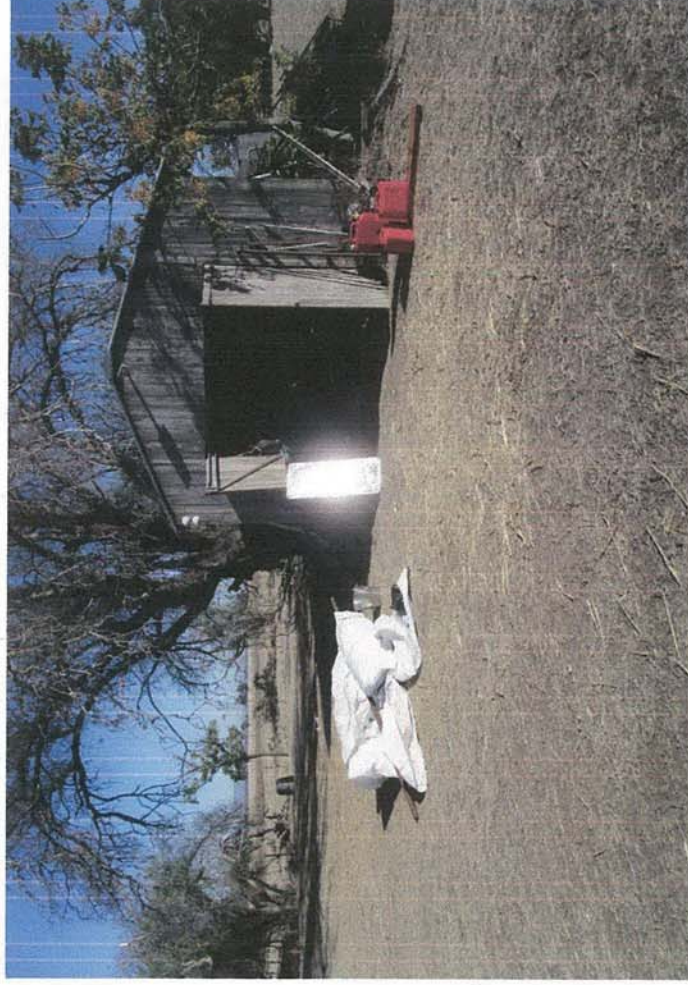


As the owner and occupier of this property [REDACTED] Orange grove Rd gunnedah adjoining land owner to proposed solar farm and member of the Namoi pistol club.

The Namoi pistol club has been established on this property since 1997 21 years with a perfect safety record, the club has 54 members consisting of men and women their disaplins are western action on the pistol range and 200 mtrs 300 mtrs 600 mtrs and 900 mtrs on the long range. My concerns are if trackers malfunction or break down as they can. This can result in blinding sun reflections from the solar panels , as we have encounted while fencing from our own solar panels on our bore or the glare from the reflective infrastructure remembering the solar farm is at 277 mtrs and the firing line is at 313 mtrs some 36 mtrs higher so the solar farm is in full view to the shooters left can you give us a guarantee this will not happen as safety is of paramount importance. If not this is not the place for 330,000 solar panels and reflective infrastructure.



I believe this area is a koala habitat, myself and my wife saw a koala going across our drive way from east to west in the direction of the now proposed solar farm. This grazing paddock has 117 trees and another 17 trees on the cropping paddock which is part of the proposed solar farm a total of 134 trees plus 137 trees along the drive way, these 271 trees also have a lot of parrots nesting in them. There is a heavily treed corridor joining this area to the river where we have also seen and photographed a koala.

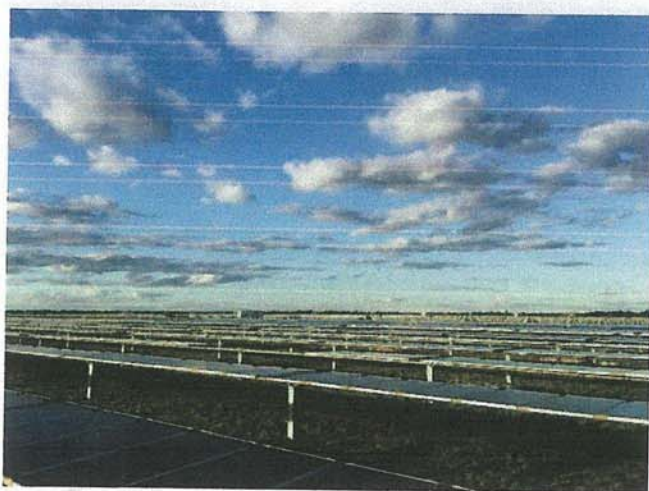


This photo was taken at our property orange grove rd Gunnedah on 21-6-2018, This panel is only 50watt and 600mm x 1200mm frosted glass.



This is what we were shown at the community meeting in Gunnedah on 15-3-2018 Moree Solar Farm. Also this is what was drawn from applicant for adjoining landholder, where panels were going in conjunction with our boundary fence. He didn't even know where our boundary fence was we are R2.

NSW is leading Australia in the development of large-scale solar projects. These projects support jobs and investment in regional NSW, diversify the State's energy mix and drive down costs for future large-scale solar developments.



Moree Solar Farm (photo: Fotowatio Renewable Ventures)



53 MW solar farm Broken Hill. Photo AGL

## Why solar energy?

The NSW Government is committed to providing a diverse, affordable and clean energy mix for NSW. Solar energy is a key part of that mix and is supported under the government's cornerstone renewable energy policy, the Renewable Energy Action Plan. Increasing solar energy in NSW will help the government meet its commitment to support the national Renewable Energy Target of 33,000 gigawatt hours (GWh) by 2020.

According to the International Energy Agency (IEA), solar energy is the most abundant energy resource on earth, with about 885 million terawatt hours (TWh) reaching the surface of the planet every year.

Australia has the highest average solar radiation per square metre of any continent in the world. NSW has an abundance of excellent solar resources and established electricity infrastructure that makes it attractive to solar farm developers.

More than 340,000 NSW households have installed rooftop solar photovoltaic (PV) systems, representing over 1,000 megawatts (MW) of installed capacity. Solar farms use the same technology as rooftop solar systems, but on a larger scale.

## Large-scale solar farms in NSW

There are currently three operational large-scale solar PV projects in NSW, with an installed capacity over 200 MW: the Nyngan Solar Plant (102 MW), which is the largest solar farm in Australia, the Broken Hill Solar Plant (53 MW) and the Moree Solar Farm (56 MW). These solar farms generate enough electricity to power 75,000 NSW homes each year.





# FACTsheet

## Orange Grove Sun Farm

### OVERVIEW

OVERLAND Sun Farming is proposing to develop the Orange Grove Sun Farm, a solar photovoltaic (PV) generation facility near Gunnedah NSW, that will connect into the nearby TransGrid 132 kV electrical distribution network. Once constructed, the sun farm will produce a clean, renewable source of energy which could power up to 30,000 homes each year. This is enough electricity to support more than 7 communities with populations similar to the Gunnedah township.

### Site location

The Orange Grove Sun Farm is proposed on a site approximately 12 kilometres east of Gunnedah, on Orange Grove Road.

Reasons for choosing this site include:

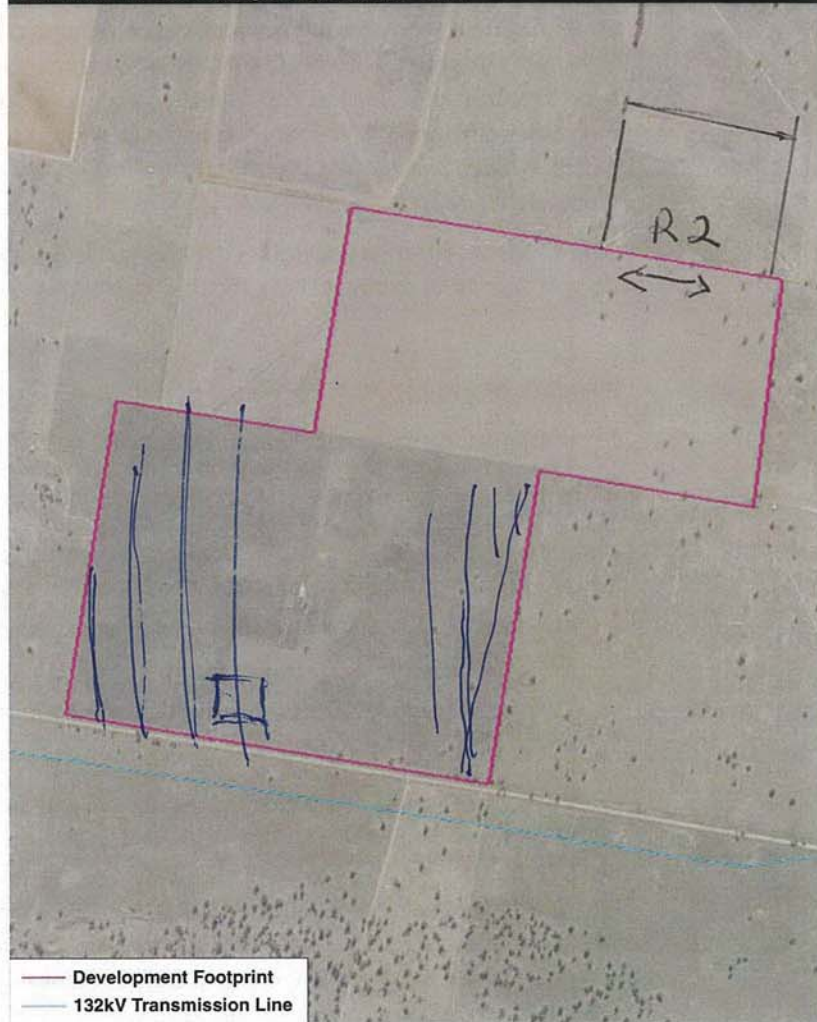
- the land has been settled, predominantly cleared and used for both agricultural and grazing purposes over a long period of time;
- because of the historical use and clearing of the land, the sun farm will not require clearing of native vegetation, and has minimal impact upon significant habitat and Aboriginal heritage areas;
- proximity to the TransGrid distribution network which enables access to TransGrid's Gunnedah Substation and export of clean, renewable energy to the NSW power system;
- good access to the regional road network, which will allow infrastructure to be delivered to the site during construction of the project; and
- high levels of solar radiation.

### Project components

Once constructed, the Orange Grove Sun Farm will include:

- a PV solar panel array;
- an electrical collection systems and switchyard;
- a site operations building and equipment sheds;
- parking and internal access roads; and
- construction of a electrical connection line to the TransGrid distribution network.

Location of the Orange Grove Sun Farm







## Community information session

*OVERLAND is seeking the views of local community members about the Orange Grove Sun Farm. We value your comments and insight and encourage you to attend the upcoming community information session to share your views with us.*

*The Baxter Room, Gunnedah Services and Bowling Club 313  
Conadilly St, Gunnedah - Thursday 15 of March from 5.30pm to  
7.30pm & Friday 16 of March from 8am to 10am.*

### About OVERLAND Sun Farming

OVERLAND Sun Farming is an Australian business that is developing a world class portfolio of solar energy "sun farms" across regional Australia. OVERLAND has been responsible for the development, financing, construction and operation of over 780 MW of renewable energy generation. During 2016, OVERLAND led the development and financing of two 20 MW solar PV plants in Queensland, in 2017 a further three large-scale solar PV projects in north western Victoria, totalling 320 MW and recently announced the construction of two projects in south-western NSW totalling 460 MW.

OVERLAND are developing future solar energy sun farms across Australia including proposed sun farms at Hay in south-west NSW and Wee Waa in north-west NSW.

### Benefits of the project

It is anticipated that the project will provide a number of benefits to the local and wider community including:

- it will create employment opportunities, including a peak of between 100-120 jobs during construction and up to three full-time positions during operation;
- it will generate enough electricity to power up to 30,000 homes each year, which is enough electricity to support more than 7 communities with a population similar to the Gunnedah township;
- it will help NSW meet the renewable energy targets established under the NSW Government's Renewable Energy Action Plan;
- it will contribute to the Commonwealth Government's target of 33,000 gigawatt hours (GWh) of renewable energy generated by 2020; and
- it will increase energy security by contributing to a more diverse energy mix.

### Approval process

The NSW Government has determined that this project is a State Significant Development, and therefore OVERLAND is required to submit a Development Application and Environmental Impact Statement to the NSW Department of Planning and Environment. OVERLAND is currently consulting with other government stakeholders including Gunnedah Shire Council.

### Where to go for more information

For further information about the Orange Grove Sun Farm project, please visit our website.

[www.overlandsunfarming.com.au/orange-grove-sun-farm](http://www.overlandsunfarming.com.au/orange-grove-sun-farm)





Effects of solar farm on the environment while solar panels are considered to be a form of clean renewable energy the manufacturing processes do produce greenhouse gas emissions it also uses some chemicals that can be toxic that mean solar can still be considered (green). The primary materials used for solar cells today is silicon which is derived from quartz in order to become usable forms of silicone this silicone has to be mined and heated in a furnace which in turn emits sulphur dioxide and carbon dioxide into the atmosphere this leaves 99.6 % pure metallurgical grade silicon however 99.6 is not good enough for semiconductors it has to go through a 2nd process the silicon is mixed with copper and hydrofluoric acid to produce trichlorosilane gas which then produces the hydrogen to make silane gas this silane gas is heated into molten silicon which leads into silicon crystals that can be formed and used in PV cells. About 1/2 this metallurgical silicone is wasted additional silicon dust presents dangers and silane gas is an incredible explosive. The big risk from cadmium polluting water or air from a fire or improper disposal exists. Nitrogen trifluoride and sulfur hexafluoride although solar power doesn't produce greenhouse gases the ones it does produce during production are important. Ray Weiss professor of geochemistry @ the Scripps Institution of Oceanography solar panel production produces nitrogen trifluoride which is 17,000 times worse than carbon dioxide sulfur hexafluoride is another greenhouse gas that comes from making solar panels is 22,800 times more potent than carbon dioxide according to Deutsche Welle.

Here are some chemicals used in the manufacturing process to prepare silicone and make the wafers for monocrystalline and polycrystalline panels one of the most toxic chemicals created as a byproduct of this process is silicon tetrachloride this chemical if not handled and not disposed of properly can lead to burns on your skin harmful air pollutants that increase lung diseases and if exposed to water can release hydrochloric acid which is a corrosive substance bad for human and environmental health. The panels themselves may contain a number of toxic materials (to name a few cadmium telluride, copper indium selenide, and sulphur hexafluoride,) Some of these toxins when exposed may be water soluble (remember you are building this solar farm on a flood plain the water from this area then runs onto our property and

the water from this area then runs onto our property and [REDACTED] we both bread beef cattle for human consumption.

Dc solar systems consist of solar modules connected together in series to create 200 volts DC to 1000 volts DC this current is very difficult to protect against compared to AC current. people have been killed with as little as 42 volts DC the thing to know about solar panels they cannot be shut down while in day light they are producing power so if they become broken or dislodged in a storm , flood or what ever come off there mounting they are still making power and are dangerous to anyone that may touch them.