

3rd August 2023

Director-Energy Assessments
Development Assessment
Department of Planning and Environment
Locked Bag 5022
PARRAMATTA NSW 2124

Dear Director

Objection to Application No.SSD-8911 by Sundown Solar Pty Ltd

Overview

I object to the proposed development of a 360MW solar farm, battery energy storage and grid connection at Sturmans Road, Spring Mountain by Sundown Solar Pty Ltd, application no. SSD-8911.

My family farm (referred to as R15 by Sundown Solar) is located on Spring Mountain Road, Spring Mountain. I am one of the next generation of daughters who have a succession plan in place to take over the farm from my parents. This farm has been the life work of my parents who have farmed and grazed it since 1969. My family run cattle and sheep with some farming enterprises.

I support renewable energy projects. However, renewable energy projects must be implemented with regard to conflicting land uses. In particular, in regard to high value agricultural land and the preservation of biodiversity (Sydney Morning Herald Labor's environment movement at odds with Plibersek over conservation) article by [Mike Foley](#), July 21, 2023.

I grew up at Spring Mountain and know the country in question very well including along Kings Creek to the boundary with Newstead. The basalt creek flats in particular are high value agricultural land. As noted by SoilFutures Consulting Pty Ltd pg. 62, Appendix F Land and Rehabilitation Assessment, this land is classified as LSC 2 characterised by "deep high quality floodplain soils dominated by dark coloured Dermosols. NO chemical limitations, and landscape limitations limited to localised flooding". Biophysical strategic agricultural land (BSAL) is land with a rare combination of natural resources highly suitable for agriculture coupled with high rainfall (easily exceeding the requirement of 350mm or more per annum (9 out of 10 years)) and contains highly productive groundwater sources. This land which is categorised as BSAL land should not be subject to solar panel installations.

The recent substantial and rapid development of solar energy projects in regions such as the New England has prompted NSW to make two key amendments to its planning regulatory framework, including a consolidated Environmental Planning Instruments (EPI) relevant to solar energy and the NSW Large-Scale Solar Energy Guideline ('NSW Draft Guideline'). However, there are still many gaps in the assessment process, with rural communities being blindsided by the rapid and cumulative impacts of so many projects increasingly being concentrated around the lowest cost connection point to the electricity grid.

At present, only targeted regional cities have the benefit of consideration for solar development, rather than a state-wide approach to balancing solar energy land uses on all agricultural land despite its regional zoning. However, a clear planning policy opportunity has been missed by limiting the State Environmental Planning Policy (Transport and Infrastructure) 2021 SEPPTI amendments to specific regional areas. A compulsory Agricultural Impact Assessment (AIA) for all agricultural land with proposed solar development within the SEPPTI for all rural areas would also

be appropriate to avoid potential land use risks. AIAs were introduced to assess the land and water impacts of development on prime arable land in NSW and are typically applicable for resource exploitation, including mining and coal seam gas development.

My family farm at R15 in the Environmental Impact Statement (“EIS”) borders the project area for the proposed development. The site of the proposed development is less than 2 kilometres away from our home and shares a boundary fence with one of the host landholders. Our home is situated approximately 45 metres from Spring Mountain Road and our vegetable garden approximately 4 metres. The proposed access by the applicant to the proposed development is via Spring Mountain Road and Sturmans Road. Our property is intersected by both these local roads.

Spring Mountain Road and Sturmans Road are currently 4-metre-wide unsealed roads and are both no through roads. These roads carry around 10-16 vehicles per day and are the only access to Inverell and Glen Innes. We use both Spring Mountain Road and Sturmans Road as a motorist and pedestrian to travel around our property. Both roads are critical to move stock from one paddock to another.

I object to the application on the following grounds:

- Water impacts
- Health and safety
- Noise and vibration
- Adverse business impacts and financial loss
- Cumulative impacts
- Use of public access roads

Water Impacts

The calibre of agricultural land in the Swan Vale/Spring Mountain area is high, supporting diverse agricultural industries from farming, cattle, sheep, and aquaculture to name a few. The area has a high reliable rainfall and is supported by an extensive and reliable underground aquifer network close to the Great Artesian Basin. Access to uncontaminated underground water is critical to all the landholders in the region surrounding the proposed Sundown Solar project. Any compromise of this water through accidental or other contamination possibilities will have far reaching consequences. Most particularly, as we enter another period of El Nino weather patterns and through changing land uses pg. 7, Draft Guide to Ground Water Resources, NSW. At R15, the worst drought in living memory between 2017 to 2020 was mitigated by reliable access to underground water to sustain our livestock.

Appendix J, Water Assessment of the EIS, 6.3.2 notes that “The primary risk to groundwater quality during construction and operations will occur as a result of accidental spillage of wastewater, fuel or other hazardous materials used to support site activities that may infiltrate through soils to groundwater”. No risk assessment or consideration is given to the increased risk of fires in solar farms. “Environmental pollution caused by the fire smoke and the toxic materials that could leak and contaminate the ground have a serious impact on biodiversity” cited by Advanced Photonics Australia - Mitigating the risks of fires and overheating in solar facilities: see <https://apapl.com.au/mitigating-the-risks-of-fires-and-overheating-in-solar-facilities/>

There have been many sightings of platypus in Kings Creek over the years by our family in the host properties proposing to clear several hundred hectares of native vegetation. The proposed Sundown Solar farm lines both sides of Kings creek. The Australian Conservation Foundation (ACF) states that “**Platypus numbers are in decline** and this unique creature is now at risk of

extinction. Over the past 30 years their habitat has shrunk by at least 22%, or about 200,000 km², which is an area almost three times the size of Tasmania”.

The ACF cites the biggest threats to the platypus (a unique Australian animal) are:

- Land-clearing, dams, drought, bushfires and climate change — all impacts of human activity — are **destroying critical habitat**, leaving them with nowhere to go.
- To survive, platypuses need safe habitat to call home.

Nowhere in the EIS are the overwhelming threats addressed to our critically endangered platypus which are known to live in Kings Creek at Swanvale.

This is an unacceptable risk for such a precious and limited resource as water and our unique platypus from this project.

Health and Safety

Traffic

The EIS refers to a proposal by the applicant to widen Spring Mountain Road and Sturmans Road to a width of 8.76 metres and for the roads to be compacted and gravelled. This is a breach of the Austroads design standard for rural roads. Appendix I to the EIS (Traffic Impact Statement) Table 3.6 states that the Austroads design standard for traffic of 150-500 vehicles is a 7.2 metre wide sealed road.

This will also involve the loss of biodiversity and mature 50-80 year old trees that exist along the full 10.23kms of this road. The loss of amenity will be profound for all residents and visitors.

At paragraph 3.4.1 the EIS states that the purpose of widening these roads is to accommodate 26 metre B-double trucks. Table 6.37 of the EIS states that the daily baseline and development traffic volume is expected to be 478 vehicles per day on Spring Mountain Road. The construction phase, during which there will be the heaviest traffic volumes, is expected to last for 21 months.

This huge volume of heavy vehicle traffic travelling at the default speed limit of 100kmh (unsealed roads NSW) carrying hazardous materials, greatly increases the risk of accidents. This would endanger the safety of our family, employees, local residents and businesses as motorists, pedestrians and as graziers mustering stock along these roads.

I am concerned about the risks to residents' health from the stress of living so close to these extreme traffic movements along the proposed access roads.

The EIS contains no risk assessment of the impact of this increased traffic on Spring Mountain Road and Sturmans Road. Appendix I (Traffic Impact Assessment) paragraph 4.1 and Table 4.1 states that this risk assessment is contained in paragraph 6.4 of Appendix I. However, paragraph 6.4 does not address the risks of using these access roads.

Dust

Another safety implication is the dust which would be generated from the use of Spring Mountain Road and Sturmans Road from such frequent heavy traffic so close to my family home. Paragraph 6.11.4 of the EIS states that dust generation will be mitigated using standard construction techniques such as the use of water carts and screens. Increased levels of dust due to the heavy traffic on Spring Mountain Road and Sturmans Road will be dangerous to our health and the health of our stock and farm animals. The use of water carts and screens will plainly not eliminate the adverse health effects of dust on these public access roads.

The use of Spring Mountain Road and Sturmans Road as access roads to the proposed development is plainly unsuitable and approving the proposed development would endanger the lives and well-being of residents, stock, and farm animals.

Noise and Vibration

Noise

R15 is an extremely quiet rural environment.

Table 6.26 at pages 162-163 of the EIS assesses the noise impact of the construction phase of the proposed development at our family home (R15) with predicted construction noise levels of 66dB in Stage 1 of construction and 67 dB in Stage 2 of construction. Both of these levels do not comply with Noise Management Levels set by the Interim Construction Noise Guideline. These breaches of the Guideline are said to be due to the upgrade of the access roads for heavy trucks and machinery.

Table 7.3 of Appendix H to the EIS states that our house and one other location will suffer “highly intrusive noise”.

Vibration

Our family home and another residence are the worst affected sites assessed in the EIS for adverse impacts from vibration. At paragraph 6.6.3 on page 164, the EIS states that vibration levels at my home and a neighbouring home (R14) during Stage 1 of construction “ may exceed the levels for human comfort if the size of the vibrator roller used to construct the access road is greater than six tonnes”.

Appendix H to the EIS (Noise and Vibration Impact Assessment) at Table 5.2 on pages 26 identifies that 5 vibratory rollers over 18 tonnes will be used during Stage 1 and Stage 2 of construction (a predicted period of 17 months). This means that the level of vibration during construction will exceed levels for human comfort.

The mitigation measures suggested in paragraph 7.3 of Appendix H (notification, verification (i.e., measurement) and respite offers) will not eliminate the adverse impacts of vibration if the current access roads for the proposed development are approved.

Adverse business impacts and financial loss

Mustering stock

The huge volume of heavy vehicle traffic travelling at high speeds and carrying hazardous materials along the proposed access roads of Spring Mountain Road and Sturmans Road will make these roads unsafe to use as a means of mustering stock.

Spring Mountain and Sturmans Roads form essential arterial routes for the safe and effective movement of livestock across our property.

Impact on health of stock

There will be adverse health impacts on stock on our property from the stress of noise, dust, vibration, and traffic due to the use of the two proposed access roads for the proposed development.

Risk of fire

Appendix K to the EIS (Preliminary Hazard Analysis) contains a perfunctory analysis of the consequences of fire from the proposed development. Table 5.4 identifies fire hazards due to electrical conversion systems, the battery energy storage system, substation fire and bushfire but in each case in relation to the consequences of fire makes the facile statement that “ as there is a large separation distance ... to the nearest non-project related residential dwelling, the effects are not expected to have an off-site impact”.

R15 immediately borders the project area, and our home is less than 2 kilometres from the proposed development at its closest point. Over the years, there have been many threatening bushfire events. The likelihood of a fire having a devastating consequence for our family, livestock, animals, and vegetation is foreseeable, if not likely, yet has been completely dismissed in the EIS. Further, the safety hazards for fire-fighters from PV panels and local fire-fighting capability are such that fire suppression within the footprint of the solar farm cannot be expected or relied upon. Additionally, the only access road to the project is proposed as the 10.3 km gravel road from the highway which would further slow response times by the RFS. Critically, due to chemical safety hazards from a solar energy fire, only aerial water bombing that is compliant with air operations safety procedures is permitted. Due to the wind turbines that surround this solar farm, there are heavy restrictions on aircraft flying over the area of the proposed solar farm. Fighting a fire in this terrain would become impossible. Indeed, the local RFS state that access via the alternative western road is essential to the site to mitigate the threat of fires.

Increased insurance premiums and other direct costs

There is no statement in the EIS by the applicant that it will compensate the additional insurance costs which we will likely incur as an adjoining landowner due to the proximity and risk of the proposed development. Nor is there any statement by the applicant that it will indemnify our family for any losses suffered from fire or other hazards caused by the proposed development or costs incurred from forced land use practice changes.

Cumulative Impacts

Each of the impacts set out above, health and safety, noise and vibration, loss of amenity and business impacts and financial considered separately are highly adverse to our family as farmers and graziers. However, these impacts ought not merely be considered separately. We will suffer all of these adverse impacts cumulatively with generational impacts over the next 35+ years or the life of this project. Considered cumulatively, these adverse impacts are extreme.

Use of public access roads

Many of the more extreme adverse consequences of the proposed development would be avoided if Spring Mountain Road and Sturmans Road, which are public roads, were not used as access roads for the proposed development.

The EIS identifies an alternative option which is a shorter and more direct route to the proposed development and which would avoid many of the adverse consequences to local residents and their primary production enterprises.

The reasons why the applicant has stated in the EIS as to why it has chosen to prefer the extensive disruption which would be caused by using the public roads over this more direct alternative route are outweighed by the negative impact of the use of public roads. The public roads have existed for several decades and were designed and built to convey limited agricultural related traffic for the purpose of people reaching their homes or agricultural properties.

The shorter and more direct route to the proposed development is a private road west of Spring Mountain Road identified on the maps between pages 82 and 94 of the EIS. It is only 4km from the Gwydir Highway to the site of the solar farm using this private road.

The justification used to support the use of the public road (Spring Mountain and Sturmans Roads 10.3km) over the shorter private road (4km) are:

1. A lower cost to the applicant in upgrading the intersection of Gwydir Highway with Spring Mountain Road instead of the intersection of Gwydir Highway with the private road; and
2. less impact on vegetation in using Spring Mountain Road and Sturmans Road.

The cost to the applicant and impact on vegetation of the private road are clearly outweighed by the major impacts of using Spring Mountain and Sturmans Road:

1. the health and safety of local residents due to high volume heavy vehicle traffic, noise, vibration and dust
2. the clearing of native vegetation and reduction in biodiversity required to widen the public road from 4 metres to 8.7 metres.

The human costs, cost to the primary production businesses of residents and loss of vegetation on the public road must count for more than some unstated financial cost to the applicant.

The applicant should be required to consider and put forward other alternative access proposals which do not involve massive dislocation, safety hazards and fragmentation to local residents and their businesses.

Conclusion

I believe the proposed development will have an extreme and long-lasting impact on our family and family succession, water, and the critically endangered platypus.

I am also extremely concerned that a compulsory Agricultural Impact Assessment (AIA) for all agricultural land with proposed solar development within the SEPPTI is not currently required to avoid potential land use risks as they are for the resource exploitation industry. Particularly when some of the land in question for this development is mapped as BSAL land.

The application No. SSD-8911 in its current form should be rejected.

The use of Spring Mountain Road and Sturmans Road should be rejected and the applicant required to put forward another access route to the proposed development which does not have the profound adverse effects on R15 and other neighbouring properties in Spring Mountain.