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SENT BY POST & EMAIL

Ms Natasha Homsey,
Assessment Officer,
Resource & Energy Assessments,
NSW Department of Planning,
320 Pitt St.,
SYDNEY NSW 2001
Email: Natasha.Homsey@planning.nsw.gov.au.

Dear Ms Homsey,

RE: MARYVALE SOLAR FARM – STATE SIGNIFICANT DEVELOPMENT 8777

I object to this development on the following grounds.

1. Increased risks and liability with fire

The RFS is the primary response agency for fighting grass and structural fires within the Site. As such, the firefighters likely to respond to a bushfire in this area would be volunteers and/or individual property owners; the latter are mostly equipped with one or more of their own small fire units. Any fire-fighters from the RFS or neighbouring farms attending bushfires in this area may not be equipped with appropriate breathing apparatus and are unlikely to be trained in structural fire-fighting.

The risks to fire-fighter safety associated with a fire burning the solar panels and associated equipment include:

- Electrocutation – solar panels would be energised under any natural or artificial light conditions
- Conduction of electrical current through water is also a risk when operational personnel spray the high-powered engine hose at the inverter or the components of the solar PV system
- Inhalation of potentially toxic fumes and smoke from any plastic components such as cables or other decomposed products of the panels, although the majority of the site, would be largely constructed of glass, silicon, steel and aluminium.¹

¹ EIS p 196

The proponents come up with no plan to deal with these increased risks especially during harvest operations on neighbouring properties. Hot, dry conditions require that fires be put out immediately. The RFS has been instructed not to attend because of the risks involved. Time is of the essence. By the time a plane arrived a fire would be well and truly out of control and scenarios such as the burning of 41,650 ha east of Dunedoo in the Sir Ivan Fire could easily occur see <https://www.smh.com.au/environment/weather/firefighters-to-assess-property-loss-as-nsw-bushfire-threat-downgraded-20170213-gub8um.html>.

2. Firefighting water supplies

The proponents say *“Given the safety concerns for fire-fighters, fire-fighting equipment for fire-fighters will not be located on site because the equipment could not be utilised safely and effectively. One tank outside the APZ with a capacity of 20,000L will be located near the substation.”*² Why is so little water stored in the event of a fire? It does not seem nearly enough to put a fire out before major damage is caused.

Photon says “during operation of the solar farm, water would be required for stock watering and vegetation management which would be supplied from existing on site dams plus existing bore water. When required water may also be trucked onto site. Operational water use is estimated to be approximately 1.5ML/per annum and will be trucked to Site.³ Where is this water coming from and who pays for it? (irrigators????). Photon also say that “potable water would be trucked to the Site on as needs basis and stored within temporary water tanks at the staff amenities area. It is estimated that water use during construction would total approximately 25,000L/day equivalent to 1 water truck delivery per day.”

It is said water use during construction would be limited to staff amenities (temporary portable toilets) and dust suppression. Water for dust suppression would be sourced offsite and trucked onto site. A diluted organic polymer agent is proposed to be used to reduce the quantity of water required for dust suppression activities. Is it sprayed or mixed into the water and what are its long term environmental effects?

3. Biophysical strategic agricultural land (BSAL)

BSAL is land with a rare combination of natural resources highly suitable for agriculture. These lands intrinsically have the best quality landforms, soil and water resources which are naturally capable of sustaining high levels of productivity and require minimal management practices to maintain this high quality. BSAL is able to be used sustainably for intensive purposes such as cultivation. Such land is inherently fertile and generally lacks significant biophysical constraints.⁴

The land for the Proposal has been mapped as Biophysical Strategic Agricultural Land (BSAL) by the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Strategic Agricultural Land Map – Sheet STA_022) as identified on Figure 6-7.⁵

² EIS p 42

³ EIS p 42

⁴ NSW Government, ‘Interim protocol for site verification and mapping of biophysical strategic agricultural land’ (2013) online at <https://www.planning.nsw.gov.au/-/media/Files/DPE/Other/interim-protocol-for-site-verification-and-mapping-of-biophysical-strategic-agricultural-land-2013-04.ashx?la=en>.

⁵ EIS p 118

The Maryvale area is highly suited to mixed farming and agriculture. High quantities of wheat, canola, and fat lambs are regularly produced because of reliable rainfall and high quality soils. There are two other proposed substantial solar farms in the immediate area. See First Solar's Wellington Solar already approved, http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8573, and AGL's Wellington North Solar http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8573 that is currently under review. Some 5,000 acres of productive agricultural land will be set aside for Solar Farms should this project be approved.

Photon also have plans to develop Australia's biggest Solar Farm on prime agricultural land at Suntop as well as another at Mumbil see <https://www.wellingtontimes.com.au/story/5022762/three-solar-farms-proposed-touted-to-bring-jobs-save-emissions/>. Regretfully, Photon has a track record for not communicating with the community in an honest and transparent fashion. Photon prefers "one on one" discussions and sanitising information for its own benefit. They cannot be called good corporate citizens. See <https://www.theland.com.au/story/5768400/suntop-residents-heated-over-proposed-second-solar-farm/>. At the public meeting called by the Suntop Environment Committee on 28 November 2018 at the Wellington Civic Centre at 7.00pm they sought to manipulate an agenda and prevent the press from filming Their actions are more akin to the actions of the communist party in Czechoslovakia rather than transparency and the rule of law required in Australia.

I sincerely doubt that the landowners involved truly understand the risks and liabilities involved in a 25 year lease agreement with an option for a further 25 year extension.⁶ At the end of the day, they remain landowners with all statutory responsibilities and liabilities. It is unlikely that "one on one" meetings would have shone any light on the pitfalls involved. There is no record of any suggestion to obtain independent legal advice.

The relationship between sheep grazing and solar farms is not necessarily a symbiotic one. Grass nutritional quality is reduced when it is shaded by solar panels and there is a proposal to clear 'isolated' paddock trees. Photon says *"The Site is comprised of several large fenced paddocks that are predominantly used for the grazing of livestock (sheep) and occasional sowing of fodder crops such as lucerne. The only infrastructure present is agricultural related structures including hay and machinery sheds and water management structures such as stock watering dams of various capacities. The Site is mostly cleared with scattered mature shade trees remaining and one larger clump of mature trees on the western boundary which continues in to the adjoining property."* Mature trees are vital for shade for livestock during summer and a large proportion of the site is currently sown to wheat. This is a mixed farming area and rotational cropping with Lucerne is vital to its success.

4. Salinity

Photon says *"Contributions to the water table from infiltration of rainfall can have a detrimental effect by bringing salts contained within the soil to the surface and causing saline outbreaks. To further assess this issue for the proposal, a salinity specialist from the NSW Local Land Services at Wellington was consulted on the 8th May 2018. Advice received indicated that the establishment of perennial pastures and the managed grazing of livestock would assist in lowering groundwater levels due to the uptake of infiltration water by grazed pasture plants. The infiltration rates would also be lower than those that currently occur when the soil is exposed after cultivation."*

⁶ EIS p 14

“Salinity should not be a high risk given the Site’s location in the landscape and the infiltration rates will be the same as present or lower. The substantial replanting of deep rooted trees and shrubs as part of the landscape plan will also assist with the uptake of soil water on Site, as will the selection of suitable pasture species.”

It would appear that Photon have misunderstood the causes of dryland salinity. Dryland salinity is the result of the upward movement of groundwater- either a rise in the local water table or an increase in the potentiometric pressures of regional confined aquifers, which is responsible for moving the salt to the soil surface.⁷ It has little to do with infiltration rates. It has much more to do with the establishment of deep rooted plants such as Lucerne and the planting of trees which lower the level of underground water. Tree clearing and pasture removal will expose the area to salinity hotspots. Further, soil disturbance by the construction of 450,000 solar panels on the site will decrease pasture species coverage and nutritional density of the plants under the solar panels. It is true sheep may be able to graze between the rows of panels but this does little to lessen the risk of salinity hotspots. Modern farming practices involve very little soil disturbance and retention of stubble and rotational cropping with Lucerne is commonly practised. The possibility of salinity outbreaks is a foreseeable risk that has not been dealt with in the EIS.

5. Traffic

Photon says *“The following road upgrades, as per Concept Design in Appendix E, are proposed to facilitate safe access for the duration of the Proposal:*

- Seatonville Road will be upgraded to allow for 2-way traffic movements between the site access and Maryvale Road. This would be to a similar standard as the existing conditions on Maryvale Road;*
- The intersection of Seatonville Road and Maryvale Road will be upgraded to allow for truck movements;*
- The waterway crossing to the east of the intersection of Maryvale Road and Seatonville Road will be upgraded to allow for truck movements (strength) and will be widened to allow for 2-way truck movements.*
- The intersection of Maryvale Road and Cobbora Road will be upgraded to provide a minimum left turn deceleration lane for the trucks*

All of the above road upgrades would be undertaken in accordance with relevant Road Authority requirements.

MSF will provide maintenance to Maryvale Road and Seatonville Road (to the point of site access) during the construction phase.

The EIS fails to deal with the significant increase in dust and noise to residences located on Maryvale road and I note that one house located close to Maryvale Road is currently listed for sale. Simply telling staff &/or contractors to drive carefully is not good enough, Photon must do more upgrading

⁷ Alan Nicholson et al “Dry land salinity – Little River Landcare Group” at [www.littleriverlandcare.com.au/ literature 81633/Dryland Salinity](http://www.littleriverlandcare.com.au/literature/81633/Dryland_Salinity)

to improve road quality and safety issues. Carpooling may work in the initial stages but there is no proof it will be maintained because people get frustrated and start driving themselves.⁸

I would urge the Department of Planning to reject the Maryvale Solar Farm application. It is an inappropriate development at this site. Australia can ill afford to lose prime agricultural land. There are plenty of other sites that are far less productive. See http://majorprojects.planning.nsw.gov.au/index.pl?action=search&page_id=&search=solar&authority_id=&search_site_type_id=&reference_table=&status_id=&decider=&from_date=&to_date=&x=69&y=4&ga=2.96165781.86376597.1544417769-530957777.1542002214.

Yours sincerely,

Nat Barton

⁸ Public Transport Users Association, 'Myth it's just as effective to promote carpooling' (2016) online at <https://www.ptua.org.au/myths/carpool/>.