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24 June 2024

Cameron Ashe **Environment Assessment Officer** Department of Planning and Environment Locked Bag 5022 PARRAMATTA NSW 2124

cameron.ashe@planning.nsw.gov.au

Dear Mr. Ashe

Submission in response to the EIS on the Sandy Creek Solar Farm (Application No SSD-41287735)

1. Introduction

Thank you for the opportunity for Warrumbungle Shire Council ('Council') to table this Submission in response to the EIS for the proposed Sandy Creek Solar Farm Project ('Proposal') near Dunedoo NSW.

The Proposal will be located partly within the Warrumbungle Local Government Area and has physical and socio-economic consequences for Council to manage.

It is understood that the Project involves the establishment and operation of a solar farm and associated infrastructure including:

- A Capital Investment Value of approximately \$1.2 billion.
- 1.5 million PV Panels (700 MW total generation capacity) and supporting infrastructure spread across 1,486 ha of impact footprint area, 25km south-west of the township of Dunedoo.
- Battery Energy Storage System (BESS) with a capacity of up to 2,800 megawatt hours comprised of 114 energy storage units.
- Skid mounted power conversion units, distributed across the site.
- An electrical substation.
- Two high voltage transmission lines running approx. 1km to the proposed new 330kV Elong Elong Hub.
- Ancillary infrastructure, including
 - A temporary workforce accommodation facility for 350 workers
 - Parking facilities
 - o Internal access roads and electrical cable trenching, including crossings of Broken Leg Creek and Spring Creek and their tributaries
 - Bridge crossings over Sandy Creek
 - A communications tower

- o Temporary construction compounds, laydown areas and an operation and maintenance facility
- o Primary access points for light and heavy vehicles
- o Landscaping.
- Road upgrade corridor
- Construction footprint of the public road crossing of Sandy Creek Road.
- An operational lifespan of 40 years
- Footprint size of the following
 - o Study area 1,713 ha
 - o Impact footprint 1,489 ha
- The site will be accessed via the Golden Highway, Spring Ridge Road, and Dapper Road
- Project construction duration of 22-28 months, commencing in quarter two (Q2) 2026.
- An average construction workforce of approx. 245 full-time equivalent jobs with a peak of 350 FTE required on-site.

2. Overview Comments

Whilst Council is generally supportive of renewable energy initiatives and acknowledges that this EIS addresses matters raised by Council during consultation, it none-the-less has concerns about the Proposal, arising mainly in regard to the impacts expected to Council-owned roads and flow on road safety consequences for local residents.

Furthermore, and most significantly, Council's major concern relates to the cumulative environmental, social and economic costs expected to be borne by residents and ratepayers arising from some 40 CWO REZ projects – and some 10,000 construction workers on – in the region. For instance:

- Impacts on emergency services;
- · Impacts on social wellbeing services;
- Impacts on social and cultural fabric of the Shire;
- Impacts on local water, wastewater, solid waste and gravel supplies, etc.

The various concerns are outlined in this submission. It is because of these unresolved concerns that Council hereby lodges an objection to the Proposal.

The prospect of Council subsequently reviewing its objection is dependent on whether the Proponent and DPHI actively and substantively engages with Council to address, to Council's written satisfaction, the concerns listed herein, specifically those outlined within Attachment 1.

Council, its residents and ratepayers and community groupings, need to be satisfied beyond doubt that the environmental, social and economic features and attributes of the Warrumbungle LGA in general, and the local communities, towns and rural districts in particular, will be safeguarded. A priority consideration is that Council needs to be able to feel confident that environmental, social and economic costs will not be outsourced by the Developer onto the residents and ratepayers of the Shire.

A key management strategy frequently used within the EIS to address many issues is that of Adaptive Management Tools. Whilst Council agrees that adaptive management is best practice, details on the specifics of how it will be implemented and managed – including a robust and transparent compliance management program for traffic being limited to designated roads - are required.

The salient matters that require satisfactory resolution include:

- 1. Road and Traffic impacts for Spring Ridge Road and Dapper Road.
- 2. Justification for a below average estimate of workforce numbers.
- 3. Disposal of wastewater.
- 4. Additional and more transparent strategies for drought resilience and management.
- 5. The provision of specified trailer mounted firefighting equipment or similar.
- 6. Council seeks greater transparency and robustness of information on the safeguards to be adopted to prevent social impacts caused by the population increase, change in character of the local area and the increased risk to safety due to Project generated traffic.
- 7. Additional commitments for erosion and sediment control during construction in line with current practice.
- 8. The provision of annual, ongoing financial contributions for road repairs and maintenance over the life of the project, including upgrading/refurbishment and decommissioning phases.
- 9. Reaching agreement on the Key Terms for a Planning Agreement prior to issuing of any consent.
- 10. Inadequate telecommunication services/infrastructure.
- 11. Details of the source of concrete and sand (or other materials) required for the construction phase; and
- 12. Definitive actions to enhance positive social cohesion between the proposal and the local community.

The above-mentioned items are further addressed below.

3. Road and Traffic Impacts

Warrumbungle Shire Council is the roads authority for all local roads within the Shire which the project has designated as its haulage and workforce routes. Before works can commence, details of physical works and traffic management must be to the Council's satisfaction under the EP&A Act, the Roads Act Section 138 and other clauses.

Council staff recognise and appreciate that the developer and roads consultants have provided a comprehensive Traffic Impact Assessment (TIA). The TIA has paid close attention to concerns Council has raised with planned REZ projects to date and has made genuine efforts to address most of these.

However, at this time Council objects to the proposal on the basis of roads and traffic impacts for a number of reasons. Some of the key findings which need to be resolved prior to SSD approval are not supported. Clear and accountable commitments on other aspects still need to be secured with the developer. Council offers details at Attachment 1 to this letter. Until these queries are resolved to Council's satisfaction, the consent authority cannot be satisfied that the reasonable or likely impacts of the development will be adequately mitigated or managed.

About 15km of Spring Ridge Road and Dapper Road will be heavily impacted by vehicle movements for a very large haulage task in the order of 1,000,000 or more tonnes of materials (including civil works), and a large workforce, not just during the construction phase but cumulatively over the operational life, upgrading/refurbishment and decommissioning of the project. A further 10km of WSC-owned Spring Ridge Road and various lengths of other local roads will experience significant impacts. These are narrow rural laneways that have historically been designed and built to cater only for very low traffic to access a few local residences, businesses and agricultural land uses. Financing and delivery of works by REZ developer(s) will be required to prevent a reduction of minimum standards for road safety, and road asset serviceability, including pavement life.

To allow for the different scenarios, where some or all of the planned EnergyCo and private developer projects that would use these same roads proceed, Council will require each developer to

commit and contribute to their fair share of solutions to the issues created, so the residual and long-term risks do not become a problem for Council and the communities it serves.

If the applicant engages constructively with Council to resolve these concerns, there are good reasons to suggest that Council may be able to withdraw its objection on the basis of roads and traffic, prior to SSD determination.

4. Securing a Planning Agreement

As the sphere of government directly responsible for the day-to-day governance of Warrumbungle LGA, the issues confronting Council are significant and diverse. Whether it be roads and bridges, water and sewerage systems, waste, community buildings, recreation or daycare facilities, the availability and quality of this infrastructure and social services has a significant influence on the quality of life and wellbeing of our citizens and ratepayers.

Council thus has engaged in discussions with the Proponent regarding development contributions from the Proponent via a Planning Agreement that acknowledges the tangible and intangible environmental, social and economic costs arising from the Proposal. Such funds will be applied to a public purpose that will ensure the provision of a public benefit.

Discussions with the Proponent on formulating a Planning Agreement are ongoing. Council requires that the Key Terms of the Planning Agreement be finalised prior to the issuing of any development consent.

5. Construction Workforce

The Environmental Impact Statement includes a peak construction workforce of 350 full-time equivalent workers (FTE) with an average of 245 FTE during the majority of the construction phase. Council notes that this estimate is low when compared with other solar farm projects in the area. The Birriwa Solar Farm estimates a peak construction workforce of 800 with an average of 360 for a slightly smaller MW capacity project, estimated to be constructed over a similar timeframe (28-months). The estimate provided for the Sandy Creek workforce is closer in number to those provided for much smaller solar farms such as Stubbo SF, Forrest Glen SF, Suntop SF and Wellington SF. Council is concerned that an under-estimate of the workforce requirements will result in overflow from the TWA utilizing other local accommodation and community service options for the duration of construction resulting in impacts to accommodation availability for tourists and visitors to the region and health services.

Council thus requires a detailed breakdown on the workforce numbers and robust justification for same.

6. Water/Wastewater Management

The Proponent estimates 70ML/yr of water will be required for construction. The EIS clearly outlines the source, use and quantities for all water requirements except for concrete. As not all PV support frame piers will be concreted, it is assumed that concrete will be sourced locally. Council requires further clarification on this, and the anticipated additional truck movements associated.

Council is also concerned about water usage and sourcing during drought, Table 6.35 – Water Management and Mitigation Measures does not provide for alternative water supply or address the issue of water supply during drought. Council seeks commentary on the safeguards to be adopted to ensure water security for local residents and agricultural practices during drought.

The EIS is unclear on specifically where wastewater will be disposed. WSC acknowledges that discussions regarding wastewater have been included in the EIS and would like to reiterate that the likely volumes will exceed the capacity of local waste facilities and Council will be unable to accept any wastewater. Wastewater may need to be managed through commercial agreements with contractors, a licensed waste management company and relevant local councils during construction

of the Project. These agreements will also be required if the Project is decommissioned in 40 years' time.

7. Bushfire Management

Council requires the Proposal, if approved, to retain trailer drawn firefighting equipment on site at multiple locations and basic equipment in all vehicles, near the battery storage facility and at multiple sites across the solar farm to the written satisfaction of the local RFS.

Council requests that the Warrumbungle Local Emergency Management Committee be included in the Bushfire Emergency Management Plan and in all consultation regarding bushfire and emergency management.

8. Social Impact

Council is pleased to see that local concerns have been accurately and comprehensively represented within Section 6.13 Social particularly as it pertains to the extent of social impact likely to be felt across the region from the cumulative impacts of so many concurrent REZ projects, as detailed in Table 6.40.

Whilst the views of the local community have been well captured, there are a disappointing number of strategies suggested within the mitigation measures to address these issues. Council reiterates that these are not just perceived impacts, they have been assessed by many REZ projects and proposals are actual negative impacts and need to be adequately addressed through collaborative strategies.

Council seeks greater transparency and robustness of information on the safeguards to be adopted to prevent social impacts caused by the population increase of an estimate of 7,000 to 10,000 construction workers across the REZ, change in character of the local area and the increased risk to safety due to Project generated traffic.

Council notes that the Proponent plans to engage with Council in relation to health services, to identify potential service limitations and implement measures such as provision of on-site first aid facilities to reduce competition for GP services closest to the Project site. Council encourages this engagement and looks forward to future discussions.

9. Telecommunications

Council notes that the Developer plans to use the cellular network during construction for communications. The cellular network is already plagued by drop-outs and slow download/upload speeds experienced regularly by local users. Council encouraged the Proponent to collaborate with EnergyCo and other Renewable Energy Projects to investigate further initiatives regarding telecommunication upgrades, for the benefit of the Project and the local and regional community, as has been promised by several other renewable energy Proponents within the REZ.

10. Cumulative Impacts

Approximately 40 renewable energy projects are currently planned for location within or immediately adjacent to the CWO REZ. Council is concerned about the myriads of impacts this will generate on its residents and ratepayers. Thus, it seeks substantive information from both the Proponent- and the NSW Government – on what benefits will be forthcoming to both Council and the region to compensate for these imposts.

Council notes that the EIS estimates peak cumulative impacts of construction associated with the REZ to fall between 2025 and 2027, and that EnergyCo predicted only a minor cumulative impact on the capacity and efficiency of the road network. Council does not accept these predictions; rather, that some 10,000 construction workers and associated heavy vehicles will be present from 2025 until at least 2028.

11. Erosion and Soils Impacts

Modelling results presented in the EIS show Sandy Creek experiences some of the highest hazard category flow in a 1% AEP event and that whilst LSbp have refined the design to account for the presence of moderate to high erosion risk areas and dispersive soils, not all areas could be avoided. Council is concerned that the mitigation measures proposed do not adequately address the management of dispersive soils or the potential for tunnel erosion. Council notes that the EIS doesn't refer to the current and ongoing updates to either the NSW Blue Book or IECA BPESC and suggests that future Management Plans should make reference to these. It is also noted that the EIS proposes the use of Type D sediment basins, whereas a Best Practice approach would use Type A basins unless it could be demonstrated that automatic dosing is not feasible. It is recommended that all Plans be prepared and approved by a suitably qualified professional in erosion and sediment control

12. Conclusion

Whilst Council is generally supportive of renewable energy initiatives and acknowledges that the EIS goes some way to addressing matters raised by Council during consultation, it none-the-less has significant concerns about the Proposal, arising mainly in regard to the impacts expected to Council-owned roads and flow on road safety consequences for local residents.

Furthermore, and most significantly, Council's major concern relates to the cumulative environmental, social and economic costs expected to be borne by residents and ratepayers arising from some 40 CWO REZ projects – and some 10,000 construction workers on – in the region. For instance:

- · Impacts on emergency services;
- Impacts on social wellbeing services;
- Impacts on the social and cultural fabric of the Shire;
- Impacts on local water, wastewater, solid waste and gravel supplies, etc.

Thus, Council is not able to make a fully informed judgement as to the relative benefits and costs of the Proposal at this time, and thus, from a due diligence perspective, objects to this Proposal.

However, if the applicant and the NSW State Government engages constructively with Council to resolve these concerns, there may be an opportunity for Council to consider withdrawing its objection at a later date.

If you have any queries regarding the abovementioned matters, please don't hesitate to contact the undersigned.

Yours sincerely

ROGER BAILEY
GENERAL MANAGER

Sandy Creek Solar Farm SSD-41287735 Environmental Impact Statement (EIS) Phase Warrumbungle Shire Council Submission

Roads and Traffic Matters in Detail

To enable assessment of the SSD proposal, Council requests the applicant address the following in its Response to Submissions.

- Council concurs with the TIA identifying that Spring Ridge Road and Dapper Road will require widening generally in accordance with Austroads to safely cater for the proposed traffic volumes (for the project and cumulative REZ). However, EnergyCo has not yet committed to, or provided concept geospatial layouts or drawings showing, the likely extent of upgrades required along most of the full length of Council's Road segments.
 - a) While the background traffic volumes adopted by the TIA (Table 5.6) appear generally reasonable, the project volumes (Section 4.1.5) do not appear to allow for a scenario in which the onsite accommodation is not operating. As the proponent seeks flexibility on the question of onsite accommodation, both scenarios should be clearly assessed.
 - b) Additionally, cumulative traffic from other projects cannot be assumed as zero along Spring Ridge Road and the short first section of Dapper Road, and should be explicitly shown as part of the baseline assuming a probable worst-case overlap in project timings, even if the current developer is not responsible for safely catering for other project traffic.
 - c) No firm commitments have been offered to ensure the forecast quotas of shuttle buses and/or car-pooling will actually occur, and as such the peak hourly traffic assessment (Figure 4.1) is not conservative enough. Experience in regional projects shows a rate of closer to 1 vehicle per 1 worker, especially if the workforce is distributed across regional towns in the no-onsite accommodation scenario. A commuter AM and PM peak closer to around 350 vehicles per hour at the site access is a distinct possibility and must be an assessed scenario unless concrete measures will address this.
 - d) A scenario of 37 heavy vehicles per day for 28 months appears too low to have factored in the large volumes of likely civil works materials (quarry products etc.) that would be required by the project. Please provide further details, with separate scenarios if required.
 - e) Figure 4.1 peak hourly assessment appears to have distributed workforce movements fairly evenly across the day, whereas sharp peaks are expected at shift start and end.
 - f) Update the intersection upgrades assessment (Austroads turning warrants, Section 5.5.2 and elsewhere) considering the above higher traffic scenarios.
 - g) Table 5.6 appears to envisage sealing Dapper Road although it is currently unsealed. Existing unsealed roads with low traffic volumes in the long term should be returned to unsealed condition following construction unless

agreed otherwise with Council, for ease of maintenance with graders. Please clarify preferred approach.

- h) Note Council would not ordinarily accept less than two-way sealed width being provided on any sealed road impacted by the project, despite Austroads guidance. It appears Austroads AGRD03 Table 4.5 note 6 has not been considered which recommends a minimum 7m seal width on heavy vehicle routes. It is also unclear how the TIA has concluded (Table 5.6) that an 8.7m wide carriageway (including unsealed shoulders) is already met along Spring Ridge Road it is generally much narrower and should be widened given the high heavy vehicle use proportion.
- i) Concept layouts showing formation edge relative to cadastral boundaries and any constraints (vegetation, etc.) are requested in relation to the current proposal, to ensure that any impacts are assessed, resolved, and the works can lawfully be constructed – even though who will ultimately construct the works may not yet be known.
- j) Layouts should clearly show whether/how compliant sight distances will be achieved at all intersections and sharp curves in the affected local roads. The indicative extent of any vegetation clearing should be clarified for impact assessment. In particular, the proposed site access is a short distance from a sharp bend in Dapper Road and relocation may need to be considered. Also show sight lines at the proposed 4-way access intersection at Sandy Creek Road between the east and west project sites.
- k) Project traffic should be prohibited from accessing Sandy Creek Road, other than to go directly between the project west and east sites at the designated access point (but this restriction would not apply in emergencies or with Council's written agreement from time to time). A concept design for the 4way intersection should be provided to maximise crossing safety, manage this compliance outcome, and make clear any impacts, e.g. in regard to vegetation or landform changes to achieve sight distances or realignment of proposed legs.
- I) If access for A-double and equivalent Performance Based Standards trucks is proposed or required along Spring Ridge and Dapper Roads (noting TfNSW proposes to reclassify the Golden Highway to a PBS Level 3 route in future), lane and intersection design concepts should accommodate simultaneous two-way flows. Use of the oncoming lane by these vehicles (indicated by certain swept path diagrams in the TIA) is unlikely to be supported.
- m) A key issue for Council and its communities is confining the project-related traffic to these roads nominated by the Developer, as the only roads permitted to be used. The developer will be responsible for the upgrade and 'make good' provisions of the prescribed traffic routes.

However, based on experience, what happens is 'minor roads' or 'back tracks' – roads that are of gravel construction, often winding and only designed for minimal traffic movements – become the 'short cuts' or 'rat runs' with the additional traffic causing untold damage. Leaving the ratepayers to carry the fix-up costs. This is inequitable and unjust.

Council requires the Developer, in its Response to Submissions, to explain how traffic will be managed and regulated to stay on the nominated roads and not use other, non-approved routes. The community needs to know what compliance measures will be implemented and how they will be enforced. Such compliance measures may include, inter alia, monitoring of individual vehicles with GPS and geofences, active surveillance, incentivization and disciplinary actions and monthly lodgment of electronic compliance reports with the Councils.

The public availability of the data will help with transparency and accountability and help safeguard those road assets that are the province of Local Government.

- 2. There are several legal paths to ensure that each developer fairly contributes to providing its share of road infrastructure for the REZ, and Council is open to consider developers' preferred options such as:
 - Legal agreements with Council for each developer to contribute cash towards capital upgrades, or provide works in kind, proportionately to their traffic contribution.
 - Concept designs that show how each impacted road will be progressively upgraded in a staged approach by successive developers (e.g. 'modular' or half-section widening strategy).

In the absence of each party collaborating to bring about such solutions, consent conditions would necessarily reflect the default scenario under planning law which can often mean the first mover must provide full and adequate upgrades at its cost and risk. This may hamper the orderly and efficient rollout of the REZ.

3. Pre and post-construction, upgrading and decommissioning assessments of pavement conditions will not on their own be adequate to ensure that the damage that project traffic does to Council's roads will be fully repaired or offset. Austroads shows that pavement design life is depleted by each passage of truck loads (in terms of Equivalent Standard Axles). Most of this damage may not be visible upon completion of construction, upgrading and decommissioning works but would be expected to reveal itself in premature and widespread failures (potholes, rutting etc.) in the years or decades following construction. Future rehabilitation and maintenance by Council would need to occur much sooner than if the project did not proceed. The developer has not addressed how pavement life reduction as a result of project traffic will be mitigated or offset. Similar to the above point, there are several options and Council is open to discussing (especially where multiple developers are using the same roads). A preferred solution may be an initial or staged full-depth upgrades of the pavements to strengthen them to be fit-for-purpose to accommodate the cumulative REZ traffic.

From a traffic perspective Council supports in principle an onsite or nearby temporary work accommodation camp to assist in minimising vehicle-km and thus reduce road safety incidents and wear and tear on Council-maintained roads.

4. The proposal should be amended to site structures and private infrastructure outside existing public reserves (including Crown paper road reserves), to retain these corridors for future access and development. Council does not currently

support the proposed Crown Road (private use and closure) strategy for several reasons including:

- The process to close each public (paper) road reserve under the Roads Act is both long duration and uncertain as to outcome. If any of the Crown Roads cannot be closed (in time for commissioning/occupation of the development), the SSD project layout may need to be amended. Public roads cannot generally be used for private purposes to the exclusion of other users except in limited circumstances as set out in the Roads Act.
- Noting that typically renewable energy projects may use 'access licences' instead of fee simple ownership of property, Council is concerned that closure of paper reserves may 'land lock' existing lots and prevent orderly economic development of that land if in future any of the parcels come under separate ownership. It is prudent development policy to enforce consolidation of lots that are integral parts of the land comprising a single development, or alternatively public roads (such as Crown roads) and private rights of access should be preserved and provided to ensure separate legal and practical access to each existing lot title. Often, community and political expectations to resolve access issues to land become a problem for the local Council.
- Council is also concerned that in the event a Crown paper road cannot be closed but may be used for the private benefit of this project, Crown policy may result in the unilateral transfer of the road reserve to Council ownership (without Council agreement). Council generally objects to this eventuality as it does not have funding to provide for upgrades and long-term maintenance of additional public road corridors to meet fitness-for-purpose. If despite Council's objection, Crown Lands opts to transfer the roads, then the roads would need to have infrastructure provided to Council's specifications at the developer's cost. The relevant standard of works should be negotiated prior to SSD determination.

Outside of the public SSD exhibition process, Council invites the developer to proceed with direct Roads Act application pre-lodgement discussions to clarify and agree the following details (noting these should be agreed prior to SSD determination):

- 5. Provide a detailed materials manifest for all materials that would be hauled by public roads during the construction, operational, refurbishment/upgrading (component repairs and replacements) and decommissioning phases, including key unit weights, densities, average truck load configurations and probable numbers of truck movements. Include allowances for the significant quantities of earthworks and quarry products required for public works such as road widening and resheeting. Include tonnages for haulage of water, solid and liquid waste, etc.
- 6. Provide an assessment of the development's proportion of impacts on Council's pavements in terms of Equivalent Standard Axles, and show working in accordance with the Austroads Guide to Pavement Technology and ARRB Best Practice Manuals (as applicable).

(End of Attachment 1)