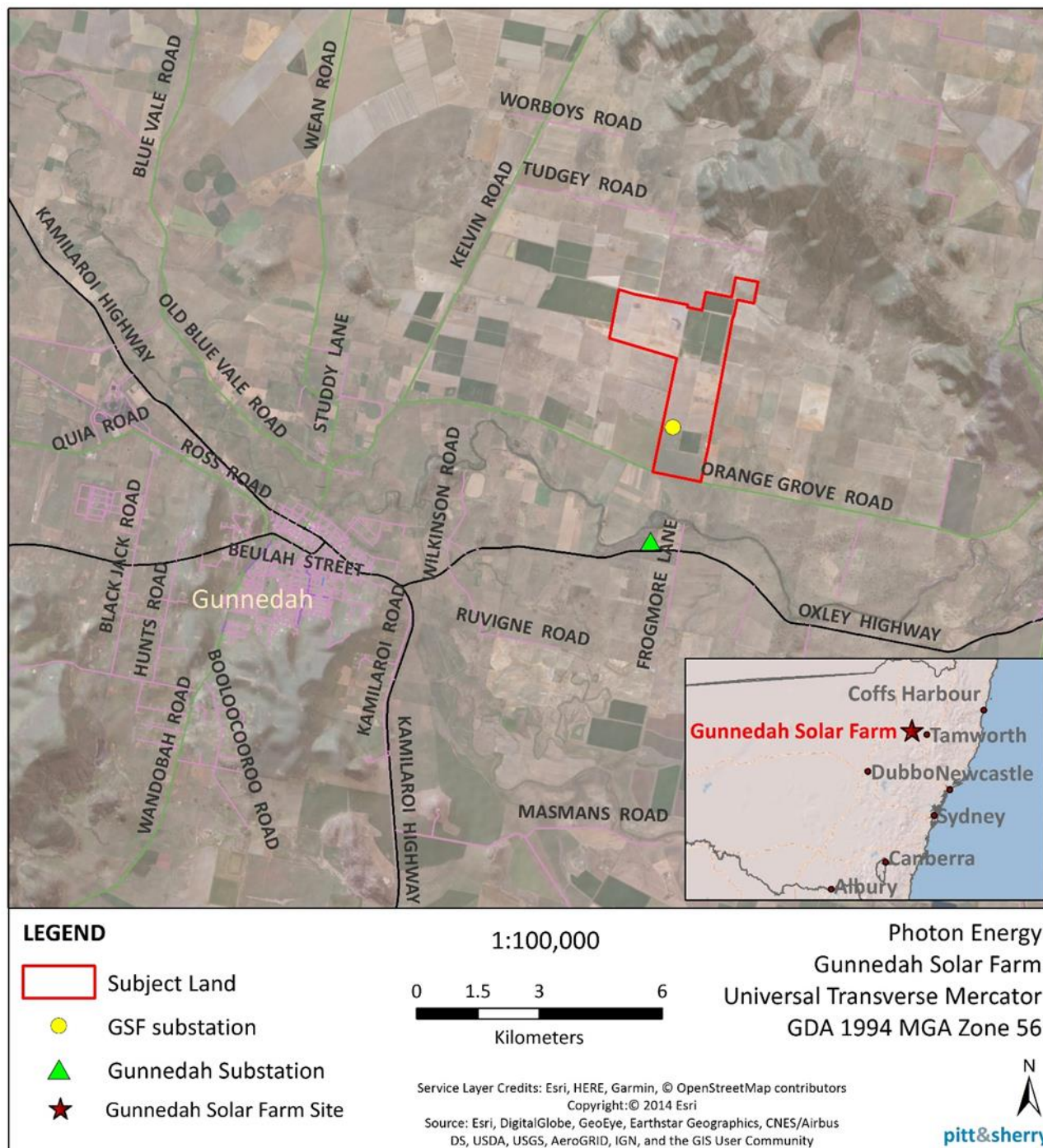
- Employee expenditure in the Gunnedah region (fuel supply, vehicle servicing, uniform suppliers, hotels/motels, B&B's, cafés, pubs, catering and cleaning companies)
- Maximising the use of local contractors and equipment hire
- Increasing local skills and trades through project experience.



Site Selection

The Gunnedah Solar Farm Site was considered a preferred location due to:

- Proximity to and capacity of connection infrastructure (Gunnedah substation)
- Solar yield
- Availability of suitably sized lots
- North facing land
- Access to major transport routes
- Limited potential for aboriginal or historic heritage items to be present
- Flat landscape requiring minimal earthworks
- Lease agreement with landowner
- Water licencing constraints reducing the agricultural use of the site by the landowner.

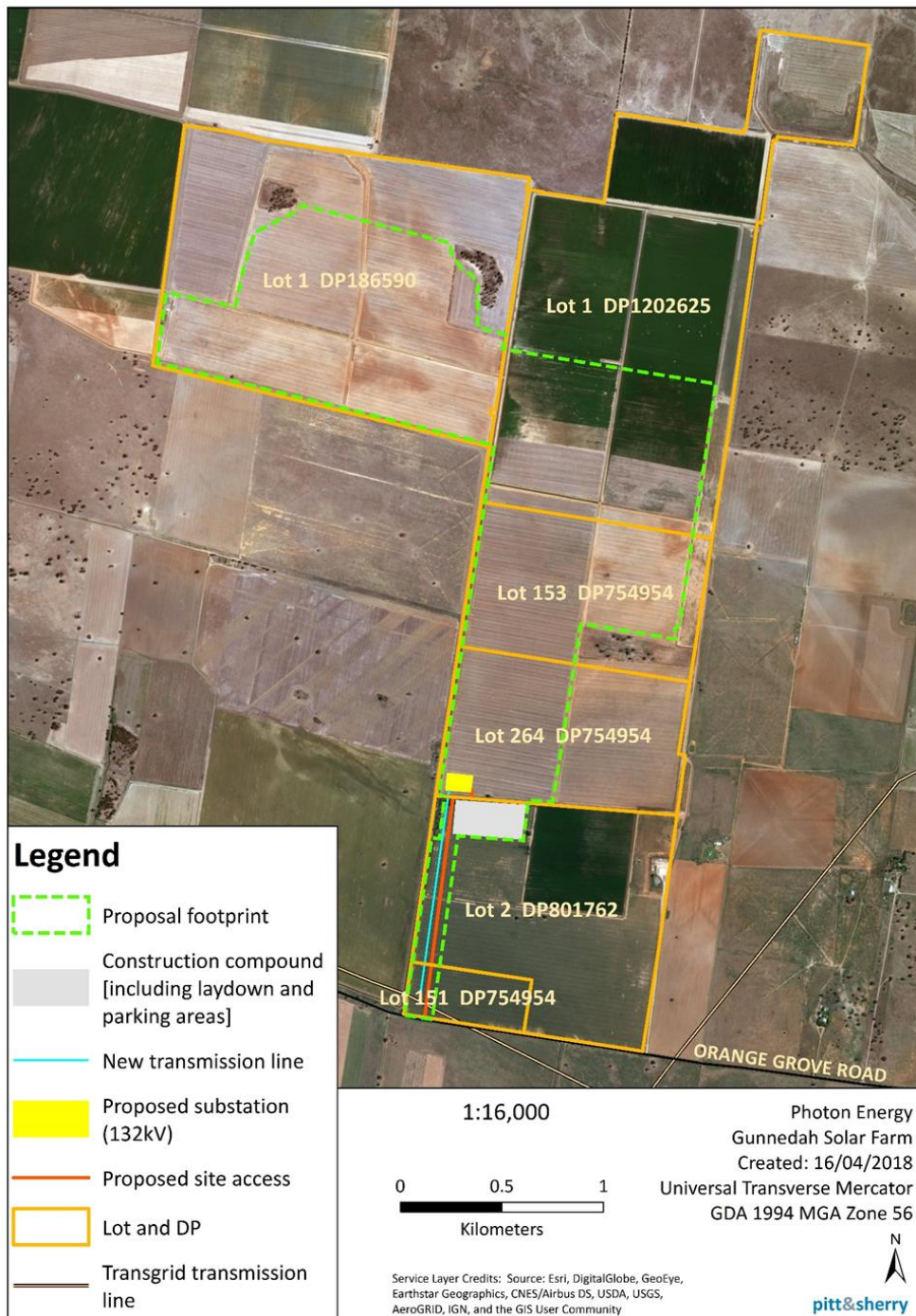


Gunnedah Solar Farm (GSF)

The Proposal will be located at 765 Orange Grove Road, Gunnedah NSW on:

- Part of Lot 1 DP 1202625
- Lot 153 DP 754954
- Lot 264 DP 754954
- Lot 2 DP 801762
- Lot 151 DP 754954 and
- Lot 1 DP 186590

GSF is proposing to construct and operate a 150MW (DC) (or 115MW AC) photovoltaic (PV) solar farm located approximately 9km north-east of the township of Gunnedah.



Stakeholder Engagement

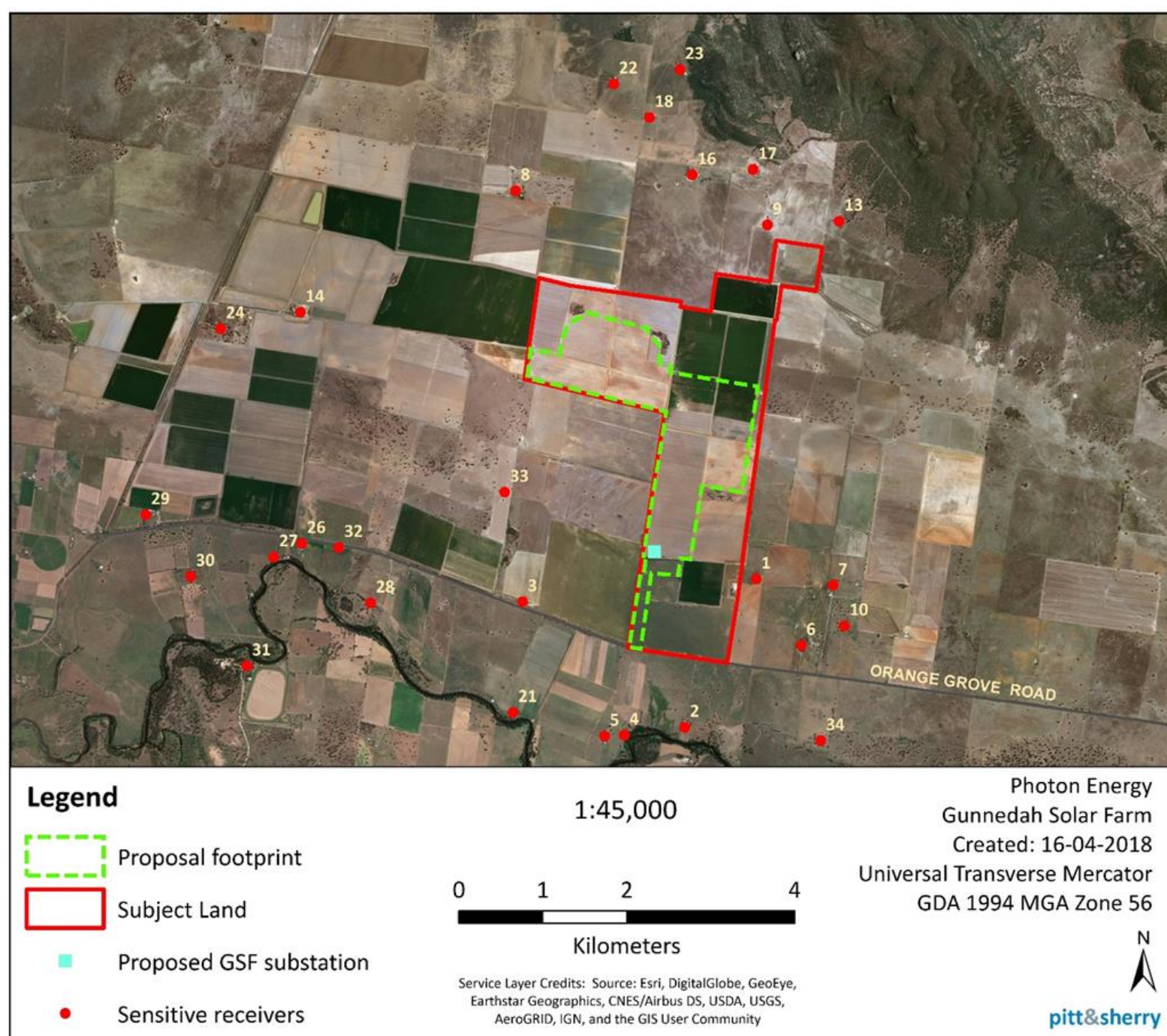
pitt&sherry were engaged by GSF to assist with community and stakeholder engagement. **pitt&sherry** facilitated meetings with GSF and Gunnedah Shire Council.

Other government stakeholders were also engaged including:

- DP&E
- OEH
- DPI – Water & Lands
- DRG
- RMS
- SES
- RFS

Community Engagement

34 residents within the locality of the site were contacted directly as a result of the community engagement process



Map of sensitive receivers identified through visual and flooding impact assessments

Methods of Engagement



- *Community meeting*
- *Email*
- *Phone Calls*
- *Letter*
- *One on One*
- *Group meeting*
- *Website*
- *Hotline*
- *Factsheets*
- *Newspaper*
- *Social Media*

29 registered attendees

Methods used to contact **34** residents within the locality of the site

26 community members (15 neighbouring residents)

Methods used to reach the wider community & provide regular updates

- Flooding
- Visual
- Noise

Concerns Raised

Flooding – and the impact of fencing on neighbouring properties

During round one consultation

GSF commissioned detailed flood modelling to assess scenarios, including the following options for security fencing:

- Drop down / sacrificial fencing; Farm fencing; Chain wire fencing.
- Chain wire fencing was only option that achieved the safety and security requirements.

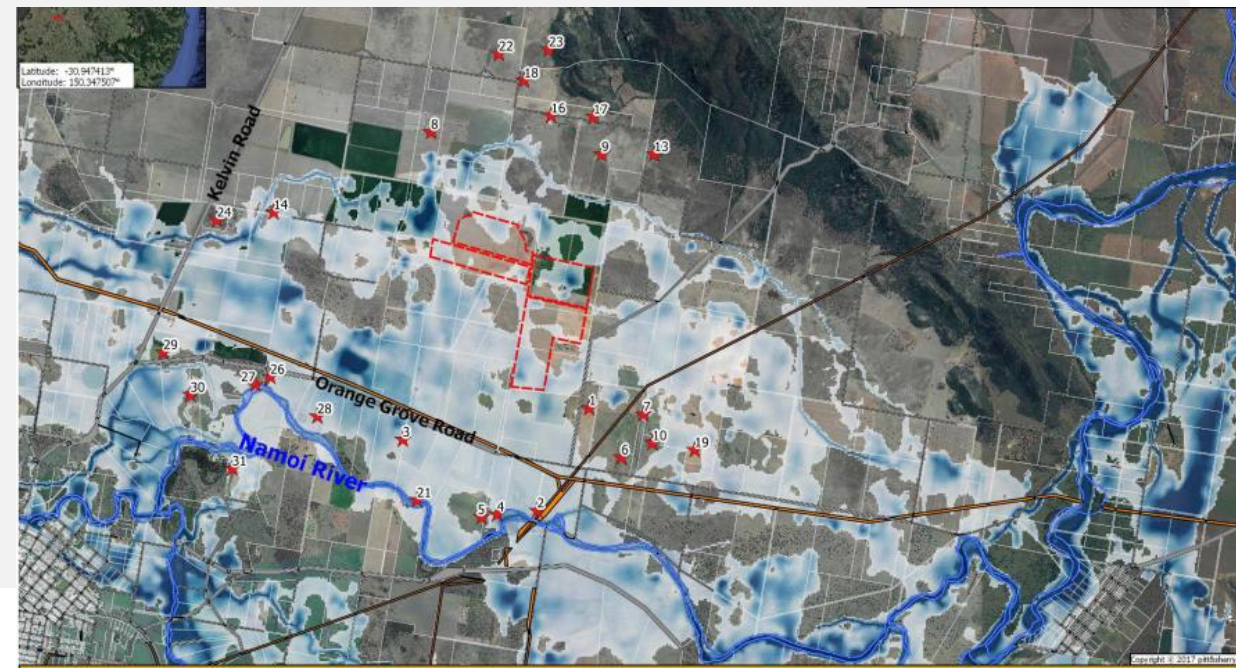
Three scenarios were then modelled (using catchment data) to assess and mitigate the use of the chain wire fence. This included:

- Chain wire fence being 100% blocked during a 1:100-year flood
- Assuming 100% blocked to 500mm and 50% blockage there after around the perimeter of the farm. Includes using 6m gates every 100m with the intention these would be opened. Two 20m channels running east west across the farm to allow for unimpeded water flow
- As above scenario, without 6m gates at every 100m.

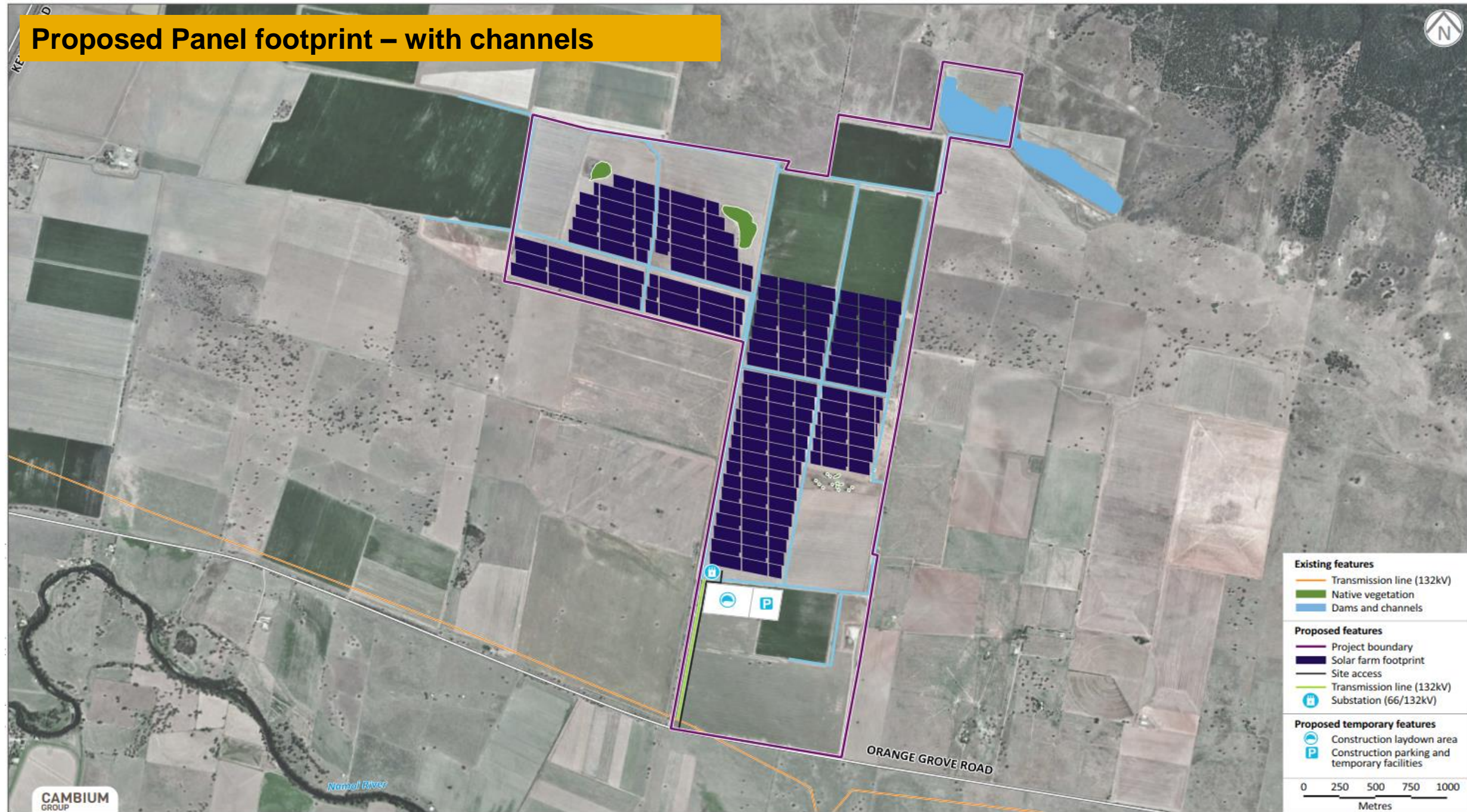
During round two consultation

After the second round of one on one's the model was revised and additional measures were used. This includes:

- A Soil and Water Management Plan (SWMP) will be prepared as part of the CEMP
- Minimising footprint of disturbance by progressive construction and remediation works
- Design to allow space between panels to establish and maintain ground cover beneath the panels.



Proposed Panel footprint – with channels



Concerns Raised

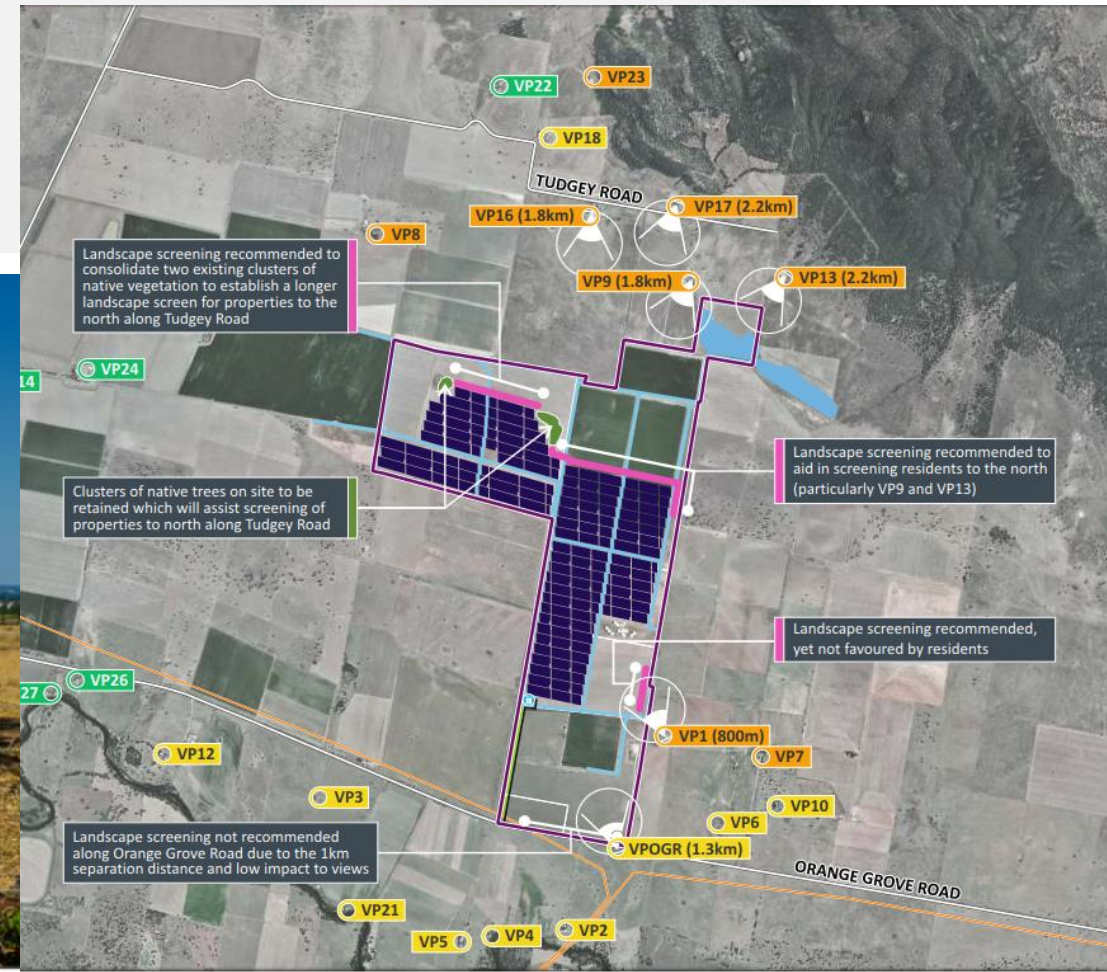
Visual Impact – particularly north of the proposed development

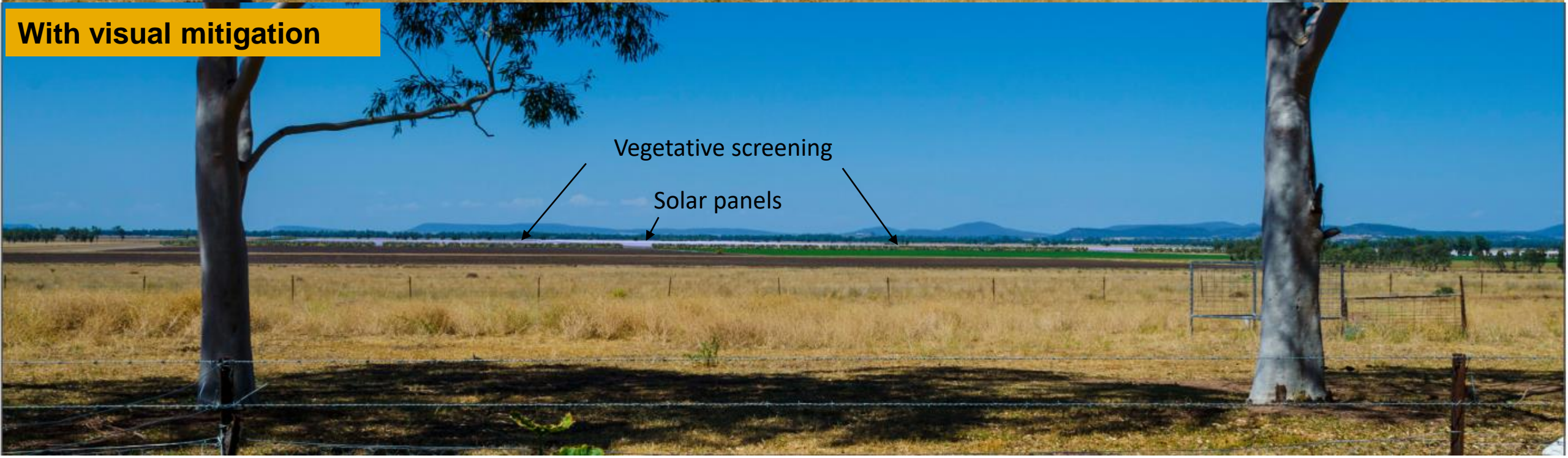
During round one consultation

- GSF commissioned 9 more photomontages to be completed.
- Photomontage locations were chosen in consultation with the sensitive receivers, to ensure accurate representation of impact.
- Draft landscape plan was updated - include more screening

During round two consultation

- The Solar footprint was revised to ensure existing tree stands remained on site, allowing for increased visual mitigation.





Concerns Raised

Noise – Particularly use of pile drivers

During consultation

Residents were concerned about level of noise impact during construction, in particular pile driving.

During Geotechnical survey - There was no feedback about noise from pile driving when completing the one on ones.

Response to key issue

Noise Impact Assessment - there will be no significant impact to noise levels during construction.

The hours of operation for the construction will be standard construction hours.

Monday to Friday 0700 – 1800
Saturday 0800 – 1300
Sunday and Public Holidays – no work

There will be no audible construction activities performed outside of these timeframes, unless in the case of an emergency.

Receiver ID	Description	Highest Predicted	NML Standard Hours	Comply
		Noise Level dB LAeq,15min	dB LAeq,15min	
K1	351 Kelvin Road	44	45	Yes
K2	210 Kelvin Road	36	45	Yes
K3	632 Kelvin Road	24	45	Yes
K4	554 Kelvin Road	26	45	Yes
OG1	767 Orange Grove Road	43	45	Yes
OG2	875 Orange Grove Road	32	45	Yes
OG3	897 Orange Grove Road	42	45	Yes
OG4	851 Orange Grove Road	29	45	Yes
OG5	898 Orange Grove Road	38	45	Yes
OG6	726 Orange Grove Road	34	45	Yes
OG7	640 Orange Grove Road	27	45	Yes
OG8	640 Orange Grove Road	29	45	Yes
OG9	476 Orange Grove Road	38	45	Yes
OG10	515 Orange Grove Road	36	45	Yes
OG11	306 Orange Grove Road	36	45	Yes
OG12	242 Orange Grove Road	34	45	Yes
OG13	224 Orange Grove Road	34	45	Yes
OG14	118 Orange Grove Road	33	45	Yes
OG15	88 Orange Grove Road	44	45	Yes
OG16	43 Orange Grove Road	36	45	Yes
S1	133 Shanley Lane	24	45	Yes
T1	Tudgey Road Lot 2 DP1202625	26	45	Yes
T2	254 Tudgey Road	43	45	Yes
T3	526 Tudgey Road	36	45	Yes
T4	615 Tudgey Road	34	45	Yes



Concerns Raised

Traffic During Construction – Including school pick up and drop off times

Actions	Response to key issues
Consultation with sensitive receivers prompted a review of the Traffic Impact Assessment, to ensure concerns raised have been addressed.	The Traffic Impact Assessment has addressed concerns through encouraging vehicles to be restricted from travelling outside of standard construction hours.
GSF is considering putting in restrictions to vehicle operation hours between school pick up and drop off times.	<p>A detailed traffic management plan will be prepared for the proposal.</p> <p>It will ensure this concern is appropriately managed through restrictions, temporary speed limits or other active management measures.</p>

Bushfire Risk – Electrical infrastructure potential to cause fire

Actions	Response to key issues
Consultation with sensitive receivers prompted a review of the Bushfire Risk Assessment, to ensure concerns raised have been addressed.	<p>Implementation of an asset protection zone of 15m.</p> <p>Ensuring appropriate equipment on site for fire protection</p>
Bushfire impact specialist have consulted with the Rural Fire Services, as well as Fire and Rescue NSW at Gunnedah to be advised on fire history, resources, mitigation measures and fire suppression.	An emergency response plan will be written as part of the CEMP

Concerns Raised



Decommissioning & Site Rehabilitation

Actions	Response to key issues
Consultation with receivers prompted review of the Land Management Plan. The remediation chapter was updated to ensure roles, responsibilities and commitments to remediation of the site were clear.	Land Management Plan - clearly stating the responsibilities of GSF to remediate the land. A detailed Remediation plan will be written for CEMP

Emergency Contingency Plan

Actions	Response to key issues
Emergency Contingency Plans for events such as bushfire and flooding will be completed as part of the CEMP	Prepare as part of the CEMP in consultation with the RFS.

Light interference outside of daylight hours

Actions	Response to key issues
Use of lighting for security purposes is addressed in the EIS. Lighting will be amber coloured and movement activated.	Lighting will be limited to compulsory lighting required for the substation. Substation lighting will be turned on if an intrusion is detected or if staff are on site undertaking works outside of daylight hours.

Concerns Raised



Land Use Conflict

Actions

Consultation with receivers prompted a review of the Land-Use Conflict Risk Assessment (LUCRA), to ensure concerns raised have been addressed.

Response to key issues

This assessment addresses justification for use of agricultural land and rehabilitation of the site post development. As a part of the LUCRA, a draft land management plan has been prepared to ensure long term viability of the land for future agricultural use

Grazing activities will continue on site, as sheep will be used to maintain the fuel level of the grass beneath the panels



July
2017

- Area assessed under the PEA
- Proposed area
- Road
- Proposed access
- Vegetation buffer
- Transmission powerline
- Proposed Substation
- Solar farm footprint
- Sensitive receiver within 1km of the solar farm footprint.
Note: Additional receivers within 2km of the solar farm footprint have been identified in section 2.3 of the PEA.



PHOTON ENERGY
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Bentley Junction 2022, N.S.W.
Australia
Tel: +61 2 8021 3363
Bentley Junction
www.photonenergy.com.au

Drawn
Goran Klingberg 17.7.2017

Project
GUNNEDAH PHOTOVOLTAIC SYSTEM

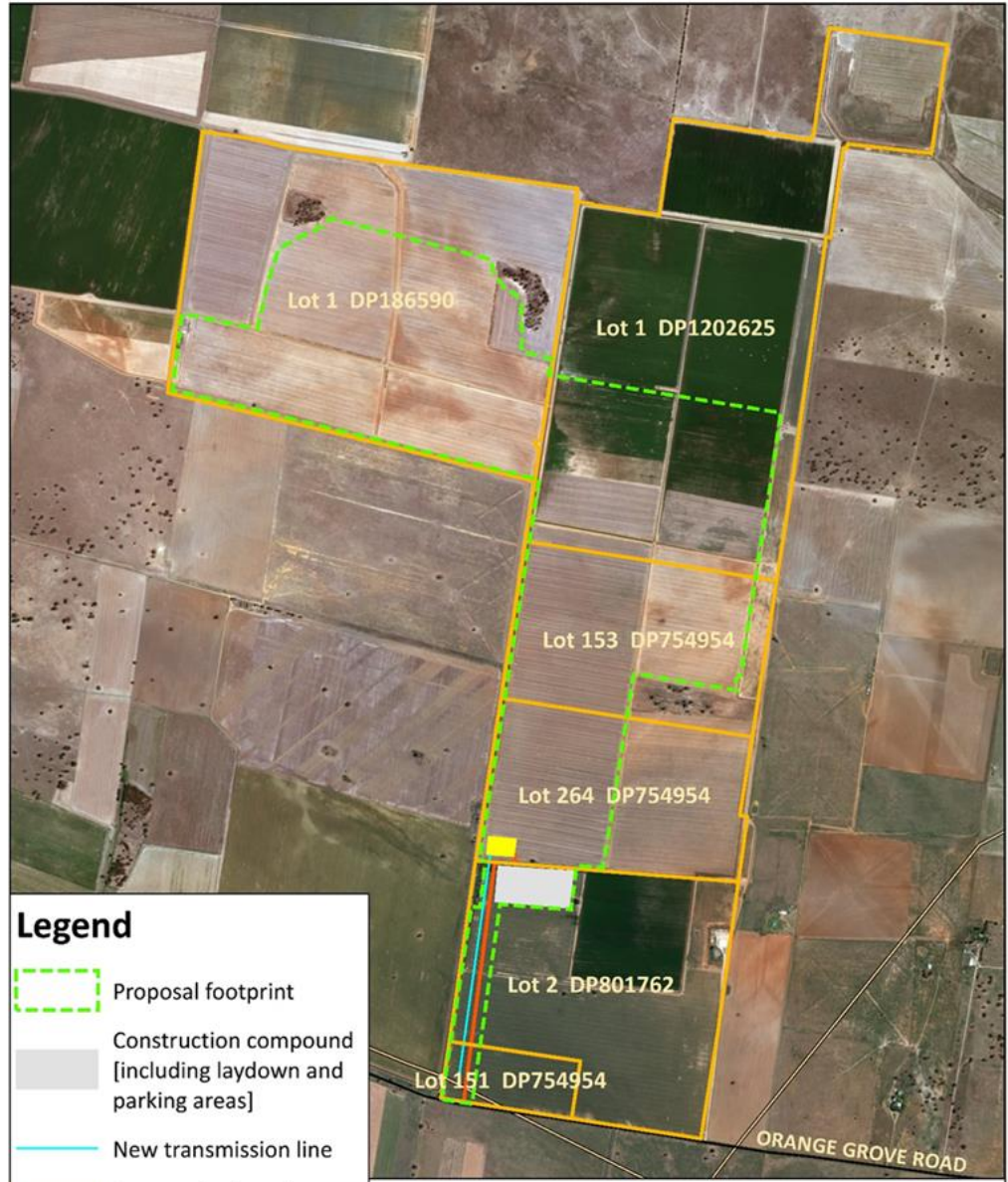
Part
System Layout

Drawing Title
Constraints Map



April
2018

- Legend**
- Proposal footprint
 - Construction compound [including laydown and parking areas]
 - New transmission line
 - Proposed substation (132kV)
 - Proposed site access
 - Lot and DP
 - Transgrid transmission line



1:16,000

0 0.5 1
Kilometers

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Photon Energy
Gunnedah Solar Farm
Created: 16/04/2018
Universal Transverse Mercator
GDA 1994 MGA Zone 56

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Gunnedah Solar Farm: 765 Orange Grove Road



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QUESTIONS...

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