I am a landowner of a property located to the north of the town of Coolah. I am not a turbine host.

The need for renewable energy is well-known but it also must be well-designed and the following comments are offered for consideration by the decision-maker. The development of the Liverpool Range Wind Farm in its modified form, along with any other local windfarms, will undoubtedly be the most significant change to the character of the landscape in the Coolah – Cassilis region since pastoralists first moved here nearly 200 years ago. While a large windfarm potentially presents a significant opportunity for the local community, with a range of direct and indirect benefits, windfarms are not entirely benign. As is well known, the project will provide direct financial benefits to landowners who host turbines, and also, via a Community Enhancement Fund, provide significant benefit to the communities located within 20 km of each turbine. But, due to the increased height of the towers and increased length of the blade, notwithstanding the relatively insignificant reduction in the number of turbines, the modified project has an increased potential for significant negative impact. So, any decision to approve the modified project is legally required to ensure that the Liverpool Range Windfarm finds an appropriate balance between the global/national benefits of wind energy and the locally felt impacts or 'dis-benefits' (*Preston CJ, Taralga Landscape Guardians case*).

Given the planned footprint of the windfarm, the 'dis-benefits' do not fall evenly on the community. It is undeniable that the views and amenity of various properties, including my own, will be significantly altered. It is also self-evident that the increased height of the turbines and blades due to the modifications to the project will also increase the impact on the visual character of the landscape surrounding the town of Coolah. The total number of turbines has been minimally reduced in the modified project and the significantly larger towers and blades, inscribing a much larger blade sweep, will be even more clearly visible on the skyline to the east and north-east of Coolah.

The global benefit of and need for renewable energy is well-recognised. Consequently, local residents who object to developments are often unfairly charged with localised self-interest and NIMBYism ('not in my backyard'). But the literature also argues that this is an outdated and inappropriate slur on objectors because local people frequently provide the most valuable insights to facilitate a decision-maker to reach the best outcome for all of the community. From a legal perspective, and as the Department will be well aware, the Land and Environment Court has consistently interpreted the *Environmental Planning and Assessment Act 1979* (NSW) as requiring that the development approval process must be interpreted in a manner that preserves meaningful public participation.

1. Increased visual impact

Modification of the project will **increase the visual impact** not only for my own property but for the Coolah and Cassilis communities more generally, and also visitors to the Coolah Tops National Park.

First, the decision-maker needs to be aware that the information provided to the community about the visual impact can be readily demonstrated to be flawed. The panoramic photomontages do not provide a realistic representation of what the human eye and brain perceives in terms of the existing landscape. As illustrated by Attachment 1 to this submission, the panoramic photomontages flatten the foreground, increasing the apparent distance of the skyline and also lowering the height of the Liverpool Range. As a consequence, the photomontages suggest that the turbines will be smaller and further away than they ultimately will appear. Attachment 1 to this submission, also shows that with even the briefest of comparisons between the panoramic representations (Image 1 in Attachment 1), while standing in the actual locations (see stitched iPhone Images 2 & 3 of Attachment 1), how inaccurate the panoramic representations made by the windfarm industry are. The panoramic photomontage image of the 'modified project view' at location PM16 which was presented by the

proponent in community consultation shows the new turbines as almost imperceptible specks on the horizon. Whereas, if a segment of the photomontage panorama is copied and enlarged to the same scale as appears while standing at location PM 16 (see Image 4) the turbines appear larger and much more clearly visible on the horizon. The point here is that the community was only presented with Image 1 which under-represents the scale of the visual impact of the project. Even if the actual visual impact is ultimately considered acceptable by a viewer, the panoramic representation provided by the proponent is still deficient.

While Attachment 1 to this submission illustrates this flaw with respect to one location, the same inaccuracies will likely have been repeated in other locations. As a consequence, I submit that the proponent's representations of visual impact to the community fail to fulfil the fundamental legislative purpose of an environmental impact assessment process which is to properly and accurately inform not only the public during public consultation but also the relevant decision-maker. In the absence of accurate representations, the only way that a decision-maker could properly consider the visual impact of the windfarm in the locality would be to visit the project site for themselves so as to view the Liverpool Range in conjunction with information about the project.

Secondly, the measures that were previously proposed to mitigate against visual impact at my residence are inadequate and unsuitable in light of the increased height of the turbines. As shown by the photograph below, views from my house are oriented in an easterly direction across the floodplain of the Coolah Valley and the Coolaburragundy River to the skyline on the opposite side of the range. This is a location where, as described in the Department's Visual Assessment Bulletin "views are focussed directly towards the project" and there is "limited opportunity for mitigation" without there being "significant impact on all desirable views". The proposed vegetation screen will need to be further increased in height due to the increased height of the turbines. A taller vegetation screen will simply (in time) enclose the house behind vegetation, blocking all easterly views and vistas from the residence and garden. Moreover, planting screening vegetation so close to the house will also potentially create an additional hazard in the event of bushfire. In short, the proposed 'screen' will likely not mitigate against the increased size of the turbines, but would further enclose the easterly facing side of the house resulting in the loss of all desirable views from the house and garden to the Liverpool Range and increase the bushfire risk.

Figure A: Photograph taken 15 October 2022 of the view towards the east (Liverpool Range) from my house.

Figure A is an accurate representation of what the human eye sees from the window of my house and is indicative of a range of desirable views and vistas that will be not only altered by the windfarm but also completely lost if a vegetation screen is planted as was proposed. Either way the view is significantly impacted.

The reality that should be openly acknowledged by the proponent, and further considered by the decision-maker, is that for some residences it is not possible to plant any effective mitigation against the loss of views without introducing undesirable effects on important views or vistas. Where mitigation measures are inadequate, other forms of direct compensation should be offered. I request that the decision-maker consider imposing a condition that landholders so impacted be supplied with permanently free renewable electric power for their domestic and rural land-use by the operator of the windfarm. The amount of money involved for the windfarm operator would be miniscule relative to the electricity and income generated by the relevant (visually offending) turbines.

Third, the extent of visual impact on tourist locations has not been adequately acknowledged in the proponent's documentation. This includes the impact on the Coolah Tops National Park and surrounds including Pandora's Pass and the recommended tourist drive along the Gundare Road (between Black Stump Way and Cooks Lane), which, at certain points provides spectacular uninterrupted panoramic views of the Liverpool Range and the Coolah Valley, especially if driving south to north. Since the proponent has only provided photomontage images for the two end-points of the drive, and there are questions raised in this submission about the accuracy of the representations by panoramic photomontage, to fairly consider the issues being raised I submit that the decision-maker needs to come and take a look for themselves.

2. Potential Increased Loss of Biodiversity

The BDAR is frustratingly vague on key questions with numerous inconsistencies. Rather than clearly communicating the results of a comparative analysis between the original proposal and the modified one, at the end of relevant sections of the BDAR, there are long descriptions which repeat self-serving conclusions; that is, that there is no significant change from the original proposal that had already been approved.

The increased blade size and associated increased length of blade sweep (rotor swept area) is acknowledged to significantly increase the area for potential bird and bat strike and trauma. And the increased areas for vegetation clearance number in the hundreds of hectares for at least two ecological communities. Yet the document repeatedly claims that there is no significant change in impact from the original proposal. How is that possible?

The proponent acknowledges uncertainties in available data regarding potential impact on biodiversity. I submit that this degree of scientific uncertainty invites the necessity for express consideration and application of the precautionary principle, as required under both Federal and State environmental laws. Utilising this principle, the decision-maker should consider imposing whatever conditions are necessary to prevent harm to bird and bat species likely to be impacted by the project, including for all species listed under the *EPBC Act* (Cth) and *BC Act* (NSW), and any other species that may not be formally listed but are nonetheless vulnerable.

Reading the BDAR increased my own concerns about the impact of the increased rotor swept area on raptors including on the powerful owls (now at High Risk) which travel long distances and frequently hunt around my own residence; and nothing in the document provided any reassurance. The document lacks detail about the operating procedures that might be adopted to mitigate against harm. All I can suggest is that inclusion of conditions of consent that require an adaptive management

operating approach, further independent scientific study and transparent publicly available reporting of bird and bat harms, are essential to fulfil the requirements of the precautionary principle and to maintain public confidence. Community access to scientific data relating to the success or otherwise of adaptive management measures would be in the public interest and should also be a condition of consent.

Disappointingly, the expert-scientist writers of the BDAR do not attempt to form or communicate their expert view on the critical question of whether the modified proposal is likely to result in serious and irreversible impacts (SAII) on relevant listed protected species; merely repeatedly saying that as a proponent they are not required to state their position and the decision-maker can legally approve the project regardless of any conclusion they might form about serious and irreversible impact. Ought a negative inference be reasonably drawn from the proponent's refusal to communicate their conclusion? If not by the proponent, then will the public ever be informed by anyone about whether there is a likelihood of SAII on listed communities/species due to the modifications to the project? Regardless, the absence of conclusion on the question of SAII makes it difficult, if not impossible, for any member of the public (whether local or otherwise) to make a timely submission on the relevant issues about the potential loss of listed species and ecological communities.

Somewhat inconsistently, despite the repeated claims that there is no significant difference between the original and modified proposal, the BDAR communicated resigned acceptance of the need to calculate additional offsets and credits for the modified project. Unfortunately, offsets and credits are both subject to robust academic criticism for their failure to reliably provide like-for-like biodiversity protection, not least because of the diminishing availability of suitable areas to provide high quality offsets. The documentation lacks details as to where sufficient offsets (and what type) have been found. There are no details regarding Stewardship options other than assurances that they are being actively sought. There is detailed information provided about the calculation of biodiversity credits but not a lot of that is comprehensible or informative for your average reader. There is no acknowledgement that offsetting and purchasing credits are always an environmental 'compromise' and that due to the replacement of mature tree hollows and other breeding locations, or complex ecosystems, with immature substitutes, these measures rarely effectively prevent net loss of biodiversity. The literature on this is vast, and yet, there is no reference to it.

In light of these factors, conditions that require every effort to avoid biodiversity losses (including scientific and Departmental oversight of relevant final siting decisions and mitigation measures) must be included. This is particularly important given the cumulative impacts that will be addressed in the next section.

3. Necessity for Assessment of Cumulative Impacts of Multiple Renewable Energy Projects

There is an obvious need for the decision-maker to undertake a rigorous **strategic assessment of cumulative environmental and community impacts** in light of:

(a) changes to the original project which increase the size of the turbines, length of the blade and increased blade sweep and associated potential impacts,

(b) the changed approvals context since the original application to include the locality of the modified LRWF within the relevant Renewable Energy Zone (REZ), and

(c) other known local windfarm proposals that have significantly advanced since the original project was approved.

Given the size and scale of the revised project, combined with other factors listed in (a) – (c), an assessment of cumulative impacts by the decision-maker is particularly important to assessing this modified project. Cumulative impacts are poorly and cursorily addressed in the project documentation. Despite long-standing well known intentions for a second windfarm in very close proximity to the modified project, directly on the other side of Coolah (and now a formal application that has gone through community consultation), there is barely any reference to the cumulative impacts of an adjoining windfarm, in any part of the documents. For example, Appendix G1 VIA page 66 concludes that the assessment of cumulative impacts are a problem for any subsequent, that is 'later in time', proponent to address. This is a fundamentally flawed stance from a policy perspective. The 'first in time' proponent denies responsibility for cumulative impact saying that cumulative assessment is a problem for subsequent co-located proponents. Then the 'second in time' proponent argues that because the 'first in time' co-located project has already been approved, the character of the landscape has already changed and thus the second project will only marginally impact the area. And so on, with each proponent simply 'passing the buck' for cumulative impacts between other proponents.

The only way to avoid this 'buck passing' for cumulative impacts between proponents, is for the cumulative impacts to be proactively and concurrently considered by the decision-maker. Due to the recent establishment of renewable energy zones, the State government is in a position to be able to predict, at least to some degree, the likely co-location of future renewable energy developments. Instead of engaging in the historic practice of separate piece-meal project-based assessments, this creates an unprecedented opportunity for the Department to engage in a more strategic consideration of the combined effects of the totality of the both proposed and predicted renewable developments within the relevant zone and the State as a whole. It is not at all clear whether being in a REZ improves or worsens the position for a town within the renewable energy zone. Does it mean that residents can expect to be burdened by multiple developments (while other areas of the State breathe a sigh of relief) or does it mean that there will be strategic assessments of the cumulative impact to ensure that the multiple developments are properly planned?

As a matter of common sense, the cumulative visual effects of multiple co-located windfarms is relatively easy to comprehend, provided reliable visual representations of the combined impact are provided for the decision-maker as combined with site visits. Heavy reliance on the desk-top assessment of panoramic style photo-montages alone would be unreliable for the reasons already argued above. The equally important but also more difficult consideration will be the cumulative impact of multiple windfarms on biodiversity within a given locality or REZ, and within the State as a whole. While the BDAR assessments of SAII on listed entities does refer to the impact relative to the % of remaining listed entity in the footprint of the project (very small scale) and in rest of the State (largest possible scale) it does not do so in a way that indicates the impact on the listed entity in the locality of the project (and surrounding projects) or within the rest of the REZ, which is the more meaningful scale. As difficult as cumulative impact might be to assess, failure to engage with this opportunity for regional cumulative and strategic assessment, while allowing the footprints of multiple large windfarms to both aggregate and spread, perpetuates the likelihood of continuation of decline in biodiversity values which is contrary to the objectives of relevant State (*BC Act*) and Federal (*EPBC Act*) laws.

4. Increase in the Community Enhancement Fund

In light of the increased size of the project, it is also necessary for the decision-maker **to increase the overall size of the Community Enhancement Fund (CEF) that was originally approved.**

It is hard to over-state the importance of the Community Enhancement Fund (that was approved in the original project) to the relevant local communities of Coolah and Cassilis, both of which are relatively isolated, including being located at the margins of their respective local council areas. For both Coolah and Cassilis, the nearest major town is over an hour's drive away. Rural towns need to be able to invest in excellent facilities and services that 'punch above their weight' in order to be able to attract and then retain new residents, and for isolated towns to prosper and grow. Given the influx of a new workforce that is likely to be involved in construction and maintenance of the windfarm, there is an opportunity for the Community Enhancement Fund mechanism to provide some momentum for new local facilities to service not only for existing residents and families but also to make the town more attractive for additional newly arrived skilled workers who choose to make either Coolah, or the Cassilis region, their permanent home.

It is unclear whether the existing Voluntary Planning Agreement remains valid for the modified project or whether it has lapsed. Regardless, the terms of conditions of consent for the modified project need to preserve the principle that the funds can only be spent in the locality of the impact (rather than be able to be resumed to general revenue of local councils).

Given the amount of time that has elapsed since the original project was approved, with inflation and increases in CPI, and the expanded energy generation capacity of the windfarm, and the fact that it is not possible to mitigate all of the visual impacts of the proposed amended windfarm, (particularly within and around the township of Coolah), and the increased scale of the disruption for the duration of the building of the windfarm, the conditions of consent need to be amended to significantly increase the amount to be paid into the Community Enhancement Fund**.** With only a small reduction in the number of turbines the modified proposal still advocates for a relatively large windfarm with a very significant impact on the visual amenity and unknown/unspecified impact on biodiversity values in the area. As a consequence, the provision of an over-sized Community Enhancement Fund, commensurate with the over-sized nature of the turbines and windfarm itself, would be entirely consistent with the reasoning of Preston CJ in the Land and Environment Court in the *Taralga Landscape Guardians case*. In setting conditions relating to the Community Enhancement Fund the decision-maker needs to ensure that the basis for calculation of contributions to the Fund is generous and 'best practice'. This approach would recognise the quantum of global contribution that is being made by a very small and isolated community, burdened with a very large-scale renewable energy project that will, on the whole, operate for the benefit of very many others, located far away from the locality where the impacts of the project will be most keenly felt.

Given the additional disruptions to the community that will be experienced by the increased size of the towers, turbines and blades, I submit that the community should not have to wait until turbines are operational to begin to receive *additional* payments into the Community Enhancement Fund as was previously approved. As soon as the disruptions to normal town life, bridge and road modifications etc commence in the localities close to the turbines, then it would be appropriate to commence some kind of phased and commensurate *additional* contributions to the CEF.

Consistent with the above, the terms of the consent need to ensure that the Voluntary Planning Agreement (VPA) that controls expenditure of the Fund, guarantees that successive local councils (who are parties to the VPA) cannot take control of the Community Enhancement Fund and use it outside of the locality. The VPA needs to create the foundation for an effective partnership, with State government oversight, so that the local community cannot be excluded from meaningful participation in decision-making regarding the monies.

5. Conditions providing for effective ongoing State government oversight

Due to the increased size and impact of this project from the original project - and the demonstrated propensity for windfarms to change ownership - the approval needs to **impose conditions to ensure that there will be effective ongoing State government oversight and governance for the entire life of the project**, including to the end of decommissioning.

Given the immense impact that modifications to this project of will have on the locality it is important that the decision-maker exercises their vast discretionary powers, available under the *EPAA Act* and other legislation, to ensure that any project approval contains conditions that provides for on-going government regulatory oversight of the succession of private entities that own and operate this type of development. In the absence of detailed and prescriptive conditions of consent, promises and assurances made by Tilt may have no enforceability against subsequent owners, and as is well known, renewable energy projects like the Liverpool Range Windfarm are frequently traded for profit. Similarly, as already noted, conditions of consent and the Voluntary Planning Agreement need to ensure that successive local councils cannot take control of the Community Enhancement Fund or include it in general council revenue/expenditure.

When the State government approves large windfarms, or cumulative aggregates of windfarms in renewable energy zones, it cannot naively stand back and leave it all to the private operators who are motivated (and legally obliged) to operate solely to create profit for shareholders. The interests of shareholders and actions of private entities will not necessarily align with the public interest, and will likely frequently conflict with it. The relatively small footprint of the coal-fired energy industry and associated mining on the landscape is being replaced by renewable energy with a much larger footprint and thus an impact that is more widely distributed to communities such as Coolah and Cassilis, to the environment more generally, and to many more individual landholders. As a consequence, conditions of approval need to retain an adequate level of State and (where necessary) Federal government administrative oversight so that the operators of these commercial entities are readily held to account by regulators. The full arsenal of administrative powers needs to be deployed with strict conditions of consent for the operation of the windfarm and to provide mechanisms to expediently detect and deal with operational problems and failures when they arise. This is all the more important because the critical details relating to the availability of high quality biodiversity offsets, and the operational measures that might be implemented to mitigate against bird and bat impacts, remain unspecified and presumably are to be created 'post-approval'. This practice of proponents being able to negotiate the details 'post-approval' means that there is limited, if any, opportunity for public participation and public scrutiny of the final decisions that will be made about avoidance of loss, offset arrangements and mitigation measures. This is contrary to the principles that underpin and value public participation that are embedded in the *Environmental Planning and Assessment Act 1979* (NSW) and which, for the past 40 years, have been consistently upheld by the Land and Environment Court. Moreover, given the broader public interest in the environmental outcomes and the potential for impacts like noise, loss of biodiversity etc, there needs to be ongoing independent (and at arms-length from the operator) audits and on-going scientific studies to assess the operations of the windfarm against the predictions that have been made by the proponent. The methods used need to be transparent and the results of these audits must be publicly available. In short, governments need to govern, and be publicly accountable for the final shape of projects that they have approved 'on spec', including for the specific measures that will lead to better environmental and community outcomes, as aligned to the public interest.

With respect to decommissioning, there continues to be a failure in current government policy to address the serious questions around the potential for abandonment of the turbines and any failure

to decommission. While the industry denies there is any risk due to its reputation as 'clean energy' and confidently assures the community and host landholders that towers will be always be periodically re-powered and their components recycled, there is actually no guarantee that all or parts of windfarms will not be abandoned by their owners at some point in the future. If cheaper sources of energy become available there is the undeniable possibility that at the end of the life of the project it may become uneconomic to decommission the towers and blades. In these circumstances the landholders (or the State) could be left with staggering decommissioning costs and logistics. As the Department well knows, in recent decades the coal mining industry has been required to provide up-front bonds for the rehabilitation of relevant sites. Precisely the same policy ought to be applied to the renewable energy industry. If up-front bonds imposed on the windfarm operators are not an attractive policy option, then why not - like an insurance policy – impose a small levy (which if a tax, might need to be imposed by the Commonwealth government) on the earnings of all windfarm operators within the industry? A successful precedent for this exists with the immensely successful Superfund in the United States which was created after the Love Canal soil contamination disaster. The establishment of the Superfund required all manufacturers of chemicals to pay a levy that could be used for any contaminated sites that were subsequently discovered or abandoned. Adopting this approach would place the responsibility back on the industry and not on the host landholders, or the State.

See further https://www.epa.gov/superfund

6. **Increase in water drawn from aquifer for concrete batching.**

It is proposed that there be an increase in the number of concrete batching plants and also a very significant increase in the water requirements for the project, with a claim that sufficient water will be available in the Oxley Sandstone Aquifer following the issue of a water licence. Has that claim been assessed? Will that licence be the subject of environmental assessment, including for cumulative impacts and impacts on local bores and rivers (especially should drought conditions return during the time-frame for making the concrete/installing the turbines)? Will the community be notified and have the opportunity to comment prior to issuing the water licence? These questions were not adequately explained or addressed in the documents, so far as I could find. The community, and rural landholders who rely on local bores and rivers, need to be fully informed of the water licence approvals process including whether they will have the opportunity to scrutinise the assessments. Again, this significant aspect for environmental outcomes seems to be treated as some kind of 'post-approval' step when, as a NSW State government decision, it could have been integral to the original assessment and formed part of the community consultation on the project.

Conclusion

In conclusion, for the reasons provided above, and so as to reserve my rights to take any available legal action, I formally 'object' to the development under the *Environmental Planning and Assessment Act 1979* (NSW). However, if the matters raised in this submission can be adequately addressed, and the consent is issued under appropriately strict conditions with the on-going supervision by the State government, including a substantial Community Enhancement Fund that ensures that a range of direct and indirect financial and other benefits flow to the local community, then I would potentially be in favour of the development.

Attachment 1 to this submission (images) is on the next page.

Attachment 1: The difference between representations of the landscape in the Panoramic Photomontages (as displayed by the proponent) and the actual appearance of the landscape

Photomontage 16A - Approved Project

Existing View

Modified Project View

Image 1 (above): Panoramic photomontages at location PM-16 corner of Gundare Road and Black Stump Way exactly as was presented to the community as part of community consultation.

Images 2 &3 (above): Actual appearance of the landscape <u>as it looks if standing in location PM-16</u>. These are two photos (almost perfectly stitched side by side) taken by iPhone from location PM-16 on 16 October 2022. **Image 4 (below) presents the relevant segment of the above panoramic photomontage <u>enlarged by me</u> to approximate the scale of images 2 & 3.** For easy verification note the two trees in the left and right mid-ground in Images 2& 3 and also Image 4. For reference the same two trees and other landscape features are also clearly visible in the photomontages.