

Dear Minister,

Objection to the Sprindale Solar Farm, Sutton

I object to you approving the application to construct a solar farm at Sutton NSW by the consortium known as Renew Estate and Partners.

You will get the most common objections to the solar farm such as visual impact and other environmental factors from other objections. My concerns about the solar farm are as follows:

1. Such developments are not permitted under the current RU1 Rural zone

By allowing the solar farm to go ahead you will be bypassing the normal planning process.

You would also be contradicting your department's policy and the Council policy to prevent rural fragmentation. Converting 850 acres of prime agricultural land to steel and glass structures is not in any way connected with agriculture.

It would be in everyone's interest to ensure that all developments are compatible and permitted by current zoning. Otherwise you will be showing total disregard for the planning process that you are responsible for implementing.

2. Such developments are incompatible with the Yass Valley Council's proposed rezoning to RU6 Transition Zone.

Council has spent a lot of time and money to prepare a settlement strategy. By allowing the solar farm to go ahead you will have wasted Council's time and ratepayer's money and make mockery of the normal planning process.

I would be better to allow Council to recommend an alternative site for the solar farm that is not in an environmentally sensitive area close to a major city.

3. This is not the best use of 850 acres of relatively flat quality agricultural land.

Zoning is designed to achieve the best overall use of land.

This proposal is for land within 5km of the ACT NSW border, and roughly 6km from the centre of Gungahlin, a major town centre and communications hub.

The best value use of this land is small acreage residential as occurs around other major cities. Such development would provide great economic as well as social and environmental benefit to the community.

4. This is not of strategic importance to Australia.

This is a small-scale power system that is not well supported in the community or in Government. The debate is still going on about the mix of renewable or coal fired power for Australia.

By approving this solar farm to proceed you will be going against public opinion as well as current Federal Government policy.

It would be safer politically and environmentally to delay this project until such time as the Federal Government produces an effective plan for energy in Australia.

5. There is no need to locate solar farms near capital cities.

The proposal to build the solar farm so close to Canberra is due to ACT politics and the landowner wanting to make a good return out of his land.

The political requirement is for the ACT to be powered by renewables by 2020. That is fine, but that does not mean the solar farm should be created so close to the ACT.

The landowner is entitled to find a way to get the best return on his investment in the land. However, it is government responsibility to ensure that any development, no matter how beneficial it is to the landowner, should be compatible with community expectations.

You will get far more objections to the proposed solar farm than you will get support from the community. Be guided by that response when making your decision about the solar farm.

6. The effects of the heat generated by such a large solar farm will affect the micro climate.

Most solar farms are about 33% efficient. That means the proposed solar farm will have to dissipate approximately 260 Mega Watts of the sun's energy that is not converted to electricity.

Before considering approving the solar farm, you would be well advised to ask some questions about the solar farm such as:

- What type of solar cells are proposed?
- How is surplus energy dissipated?
- Are fans required and if so how much noise will be made by any fans or water pumps?

Renew Estate were unable to provide me with an answer to these questions.

7. The micro climate will change, and the change will affect neighbouring properties

The solar panels produce continuous shade on the area of land under the panels and other infrastructure. This land will continue to cool through radiation.

The atmosphere is heated by contact with the land or other structures. With such a cold ground under the hot solar panels it is likely to produce a complex micro climate.

Also extracting approximately 1/3 of the sun's energy will reduce the heating of the solar panel structure and any exposed ground. The result will be an area of cooler air relative to the

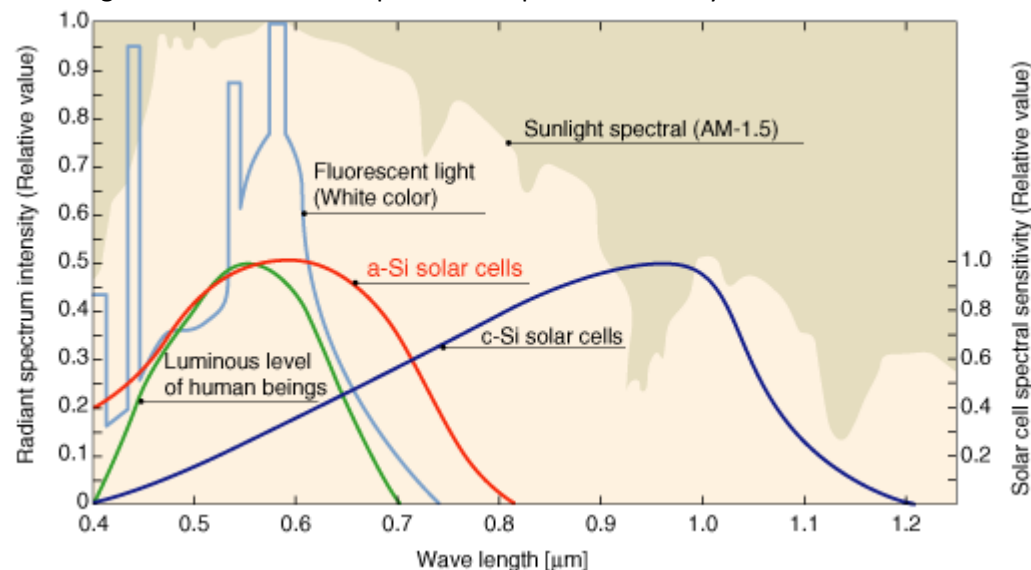
surrounding land. The cooler air will tend to sink over the solar farm and spread out over neighbouring properties.

The result will be cooler and drier conditions for neighbouring properties.

Trees and other plant cover tend to produce the same effect, but with plant cover the energy from the sun remains in the ground or the plants. In the case of a solar farm at least 30% of the sun's energy is removed from the site in the form of electrical power and about 20% will be reflected.

Reflected energy does not heat the atmosphere.

The diagram below shows the part of the spectrum used by the two most common solar cells.



Renew Estate said that they had not chosen the type of solar cell to use.

Solar panels on roofs are the least likely to create a micro climate compared with large areas of solar panels.

I suggest you get your staff to do some research into the climate change effects of large solar farms before approving the Sprindale proposal.

8. The ground flora in the soil shaded by the solar panels will be degraded

The ground temperature in the shaded areas will drop below the temperature of the ground that is normally exposed to sunlight. The lower temperature will inhibit the growth of flora in the ground thus degrading the soil.

I suggest you get your staff to do some research on weed management in large scale shaded areas before considering approving this solar farm.

9. The degraded soil will encourage noxious weed growth.

The degraded soil will no longer support common grasses such as native grass and pasture improving grasses. The plants that survive on degraded soil tend to be the weeds such as Patterson's curse, St John's Wort, sorrel, and Yass River Tussocks that are growing in the area.

The only way to deal with the tougher noxious weeds is to spray them with weed killer. This will kill all the grasses growing under the solar panels and the result will be very degraded soil.

10. The degraded soil will increase soil erosion

The lack of vegetation and shielding from rain will result in very dry soil under the solar panels that will be highly susceptible to soil erosion in flood conditions.

I suggest you get your staff to do some research into the long-term soil management of land under solar panels before considering approving this solar farm.