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Dear Madam/Sir

Submission – Bowmans Creek Wind Farm (SSD 10315)

I wish to make a submission in relation to the state significant development application for the Bowmans Creek Wind Farm Project under consideration by the Independent Planning Commission (SSD 10315). The submission has reviewed the Department of Planning and Environment's assessment report and recommended conditions of consent for this proposal for up to 56 wind turbines and associated infrastructure.

I own land about 10 km north east of this proposal near Mount Royal National Park and made a submission in May 2021 objecting to the proposal on the following grounds:

1. Measures have not been taken to avoid biodiversity impacts, and the biodiversity assessment undertaken is inadequate having regard to the scale and nature of the development. Local biodiversity offsets for the project need to be secured before any project approval.
2. Reasonable alternatives to the project have not been considered or assessed in the environmental impact statement.

3. Significant parts of the project area proposed for development are unsuitable for this development, and the proposal would lead to unacceptable precedent-setting and cumulative environmental impacts.
4. Inadequate social impact assessment has been undertaken of the proposed development.
5. The renewable energy benefits are not outweighed by the extensive roads, infrastructure and site disturbance required, and long term maintenance and land management costs and risks arising from bushfire hazards, weeds, biodiversity loss, and social impact.
6. Financial commitments made in the environmental impact statement in relation to the proposal appear questionable and unjustifiable.

The proposal is not suited to the area, and should not be approved. To be acceptable, the proposal would need to be significantly reduced in size, with the wind turbines relocated to a more suitable location where new transmission infrastructure, roads and embodied carbon emissions can be minimised, and where it can be demonstrated that there is zero adverse biodiversity impact.

Suggested criteria that should be met by renewable energy projects were identified in my earlier submission, together with a range of specific matters of concern, including inadequacies in the environmental impact statement and project documentation. These matters appear to have been largely dismissed in the assessment report although remain relevant to the consideration of the application by the Independent Planning Commission.

This submission highlights key issues that have not been addressed in either the submissions report (James Bailey & Associates, 8 October 2021), the assessment report (NSW Department of Planning and Environment, November 2023), or the recommended conditions of consent (NSW Department of Planning and Environment, undated).

It is also important for the Independent Planning Commission to consider the context within which the application is being considered, and changes that have occurred since the project environmental impact statement was prepared. Important matters include:

1. The relevance of Section 8 of the NSW *Climate Change (Net Zero Future) Act 2023* setting out “guiding principles” to underpin the way that climate change is addressed in NSW. This guidance includes consistency with the principles of ecologically sustainable development, involving appropriate consultation with affected persons, communities and stakeholders, and reducing the risk posed to the survival of all species.
2. The Australian Government Nature Positive Plan (October 2022) guided by the principle that development should be ‘nature positive’.
3. Commitments by Australia’s environment ministers (including NSW) on 21 October 2022 recognising that “action is needed to arrest environmental decline and prevent new extinctions of plants and animals” and to work collectively to achieve a “target to protect and conserve 30% of Australia’s landmass and 30% of Australia’s marine areas by 2030”.

Relevant matters that should be considered by the Independent Planning Commission in the determination of the application are as follows:

Ecologically sustainable development

Object 1.3(b) of the Environmental Planning and Assessment Act 1979 is to facilitate ecologically sustainable development. Ecologically sustainable development (ESD) is also a guiding principle in the *Climate Change (Net Zero Future) Act 2023*. The extent to which the development applies the principles of ESD is a critical matter for consideration, as evidenced in many court judgements.

It is therefore curious that the assessment report makes no reference to ecological sustainability, or the extent to which the development meets ESD principles. Furthermore, the assessment report provides no guidance to the Commission on how this might be applied in the determination of the application.

For ecological sustainability, the development could be expected to meet a number of criteria including:

1. Siting and staging of the project concurrently with processes for rehabilitation of existing disturbed land, as part of transitioning coal mining and generation infrastructure towards sustainable future land use.
2. Design to avoid biodiversity loss, and achieve no net loss of biodiversity within the local area, with any required biodiversity offsets being provided or secured in advance of the development being approved. The development would preferably be 'nature positive' at all stages of development (including construction, operation and decommissioning).
3. Construction being undertaken in a manner that provides for complete removal of all infrastructure (eg roads and transmission lines) and reinstatement of landscapes following decommissioning.
4. No site disturbance or loss of biodiversity within 15 km of a protected conservation area (eg national parks and nature reserves).
5. Achievement of zero net carbon emissions during construction through offsets, in addition to a positive carbon emission balance following commissioning and over the lifetime of the project.

There is no evidence that demonstrates in either the project environmental impact statement or the assessment report that the development meets ESD principles, or how these principles have been applied in the consideration of alternative options that are available to reduce impacts. For example, with considerable flexibility available in the design and arrangement of wind turbines, alternative sites or layouts should have been considered in the EIS, especially when other alternative sites are available which would have a significantly lower environmental impact. Not proceeding with the north east and south east sections is an alternative which should be considered. The proposal should also be assessed against other alternative options to reduce carbon emissions more effectively.

Biodiversity

Loss of biodiversity is a critical and unacceptable impact of the proposal. In an already substantially cleared and fragmented natural landscape, a further 280 ha of a diverse range of habitats and vegetation types will be cleared. A much larger area is indirectly affected, with 31 km of new linear infrastructure constructed and 52 km of new roads and access tracks. The cumulative biodiversity impact is significant.

The assessment of the development application must have regard to more than the impacts on threatened species, and the appropriate application of the Biodiversity Assessment Method for the calculation of biodiversity offset credits. The issue of biodiversity conservation relates to impacts on all species, and especially the fragmentation or compartmentalisation of natural areas by linear infrastructure as proposed in the proposal currently under consideration. Cleared easements and construction of tracks create permanent barriers between contiguous habitat with impacts extending at the landscape scale. These impacts increase the extent of disturbed habitat preferred by feral pest species and assist these species to extend their range, with compounding impacts on natural areas.

In relation to biodiversity issues the following matters are important to consider:

1. The proposal has not demonstrated avoidance of biodiversity impacts as required by the *Biodiversity Conservation Act 2016*. Measures taken to avoid biodiversity impacts are not adequately considered or documented in the Biodiversity Development Assessment Report (BDAR) to satisfy legal requirements of this Act.
2. The biodiversity assessment focuses only on threatened species and ecological communities, and fails to consider other ecosystem processes and impacts from the project. For example, impacts on invertebrates such as migratory moths and butterflies is critical since these utilise ranges and hilltops to navigate and breed, and have a high likelihood of having migratory pathways severed by the proposed wind turbines and associated lighting.
3. Section 8.5.1.1 of the BDAR highlights significant biodiversity survey limitations due to lack of time and inappropriate survey conditions. With vegetation surveys undertaken conducted during drought conditions where detection of species was limited to shrub and tree species only, the results cannot be considered adequate or reliable. This is quite unrealistic for either identifying the presence of many species or for providing confidence in the results of the assessment or offset calculation.
4. The Biodiversity Assessment Method (BAM) used for the assessment is not intended, and unsuited for linear infrastructure such as roads, transmission lines and isolated wind turbines such as proposed. In particular, this method fails to adequately consider biodiversity issues relating to landscape scale habitat connectivity and biodiversity corridors. More detailed review should have been provided on the impact of the proposal on species movement and landscape connectivity rather than basing the biodiversity assessment on narrow 'corridors' as has been done. This underplays the true biodiversity impact and the consequences of the proposal on ecosystem function.

5. The potential for a serious and irreversible impact on the Box Gum Woodland vegetation community has been noted in the assessment report, yet is dismissed. The assessment that “given the abundance of Box Gum Woodland within the locality, any requirement to avoid this SAll entity would result in significant impacts to the proposed alignment such that avoidance is not a reasonable alternative” is arguable at best, and incorrect at worst. This represents a clear breach of the application of the precautionary principle and undermines any claim that the development is ecologically sustainable (see above). It is clearly inappropriate to rely on offsets to avoid or mitigate serious and irreversible impacts affecting the continued existence of a species or ecological community.
6. The recommended conditions of consent refer to birds and bats only (B12). This proposed condition should be extended to all flying species including invertebrates.
7. A serious omission is that the proposal fails to specify how biodiversity offsets will be met. It cannot be guaranteed that required offsets are available and can be secured, and a proposal of this type should be required to provide advanced offsets prior to project approval. No commitment is made to the provision of offsets in reasonable proximity to the location of the impacts, and which should be a priority and a requirement of any approval.

Cumulative impacts

The proposed development has cumulative impacts that are not addressed or referred to in the assessment report. This represents a significant oversight and should be subject to further evaluation, especially in relation to biodiversity.

Visual impacts

The project will have visual impacts from a considerable distance, such as from Mt Royal within the Gondwana Rainforests World Heritage Area. Visual impacts from significant features could be significantly reduced by considering alternative turbine layouts and locations. This has not been considered in the design or impact assessment.

Insufficiently considered in either the project documentation or the environmental assessment is the visual impact of the proposal from visually prominent outlooks in Mount Royal National Park and adjacent Barrington Tops National Park. The assessment report in paragraph 98 misleadingly states that “views of turbines from facilities within the park would be screened by dense forest” whereas the cleared outlook destination nearby and walking track will have a prominent view of the turbines.

The public lookout at Pieries Peak will directly view the Bowmans Creek Wind Farm and this impact has not adequately been assessed, and is considered as a group of eight locations in VIZ1 (comprising Mt Royal National Park - Pieries Point Lookout, Lake Liddell Recreation Park, Lake St Clair and Woodlands Ridge, as well local roads

and locations in Rouchel and Muswellbrook). These eight locations are not comparable and the assessment is unreasonable for the following reasons:

- There are multiple viewpoints from Mount Royal National Park including on Pieries Peak and Mount Royal within the declared wilderness area.
- These world heritage listed places have views that are characterised by natural landscapes unlike the other locations.
- The public access track and view from Pieries Peak is recognised as one of the 20 Great Hunter Region Walks, and is of important tourist significance.
- There are opportunities available to relocate wind turbines to reduce the visual impacts on the world heritage listed area and its views, and these options have not been considered.

Visual impacts also need to be considered in relation to other species that occupy the landscape, and use natural features for navigation both during the day and night. The visual impact assessment is solely human centred and fails to consider this important aspect.

Visual Assessment Bulletin options for visual impact mitigation are inappropriate for considering visual impacts from national parks and world heritage areas. It is noted that the Department considers that re-siting or removing turbines is generally the most effective mitigation option, given that re-sizing specific turbines is not a viable option for commercial and maintenance reasons. This should be done as part of further review responding to the visual impacts on national parks and world heritage properties.

Carbon emissions associated with the project

Both the environmental impact statement and the assessment report fail to identify, quantify or consider the carbon emissions associated with the project. This is an important omission.

Any approval for the proposal should be on the basis that carbon emissions attributable to the operation, maintenance and decommissioning of the proposal are fully quantified and offset using an appropriate mechanism. This includes embodied energy in materials, fossil fuel use for transport and management, road maintenance, waste disposal, land management costs and employee transport. All these emissions should be quantified in the project proposal to provide a true carbon emission balance for the proposal for its full life cycle.

Identifying the carbon emissions associated with projects is essential for meeting the guiding principles identified in the *Climate Change (Net Zero Future) Act 2023*.

Assessment report errors

The conclusions of the visual impact assessment relating to Mount Royal National Park are misleading and incorrect.

The statement in Paragraph 98 states that “the Department notes that Mount Royal National Park (listed as part of Gondwana Rainforest of Australia World Heritage Area) is located more than 13 km northeast of the project, and views of turbines from facilities within the park would be screened by dense forest”. As noted above this does not represent the true situation. Visual impacts affect views from the walking track and outlooks from prominent facilities, and not picnic facilities. These natural landscape outlooks from both Pieries Peak and Mount Royal are highly significant for tourism and recreation and the proposed development will impact on the visitor experience.

As a consequence of the interpretation error by the Department, the conclusion in Paragraph 102 of the assessment report that “the visual performance objectives would be achieved for all key public viewpoint locations” is not correct.

It is therefore recommended that further assessment of views from Mt Royal and from Pieries Peak be undertaken before any approval as this has not been reasonably assessed.

Changes to consent conditions

The following changes should be made to the recommended conditions:

1. Definition of ‘development corridor’ refers to figures in Appendix 1. These diagrams are insufficiently accurate to define the extent of the corridor for future compliance purposes. It is suggested that cleared definition of the approval area be given by either more precise mapping or by reference to a centreline or point and a buffer distance. This definition is critical in the application of condition B7.
2. Condition B12 should be changed from a “Bird and Bat Adaptive Management Plan” to an “Aerial Species Adaptive Management Plan” to include all flying species including invertebrates such as moths, and butterflies.
3. Include an additional part (e) to Condition B14 to read as follows – (e) remove or relocate turbines visible from Pieries Peak in Mount Royal National Park to reduce visual impacts.
4. Include an additional part (v) after condition B15(e)(iv) to read as follows – (e)(v) recognises and minimises the impact of lighting on night flying invertebrates including moths, and applies lighting of a suitable spectrum that does not disrupt the behaviour of these species.
5. Add an additional condition after B41 as follows – B41A - Carbon emissions attributable to the operation, maintenance and decommissioning of the proposal are fully quantified and offset using an appropriate mechanism. This will include (a) embodied energy in materials, (b) fossil fuel use for transport and management, (c) road maintenance, (d) waste disposal, (e) land management costs and (f) employee transport.

Notwithstanding the renewable energy benefits of the Bowmans Creek Wind Farm proposal, there are multiple and cumulative impacts and risks that have not been adequately identified or evaluated. Impacts on biodiversity and land and water systems alone mean that the proposal cannot be considered ecologically sustainable.

Please ensure that the matters outlined above are taken into account in the assessment and determination of the proposal.

Thank you for the opportunity to make a submission.

Yours sincerely

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BTP (hons), BSc, MSc (hons) Environmental Assessment

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