From:	Mark Fogarty
To:	DPE Energy and Resources Policy Mailbox
Cc:	David Gainsford; Alexandra Hall; Ben Lusher
Subject:	Draft Planning Guidlines
Date:	Wednesday, 24 January 2024 5:15:42 PM
Attachments:	Final Comments Draft Planning Guideline NSW Energy Transition.pdf PastedGraphic-1.tiff

---

Hi Matt

Comments from Red4NE on the Draft Planning Guidelines - give us a hoy if you need clarification

Thanks

Mark Fogarty
[redacted]
Message -WhatsApp

NSW Energy Transition

Response to Draft Planning Guidelines

25 January 2024

ReD4NE RESPONSIBLE ENERGY DEVELOPMENT FOR NEW ENGLAND

ReD4NE is an incorporated Community Alliance for
Responsible Energy Development for the New England

Our Purpose – The objective of this response is to build on the dialogue offered by the New England Communities at the conference call convened on 17 January 2024 in Armidale. DPE appreciates that conference call was attended by a cross section of 11 Community Groups from the New England. It is anticipated that some of these Groups will either endorse Red4NE response to the Draft Guidelines or offer their own comments -representatives as to particular concerns or suggestions from their own respective communities. ReD4NE welcomes this approach.

Whilst the primary focus of this communication is to respond as to acceptability or otherwise of the mechanical aspects of Draft Guidelines – it is critically important that we continue to emphasise the need for Government to contextualise our responses against just how pervasive this energy transition is to communities and landowners - ***to their place and to its people*.**

Planning Guidelines -The Context

Context is Everything – ReD4NE in requesting for an in-person meeting and in tabling it's Agenda was careful to highlight the importance of its eight Protocols. Government will acknowledge from these Protocols that communities respect the needs to transition to renewable energy provided it is given effect to in a *responsible manner*. To date based on our experience this hasn't always been the case. Accordingly, we reserve, as host communities, the right to push back on any development that doesn't present with just ,equitable and responsible credentials.

In our observation the NSW Energy Transition has been a 'speed skating ' exercise by an exuberant and inexperienced previous Government. A leadership imbued by net zero ambitions and lacking in understanding of the Bush, its communities and landowners The result is push back and rejection – delay, increased costs and enhanced project risks. The bottom-line conclusion is Government hasn't demonstrated any ability nor any real interest in achieving a social licence for its transition. Some agencies such as Energy Co can't even define what it means. This despite the fact that the phraseology dripped off every politician's tongue in the formulation of the transition policy.

Government appreciates there exists a well-established perception in the Bush that the planning governance is not fit for purpose. The Environmental Planning and Assessment Act 1979 is antiquated -past its use by date -an 'alphabet soup' strangled by iSEPPs. It presents a tick-a-box process - orientated to and manipulated by some get rich quick originators and offshore developers. How this conclusion escaped the Government's Reliability Health Check beggar's belief -fair to say it probably wasn't in its terms of reference .

In considering the Communities' response to the Draft Guidelines we ask for some appreciation of the importance of this context and for some acknowledgment of the impacts of this transition on people and their place. On the liveability and workability of their respective communities. The Bush long ago dismissed the spin that this transition would induce an economic nirvana. We ask that you walk in the Community's shoes – that you engage with the communities' interest in face to face open and transparent dialogue. We remind Government that these communities are doing the heavy lifting to keep the lights on in the cities. We think that the response from Government calls for *respect.*

Planning Guidelines -the Mechanics

1. **The NSW Planning Regime -its Fundamental Flaws -** the Government is hamstrung by three inherent planning governance failures ;

- Firstly, in the race to net zero -the Government failed to properly plan – it failed to properly strategically land-use plan. There is no REZ master plan joining the dots between strategic spatial land-use planning and the 'nuts and bolts' of project development and approval.

- Secondly, it is a myth that the planning regime gives some recognition to the principles of *community participation*. It tokenistic -communities are relegated to third party status -and thus denied stakeholder recognition; and

- Thirdly , development pathways are clumsy, costly and ineffective by the mistaken belief that the prevailing emphasis on an *ex post facto* EIS process. An obvious question -how is it efficient and fair that decisions on project impacts are made two (2) years after site selection?

All three fundamental flaws conclude that there is **inherent procedural unfairness -denial of natural justice for the community.** The Community is relegated below stakeholder status to that of a third party notwithstanding all the costs imposts in carry out inquiry on major multi-million-dollar infrastructure. These flaws promote in favour of Red4NE's **Recommendation 1** the Planning Process needs to load upfront equity with a planning gateway process-a new **Early-Stage Development Principle** ('ESDP') which better informs the planning outcome, which mitigates against these flaws.

This ESDP should profile the following process ;

a) Preparation of real line of sight **Regional Land-use Planning Declaration** managed by **in-REZ** expertise eg; Agricultural -Road and Traffic ,Town and Country Planning etc This declaration to take account of independent cumulative impact assessment and agricultural land-use assessment based on soil assessment and land use productivity evaluations

b) **An accreditation process** as to the development credentials of Originators and Developers.

c) Public profiling of an Originator/Developers **broad prospecting activities** .

d) Public profiling of an Originator/Developers **narrow prospecting interests.**

e) Preparation of a more detailed **Preliminary Environmental Impact Statement** ('PEIS')

f) **Presentation pf the PEIS** at Scoping Meeting attended to by Developer -Community -DPE .

2. **Rapid Environmental Assessment Process 2022** –the Communities seek a more bona fide tick off by DPE which negate the time and cost of responding to incomplete- and therefore misleading EISs.

3. The Communities support the two recommendations of the **NSW Upper Standing Committee on Undergrounding Infrastructure –** the Independent Energy Ombudsmen and the Independent Cumulative Impact Assessment. The suggestion by Energy Co that the cumulative benefits study undertaking in CWO was in any way satisfactory is totally rejected. Cleary any study needs definition of study area and environmental baseline and can only have credibility if independently conducted. Communities should have input into these two key components – firstly establishing regional environmental and socio-economic baselines and secondly study areas. The practice adopted at the moment of selecting the whole of the New England is a planning nonsense.

4. The **Regional Cities iSEPPs** is inequitable in its ambitions – it should be extended to smaller regional communities and for the same rationale.

5. Projects should not be automatically subject to declaration of **SSI and CSSI** at the Ministerial discretion. Any intention to do so should only be preceded by public exhibition and should be only contemplated for large BESS greater than 1 GWs.

6. **Landscape and Visual Impacts** Setbacks of private receivers on wind farms should be more definitive and **subject to actual landscape features** .They should accommodate the increasing size and intrusion of new wind technology . As a minimum for wind and subject to landscape features should incorporate ;

    a) 2.5 klm set back should be contemplated for wind technology up to 3 MW and hub height < 100M .
    b) 3.5 klm set back should be contemplated for wind technology < 5MW < 130M hub height.
    c) 7.5 klm set back should be contemplated for wind technology > 5MW;
    d) All solar projects should be subject to 1klm setbacks from receivers and roads;
    e) All assessments for solar glint and glare are to be subject to negotiation and agreement with a majority of neighbouring communities with 10klm of the site; and
    f) All transmission > 300KV should be underground and DC and subject to agreed procedures set by the Independent Energy Ombudsmen.

7. **Noise and Health** The Community support the **strict compliance with the NSW Noise Bulletin and the SA Noise Guidelines**. This support is subject to four caveats;

    a) All background assessment is to be undertaken in accordance with strict application of the NSW Noise Bulletin/SA Guidelines
    b) All acoustic consultants are to be accredited.
    c) All assessments are to published and communicated to all receivers
    d) All shadow flicker assessments are to be published and subject to consultation.

8. **ACHAR , BDAR and Soil Testing** Despite these important impact assessment, they are unfortunately affording a 'tick the box' processing focus;

    a) **ACHAR** remains the all-important and engagement opportunity for the Developer to secure an important engagement with Indigenous Communities impacted by development. Unfortunately, It is done poorly -ACHARs remain underwhelming -lacking in innovation and genuine engagement. Clear supervision by say the Energy Ombudsmen is imperative – without this intervention it remains a lower priority for Originators - Developers intent on flipping projects.

    b) **BDAR** the existing scrutiny including Federal bilateral assessment process is at best limp and at worst environmental vandalism. The Planning Process needs to identify the gaps inherent in its 'tick the box' processing. A Regional Biodiversity Plan should inform the planning process through appropriate declarations. Third party independent assessment at the Project Origination stage is crucial. The Oxley Wild Rivers National Park and World Heritage Gondwana are to be afforded 10 klm buffer from development

c) **Soil Testing** for Solar Development as proscribed by the Large-Scale Solar Guidelines is open to manipulation by Developers in the assessment process. Like so many of the EIS processes -the' tick the box' regime allows developers to select the Soil Scientist to the convenience of their objectives. This is obviously unsatisfactory process. In addition, assessment doesn't place as sufficient weight on alternatives assessment such as either the DSE (Dry Sheep Equivalent) as a factor in assessment of carrying capacity of land use relevant for the New England or the NPP methodology (Net primary production w-expresses in term so Kg /ha - it applies across cropping land as well as livestock production). So, the community's message is we can't just rely on manipulative interpretations of BSAL classifications . Compliance with Soil and DSE requirements need to be scrutinised by the Energy Ombudsmen. It is unfortunate that the incoming Government didn't deliver on its **election promise** of appointing an Independent Agricultural Commissioner.

9. **Aerial Fire Fighting** -as highlighted in the 17 January meeting – the DPE do not seem to understand the absolute constraints on aerial fire fighting in wind development zones -particular with helicopters. Any dialogue with NP&W and Rural Fire Service will confirm that areas subject wind development is clearly no-go zones on fire fighting. The recent fire experience at Booralong highlighted in the meeting confirms the seriousness of this outlook.

10. **Bird and Bat Impact Assessment** There seems a naivety as to the richness of the New England avian population, in particular, the raptor communities. Some communities such Walcha have attempted to point out deficiencies in understanding the need to protect these species from indiscriminate bird kills, at the hands of the hosts of proposed turbines. It is not just raptors at risk but also migratory species to Upland Wetlands i.e., Danger's Lagoon and RAMSAR listed Little Llangothlin Lagoon. Independent scientific studies i.e., by UNE expertise is critical of the ignorance of this threatened asset.

11. **Access Road Traffic and Transport -**seems to be downplayed by originators and developers**.** Prudent strategic planning and assessment would confirm the area is seriously constrained if not an impossible to build with today's equipment. The New England Highway has significant limitations to handle the forecast volumes of traffic for turbine infrastructure and gravel and water supplementation. Energy Co response as to meeting agendas with Transport for NSW is totally unacceptable. Access to road system is of vital importance to rural communities from am education -health and work perspective. All meetings with Transport for NSW should be transparent and shared with the communities.

12. **Transmission Infrastructure** – essentially Energy Co continue to underperform and remain elusive as to requisite detail required by the community on their corridoring options. We urge the Government to independently inquire as to whether they are fit for the tasks at hand. The Health Reliability Check up report asks more questions than answers on REZ management. In particular the Community 's needs as follows;

    a) Broader Interpretation of the RiT-T to include socio-economic and environmental considerations.
    b) Whilst the decision on the Southern Hub is welcomed -the community needs more detail. It begs the question as to **how the assumptions for the 4 remaining hubs have been made**. Full transparency on assumptions for route and corridoring options is requested separately as referenced above. This will be subject to a separate representation to Minister Sharpe.

c) Undergrounding must be pursued where economically and environmentally appropriate .

d) Electric and Magnetic Fields -needs contemplation of the precautionary principle .We remain unconvinced as to the safety of the 500Kv infrastructure.

13. **Decommissioning and Rehabilitation** –As communicated DPE's efforts on this issue are totally inadequate and somewhat internationally embarrassing. The Community needs the assumptions that have been utilised by the DPE's third-party consultants. Clearly the Calculator needs to be redone reflecting current recovery economics and implementation of Surety Bonds.

As you appreciate the New England Communities are structured and well organised. We understand the Planning and associate energy regimes. The importance of getting these guidelines right cannot be over stated . At the moment they need considerable surgery. As they stand, they confirm the increasing proposition that the REZ as a concept is in disarray if not broken.

We look forward to your review and response to our outlook we remain available to clarify any comments we offer .

Thankyou

ReD4NE

From:	Department of Planning Housing and Infrastructure
To:	DPE PS ePlanning Exhibitions Mailbox
Cc:	DPE Energy and Resources Policy Mailbox
Subject:	Webform submission from: Draft energy policy framework
Date:	Saturday, 27 January 2024 1:22:20 PM
Attachments:	09_01_24_renewable-energy-draft-guidelines-_voice-for-walcha-submission-_.pdf

Submitted on Sat, 27/01/2024 - 13:20

Submitted by: Anonymous

Submitted values are:

Submission Type
I am submitting on behalf of my organisation

Name

First name
Voice for Walcha

Last name
Voice for Walcha

I would like my name and personal contact details to remain confidential
No

Info

Email
[redacted]

Suburb/Town & Postcode
Walcha

Please provide your view on the project
I object to it

Submission file
09_01_24_renewable-energy-draft-guidelines-_voice-for-walcha-submission-_.pdf (270.4 KB)

Submission
Attached is submission from our community group Voice for Walcha

I agree to the above statement
Yes

Renewable Energy Draft Guidelines

Voice for Walcha Submission

Voice for Walcha is a community group that was established in response to a lack of developer engagement in our town. We have a developer proposing 3400MW of wind development and the community was largely in the dark. The less the community knows about wind developments, the more likely they are to be compliant – this has been the approach of developers in our LGA. Voice for Walcha was set up with the goal of keeping the community informed about developments and the short- and long-term effects they may have on the community. When the group was initiated, we did not have a position for or against the developments, we just wanted to understand their impacts on the community.

Our community are frustrated at the apparent one-way forward progress through the planning process for renewable projects and the lack of protection for communities.

Part A:
Overall Concepts

As a group, we would like to see the following points addressed and considered in the guidelines.

1. **Is the REZ concept still relevant and the best pathway to the energy transition?**
2. **How can social license be achieved to protect communities and prevent delays to project approval? By having well designed projects in appropriate locations with scrupulous developers.**
3. **Our natural resources – National Parks, Wilderness areas and World Heritage Areas need to be protected.**

---

1. Is the REZ concept still relevant and the best pathway to the energy transition?

REZs were declared based on renewable energy resources as well as proximity to existing transmission infrastructure.

i. Was the initial design of REZs based on reliable information? Mesoscale modelling without physical measurements is not reliable. Is there any raw data available to validate the wind claims used in REZ design? Are we basing Australia's renewable energy roll-out on unvalidated information. The DNV-GL report that was commissioned by AEMO titled Multi-criteria scoring for Renewable Energy Zones, 30th April 2018 goes to lengths to discuss the uncertainty and unreliability of the modelling presented. DNV-GL recommends the results are used for pre-feasibility purposes only.

ii. This information is outdated, based on superseded technology. Taller, more efficient wind turbines are capable of generating electricity in areas of lower wind quality. There is now an opportunity for project locations to be based on strategic land planning rather than solely on wind and solar resources. It is no longer necessary to locate wind projects in inaccessible, highly productive, high value biodiversity locations.

iii. The proposed scope and cost of the transmission infrastructure investment required by the Government also brings into question the importance of projects being located near existing infrastructure. Could it be more efficient to have renewable projects in more remote and less productive areas where they may be welcomed by communities. Transmission infrastructure may be cheaper to build in kinder terrain with fewer delays due to more obtainable social license.

iv. The declaration of REZs without strategic land planning has resulted in unacceptable cumulative impacts. Projects are not spread evenly throughout the REZs resulting in some communities being severely impacted by over development. Already the most suitable areas of land for projects have

been exhausted meaning developers are now trying to develop projects in less suitable areas resulting in community conflict and irreconcilable environmental and cumulative impacts. The 2018 AEMO ISP recommended State Governments conduct strategic land use assessment. Was this done?

v. The REZ system has resulted in inequities for communities and LGAs within and outside REZs. Given the departments acceptance that projects will need to be developed outside REZs, why is there still a need for REZs? Hills of Gold Wind Farm for example is only 17km south of the REZ boundary. Why is it considered any different to projects within the REZ? What is the value of the REZ boundaries?

2. How can social license be achieved to protect communities and prevent delays to project approval?

Social License is required not only to prevent delays in the approval process, thereby protecting investor interests, but also to protect regional communities. Projects that lack social license face lengthy delays in the approval process and result in communities that are hostile to projects and resentful of the planning process. This has resulting economic and political costs.

As outlined in the recent draft 2024 ISP from AEMO, one of the main risks causing delays to the transmission roll-out is lack of social license. This needs to be addressed in these draft guidelines. Social capital is being rapidly depleted in regional communities by unscrupulous developers and poorly planned and located projects that are being propped up by a "tick the box" process deployed by the Planning Department.

These delays can be avoided, and communities protected by:

i. Projects being heavily scrutinized by the Planning Department, agencies and communities **at the Scoping Stage**. This is the stage that inappropriately located and planned projects should be excluded from further consideration. Government and agency resources and community goodwill are being exhausted on projects that should not be in the planning process. A more detailed report (including preliminary bushfire and flood risk assessment, BDAR, soils and water assessment, noise and vibration assessment, ACHAR, visual assessment, traffic impact assessment, aviation impact assessment, social impact assessment and decommissioning and rehabilitation assessment) should be prepared for department and community assessment at the scoping stage. Projects that are obviously non-compliant or are not going to gain community acceptance should be excluded immediately. This would result in compliant, bankable projects with community support and a high probability of approval entering the planning process. It would exclude poorly planned speculative concepts, resulting in better use of resources and avoidance of community contempt for the renewable industry.

ii. **Regulation of the renewable energy industry** to prevent damage to communities by unscrupulous cowboy developers and developer friendly consultants would improve community outcomes and confidence in the renewable industry. It would result in fewer delays through the planning process. Accreditation of developers with focus on appropriate community respect and ability to follow due process in the planning pipeline should be mandatory. Likewise, consultants participating in the renewable industry should be registered to avoid compliance failure.

iii. Adherence to deadlines within the planning process. Well designed and planned projects do not need ongoing extensions and time delays. Compliant projects that respect the planning process and communities should be able to comply with time constraints imposed by the Planning Department. Again, this will prevent delays in the approval process and protect communities from the approval process being drawn out for many years. Project licences need to have expiry dates. Eg 2 years from SEARs to Response to EIS submissions. This is to ensure the developer looks to have proper place and protocols established from the outset. For example, the Winterbourne Wind Project will have a delay of over 43 months between scoping report submission and response to submissions (if they submit their submissions response after the 2nd extension in April 2024). This is the result of poor initial planning and consultation, followed by an incomplete, inaccurate EIS resulting in continual delays.

3. **A 10km buffer is required around National Parks, World Heritage and Wilderness areas.**

Project developers are targeting areas adjacent to these environmentally sensitive areas because it is easier to get approval from one government department than it is to get signed agreements from multiple private landowners. These are sensitive areas that are essential habitat for our native fauna and need to be protected. It is also a buffer required to protect against accidental chemical spills, erosion and run off as well as the introduction of invasive species (weeds and feral animals). Destroying significant habitat and ecological communities cannot be offset by protecting adjacent areas. If one area is worth protecting, surely all these sensitive biodiversity corridors are worth protecting.

The hierarchy of impact management (avoid, mitigate, offset) should be addressed at scoping stage, not EIS. Siting of wind projects in inappropriate locations results in poor outcomes in terms of biodiversity impacts with a reliance on biodiversity offsets rather than avoidance of impacts.

Part B:
Addressing Specifics of the Draft Wind Guidelines

2.2.2 Regional Cities

Provisions for regional cities should be extended to regional towns. Why is the capacity to grow, the scenic quality and the landscape character any less valuable to regional towns than regional cities. Anyone with knowledge of regional communities would understand that residents of regional towns often have a much stronger connection with the character and quality of their town than their regional city dwelling cousins. This is a numbers based political policy, rather than one based on fairness.

2.3.1 Development Applications

"*The EIS must be prepared in accordance with the SEARs. The SEARs identify the information that must be provided in the EIS, and the community engagement that must be carried out."*

What are the consequences if the EIS is not prepared in accordance with the SEARs? Why are developers allowed to submit incomplete EISs when a very clear SEARs is provided? Lengthy delays are occurring because developers are relying on community and agency submissions to finalise their EIS. This needs to occur around scoping and early planning – not response to EIS stage. **This should be a reasonable point to reject projects - if the EIS does not fully address the SEARs.**

Section 2.3.1 Development Applications

The exhibition period of 28 days is not adequate. EISs are thousands of pages long. How can the community read and adequately respond to an EIS in 28 days?

Section 2.6 Critical State Significant Infrastructure

"The Minister will consider requests to declare wind energy development to be CSSI if it includes a significant energy storage system (for example, a delivery capacity of 750 megawatts or more)."

This is opening the door for compulsory acquisition of land for wind farms and should not be included. While the planning department have said at a public meeting that wind farms will not be built without landowner consent, this is **not** what this document says. 750MW storage may currently be a big battery, but no doubt, in time it will be very achievable by wind farm developers. In addition, the guide uses this as an example, not a threshold. Compulsory acquisition of private land is a very real threat to landholders, as the guide stands. This is totally inappropriate.

Section 3: Community and Stakeholder Agreement

These guidelines are vague and do not protect communities from developers' intent on progressing developments that have serious community impacts. It is too easy for developers to tick these boxes

without providing meaningful information to communities or seeking and listening to community feedback. **We would like to see independent community reviews or surveys, undertaken by the planning department to gauge the level of community engagement by the developer and the level of community support for the project.**

It is also important to note, the community is more than its elected Council. The Planning Department puts a lot of emphasis on Council as representing the Community. Unfortunately, Council's requirement for funding may mean the Council's expectations and appetite for projects are not aligned with their community's.

4.2 Process of Site Selection and Project Design

"proximity to airports and regional aircraft flight paths" **This should be expanded to include the reliance of the local community on aerial services such as firefighting, rescue and retrievals, vermin control, aerial agriculture, etc.**

5.1.1 Landscape and Visual Impacts Key Principles

Landscape character, visual impacts and cumulative impacts should be included in the scoping report with recorded community consultation and feedback.

5.1.2 Visual Impact Assessment

"*a view a from a rural residence is more sensitive if it is from principal living spaces and the front and rear of the dwelling than from other areas*". **This point should be removed**. Views from all rooms are significant to homeowners and frequently used areas in gardens may not be in front of living areas. A person's home and view need to be protected. Significant places on somebody's property should also have this level of protection. Eg. Lookouts, picnic areas.

Given wind farms are located in rural settings where there is no other artificial night lighting, **a night-lighting assessment should be undertaken**. It could be argued that the worst of the visual impacts are at night when turbines are lit up.

Setbacks from private residences should be subject to landscape features and should correspond to the size of the turbines. **As a minimum, setback should be**

2.5km for wind turbines up to 3MW with hub height <100m

5km for wind turbines up to 5MW with hub height <130m

7.5km for wind turbines over 5MW with hub height >130m.

Setbacks for National Parks should be 10km.

Transmission lines greater than 300kV should be undergrounded.

5.2.1 Noise and Health

Noise levels at passive recreation areas within National Parks should be limited to 35dB(A) and windfarms should not be built close enough to declared wilderness areas to have any audible impacts. This directly impacts on the experience and the very definition of a Wilderness Area.

There should be strict compliance with the SA Noise Guidelines. Accreditation of acoustic consultants should be mandatory.

5.3 Aviation Safety and Lighting

Wind turbines also cause a risk to aviation safety in areas reliant on aerial agriculture, in bushfire prone areas reliant on aerial firebombing, and areas where aerial rescue and retrieval is likely to be required, for example, National Parks. They also pose a risk to any low flying aircraft. Where wind farms are located adjacent to bushfire prone land, the use of aerial firefighting is going to be precluded. With strong winds and low visibility, features of bushfires, it is hard to believe that any pilot would consider it safe to firebomb, even if turbines are shut down. Many submissions have been written by commercial pilots, strongly making this point. Direct submissions from aviation operators to Winterbourne Wind Farm EIS, for

example, support this position. Sources of water for firebombing and the route from water source to fires also needs to be considered. The comment "*Aerial firefighting can continue to be undertaken around wind turbines[12] if appropriate strategies, emergency management systems and communications protocols are in place[13]*" (AFAC 2018 Wind Farms and Bushfire Operations) is in contrast to advice received from experienced local firefighting pilots. Given the change in the size of turbines since 2018, maybe some more current, and accurate, information could be provided.

The risk of wind projects in areas prone to heavy fogs also needs to be considered, particularly if the turbines are located along ridgelines. Areas along the Great Dividing Range are particularly prone to persistent low cloud and fog, and wind turbines add increase danger to aviators in these situations. This has not been recognised in the Guidelines, and needs to be.

There needs to be realistic and industry informed consideration of impacts to aerial operators, including agriculture, firefighting, rescue and retrieval, and general aviation.

5.4.2 Bird and Bat Impact Assessment

Wind projects should be situated at least 10km from National Parks. This is not just for protection of birds and bats (where 100m is hardly an appropriate distance) but also for the protection of irreplaceable biodiversity corridors. These corridors contain threatened ecological communities as well as habitat for threatened fauna. These areas adjacent to National Parks should be protected with the potential for them to be added to the park or added to the biodiversity conservation trust.

The hierarchy of impact management (avoid, mitigate, offset) should be addressed at scoping stage, not EIS. Siting of wind projects in inappropriate locations results in poor outcomes in terms of biodiversity impacts with a reliance on biodiversity offsets rather than avoidance of impacts.

"*Where impacts cannot be avoided, minimised or mitigated, offsets or other measures that benefit threatened entities and their habitat can be considered, however these are not mandatory*." What does this mean? Surely offsetting impacts should be the bare minimum. Again, vague comments that can be interpreted by the developer how they like leaves the community and environment totally unprotected by these guidelines.

5.5.1 Traffic Impacts

Consideration needs to be given not only to the capacity of the roads, but also the impacts of projects on other road users. Some roads may have the capacity to carry project traffic, but if they are winding roads with no overtaking areas, the impact on local traffic and other industries in town can be significant and result in the loss of local existing businesses. An example of this is the impact of the Winterbourne Wind Farm on the Oxley Hwy and the existing businesses in Walcha.

Access routes for transport of turbine components as well as raw materials and construction staff should be considered and included in the scoping report to enable assessment of impact on communities and to avoid high traffic impacts on towns and significant sites. Again, **this should be addressed at a high level in the scoping report** – it is too late to be considering this in the EIS and subsequently in response to submissions.

Project traffic should not be going through local towns.

5.6.2 Benefit Sharing

Communities should have an input into the Benefit Sharing for each project. Given that benefit sharing assists in building community support by ensuring that projects deliver a net positive outcome for local and regional communities, the value of the benefit is going to vary for each project. A good project will not need to have a benefit as high as a poorly located project. Communities (including but not limited to councils) should have an input into the value of this benefit. The community, being the main group to be impacted, need to feel there is a net benefit from the projects.

5.7 Decommissioning and Rehabilitation

It was very evident at the Walcha information session held by the Planning Department that our community is very concerned about decommissioning of wind projects. There is a very real risk that the company holding the wind project at the end of its life will be non-financial. If this is the case and there is no bond, who will be left with the decommissioning costs? – the local community. This question was raised

at the meeting and the response was that this windfarm would still have value and would be purchased. This seemed a commercially naive response as a windfarm at the end of its life has very little ongoing value and is a liability. **The only safe way to protect communities from abandoned assets is to have decommissioning bonds starting early in the operational life of the project.** The EP&A act has no power to enforce the decommissioning conditions if the company owning the wind project is bankrupt.

5.8 Waste Management

The EIS should outline how the project developer plans to dispose of waste at decommissioning, based on today's technology. It is not good enough to claim blades will be recyclable at the end of the project life. If blades are to be cut up in situ, the contamination risks (particularly if the project is located in a sensitive area) need to be addressed before approval.

Downplaying the waste management is irresponsible. It is to be expected from the developers but should not be acceptable from the planning department. 300 000 tonnes of waste from turbine blades is totally unacceptable, especially given this is toxic waste.

The key principles in this section are again vague, non-committal and open to interpretation and dismissal by developers. Any project can minimise waste and reuse as much material as possible. Any project can be approved under these principles.

We need guidelines that protect a community's waste management facilities from being overwhelmed by wind project developers.

In conclusion,

As a community group, we were disappointed at the lack of protection of communities in these draft guidelines. The guidelines are developer friendly, designed to progress project DAs through to approval. The guidelines allow the Planning Department to continue to hold the developers' hands, step by step, leading them through the approval process, regardless of the quality and merit of the project. Poor, non-compliant projects will continue to clog the planning pipeline with the Planning Department helping them to tick all their boxes. All the while, communities will be paying the price.

We hope that the community concerns are heard in this process of making submissions. There is a widespread and growing sense of helplessness in the regional communities that are being asked to host these developments, and the upswell of frustration is growing into a palpable force. We need to see that these efforts in feedback are being received and being acknowledged.

Importantly, there needs to be balance in the planning process, progressing good projects, and protecting communities against poor developers and poorly planned developments.

Voice for Walcha

From:	Department of Planning Housing and Infrastructure
To:	DPE PS ePlanning Exhibitions Mailbox
Cc:	DPE Energy and Resources Policy Mailbox
Subject:	Webform submission from: Draft energy policy framework
Date:	Sunday, 28 January 2024 2:28:50 PM
Attachments:	cworezist-inc-submission-to-draft-transmission-guidelines-28-january-2024.pdf

Submitted on Sun, 28/01/2024 - 14:24

Submitted by: Anonymous

Submitted values are:

Submission Type
I am submitting on behalf of my organisation

Name

First name
Annette

Last name
Piper

I would like my name and personal contact details to remain confidential
No

Info

Email
[redacted]

Suburb/Town & Postcode
Coolah 2843

Please provide your view on the project
I object to it

Submission file
cworezist-inc-submission-to-draft-transmission-guidelines-28-january-2024.pdf (901.51 KB)

Submission
Please find CWO REZist Inc.'s submission on the Draft Transmission Guidelines, attached.

I agree to the above statement
Yes

CWO REZist Inc.
c/- PO Box 2
Coolah NSW 2843

CWOREZist@gmail.com

28 January 2024

Submission to Draft Transmission Guidelines

Please see our major points below:

6.1 Agricultural Land Use

> Agricultural land has attributes suitable for transmission infrastructure because it is often flat and accessible, which can assist with construction and ongoing maintenance of infrastructure, and cleared of vegetation, which may limit biodiversity impacts.

Much of the agricultural land in NSW has been cleared and managed for over 150 years, by the landowner for agricultural production. Because it has been actively managed proponents now want to come in and capitalise on the work of 150+ years. The compensation offered does not recognise this commitment and work of the landowners over generations.

We have been demonized politically and in the press for many years now about land clearing and being poor managers and supposedly contributing to environmental destruction. It seems hypocritical that the government now wants to take advantage of our so called "environmental destruction" rather than using their own resource of crown managed land which seem ever expanding and poorly managed.

> Agricultural land can continue to support grazing and cropping uses adjacent to and underneath transmission lines. For this reason, the cumulative risks and impacts to agricultural land and productivity due to transmission infrastructure are typically very low. Transgrid has published Easement Guidelines[3] which set out requirements for agricultural activities undertaken within Transgrid easements (including around towers).
>
> Notwithstanding, there may be some restrictions on agricultural operations within a transmission easement. Consequently, the assessment of impacts on agricultural land should focus on any operational impacts that may arise, such as temporarily restricted movements during construction and maintenance, disruption to irrigation operations, and disruptions to aerial agricultural operations. Proponents should consult with affected landowners to maximise opportunities for co-existence and to reduce impacts on agricultural activities.

The statement that agricultural land subject to an easement for transmission infrastructure can continue to support grazing and cropping, ignores the evidence that many farmers must amend their operations to accommodate the transmission lines.

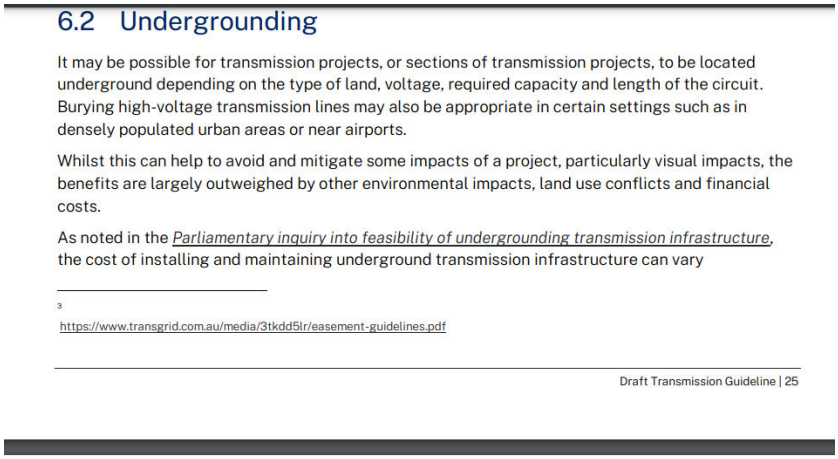
500kv lines are very rare in Australia especially when they are proposed to be dual, duplicated lines on a very wide easement.

The high voltages and potentially high currents running in these lines makes the space below them hazardous to people and livestock over any extended time. This is ignored by Transgrid as a non-issue, in their "Easement Guidelines" (referred to in the Guide), but there ARE standards and measurements, and it is of concern to landowners who would like an honest discussion, analysis and acknowledgement of the electrical and magnetic fields surrounding these lines (see more in our response to the EMF section below).

The limitations and restrictions on farming and firefighting are onerous. In all honesty, if farmers were to "work to rule" near and under these powerlines, it would severely impede transit of large machinery, such as harvesters, spray rigs, minimum till seeders, augers and haul out bins. Farmers simply will not be able to utilise modern farming equipment if they are height restricted due to transmission easements.

What happens (and what WILL happen) is that most farmers just get on and do the job without imposing on proponents to lift lines or turn them off on what would become a daily basis along the multiple easements.

6.2 Undergrounding



6.2 Undergrounding

It may be possible for transmission projects, or sections of transmission projects, to be located underground depending on the type of land, voltage, required capacity and length of the circuit. Burying high-voltage transmission lines may also be appropriate in certain settings such as in densely populated urban areas or near airports.

Whilst this can help to avoid and mitigate some impacts of a project, particularly visual impacts, the benefits are largely outweighed by other environmental impacts, land use conflicts and financial costs.

As noted in the *Parliamentary inquiry into feasibility of undergrounding transmission infrastructure*, the cost of installing and maintaining underground transmission infrastructure can vary

[3] https://www.transgrid.com.au/media/3tkdd5lr/easement-guidelines.pdf

Draft Transmission Guideline | 25

substantially based upon site-specific conditions, the type of technology used and the method of installation, but is at least double the cost of above ground infrastructure. The cost of installing and maintaining transmission infrastructure is passed on to consumers and is therefore an important factor in route selection and project design.

Another consideration for undergrounding transmission is the surface and sub-surface disturbance associated with the installation and ongoing operation of underground infrastructure. The disruption from underground lines can be more severe than that from the construction of overhead lines[4]. Trenching, which is the most common and generally lowest cost method of constructing underground transmission infrastructure, typically requires removal of all above-ground vegetation as well as 1-2 metres of the ground surface.

Once installed, the land above underground transmission infrastructure must be also kept clear of vegetation so that access can be provided for excavation in the event of a fault or any other maintenance requirement. In such an event, locating and repairing underground cables can be a complex and time-consuming exercise, requiring highly specialised equipment and expertise.

While underground infrastructure typically requires a smaller easement (see **Figure 3**), these easements prevent other productive use of the land, such as ongoing agricultural use, which would otherwise be possible with above ground lines.

Consequently, the benefits of undergrounding need to be carefully weighed up and considered against the costs.

Undergrounding has not been given adequate consideration by the Guideline and has been dismissed prematurely, as evidenced by a further undergrounding enquiry by a number of members of the first inquiry who were not satisfied by the outcome. This *Select Committee on the Feasibility of Undergrounding the Transmission Infrastructure for Renewable Energy Projects* is still in progress and as such preference for overhead transmission lines should be removed from the Guideline.

The first inquiry's findings were based on Transgrid's biased opinion. Transgrid's expertise is building above ground powerlines, and this is what they want to continue to do. They do not differentiate between AC and DC undergrounding which are significantly different in costs and implementation. Their statement of undergrounding being double the cost of above ground is not credible when they decline to consider DC.

The Guideline indicates agricultural activities over underground lines will be restricted however Amplitude Consultants, professional engineers who specialise in electrical transmission, in their submission to the first Undergrounding Inquiry[1], made a lengthy and informative submission that quoted:

> *"The only restriction on the use of land over an undergrounded section is that no deeply rooted trees may be planted within the corridor width plus a margin of about 2 meters to prevent root encroachment into the cable trench. Apart from that there are no limitations to cultivation, including agricultural farming."*[6]

Professor Simon Bartlett, AM stated during the first Undergrounding Inquiry[2], the benefits of undergrounding and the sense of seriously considering underground lines:

> My topic is power systems and the benefits of HVDC to integrate large amounts of renewables into the power system. Firstly, it's more efficient. In fact, it can carry two to three times the power that the same overhead line can carry. Most people don't realise that. Environmental: overhead lines have much lower visual impacts, no electromagnetic fields, easily and cheaply undergrounded through sensitive areas and agricultural land. Technical: no power system stability and voltage problems, and that can increase the capacity of the existing network. Economic: DC lines and cables are much cheaper than AC, but the converters from AC to DC are expensive. They're perfect for long distances, much better than 500 kV AC once you get over 400 to 600 kilometres.
>
> Long distances: low transmission losses, controllable, support weak power systems, black start remote systems. Network design: they're ideal for what's called the hub and spoke model, just like airways, roads and telecoms. Hubs every 500 kilometres, connected by DC or 500, and then just use the conventional transmission like spokes within those hubs to go out to the renewable generation or the load centres. AEMO's 500 kV line weaving through five REZs between Sydney and Melbourne—that's just like building a motorway going through the main street of every town you go through. It just simply will not work. Schedule: we have time. We must get this right. We only have one chance.

In one his submissions[3], Prof. Bartlett also stated

> no wonder the witness has never seen this happen. It is incorrect that it is not possible to do any kind of agricultural work above underground HVDC cables,

[1] https://www.parliament.nsw.gov.au/lcdocs/submissions/80311/0235%20Amplitude%20Consultants.pdf
[2] https://www.parliament.nsw.gov.au/lcdocs/transcripts/3106/Transcript%20-%2026%20July%202023%20-%20CORRECTED.pdf
[3] https://www.parliament.nsw.gov.au/lcdocs/submissions/80679/0029b%20Prof%20Simon%20Bartlett.pdf

Once again Transgrid is clearly cherry picking and making general statements about the problems of undergrounding. Further they don't even comment that EMF would be virtually eliminated if lines were put underground. This from "Introduction to HVDC Underground Cables"[4]:

> **Electro Magnetic Fields (EMF)**
> DC power transmission, via underground cable, generates very low frequency magnetic fields in the range of 50 micro-Tesla, which is in the same order of magnitude of the natural static magnetic field. The ICNIRP Recommendation "*Guideline on limits of exposure to static magnetic fields 2009*" recommends public exposure limited to 400 milli-Tesla. As the HVDC EMF value is 8,000 times lower than the accepted threshold, there is no risk to human health.

They make a point of mentioning that the underground easement must be kept clear of vegetation yet make no similar statement for overhead lines apart from it being the proponent's responsibility to monitor it.

To conclude, we believe the real reasons undergrounding is dismissed so quickly is Transgrid's familiarity with overhead lines, and also the desire to be able to connect generators at almost any point along the overhead line, whereas if DC undergrounding is used, which is the cheapest and simplest, this is would require further long term planning and expense.

6.4 EMF

This section is lacking in scientific balance with an absence of safeguards, known safety issues or possible safety issues (including medical events caused by non-ionising radiation and high magnetic fields as well as physical on-site safety).

Whilst quoting the World Health Organisation

> It is acknowledged that a commonly held concern relating to transmission infrastructure is the potential impacts of EMF on human health. This guideline defers to the advice of the World Health Organisation (WHO) and the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) on this matter. Both advisory bodies note that exposure to low level EMF, such as levels found around the home or near powerlines, does not cause adverse health effects[5].

there is no mention of symptoms the WHO warns of - headaches, fatigue, anxiety, insomnia, burning / itchy skin, rashes and muscle pain if a person is too close to transmission lines. Neither have you mentioned that the WHO have categorised Low Frequency Electromagnetic fields as a 'possible 2B Carcinogen'. We recommend you look further at the IARC Bio-Initiative Report from 2012[5] .

Member States of the European Union, erect a 100 metre exclusion fence to separate the public from 380kv high voltage radiation, a health directive centred on minimal long-term exposure to radiation from high voltage power lines. There are multiple reports from respected world-wide

[4] https://europacable.eu/wp-content/uploads/2021/01/Introduction_to_HVDC_Underground_Cables_October_2011_.pdf
[5] https://bioinitiative.org

medical institutes on long- term effects of high levels of non-ionising radiation of cellular changes in bloods and tumour formation.

It has been accepted medically that human diseases like leukaemia, body tumours, glioma and other brain cancers, male and female infertility, lymphoma and nervous system tumours, depression, anxiety, and heart muscle issues, are likely with long periods of exposure to high levels of non-ionizing radiation.

> The recommended limits of exposure to magnetic fields is 2000 milligauss (mG)[6]. It is noted that the magnetic field levels for a 330kV and 500kV transmission line range from 10mG to 50mG when measured at the edge of the line and range from 20mG to 200mG when measured directly beneath the line.
>
> The international criteria for general human exposure to electric field levels is 5kV/m set by ICNIRP. While levels above this limit can be expected directly beneath high voltage transmission lines,

The proponent of Transmission infrastructure in the CWO REZ, Energy Co, advised at an information session that every trip under the twin 500kv Transmission Lines exposes a person to 414mG of radiation, from each power line. The radiation figures shown above therefore appear to be understated.

They also predicted a radiation reading of 63mG will occur at the edge of the 140m easement for twin 500kv. This is 15.75 times higher than the Australian Government allows in a child's bedroom. In fact, at 80m outside the edge of the easement, Energy Co predict radiation levels of 6mG, which is still higher than allowed in a child's bedroom.

Worldwide medical opinion is that a child under 15 should not be subject to more than 4mG of non-ionising radiation over an extended period. Children exposed to these risk factors have shown a 69% increase in childhood leukaemia (thus the requirement that prevents an electrical meter box within or on the outer wall of a child's bedroom)[6].

Most countries in the world have adopted 1000mG as the upper limit of radiation emissions, yet Australia in their Australian Radiation specs, found advantage in raising it to 2000mG[7].

Fluorescent bulbs can light up when residual electric current hangs in the air because they contain low-pressure mercury-vapor gas. Geovital filmed a video[8] in 2021 showing how the effects of radiation under transmission lines could excite fluorescent lights to glow independently.

Does this indicate that landowners working under these transmission lines may suffer such ailments as outlined above by the WHO?

Do many short-term cumulative exposures equal a certain number of singular 'intense exposures' and can these become' critical exposure levels'?

Whilst we understand the nature of the Guidelines, is just to guide, lived experience has shown us that if not explicitly directed, proponents will only meet the minimum requirements. We therefore

[6] Australian Building Codes 2000
[7] International Commission for Non-Ionizing Radiation Protection
[8] https://www.youtube.com/watch?v=_DIjsB3eu-Y

recommend that the Guidelines request proponents to inform landowners and potential hosts of accurate radiation measurements and the dangers of EMF in full technical detail in easement proposals and the EIS. The completed project should also be required to display signage that include specific physical safety / danger and medical warnings as in other potentially dangerous locations that are not fenced off eg.

- Arcing may occur if high vehicles over x metres tall are driven under transmission lines
- Standing directly under a 414 mG Transmission Line, is equivalent to 'intense exposure'.
- That the high magnetic fields generated by the Transmission Lines are capable of disrupting, 'free to air' tv, mobile cell phones, UHF radios and satellite down- load data capability.

It is disingenuous to completely ignore these risks that undermine the credibility of the assessing authority to the point where it promotes questions being asked about their competence.

We recommend that DPE invoke the precautionary principle as there is sufficient doubt over the long-term health of landowners residing near and working under/near transmission lines and the health of livestock grazing beneath transmission lines.

7. Acquisitions Agreement

Section 1.4 states

> tower designs, heights and easement corridor widths are shown in **Figure 3**. Easement corridors are generally acquired through negotiations with relevant landowners and are subject to private agreements (see Section 6).

As so far proponents are government sanctioned bodies, such as Energy Co and Transgrid, they have, thus far, used this status to intimidate landowners with the threat of compulsory acquisition, sometimes as early as initial contact.

There is no real effort to create a private agreement – the proponent sets the terms and the landowner is expected to agree with it. And all to enable private wind and solar generators (profit driven companies that are usually foreign owned) to enter the market and connect to the grid. Yet a commercial negotiation and arrangement is not allowed to take place between the landowners and these private profit driven companies, as it is done by the transmission proponent.

The negotiating power of the farmer/landowner is virtually nil and it is odd that what looks like normal practice in all other areas of commercial activity, where people exploit any monopoly position that they have, that farmers are not allowed to do the same.

This includes the right to just say no and reject any proposal to build powerlines on their land.

Acquisition Agreements

Once the study corridor has been sufficiently narrowed and a detailed route developed, proponents will notify affected landowners that an easement is likely to be required on their property.

At this stage, the negotiation process for easement acquisition will commence. The process is set out in the NSW Government's *Land Acquisition (*Just Terms Compensation Act*) Act 1991* and provides a mechanism for compensating landowners through a one-off payment. This payment must include the market value of the land subject to the easement, loss due to severance and disturbance (including potential impacts to the affected property), and reasonable costs and expenses. If an acquisition agreement is unable to be reached, a compulsory acquisition process may be initiated.

If this is a private agreement, as stated in 1.4, why is there no end date to the easement? Wind and solar generators generally have agreements for around 30 years and then they must commit to decommissioning and rehabilitation, however the proponent for transmission has no such obligations or limitations.

The caveat is placed onto the land with no sunset clause. We admit that transmission infrastructure is long lasting, however for landowners affected, this easement is, in its current form, perpetual. Given this, and the

- ongoing responsibility of the landowner to continue to pay rates on the affected land
- permanent limitations and restrictions to the landowner's use of the land
- a caveat over their land which reduces the landowner's ability to use the property in a mortgage situation.
- Subdivision potential of the land is affected.
- 1.4 of the Technical – Visual Guide, states

  ### Easement affected receivers

  If a private landholding would host the proposed transmission infrastructure, and therefore be affected by an easement, then private receivers on that land do not need to be assessed in accordance with this document. That is because the affected landholder will be eligible for compensation under the *Land Acquisition (Just Terms Compensation) Act 1991*.

  which eliminates any responsibility for mitigation by the proponent.

then what is included in the compensation is not sufficient and needs to consider these factors. The annual payment needs to be greater and for the life of the easement.

It is even more unfair and an anachronism, that compulsory acquisition still exists when the power industry has been privatised in NSW for decades.

Once, when all electrical infrastructure was public property, for the public good, you could understand the use of compulsory acquisition. Now it really should really be questioned whether it is appropriate in the privatised system. Compulsory acquisition should be rescinded.

We recommend that easements

1. should be a completely private, commercial agreement for a mutually agreed amount, including an end date (even if this a 99 year 'lease') and include decommissioning/rehabilitation responsibilities.
2. An option to purchase at above market rate of either the easement portion (if it will not impinge on the landowner's access to other parts of their property) or even of the whole lot/property as was historically done.

Yours sincerely
CWO REZist Inc.

Submitted with the endorsement of the National Rational Energy Network Inc.

From:	Department of Planning Housing and Infrastructure
To:	DPE PS ePlanning Exhibitions Mailbox
Cc:	DPE Energy and Resources Policy Mailbox
Subject:	Webform submission from: Draft energy policy framework
Date:	Monday, 29 January 2024 11:01:17 PM
Attachments:	burrendong-sos-submission-on-the-draft-wind-energy-guidelines-2023.pdf

Submitted on Mon, 29/01/2024 - 22:58

Submitted by: Anonymous

Submitted values are:

Submission Type
I am submitting on behalf of my organisation

Name

First name
Burrendong SOS

Last name
Amber Pedersen

I would like my name and personal contact details to remain confidential
No

Info

Email
[redacted]

Suburb/Town & Postcode
2850

Please provide your view on the project
I object to it

Submission file
burrendong-sos-submission-on-the-draft-wind-energy-guidelines-2023.pdf (3.44 MB)

Submission
Please find attached submission on the Draft Wind Energy Guidelines

I agree to the above statement
Yes

BURRENDONG SOS | SAVE OUR SURROUNDINGS | BURRENDONGSOS@GMAIL.COM

Burrendong SOS Submission to public exhibition on the Draft Wind Energy Guideline – Guidance for state significant wind energy development, November 2023

29 January 2024

https://shared-drupal-s3fs.s3.ap-southeast-2.amazonaws.com/master-test/fapub_pdf/NSW+Planning+Portal+Documents/Draft+Wind+Energy+Guideline+(2).pdf

Contents

Burrendong SOS Submission Overview 2
1 – Introduction 2
1.2 Wind Energy 2
1.3 - Strategic Context 2
1.3.1 - Renewable Energy Zones 3
2.2.2 - Regional Cities 4
2.6 – Critical state significant infrastructure 5
4.1 – Importance of site selection 7
5.1 – Landscape and visual impacts 10
5.1.1 – Key principles 11
5.1.2 – Landscape and Visual Impact Assessment 12
5.4 - Bird and bat impact assessment 17
5.5 – Traffic and transport 18
5.6.1 – Infrastructure Contributions 18
5.7.3 Responsibilities and financial assurances 20
5.7.4 – Assessment 20
5.8 - Waste Management 20
Lighting 24

Burrendong SOS Submission Overview

Please take into consideration issued raised in Burrendong SOS's submission on the Draft NSW Wind Energy Guidelines when finalising this document.

Feedback on this Guideline is laid out in this submission in order of the Guidelines Content Page.

1 – Introduction

Pp7 of Section 1 – Introduction states:

"The NSW Government strongly promotes the ongoing development of a sustainable wind energy industry in NSW". Wind turbines are however unsustainable – they must be replaced every approx. 25yrs.

Pp7 also states: "Wind Energy….. contributes to the delivery of safe, stable and reliable energy supply to the people of NSW". Wind Energy is in fact extremely unstable and unreliable, generating power only 18.1% to 30%, only when the wind blows. Also it is not "safe", placing increased bushfire risk on rural communities, nuisance noise, EMF, BPA etc.

1.2 Wind Energy

This section must make it exceptionally clear and remove the misleading statement that "newer turbine models can generate up to 7 MW of electricity, enough to power 4000 homes".

Turbines only generate approx. 18.1% to 30% power of their stated installed generation capacity annually (refer to Rainforest Reserves Australia research on this, plus the AEMO 2022 data that demonstrates that wind turbines generate less than 30% of installed capacity in Australia).

Therefore, all stated calculations on how many homes wind turbines can power and the amount of resultant CO2 savings must be reduced down to 18.1% to 30% of that stated installed generating capacity, otherwise the NSW Government is being false and misleading.

1.3- Strategic Context

the coming decades to meet the NSW Government's net zero target. The NSW Government's Electricity Infrastructure Roadmap sets out a 20-year plan to deliver this generation infrastructure, as well as the storage, firming and transmission infrastructure required to ensure NSW has continued access to cheap, clean and reliable energy as coal-fired power stations are retired.

Wind is NOT cheap, clean or reliable. To illustrate: The AEMO 2022 data showed wind to be less than 30% of installed capacity in Australia. Wind also, given its stated lifetime, would have to be replaced three times during the lifetime of one thermal power station. Given the sunk energy resources and minerals in the mining, manufacture, transport, road widening upgrades, installation, storage plus associated transmission infrastructure and land acquisition costs, despite what is said about the levelised cost of energy, wind turbines are a net loss as far as world emissions go. The same goes for solar where AEMO states it delivered less than 20% of its installed capacity in 2022 in Australia. If these generators are "firmed" with batteries or pumped hydro, or to make green hydrogen, these all further destroy any net emissions reduction. In short, wind and solar consume more resources, take up a massive land footprint (over 500 X that of nuclear) and produce less power. Batteries, pumped hydro and green hydrogen consume resources and produce nothing.

Therefore, this statement of access to cheap, clean and reliable energy cannot be provided by wind, solar or other "renewables". The strategic context therefore is flawed.

> The roadmap is estimated to attract up to $32 billion of private sector investment in electricity infrastructure by 2030, supporting 6,300 construction jobs and 2,800 ongoing jobs, most of which will be in regional NSW.

To be a fair balanced guideline, all Government Subsidies both State and Federal provided to multinational "renewable energy" corporations to construct wind factories in regional and rural NSW must also be stated here.

Also, where are all these jobs going to come from? For example, Mid-Western Region currently has a low unemployment rate of 1.7% – Will the transition to renewables take jobs away from the agricultural production sector? Where and how will the workforce be sourced, accommodated and serviced?

1.3.1- Renewable Energy Zones

> REZs are modern-day power stations. They combine renewable energy generation such as wind and solar, storage such as batteries, and network infrastructure such as high-voltage poles and wires in dedicated areas in NSW.

The State Government announced the establishments of the first Renewable Energy Zones in the Central West Orana region of NSW in November 2021. The NSW Electricity Strategy established in late 2019 initially mentioned the first coordinated REZ in the NSW Central-West Orana region and an announcement in June 2020 of a feasibility study for the CWO REZ was released.

To understand the state of the region and Australia during this time period, it is necessary to remember that this was the period of COVID. With cases and lockdowns occurring from January 2020 leading to multiple lockdowns, daily case reporting and travel restrictions, the pervading sense of fear around COVID was uppermost on resident's minds. In this atmosphere, the announcement of the feasibility study in mid 2020 and eventually the announcement of the CWO REZ at the end of 2021, almost in sync with the reduction in travel restrictions, was missed by most. The later announcements regarding the CWO REZ and the multiple projects destined for them in late 2022 and throughout 2023 came as a big surprise to most residents of the CWO REZ region. We feel, rightly, that were never properly notified nor fully engaged or consulted.

As such the announcement of a REZ and placing thousands of family farms and homes and multiple towns within a "modern day power station" is disingenuous of the government and something we never agreed to. Changing our landscape from one that is mostly rural, to one which is industrial with frequent energy generation infrastructure (wind/solar/storage/transmission) is not something that was broadly transmitted to the public and as such we, as landowners in the district, disagree vehemently with.

Further consultation with residents of the CWO REZ should take place as a matter of urgency and full consultation with other proposed REZs should also be undertaken. We do not consent to living within a "modern day power station".

2.2.2- Regional Cities

The Transport and Infrastructure SEPP contains the specific matters for consideration that apply to renewable energy proposals near regional cities. The matters apply to SSD development for wind energy generation located on mapped land for the regional cities of Albury, Armidale, Bathurst, Dubbo, Goulburn, Griffith, Goulburn, Mudgee, Orange, Tamworth and Wagga Wagga.

While these provisions do not prohibit wind development in these areas, a consent authority must not grant development consent unless it is satisfied that the development:

- is located to avoid significant conflict with existing or approved residential or commercial uses of land surrounding the development, and
- is unlikely to have an adverse impact on the regional city's capacity for growth, or scenic quality or landscape character.

In considering these matters, the consent authority must factor in any proposed measures to avoid or mitigate those conflicts and adverse impacts.

As evidenced in other areas of Australia, as larger regional centres expand, the population starts to filter out to neighbouring towns. Smaller towns often have residents who are employed closer to larger centres and travel more than an hour each way to work. There is a lack of foresight ignoring the protection of smaller towns, particularly regarding the negative impacts on the scenic quality and landscape character by wind and transmission infrastructure, instead solely benefitting larger towns and cities. Every small town should be afforded the same opportunity to protect their landscape character and scenic quality.

2.3.1 Development applications

Once the department receives the EIS, it will exhibit the DA for at least 28 days, or longer if the exhibition extends over the Christmas and New Year period[7]. This gives the community an opportunity to have a say on the merits of a project before any final decision is made. Other government agencies may also provide advice during this stage.

An extension to exhibitions should also be applied if exhibitions fall over public holidays - long weekends and all school holidays these days should be excluded from the 28 day calculation.

2.6 – Critical state significant infrastructure

2.6 Critical state significant infrastructure

The Minister may declare development to be Critical State Significant Infrastructure (CSSI) under section 5.13 of the EP&A Act if it is considered essential to the State for economic, environmental, or social reasons. The department's Declaration of SSI and CSSI guideline sets out the general principles and reasons for the Minister to declare development as CSSI. The Minister will consider requests to declare wind energy development to be CSSI if it includes a significant energy storage system (for example, a delivery capacity of 750 megawatts or more).

While the assessment process is generally the same as SSD, there are few key differences. The Minister is the determining authority for all CSSI decisions and cannot delegate this function. Additionally, landowners' consent is not required for CSSI applications, and a decision made cannot be subject to judicial review (a review of the administrative decisions and conduct) by the Land and Environment Court unless approved by the Minister. The process is explained in more detail in the Department's State Significant Infrastructure Guidelines.

Many in the community are concerned with the second last sentence "*landowners' consent is not required for CSSI applications, and a decision made cannot be subject to a judicial review (a review of the administrative decisions and conduct) by the Land and Environment Court unless approved by the Minister*"

If any project, whether CSSI or not, is to be placed on privately held land, an agreement MUST be reached, first, with the landowner. Compulsory acquisition of an easement is not sufficient when the negative impacts are such that the landowner may experience loss of property value or loss of agricultural production. The only acceptable compulsory acquisition if an agreement cannot be reached with the landowner should be compulsory purchase, at fair market value, by the government, as has previously been a precedent in mining areas.

3- Community and Stakeholder Consultation

Applicants must undertake meaningful engagement with stakeholders throughout the environmental impact assessment process and during the construction, operation and decommissioning phases of the project. This consultation must be undertaken in accordance with the Undertaking Engagement Guidelines for State Significant Projects.

The community should be engaged as early as possible to identify potential opportunities and constraints associated with the proposed development. The applicant should identify the elements of the project and the environmental assessment that can be influenced or shaped by the community. These could relate to the design of the project, the characterisation of the area and/or the management and mitigation measures that can be implemented. Examples include:

- the positioning and siting of the project including any setbacks
- characterisation of the scenic quality and sensitivity of the landscape and viewpoints (see the supporting *Technical Supplement for Landscape and Visual Impact Assessment*)
- visual impacts including mitigation measures.

A statement here that "the community should be engaged as early as possible" is limp and ineffective and provides no protections for impacted communities. We require better protections.

History has shown that most proponents will do the absolute minimum about consultation and take consultation as a box-ticking exercise. Communities and landowners are tired of the "spin" presented by proponents. Multiple developers have been caught in the act of minimal notification, obfuscation, misrepresentation, misleading statements, imparting the bare minimum of information and being unable to answer landowner/resident questions. Proponents need to be factual and truthful about their projects. Clear rules need to be set in place for upfront notification and meaningful engagement with stakeholders, including ALL nearby landowners.

The same effort should be put into notifying non-associated surrounding landowners as wind developers put into contacting potential host landowners. Most developers only do the absolute minimum of community notification and consultation, most of that, two to three years after signing hosts. Pamphlet letter box drops and one -off advertisements in the local paper do not constitute effective notification of a proposal. Manly rural landowners do not have letter boxes at their property gates and local newspapers are generally not delivered to rural areas. There are numerous cases of people not knowing about a project until construction commences.

At a minimum we request the guideline be amended to require a mandatory letter mail-out notification (out to 20km from a project boundary) at the commencement of a proposal (including preliminary turbine layout map), sent to surrounding landowners 'primary postal addresses', utilising the local Council rates database (with mail-outs paid for by the proponent).

If a proposal is significantly changed during the project development process, for example the addition of turbines closer to non-associated landowners house/property, impacted surrounding landowners must also be directly notified of this change and given the opportunity to provide considered feedback.

Many problems concern inadequate notification and engagement with surrounding landowners upfront. Surrounding landowners are kept in the dark and do not get an opportunity to provide meaningful input into the upfront siting and design of proposals, to reduce impacts.

Standards need to be introduced to protect communities and/or penalties and application rejections need to be imposed on proponents who do not make meaningful, respectful and effective community and stakeholder engagement across the whole process from initial development through to post approval.

Consultation has NOT happened in numerous instances in recent years.

For example, in one instance a dwelling was listed incorrectly as associated. This caused tension within a small tight-knit community with surrounding landowners believing the subject landowner was hosting turbines, and if the landowner had not taken an interest and looked at the EIS, they would likely never have been consulted/assessed for impacts. When the landowner contacted DPE about this omission, they were told that the process would continue, even though this omission skewed the data presented in the EIS. There needs to be consequences for the proponent when errors such as this are made. Eg. withdrawal and resubmission of the EIS within previously stated timelines (no additional time given for the correction of the error).

Community surveys and focus groups also need to have a representative cross section of the community affected i.e. neighbours, hosts, non-associated local residents etc. This should be clarified in the results and should be reflected in the numbers eg. 1% of the population as hosts should only have 1% of the number of the consultations. Numbers consulted should reflect the population density of the area out to 20km. Many proponents think consultation is a minimal number (eg. 30-50) people (and predominantly involve financially benefiting host landowners), but to encourage compliance by proponents, a % of the local population should be specified.

> The department also has a role to play in consulting with stakeholders and the community and has requirements to:
>
> - consult with relevant government agencies and councils to ensure that issues are fully considered in the assessment process
> - exhibit the EIS for public comment for a minimum of 28 days
> - publish documents and submissions relating to the project on the planning portal
> - ask the applicant to respond to issues raised in submissions and agency advice to help the community and stakeholders understand how issues have been addressed and considered
> - outline its decision or recommendation, including how community feedback was considered.

The Department should have a business requirement to initially respond to public enquiries on a project within 3 business days. Community enquires should not be ignored.

The Department should also include a publicly available email address for project public exhibition submissions, given the prevalent gross failures of the Planning Portal, preventing submissions on projects during their exhibition periods.

4.1 – Importance of site selection

The lack of clear guidelines in this section leaves impacted rural communities way too open and vulnerable to years of psychological abuse, misinformation, lies and deception perpetrated by predominantly foreign owned and 100% profit driven multinational wind energy corporations.

As a business model it makes financial sense for wind factory developers to hedge their bets and maximise the amount of turbines on their project plans and wait until DPE tries to push them to delete turbines at the very end of the assessment process. This results in surrounding non-associated landowners living in limbo, not knowing if they have a future on their land and multigenerational homesteads and prevents them from investing further into their properties and farms (for several years) during the project planning and assessment phase.

The psychological stress is unbearable for many rural residents and is making people suicidal and/or pushing people to sell up and leave their farms – with associated increases in food prices at the super market.

Ark Energy (Korea Zinc) and their Burrendong Wind Farm is a prime example of this business practice being implemented in reality. In this regard, Andrew Wilson from Ark Energy is recorded stating to Burrendong SOS: "We are in the business of building turbines, not deleting turbines" from their plan, during what Burrendong SOS understood was the preliminary scoping, siting and design phase of the project.

The only fair and just way of elevating the destruction of rural communities is to implement a clear upfront mandatory setback requirement of 6km between turbines and non-associated dwellings or 5km between turbines and non-associated property boundaries, whichever is the greater. A proponent can only build within this setback, if a signed private commercial agreement is negotiated with the landowners, with evidence submitted as part of the SEARS or EIS.

Section 4.2 – Process of site selection and project design

> Figure 3 shows the most desirable areas for wind energy development considering key commercial factors and high-level environmental constraints including:
>
> - wind resource potential
> - proximity to existing and planned transmission infrastructure
> - access to major energy users
> - available network capacity
> - development and land use constraints to a transmission connection
> - land value
> - development restrictions including land use zoning
> - areas of high biodiversity value (NSW Biodiversity Values Map)
> - distance to major towns and regional cities, and
> - proximity to national parks, conservation areas and flora reserves.

Please be real about this and add to the above list: "Amount of taxpayer funded State and Federal Government subsidies"

> While this map provides a useful indication about where development is likely to be located, there are a range of local and site-specific considerations that need to be considered when selecting a site and developing the layout and design of a project, including:

Add:

- Dark Sky Planning Requirements
- Cumulative impacts from other renewable energy projects in the area

As part of these considerations, it should be noted that any projects proposed within 500 m of a passive recreation area will be required to consider additional measures for managing potential impacts, such as noise impacts on park visitors. Any projects proposed within 500 m of a national park boundary will also be required to consider potential interference with management activities, such as feral animal, weed and fire control, or search and rescue operations reliant on low flight operations and radio communications.

Site selection factors often compete, and due to the large scale of wind energy development, it is challenging to find sites that do not have significant conflicts. Projects must also be designed in a cost-effective manner to provide benefits to energy consumers and reduced electricity costs.

Overall, the site selection process should avoid impacts as far as possible. Projects should then be designed to strike an appropriate balance between competing environmental, commercial, and social factors.

Why do only projects near a National Park have to consider potential interference with feral animal weed and fire control, reliant on low flight operations? Neighbours should also receive this benefit. The CWO REZ for example is heavily impacted by feral pigs in recent years with aerial culling a major method of control. Much hilly terrain can only be treated for St. John's Wort and Serrated Tussock with aerial spraying. Prevention of aerial feral animal and weed control will have widespread implications. This should apply to every neighbouring property within 6km.

It is true that site selection factors often compete and there are significant conflicts. However, proponents are currently of the opinion that location in a REZ is justification for their project and fail to fully investigate conflicts with regards to site selection. Just because a development is situated within a REZ does not mean that the proponent does not have to consider such competing factors and conflicts.

The following edits in red below are requested:

"Constraints mapping

As part of the site selection process, applicants should undertake a 'constraints mapping' exercise that is informed by early engagement with local communities and councils. This should provide an overview of the project and map:

- administrative boundaries, including REZs, local government areas and the extent of the project
- turbine locations, including identifying numbers for each turbine
- **available wind energy resource mapped for the site, overlayed with proposed turbine locations**
- nearby residences, **buildings and landuses,** including identifying numbers for each and identification of whether they are subject to any host or other impact agreements (see Draft Private Agreement Guideline (2023))
- **location of aircraft facilities**
- **setback lines**
- **Land contours with turbine location overlay**
- existing infrastructure, including transmission infrastructure and roads
- **clearly labelled names of: roads; suburbs; townships; waterways; ridgelines; state and national parks for ease of interpretation and location identification**
- existing, approved and proposed renewable energy projects (~~where SEARs have been issued~~ – **where a proponent has notified that a project is under development on their website**)

- existing vegetation, including potential visual screening **and associated required bushfire asset protection zones surrounding non-associated dwellings**
- relevant environmental and land use constraints on and around the project site including national parks, large waterways, waterbodies **and locally significant ridgelines**
- **Land zoning map (as per the NSW Standard Instrument LEP) overlayed with proposed turbine layout**
- **Heritage items and conservation areas**
- **"**

5.1 – Landscape and visual impacts

> Wind energy projects can contrast with the rural and natural landscapes in which they are typically built. They have the potential to impact on landscape features and values, particularly when built along hilltops or ridgelines, and can also have visual impacts on public viewpoints, including roads and lookouts, and private receivers including people's homes.
>
> Visual impacts vary depending on the size of the turbines, the distance they are located from the viewpoint and the number of turbines visible. For example, a single 250 m turbine will generally have a dominant appearance if located within 2 km of a private receiver such as dwelling and tourist and visitor accommodation (see Figure 5).
>
> Turbines remain a prominent feature in the landscape between 2 km and 8 km away, after which they become less noticeable. The supporting *Technical supplement for landscape and visual impact*

The second and third paragraphs stated above are grossly misleading and biased in favour of 100% profit driven wind energy corporations - Not based on empirical evidence nor the 'Sullivan, et.al,(2012): Wind Turbine Visibility and Visual Impact Threshold Distances in Western Landscapes' study that is directly reference in the current NSW Wind Energy Guidelines (for reasons detailed in Burrendong SOS's submission to the Technical Supplement.

Please amend the above paragraphs to fairly reflect visual impact findings of Sullivan et.al (2012), modified to take into account the fact that turbines have more than doubled in size from 120m to 250m+ since that study was undertaken, and the fact that Sullivan et. Al (2012) study didn't account for the increased visual impacts from development of turbines on top of ridgelines.

> *assessment* outlines thresholds for a range of turbine sizes (see Section 3.1.2). Visual impacts can largely be managed through considered wind turbine siting and the implementation of mitigation measures, such as vegetation screening and agreements with affected landowners.

Burrendong SOS requests that the above statement be modified taking into consideration the following extracted from Mid-Western Regional Council DCP 2013, Pp73:

> - Existing and proposed screenings may be used to minimise visual impacts to non-related properties. However, due to the height of turbines, screening is not the preferred method of minimising visual impact. Turbines shall be located in positions so as to have minimal visual impact on nearby properties, especially existing dwellings and lots on which dwellings may be constructed;

Figure 5, Pg 26 of the Draft Wind Energy Guidelines:

- Fails to take into account the fact that the majority of turbines are proposed on ridgelines, towering up to and over e.g. 3/4km into the air to the tip of the turbine above the relative ground level of houses located in valleys below.
- Why don't the house, transmission tower and tree line look like they align with the first turbine? – the ground sun/shading is visually deceptive. This house looks like it is indicated to be 12km distance away on the sliding scale.
- What is the height of the house and transmission tower?
- Turbine aviation lighting should also be depicted in this image.

We request:

- **That a firm upfront mandatory setback of 6km from turbines to non-associated dwellings be put in place with turbines only allowed closer than that if an agreement is made with the impacted landowner.**
- **A minimum 5km setback of turbines to non-associated property boundaries; and**
- **A 10km setback from ALL towns and villages, identical to that afforded to larger towns**

Significant supporting evidence for this request is detailed in Burrendong SOS's submission to the associated Technical Guidelines.

5.1.1 – Key principles

> Visual amenity principles
>
> - The baseline character of the landscape must be determined through engagement with the community
> - Applicants must consider landscape character and visual impacts early in the site selection and design process to minimise impacts and conflicts, including cumulative impacts

The cumulative visual impact of multiple developments also needs to be highlighted in the Guidelines with levels of acceptable / excessive cumulative impacts. In a REZ situation, there are multiple projects impacting residents, eg. some landowners in the Coolah district will have 2 wind projects within 8km and will see over 200 turbines from both developments.

The AEIC Commissioner in his 2021 annual report https://www.aeic.gov.au/sites/default/files/documents/2022-07/aeic-2021-Annual-Report.pdf stated:

> Some regions of Australia are experiencing increased clustering of proposed and approved projects, which may result in multiple projects infiltrating and 'surrounding' communities. The concept of Renewable Energy Zones, while largely beneficial to opening new areas for projects, may also have this unintended consequence.

Standards need to put in place to protect REZ residents from overdevelopment of multiple wind projects and DPE can reject (not negotiate) proposals that go against these standards.

Mid-Western Regional Council DCP 2013 requires:

- Turbine locations shall not surround a non-related property. Turbines shall be located with the specified setbacks from property boundaries to minimise the visual impact of the development on adjacent and nearby non-related property. Cumulative impacts, having regard to existing turbines, turbines approved but yet to be constructed, those for which a Development Application has been lodged with a planning authority and those for which written licenses have been granted to a developer for wind farm assessment purposes should be assessed;

- Applicants must adopt strategies to reduce or manage moderate or high visual impacts

It is not acceptable that 100% profit driven energy corporations are given free rein to select strategies to allegedly reduce or manage moderate or high visual impacts, wreaking havoc on rural communities and surrounding non-associated landowners for years. A clear mandatory 6km upfront setback of turbines to non-associated houses must be stipulated in this guideline.

5.1.2 – Landscape and Visual Impact Assessment

> "The supporting Technical supplement for landscape and visual impact assessment has been prepared to assist applicants and provide greater transparency, consistency and objectivity in landscape and visual impact assessment."

What about providing fairness and greater **certainty** upfront for rural communities and non-associated landowners by clearly stipulating a mandatory minimum up-front setback requirement, where a proponent can build within the setback only if a commercial agreement is reached between the proponent and the impacted non-associated landowner?

> **Landscape character assessment**
>
> The purpose of undertaking a landscape character assessment is to understand the sensitivities of the landscape and to help determine the overall impact of a project on an area's character and sense of place.
>
> This should be informed by a baseline analysis that establishes the area's existing character and its sensitivity. It is important that the baseline analysis is prepared in consultation with the community, relevant local council and affected landholders to ensure that landscape values and characteristics are accurately identified.
>
> The impact of the proposal should be determined by evaluating the sensitivity of the landscape and the magnitude of the project's effects in that area. Where aviation hazard lighting is proposed, the magnitude and impacts of the lighting should also be considered in the landscape character assessment.

Landscape assessment values (both character and visual impacts) should be determined by impacted landowners and the local community, not wind energy proponents. Proponents/developer and even DPE do not have local knowledge and appreciation for an area. Local residents and communities know these areas best. Whilst a guideline can be made (eg. Table 5, Section 3.2 Visual Impact Assessment Process of the Technical Supplement to the Draft Wind Energy Guideline), the ultimate landscape assessment needs to be made and approved by locals as noted above.

It is also important to note here that in reality, proponents can fudge community engagement on landscape character and non-associated impacted surrounding landowners are not directly notified nor given a fair opportunity to input into this assessment. How will DPE ensure this is not allowed to continue?

As stated in the Appendix of the Draft Wind Energy Guidelines:

> Lighting of turbines and tall structures is intended to improve safety outcomes and alert pilots to the presence of potential obstacles in low altitude flight paths. Aircraft detection systems can be used to trigger lights only when an approaching aircraft is identified. CASA has also advised that the use of management systems to regulate obstacle lights and their intensity (such as the use of visibility meters or radar detection systems) are acceptable options in Australia.

We recommend that aviation hazard lighting is assumed to be required.

Every wind proponent's scoping report and EIS says aviation hazard lighting isn't proposed and isn't required. CASA then, inevitably, tells them that it IS required, usually due to the height of the turbines. The proponent then adds this in at the late stage of Response To Submissions (RTS). The RTS, however does not have a formal submission process and may not be read by affected locals. Given the general heights of turbines has been increased to heights over 215m (routinely 250m / 280m as at end of 2023), we recommend that lighting is assumed to be required. A lighting plan, (with photomontages) needs to be included in the EIS and any general aviation lighting requirements met. This requirement will provide transparency on this matter with the community and allow the community's feedback.

Visual Impact Assessment

Figure 6 – The Visual effects of turbine lighting:

- Please confirm that there is only ever one light per turbine as displayed in this image.
- Please also confirm whether or not the light is a flashing light
- Please confirm that there will be a mandatory condition for all wind farms that an Aircraft detection system will be installed that triggers the turning on lights ONLY when an approaching aircraft is identified, at all other times the lights will be turned off.
- This image shows turbines on flat land. There are many examples where turbines are proposed to tower on ridgelines 1/2km to over 3/4km in the air to the tip of a turbine above the relative level houses below. If lighting is shielded and directed in a downward direction, this will have an even greater adverse lighting impact on non-associated houses, with some proposed to only be setback 1.2km to 2km from turbines.

Shadow flicker assessment

Shadow flicker also presents a safety hazard for driving on local access roads used by surrounding landowners. What safety requirements are in place for this, noting many of these roads are already challenging to drive on if unsealed.

5.2- Noise and Health

5.2 Noise and health

The operation of wind energy development can cause noise that is intermittently heard above the noise levels of the existing environment. Wind turbines also emit infrasound, sound at very low frequencies. However, studies have found that wind turbines do not generate a significant amount of low frequency noise compared to other sources and low frequency noise levels near wind energy projects is no greater than in urban areas or at comparable rural areas away from wind projects[11].

The NSW Government's position on potential health impacts of wind energy projects continues to be informed by the scientific findings of the National Health and Medical Research Council (NHMRC). Based on the current NHMRC position that there is no consistent evidence of a link between wind

[10] State code 23: Wind farm development, Planning Guideline, Department of Infrastructure, Planning and Local Government, February 2022 – Appendix 2 Shadow Flicker Assessment.
[11] https://www.epa.sa.gov.au/files/477913_low_frequency.pdf

energy developments and adverse health effects in humans relating to infrasound, it is not currently necessary for developers of wind energy projects to conduct a health impact assessment in relation to wind energy development and infrasound.

The supporting *Technical supplement for noise impact assessment* sets stringent noise levels and an assessment methodology to ensure that projects do not significantly impact the amenity of surrounding residences and passive recreation areas in national parks where park visitors are expecting a quiet, nature-based experience.

The Guide steadfastly continues the position that there is no evidence between wind turbines and adverse health effects.

The Jupiter wind farm EIS was initially rejected by DPE on advice from the Federal Administrative Appeals Tribunal (AAT). The AAT in December 2017 linked annoyance to adverse health outcomes. They also identified a significant proportion of wind farm noise is in the low frequency range to which humans are more sensitive and therefore it can cause greater annoyance than higher frequency sound; Even if inaudible, low frequency noise and infrasound may have other effects on the human body which are not mediated by hearing but also not fully understood; Noise measurement using dBa is an inadequate measure of relevant wind farm noise and wind farm noise measurement should not average noise over time and frequencies; Wind farm low frequency noise can be greater indoors than outdoors at a dwelling.

The quoted reference document Ref.11, is purely on low frequency noise, not infrasound and is from 2013 when turbines were smaller (in energy output, blade size, height etc). Research in Europe has shown that adverse health effects started to occur when turbines increased in size, so older research is not an appropriate reflection of current turbines effects. Studies tend to use averaged readings which does not reflect individual frequencies and ignores the infrasound peaks created by blade pass harmonics.

Infrasound has also been linked to how the brain deals with stress management. A team led by Professor Simone Kuhn of the Max Planck Institute has speculated that we are not able to defend ourselves against high levels of infrasound because what we consciously hear can be assessed and if necessary, ignored. But things that are only perceived subconsciously generate stress and perhaps even fear.

At present, infrasound (0-20Hz) and low frequency noise (20-500 Hz) are agents of a disease that goes unchecked. Vibroacoustic disease (VAD) is a whole body pathology that develops in individuals excessively exposed to ILFN. Since VAD is caused by ILFN and explained through mechanotransduction pathways, it is not surprising why it is taking so long to understand its existence.

A German research team led by Professor Christian-Fredrich Vahl at Mainz University Medical Centre conducted experiments on the exposure of heart tissue to infrasound. Every test revealed that infrasound did have a distinct effect on heart muscle tissue and a clear reduction in heart muscle strength. Professor Vahl went on to add that *"whether we hear it or not, every form of energy has physical effects and infrasound is particularly dangerous, because we don't hear it*." They concluded their research with the following footnote: "*As medical researchers, it is strongly recommended that infrasound levels generated by wind farms do not approach pathological levels. It is the recommendation of this research group to set the level of infrasound no higher than 80 dBz (20 dBz below the critical value of 100 dBz) as the maximally tolerated limit for chronic exposure*."

Whilst more research needs to be done in this field, we request that the sentence "*it is not currently necessary for developers of wind energy projects to conduct a health impact assessment in relation to wind energy development and infrasound*" be removed so that as new research comes to hand, this potential impact is not ignored by proponents.

Burrendong SOS members do not consent nuisance noise, nor any adverse health impacts resulting from nuisance noise, infrasound or any other noise variations emanating from wind turbines.

5.3- Aviation Safety

5.3.1 Key principles

Aviation safety and lighting principles

- Wind energy projects should be designed to reduce aviation safety risk
- Lighting of turbines and ancillary infrastructure should be designed to minimise potential amenity impacts whilst meeting aviation safety requirements
- An aviation impact assessment must include a full assessment of the risks to aviation safety in the context of existing flight patterns, the potential need for changes to flight paths or airport approach routes, and a proposed lighting management system

Increased risk is associated with tall structures. Turbines, by their nature, create air turbulence which can impact the downwind area for kilometres. The placement of airfields is restricted by the surroundings – eg. they must have a relatively flat area devoid of hazards eg. trees, building, transmission lines and other obstructions. Therefore, existing, operating airfields (whether public or private) should have the safety of users prioritised over a new wind project coming into the area. As such, introduction of tall structures such as wind turbines within 6km of the location will have safety

ramifications for fixed wing and rotary wing aircraft.

The USAF is asking Congress to pass legislation to create a 2 nautical mile buffer zone (3.7km) around turbines, helicopter pilots however have said this may not be sufficient. As reported 7 November 2023 https://dailyinterlake.com/news/2023/nov/07/air-force-asks-congress-to-protect-its-nuclear-launch-sites-from-encroaching-wind-turbines/ *"When you think about a wind turbine, and even fields of wind turbines, they'll stretch for miles," said Staff Sgt. Chase Rose, a UH-1 Huey flight engineer at Malmstrom Air Force Base in Montana. "They're monstrous, and then you have gigantic blades spinning on them as well. Not only is that a physical obstacle, but those turbines, they create the hazards like turbulence as well. That can be really dangerous for us to fly into. So it's a very complex situation, when you have to deal with those. … So the Air Force is asking Congress to pass legislation to create a 2-nautical-mile buffer zone around each site. ...That could still be a problem for the air crews."*

This will have great impacts on safety and accessibility for surrounding landowners if turbines are built too close to their land, as emergency services helicopters will not be able to safely land on their properties in case of lifesaving emergency. Especially when driving long distances to a medical facility on dirt roads etc is not the best option. Appropriate setbacks must be put in place in this regard.

Aerial Fire Fighting

Aerial firefighting can continue to be undertaken around wind turbines[12] if appropriate strategies, emergency management systems and communications protocols are in place[13]. Applicants must develop and implement a bushfire management plan that includes response strategies such as shutting down and positioning turbine blades to facilitate aerial access.

If turbines and other tall structures are to be equipped with aviation obstacle lighting, the applicant must ensure there are procedures in place to quickly activate the lights during a bushfire or fog event to increase the transparency of these obstacles to pilots. The applicant must also consult with the NSW RFS to develop other appropriate procedures, such as curtailment of turbines, to minimise impacts to firefighting efforts.

---

[12] Australasian Fire and Emergency Service Authorities Council Limited - AFAC (2018) Wind Farms and Bushfire Operations
[13] Clean Energy Council (2017) In Case of Fire: a real-life experience at a wind farm site

AFAC (ref 12 above) bases its recommendations in its Wind Farms and Bush Fire Operations guide, written in 2018, on a case study of a fire in 2017 (ref. 13) at a small wind project in South Australia (43 turbines 150m high) that, when contained, was only 50ha in size.

The size and scale is not comparable to a large fire of thousands of hectares, experienced regularly around Australia that require air support, nor are the 40 x 150m turbines in the case study comparable to hundreds of 250m tall turbines as obstacles. Turning off the turbines and placing the turbine blades in "bunny ear" position will have no credible effect on larger en masse turbines.

Consideration needs to be given to a REZ situation where there will be a clustering of projects and many areas will have hundreds of wind turbines 215-280m tall in close proximity.

Aerial fire-fighting support is essential for a large scale rural fire. Retardants dropped from above

the height of the turbines would not be effective and reduce target accuracy. The reality of a large fire near a wind project will result in either a fatality of aerial personnel, or a decision by the pilot in charge that, after their risk assessment, it will be deemed too dangerous due low visibility and multiple obstacles, and aerial firefighting support will be withdrawn. This presents dire implications for rural residents and communities.

Burrendong SOS member do not consent to loss of lives and property due to wind turbines preventing the ability to fight fires via aerial firefighting.

5.4- Bird and bat impact assessment

5.4 Bird and bat impact assessment

5.4.1 Introduction

Wind energy development has the potential to affect birds and bats through vegetation clearing and habitat loss. They can also be struck by the turbine blades (referred to as strike) and affected by low air pressure zones caused by the blades (known as barotrauma).

The likelihood of strike mortality is highly dependent on the siting of individual turbines and the characteristics of the relevant bird and bat species. For example, locating turbines away from important habitat can reduce the likelihood of strike. Some species, such as raptors, can also be at increased risk due to their flight patterns and behaviour, which means they are more likely to interact with the swept areas of higher wind turbines.

.....

While there are data limitations to understanding this issue, the estimated mortality rates are considerably less than estimates for other anthropogenic sources. Millions of bird and bat deaths

can be attributed each year to collisions with buildings, vehicles and power lines, and predation by feral and domestic cats.

Notwithstanding, turbine strike has the potential to cause negative impacts for some species (including raptors), and cumulatively there may be impacts on some populations. Consequently, there is a need to carefully design wind energy projects to avoid and minimise potential strike risk and, in some cases, implement adaptive management techniques (such as turbine curtailment) to reduce mortality.[15]

Proponent's consultants repeatedly predict insignificant mortality. This has wide ranging consequences for bird and bat populations. In a 2015 submission to the Australian Senate on bird mortality from wind turbines, Mike Duchamp, then Chair of the World Council for Nature stated "*predicted rates of mortality are often two orders of magnitude (100 times) lower than reality. The monitoring surveys themselves play their part, by never reflecting the full extent of the death toll (for technical reasons – e.g. the insufficient size of the area searched under each turbine * – as well as conflicts of interest).*

** search area: a 50-meter-radius circle around each mast, whereas a 150-meter-tall wind turbine can project the body of a small bird 200 meters away and beyond*."
https://www.masterresource.org/cuisinarts-of-the-air/wind-power-mortality-submission-from-world-council-for-nature-to-australian-senate/

We urge DPE to read ALL of the above submission which debunks much of the "myth" regarding consultant's spin on bird and bat mortality and mitigation (such as curtailment as referenced in the guidelines). The complete bird and bat impact assessment section of the guidelines should be re-examined utilising this information to prevent proponents continuing to rehash previously quoted "reports" that are heavily reliant on misinformation, obfuscation and incorrect methodology.

Also the suggestion that "millions of bird and bat deaths can be attributed each year to collision with buildings, vehicles and power lines, and predation by feral and domestic cats" does in no way justify that further deaths from turbines proposed to be on environmentally sensitive (untouched) ridgelines and rural landscapes is acceptable. In fact, it this presents more of an argument to protect their last remaining habitats from degradation.

Adaptive Management Plan

This should include regular independent monitoring, paid for and only answerable to the NSW Government.

5.5 – Traffic and transport

The cumulative environmental impact of habitat clearing for road widening works from ports to central NSW is extreme and devastating.

In reality, vegetated habitat corridors are predominantly located along road verges, adjoining cleared fields. These habitat corridors are now in the firing line for removal – thousands of sqm kms of vegetation. This must be included in projects environmental impact assessments.

5.6.1 – Infrastructure Contributions

This section appears to overlook the adverse cumulative impacts on infrastructure demands resultant from a massive increase in workforce population for renewable energy zones, especially when all projects appear to be forecast to commence within a similar timeframe in REZ's.

- Demands on social services – hospitals, doctors, nurses, police, schools etc from the new workforce
- Workforce accommodation – should not be allowed to utilise tourist accommodation
- Available water & waste water services for a massive workforce population increase
- Recycling / Waste disposal

5.7 - Decommissioning

> The decommissioning cost calculator tool can be used to help applicants and landholders to estimate the likely costs of decommissioning. This factors in key input values for a range of activities most likely to influence the final costs. The cost of decommissioning is estimated to be around $480,000 per turbine (inclusive of recovery costs), although this rate may vary substantially depending on factors such as whether the access roads and underground cables are removed. If they are not removed, the value of steel and iron recovery from the turbine components is estimated to mostly offset the cost of decommissioning.

In a meeting with DPE regarding these draft guidelines, Matthew Riley, when pressed, admitted that the landowner would be ultimately responsible for decommissioning costs (eg in the case of a developer going bankrupt). Host landowners are not professionals in the field of decommissioning and it is unfair to expect them to become so in return for approximately $30-40,000 per turbine per year as a host fee. The hosts are not the only ones that will be negatively impacted with neighbours and local communities also affected.

Host landowners, surrounding landowners and communities require security, oversight and ongoing evidence that wind farm project owners are legally required to and have the capacity to fund the decommissioning of their wind projects, and that such funds are properly set aside securely upfront and ongoing for that purpose. Examples that should be considered include upfront bank guarantees, a sinking fund, a trust fund or a security bond deposit - held and managed securely by the NSW Government. We request that a legal framework be set up to ensure this occurs.

AEIC Commissioner's 2021 Annual Report notes that: "*Some proponents are offering to deposit decommission funding into a trust fund, but typically not commencing until the later years of the project life, such as year 15 or even year 20. There are a number of risks with the timing of such an approach and would require the project owner to source significant funding in the declining years of the asset to achieve the funding requirements. It would be much more acceptable, and at far less risk to the landholder [surrounding landowners and the community], for the developer to commence funding the decommissioning trust fund from commencement of the asset's operations*."

To ensure the decommissioning of turbines and associated infrastructure and removal of all contaminants at end of life of a wind project, we assert that there should be at least 1 million dollars per turbine securely set aside upfront based on today's costings, before a wind project commences construction. And regular ongoing payments should be made into a secure account to account for inflation and cover all identified decommissioning and recycling costs.

AEIC as extracted from the Commissioner's 2021 Annual Report notes that: "*The Offshore Electricity Infrastructure framework requires licence holders to decommission all infrastructure and address environmental remediation at the end of a project's life. Developers are also required to provide financial security that covers the cost of decommissioning infrastructure to ensure these costs are not borne by the Australian Government.*" This same level of decommissioning security must be extended to onshore wind farms to protect host landowners, surrounding landowners and rural communities.

Wind farm decommissioning agreements should form part of the public consultation/ engagement process and be made publicly available.

5.7.2 Key principles

Decommissioning and rehabilitation principles

- The land on which a wind energy project and supporting infrastructure has been developed must be returned to pre-existing or agreed use if the project is decommissioned.
- If operations cease, redundant above-ground infrastructure should be removed within 18 months unless there is significant justification for retaining it.
- The applicant of a wind energy project should be responsible for decommissioning and this should be reflected in the host agreement with the landholder.
- Applicants should ensure host landholders are informed about the proposed decommissioning plan for the project.

The "Applicant" of the wind energy project is unlikely to be the same company in 25 to 30 years time. For example, Ark Energy (Korea Zinc) is the "applicant" for the Burrendong Wind Farm, yet Ark Energy plans to on-sell the approval to another development corporation if approved. Shelf companies tend to change hands so many times, it will be hard to pin down who is responsible for decommissioning at end of life. So these "Key Principles" provide us with no protections.

5.7.3 Responsibilities and financial assurances

> If an applicant fails to meet the decommissioning and rehabilitation obligations of the project's development consent, the department can use its enforcement powers under the EP&A Act to address any breaches of the consent condition.

This must be re-worded to state "the department **WILL** use its enforcement powers…."

5.7.4 – Assessment

Applicants must also identify the decontamination activities that will take place – from fuel leaks and BPA particle blade shedding etc.

Better still, a condition of consent should require that Wind Turbines are constructed of 100% BPA free materials.

5.8- Waste Management

> Wind turbine blades generally comprise of composite materials such as epoxy resin and glass fibre, or carbon fibre, which are difficult to recycle in Australia and need to be disposed of at special facilities. These elements make up a very small portion of the overall waste, however, the Australian wind energy industry currently generates around 10,000 tonnes of waste per year from wind turbine blades. This will increase to 20,000 tonnes in 2030 and around 300,000 tonnes by 2050.

The disposal of wind turbine blades is a future pollution problem and this needs to be fully addressed by proponents in their EIS. At this point, no recycling factory for turbine blades exists in Australia. Some recycling can occur however it is costly and not preferred by proponents. Vestas

through Stena Recycling and Olin announced a breakthrough in wind turbine blade recycling in February 2023 however no updates have been released since this time, and at almost a year later there has been no progress. In the meantime, turbine blades continue to be landfill which is not environmentally responsible.

We propose the developer is required to commit funds annually to a wind turbine blade recycling fund at the start of each project to cover the increased costs of the limited recycling available and a commitment to not discard wind turbine blades into landfill.

Alternately the multiple proponents who apply to build wind projects in Australia, should commit substantial funds to starting a recycling plant for wind turbine blades in Australia.

Additionally, Mid-Western Regional Council advises that none of its waste facilities are appropriate or capable of handling the disposal of landfill waste generated by wind energy projects. The Mudgee Waste Facility has limited capacity to accommodate enormous quantities of landfill material likely to be generated by wind factories, as the existing Waste Cell is almost exhausted. In fact, Mudgee Waste Facility has already turned away trucks wanting to dispose of turbine parts at this facility. In this regard, EIS's must identify where there which Waste Facilities will have capacity to dispose of their projects turbine waste at end of life, in consultation with Waste Management Facilities. A location to dispose of future turbine waste must be identified and planned for from the outset of the project.

6 – Other assessment issues

Water supply	If there is any water take associated with the project, the applicant should identify the source of water (both potable and non-potable) and may need to acquire water access licences if the project is approved. The applicant should detail the volume of water supply during construction and operation, and detail the assumptions used to estimate water consumption and ensure it is included in the traffic assessment if being trucked to site. The applicant should also provide evidence of the ability of identified potential water suppliers for the project to meet the necessary water demands. The applicant should outline the proposed wastewater management plan as well as the potential impacts of the project on downstream flows and flooding, including measures proposed at all stages of the development to mitigate and manage surface water runoff.

BPA contamination levels must be measured prior to commencement of development works and annually throughout the life of the project - Independent testing of rivers, streams, dams and drinking water tanks. And results made publicly available on the project website.

Hazards	The location of wind energy infrastructure should avoid any land subject to identified natural hazards (such as bushfires, flooding or land instability) and should not contribute to an increase in risk of a natural hazard. Any natural hazards or risks associated with the construction, operation and decommissioning of the wind energy project must be assessed. These include those associated with hazardous materials (for instance, battery storage), and the threat of fire spreading to a wind energy development or being caused by blade throw or associated infrastructure such as cables or transmission lines. If the project is located in a bushfire prone area, applicants must prepare a strategic bushfire study in accordance with the NSW Rural Fire Service's Planning for Bush Fire Protection (November 2019 or its latest version). An assessment of operational risks from potential blade throw should be undertaken and appropriate setback distances from residences, National Parks, roads and battery storage facilities incorporated as a risk management measure.

Where projects propose visual screening via planting of vegetation on surrounding bushfire prone land to screen views to turbines from residences, bushfire asset protection zone reports for these residences is required to ensure proposed vegetation planting does not inhibit protection of life and property in the event of a bushfire.

Cumulative impacts	Any cumulative impacts from any other developments (proposed, approved and operative), especially biodiversity, socio-economic and construction traffic impacts must be assessed in accordance with the department's Cumulative Impact Assessment Guidelines for State Significant Projects (July 2021, or its latest version). For example, multiple wind developments in close proximity to each other may have a cumulative impact on dwellings or adjacent land uses, amenity, biodiversity, visual effects or scenic landscapes.

Proponents are showing evidence of using the location of their project in a REZ as justification that they do not need to consider cumulative impacts to any great extent. However, this DOES need to be considered by proponents, even when the project is located in a designated REZ.

Cumulative impacts on local water supply, social services, housing, and waste management are also major impacts that require listing in this section. Notably due to the construction of multiple projects and their associated workforces occurring concurrently.

Issue	Assessment
Strategic context	Whether the project is consistent with local or state planning strategies, and government policies such as climate change and energy policies, including the capability of the project to contribute to energy security and reliability[16].

As stated at the beginning of this submission wind energy is not reliable. As it is not reliable, it does not provide energy security.

Appendix A – Aviation and lighting impact assessment

Requirement	Content and form
Consultation	Undertake and outline consultation with: • nearby aerodrome (certified and un-certified) operators and aircraft operators known to fly in the area (low flying activities that may include fire spotting and control). • Airservices Australia and the Department of Defence to determine whether any nearby aeronautical communications, navigation or surveillance equipment may be affected. • NPWS and other land management operators to identify potential impacts to low flight operations (e.g. aerial pest/weed control and firefighting activities), and to develop procedures to reduce the risk of collisions with turbines and other infrastructure...

Consultation should also be undertaken with local rescue helicopter services, including a review of historical rescue helicopter flight paths. Where turbines are proposed too close to isolated settlements and houses (such as Worlds End Valley, Worlds End), turbulence could prevent future accessibility of rescue helicopters servicing local isolated communities in the event of an emergency.

Impacts and risks	• Assess the potential impacts of the project on any aviation activity including cumulative effects with any other wind energy projects in the vicinity and potential wake / turbulence issues. • Conduct a risk analysis using AS/NZS ISO 31000:2018 Risk Management and Guidelines. • Assess the need for aviation obstacle lighting (see further discussion below), considering defined air traffic routes, aircraft operating heights, approach/departure procedures, radar interference, communication systems and navigation aids

Another impact / increased risk is where a wind factory is proposed between a key fire fighting water source such as Burrendong Dam and the highest density of residences located immediately to the east of the proposed Burrendong Wind Farm project site. The location of this proposed wind farm will inhibit the ability for aerial water collection and water bombing to protect life and properties.

Requirement	Content and form
Lighting	• Consider measures to minimise the amenity impacts of lighting (see further discussion below). • Where only a select number of turbines are proposed to be lit, provide a detailed justification demonstrate that this would not increase the level of aviation risk. • Assess any impacts on the Siding Spring Observatory and the Dark Sky Region in accordance with the *Dark Sky Planning Guideline*, if located within 200 km of the observatory. • Identify the type of lighting management system proposed (e.g. permanent fixtures or motion sensor/radar detection systems) and include a detailed lighting plan. • Identify measures to ensure obstacle lights always remain lit as indicated in the lighting management system, and any disruption or outages are minimised to the extent practicable. • Undertake consultation with CASA on the proposed lighting system.

Motion sensor / aircraft radar detection system ensuring lighting is turned off when aircraft is not in the immediate vicinity should be a compulsory requirement for all wind factories in NSW. This is required to not only reduce lighting impacts on surrounding residents and the Dark Sky Region, but also to reduce impacts on the habitat and health of nocturnal native fauna.

Also, given the CWO REZ falls into the area of the Dark Sky Region, cumulative effects need to be considered by DPE and a cap placed on the lighting pollution from projects.

Lighting

To reduce visual amenity impacts, the following mitigation options should be considered:

- minimising the number of turbines to be lit, considering selective lighting that clearly indicates the general height and extent of the development
- using the lowest intensity turbine light suitable for the site
- where fixed lighting is proposed (instead of being controlled through detection systems) all turbine lighting should be turned on simultaneously, be a steady medium intensity red light and should not flash
- ancillary lighting should be installed to direct light below the horizontal to avoid unnecessary impact on residences.

Turbine lighting installed to direct light below the horizonal to avoid unnecessary impacts on residences, would in fact increase impacts on residences, where they are located in valleys below turbines, effectively directing light down onto houses. This is not acceptable.

BURRENDONG SOS | SAVE OUR SURROUNDINGS | BURRENDONGSOS@GMAIL.COM

Burrendong SOS Submission to public exhibition on the Draft Wind Energy Guideline - Technical Assessment for Landscape and Visual Assessment, November 2023

29 January 2024

https://shared-drupal-s3fs.s3.ap-southeast-2.amazonaws.com/master-test/fapub_pdf/NSW+Planning+Portal+Documents/Draft+Wind+Technical+Supplement+Visual.pdf

Contents

Burrendong SOS Submission Overview 3
KEY OBJECTION: LACK OF A MANDATORY 6km UPFRONT SETBACK REQUIREMENT 3
The requested 6km mandatory upfront setback is supported by the following points: 3
1 – Introduction 7
1.2 - General requirements 7
Fair upfront notification and engagement requirements 8
1.3 - Approach to Assessment 9
Visual impact assessment 9
Dwellings 9
Definition of a Dwelling 10
Private Agreements 10
2 - Landscape character assessment 10
2.1 – Baseline analysis 11
3 - Visual impact assessment framework 12
3.1 - Setback 13
Figure 2. Setback from sensitive receivers 14
Figure 3 – Setback exemptions 15
3.2 – Visual impact assessment process 16

Visual magnitude methodology 16
Visual sensitivity 18
Performance objectives and mitigation 21
Avoidance and Mitigation 23
3.3 – Dwelling Entitlements 24
4 – Level of Assessment 25
4.1 – Scoping Report 25
Visual Study Area and associated Figure 7 – Extent of the scoping study area 25
Scoping map 26
4.2 Environmental Impact Statement 26
Setback assessment and provision of photomontages 26
Proportionate visual impact assessment 27
Figure 10 – Potential vertical magnitude 27
Figure 11 – Steps to determine visual magnitude for an intermediate assessment 27
Refining visual magnitude and Figure 13 27
Assessment against performance objectives 28
APPENDIX C and D 29
APPENDIX D – Photomontages requirements and alternatives 30
APPENDIX E – Imagery Requirements 31
Simple assessment example 31
ADDITIONAL REQUIREMENT 32

Burrendong SOS Submission Overview

Please take into consideration Burrendong SOS's submission on a review of the Draft NSW Wind Energy Guidelines – Technical Supplement for Landscape and Visual Impact Assessment when finalising this document.

The review and feedback in this submission is laid out in order of the Technical Supplements Content Page, with the exception of the following 'Key Objection' heading.

KEY OBJECTION: LACK OF A MANDATORY 6km UPFRONT SETBACK REQUIREMENT

Burrendong SOS requests that DPE provides reference to the empirical evidence that supports the proposed approx. 2km setback from 250m high turbines (e.g the Figure 2 diagram) of this draft technical supplement. Also, please be advised that the draft requirement that proponents "generally avoid sitting turbines within the setback" is not a mandatory setback requirement, is dismally weak and provides no protections, security or assurances for a future on the land for adversely impacted rural communities and landowners.

In this regard, Burrendong SOS request that the Technical Supplement be updated to stipulate a mandatory upfront setback requirement: THAT proponents may only locate turbines within 6km of non-associated sensitive receivers, if they successfully negotiate commercial agreements with impacted landowner/s, and evidence of these signed agreements are submitted with the preliminary scoping document to the NSW Department of Planning and Environment (DPE), prior to issuing of a SEARS.

Or alternatively, an upfront mandatory 5km setback of turbines to adjoining non-associated property boundaries be required, whichever is the greater.

The requested 6km mandatory upfront setback is supported by the following points:

- Study findings of ***Sullivan, et. al, (2012): Wind Turbine Visibility and Visual Impact Threshold Distances in Western Landscapes*** - a study that is referenced in the current NSW Visual Assessment Bulletin, provides a strong supporting argument for a mandatory 6km minimum upfront setback of turbines to dwellings as follows:

Summary of Observations with Visibility Rating of "6"

Maximum observed distance: 6.4 km (4.0 mi)

Minimum observed distance: 0.8 km (0.5 mi)

A visibility rating of "6" describes facilities that are a major focus of visual attention, but also of such large size that they occupy much of the observer's field of view and cannot be "taken in" in one view; i.e., the observer's head must be turned significantly to see the entire facility in focus. In these situations, the wind facility is a commanding visual presence that may completely fill or exceed the visible horizon in the direction of view. This rating level is ultimately dependent on the size of the facility in view, and thus is context-specific, but is useful as an indicator of likely perceived impact, as a rating of "6" would almost always correspond to a major visual impact. In this study, the maximum distance at which facilities received an average visibility rating of "6" was 6.4 km (4.0 mi), with several observations receiving ratings of "6" by some observers up to distances of 9.7 km (6.0 mi).

Noting, this study was based on 120m high turbines - less than half the height of today's 250m up to 300m high turbines.

The study observes the highest visibility impact rating of "6" for 120m high turbines setback a maximum observed distance of 6.4kms. **A visibility rating of "6" describes turbines that are of such a large size that they are a major focus of visual attention.** In these situations, the wind facility is a commanding visual presence that may completely fill or exceed the visible horizon in the direction of view and would almost always correspond to a major visual impact.

In the study, the maximum distance at which 120m high turbines received the highest average visibility rating of "6" was 6.4 kms, with several observations receiving ratings of "6" by some observers up to distances of 9.7 kms. Considering the outcomes of this study, a far greater mandatory setback of turbines to homes than 6km should be supported for 250m to 300m high turbines.

- The Mid-Western Regional Council (MWRC)'s submission to the current Piambong Wind Farm SEARS and MWRC DCP 2013 Requirements as follows:

MWRC Piambong Wind farm submission to the SEARs states:

Council acknowledges that local controls – such as Development Control Plans are not a technical matter for consideration in the determination of State Significant Development. Nevertheless, Council requests consideration be given to Section 4.6 of the DCP, as the standards adopted represent the Council and communities' expectations for such development and were the outcome of extensive community and stakeholder engagement.

In this regard, the MWRC Development Control Plan 2013 on Pages 73-74 specifies the following requirements:

- Turbines shall not be located within 5.0 kilometres of any dwelling not associated with the development or from any lot upon which a dwelling may be constructed. The 5.0 kilometre setback proposes utilising a precautionary principle in addressing perceived visual, noise and health concerns;

- Turbines shall not be located within a distance 2.0km from a non-related property boundary;

- Existing and proposed screenings may be used to minimise visual impacts to non-related properties. However, due to the height of turbines, screening is not the preferred method of minimising visual impact. Turbines shall be located in positions so as to have minimal visual impact on nearby properties, especially existing dwellings and lots on which dwellings may be constructed;

- Turbine locations shall not surround a non-related property. Turbines shall be located with the specified setbacks from property boundaries to minimise the visual impact of the development on adjacent and nearby non-related property. Cumulative impacts, having regard to existing turbines, turbines approved but yet to be constructed, those for which a Development Application has been lodged with a planning authority and those for which written licenses have been granted to a developer for wind farm assessment purposes should be assessed;

Burrendong SOS request that DPE take into account MWRC's and the regional communities' (located within the Central West Orana Renewable Energy Zone) expectations for reasonable upfront setbacks to wind turbines from their homes and properties as outlined in the MWRC DCP 2013, which was determined via extensive community and stakeholder engagement.

It is also important to note here, that these setbacks were determined back in 2013, when wind turbines were approx. half the size of the 250m+ high wind turbines proposed today. Therefore, Burrendong SOS's request for a 6km minimum upfront setback requirement is considered more than reasonable for inclusion in the 2024 NSW Wind Energy Guidelines.

- The Draft 2011 NSW Wind Farm Guidelines required an upfront assessment for turbines proposed within 2km of residences. Since 2011, turbines have nearly tripled in height and tripled in megawatt power, making a required mandatory minimum upfront setback of 6km fair and reasonable. It would be obviously biased, unfair and unreasonable on impacted rural communities and landowners, if the new 2024 Guidelines only contained an optional and outdated 2km setback requirement.

- Buffalo County, Nebraska USA in March 2023 unanimously voted to approve distancing rules that were recommended by their planning commission to require a 3mile (nearly 5km) setback from rural residential property boundaries to wind turbines. This generally aligns with Burrendong SOS's requested upfront mandatory 6km setback of turbines to residences and the alternative upfront mandatory 5km setback of turbines to adjoining non-associated property boundaries, whichever is the greater.

- A recent Canadian study - ***Wind Turbines: Why Some Families Living in Proximity to Wind Energy Facilities Contemplate Vacating Their Homes (2020)*** has gone some way to understanding this stated phenomena, with data analysis lending support for the theory that surrounding landowners decisions to vacate their land and family homes have been motivated by the proximity of wind energy facilities within 10km of homes and their observations of the occurrence or potential risk of adverse health effects. Although research is significantly lacking in this regard – a general observation is that houses are been evacuated / left vacant surrounding operating wind farms. A 6km (ideally 10km) minimum upfront setback of turbines

to homes would go some way to reducing associated social impacts on rural community members such as: a profound sense of loss; impacts related to social justice, rights, personal security; grief, displacement, anger, bitterness, mistrust in government, stress and anxiety; financial distress, losses and hardship; impacts on employment and agricultural production; and adverse impacts on personal and community relationships.

- A mandatory upfront 6km setback would reduce assessment timeframes and staunch community opposition, which would in turn benefit DPE - alleviating community and landowner fears over impacts given adequate setbacks from their houses, reducing the number of highly impacted landowners, freeing up staff from extensive community submissions, phone calls and site visits, reducing assessment costs and timeframes.

- A mandatory upfront 6km setback would dramatically reduce the destructive impact wind projects have on rural communities – currently pitting neighbour against neighbour – creating inequity and division. Rural communities and landowner relationships are currently being destroyed by wind farm prospectors, proposals and projects. A clear mandatory minimum upfront setback of 6km would significantly reduce the division created, and ensure wind proponents fairly compensate non-associated landowners, if said landowners are willing to negotiate a commercial agreement in exchange for the location of turbines within 6km of their homes.

- Determining visual impacts and associated setbacks from turbines to homes up front, should not be left in the hands of 100% profit-driven wind energy corporations. Our lived experience has taught us they cannot be trusted to fairly consider and take steps to minimise adverse impacts on immediately surrounding communities and landowners.

  Currently 'independent' setback determinations are left to DPE to make a call at the very end of the assessment process, and it is likely this trend will continue if lacklustre non-mandatory setbacks remain as stipulated in these Draft Guidelines. This means several years of stress, anxiety and uncertainty for the future is inflicted on non-associated landowners and communities, producing entrenched opposition to wind projects across the board. In this regard, the guidelines must require a mandatory upfront 6km setback requirement to eliminate this impact – not as stipulated in the current draft guidelines an optional 2km setback.

- There are adverse cumulative social impacts on landowners forced to live in REZ 'power stations' that could be significantly reduced if the Guidelines include an upfront mandatory 6km setback. For example, residents near Burrendong in the CWO REZ are faced with being surrounded by the Burrendong Wind project, Pheonix Pumped Hydro, Piambong Wind project, Uungula Wind project and developers are currently prospecting potential host landowners to the south. Add to this Energy Co's transmission infrastructure and ongoing updates to the NSW energy guidelines and reviews by the Australian Energy Infrastructure Commissioners Office. This results in years of extreme stress, anxiety and financial hardship to neighbours and communities surrounded by proposed wind projects, who are overwhelmed by detailed project proposal paperwork, engagement, submissions, meetings etc - forced to fight for years for basic considerations to defend their multigenerational properties and families from potentially adverse impacts.

A mandatory upfront 6km setback would give landowners involuntarily located within REZ "power stations" some certainty and relief, significantly reducing the cumulative social impact of having to be across the detail of multiple projects simultaneously in order to try and ensure basic considerations are taken into account to reduce adverse impacts on them.

- All this talk about community benefits do not cut it because funds are not assured to be allocated to communities and landowners directly impacted by a wind factory project. Case in point, the majority of community benefits funding for the Burrendong Wind Farm would be given to Dubbo Regional Council due to the number of turbines proposed within their LGA boundary on the project site, yet the majority of landowner that will be adversely impacted by this proposal are located within Mid-Western Regional Council's LGA.

  Community benefit funds will not buy social licence, they only act as a legalised form of bribery for cash-strapped Local Councils, silencing their objections to proposals but no silencing aggravated community members. In this regard, a requirement that a proponent must obtain upfront private commercial agreements with non-associated landowners if they wish to build turbines within a stipulated mandatory setback of 6km of their homes would be a massive step in the right direction to establishing social licence within rural communities. This would also speed up assessment times and significantly reduce the level of objections to projects.

1 – Introduction

1.2- General requirements

The assessment must include a full description of the proposed wind energy project design and use maps to show the location of the project in relation to public viewpoints, private receivers and surrounding landscapes identified for analysis.

It must include details of:

- the most recent and highest resolution satellite imagery, aerial photography and available orthophotos at a scale of 1:25,000 (where used the applicant should provide the date the imagery was captured)
- topographic mapping, zoning and other land use information available on the NSW Planning Portal or SEED
- Google Earth™ or a similar mapping service and the most recent vegetation mapping, particularly vegetation information that gives an idea of the structure and height of vegetative cover.

Maps must also include:

- All property boundaries
- Numbered turbines locations that correspond with the numbering of turbines depicted in photomontages, so that impacted communities and landowners can more easily interpret and provide considered feedback on a proposal
- All surrounding non-associated buildings, numbered for reference and feedback purposes

- Clearly labelled names of roads, waterways, ridgelines, suburbs, townships, state and national parks and other location identifiers, so impacted communities and landowners can more easily interpret the location of the proposal. Note this must be stipulated here as maps in the guidelines do not clearly demonstrate this as a mapping requirement.

Fair upfront notification and engagement requirements

> The applicant must engage with the community, including the indigenous community, as early as possible and throughout the preparation of the assessment to verify the outcomes and to consult on any measures proposed to mitigate impacts.
>
> Importantly, the assessment process should be undertaken alongside the design and siting of a wind energy project so that the design can be effectively informed by the community's input.

There must be a mandatory requirement that Proponents are to directly notify surrounding landowners out to 20km, at the outset of their proposal via letter to their primary postal addresses with the help of local Councils and their rates database (with postage paid for by the proponent). This letter should include a clear preliminary turbine layout map with proposed turbines (numbered) with labelled roads, rivers and suburb names, sensitive receivers (with id number) and numbered lots with lot boundaries.

After this letter mail-out, appropriate community engagement via radio, tv, newspaper, letterbox drops, email and website updates and information sessions should commence, where the community's feedback is taken on board and siting changes are made based on this feedback. The Proponent must report back to community members justifying how their specific concerns raised have or have not been addressed in the preliminary siting and design phase of the project.

If the project layout is modified and turbines and/or associated infrastructure is placed closer to a non-associated landowners residence, impacted landowners with residences within 10km of the change must be directly re-notified of this change, an updated photomontage must be provided to impacted landowners and landowners must be given an opportunity to review and provide considered feedback on these changes.

The above requirement is important, because as with the case of Ark Energy and their Burrendong Wind Farm Proposal, a row of 10 turbines were "snuck" onto the far north-eastern ridgeline closer to the highest density of non-associated homes later in the process, without landowner notification or an opportunity for landowners to provide feedback on their impacts or siting and design. Some of these turbines are proposed as close as 1.2km from houses located in the Worlds End Valley below, towering above the relative level of houses up to 3/4km into the air to the turbine tip. As such the current process is not fair nor just and does not meet basic community engagement standards.

1.3- Approach to Assessment

Visual impact assessment

> This technical supplement recognises that visual amenity should be afforded some protections and provides a range of tools to achieve this outcome. However, it also recognises the fundamental principle that landowners do not have a proprietary right or ownership of a view[1] and a visible wind turbine or ancillary infrastructure does not necessarily constitute a visual impact.

1 Tenacity Consulting v Warringah Council (2004) NSWLEC 140 and Victoria Park Racing & Recreation Grounds Co Ltd v Taylor [1937] HCA 45

In the light of the recent case **IT Power (Australia) Pty Ltd v Mid-Western Regional Council [2023] NSWLEC 1800** https://www.caselaw.nsw.gov.au/decision/18cad2273c26f3078ac9c016 , the solar project was rejected by the Land & Environment Court, principally on visual impact to neighbours and the community, of the solar plant and the mitigation offered, both of which were low-lying. Wind turbines at a current routine height of 250m and often proposed on ridgelines towering above houses will have substantially greater visual impact. With this precedent visual amenity of neighbours and communities needs to be protected, taking into consideration e.g. Para 124 "….*The design, setbacks and siting of the development does not sympathetically respond to the landform of the site and surrounding rural and landscape character*."

Magnitude

Magnitude refers to the physical scale of the wind energy development and is influenced by a range of factors including:

- the apparent size of a wind energy development decreases significantly as the distance from the viewer increases
- the apparent size of a wind energy development increases with the physical scale and dimensions of a wind turbine and the number of turbines that would be visible, although these factors are less discernible as distance from the viewer increases.

Please add a bullet point here:

- Cumulative visual impact taking into consideration turbines proposed for surrounding proposed, under assessment and approved wind farms.

Please refer to Burrendong SOS request for a mandatory upfront setback from residences to turbines as detailed under the above heading 'KEY OBJECTION: LACK OF MANDATORY SETBACK REQUIREMENT', notably with regard to the review of study finding of Sullivan, et.al,(2012): Wind Turbine Visibility and Visual Impact Threshold Distances in Western Landscapes – a study that is referenced in the current NSW Visual Assessment Bulletin.

Dwellings

Request red text be added:

"Residential amenity encompasses the overall quality, experience and nature of views and outlooks available to occupants of a dwelling and its immediate surroundings including e.g. outdoor recreational areas such as pool areas, tennis courts and gardens"

Definition of a Dwelling

With regard to the definition of a dwelling we refer you to the judgement for IT Power (Australia) Pty Ltd v Mid-Western Regional Council [2023] NSWLEP 1800:

> 46 *As Mr Barwick identifies the Supplementary Report of Mr Chambers (the Chambers report) has gone to a significant effort to determine the relevant meaning of the phrase "...existing or approved residential or commercial uses of land..." within s 2.42(2)(a) of the T&I SEPP. However, the methodology adopted by Mr Chambers is, as Mr Barwick suggests, overly technical and it is far more relevant to consider if the land uses surrounding the proposal are for the purpose of a dwelling or commercial activities.*

We also refer you to legal matters of objection with regard to the definition of a dwelling raised in the submission by Pierre Le Bas, Legal Counsel for Turnbull Planning International Pty Ltd's on behalf of Burrendong SOS to the recently exhibited Burrendong Wind Farm EIS.

In this regard, Burrendong SOS does not support this definition of a dwelling that is biased in favour of multinational wind energy corporations at the expense of existing taxpaying rural landowners and communities, and this is sure to open a can of legal worms for DPE into the future.

Private Agreements

A photomontage of visual impact of proposed turbines from dwelling/s on a property must be provided to educate a landowner of the visual impacts of a proposal, prior to signing of any private agreement.

2- Landscape character assessment

The EIS must include an assessment of how the project will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. Landscape character assessment can help the community, applicants and consent authorities understand the sensitivities of a landscape and to determine the overall impact of a project on an area's character and sense of place.

Arguably, this is too important to be done by consultants paid for by the proponent with biased results. It is essential the community (a mix of landowners and local residents) is the one tasked with informing and assessing the Landscape Character with their intimate knowledge of the area.

In reality, biased landscape and visual impact consultants such as Moir Landscape Architects are employed by proponents to prepare landscape character assessments based on extremely limited community engagement. An example of this is detailed in the Burrendong SOS's submission to the Burrendong Wind Farm EIS, at pg 14 headed 'Notification, Community Engagement and Visual Impact Survey- Failures' - surrounding landowners were not fairly notified nor given a fair opportunity to provide input into a "Survey" that allegedly informed the landscape character assessment. Analysis was fudged, and the visually significant Worlds End Ridgeline has not even been mentioned in their landscape character unit assessments!

What protections is DPE going to put in place to ensure this doesn't happen in future? The Draft Guidelines are clearly lacking in this regard.

> The study area for the landscape character assessment should generally be approximately 25 km from the proposed development. However, the character of landscapes can vary significantly, and justification may be provided for analysing a smaller area.

Given the size of wind energy projects, a firm 25km area needs to be standard. It is acknowledged that this may contain multiple identified landscape characters.

2.1 – Baseline analysis

> It is important that applicants engage with the community (including the indigenous community), local council and potentially affected landowners as early as possible to identify and establish the importance of particular landscape values and characteristics. Gauging these values can provide a firm basis for siting and designing a wind energy project that seeks to avoid or minimise impacts.

Please refer to comments made under Section 1.2 above headed 'Fair upfront notification and engagement requirements' which are also relevant to this section.

Provision by the proponent of an indicative (not final) turbine layout map and associated photomontage from potentially impacted landowners residences at the outset of the project is required to help landowners understand potential visual impacts and enable them to provide considered feedback into the importance of particular landscape values and characteristics to inform the Landscape Character Assessment and further siting and design considerations/modifications.

A request for landowners to articulate what the importance of particular landscape values and characteristics are will come into sharper focus when given the opportunity to considering a preliminary project layout photomontage. It is almost impossible for landowners to comprehend how 250m+ high industrial turbines placed e.g. along a ridgeline above their house will impact valued landscape characteristics without the visualisation of an indicative photomontage.

Local residents and landowners have a different appreciation for their surroundings than a developer, the developers biased (not independent) consultant or even DPE when identifying landscape values and characteristics. This is why it is essential that such determinations be made by the local community and local landowners.

Applicants should use a combination of descriptive text and photographs to assign scenic quality values and provide a visual profile in the region, including what types of landscape features are typical, less common, rare or unusual and outstanding. The outcomes of this baseline analysis should be used to inform the visual impact assessment of assessable viewpoints.

In recent EISs it has been noted that many photos used by proponents are of the area to be developed, not the view experienced by neighbours. It is essential to require the inclusion of views to be impacted, especially worst case scenarios, to form a complete picture of the area likely to be affected by new proposals.

Applicants must undertake a baseline study to establish the existing landscape character of the area and its sensitivity. This should be based on desktop analysis and field visits and should provide a descriptive and illustrative analysis of the qualities of the place, what makes it valued and any challenges that could arise in relation to the proposed development.

The baseline study should be based on not only a desktop analysis and field visits but also detailed community engagement that seeks feedback on preliminary photomontages provided to potentially impacted surrounding landowners out to 10km.

- key landscape features or attributes of the landscape associated with high visual interest or quality that stand out visually in the landscape, including natural features (such as a distinctive mountain peak or hilltop), cultural or agricultural features

Please include '**ridgelines**' here as an example of a natural feature that stand out visually in the landscape.

ADD

- How the landowners, residents and visitors use and value the land, e.g. lifestyle properties, isolated bushland retreats, recreation, agricultural, farming.

- the location of any proposed, operational or approved wind energy developments within a regional and local context, including projects which may have the potential to create direct or indirect cumulative impacts with the project.

This should include the location of any proposed, under assessment, approved and operational wind energy developments within a regional and local context….

3- Visual impact assessment framework

The guidelines are not clear in this section – And **there is no mandatory setback stated**, but rather referral to 2km as to be "generally avoid[ed]".

Burrendong SOS adamantly objects to the draft guidelines lack of a clearly stated mandatory upfront setback.

Lack of a clearly stated mandatory upfront setbacks in this guideline is unfair and unacceptable for impacted rural communities, landowners and residents – especially for those whose homes and families have been forcibly located within 'modern day power stations'- renewable energy zones and are being surrounded by wind factory proposals – left to fight it out for years with several

predominantly foreign-owned, 100% profit driven multinational wind energy psychopathic corporations proposing to surround their homes with turbines often even closer than 2km.

Mandatory upfront setbacks are required to significantly reduce and prevent years of psychological abuse, stress and anxiety foisted on rural communities and landowners during the wind factory assessment process and ongoing. We require certainty for a future on our land.

IN this regard, the Wind Energy Guidelines have not taken into account the human toll – social, psychological, division of community etc with regard to the need for mandatory upfront setback requirement of turbines to sensitive receivers. This is a major failure of the Draft guidelines.

Please refer to detailed justification for Burrendong SOS's mandatory upfront setback requirement of 6km between residences to turbines as detailed under the above heading 'KEY OBJECTION: LACK OF MANDATORY SETBACK REQUIREMENT'

3.1- Setback

Wind turbines close to sensitive receivers including dwellings, historic homesteads, tourist accommodation, places of worship, town centres and central business districts, can be visually dominating despite the scenic quality or importance of the view. For example, a single 250 m turbine will generally have a dominant appearance if located within 2 km of a sensitive receiver and is completely visible.

Figure 2 prescribes a setback for turbines that are likely to have a dominant appearance. This setback applies from sensitive receivers and scales depending on the height of the turbines being proposed. If a sensitive receiver is located within the setback distance it will trigger a high visual impact unless the turbine(s) would be largely screened by topography or vegetation as shown in **Figure 3**.

The setback is equivalent to 7 degrees of a person's vertical field of view. This can be measured and visualised in real world settings using the tools described in **Section 3.2.**

If a sensitive receiver is eligible for a setback exemption, a visual impact assessment must be undertaken in accordance with the process outlined in **Section 3.2**. In all other circumstances, receivers should be assessed against the high impact performance criteria in **Table 8** which generally require the impact to be avoided. Consequently, applicants should generally avoid siting turbines within the setback unless there would be significant mitigating factors, or it has a private agreement with the affected landowner.

Burrendong SOS requests a mandatory upfront setback of 6km from turbines to sensitive receivers for supporting reasons clearly detailed under the above heading 'KEY OBJECTION: LACK OF MANDATORY SETBACK REQUIREMENT'. In this regard, turbines could be constructed within 6km of a sensitive receiver only if a private agreement is reached with landowners within 6km, to be evidenced by the proponents in their submission for a SEARS.

A requirement to "generally avoid sitting turbines within the setback" is not a mandatory setback requirement, it is dismally weak and provides no protections, security or assurances of a future on the land for impacted rural communities and landowners.

Figure 2. Setback from sensitive receivers

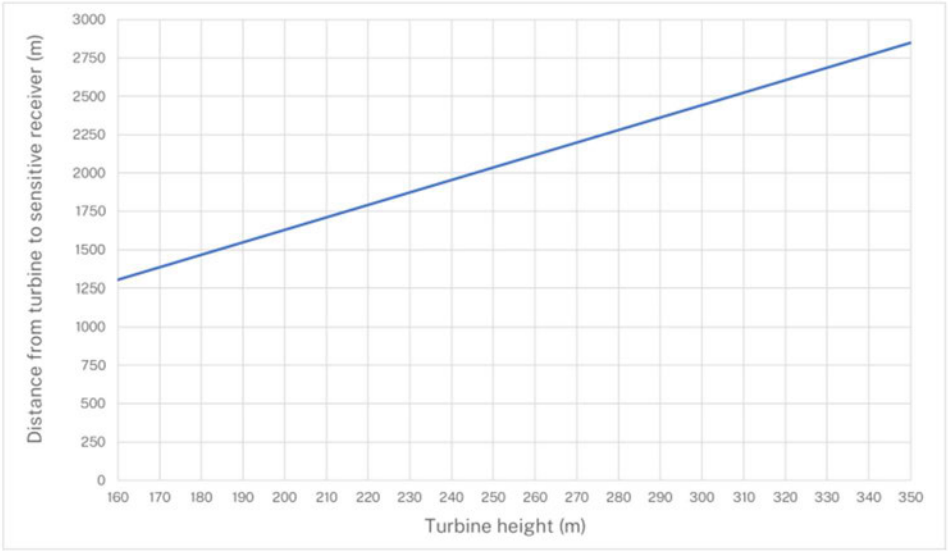


Figure 2. Setback from sensitive receivers

Burrendong SOS request that DPE provides references to the empirical evidence that the development of the Figure 2 diagram has been based on.

Figure 2 clearly does not align with the findings of Sullivan, et. al, (2012): Wind Turbine Visibility and Visual Impact Threshold Distances in Western Landscapes - a study that is referenced in the current NSW Visual Assessment Bulletin and which provides a strong supporting argument for a mandatory 6km minimum upfront setback of turbines to dwellings.

It begs the question, has the creation of Figure 2 solely been based on the pressure and wants of 100% profit-driven and predominantly foreign-owned multinational wind energy corporations, such as Ark Energy? Is this an independent, fair or just requirement? Will this requirement help to reduce the devastating adverse impacts of rural communities and landowners in this fast-paced transition to renewable energy?

Figure 2 and the proposed *optional* 2km setback from 250m high turbines does not take into account the heightened visual impact of e.g. 250m high turbines proposed on ridgelines that can tower up to and over 3/4km into the air (to their tip) above the relative ground level of sensitive receivers below. No amount of visual mitigation measures can screen views to the sky! – this is a devastating visual impact and requires a much greater setback than 2km. Figure 2 must be amended to require a greater setback that accounts for the overall height of turbines proposed on ridgelines above the relative level of surrounding sensitive receivers.

Visual impacts from turbines located on top of ridgelines are much greater than on flat terrain. In this regard, the AEIC states "*Based on our complaint handling experiences, the Commissioner has found*

that locating wind turbines on the top of hills or ridges, while optimum for capturing the wind resource, can have greater impacts on visual amenity, may lead to specific noise and shadow flicker scenarios for residents in the valley beneath and may have other associated impacts on the community. Access roads for hill and ridge wind farms can also be obtrusive and significantly damage and constrain the remaining available farming land in the area. Conversely, there appear to be minimal issues raised to date about wind farms that are located on large land holdings, or on flat or slight to moderate undulating land and sites that are well away from neighbours and towns."

In a REZ situation, there are multiple projects impacting residents. Mandatory standards need to put in place to protect REZ residents from cumulative overdevelopment of multiple wind projects surrounding their homes and DPE must be able to reject upfront (not negotiate) proposals that go against these standards.

For reasons outline in Section 4.1 (below), Burrendong SOS reasonably request that:

- **The 'red line' on Figure 7 should be the mandatory setback line (replacing that of 'Figure 2 – Setback from sensitive receivers');**
- **The blue line on Figure 7 should be the 'Other Public Viewpoints / Private Receivers' study area line; and**
- **There should be a new line added for 'Sensitive Public Viewpoints' that extends out to 25km for turbines 250m in height.**

Figure 3 – Setback exemptions

The photomontage examples provided in Figure 3 make no sense. There is no clear explanation for why one turbine in the first image that is setback 1750m from a sensitve receiver is 'Exempt from setback' yet another turbine in the same image that has the same 1750m setback is 'Not exempt from setback'?

Also this figure appears to give proponents a get out of jail free card! – They just have to super impose/edit some tree branches onto a photomontage to cover views to turbines. Or Proponents could take photos (as they have been historically evidence to do) from a stratigically beneficial location at a non-associated landowners sensite receiver, where trees block views to propsed turbines, and then they can propose e.g. Sydney Centre Point tower (Sydney Eye) height turbines as close as 750m from a their house?!!!! … but if the landowner walks 10m from that location, turbines could then be in full view?

Also, a single tree blocking a view to a turbine surely can not be fairly considered as mitigating impacts. The tree could die at any time, and the time it would take to replace it with another fully grown tree of a similar size could take at least 25yrs plus (the life of a windfarm)! Or a large branch could break off to fully expose the visual impacts of a turbine at any point.

Burrendong SOS request that there are no setback exemptions (loopholes) available to proponents. The guidelines must stipulate a clear upfront mandatory upfront setback requirement.

3.2 – Visual impact assessment process

Applicants must undertake a visual impact assessment for all other public viewpoints and private receivers in accordance with best practice and by considering visual magnitude and visual sensitivity. This assessment must be undertaken in accordance with the process outlined in **Figure 4** and described below. The level of assessment should be proportionate to the likely impacts of the development which is described in detail in **Section 3.3**.

It must be clearly stipulated here that a visual impact assessment is cumulative visual impact assessment, of not just the turbines proposed by the proponent's wind farm proposal but it must include an assessment of turbines from ALL surrounding proposed, under assessment, approved and operational wind farms out to 25km from the sensitive receiver.

Visual magnitude methodology

Visual magnitude should be determined by analysing the volume of the field of view that a project would occupy. This can be determined by splitting any view into a grid comprising cells 1 degree high and 10 degrees wide (see **Figure 5**) and essentially counting the number of cells that would be occupied by a project.

Figure 5 - Determining visual magnitude

The total number of cells can then be compared to the visual magnitude thresholds in **Table 1** to determine the visual magnitude rating. The visual magnitude is classified into one of five ratings (very high, high, moderate, low and very low) and provides an indication of the apparent size of the wind energy development from each public viewpoint or private receiver. Examples of each magnitude rating are provided in **Appendix B.**

Note example is 7 cells wide = 70 degrees. 60 degrees is a standard eye-view. Request change to 60 degree (realistic/experienced view). And have multiple 60 degree views if needed - wider views create a fish-eye effect, pushing the foreground in to the back and therefore providing an inaccurate and unfair visual representation.

Note single trees are not sufficient “screening”

Table 1. Visual magnitude thresholds

Number of occupied cells	Visual magnitude rating
1 – 5	Very low
6 - 11	Low
12 – 19	Moderate
20 - 27	High
28+	Very High

Since the magnitude of wind turbines decreases over distance, there is a point at which they become inconsequential to the overall visual impact and become difficult to discern against the background. Similarly, private landowners do not have a proprietary right or ownership of a view and any assessment should be limited to a reasonable distance. Consequently, any turbine that would be less than 2 degrees in vertical field of view should not be counted when calculating magnitude.

Rule of thumb for measuring magnitude

It is possible to roughly measure the field of view that objects occupy in landscapes and our day-to-day lives using nothing more than your hand and fingers. This can provide a practical approach for visualising how the magnitude ratings would appear, and how they might compare to other features in the landscape.

To measure a part of your field of view, first hold your hand at arm's length and close one eye. Make a fist with the back of your hand facing upwards. The width of your fist is approximately 10 degrees, or once cell wide. The height of your little finger is approximately 1 degree, or the equivalent of one cell, high.

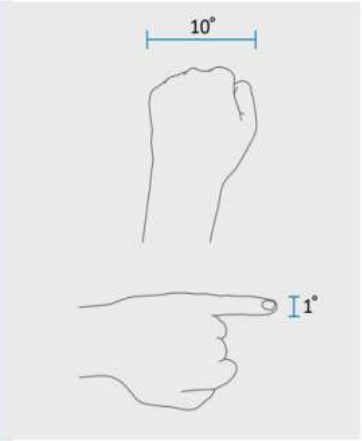


Figure 6. Rule of thumb for measuring magnitude

The suggestion that any turbines that would be less than 2 degrees in vertical field of view should not be counted when calculating magnitude is not supported by Burrendong SOS, especially taking into consideration cumulative visual impacts and the precedent set by **IT Power (Australia) Pty Ltd v Mid-Western Regional Council [2023] NSWLEC 1800**.

The above court case sets a precedent for visual impact from low-lying solar arrays which would fall far lower than 2 degrees in a vertical field of view for surrounding landowners! IN contrast, 250m+ high wind turbines are obviously going to have far greater visual impact, and cumulative visual impact from multiple turbines at varying distances from potentially multiple wind factories surrounding a dwelling must be taken into account when assessing cumulative visual impact.

It must be taken into account that cumulatively, a combination of high and low lying industrial turbines, when viewed from multiple 60 degree views surrounding a house would contribute to a significant cumulative visual impact.

Visual sensitivity

Note the precedent set by **IT Power (Australia) Pty Ltd v Mid-Western Regional Council [2023] NSWLEC 1800** https://www.caselaw.nsw.gov.au/decision/18cad2273c26f3078ac9c016 where the project was rejected with one of the reasons being negative visual amenity to neighbours and the district regardless of the sensitivity being assessed as per solar guidelines which use the same visual magnitude rating, that were misapplied by the proponent, proving the proponent and/or consultant cannot be relied upon to give a fair rating and will obfuscate, if necessary, to get their project approved.

Para 113: "*The Council submits that the development of this solar farm will be an alien feature in the relevant setting, and based on my observation at the site view, I agree. The development, whilst permissible, is uncharacteristic and will intrude into the landscape forming the visually sensitive lands sought to be protected under the clause. It will adversely affect an appreciation of the "backdrop to Mudgee"* and

Para 126 : "*The development does not provide adequate separation and visual relief to residential dwellings on adjoining lots from adjoining driveways and dwellings and to the main entrance corridor to Mudgee. The design, setbacks and siting of the development does not sympathetically respond to the landform of the site and surrounding rural and landscape character*."

Given this precedent on low-lying solar arrays; the size of current and projected future size of wind turbines and the fact that wind energy proponents can not be trusted to undertake a fair assessment of visual sensitivity which results in years of torment and uncertainty for surrounding communities and landowners during the assessment process - A mandatory upfront setback of at least 10km from ALL towns (regardless of size), and a 6km setback from non-associated sensitive receivers to turbines needs to be instituted.

Visual sensitivity refers to the quality of the existing view and how sensitive the view is to the proposed change. In some cases, visual sensitivity is also related to the direction of the view and where it can be viewed from (such as resident's living room).

The visual sensitivity is determined by identifying the sensitivity of each viewpoint and receiver and categorising the scenic quality of the area in view.

Viewpoint sensitivity

Viewpoint sensitivity relates to the relative importance of viewpoints and the value that the community or visitors may place on landscapes viewed from public use areas, public travel ways and private receivers such as dwellings.

The applicant must classify the sensitivity of each viewpoint into one of four sensitivity ratings (very low, low, moderate, high) considering the examples in **Table 2**, the baseline landscape study, and consultation with the community and individual landholders. While **Table 2** is a good guide, it is not determinative, and the other inputs must be considered in arriving at the final rating.

The view from a rural dwelling should be categorised according to their importance. Primary views are considered more sensitive than secondary views (see **Table 3** for guidance and the Land and Environment Court planning principle related to views[2]). The applicant must identify how each of the residential viewpoints has been classified in the EIS.

Current guidelines include the residence's curtilage. Whilst a view might not be classified as "primary" according to Table 3, the resident may for example spend a lot of time in their bedroom, study etc., making the time spent there "primary" to that person. Some residents spend more time out of doors in daylight hours in their yards. If personal preference for each resident cannot be considered, the primary and secondary viewpoints outlined by this document should be removed and consideration of the view from any viewpoint in the residence's curtilage should be considered of equal impact to "primary".

Also note from IT Power (Australia) Pty Ltd v. Mid-Western Regional Council [2023] NSWLEC 1800, paragraph 120 refers directly to the reference (2) in the excerpt above, negating its validity in the situation of wind and solar projects: "I do not accept, as the applicant submits, that the visual intrusion into the view from the neighbour's driveway – being a side boundary view is of any less relevance than any other view for the purpose of cl 6.10(3)(b) of the LEP. There is nothing in the Tenacity planning principle that requires assessment of this development in circumstances where there are specific provisions of the LEP which mandate the terms of visual assessment (Tenacity Consulting v Warringah Council (2004) 134 LGERA 23; [2004] NSWLEC 140). A planning principle is a guide in the absence of a statutory framework and other specific policies."

This therefore brings into question the validity of Table 6 which is based on primary and secondary viewpoints, and thence Table 7 which utilises this estimation.

Scenic Quality

> The suggested scenic quality classification criteria in **Table 4** can be used as a guide, however, the EIS should consider whether a combination of landscape features influences the overall scenic quality of the setting as well as any community values.

Importantly noted here is the inclusion of community values. This should be expanded to explain to proponents that this incorporates the community's perception and appreciation for the landscape. It is almost impossible to separate personal feelings in this evaluation therefore the community's value of their landscape is paramount to a fair classification. For example, a consultant with a personal preference for ocean views is likely to downgrade a rural view which is not to their liking. However, the residents of the area have chosen to live there for varying factors one of which might be their preference for rural views, natural outlooks, appreciation of the dark night sky for star gazing and/or peace and quiet and relative isolation. Therefore, the community needs to be consulted thoroughly and their values, perception and appreciation for the landscape needs to be the major factor in ascertaining the scenic quality.

Note also that proponents often misapply guidelines and in the case of scenic quality, not fully consider the community viewpoint as displayed in IT Power (Australia) Pty Ltd v Mid-Western Regional Council [2023] NSWLEC 1800t, where "*Neither Ms Rawlinson nor Mr Chambers [the proponents/consultants] considered community views or values when addressing this section*" – Para 69

The inclusion of representative photographs in Table 5 – Visual reference for scenic quality is less likely to be misinterpreted by proponents/consultants than a description only. We support the inclusion of Table 5.

Performance objectives and mitigation

Performance objectives

Applicants must address the relevant performance objective for each assessable viewpoint and the level of impact identified (see **Table 8**).

Table 8. Visual performance objectives

High visual impact	This level of impact should be avoided unless the applicant can justify that: • all reasonable efforts have been made to avoid the impact and alternative project designs are not feasible or would be unlikely to materially reduce the impact • all reasonable mitigation options have been considered • the proposed mitigation measures would effectively mitigate the impact and would not result in a significant obstruction of views • the project site is strategically important because of its location, and • the project is in the public interest.
Moderate visual impact	**Road viewpoints** As far as is reasonable and feasible, the applicant should seek to reduce moderate visual impacts to road users. Appropriate mitigation options include vegetation or other screening. Mitigation should only be considered if it would not obstruct important views and sight lines, could be confined to a relatively small area (i.e. vegetation screening would not be required for several hundred meters along a transport corridor) and where agreed with the relevant road or rail authority. **All other viewpoints and receivers** Visual impact mitigation is required in consultation with the affected landowner and should be proportionate to the scale of impact. There is no expectation this mitigation should eliminate the view of the development entirely but it must reduce the impact to an acceptable level. Appropriate mitigation options include re-siting/micro siting, resizing, re-orienting turbine as well as vegetation screening or project landscaping to reduce impacts. If the available mitigation options would not be effective in reducing impact or are unsuitable due to the nature of the impact (e.g. screening would result in the obstruction of views), then project redesign and/or impact agreements should be considered.
Low and very low visual impact	No mitigation required

High visual impact

Given this guide is for wind turbine/energy generation it is disingenuous to list "*the project is in the public interest*" as a justification measure, given the current level of political and government support for wind turbines as energy generators. This justification should be removed. Likewise, the "*project site is strategically important because of its location*" – in the case of projects in an area designated by the Government as a Renewable Energy Zone, ALL areas would assumably be assessed as important. This justification also needs to be removed, or at least removed in the case of REZ sited projects.

ADD bullet point:

- a private agreement has been reached with the impacted landowner OR turbines within 6km of the sensitive receiver are deleted from the wind farm proposal.

Moderate visual impact

'REMOVAL' of turbines must be added to the Table 8 list of 'Appropriate mitigation options' for 'Moderate visual impacts'.

Additionally, in support of the above request to add 'REMOVAL' as an appropriate mitigation option, this Guideline **should** include a cumulative visual impact assessment process to enable the assessment of cumulative visual impacts from specific turbines on multiple surrounding non-associated sensitive receivers. For example, an analysis of cumulative visual impact could determine that if 10 turbines (out of a proposed 105 turbines proposed for a wind farm) were removed from a proposal, this would effectively eliminate visual impacts for 90% of the 25 closest sensitive receivers located within 6km of proposed turbines. This should add greater weight to support the removal of those 10 offending turbines.

Please refer to Burrendong SOS's submission to the Burrendong Wind Farm EIS that provides a detailed example of how this type of cumulative impact assessment can be undertaken. This would go a long way to improving social licence with rural community and significantly reducing or eliminating visual impacts on multiple sensitive receivers.

A requirement for a cumulative impact assessment analysis would also clearly expose proponents who have not undertaken an appropriate level of community engagement to inform the siting and design phase of the project and are hedging their bets by maximising the number of turbines on their project site and leaving it up the DPE to recommend removal of turbines at the very end of the assessment process.

Ark Energy is a prime example of a proponent that follows this approach. Burrendong SOS Representatives have a publicly agreed recording of Andrew Wilson from Ark Energy advising Burrendong SOS at the preliminary siting and design phase of the Burrendong Wind Farm project that "we are in the business of building turbines, not deleting turbines" from a project, when Ark Energy was asked to remove several turbines with the highest cumulative visual impact upfront (some proposed only 1.2km from sensitive receivers).

It would not be fair or just that "REMOVAL" is not included as a mitigation option at the EIS assessment stage of a project, given it is highly unlikely that 100% profit driven proponents will remove inappropriately located turbines of their own volition. Please add it.

Burrendong SOS agrees with the tabled requirement that "visual impact mitigation is required in consultation with the affected landowner…." In the current state of play with Ark Energy and their Burrendong Wind Farm Proposal, Ark Energy via Moir Landscape Architects has stipulated recommendations in their EIS for vegetation screening as an impact mitigation measure for several non-associated landowner's private properties following ZERO conversations or agreement them. This is unacceptable.

Avoidance and Mitigation

Several different avoidance and mitigation options may be considered as potential methods of minimising visual impacts.

Re-sizing, re-siting or removing infrastructure

Turbines and other associated wind energy infrastructure (roads, buildings, electricity transmission) can be resized to reduce visual magnitude and to reduce impacts from sensitivity viewpoints. Alternatively, turbines and other project infrastructure could be re-sited to locations where they will have less visual impact. Removal of turbines should also be considered if there are limited options available to re-site parts of the project. This should be the first measure applicants should consider and may also be considered by the consent authority during the assessment of the project.

Vegetation screening and landscaping plans

Vegetation screening, or the planting of trees and shrubs, may be a useful option to visually screen wind energy developments or other potential visual impacts (such as night lighting). On-site screening, such as perimeter planting, should be considered in the first instance. If this unlikely to be effective, screening can be considered at affected public viewpoints and private receivers.

However, there are several limitations to the use of vegetation screening that must be considered. Vegetation screening can obstruct views of the landscape resulting in further impacts to particular views. Vegetation screening can also take many years to establish and during drought or other unfavourable conditions may not achieve optimal growth or have the desired screening effect.

Given these considerations, vegetation screening should not result in significant impacts on the amenity of private receivers (such as the obstruction of scenic views) and should be designed in consultation with the affected landowner.

Applicants should select appropriate plant species that are suited to the environmental conditions (for example, drought-tolerant native species if relevant) and if possible, of suitable maturity to provide maximum screening effectiveness in the shortest possible time. A mix of vegetation of various heights should be employed to ensure the most effective screening coverage. Vegetation should be planted as soon as possible to reduce the time that impacts would be unmitigated.

At-receiver mitigation

As an alternative to other mitigation options, the applicant may consider the use of at-source treatments at an affected public viewpoints and private receivers in consultation with the landowner. These options could include other structural or built features (for example a shed) that could be constructed to screen views. Any agreed mitigation must be subject to an impact agreement.

Impact agreements

Applicants may consider impact agreements with specific landowners as a form of mitigation when all other options have been exhausted. Further information about these agreements is provided in the Private Agreements Guideline for Energy Projects.

Residual impact assessment

Applicants should also assess the visual impact that would remain after the adoption of mitigation measures to determine whether the overall visual magnitude rating of the project would decrease.

The re-sizing, re-siting or removal of infrastructure "*should be the first measure applicants should consider*" needs to be highlighted, as proponents invariably want to keep all their proposed infrastructure and history has demonstrated that they will instead automatically proceed to

recommending vegetation screening at private receivers, or attempt to fudge assessment results to avoid mitigation measures altogether by allocating low viewpoint sensitivity and scenic quality ratings.

It is rightly noted that vegetation "*can obstruct view of the landscape resulting in further impacts to particular views. Vegetation screening can also take many years to establish and during drought or other unfavorable conditions may not achieve optimal growth or have the desired screening effect*".

Note that whilst the document recommends a mix of vegetation of various heights, a single existing tree is still considered as sufficient screening. A single tree can, like any other planted vegetation die/ be removed/lose branches etc., therefore a single tree should not be considered sufficient to screen a project at private receivers or public viewpoints, and should be removed from screening effects as if it is not there.

Burrendong SOS request that this section includes a requirement that where vegetation screening is proposed in proximity to a private residence located on bushfire prone land, in the interest of protecting from loss of lives and property in the event of a bushfire, these Guidelines must require that a Bushfire Asset Protection Zone (APZ) Assessment is undertaken to ensure vegetation is not proposed within the required APZ for the sensitive receivers.

3.3 – Dwelling Entitlements

This section is overly biased in favor of wind energy proponents.

There should be a consideration of key views landowners would likely wish to capitalise on when determining the location and orientation of a future dwelling on their property.

This could be gauged by an assessment of the orientation of dwellings in proximity to the property. For example, all existing sensitive receivers in Worlds End have been designed and orientated to take advantage of and capitalize on views to the visually significant Worlds End Ridgeline. It is unreasonable to suggest that when a landowner builds their future dwelling, they too would not want to orientate their dwelling to appreciate the similar views to the Worlds End Ridgeline. This is like suggesting that a landowner with ocean view should orientate their future dwelling to remove views to the ocean!

Please re-work this section.

4 – Level of Assessment

4.1 – Scoping Report

Visual Study Area and associated Figure 7 – Extent of the scoping study area

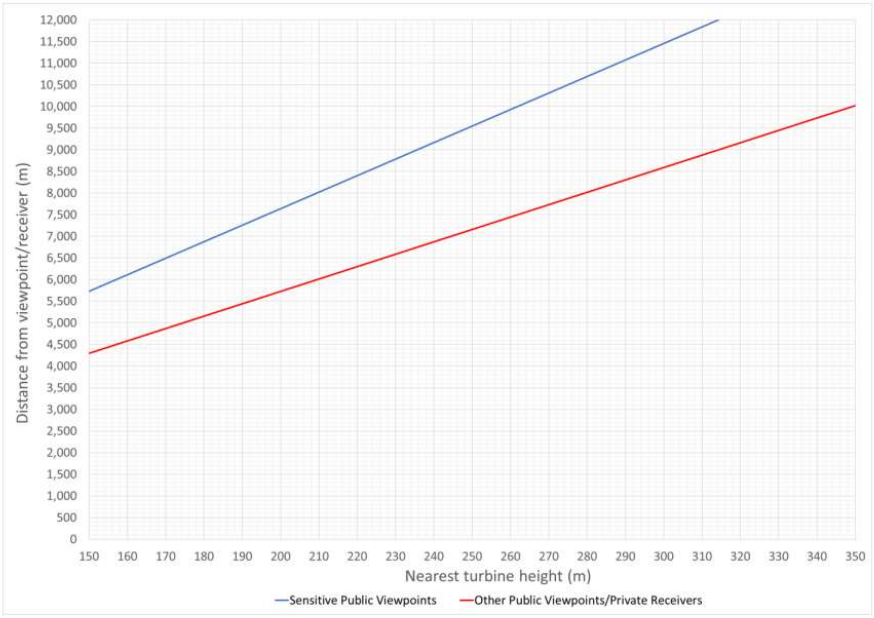


Figure 7. Extent of the scoping study area

Could DPE please advise on what empirical evidence the 'Figure 7 – Extent of the scoping study area' diagram is based? Or is it just based on the current political vibe and corporate pressures?

Burrendong SOS refers again to the study findings of ***Sullivan, et. al, (2012): Wind Turbine Visibility and Visual Impact Threshold Distances in Western Landscapes*** - a study referenced in the current NSW Visual Assessment Bulletin that was based on 120m high turbines (that is, less than half the size of the 250m+ high turbines proposed today), and notably the following extract from that study:

> ***Summary of Observations with Visibility Rating of "6"***
>
> *Maximum observed distance: 6.4 km (4.0 mi)*
>
> *Minimum observed distance: 0.8 km (0.5 mi)*
>
> *A visibility rating of "6" describes facilities that are a major focus of visual attention, but also of such large size that they occupy much of the observer's field of view and cannot be "taken in" in one view; i.e., the observer's head must be turned significantly to see the entire facility in focus. In these situations, the wind facility is a commanding visual presence that may completely fill or exceed the visible horizon in the direction of view. This rating level is ultimately dependent on the size of the facility in view, and thus is context-specific, but is useful as an indicator of likely perceived impact, as a rating of "6" would almost always correspond to a major visual impact. In this study, the maximum distance at which facilities received an average visibility rating of "6" was 6.4 km (4.0 mi), with several observations receiving ratings of "6" by some observers up to distances of 9.7 km (6.0 mi).*

Taking the above findings of Sullivan, et. Al, (2012) into consideration and the fact that for example, wind turbines located north-east of Wellington are clearly visible at over 30km from Wellington, on the major road from Molong, Burrendong SOS asserts that Figure 7 presents a gross underestimation of required study area boundaries.

Burrendong SOS also reasonably asserts that in fact:

- **The 'red line' on Figure 7 should be the mandatory setback line (replacing that of 'Figure 2 – Setback from sensitive receivers');**
- **The blue line on Figure 7 should be the 'Other Public Viewpoints / Private Receivers' study area line; and**
- **There should be a new line added for 'Sensitive Public Viewpoints' that extends out to 25km for turbines 250m in height.**

Scoping map

The results of the scoping analysis should be presented on a map (see **Figure 8**) and included in the scoping report. The map should identify:

- proposed turbine locations
- the study area for public viewpoints and private receivers
- the results of the viewshed mapping analysis
- the relevant setback area calculated in accordance with **Figure 2**
- the location of public viewpoints and private receivers (including whether they are subject to any host or other impact agreement and are therefore associated with the development).

Additional information that should be included on this map to provide clarity to rural communities and surrounding landowners:

- Turbines must be numbered, and their number is to remain consistent throughout the project
- All receivers must be numbered and their number is to remain consistent throughout the project
- Road, waterways, state and national parks, suburb and town names must be clearly labelled as identifiers.
- Lot boundary layer must be included, so landowners can easily identify their property.

4.2 Environmental Impact Statement

Setback assessment and provision of photomontages

Photomontages must be provided to ALL receivers located under the red line of Figure 7 (NOT just receivers located under the blue line of Figure 2).

It would be grossly inappropriate to only require photomontages to be provided to e.g. receivers located within 2km of 250m high turbines!

Unamended, this could in fact negate the required provision of any photomontages by a proponent to landowners surrounding a project to aid in their understanding of the proposal, especially given the Guideline discourages the location of turbines within 2km of dwellings!

Proportionate visual impact assessment

Community engagement must be referred to and included in this outline of assessment steps.

Figure 10 – Potential vertical magnitude

With regard to Figure 10 it should be noted that this needs to be done for EACH turbine within the setback area.

Figure 11 – Steps to determine visual magnitude for an intermediate assessment

The guidelines must require that all wire frame models and photomontages include numbered turbines that correspond with numbering of turbines on project area maps and also include the Visual Magnitude Grid Lines.

Figure 11 should be updated to be an example of this turbine numbering requirement. This will help rural community to interpret what is proposed and articulate feedback on a proposal.

Refining visual magnitude and Figure 13

Existing screening should be considered effective, and a cell unoccupied if:

- existing vegetation would substantially screen (to the point where moving blades are barely discernible through vegetation) elements of the project such that any residual view would be very intermittent
- any existing screening would effectively mitigate the view of the project such that moving the viewpoint a few metres in any direction would not significantly change the amount of screening provided

Examples of effective and ineffective vegetation screening are provided in **Figure 13**.

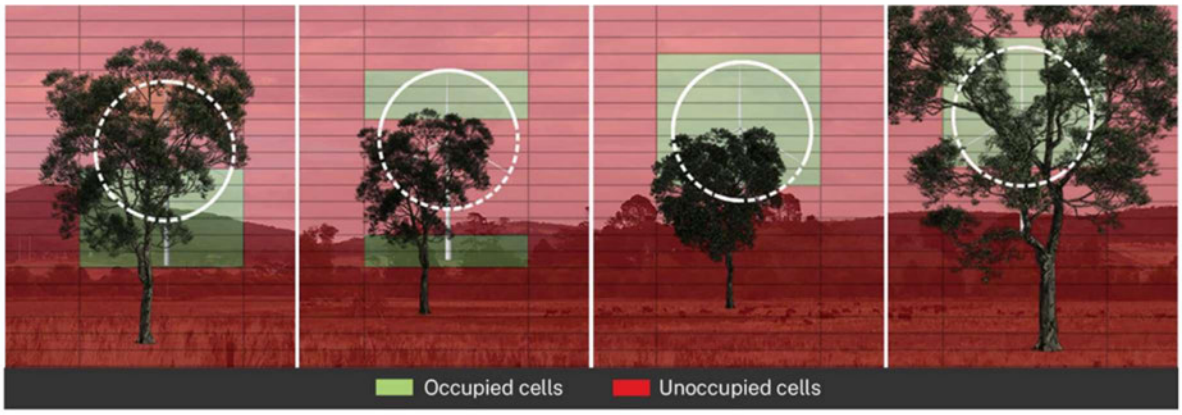


Figure 13. Visual reference for considering existing vegetation screening

We disagree with this section indicating a single existing tree to be sufficient for screening purposes and reducing a residence's visual impact:

We request this be changed to " 1. existing clusters of vegetation can substantially screen elements of the project…" and 3. "the vegetation referred to above is not temporary, seasonal (eg. Deciduous plantings), a single tree or plant, or identified as a common weed".

In line with this, Figure 13 needs to be amended to a view of multiple trees, rather than a solitary specimen.

Assessment against performance objectives

Where screening is proposed, the EIS must also include a draft landscaping plan to provide details about the proposed landscape treatments. This plan must:

- be prepared by a suitable qualified landscape expert
- be developed in consultation with the community, including affected landowners, and include evidence of how any feedback has been addressed
- include a map of the project site that identifies important features, including roads (including access roads), infrastructure (turbines, substations, inverters, transmission lines, building areas, hardstands, site fencing), site boundaries, landscape features (rivers, dams), existing vegetation and tree cover and adjacent receivers
- include details of the proposed landscaping including an indicative planting schedule which specifies the type, species and location of any trees, shrubs and/or grasses and groundcovers to be used, the mature height of the species (in metres) and the mature spread of the species (in metres)
- include indicative timeframes for the establishment of vegetation, including an estimate of vegetation, including an estimate for when desired level of mitigation would be achieved

- include evidence that any landscaping would be consistent with the general native vegetation profile of the local area and can be supported by local landform, geology and soil type
- verify that the proposed planting can achieve the mitigation outcomes within a reasonable timeframe.

ADD:

- If vegetation is proposed to be planted on bush fire prone land and in relatively close proximity to a building, an Bushfire Report must be prepared by a qualified consultant that identified the required Bushfire Asset Protection Zone (APZ) around the building. Evidence must be included that vegetation will not be planted within the identified Bushfire APZ.

APPENDIX C and D

Appendix C Visual Impacts - shows the use of visual montages to ascertain cell numbers affected and therefore rate the visual impact. Appendix D Photomontage Requirements recommends overlay without distortion to give 180 degree views.

However photomontages over 60 degrees are not truly representative of what the human eye experiences and therefore photomontages need to be multiple 60 degree views.

Eg. A proponent's presented 180 degree view from a private residence, that pushes the turbines in the centre of the photo to the back and brings the sides closer. Communities believe the 180 degree photomontages are specifically prepared by proponents/consultants to purposely mislead them by minimizing the turbines impacts through visual "tricks". Especially when some photomontage images look nothing like the actual view!

Vs. the 60degree view which is equates closer to the human eye

We therefore request that ALL views presented in photomontages be 60 degree views, for the purposes of grid overlay/cell counting and informing residents within the setback area of potential views. People are quite capable of laying photos beside each other and do not need to be presented with necessarily small (due to width) photomontages that come with possible distortion.

APPENDIX D – Photomontages requirements and alternatives

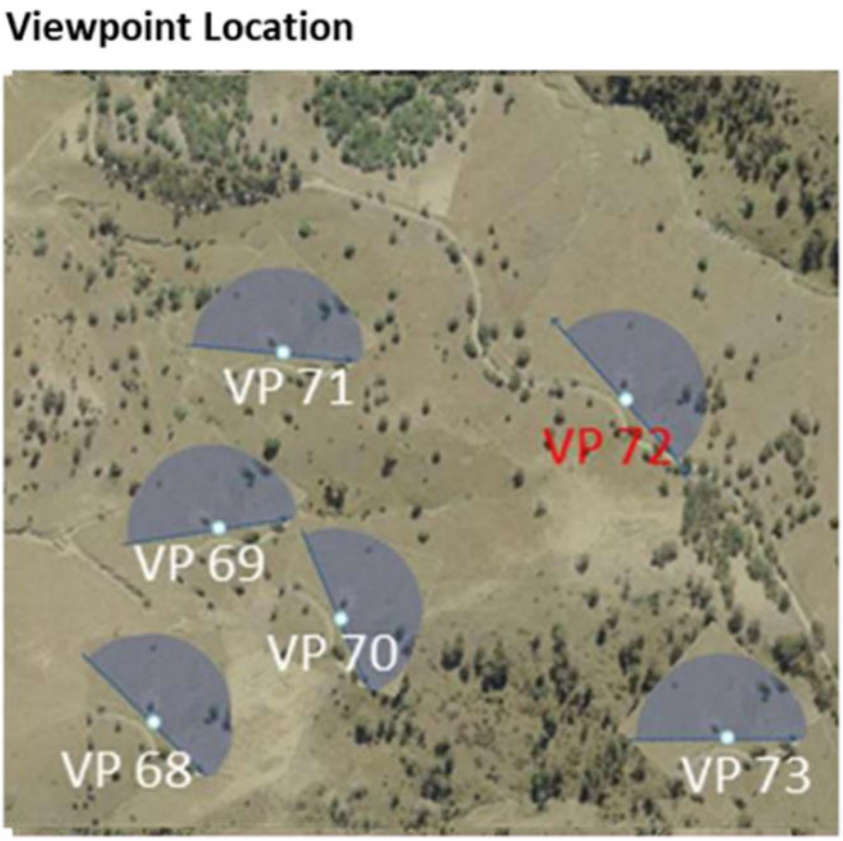
We recommend other photomontage requirements, that whilst listing them seems onerous, it would remove uncertainties and ensure photomontages are of a high quality and are informative to affected landowners.

1. Daytime and night-time photomontages must be provided that depict worst case scenario lighting on turbines and other ancillary infrastructure. This should be drawn from real-world visual impact examples. Even though proponents attempt to negate the need for aviation hazard lighting, photomontages should include it as a worst case scenario.
2. GPS coordinates must be provided for all visible turbines.
3. Photomontages taken from a residence's curtilage, should not be taken from behind a tree / trees, where stepping a couple of meters either side or looking out another lounge room window would illustrate a clear view to proposed turbines in a photomontage.
4. Should there be a single tree or single line of vegetation that could potentially screen the view of turbines, the photomontage should still outline potential views should the tree/vegetation be removed (trees can die/incur storm damage/lightening strike- removing the screening effect).
5. Photomontages are to be provided from multiple viewpoints to ensure capture of all potential views to turbines from residences. All viewpoints should be provided to landowner.

6. Photomontages are required to capture the cumulative impact of existing and proposed turbines for the subject wind farm proposal and surrounding approved and proposed wind farms out to at least 16km from the residence.
7. Representative photomontages for rural residential clusters, rural villages and urban residential/commercial areas need to be taken FROM the locations, not a couple of kilometres away.
8. Enhancing focus on the foreground and blurring ridgeline images is not acceptable.
9. Turbines must be depicted with one blade pointing vertically upwards for all visible turbines, however if turbine visibility is partially blocked by a hill/ridge, photomontages must depict turbine blades located at the points of greatest visibility.
10. All ancillary facilities including wind monitoring masts, substations, new access roads and powerlines etc – worst case scenario must be illustrated in the photomontage/s.
11. The name and appropriate qualifications of the individual who prepared the photomontage must be clearly stated on the photomontages.

APPENDIX E – Imagery Requirements

Simple assessment example



The aerial images included in these viewpoint assessment examples don't show the viewpoint relative to turbine locations and are illogical and absolutely pointless!

These images must include the viewpoint AND turbine locations.

10m Topographic contours and lot boundaries should also be incorporated into these images.

Scale on the image is also required.

Assessments must provide distances between the sensitive receiver and all numbered turbines proposed within a minimum of 10km.

ADDITIONAL REQUIREMENT

In the case of incorrect information being presented by proponents/consultants, whether or not it is noticed by the public, and with no time limit (eg. If not noticed until the turbines are built), the proponent and consultant should be heavily penalised. The turbines should be removed, reparation made to the affected residence/community and fines to the Dept. of Planning and compensation paid to impacted surrounding landowners as appropriate.

In the case of a recent proponent/consultant to a private resident, the resident noted errors on their photomontages. "*Upon your comparison of VPK12 and PD34, you were correct in identifying an error with one of the photomontages. Moir has cited a GIS error resulting in the overlay of the turbines onto the image from your backyard to be out by ~30 degrees. This has resulted in the turbines being skewed incorrectly to the right*"

Having no consequences for errors or misinformation leads to increased errors and misinformation and this needs to be prevented.

From:	Department of Planning Housing and Infrastructure
To:	DPE PS ePlanning Exhibitions Mailbox
Cc:	DPE Energy and Resources Policy Mailbox
Subject:	Webform submission from: Draft energy policy framework
Date:	Monday, 29 January 2024 8:16:37 AM
Attachments:	submissionwindfarmsnev2030jan24.pdf

Submitted on Mon, 29/01/2024 - 08:11

Submitted by: Anonymous

Submitted values are:

Submission Type
I am submitting on behalf of my organisation

Name

First name
[redacted]

Last name
[redacted]

I would like my name and personal contact details to remain confidential
Yes

Info

Email
[redacted]

Suburb/Town & Postcode
[redacted]

Please provide your view on the project
I support it

Submission file
submissionwindfarmsnev2030jan24.pdf (233.01 KB)

Submission
New England Visions 2030 Institute
Submission
Draft NSW Wind Energy Guidelines1
29th January 2024

Executive Summary
We are a local futurist Think Tank based in Armidale NSW. We investigate local issues, bring stakeholders together, publish reports, write submissions, circulate petitions, host Forums and ensure wide media coverage of issues of concern to the local community.

The New England Renewables Energy Zone (REZ) is well underway with several solar and wind farms already constructed, two big batteries and the Oven Mountain Pumped Hydro Scheme in the planning stages. Last year our Institute held two Forums in Armidale to inform local residents of developments in the planning stages of the REZ in three Local Government areas within our region. The first was on the social impact of the REZ on our communities and the second was on Wind farms. We had an excellent panel for both Forums and have received very positive feedback from both events.

While some opponents are genuinely concerned, there are some who appear to be more politically motivated. Our NEV2030 group feels that challenges to these REZ developments are free from political bias. We try to ensure the information we publish is authentic, evidence based and in many cases peer reviewed and/or vetted by members of our group. The New England REZ is a revolutionary development in our region and it can be said as a fair criticism that the introduction of many projects has been somewhat uncoordinated and hasty. The number of community consultations has now increased with major stakeholders and interested members of the public given numerous opportunities to discuss the issues. Councils have become involved in the planning process and will be called upon to administer community benefits programs.

The truth is that people in rural areas will be most affected by the changes with large scale solar and wind developments being constructed on rural properties. Townspeople are only now beginning to be engaged even though they will be beneficiaries of the windfall being paid out to relevant LGAs.

Many landowners are happy to reap the monetary benefits of leasing their land for these projects as it is a way of 'drought proofing' their grazing properties. Neighbours are not as enthused due to the visual impact of such projects on the landscape and a feeling that they are 'missing out'. Wind farms have particularly attracted the ire of such rural residents as they are large structures which can be seen from a distance. The same residents don't appear to have a problem with phone towers or power poles which also intrude into the natural landscape but it takes a while for people to accept new ideas. For this reason the Department of Planning and Environment has updated the Wind farm guidelines to make such projects more acceptable to genuinely concerned residents. These are our considerations.

1. DPE Draft Wind Energy Guidelines: for state significant wind energy development, November 2023.

visual impacts:

We are aware that this issue has caused the most concern among affected landowners and that offset distances between towers and residences have been included in the guidelines.

the height, scale and mechanical character of wind turbines creates an unavoidable level of visibility and contrast with the natural environments in which they are situated. This can alter the character of the landscape and people’s enjoyment of the landscape. Multiple wind energy projects in close proximity may create cumulative impacts on a particular landscape. Assessment of these impacts is a complex endeavour. In recognition of these challenges the Department has prepared an Assessment Bulletin which is designed to bring greater transparency, consistency and objectivity in visual impact assessments for wind energy development.
The consent authority will give consideration to the acceptability of impacts on landscape

values and the amenity of landholders and communities, and the adequacy of the measures which are proposed to avoid, reduce or otherwise manage these impacts, having regard to the Visual Assessment Bulletin;

As wind towers increase in height the guidelines will need to be amended to create the least amount of visual disruption. Off shore wind farms have become popular around the world as they avoid such visual impacts on the landscape. This issue is a sensitive one at present but may decline in importance as the community grows used to seeing wind turbines in the landscape. We also note that visual impact is a major issue put forward by politically motivated activists.

noise impacts:

We are also aware that there is some misinformation being spread around the community by opponents to wind farms regarding the noise effects of wind turbines. In particular people point to Infrasound created by wind turbine blades as having deleterious health effects. However people living near beaches or in towns experience Infrasound all the time.

the rotation of wind turbines generates both aerodynamic and mechanical noise. When assessing the potential annoyance from a noise source, both the level and character of the noise need to be taken into consideration. To ensure an adequate assessment of potential noise impacts, the Department has developed a Noise Assessment Bulletin. This Bulletin identifies the noise assessment requirements for SSD wind farm projects and includes a noise limit of 35 dB(A) or the prevailing background noise plus 5 dB(A), whichever is the greater for each operational wind speed.
The consent authority will give consideration to whether the predicted noise levels comply with the noise criteria, having regard to the advice of the EPA and the adequacy of measures which are proposed to avoid, reduce or otherwise manage these impacts.

We note that Infrasound can result from both natural and man-made sources: (https://en..wikipedia.org/wiki/Infrasound - The webpage lists a number of research studies on this subject).

Natural events: infrasonic sound sometimes results naturally from severe weather, surf, [7] lee waves, avalanches, earthquakes, volcanoes,[8][9] bolides,[10] waterfalls, calving of icebergs, aurorae, meteors, lightning and upper-atmospheric lightning. [11] Nonlinear ocean wave interactions in ocean storms produce pervasive infrasound vibrations around 0.2 Hz, known as microbaroms.[12] According to the Infrasonics Program at NOAA, infrasonic arrays can be used to locate avalanches in the Rocky Mountains, and to detect tornadoes on the high plains several minutes before they touch down.[13]

Animal communication: whales, elephants,[14] hippopotamuses,[15] rhinoceroses,[16] [17] giraffes,[18] okapis,[19] peacocks,[20] and alligators are known to use infrasound to communicate over distances—up to hundreds of miles in the case of whales...It has also been suggested that migrating birds use naturally generated infrasound, from sources such as turbulent airflow over mountain ranges, as a navigational aid.

Man-Made sources: infrasound can be generated by human processes such as sonic booms and explosions (both chemical and nuclear), or by machinery such as diesel engines, wind turbines and specially designed mechanical transducers (industrial vibration tables). Certain specialized loudspeaker designs are also able to reproduce extremely low frequencies; these include large-scale rotary woofer models of subwoofer loudspeaker,

[31] as well as large horn loaded, bass reflex, sealed and transmission line loudspeakers. [32][33]

traffic and transport:
A common complaint brought up at our Renewables Forums was on the subject of transport disruption and the requirement for upgrades to existing roads. Graziers were concerned that their transport of livestock to markets would be disrupted. Councils need to be involved in the planning process as they are responsible for local road networks.
the consent authority will give consideration to the extent to which the local and classified road network can accommodate the type and volume of traffic generated by the wind energy project, including the adequacy of any proposed road upgrades and maintenance commitments, having regard to the advice of relevant road authorities;
aviation safety:
The aviation industry has safety standards for the airspace around obstacles. Wind towers would be factored into flight plans. This issue is rarely mentioned in conversations.
wind energy projects need to consider potential safety hazards for aircraft through intrusion of the wind turbines into the airspace; and potential effects on navigation instruments;

bushfire hazard:
A representative of the NSW Fire Service has informed us that there is more risk from transmission lines than from wind turbines which are made of concrete. In fact the extra service roads would be of benefit to fire fighting.
consider potential hazards and risks associated with bushfires and the adequacy of measures to manage this risk;
telecommunications:
This issue is never mentioned in conversations with concerned landowners.
the consent authority will give consideration to the risk of electromagnetic interference with telecommunication services in the area, and the adequacy of the measures proposed to ensure the level of service is maintained;
blade throw:
This issue is never mentioned in conversations with concerned landowners..
consider blade throw risks;

decommissioning:
Many people have expressed concern over decommissioning. Our Institute believes that decommissioning and disposal of waste products will be the responsibility of the developer. However it is not really clear where the responsibility lies. The contract between landowner and developer needs to be very clear over this issue. Councils also do not want to be saddled with e-waste from decommissioned projects. We do not know what improvements are down the track and whether these wind turbines will be replaced, renovated with new technology or disposed of. A fund needs to be established to ensure any decommissioning costs are fully met.

consideration will be given as to whether suitable arrangements for decommissioning and rehabilitation of the site are in place;

5.1 Importance of consultation
We believe that the guidelines regarding the consultation process are comprehensive and detailed. One thing lacking is a Drop In Information Day giving residents an overview of the total REZ. This could be a static display run by Energy Co or the Department of Planning and Environment. Somehow we have consultations on individual projects but no

clear understanding of the whole picture. The question that we often hear is 'Why New England'. Such an information event could answer such questions.
Other issues, such as economic and social impacts, historic and Aboriginal cultural heritage, and water will continue to be dealt with through existing policies and practices which apply to all SSD proposals.
Aboriginal Cultural Heritage should be a strong consideration in specific areas which have been identified as significant sites both at a community and Government level. This should happen in the early planning stages and will require a large amount of consultation with traditional owners, elders and other indigenous stakeholders. Failure to do so could result in a major financial loss to the developer and others through legal action. An example of such failure can be seen in the following news story: 'Federal Court rules in favour of Tiwi traditional owner Simon Munkara, Santos Barossa pipeline blocked again' Roxanne Fitzgerald, ABC News Online Wed 15 Nov 2023.

5.2.1 Shared benefits and negotiated agreements
There is much discussion about shared benefits and it appears that Councils are being used as the bodies selected to administer community grants and other funds coming to the community from the REZ. Our Institute has recommended an independent panel be set up to oversee dispersal of such funding. We have heard of Community Reference Groups being set up possible for this purpose. It is very important that that the REZ funds be administered efficiently and reporting be transparent.

Compliance
While the document outlines a number of measures which sound very good in principle it is the practice which often falls down. Restructures, changes of government, loss of corporate knowledge often lead to compliance regulations not being adhered to. Such situations may lead to conflict or even dangerous conditions. We strongly recommend compliance safeguards.

Mrs Maria Hitchcock OAM (convenor)
P. 0421961007

Dr John Nevin
Dr John Atchison OAM
Ass Prof Dr Juliet Roberts
Mr Martin Levins
Fmr Cr. Andrew Murat
Mr Peter Sniekers

1..2 Objectives
We agree with the following statements:

facilitate better outcomes by requiring early identification of impacts to drive better siting and design;
facilitate meaningful, respectful and effective community and stakeholder engagement across the development assessment process, from pre-lodgement to post-approval;

2..2 Planning pathways

We agree with the following statements:
Once permissibility has been established, a proponent needs to determine the appropriate assessment pathway for its wind energy project. The majority of wind energy development in NSW will be SSD, which requires approval from the Minister for Planning under the EP&A Act. In practice, the independent Planning Assessment Commission determines applications under its delegation where:
there have been 25 or more objections to the application; or
the local council has objected; or
there has been a disclosure of a reportable political donation or gift, made in connection with the application or a previous related application.

(This guideline applies to onshore wind energy development declared as State Significant Development (SSD). Wind energy projects offshore are not covered).

2.3.2 Other legislation
We agree with the following statements:
An environment protection licence (EPL) under the Protection of the Environment Operations Act 1997 (POEO Act) is required for wind energy projects which are SSD or designated development.
Some wind energy projects also have the potential to impact on 'matters of national environmental significance' under the Commonwealth's Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and may require a separate approval under that legislation.

3. Assessment issues for wind energy development
We note concerns about the following:

Biodiversity: A key biodiversity issue for wind energy development is bird and bat strike and whether suitable measures are proposed to manage potential bird and bat strike fatalities resulting from either direct collision or through barotrauma (rapid changes in air pressures associated with the movement of the blades).

However, we are informed that the majority of bird and bat deaths are caused by diseases and other environmental factors. We are also informed that there are proven measures available to avoid bird strike on wind blades. Some consideration needs to be made to avoid common migratory routes or positioning near wetlands and other water features.

Wildlife Health Australia has published a Factsheet (December 2023) which reports on the causes of mass avian mortality in Australia. The majority of causes fall within the following categories:
pesticide or other ingested intoxications (e.g. lead)
2. botulism
3. starvation and exhaustion.
Other occasional causes of mass mortalities include:
4. heat stress
5. storm trauma
6. infectious causes such as Chlamydia, Spironucleus, Salmonella DT160, beak and feather disease virus.

Mrs Maria Hitchcock OAM (convenor)
P. 0421961007

Dr John Nevin
Dr John Atchison OAM
Dr Juliet Roberts
Mr Martin Levins
Fmr Cr. Andrew Murat
Mr Peter Sniekers

I agree to the above statement
Yes

New England Visions 2030 Institute

Catalyst for Change

Submission

Draft NSW Wind Energy Guidelines[1]

29th January 2024

Executive Summary

We are a local futurist Think Tank based in Armidale NSW. We investigate local issues, bring stakeholders together, publish reports, write submissions, circulate petitions, host Forums and ensure wide media coverage of issues of concern to the local community.

The New England Renewables Energy Zone (REZ) is well underway with several solar and wind farms already constructed, two big batteries and the Oven Mountain Pumped Hydro Scheme in the planning stages. Last year our Institute held two Forums in Armidale to inform local residents of developments in the planning stages of the REZ in three Local Government areas within our region. The first was on the social impact of the REZ on our communities and the second was on Wind farms. We had an excellent panel for both Forums and have received very positive feedback from both events.

While some opponents are genuinely concerned, there are some who appear to be more politically motivated. Our NEV2030 group feels that challenges to these REZ developments are free from political bias. We try to ensure the information we publish is authentic, evidence based and in many cases peer reviewed and/or vetted by members of our group. The New England REZ is a revolutionary development in our region and it can be said as a fair criticism that the introduction of many projects has been somewhat uncoordinated and hasty. The number of community consultations has now increased with major stakeholders and interested members of the public given numerous opportunities to discuss the issues. Councils have become involved in the planning process and will be called upon to administer community benefits programs.

The truth is that people in rural areas will be most affected by the changes with large scale solar and wind developments being constructed on rural properties. Townspeople are only now beginning to be engaged even though they will be beneficiaries of the windfall being paid out to relevant LGAs.

Many landowners are happy to reap the monetary benefits of leasing their land for these projects as it is a way of 'drought proofing' their grazing properties. Neighbours are not as enthused due to the visual impact of such projects on the landscape and a feeling that they are 'missing out'. Wind farms have particularly attracted the ire of such rural residents as they are large structures which can be seen from a distance. The same residents don't appear to have a problem with phone towers or power poles which also intrude into the natural landscape but it takes a while for people to accept new ideas. For this reason the Department of Planning and Environment has updated the Wind farm guidelines to make such projects more acceptable to genuinely concerned residents. These are our considerations.

1. DPE Draft Wind Energy Guidelines: for state significant wind energy development, November 2023.

E. newenglandvisions2030@gmail.com W. newenglandvisions2030.weebly.com

1.2 Objectives

We agree with the following statements:

- *facilitate better outcomes by requiring early identification of impacts to drive better siting and design;*
- *facilitate meaningful, respectful and effective community and stakeholder engagement across the development assessment process, from pre-lodgement to post-approval;*

2.2 Planning pathways

We agree with the following statements:

Once permissibility has been established, a proponent needs to determine the appropriate assessment pathway for its wind energy project. The majority of wind energy development in NSW will be SSD, which requires approval from the Minister for Planning under the EP&A Act. In practice, the independent Planning Assessment Commission determines applications under its delegation where:

- *there have been 25 or more objections to the application; or*
- *the local council has objected; or*
- *there has been a disclosure of a reportable political donation or gift, made in connection with the application or a previous related application.*

(This guideline applies to onshore wind energy development declared as State Significant Development (SSD). Wind energy projects offshore are not covered).

2.3.2 Other legislation

We agree with the following statements:

An environment protection licence (EPL) under the Protection of the Environment Operations Act 1997 (POEO Act) is required for wind energy projects which are SSD or designated development.

Some wind energy projects also have the potential to impact on 'matters of national environmental significance' under the Commonwealth's Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and may require a separate approval under that legislation.

3. Assessment issues for wind energy development

We note concerns about the following:

Biodiversity: *A key biodiversity issue for wind energy development is bird and bat strike and whether suitable measures are proposed to manage potential bird and bat strike fatalities resulting from either direct collision or through barotrauma (rapid changes in air pressures associated with the movement of the blades).*

However, we are informed that the majority of bird and bat deaths are caused by diseases and other environmental factors. We are also informed that there are proven measures available to avoid bird strike on wind blades. Some consideration needs to be made to avoid common migratory routes or positioning near wetlands and other water features.

Wildlife Health Australia has published a Factsheet (December 2023) which reports on the causes of mass avian mortality in Australia. The majority of causes fall within the following categories:

1. pesticide or other ingested intoxications (e.g. lead)
2. 2. botulism
3. 3. starvation and exhaustion.

Other occasional causes of mass mortalities include:

4. heat stress
5. storm trauma

visual impacts:

We are aware that this issue has caused the most concern among affected landowners and that offset distances between towers and residences have been included in the guidelines.

the height, scale and mechanical character of wind turbines creates an unavoidable level of visibility and contrast with the natural environments in which they are situated. This can alter the character of the landscape and people's enjoyment of the landscape. Multiple wind energy projects in close proximity may create cumulative impacts on a particular landscape. Assessment of these impacts is a complex endeavour. In recognition of these challenges the Department has prepared an Assessment Bulletin which is designed to bring greater transparency, consistency and objectivity in visual impact assessments for wind energy development.

> *The consent authority will give consideration to the acceptability of impacts on landscape values and the amenity of landholders and communities, and the adequacy of the measures which are proposed to avoid, reduce or otherwise manage these impacts, having regard to the Visual Assessment Bulletin;*

As wind towers increase in height the guidelines will need to be amended to create the least amount of visual disruption. Off shore wind farms have become popular around the world as they avoid such visual impacts on the landscape. This issue is a sensitive one at present but may decline in importance as the community grows used to seeing wind turbines in the landscape. We also note that visual impact is a major issue put forward by politically motivated activists.

noise impacts:

We are also aware that there is some misinformation being spread around the community by opponents to wind farms regarding the noise effects of wind turbines. In particular people point to Infrasound created by wind turbine blades as having deleterious health effects. However people living near beaches or in towns experience Infrasound all the time.

the rotation of wind turbines generates both aerodynamic and mechanical noise. When assessing the potential annoyance from a noise source, both the level and character of the noise need to be taken into consideration. To ensure an adequate assessment of potential noise impacts, the Department has developed a Noise Assessment Bulletin. This Bulletin identifies the noise assessment requirements for SSD wind farm projects and includes a noise limit of 35 dB(A) or the prevailing background noise plus 5 dB(A), whichever is the greater for each operational wind speed.

> *The consent authority will give consideration to whether the predicted noise levels comply with the noise criteria, having regard to the advice of the EPA and the adequacy of measures which are proposed to avoid, reduce or otherwise manage these impacts.*

We note that Infrasound can result from both natural and man-made sources:
(https://en.wikipedia.org/wiki/Infrasound - The webpage lists a number of research studies on this subject).

- *Natural events: infrasonic sound sometimes results naturally from severe weather, surf,[7] lee waves, avalanches, earthquakes, volcanoes,[8][9] bolides,[10] waterfalls, calving of icebergs, aurorae, meteors, lightning and upper-atmospheric lightning.[11] Nonlinear ocean wave interactions in ocean storms produce pervasive infrasound vibrations around 0.2 Hz, known as microbaroms.[12] According to the Infrasonics Program at NOAA, infrasonic arrays can be used to locate avalanches in the Rocky Mountains, and to detect tornadoes on the high plains several minutes before they touch down.[13]*

- *Animal communication: whales, elephants,[14] hippopotamuses,[15] rhinoceroses,[16][17] giraffes,[18] okapis,[19] peacocks,[20] and alligators are known to use infrasound to communicate over distances—up to hundreds of miles in the case of whales...It has also been suggested that migrating birds use naturally generated infrasound, from sources such as turbulent airflow over mountain ranges, as a navigational aid.*

- *Man-Made sources: infrasound can be generated by human processes such as sonic booms and explosions (both chemical and nuclear), or by machinery such as diesel engines, wind turbines and specially designed mechanical transducers (industrial vibration tables). Certain specialized loudspeaker designs are also able to reproduce extremely low frequencies; these include large-scale rotary woofer models of subwoofer loudspeaker,[31] as well as large horn loaded, bass reflex, sealed and transmission line loudspeakers.[32][33]*

traffic and transport:

A common complaint brought up at our Renewables Forums was on the subject of transport disruption and the requirement for upgrades to existing roads. Graziers were concerned that their transport of livestock to markets would be disrupted. Councils need to be involved in the planning process as they are responsible for local road networks.

the consent authority will give consideration to the extent to which the local and classified road network can accommodate the type and volume of traffic generated by the wind energy project, including the adequacy of any proposed road upgrades and maintenance commitments, having regard to the advice of relevant road authorities;

aviation safety:

The aviation industry has safety standards for the airspace around obstacles. Wind towers would be factored into flight plans. This issue is rarely mentioned in conversations.

wind energy projects need to consider potential safety hazards for aircraft through intrusion of the wind turbines into the airspace; and potential effects on navigation instruments;

bushfire hazard:

A representative of the NSW Fire Service has informed us that there is more risk from transmission lines than from wind turbines which are made of concrete. In fact the extra service roads would be of benefit to fire fighting.

consider potential hazards and risks associated with bushfires and the adequacy of measures to manage this risk;

telecommunications:

This issue is never mentioned in conversations with concerned landowners.

the consent authority will give consideration to the risk of electromagnetic interference with telecommunication services in the area, and the adequacy of the measures proposed to ensure the level of service is maintained;

blade throw:

This issue is never mentioned in conversations with concerned landowners.

consider blade throw risks;

decommissioning:

Many people have expressed concern over decommissioning. Our Institute believes that decommissioning and disposal of waste products will be the responsibility of the developer. However it is not really clear where the responsibility lies. The contract between landowner and developer needs to be very clear over this issue. Councils also do not want to be saddled with e-waste from decommissioned projects. We do not know what improvements are down the track and whether these wind turbines will be replaced, renovated with new technology or disposed of. A fund needs to be established to ensure any decommissioning costs are fully met.

consideration will be given as to whether suitable arrangements for decommissioning and rehabilitation of the site are in place;

5.1 Importance of consultation
We believe that the guidelines regarding the consultation process are comprehensive and detailed. One thing lacking is a Drop In Information Day giving residents an overview of the total REZ. This could be a static display run by Energy Co or the Department of Planning and Environment. Somehow we have consultations on individual projects but no clear understanding of the whole picture. The question that we often hear is 'Why New England'. Such an information event could answer such questions.

Other issues, such as economic and social impacts, historic and Aboriginal cultural heritage, and water will continue to be dealt with through existing policies and practices which apply to all SSD proposals.

Aboriginal Cultural Heritage should be a strong consideration in specific areas which have been identified as significant sites both at a community and Government level. This should happen in the early planning stages and will require a large amount of consultation with traditional owners, elders and other indigenous stakeholders. Failure to do so could result in a major financial loss to the developer and others through legal action. An example of such failure can be seen in the following news story: *'Federal Court rules in favour of Tiwi traditional owner Simon Munkara, Santos Barossa pipeline blocked again'* Roxanne Fitzgerald, ABC News Online Wed 15 Nov 2023.

5.2.1 Shared benefits and negotiated agreements
There is much discussion about shared benefits and it appears that Councils are being used as the bodies selected to administer community grants and other funds coming to the community from the REZ. Our Institute has recommended an independent panel be set up to oversee dispersal of such funding. We have heard of Community Reference Groups being set up possible for this purpose. It is very important that that the REZ funds be administered efficiently and reporting be transparent.

Compliance
While the document outlines a number of measures which sound very good in principle it is the practice which often falls down. Restructures, changes of government, loss of corporate knowledge often lead to compliance regulations not being adhered to. Such situations may lead to conflict or even dangerous conditions. We strongly recommend compliance safeguards.

Mrs Maria Hitchcock OAM (convenor)
P. 0421961007

Dr John Nevin
Dr John Atchison OAM
Ass Prof Dr Juliet Roberts
Mr Martin Levins
Fmr Cr. Andrew Murat
Mr Peter Sniekers

From:	Department of Planning Housing and Infrastructure
To:	DPE PS ePlanning Exhibitions Mailbox
Cc:	DPE Energy and Resources Policy Mailbox
Subject:	Webform submission from: Draft energy policy framework
Date:	Monday, 29 January 2024 12:57:34 PM
Attachments:	20240129-draft-energy-policy-framework_cfth-submission.pdf

Submitted on Mon, 29/01/2024 - 12:27

Submitted by: Anonymous

Submitted values are:

Submission Type
I am submitting on behalf of my organisation

Name

First name
Alice

Last name
Thompson

I would like my name and personal contact details to remain confidential
No

Info

Email
[redacted]

Suburb/Town & Postcode
Newcastle 2300

Please provide your view on the project
I support it

Submission file
20240129-draft-energy-policy-framework_cfth-submission.pdf (982.49 KB)

Submission
Please view attachment.

I agree to the above statement
Yes

COMMITTEE FOR THE HUNTER

DRAFT ENERGY POLICY FRAMEWORK

Submission

January 2024

ACKNOWLEDGEMENT OF COUNTRY

The Committee for the Hunter acknowledge the diverse Traditional Owners and Custodians of our region and recognise their enduring connection to land, water and culture.

We acknowledge the Awabakal, Biripi, Darkinjung, Geawegal, Guringai, Wannarua and Worimi peoples on whose land we live and work, and pay our respects to Elders past, present and emerging for their enriching contribution to Australian life.

THE COMMITTEE FOR THE HUNTER

The Committee for the Hunter is an independent and inclusive champion for the people of the Greater Hunter and their enterprises. Representing over 70 organisations including the largest employers and institutions in the region, we provide a unified voice for the Hunter. Our members are drawn from the private and community sectors and all three levels of government. We come together with a shared interest in building a sustainable, prosperous and equitable future for our region. The Committee delivers on that promise through advocacy on regionally-significant priorities, thought leadership and partnerships.

The diversification of the Hunter economy is the most significant priority of the Committee and our members.

More information about the Committee can be found at www.hunter.org.au

Contact Alice Thompson at ceo@hunter.org.au or 0438 808 982 to discuss any aspect of this submission.

A UNIFIED VOICE FOR THE HUNTER

COMMITTEE FOR THE HUNTER

Department of Planning and Environment
energy.resourcespolicy@dpie.nsw.gov.au

Thank you for the opportunity to provide feedback on the draft *Energy Policy Framework*.

The Committee for the Hunter (the Committee) acknowledge the leadership of the NSW Government in reviewing the planning framework for clean energy infrastructure and support the principles that have informed the draft guidelines.

INTRODUCTION

NSW emissions reductions, clean energy infrastructure and industry decarbonisation commitments depend on investment and development in the Hunter.

The Hunter is home to the State's largest electricity users and emitters, and accounts for 83 per cent of NSW coal-fired electricity generation capacity.

The next decade will be especially critical for a timely transition from fossil fuel power generation, to meet emission reductions commitments, keep the lights on, and provide low cost and reliable renewable energy for NSW residents, business and industry.

The Hunter has a proud industrial heritage, powering NSW communities and the economy for over 50 years.

As the State shifts to clean energy and Net Zero, our region is impacted more than most. With smart planning and targeted investment, the Hunter economy and quality of life will thrive through this change, sustaining our critical role as energy provider for NSW.

The Committee has set a vision for the Hunter to be a global leader in clean energy and technology.

In our submission, the Committee seek assurance the proposed planning framework helps achieve this vision, improves clean energy project delivery, meets the design principles outlined in Guide, and does not embed further costs, delays and uncertainty.

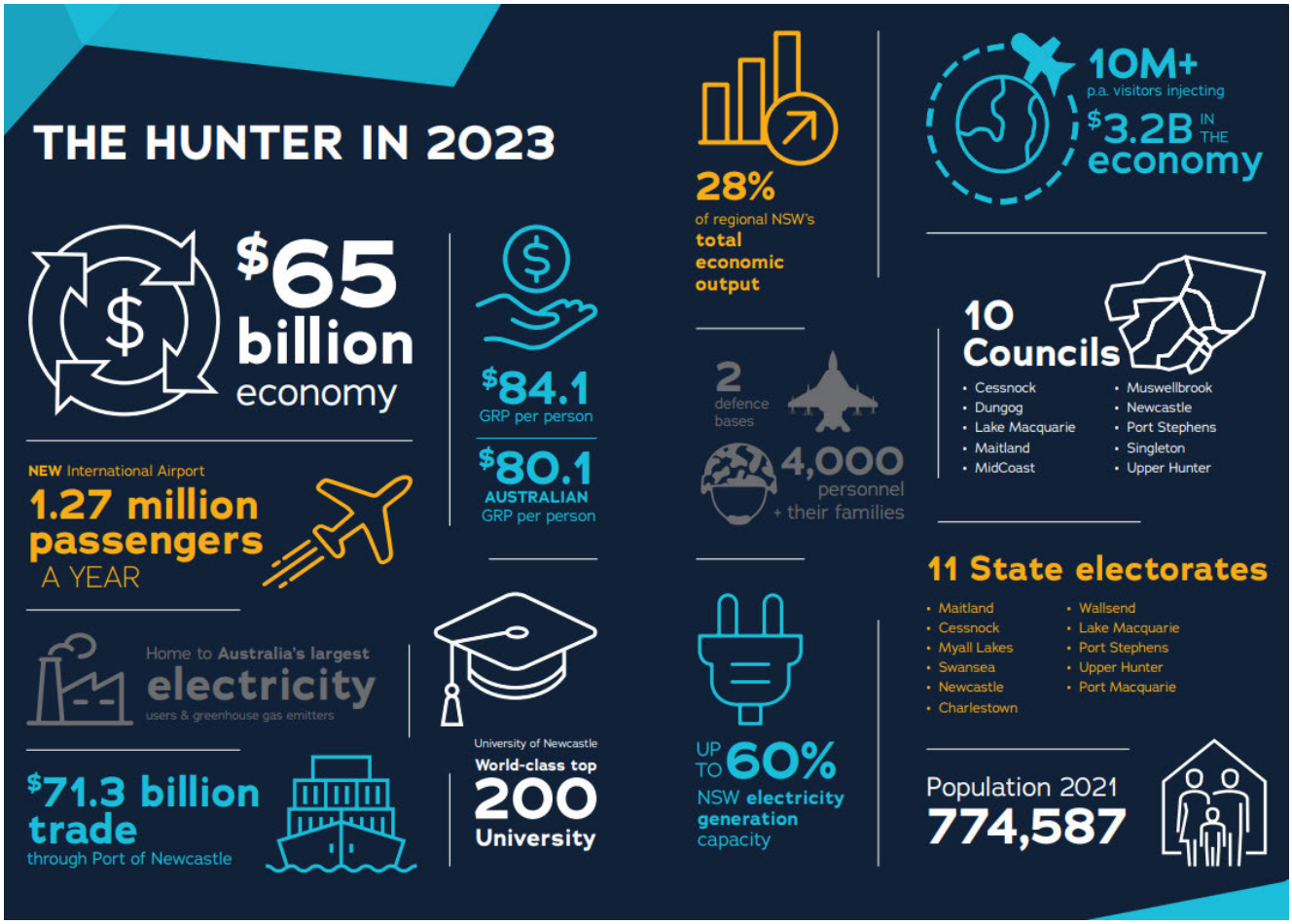
Planning reforms also provide a strategic opportunity to incentivise clean energy investment and development in NSW and the Hunter when coordinated with other measures across departments.

These include investment attraction and concierge, public-shared infrastructure and workforce development.

This is a key recommendation in the industry-led *Hunter Hydrogen Infrastructure Masterplan*, with a streamlined planning framework identified as one of the most powerful levers available to assure competitiveness.

As a contestable network of energy assets, NSW relies on private sector investment to achieve its climate and clean energy objectives and commitments at the scale and speed required. With the State's remaining coal fired power plants scheduled to close within 16 years, NSW is running out of time to get this right and be competitive with other states and nations facing the same challenges in the global race for new energy infrastructure investment.

ABOUT THE HUNTER



FEEDBACK

General Comments

1. Introduce 'national and international competitiveness as a destination for clean energy infrastructure projects' as a core design principle (pp4 of the policy Guide).

   The draft framework would benefit from transparent comparison on a range of performance criteria with other states/territories and nations NSW competes with, including time, cost, complexity and certainty. This includes how amendments improve the performance of the existing planning system and project approvals and align with international standards for clean energy projects.

General Comments (cont.)

2. Strongly support the broader use of Critical State Significant Infrastructure (CSSI) pathways, including but not confined to when a project includes a significant energy storage system.

   In the longer term, CSSI pathways, complying development and strategic assessments under the Environment Protection and Biodiversity Conservation Act could be used as incentives to attract investment and drive projects into the Hunter-Central Coast Renewable Energy Zone.

3. More clarity on the scope and weighting of 'dwelling entitlements' for which the proposed visual impact requirements compel assessment and a 2km setback for wind infrastructure, more than the distance required in Queensland, Victoria and Western Australia.

   Ensure that visual impact requirements for wind and solar are not more extreme or onerous than other jurisdictions and align with international standards.

4. Secure sufficient resourcing for the Department of Planning approvals team to assess more clean energy infrastructure proposals, quicker.

5. Include markers for offshore wind and hydrogen projects in reforms, signalling that these projects are part of NSW's clean energy infrastructure plan and system including the Hunter-Central Coast Renewable Energy Zone, and are facilitated by the State.

Wind & Solar Energy

6. Remove the maps on 'desirable areas' for wind and solar projects, allowing site specific features, development assessment processes and project feasibility to determine the suitability of locations for clean energy infrastructure.

7. Regional cities: The guidelines require wind and solar developments near certain regional to satisfy that any urban land conflicts and impacts on urban growth potential are not significant.

   In order for this to be effective in high growth regions like the Hunter and not unduly quarantine land from clean energy development, the NSW Government and Department of Planning must get better at providing longer-term and strategic direction on where development and public infrastructure investment will go, when, and where it won't, including via the *Lower Hunter City Plan* and *Hunter Regional Plan*.

Transmission Guideline

8. It is understood there has been significant coordination and feedback between the Department of Planning and EnergyCo on planning frameworks for transmission infrastructure. We will be looking to the final guidelines that they facilitate delivery of the Hunter Transmission Project and future major transmission infrastructure required to deliver the Hunter-Central Coast Renewable Energy Zone and Hunter Hydrogen Hub.

Benefit Sharing & Private Agreement Guidelines

9. The principles of a Benefit Sharing scheme that invests in the communities directly impacted by clean energy development are supported, including adjustment for council rates. The Hunter has experience with similar schemes for communities impacted by coal mining activities and power plants, delivering positive outcomes for people, councils and developers/asset owners.

   We note the proposed Benefit Sharing scheme is additional to any project-specific Private Agreements and costs.

   Care will need to be taken in the design and implementation of any Benefit Sharing scheme that this does not inadvertently disadvantage a nascent class of projects prioritised by the NSW Government as critical for the State's development over the next decade and beyond.

   This imperative and immediacy drives a stronger role for the NSW Government in securing greater local acceptance and support for the State's energy transition in the Hunter, including through public awareness campaigns and community funding programs. We note the related commitment by EnergyCo to leverage access fees for community and employment purposes.

   Currently the region is experienced significant delays in accessing funding from the NSW-led benefit sharing scheme for coal communities in transition – the *Royalties for Rejuvenation Fund*. Enabling legislation passed in May 2022. There are no public guidelines or visible pathways to apply for or access funding for the $25 million p.a. fund.

   It is recommended the implementation of a Benefit Sharing scheme carefully consider:

   - the timing and potential staging of rollout as to not deter clean energy development in the critical 10-15 years of investment to replace the State's retiring coal fired power plants and achieve the legislated 70 percent emissions reduction target for 2035. This includes options for the scheme to be voluntary or subsidised for an initial period.
   - direct government investment in the scheme given the shared needs, benefits and long-term public interest of clean energy infrastructure development.

From:	Department of Planning Housing and Infrastructure
To:	DPE PS ePlanning Exhibitions Mailbox
Cc:	DPE Energy and Resources Policy Mailbox
Subject:	Webform submission from: Draft energy policy framework
Date:	Monday, 29 January 2024 1:53:21 PM
Attachments:	draft-energy-policy-guidelines--submission-1.docx

Submitted on Mon, 29/01/2024 - 13:48

Submitted by: Anonymous

Submitted values are:

Submission Type
I am submitting on behalf of my organisation

Name

First name
[redacted]

Last name
[redacted]

I would like my name and personal contact details to remain confidential
Yes

Info

Email
[redacted]

Suburb/Town & Postcode
[redacted]

Please provide your view on the project
I am just providing comments

Submission file
draft-energy-policy-guidelines--submission-1.docx (55.84 KB)

Submission
Please see attached a submission on behalf of the Cassilis District Development Group addressing concerns we have around the Draft Energy Policy Guidelines which appear to streamline the process of approval rather than provide meaningful consultation and engagement with impacted rural communities.

I agree to the above statement
Yes

Cassilis District Development Group Incorporated

PO Box 1
Cassilis NSW 2329
cassilisdistrictdevelopment@gmail.com

23rd January 2024

Department of Planning & Environment
Sydney NSW 2000

Submission – Draft Energy Policy Framework

The Cassilis District Development Group has provided the following comments around the draft Energy Policy Framework with particular respect to:

- Transmission Guidelines
- Draft Wind Energy Guidelines
- Benefit Sharing Guidelines

As members of a community who are situated in the Central West Orana Rez and have been supposedly consulted with regarding development in our district the guidelines displayed on the portal do not really address the issues that local communities are having to deal with around consultation or lack of.

1. **Transmission Guidelines**

If the aim of the policy framework is to *"provide communities, councils and energy industry with clear guidelines on how impacts of renewable energy projects and transmission infrastructure will be assessed and managed"* it leaves community members really no clearer about the government processes around these issues. It does state what the guidelines are, however there is very little realistic knowledge demonstrated about how rural communities that are being impacted should be actually consulted with other than stating "*Transmission projects will be subject to a rigorous, merit based assessment that includes extensive community consultation and a detailed consideration of any environmental, social and economic impacts.*" (ref page 13 Transmission Guidelines) What does this actually mean for communities? As a community organisation that should have been consulted with extensively by Energy Co I would like to know how this process is monitored. Currently Energy Co's most recent December newsletter states that they held a 'pop-in' sessions in the Cassilis community to outline the Environment Impact Statement (EIS) they submitted, this is not correct as there was no session held in Cassilis. Does government have faith in the current consultation process so that an accurate assessment can be made on a planning submission? How does a merit based assessment actually operate? Are the conclusions reached by energy corporations in their submissions accurate and who verifies that they are? How much local knowledge is actually noted and referred to so that these developments are more reflective of the community consultation? None of these issues are addressed adequately.

On page 19 of the **Draft Energy Policy Framework- Transmission Guidelines** it also states that "*Engagement needs to carefully balance the benefits of providing stakeholders with opportunities to participate in the options evaluation process, whilst avoiding unnecessary anxiety*." Then on page 20 it states "*Whilst undertaking consultation the proponent should identify the elements of the project that can be influenced or*

shaped by community." How does this occur when local citizens are currently not included in the design process of a project, its location and/or route?

At the moment it appears that all the consultants that are employed to design transmission routes do not live locally so do not have a great understanding of the community they are working with. They only produce design options for citizens to look at and make a decision on with no local understanding of how they could propose some of these routes that do not seem sensible or even feasible. There is no initial consultation around what routes would be suitable and what are the potential problem areas in a community. Surely local personnel and their knowledge should be employed and utilised in the design process.

Consultants seem to fly in or drive up for a week of consultation and then go back to their urban environment and write up their reports from a one off meeting. This is really just a fact-finding trip as it is not realistic consultation as the local community members are not made aware of the development parameters until the EIS is released. An example of how poor this process is, was highlighted in the recent Energy Co EIS when they documented their preferred transport route through the village of Cassilis, past a school environment (not mentioned in the EIS) without having a discussion about whether this was the best route or if there were alternative routes. Local people understand how their communities work, what is important to their citizens and are often only too happy to find a solution to a problem. However in the current environment of consultation this does not occur and it appears that the Draft Energy Policy Framework is promoting more of the same. There is no mention of having local personnel employed by energy corporations to help develop their plans, there is no actual explicit guidelines on how consultation should happen and whether communities have the right to ask questions in a group setting so everyone gets the same information. If corporations are worried about this type of consultation then surely paying a professional meditator would help. The current policy of having discussions with individuals or in a 'one on one' environment leaves corporations open to only getting one point of view and not looking for consensus in a community. Consequently this means that they are unaware of the problems that their proposed developments are going to meet and then wonder why there is community backlash.

2. Draft Wind Energy Guideline

The Draft Wind Energy Guideline states the following on page 8.

The objectives of the guideline are to:

- *support the development of a sustainable wind energy industry in NSW by providing a clear, consistent and responsive policy framework*
- *encourage industry to select suitable sites for projects and locations for turbines to avoid or reduce the likelihood of land use conflicts and environmental and social impacts*
- *provide clear and consistent guidance on how to measure and assess key environmental impacts of wind energy projects in NSW*
- *promote meaningful, respectful, effective and best practice community and stakeholder engagement throughout the development assessment process*

The Cassilis community will be impacted by the Liverpool Range Wind farm being developed by TILT Renewable Energy Corporation. At all stages of their development TILT has been proactive in consulting with the Cassilis community. They have also employed a local person to run their shop front in Coolah who has a good understanding of the broader local community so have managed to avoid a number of the poor consultation outcomes that are currently hindering Energy Co. One of the issues that TILT'S progress has demonstrated is the time they have taken to understand the local community and avoid sensitive issues. The guidelines for wind energy highlight that visual amenity is one of the main issues. This is an area that is often under appreciated by the city consultants when formulating their development plans. Rural people value their rural landscape and the angst around this issue when an industrial landscape is imposed on them for the benefit of the city areas is not really understood by city personnel. Rural people are very attuned to

the natural environment and the thought of wind turbines, solar panels and then the transmission lines cris crossing the landscape is very confronting.
Although there is an understanding of the need to have a more renewable energy environment many rural people question the validity of the industrial landscape they are now going to have to live in as environmentally friendly. The long term ramifications for increases in temperature on top of climate change due to the industrialised landscape has many farmers questioning their long term viability. How will this industrial landscape impact the health of soils, water infiltration and biodiversity and consequently long term sustainability of the Central West Orana Renewable Energy Zone (CWOREZ) communities. The guidelines for all renewable energy proponents do not really address the long term ramifications of altering the rural environments where they are being built. It is hoped that the government has put in place some long-term research (with current measurements being done before the landscape changes) to look at these issues so that there is a greater understanding of the impacts of this industrialisation.

3. Benefit Sharing Guidelines

The draft policy guidelines state that transition to renewables will provide a range of direct and indirect benefits for host communities. Two of these benefits noted are: (refer page 4)

- *Payments to neighbours of joining infrastructure*
- *Boost to services and hospitality industries to service the new workforce.*

The guidelines do not actually explain how this will operate. There needs to be an agreed a mount of payment so that it is equitable across a community. This idea that an organisation will negotiate individually with community members and formulate individual contracts increases the workload of corporations but is also is divisive.
The boost to services and hospitality is also fraught with problems. Rural communities are currently very short of most services and qualified professionals and cannot currently staff schools, police stations, local government, hospitals and other health positions let alone hospitality businesses. The extra demand on the community services will be huge let alone the impact of the extra traffic on local roads impacting citizens being able to access their local community services. The guidelines are written for all communities, the energy industry and local councils to follow however as these corporations are doing this as individuals there is very little understanding of the full cumulative impact on particular communities particularly during the construction period. There needs to be more explicit guidelines for timeframes and dealing with additional traffic and impact on services and how these are going to be dealt with. It appears that there is no one is collating this across rural Australia and the guidelines certainly do not provide for a collection of data. For example in the CWOREZ how many nurses, doctors, teachers, police and how many houses are required to provide the additional services across this region? What about across the state and the other REZ areas? Who is collating this?

"*Rural communities will experience the most impact and change from renewable energies*". (ref page 4)
However the only suggestion that the guidelines have put up to mitigate this is the benefit sharing option where it states that "*benefit sharing initiatives of renewable projects aim to bolster the positive social and economic outcomes from projects*."(ref page 5) However the guidelines are not explicit in how this will work. They recommend funds be centrally administered and distributed through council or alternatively by applicant partnership with established community organisations. How will this work? Are there guidelines for this partnership and for councils? How familiar are amalgamated councils with their impacted communities? Will there be equity in funding across the impacted communities or will the bigger communities with greater resources utilise most of the funds?
The Draft Energy Policy Guidelines do not answer the questions communities have. However they do appear to "*support the rapid roll out of solar and wind energy generation in NSW*" (ref page 6) to the detriment of rural communities. They aim to streamline the process for development applications to be assessed but are not really answering the questions that rural communities want dealt with. We want real consultation and

answers to our questions. We want to feel part of the decision making process. We want the developments to be equally shared across the state not all lumped in a particular REZ which will alter the landscape irrevocably. We want cities to carry their fair share of the transition to renewables.

It is hoped that the planning process and the guidelines implemented will reflect the need for more meaningful consultation and consideration of the impacts that will be felt by rural co munities. The Department of Planning & Environment have ethical, social and environmental parameters to adhere too as they ensure that the rural communities being impacted are not discriminated against due to poor consultation by energy corporations. The tax dollars of all Australians are supporting these companies and rural Australia needs to be assured that this money is spent wisely and fairly so that benefits are provided to all small communities not just large communities.

Thank you for the opportunity to provide comment on these draft guidelines.

J E Hegarty
Chair
Cassilis District Development Group

From:	Department of Planning Housing and Infrastructure
To:	DPE PS ePlanning Exhibitions Mailbox
Cc:	DPE Energy and Resources Policy Mailbox
Subject:	Webform submission from: Draft energy policy framework
Date:	Monday, 29 January 2024 4:18:28 PM
Attachments:	utla-inc-dpe-draft-guidelines-submission.pdf

Submitted on Mon, 29/01/2024 - 16:15

Submitted by: Anonymous

Submitted values are:

Submission Type
I am submitting on behalf of my organisation

Name

First name
Uarbry Tongy Lane Alliance Inc

Last name
.

I would like my name and personal contact details to remain confidential
No

Info

Email
[redacted]

Suburb/Town & Postcode
2843

Please provide your view on the project
I object to it

Submission file
utla-inc-dpe-draft-guidelines-submission.pdf (1.36 MB)

Submission
In summary:

Uarbry Tongy Lane Alliance Inc objects to the Draft 'guidelines'. Currently energy developers ignore all best practice advice provided by the AEIC and at no stage do DPE propose an accreditation process for the 'consultants' who are financially tied to developers.

DPE themselves freely admit (Matt Riley - Gulgong - 29 November 2023) that they have not taken on board any of the recommendations provided Cthe AEIC, likewise DPE have

not accounted for any renewable energy lessons learned from other countries.

DPE's reliance on research conducted by developers and their "not for profit" alliances is concerning. For example, the industry aerial agriculture body has always been AAAA, who are critical of wind farms and prolific transmission lines given the danger to pilots and thus restrictions on aerial applications.. But this does not suit the narrative so along comes AFAC.

AAAA (Aerial Application Association of Australia) is an industry body of real people: pilots, engineers and operators of aerial applications.

AFAC (Australasian Fire Authorities Council) is made up of emergency services managers – they don't fly planes, they are bureaucrats.

There is substantial evidence that DPE are either disinclined or powerless to encourage any renewable energy developer to follow any 'guidelines'. A notable example was the rapid change to the wind map after the submission process had begun, following uproar from developers and their lobby groups over the initial map which showed that the majority of NSW was not suitable for wind farms. The veiled threats by lobby groups such as CEIG are intended to have the planning laws altered to enable them a clearer pathway to bigger, more certain profit. CEIG's focus is on developers profit not our environment, nor our energy security or food security.

At Uarbry Tongy Lane Alliance Inc our focus is to protect our natural environment as opposed to industrialise it and turn it into a 'modern day' power station for the benefit of developers.

Specifically, which individuals within NSW Government are taking responsibility for the industrialisation of what is currently productive agricultural land?

Which individuals within NSW Government are taking responsibility for the destruction of Critically Endangered Ecological Communities (CEEC)?

Which individuals within NSW Government are taking responsibility for the sale/perpetual lease of agricultural land to developers (almost always foreign controlled entities) for biodiversity offsets?

Which individuals within NSW Government are going to take responsibility for rendering vast tracts of bush fire prone land unable to be effectively controlled by aerial firefighting?

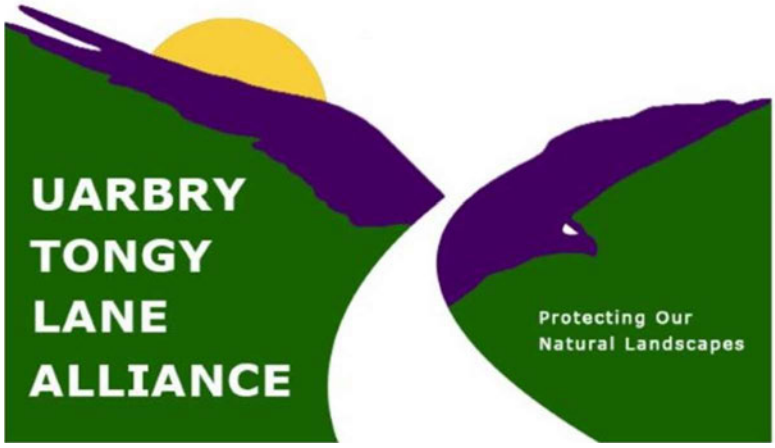
Which individuals with NSW Government are prepared to take responsibility for the fallout from toxic large-scale battery and solar fires?

Which individuals in the NSW Government are going to take responsibility for the land clearing by developers that will inevitably lead to habitat loss, habitat fragmentation and hostile environments for our native wildlife?

Our guess is that nobody within DPE or the NSW Government will take any responsibility for any of the above.

NSW Government is most certainly destroying the environment under the guise of saving the environment.

I agree to the above statement
Yes



Summary

Uarbry Tongy Lane Alliance Inc objects to the Draft 'guidelines'. Currently energy developers ignore all best practice advice provided by the AEIC and at no stage do DPE propose an accreditation process for the 'consultants' who are financially tied to developers. DPE themselves freely admit (Matt Riley - Gulgong - 29 November 2023) that they have not taken on board any of the recommendations provided by the AEIC, likewise DPE have not accounted for any renewable energy lessons learned from other countries.

DPE's reliance on research conducted by developers and their "not for profit" alliances is concerning. For example, the industry aerial agriculture body has always been AAAA, who are critical of wind farms and prolific transmission lines given the danger to pilots and thus restrictions on aerial applications. But this does not suit the narrative so along comes AFAC. AAAA (Aerial Application Association of Australia) is an industry body of real people: pilots, engineers, and operators of aerial applications. AFAC (Australasian Fire Authorities Council) is made up of emergency services managers – they don't fly planes, they are bureaucrats.

There is substantial evidence that DPE are either disinclined or powerless to encourage any renewable energy developer to follow any 'guidelines'. A notable example was the rapid change to the wind map after the submission process had begun, following uproar from developers and their lobby groups over the initial map which showed that the majority of NSW was not suitable for wind farms. The veiled threats by lobby groups such as CEIG are intended to have the planning laws altered to enable them a clearer pathway to bigger, more certain profit. CEIG's focus is on developers profit not our environment, nor our energy security or food security.

At Uarbry Tongy Lane Alliance Inc our focus is to protect our natural environment as opposed to industrialise it and turn it into a 'modern day' power station for the benefit of developers.

Specifically, which individuals within NSW Government are taking responsibility for the industrialisation of what is currently productive agricultural land?

Which individuals within NSW Government are taking responsibility for the destruction of Critically Endangered Ecological Communities (CEEC)?

Which individuals within NSW Government are taking responsibility for the sale/perpetual lease of agricultural land to developers (almost always foreign controlled entities) for biodiversity offsets?

Which individuals within NSW Government are going to take responsibility for rendering vast tracts of bush fire prone land unable to be effectively controlled by aerial firefighting?

Which individuals with NSW Government are prepared to take responsibility for the fallout from toxic large-scale battery and solar fires?

Which individuals in the NSW Government are going to take responsibility for the land clearing by developers that will inevitably lead to habitat loss, habitat fragmentation and hostile environments for our native wildlife?

Our guess is that nobody within DPE or the NSW Government will take any responsibility for any of the above. You are most certainly destroying the environment under the guise of saving the environment.

Landscape and Visual Assessment

At present there is no community that is advised of any wind/solar/battery plan prior to the signing of hosts. The developers slither into communities using deception and manipulation to sign up as many land hosts as possible.

The guidelines should stipulate that landowners within 20 km should be notified, at the outset, by letter to the primary address as per the council's rates database. This letter should include planned layout. What happens in practice is that none of the non-associated landowners have any insight into the project unless alerted by a community member who has stumbled on the information. For example, the publication of DPE's draft guideline information sessions was completed through social media alone. No local papers, no local radio, no letter drop, no posters in local towns. Pointedly no meeting in Dunedoo – the epicentre of CWO REZ thanks to the planned Merotherie and Elong mega substations. DPE needs to lead by example, not follow the shoddy tactics displayed by developers.

We applaud the Land and Environment Court's recent decision to reject the Burrundulla Solar farm at Mudgee. This case was principally dismissed due to the visual impact on neighbours. Why are we not afforded the same ability to protect our visual amenity? It would appear that we are being discriminated against because we don't live in what the NSW Government classifies as a major centre.

Our recommendation is that developers must have a neighbour agreement established with all neighbours within 6 km prior to DPE accepting SEARS. If a neighbour agreement cannot be established, then the project needs to be altered. The situation at present is that landowners must continually fight for their right to farm and live in peace on their own land. We have numerous examples of developers continuing to deny the existence of homes because they cannot see them from satellite images. Some developers even tell neighbours that unless they can come up with evidence that the home is DA approved, they will not acknowledge the residence. Who has the DA approval documents for a home 100 years old? The AEIC has a dossier on such complaints but as DPE don't communicate with the AEIC, they remain ignorant.

Asking the landscape assessments to be completed by the very same consultancy who work exclusively for developers is only going to achieve a result that is satisfactory to the developer. We wonder if this could be seen as a cartel.

The draft guidelines are not clear on the setback required from neighbouring residences. Developers need to be given a clear setback where no neighbour agreement is in place. Our recommendation is 6 km. We have group members who are sandwiched between two wind farms, with all homes within 6 km from both projects' turbines. These members have had no contact from either developer, when they trawl the EIS find that only some homes in this band have been identified. What consequence is there for the developers in this instance? Seemingly none. This appears to be a recurring issue in many wind farm projects.

As a direct result of the NSW Government unleashing hundreds of developers on the CWO REZ residents are forced to defend their homes and their land repeatedly. The guidelines do not go far enough to protect NSW residents and agricultural land. The avalanche of presentations, EIS, scoping reports, surveys, submissions required is beyond the capability of even people who are paid to do nothing else.

Developers use the existence of a single tree to demonstrate visual mitigation, is DPE allowing this? A single tree is totally insufficient to visually mitigate the view of turbines that reportedly have a lifespan of 20 to 30 years.

There is a stark difference between the photomontages presented by Energy Co and the photomontages presented by developers. Developers almost always use fisheye lenses and cloudy sky when depicting wind turbines. Many EIS refer to photomontages in their documentation that do not exist, it is up to the reader to notify DPE and request the photomontage. Many developers don't mention the nighttime lighting on wind turbines that CASA will inevitably require. Day and night photomontages should be supplied in the EIS from the outset, they are wasting everyone's time not doing this at the outset.

Noise

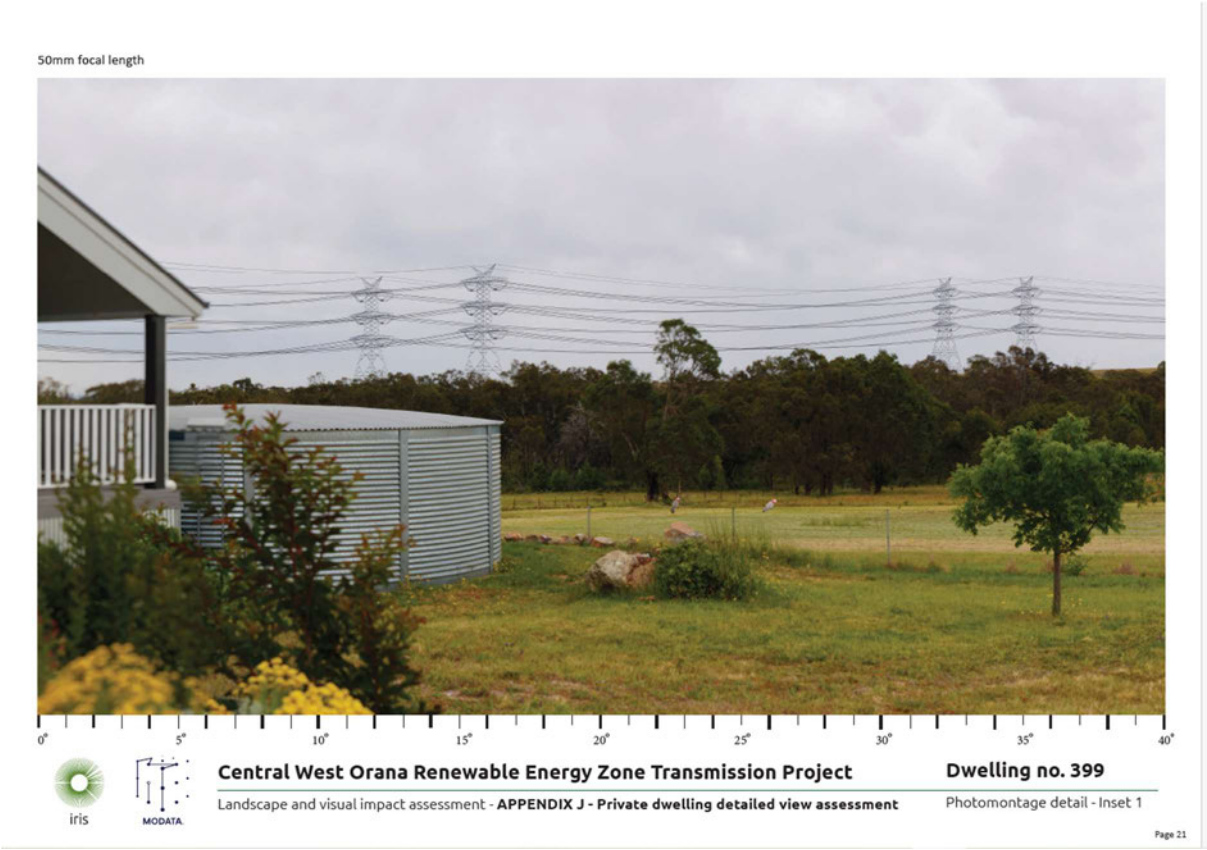
Referring to studies completed in 2015 are not credible. In 2024 the turbines are significantly larger, and size is only increasing.

The audible and infrasound of today's turbines will undoubtedly have a huge impact on both people and animals. The environment will become hostile to native wildlife and if not victims of blade strike, they will leave the area searching for less hostile habitat. Our background sounds at night are frequently total silence. Yet sound travels and if a tractor is working at night in a neighbouring valley, we can hear the hum of the machinery. With several hundred turbines operating within the immediate area (less than 10 km) it is unlikely the native birds will remain in the area. Add to that the corona noise from extensive transmission, the substations noise, shadow flicker and heat island effect from thousands of hectares of solar panels. We can certainly see that living in the CWO REZ, with the unrestricted solar/wind/battery/transmission development, we will indeed be living in a modern-day power station. We are living in a grotesque experiment.

Infrasound health impacts are routinely dismissed by developers. Yet little information is available on infrasound on projects of this scale, as proposed in the CWO REZ. We request that acousticians be appointed by DPE not by proponents to collect noise data on homes with 6 km from these large-scale projects. Monitoring needs to be completed inside and outside homes, over a range of conditions. The monitoring needs to be long term and consistent, with the full results made publicly available in a timely manner.

Transmission

Below is the result of CSSI:



What's missing from this image? They forgot to remove the trees. The easement for twin 500 Kv transmission lines does not contain trees.

With CSSI people in regional Australia can expect this at the bottom of the garden.

If the twin 500 Kv transmission lines at the bottom of the garden are not enough, on the other side of the house is the switching station and 330 Kv transmission line.

(Source Energy Co, CW0 REZ transmission line EIS, appendix J, accessible via State Major Project portal)

And these people are called "hosts". The term host implies a willingness and eagerness. Given this is a CSSI project compulsory acquisition is the future for these "hosts".

The best part is that under the new "guidelines" this infrastructure cannot be built so close to homes. BUT this project is underway prior to the publishing of the DRAFT guidelines so no need to consider any proposed new guidelines. The NSW Government has contracted the build for this project to a private consortium and as you would expect the private consortium cannot possibly make any changes to the project because costs would increase, and profit would be impacted. Response from NSW Government: too bad, so sad.

EMF? Noise? Decommissioning? Nothing in the draft guidelines. For what period is the easement? Will the compensation cover the fact the home is likely unliveable and the land likely unsaleable? When compulsory acquisition is finalised, or any deal completed then any future health issues arising from EMF radiation from the substation or transmission lines is deemed to be accepted by the residents. Really? The fact that this was a CSSI project means no government authority, government employee or government department is responsible.

These draft guidelines plan to expand the potential for compulsory acquisition and everyone who lives in regional NSW, particularly the CWO REZ, can expect the above images with the addition of thousands of hectares of solar panels, hundreds of wind turbines, Workers camps for thousands of people and monster batteries is coming to a place near them or beside them.

The developers naturally would like more projects rated CSSI, this would absolve them from any responsibility for environmental fall out or health related issues for nearby residents. Most importantly this would negate any pesky opposition and expediate access to Government (aka taxpayers) funds.

Energy developers do not have a good reputation for communicating with neighbours or even their own willing land hosts. The AEIC has guidelines for best practice. These are not followed by developers, why will developers follow any guidelines? Read ACEN's response to BCS and DPE in the Valley of the Winds project and you will see that they have a way around everything. It is evident that developers are operating in a state of anarchy.

ACEN state repeatedly that they have reduced the number of wind turbines from 180 turbines to 131, to the casual reader this looks like they have made some concessions. To the locals this looks like BS. ACEN discuss two clusters that they removed from their scoping report to account for cumulative impact with the nearby TILT project. Yet the landowners in the two "deleted" clusters knew nothing of their "involvement". These clusters were never possible at any stage and were created for the purpose of being removed. Make this a CSSI project and these very same landowners would suddenly become the victims of compulsory acquisition without ever knowing about their inclusion in a project until the point of no return.

ACEN are not alone; many developers practice the same methods repeatedly: Fake consultation and invented concessions to cumulative impact. What are the consequences for this duplicitous manipulative behaviour? Is it to reward them with easier access to CSSI? CSSI leads to compulsory acquisition, compulsory acquisition then ensures that the "host" is assuming responsibility of any

negative consequences that may arise from electrical infrastructure (e.g., children's cancers, leukaemia, brain cancers etc). Any one in NSW Government responsible? Any private developer responsible?

What about the livestock grazing beneath transmission lines and in vicinity of the substations? Guessing this too is the responsibility of the "host" given the agreement they were coerced into signing.

We know that most of our modern (sustainable) farming equipment cannot traverse the transmission easements. We know that cultivation paddocks divided by transmission lines can no longer be sustainably farmed. We know that cropping country is finite, and the NSW Government is continually eroding this finite resource. We anticipate food security will be our next issue.

These guidelines do not address decommissioning of transmission infrastructure, nor do they address the fact that current easements have no end date. Given the disparity between magnitude of the consequences of transmission infrastructure and the compensation offered the landowner should be offered above market rates to sell their land (or part thereof) to the authority facilitating the compulsory acquisition.

Undergrounding of transmission lines clearly has a place, these draft guidelines need to consider the submissions to all undergrounding inquiries. Considering only TransGrid's opinion is merely prioritising TransGrid's (or ACE's etc) profit over the health and safety of the workers and residents in the CWO REZ.

Site selection and aerial impacts/aviation safety

The draft guidelines appear to only consider the aerial pest control of feral animal in and around national parks. The draft guidelines acknowledge the potential interference of projects on management activities. What about agricultural land? Our pest group conducted four aerial feral pig culls last winter alone. Feral pigs are in plague proportions after the preceding wet years, the impact on livestock and crops amounts to a huge cost for every landowner and the biosecurity threat that feral pigs present keeps us awake at night.

We note that given the stage of the TILT Liverpool range project the LLS excluded the entire wind farm area from the feral pig program running at present. This means that no land within this wind farm project will be included in the aerial cull being run by the LLS. Meanwhile across the road, literally, we are taking part in both Government and private aerial culls to reduce the feral pig population.

How will we manage this feral pest when we are ringed by transmission and wind turbines?

Should the guidelines direct developers to undertake feral animal control within their project boundaries? Delegating this to the land host will be an unsatisfactory outcome as we already see land hosts do not remain on their land, rather they become absentee landowners. Our recommendation is that the guidelines direct developers to install and maintain exclusion fencing on the external project boundaries to prevent these sites becoming a breeding ground to feral pests that neighbouring landowners are never able to contain.

Meanwhile we have two active airstrips adjacent to the ACEN Valley of the Winds project. ACEN refuse to acknowledge one despite it being registered on several public databases and evident in their displayed photographs. The other airstrip, which they do acknowledge, they indicate must be managed to accommodate the towering turbines on the neighbouring ridge. Both airstrips have extensive community use. How does a Philippine based developer dictate how the land is used on properties they have no jurisdiction over? Do DPE allow this? Clear distances from all airstrips needs to be stated in the guidelines. We demand a minimum of 6 km.

Airstrips are a fire management resources, restricting their use on top of restricting efficient aerial fire fighting defies logic. Surely building energy generation and critical state infrastructure of an incendiary nature in a bush fire zone would incentivise developers to maintain bush fire prevention resources. No evidence of this by ACEN and their ilk, nothing in the guidelines stating that local bush fire management resources must not be rendered useless.

Bird and bat impact assessment

We have many pair of Wedge tail eagles in the Uarbry Tongy Lane area. No, they don't get hit by cars, fly into buildings, or get preyed on by feral cats. More likely that feral cats get preyed on by Wedge tail eagles. Maybe the writers of these guidelines have never seen a Wedgie at work?

The complete bird and bat impact assessment section of the guidelines needs to be rewritten utilising credible information not the misinformation supplied by profit motivated consultants. Simply use a qualified bird/bat expert that does not earn their income from developers.

Decommissioning

When pressed, Matthew Riley (Gulgong, 29 November 2023) admitted that should the developer/ operator of the energy project go broke the landowner would ultimately be responsible for the decommissioning of the project. Who enforces this? Are we going to be surrounded by junk in 20 years' time?

When estimating the cost of decommissioning have the transport costs been accounted for? Or is this like the "cost" calculation of the construction of the renewable energy projects where only some costs are counted?

Wind, solar, battery decommissioning agreements should be included in the public documentation displayed in the State Major Project portal.

Battery decommissioning when will DPE publish the guidelines?

Developers should be required to commit funds annually to battery, solar and wind turbine recycling at the outset for each project. Solar panels break, turbine blades need replacing and batteries become inefficient or implode due to thermal runaway.

From:	Department of Planning Housing and Infrastructure
To:	DPE PS ePlanning Exhibitions Mailbox
Cc:	DPE Energy and Resources Policy Mailbox
Subject:	Webform submission from: Draft energy policy framework
Date:	Monday, 29 January 2024 5:35:40 PM
Attachments:	submissionnswgovt_draft-energy-policy-framework_responsiblefuture_jc_final_290124.pdf

Submitted on Mon, 29/01/2024 - 17:33

Submitted by: Anonymous

Submitted values are:

Submission Type
I am submitting on behalf of my organisation

Name

First name
[redacted]

Last name
[redacted]

I would like my name and personal contact details to remain confidential
Yes

Info

Email
[redacted]

Suburb/Town & Postcode
[redacted]

Please provide your view on the project
I object to it

Submission file
submissionnswgovt_draft-energy-policy-framework_responsiblefuture_jc_final_290124.pdf (359.67 KB)

Submission
Please see attached PDF from Responsible Future (Illawarra Chapter) Inc.

I agree to the above statement
Yes

Responsible Future
Illawarra Chapter

Submission to NSW Government

NSW Draft Energy Policy Framework

Responsible Future (Illawarra Chapter) Inc

Jenny Cullen
president@responsiblefuture.com.au
PO Box 62 Woonona 2517
responsiblefuture.com.au

Registration Number: INC2400032

Contents

Introduction 1

Key Recommendations 2

Offshore Wind (OSW) Production 3

Hydrogen Production 7

Draft Wind Energy Guideline 8

Draft Transmission Guideline 9

Benefit Sharing Guideline 11

Community Consultation 12

Conclusion 13

References 14

Introduction

We are a non-partisan group of concerned responsible community members located in the Illawarra. Our group is dedicated to prioritising and safeguarding the future of our environment, economy and community by ensuring responsible renewable energy policy and infrastructure. The group has evolved from grassroots community groups with over 10,000 individuals closely following the developments in the Illawarra. Many have voiced their concern at public meetings and through petitions receiving over 12,000 signatures.

We acknowledge the need to reduce reliance on fossil fuels and reduce CO2 emissions. We also support evidence-based measures that can ensure these benefits however, any action that sacrifices the health of our environment, community or economy without delivering these benefits, is not considered responsible.

We welcome the opportunity to provide feedback on the Draft NSW Energy Framework[1] as well as associated documents including, but not limited to, the Draft Transmission[2] and Wind Energy[3] Guidelines.

The feedback and recommendations provided in this submission are based on the understanding that the NSW Government is committed to supporting the Commonwealth Government achieve national renewable energy targets as outlined in the Climate Change Act 2022[4]. Additionally, we also understand that the NSW and Commonwealth Governments are guided by the Bilateral agreement which falls under the Environment Protection and Biodiversity Conservation Act (1990)[5].

The most obvious and glaring requirement for improvement of the NSW Draft Energy Framework[1] (hereafter referred to as 'The Framework[1]') is to include sections on the production of offshore wind and hydrogen energy. The implications and impacts are not only real but tangible and NSW communities have the right to understand and be consulted on the implications associated with their development. To produce a document such as The Framework[1] without these sections and therefore to remain silent on the State-level implications of these huge project proposals, would be a conscious and egregious dereliction of duty that is not, in and of itself, without potential serious ramifications.

Key Recommendations

1. Include a section on Offshore Wind Energy Production as proposed Renewable Energy Zones in NSW have huge significant implications to elements of the Environment, Economy and Community that clearly fall squarely within the jurisdiction of the NSW government and, therefore, the related Energy Policy Framework.
2. Include a section on proposed Hydrogen Production as proposed Hydrogen Hub developments in NSW have significant implications to elements of the Environment, Economy and Community that clearly fall squarely within the jurisdiction of the NSW government and, therefore, the related Energy Policy Framework.
3. Increased advocacy on behalf of constituents in relation to the impacts of the above (Recommendations 1 & 2).
4. NSW Government does not allow the cable and transmission lines required for offshore wind projects as the criteria set out in the Benefit Sharing Agreement under this Framework[1] have not been met.
5. NSW Draft Transmission Guidelines include a section on offshore wind energy generation.
6. That the NSW Energy Policy Framework[1] and associated Guidelines recommend to the Federal Energy Minister that the declaration of any Renewable Energy Zones is put on hold until the concerns raised in this submission have been fully addressed.

Offshore Wind (OSW) Production

We fail to understand the reasoning behind the exclusion of OSW production in the NSW Draft Energy Framework[1]. There is a very strong case for OSW to have a section in it's own right and not just because of the huge significant implications involved in the development of the associated infrastructure. There is also the need for community consultation to occur, within the guidelines set out in the NSW State Significant Infrastructure Guidelines[6] and Undertaking Engagement Guidelines for State Significant Infrastructure[7] documents.

Our reasoning behind the inclusion of a section on OSW includes:

- Cables, transmission lines and other associated structures such as wire linkages and step up substations implications.

  The NSW Government has the responsibility for the marine domain which comprises tidal rivers/estuaries, the shoreline, submerged lands, offshore islands and coastal waters between Queensland and Victorian borders out to three nautical miles(nm) from the shore[8]. When areas for proposed OSW projects are located more than 3nm offshore they fall within the Commonwealth controlled Renewable Energy Zones (REZs). There are currently two offshore REZs proposed in NSW, namely Hunter and the Illawarra[9,10].

  Whilst the OSW projects located in these REZs are Commonwealth responsibility some aspects of these projects technically fall within NSW jurisdiction. These proposed industrial scale OSW energy production areas require infrastructure to be located within the NSW marine domain, as well as onshore, in order to bring the generated power to the grid. Without cables, transmission lines and other associated infrastructure, the power generated by OSW cannot be converted into energy for households and/or industry. This NSW Government controlled associated infrastructure falls within the guidelines of the Bilateral Agreement between NSW and the Commonwealth as outlined within the Environment Protection and Biodiversity Conservation Act,1999 more commonly known as the EPBC Act[5].

  The Illawarra constituency has not given the NSW Government permission, or the social licence, to absolve their responsibilities associated with any OSW energy production to the Commonwealth Government.

- Marine and seabird ecosystem implications:

  We contend there is high probability of significant negative impacts from the huge disruption to the currently pristine marine ecosystem as well as the shoreline and

coastal waters under the jurisdiction of the NSW Government. Confirming our view is the application, submitted (and subsequently withdrawn) by BlueFloat to the EPBC public portal[11]. This submission identified multiple, likely environmental impacts during just one phase of their proposed Illawarra OSW development. BlueFloat outlined the areas potentially impacted by the need to clear vegetation, undertake groundworks /excavation for underground cabling as well as dredge and/or trench the seabed to instal subsea cable laying.

These areas included;

- subtropical rainforest in Killalea Regional Park,
- estuarine and swamp forests along Minnamurra River and its tributaries,
- remnants of heathland and rainforests to the west of the Princes Highway,
- tributaries of Lake Illawarra,
- endangering six threatened ecological communities,
- digging large trenches under Lake Illawarra.

The above information does not include other issues which may also potentially affect the shoreline, such as vessel strike of marine fauna during vessel transit, poor water quality from a vessel oil or waste spill, disturbance of the seabed through taking shallow sediment samples or anchoring, equipment deployed to the seafloor, entanglement of marine fauna in equipment cabling or anchorage, and long term equipment deployment which may foul or cause contamination of the marine environment (particularly if coated with antifoul). All these matters were also included in the BlueFloat submission[11].

We do not give the NSW Government permission, or social licence, to potentially ruin the environment in this manner. We consider this too great a risk for the NSW Government not to include a section in The Framework[1].

- Protected areas implications:
  Please refer to the previous section on 'Marine and seabird ecosystem implications' which outlines the BlueFloat submission[11]. Around the Illawarra and Hunter regions there are protected areas which fall into the proposed OSW projects. These include but are not limited to;

  - The Illawarra Region is considered by the DCCEEW as a Biologically Important Area(BIA) for protected marine species such as the Humpback Whale, Southern Right Whale (Endangered), Antipodean Albatross (Vulnerable), Black-browed Albatross (Vulnerable), Campbell Albatross (Vulnerable), Indian

Yellow-Nosed Albatross (Vulnerable), Northern Giant Petrel (Vulnerable), Southern Giant Petrel (Endangered), to name a few[12].

- Bushrangers Bay of the Killea State Park is home to the critically endangered and protected grey nurse shark[13]. Please note, this area is also a National Surfing Reserve, declared in 2009[14].
- Five Islands Nature Reserve provides habitat and/or breeding sites for the wedge-tailed shearwater, short-tailed shearwater, whitebellied sea-eagle and the threatened sooty oystercatcher[15].
- Other areas in NSW such as the Hunter Wetlands National Park[16], as well as the Hunter Marine Park and the Port Stephens, Great Lakes Marine Park which lies adjacent[17]. Please note, Newcastle's Merewether Beaches is also a National Surfing Reserve, declared in 2009[18].

- Wind and wave implications:
  There is the potential for OSW projects to either directly or indirectly, modify wind and wave patterns, currents and strengths, thereby impacting sand movements as well as erosion[19,20]. A reduction of 2-10% downstream from turbines[21] with a subsequent reduction in wave height by up to 3.5%[22]. The Illawarra has some of the best breaks in NSW including those at the surfing reserves of 'the Farm' and 'Mystics' as well as many other beautiful beaches[23]. Surfing is known to have positive benefits socially as well as physically and brings in hundreds of millions of dollars to local economies[24]. Any reduction in wave height or patterns may have a significant impact on recreational surfing as well as tourism.

- Employment implications:
  Impact on NSW jobs in Tourism, commercial and recreational fishing jobs and businesses. The Illawarra is 'naturally blessed' and worth a visit according to Visit NSW[23]. During the 2021/22 financial year Wollongong Local Government Area there were almost 7,000 jobs, either directly or indirectly, attributed to tourism[25]. Similarly, just over 6,000 jobs supported the tourism industry in the Shellharbour local government area during 2021[26] and in Kiama LGA, 18% of all employment was in the Accommodation, and Food and Beverage services[27]. Importantly, relaxing on the shoreline, i.e. 'going to the beach' is the second highest activity for tourists visiting this region[28]. Research indicates most people do not want to holiday at beaches with offshore wind projects and would actually change their holiday destination if OSW turbines were visible from the shore[29].

- Business and investment implications:
  Changes in employment, as outlined above, will also have a significant impact on business and private investments including for example, property investments. The value of property is known to reduce because of the visual impacts of wind turbines[30].

- Community health & wellbeing implications:
  Serious degradation of the entire natural features of the coastal regions which have been proposed for OSW projects can potentially turn these areas from beautiful coastal communities to one fenced in by a huge industrial development across the entire extent of the coast (Refer to information previously provided). The health and wellbeing of the community would undoubtedly be significantly negatively impacted. This is in addition to the noise during construction of OSW projects which can be heard up to 100kms away[31], and the potential impact on the biodiversity. It is our contention, based on research, this may have serious consequences on the health and wellbeing of many local constituents.

The above information clearly indicates there are material implications that affect State-level jurisdiction related to OSW energy production. Therefore we contend, the community has the right to understand how the NSW State Government proposes to control our vested interests, ensure there is greater transparency for the community prior to approval and/or construction and to ensure our communities materially benefit from these projects, in line with the NSW Draft Energy Framework[1](p3). Additionally, there is recognition by the NSW Government that the move toward renewable energy is "not without impacts" and there is a need to "manage land use conflict…balance environmental and social impacts…address concerns…support robust and meaningful community engagement."(p3). Furthermore, The Framework[1], and therefore the NSW Government, acknowledges the importance of wind generation and transmission lines associated with wind energy, as evidenced by the separate draft guidelines for wind Generation and Transmission which support The Framework[1].

How can community engagement of any kind occur when the essential component, that is, offshore wind energy production and any associated infrastructure, is not included in The Framework[1]? We therefore recommend, for the above reasons, a section on Offshore Wind Energy Production. This must include a section requiring any tax-payer funded subsidies or purchase price guarantees to be disclosed.

Hydrogen Production

We fail to understand the reasoning behind the exclusion of hydrogen production in the NSW Draft Energy Framework. There is a very strong case for hydrogen production to have a section in their own right, because of the huge implications involved in the development of the infrastructure as well as the potential health and safety impact on the local communities involved. There is also the need for community consultation to occur, within the guidelines set out in the NSW State Significant Infrastructure Guidelines(2022)[6] and the Undertaking Engagement Guidelines for State Significant Infrastructure(2022)[7] documents.

Hydrogen plants are clearly part of the NSW Government's future energy mix plans and will likely be located within the previously approved NSW renewable energy zones. According to the NSW Hydrogen Strategy (2021)[32] these 'global hydrogen superpower' plants are intended to be located in the Illawarra and Hunter, as part of a larger plan of hydrogen hubs[32] (p10). This document also indicates additional generation and transmission infrastructure will be required therefore, to support the infrastructure build the NSW government "is providing exemptions to some of the costs" [32] (p31). Additionally, "working groups" were set up prior to the publication of this document.

Whilst Hydrogen production is considered an important renewable resource by the NSW Government, it is still considered a promising technology that may result in significant emissions if there is a leak during production, thereby offsetting any benefit. Additionally, although the cost has recently begun to reduce hydrogen production remains costly and depending on the technology used, the output can be quite low[33]. Challenges remain regarding performance, economic viability as well as durability requiring additional research[33]. When hydrogen and nitrogen are mixed and processed at high temperature, which is often the case, they create ammonia.[34] There are also safety issues around the very low flashpoint of Hydrogen as well as ammonia. The community must be encouraged to voice any concerns they may have regarding these issues.

In our view this is a glaring omission and a potential abdication of responsibility by the NSW Government. We therefore recommend a section on Hydrogen Energy Production to ensure completeness of the document and to ensure transparency. This must include a section requiring any tax-payer funded subsidies or purchase price guarantees to be disclosed.

Draft Wind Energy Guideline

The draft Wind Energy Guideline[3] specifically excludes offshore wind energy because of the "different site selections and impact assessment issues…led by the Commonwealth government…"(p10). Whilst this may, in the first instance, seem like a reasonable decision, there is also no mention of the cables and transmission lines from large scale OSW projects in the Draft Transmission Guideline[2], nor other significant on-shore or near-shore implications of such projects

Once the cables and infrastructure associated OSW projects are within the 3.3 nautical miles of the shoreline, this is NSW Government responsibility. OSW energy production cannot be transferred to the grid without NSW Government consent. The decision by the South Australian Government to veto OSW projects[35] proves this point.

Additionally, network and transmission lines, as well as associated infrastructure such as substations and converter stations are included in the draft Wind Energy Guideline under 2.4.3 Network connections and transmission lines[3]. Once again we have some infrastructure included but not all wind energy infrastructure because the NSW Government has specifically chosen not to address OSW energy generation in this guideline.

The regulation of approved wind energy projects also includes biodiversity management and mitigation measures, as well as heritage protection measures as well as other obligations for the companies proposing to develop wind energy projects. Excluding OSW projects in this guideline places these very measures at risk. This is particularly so if there is nothing included in the Draft Transmission Guideline.

How can the NSW Government expect constituents to trust their guidance and take community consultation seriously, when there is a deliberate decision to avoid inclusion of important and significant state infrastructure associated with OSW wind energy generation?

We therefore recommend a section on Offshore Wind Energy Production be included in this guideline as well as The Framework[1].

Draft Transmission Guideline

Draft Transmission Guidelines[2] make no mention of connecting and delivering energy from offshore wind (OSW) projects, despite the significant infrastructure required to connect these large projects to the grid. The scale of the proposed OSW projects will result in significant transmission requirements which will include major upgrades and expansions. These guidelines indicate energy production in NSW is required to increase from an existing capacity of 16 gigawatts with favourable renewable energy measures, to 125 gigawatts by 2050[2](p7). To enable this substantial increase in production the NSW Government insists they require a "clear and consistent guideline"[2](p7).

The guideline states:

"*This guideline has been prepared to support major upgrades and expansions to the NSW transmission network and aims to provide communities, industry and regulators with clear and consistent information and guidance on the planning and development of this infrastructure*." [2] (p6).

Additionally, any onshore component of OSW projects must meet each objective as outlined on the same page of the guideline. The application of the Guidelines must be relevant for all onshore transmission lines, not just some i.e. the ones associated with solar and wind projects located on land. Excluding transmission lines associated with OSW projects implies the proponents of any OSW projects are not required to meet these guidelines. This is an unacceptable situation, even if the Commonwealth Government has the capacity to override them, based on the Bilateral Agreement.

The Draft Transmission Guideline[2] refers to transmission and distribution lines associated with energy production which is land based only. This is a spurious representation of the actual situation given at least two large scale OSW projects are clearly being considered by the Commonwealth Government. It is our contention that omitting the requirements of OSW projects connecting to the on land grid, represents an obvious flaw in the guideline.

The Wind Energy Guideline[3] clearly identifies a separation of approval powers and ownership between a large scale electricity generating project and the distribution grid(p5). Therefore, although there is a distinct separation of powers between the OSW generation, that being under Commonwealth Government control, this does not negate the onshore component of connecting the OSW projects to the grid. The latter is clearly under the control of the NSW Government via the SSI or CSSI jurisdictions[6].

Offshore wind energy requires cables to the shore and onshore transmission lines. Depending on the project, they may also require step up substations to be located on land. The increased energy production, from on and offshore wind will require additional infrastructure such as transformers, including compulsory acquisition[36]. As outlined in the previous section on the Draft Wind Energy Guideline, onshore infrastructure associated with OSW energy production is not addressed.

The Draft Transmission Guideline[2] uses the terms "may" and "should" (p 5 & 6) when discussing the need for an environmental impact statement and addressing environmental impacts associated with transmission and distribution lines. Replacing these terms with words such as "must" or "will" would provide a much higher level of confidence that the NSW Government is committed to protecting the environment. Any environmental impact studies must also be required to be commissioned by the relevant state and federal government agencies, rather than the developers who stand to gain from downplaying the multitude of environmental impacts. This is clearly unsatisfactory.

These oversights are significant in and of themselves, however, they are magnified when considering there is no mention of cables and transmission lines, or any infrastructure associated with offshore wind projects in the NSW Coastal Design Guidelines[37].

It is our contention therefore that the Draft Transmission Guidelines should include a section on offshore wind. This will ensure a consistent approach as well as ensuring the NSW communities/constituents are provided with an opportunity for consultation and OSW proponents as well as the NSW Government, meet the existing SSI consultation guidelines.

Benefit Sharing Guideline

We applaud the concept of the proposed dollar figures outlined in the draft document, particularly in terms of the $1050 per megawatt, per annum, for wind development projects, paid over the life of the development and indexed to the Consumer Price Index as outlined in The Framework[1] (p10).

The concept of benefit sharing is an acknowledgement of the material compensation of negative community impacts.

Our concern is that if offshore wind (OSW) development and hydrogen production are implemented, there is no benefit sharing option available. This is despite the need for the transmission lines to bring the OSW and hydrogen energy generated, to the grid and therefore to be useful to households and/or industry. It also ignores the significant economic and environmental impacts on the local communities.

Proposed OSW and hydrogen projects will have significant impacts to the Illawarra community in particular, as well as other proposed OSW areas. The current 'Benefit Sharing Guideline' written 'as is' has no option or opportunity to "***Benefit share***" in relation to OSW generation.

The South Australian Government are also committed to renewable energies, but not at the expense of the environment and if there is no net benefit to South Australians[3][4]. They provide a strong and clear example of how a state government can advocate on behalf of the interests of their constituents and environment.

We therefore recommend the NSW Government stop the development of any cable and transmission lines for energy produced by offshore wind projects to connect to the onshore grid. These projects do not meet the Benefit Sharing Agreement under The Framework[1].

Community Consultation

We applaud the decision made by the NSW State Government to extend the consultation period for The Framework.

Our main concern with the community consultation component of The Framework[1] is the implicit potential conflict and disconnect between "…*a fast and measured rollout …*" (p3) whilst enabling the facilitation of "*meaningful, respectful and effective community and stakeholder engagement …*" (p2).

Effective, timely, fair and independent consultation processes require relationships to be established and this is unlikely to occur during a process focussed on speed. According to the NSW Government's own guidelines, there needs to be 'active' and 'genuine' engagement' with communities, as early as possible, to ensure they remain not only informed throughout the process, but enabling any issues to be addressed. (p15)

Whilst it may be tempting to have a fast and efficient roll out of energy projects and associated infrastructure, this must never be at the expense of community consultation. Additionally "addressing community concerns" is generally, not something that can be rushed if the NSW State Government wants their constituents to believe they are truly "supporting robust and meaningful community engagement" (p3 DEF). Indeed, excluding offshore wind and hydrogen production projects in The Framework, implies the NSW State Government is not totally committed to these concepts of community consultation, despite their written words on the subject.

Despite the 'requirement to engage' within the SSI Community Consultation guidelines[7], there is a distinct lack of commitment by the NSW Government in consulting about The Framework[1] as well as the Draft Wind Energy and Transmission Guidelines. This is evidenced by the omissions of the implications of large scale offshore wind and hydrogen energy projects within these documents.

Conclusion

We conclude by stating that the most obvious and glaring requirement to improve the NSW Draft Energy Framework[1] is to include a section on hydrogen production and offshore wind energy. The implications and impacts are not only real but tangible. NSW communities have the right to understand and be consulted on the implications associated with these developments. To produce a document such as The Framework[1] without these sections and therefore to remain silent on the State-level implications of these huge project proposals, would be a conscious and egregious dereliction of duty that is not, in and of itself, without potential serious ramifications.

Our recommendations include:

7. Include a section on Offshore Wind Energy Production as proposed Renewable Energy Zones in NSW have huge significant implications to elements of the Environment, Economy and Community that clearly fall squarely within the jurisdiction of the NSW government and, therefore, the related Energy Policy Framework.
8. Include a section on proposed Hydrogen Production as proposed Hydrogen Hub developments in NSW have significant implications to elements of the Environment, Economy and Community that clearly fall squarely within the jurisdiction of the NSW government and, therefore, the related Energy Policy Framework.
9. Increased advocacy on behalf of constituents in relation to the impacts of the above (Recommendations 1 & 2).
10. NSW Government does not allow the cable and transmission lines required for offshore wind projects as the criteria set out in the Benefit Sharing Agreement under this Framework[1] have not been met.
11. NSW Draft Transmission Guidelines include a section on offshore wind energy generation.
12. That the NSW Energy Policy Framework[1] and associated Guidelines recommend to the Federal Energy Minister that the declaration of any Renewable Energy Zones is put on hold until the concerns raised in this submission have been fully addressed.

References

1. NSW Government. Department of Planning and Environment. 2023. ***Draft Energy Policy Framework***. [Accessed January 2024] DPIE-NSW Draft Energy Framework
2. NSW Government. Department of Planning and Environment, 2023. ***Draft Transmission Guideline***. [Accessed January 2024] DPIE-Draft Transmission Guideline.
3. NSW Government. Department of Planning and Environment, 2023. ***Draft Wind Energy Guideline***. Guidance for state significant wind energy development. [Accessed January 2024] NSW Govt-Draft Wind Energy Guideline
4. Australian Government. Department of Climate Change, Energy, the Environment and Water. 2023. ***Climate Change Act, 2022***. [Accessed January 2024] Climate Change Act 2022
5. Australian Government. Department of Climate Change, Energy, the Environment and Water. 2023. ***Environment Protection and Biodiversity Conservation Act,1999***. [Accessed January 2024] DCCEEW-EPBC Act
6. NSW Government. Department of Planning and Environment, 2022. ***State Significant Infrastructure Guidelines***. [Accessed January 2024] DPIE - SSI Guidelines
7. NSW Government. Department of Planning and Environment, 2022. ***Undertaking Engagement Guidelines for State Significant Infrastructure***. [Accessed January 2024] DPIE - Engagement Guidelines for SSI
8. NSW Government. NSW Marine Management Authority. 2018. NSW Marine Estate Management Strategy, 2018-2028. [Accessed January 2024] NSW Marine Authority-Strategy 2018-2028
9. Australian Energy Market Operator. 2022. 2022 Integrated System Plan. For the national electricity market. [Accessed January 2024] AEMO-ISP 2022
10. Australian Government. 2023. Offshore Renewables Environmental Approval. Revision 2. [Accessed January 2024] OIE-OS Renewables Approvals-V2--2023
11. BlueFloat Energy. 2023. South Pacific Offshore Wind Project Application to EPBC. [Accessed January 2024] BlueFloat-Sth Pacific OSW Project Application
12. Australian Government. Department of Climate Change, Energy, the Environment and Water. 2024. Biologically Important Areas for protected marine species (BIAs). [Accessed January 2024] DCCEEW-BIAs-Illawarra
13. Australian Government. Department of Climate Change, Energy, the Environment and Water. 2021. Grey Nurse Shark (Carcharias taurus), Legislative protection. DCCEEW-Grey Nurse Shark
14. Surfing Reserves. 2024. Killalea. [Accessed January 2024] Surfing Reserves-Killalea

15. NSW Government. Department of Planning and Environment. 2005. Five Islands Nature Reserve Plan of Management. [Accessed January 2024] NSW DP&E - 5Islands Nature Reserve.

16. NSW Government. NSW National Parks & Wildlife Service. 2020. Hunter Wetlands National Park. Plan of management. [Accessed January 2024] NSW National Pks & Wildlife-Hunter Wetlands

17. Commonwealth of Australia. Australian Marine Parks. 2024. Hunter Marine Park. [Accessed January 2024] Parks Australia-Hunter Marine Park

18. Surfing Reserves. 2024. Merewether. [Accessed January 2024] Surfing Reserves-Merewether

19. Bärfuss, K., Schulz-Stellenfleth, J. & Lampert, A. 2021. The Impact of Offshore Winds Farms on Sea State Demonstrated by Airborne LiDAR Measurements, Journal of Marine Science and Engineering, [Accessed January 2024] https://doi.org/10.3390/jmse9060644

20. Porchetta, S., Muñoz-Esparza, D., Munters, W., van Beeck, J. & van Lipzig, N. 2021. Impact of ocean waves on offshore wind farm power production. Renewable Energy, 180, 1179-1193. https://doi.org/10.1016/j.renene.2021.08.111

21. Owda, A. & Badger, M. 2022. Wind speed variation mapped using SAR before and after commissioning of offshore wind farms. Remote Sensing, 14, 1464. https://doi.org/10.3390/rs14061464

22. Fischereit, J., Lársen, Z.G. & Hahmann, A.N. 2022. Climatic impacts of Wind-Wave-Wake Interactions in Offshore Wind Farms, Frontiers in Energy Research, 10. https://doi.org/10.3389/fenrg.2022.881459

23. Destination NSW. 2024. Wollongong and Surrounds. [Accessed January 2024] Visit NSW-Illawarra

24. CSIRO. 2022. What is the value of a wave? How changes to our coastline could wipe out surfing's benefits. [Accessed January 2024] CSIRO-surfing & wave changes

25. Wollongong City Council. 2022. Economic Profile. [Accessed January 2024] WCC-Tourism &Jobs

26. NSW Government. Department of Regional NSW. 2023. Shellharbour Regional Economic Development Strategy – 2023 Update. [Accessed January 2024] Dept Regional NSW-Shellharbour Strategy 2023

27. Kiama Municipal Council. 2024. Economy, jobs and business insights. [Accessed January 2024] Kiama-Jobs

28. Destination NSW. 2024. South Coast Visitor Profile. Year ended March 2023. [Accessed January 2024] South Coast Visitor Profile

29. Lutzeyer, S., Phaneuf, D.J. & Taylor, L. 2018. The amenity costs of offshore wind farms: Evidence from a choice experiment. *Energy Economics*, 72, 621-639. https://doi.org/10.1016/j.eneco.2018.03.020

30. Gibbons, S. 2015. Gone with the wind: Valuing the visual impacts of wind turbines through house prices. Journal of Environmental Economics and Management, 72, 177-196. https://doi.org/10.1016/j.jeem.2015.04.006

31. The University of Rhode Island. 2020. What Sounds are Associated with the Construction and Operation of Offshore Wind Farms & How Far Do These Sounds Travel? [Accessed January 2024] Rhode Is Univ-OSW sounds

32. NSW Government. Department of Planning, Industry and Environment, 2021. NSW Hydrogen Strategy. Making NSW a global hydrogen superpower. [Accessed January 2024] NSW Hydrogen Strategy

33. Zainal, B.S., Ker, P.J., Mohamed, H., Ong, H.C. , Fattah, I.M.R., Ashrafur Rahman, S.M., Nghiem, L.D. & Indra Mahlia, T.M. 2023. Recent advancement and assessment of green hydrogen production technologies. Renewable and Sustainable Reviews, 189 (2024) 113941. https://doi.org/10.1016/j.rser.2023.113941

34. The Royal Society. 2021. The role of hydrogen and ammonia in meeting the net zero zero challenge. Climate Change: Science and Solutions. Briefing 4.

35. Government of South Australia. 2023. Media Release. South Australian Government opposes southern ocean offshore windfarm zone. [Accessed January 2024] SA Govt-Oppose OSW

36. Australian Energy Market Operator. 2023. 2023 Transmission Expansion Options Report. For the integrated system plan (ISP). [Accessed January 2024] AEMO-Expansion

37. NSW Government. Department of Planning and Environment, 2023. ***NSW Coastal Design Guidelines for 2023. For a thriving and resilient coast***. [Accessed January 2024] DPIE- Coastal Design Guidelines

From:	Department of Planning Housing and Infrastructure
To:	DPE PS ePlanning Exhibitions Mailbox
Cc:	DPE Energy and Resources Policy Mailbox
Subject:	Webform submission from: Draft energy policy framework
Date:	Monday, 29 January 2024 11:57:45 PM
Attachments:	humelink-alliance---draft-transmission-guideline_final.pdf

Submitted on Mon, 29/01/2024 - 23:55

Submitted by: Anonymous

Submitted values are:

Submission Type
I am submitting on behalf of my organisation

Name

First name
Andrea

Last name
Strong

I would like my name and personal contact details to remain confidential
No

Info

Email
[redacted]

Suburb/Town & Postcode
Gunning 2581

Please provide your view on the project
I object to it

Submission file
humelink-alliance---draft-transmission-guideline_final.pdf (1021.27 KB)

Submission
Please see submission attached

I agree to the above statement
Yes

Submission on the Draft Transmission Guideline
by HumeLink Alliance Inc, January 29, 2024

1. Introduction

We welcome the opportunity to comment on the Draft Transmission Guideline. The Draft Transmission Guideline says 4,000 kilometres of new transmission lines is required in NSW, as we transition to net zero emissions, over the next two decades. Therefore, is it critical to get the Transmission Guideline right.

It's stated that:

'New transmission infrastructure is required to connect renewable energy sources to the electricity grid and to ensure NSW is supplied with the cleanest and most affordable energy into the future.'

If NSW is to be supplied with the 'cleanest' energy into the future, environmentally responsible transmission as well as generation is needed.

Undergrounding transmission is environmentally responsible transmission. Engineers are telling us that there have been major advances in underground cabling technology, it is entirely feasible and the world is looking on in disbelief as Australia builds more overhead transmission lines.

Governments overseas have come to the conclusion, when you take into account all the environmental costs of overhead transmission lines, undergrounding is the least-cost long run option.

The cost-benefit analysis in the national electricity market (NEM) fails to assess all the costs of overhead transmission, which is resulting in decisions about projects that are inefficient. It is critical that the Transmission Guideline addresses this fundamental policy failure.

This and other aspects of the Draft Transmission Guideline are discussed below.

2. Failure to encourage undergrounding transmission

The Draft Transmission Guideline is very disappointing in its consideration of the option of undergrounding transmission in rural areas, as:

i. It fails to address the fact that environmental externalities (indirect environmental and community costs) are omitted from the assessment of transmission options, which is necessary for efficient outcomes in the NEM; and
ii. It is dismissing undergrounding as an option for rural transmission, referencing the politicised Parliamentary Inquiry Standing Committee report.

2.1. Omission of environmental externalities and inefficient outcomes in the NEM

One of the objectives of the Draft Transmission Guideline is *'to support the….efficient roll-out of major transmission infrastructure projects.'*

However there is a major failure in the current rules of the NEM which means that the current assessment of projects is not leading to the '*efficient roll-out of major transmission infrastructure projects'*. The Draft Transmission Guideline does nothing to address this failure.

NSW Government cost-benefit analysis guidelines require all first round direct and indirect impacts be assessed for projects costing more than $10 million (TPP17-03 NSW Government Guide to Cost-Benefit Analysis). And yet in the NEM decisions are being made about transmission projects, worth billions of dollars, without including all the indirect environmental and social costs. It would be one thing if these costs were insignificant, confined and short-lived but the impacts are massive, span for kilometres and last for generations – 80 to 100 years.

When transmission projects get to the Environmental Impact Statement (EIS) stage, the NSW Government Guide to Cost-Benefit Analysis applies[1], externalities must be included and an assessment of State benefit of the project is required[2]. This inconsistency between the NEM project assessment and the NSW EIS is a major policy failure. It is leading to inefficiencies and inequities and must be addressed. By the time the project plan gets to the EIS stage, it's very difficult to make significant project design changes, because of community and environmental costs, and the project is pushed through, irrespective of merit and environmental consequences. The Australian Energy Infrastructure Commissioner (AEIC) recognises the failures of the current system when he says the current NEM rules 'are not fit for purpose'.

All project costs need to be taken into account early in transmission planning stages, at the stage of the Integrated System Plan (ISP) and the regulatory investment test for transmission (RIT-T), when assessing the optimal development path and transmission options. While quantifying such costs may be difficult, requiring the expertise of environmental economists, assuming these costs are zero is not the answer, and is leading to inefficient outcomes in the NEM.

If environmental and social cost are taken into account, different energy market investments would be made. Instead of:

- tens of thousands of kilometres of overhead transmission lines;
- large water batteries remote from load centres, like Snowy 2.0; and
- renewable energy zones dispersed geographically, long distances from load centres;

there would be:

---

[1] Transgrid states in the HumeLink EIS Scoping Report: '*[t]he methodology for the economic impact assessment will be guided by the TPP17-03 NSW Government Guide to Cost-Benefit Analysis*', HumeLink EIS Scoping Report Reference: 507179-160522-REP-NN-001 (the Scoping Report).

[2] The Planning Secretary's Environmental Assessment Requirements (SEARs) for the HumeLink project has as the key economic 'test' for State approval '**an *assessment of the benefits of the project for the region and the State as a whole*** *(*HumeLink transmission project, Planning Secretary's Environmental Assessment Requirements (Section 5.16 of the Environmental Planning and Assessment Act 1979), p2).

- underground transmission;
- lithium-ion battery storage close to the urban load centres;
- a concentration of renewables in regions where transmission infrastructure already exists, such as where coal fired power stations are shutting down;
- off-shore windfarms close to coastal urbanisation; and
- more rooftop solar.

As a consequence of omitting environmental and social costs from the NEM Rules, the environment is left severely damaged. The balance between the environment and essential infrastructure is lost.

2.2. RIT-T omitting environmental externalities

While the RIT-T is described as a cost-benefit analysis of a transmission project, it doesn't determine the cost-benefit of the project to the State as it ignores critical externalities.

See below an excerpt from AER's *Application guidelines Regulatory investment test for transmission* that illustrates the problem for communities and the environment in the case of **a new generator** – a gas-fired power station.

Example 20: Externalities

Negative externality

Assume a credible option is a local gas-fired peaking generator, planned for development in close proximity to an existing hotel. The RIT–T proponent expects the development of the generator will reduce the nearby hotel's annual earnings (due to a loss of visual amenity). The present value of this loss is $15 million.

In this example, the $15 million cost borne by the hotel's proprietor is a negative externality. While the development of the gas-fired peaking generator drives this cost, the generator's developer will not incur the cost. It is therefore not part of the credible option's costs.

Source: AER, Application guidelines Regulatory investment test for transmission, December 2018

This is one power station at one point. A transmission line travels for hundreds of kilometres and these costs are being left out. If this $15m cost occurs every kilometre for HumeLink, now 385km long, that's an extra cost of $5.775 billion for the project ($15m x 385km = $5.775b). The cost of the HumeLink overhead option is now around $5.2 billion + $5.772 billion (externalities left out) = $10.975 billion.

2.3. Dismissing undergrounding based on the politicised Parliamentary Inquiry Standing Committee report

The Parliamentary Inquiry Standing Committee report dismissed undergrounding on the basis of a false and misleading facts about undergrounding (cost, land disturbance, no bushfire benefits, no benefits to agricultural productivity, etc).

The Draft Transmission Guideline takes Parliamentary Inquiry Standing Committee report as fact, and doesn't acknowledge the dissenting statements of committee members of the Standing Committee or the fact that 4 of the 8 members Standing Committee didn't support the recommendations of the Parliamentary Inquiry. Further the Transmission Guideline fails to acknowledge, because of the bias in the Parliamentary Inquiry, that a new Select Committee Inquiry is currently looking again at the issue of undergrounding transmission.

In establishing the new inquiry Cate Faehrmann, said:

"During the previous Inquiry, every witness we heard from, bar Transgrid, opposed overhead transmission lines.

"I'm expecting that this Inquiry will be able to forensically examine the cost and benefits of undergrounding transmission lines compared to building them as overhead lines. We'll also give much more consideration as to how to ensure transmission lines built today can withstand more frequent and extreme weather-related events, particularly floods and fires.

"It's clear that Transgrid has no social licence to build Humelink with overhead transmission lines yet the Government controlled the numbers to produce a report that made findings and recommendations to the contrary.

The statements of the dissenting members of the Standing Committee need to be taken into account in the Transmission Guideline.

Also a review of international policies and practices for assessing the cost-benefits of transmission needs to be undertaken. At the international transmission CIGRE symposium in Paris in September 2023, engineers reported that there has been a significant shift internationally and now even the least environmentally progressive governments are taking ALL community and environmental costs into account when assessing transmission projects.

2.4. Reasons given in the politicised parliamentary inquiry for not undergrounding HumeLink

The serious problems with the existing transmission planning system are not being addressed and corrected by the Draft Transmission Guideline.

In the case of the HumeLink project the Parliamentary Inquiry Standing Committee concluded:

> *'In relation to HumeLink, ultimately, the committee found that the current plan for constructing HumeLink as an overhead line is the correct approach, especially given the applicable regulatory environment and the lack of any action to date in progressing the undergrounding option.'*

This is saying HumeLink shouldn't be underground, not because undergrounding isn't the best solution for the environment and communities, but rather because of the:

1. Existing flawed regulatory framework; and
2. The failure to look at undergrounding early in the project planning.

The obvious solution to these barriers to undergrounding transmission is to:

1. change the regulatory framework so it's consistent with NSW government cost-benefit guidelines for assessing projects and includes environmental externalities; and
2. have undergrounding as the default for all rural transmission so this option is carefully considered at the outset, and only dismissed if not feasible or it will result in a lesser environmental outcome.

The Transmission Guideline should be recommending changes to the NEM rules, and the RIT-T cost-benefit analysis, so that all costs to the environment and communities are taken onto account early when assessing project options, and that the default is underground rather than overhead transmission when any new transmission is planned in NSW.

3. The Draft Transmission Guideline statement on undergrounding

Comments in the section '6.2 Undergrounding' of the Draft Transmission Guideline are discussed below.

3.1. '*cost of installing and maintaining underground transmission infrastructure can vary substantially based upon site-specific conditions, the type of technology used and the method of installation, but is at least double the cost of above ground infrastructure.*'

This statement is incorrect. The Amplitude Review of the GHD/Transgrid HumeLink undergrounding study indicates that the cost of undergrounding HumeLink could be done for a cost of $5.46 - $7.3 billion, compared to a cost of $5.2 billion[3] for the overhead option. This is a construction cost multiple of 1.05 to 1.4, with significant and enduring environmental and community benefits.

Also the Amplitute Review indicated that the cost of maintaining an underground option would be significantly less – opex for undergrounding at $15m/year versus opex for overhead lines at $177m/year overhead (overhead opex 3.4% of capex ($5.2b x 0.034 = $177m). Opex at 3.4% of capex is Transgrid's current practice. Transgrid is the least efficient Transmission Network Service Provider (TNSP).

The Amplitude Review also identified efficiencies from less losses with undergrounding.

3.2. *'The cost of installing and maintaining transmission infrastructure is passed on to consumers and is therefore an important factor in route selection and project design.'*

The objective of NSW government isn't the least cost electricity to consumers, it is least cost electricity for the State as a whole. Overhead transmission is causing enormous costs to communities

[3] $4.892 billion as quoted in AEMO's 2023 Transmission Expansion Options Report plus $275 million for the recently announced 25km Batlow deviation.

and the environment. For the efficient and equitable roll out of new transmission, all these costs need to assessed.

As stated above, governments overseas have come to the conclusion, when you take into account all the environmental costs of overhead transmission lines, undergrounding is the least-cost long run option.

The costs with overhead transmission lines of increased risk with bushfires, increased loss of biodiversity, increased risk with severe weather, reductions in productivity of agriculture, deterred regional development, lost tourism, lost landscapes of great natural beauty for the next 80 – 100 years, noise exceeding EPA limits at dwellings, increase health risk with EMF, need to be taken into account when assessing options.

Damage caused by bushfires and severe weather to transmission lines isn't factored into the cost of options. Rather when transmission lines are damaged by bushfires and severe weather Transgrid simple puts in a 'Cost Pass Through Applicatio'n to the AER and consumers pay for the repairs[4].

Further there is no compensation to communities if overhead transmission lines come down in severe weather or the presence of overhead transmission lines prevent the control of bushfires.

2016 South Australian blackout cause by transmission lines coming down in severe weather was estimated to cost businesses $**360 million.**

Bushfire have enormous costs to communities, the environment and the State. Firefighters on the ground say overhead transmission lines prevented the control of the Dunns Road fire in the 2019-20 Black Summer bushfire season. The fire went on to burn for two weeks with 147 homes lost and 386,000 ha burnt, including 50,000 ha of pine plantation and 20,000 ha of hardwood forest, with a value for the timber alone estimated at more than $5 billion.

These costs are not included in the assessment of underground versus overhead options.

3.3. *'Another consideration for undergrounding transmission is the surface and sub-surface disturbance associated with the installation and ongoing operation of underground infrastructure. The disruption from underground lines can be more severe than that from the construction of overhead lines3F 4 . Trenching, which is the most common and generally lowest cost method of constructing underground transmission infrastructure, typically requires removal of all above-ground vegetation as well as 1-2 metres of the ground surface.'*

These statements are incorrect and seem to be based on false and misleading information provided to the Standing Committee. The Transmission Guideline needs to be informed by independent international sources such as CIGRE, not Transgrid or AEMO that haven't been involved in building long distance HVDC underground cables.

---

[4] Transgrid's Cost Pass Through Application for the Black Summer bushfires https://www.aer.gov.au/system/files/A.1_TG%202019-20%20Bushfires%20-%20Cost%20pass%20through%20application_Final_PUBLIC_0.pdf

The environmental benefits of undergrounding are supported by environmental awards for undergrounding projects. Murraylink for instance, which runs between Berri in South Australia and Red Cliff in Victoria, was the longest HVDC line in the world for some years, at 180km, and won an environmental award https://new.abb.com/news/detail/13669/abb-power-transmission-project-wins-national-environmental-award-in-australia .

Also the GHD/Transgrid HumeLink underground study, that compared impacts of overhead lines and underground cables, reported only positive environmental impacts for the underground option post construction.

Contrary to the statement '*underground transmission infrastructure, typically requires removal of ….1-2 metres of the ground surface'* Figure 3 shows cables are buried at 1.2m.

3.4. '*While underground infrastructure typically requires a smaller easement (see Figure 3), these easements prevent other productive use of the land, such as ongoing agricultural use, which would otherwise be possible with above ground lines.'*

The statement that underground cables '*prevent the productive use of the land'* is incorrect. Studies internationally suggest that there are almost no declines in crop yield above underground cables.

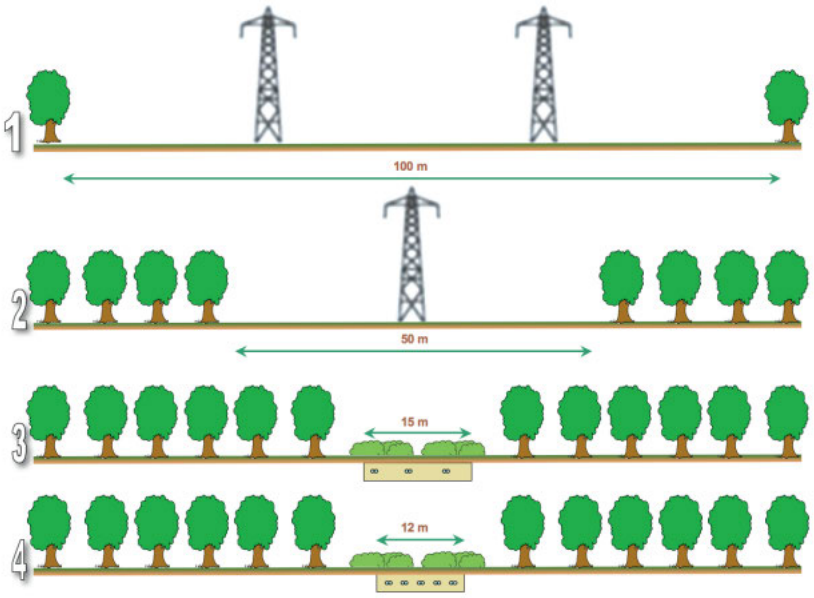
europacable

Use of land

- The only restriction on the use of land over an undergrounded section is that no deeply rooted trees may be planted within the corridor width plus a margin of about 2 meters to prevent root encroachment into the cable trench. Apart from that there are no limitations to cultivation, including agricultural farming.(see picture above)
- The laying depth of the cable systems has to be sufficient to avoid any damage to the cable trench and cables themselves by agricultural activities above the cables. The corridor must be kept free from any buildings.

Figure 1: Vegetation clearing with overhead lines and underground cables

3) Possible layouts to fulfill HVDC 5 GW power transmission requirements

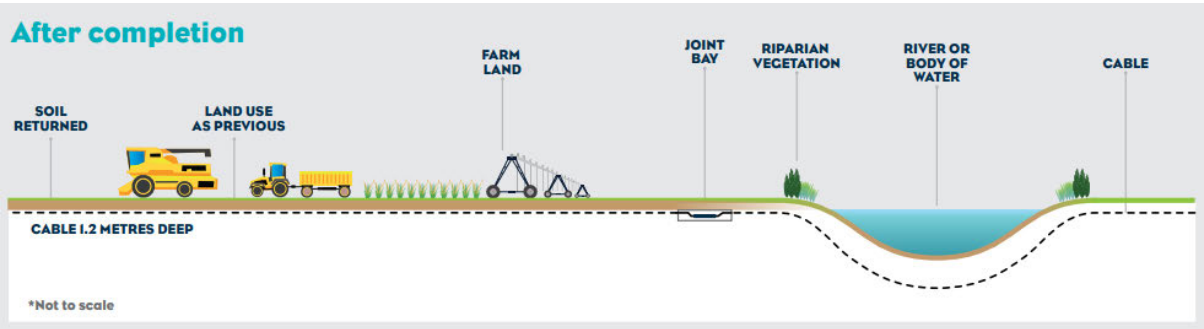


1) Overhead line at 600 kV - HVDC
2) Overhead line at 800 kV - HVDC
3) Mass impregnated cables and LCC technology: 3 bipoles at 500 kV - HVDC
4) Extruded cables and VSC technology: 5 bipoles at 320 kV - HVDC

The excerpts above are from Europacable, *An Introduction to High Voltage Direct Current (HVDC) Underground Cables,* Brussels, 10 October 2011, and indicate the only restriction of land use above underground cables is deep rooted tree. As seen in the image above all vegetation is removed under overhead transmission lines and shrubs can grow above underground cables.

This is consistent with the GHD/Transgrid HumeLink undergrounding study that provided a link to land use impacts of underground cables [Victorian-land-access-and-easement-acquisition-Marinus-Link-web.pdf (marinuslink.com.au)]

Figure 3: Land use impacts of undergrounding post laying underground cables



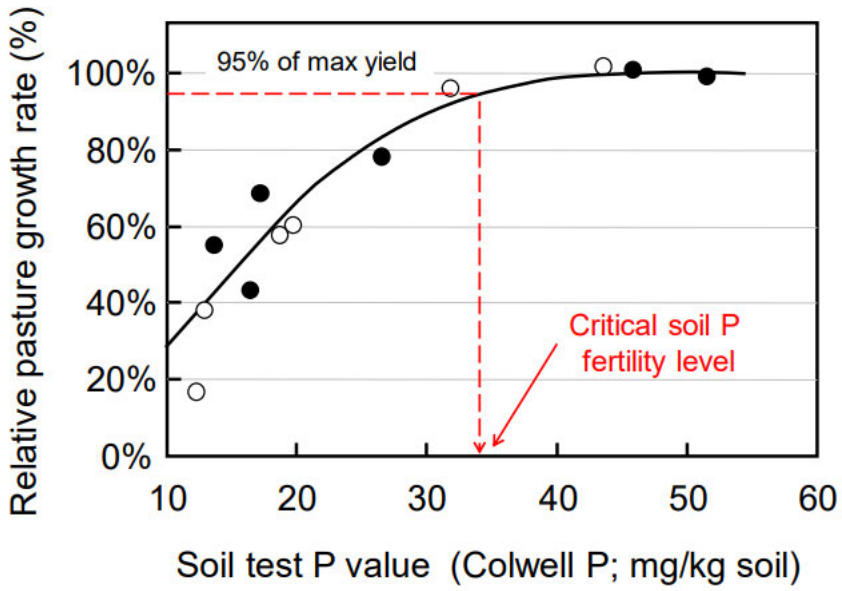
As shown in Figure 3 above, agriculture can be carried out as usual above underground cables.

The Draft Transmission Guideline also says the '*productive use of the land…..would otherwise be possible with above ground lines'.* This statement fails to acknowledge the significant impacts on the productive efficiency of agriculture as a consequence of overhead lines, including:

- a height restriction of 4.3m on farm machinery under transmission lines;
- in ability to carry out aerial operations like spreading fertilizer and spraying weeds, diseases and pests;
- in ability to use drones;
- spray irrigation not possible; and
- no precision agriculture and GPS practices.

If an agricultural operation uses aircraft for spreading fertiliser, and this cannot be done because of new transmission lines, the impacts on the productive efficiency of a farming property can be significant (see Figure 18 below).

Figure 18: Soil P value and pasture growth



Source: CSIRO, NSW Department of Planning, Industry & Environment (Department of Primary Industries), Five Easy Steps - to ensure you are making money from phosphorus fertiliser, 2020.

Pasture growth rate can be reduced from 95% with fertiliser, to 30% without fertiliser where soils are naturally infertile. Agricultural operations will therefore potentially have their productivity more than halved if they are unable to fertiliser their pastures.

There are also a number of pests, diseases and weeds that are controlled by aerial spraying that cause significant production losses. Overhead transmission lines can prevent the ability to undertake aerial spraying.

Figure 4 below shows a comparison of overhead and underground cables in the landscape showing the significant visual and landscape character benefits of underground cables, as well as an indication of the impediment overhead lines impose on the productive efficiency of agriculture.

Figure 4: Comparison of the visual impact of overhead and underground cables

Decisions about transmission infrastructure need to be made on the basis of the facts not false information.

3.5. *'Once installed, the land above underground transmission infrastructure must be also kept clear of vegetation so that access can be provided for excavation in the event of a fault or any other maintenance requirement. In such an event, locating and repairing underground cables can be a complex and time-consuming exercise, requiring highly specialised equipment and expertise.'*

It is not the case that once installed '*underground transmission infrastructure must be also kept clear of vegetation',* see Figure 1 above.

It is stated that '*repairing underground cables can be a complex and time-consuming exercise, requiring highly specialised equipment and expertise'*. However it needs to be noted that underground cables are more reliable than overhead lines. Murraylink, for instance, which runs between Berri in South Australia and Red Cliff in Victoria, was the longest underground HVDC line in the world for some years, at 180km. Until recently Murraylink had only failed twice in 20 years – once at commissioning and one other time.

While it can take longer to repair underground cables (one to two weeks), finding the faults is now very quick with probes. The very long times to repair cables, often quoted, is frequently referring to submarine cables.

Further underground systems are built with redundancy so that if one cable fails the other cables can take the load. The Amplitude Review designed the undergrounding of HumeLink with N-1 (less 700MW) redundancy, consistent with undergrounding options considered in the GHD/Transgrid HumeLink undergrounding study.

If an overhead transmission line tower is taken out by severe weather or a bushfire all circuits are lost, and thousands of consumers may lose power for days. Repairing overhead lines also requires '*highly specialised equipment and expertise'.*

4. Comparison of impacts of overhead lines and underground cables

A study by the International Council on Large Electrical Systems, or CIGRÉ, shows the environmental impacts of concern from overhead transmission lines and underground cables (see Figure 2 below).

Figure 2: Impacts of concern from overhead transmission lines and underground cables

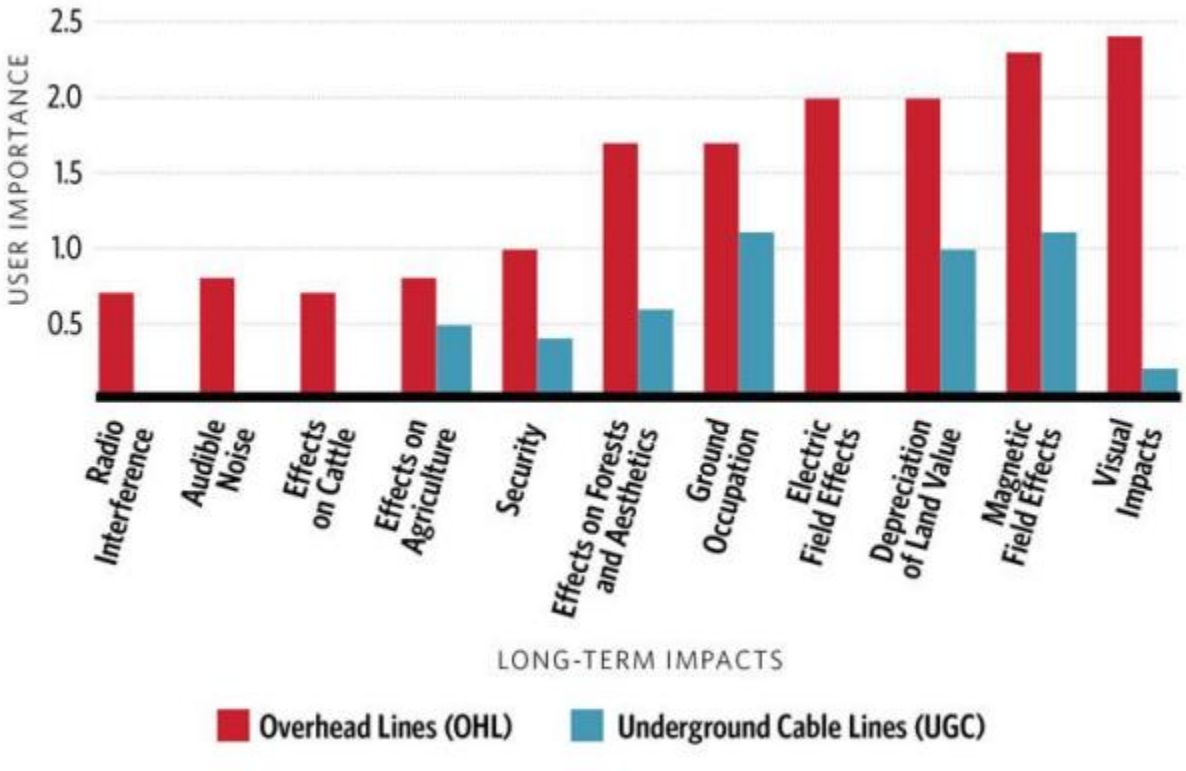


Figure 2: Source - CIGRÉ as referenced by HDR https://www.hdrinc.com/insights/top-5-reasons-use-underground-transmission-lines

In all cases overhead lines have greater negative impacts than underground cables. One factor not assessed for 'user importance', in the study above, is "bushfire risk", which is a major concern in regional areas of Australia. Underground cables provide an important benefit of eliminating the risk of starting and controlling bushfires.

5. Consideration of impacts of transmission lines

5.1. Visual and landscape character assessment

We welcome that the *Draft Transmission Guideline - Technical Supplement for Landscape and Visual Impact Assessment* provides some consideration of visual amenity but argue that, in the case of a farming property, the whole farm is the home and an assessment of the visual impacts cannot be confined to the dwelling.

The problems with the lack of assessment of visual impacts in the HumeLink project are obvious with route refinement decisions by TransGrid, supported by the fact sheet – HumeLink Route Options Assessment - Final Report. The fact sheet says for the route assessment, independent consultants GHD, completed a multi-criteria analysis (MCA), 'using GHD's GIS-based methodology known as the 'InDeGO' method (Infrastructure Development – Geospatial Options) to quantitatively assess the preferred route subject to the least constraints. InDeGO assigns a score to each route based on the length of the route that overlays relevant constraints and the rating of the constraint. The higher the score, the higher the enviro-social impact'. (HumeLink Route Options Assessment - Final Report, GHD, March 2022, p3).

This InDeGO method purports to assess the 'enviro-social impact' and yet it omits visual impacts, the most important impact of concern for communities, as identified by a CIGRE overseas study. As a consequence of this InDeGO analysis, the now preferred route will have HumeLink running along a ridge above the township of Tumut, with the locals saying instead of Snowy Valleys, the region will now be known as Ugly Valleys.

5.2. Noise impacts of overhead lines

There is no mention of the significant corona effect noise impacts of overhead lines. The HumeLink EIS states:

> *Noise emissions from the operation of the project high voltage transmission lines has been assessed in terms of offset distance from the project footprint where audible noise is expected to exceed the adopted night-time PNTL [*Project Noise Trigger Levels] *with worst-case noise producing weather conditions, such as wet weather. The assessment considers the cumulative noise contribution of the project transmission line and existing parallel transmission lines where appropriate.*
>
> *The assessment conservatively assumes that the transmission line may be anywhere within the project footprint, with consideration of a 70 metre minimum easement. The distance at which operational transmission line noise impacts are expected varies across the project but is generally around 350 metres.*
>
> *Up to a total of 65 receivers have been identified to potentially have operational transmission line noise impacts based on worst-case conditions. At the edge of the easement, the worst-case noise levels for the majority of potentially impacted receivers is expected to be around 2 dB to 4 dB above night-time trigger levels with the highest exceedance being up to 15 dB above night-time trigger levels.*

As the noise of HumeLink will exceed noise limits enforced by the NSW Environmental Protection Authority (Noise Policy for Industry (EPA, 2017)), at 65 dwellings, the noise impacts of the project are significant. Noise needs to be considered in the Transmission Guideline.

5.3. Electro-Magnetic Fields (EMF)

In relation to EMF and undergrounding transmission to reduce EMF exposure, the National Institute for Public Health and the Environment, *National precautionary policies on magnetic fields from power lines in Belgium, France, Germany, the Netherlands and the United Kingdom,* RIVM Report 2017-0118, states:

> *Scientific research points to a possibly increased risk of childhood leukaemia in children who live near overhead power lines. Because of statistical uncertainties and the fact that the disease mechanism is not known, it is not clear whether the magnetic fields of the power lines are the cause. Out of precaution, the Netherlands and several other European countries have developed policies several years ago that aim to reduce the exposure to magnetic fields from new power lines. Different countries deal in different ways with the uncertainties in the available knowledge and strike a different balance between scientific evidence and social, economic and political arguments,* (p3).

A number of countries overseas are undergrounding transmission close to dwellings because of a precautionary principle and the association between exposure to electro-magnetic fields from high-voltage transmission lines and childhood cancer.

The Draft Transmission Guidelines fails to acknowledge that countries overseas are using the precautionary principle to restrict the proximity of transmission lines to dwellings.

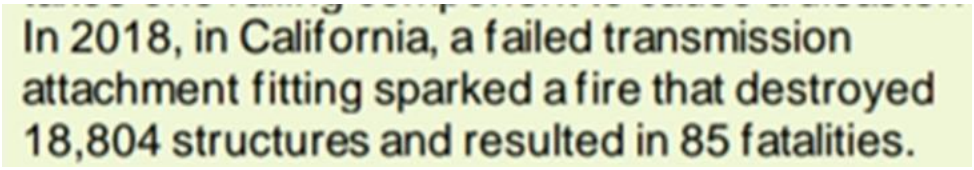
5.4. Bushfire

5.4.1. Transmission lines starting bushfires

The Draft Transmission Guideline says:

> *'When planned and maintained properly, high voltage overhead transmission lines do not pose a risk of igniting bushfires'.*

However the Camp Fire in California was caused by a transmission line. It killed 85 people and destroyed 18,804 structures.



Transgrid, *2023-28 Revised Revenue Proposal*, December 2022, p92.

In their *2023-28 Revised Revenue Proposal*, December 2022, Transgrid says:

> *We are proposing to invest $61.5 million to replace 60-year-old, corroded towers and the conductor on transmission line 11, which links Dapto to Sydney South substation – a key link between generation in Southern NSW and the Sydney load centre. This investment will*

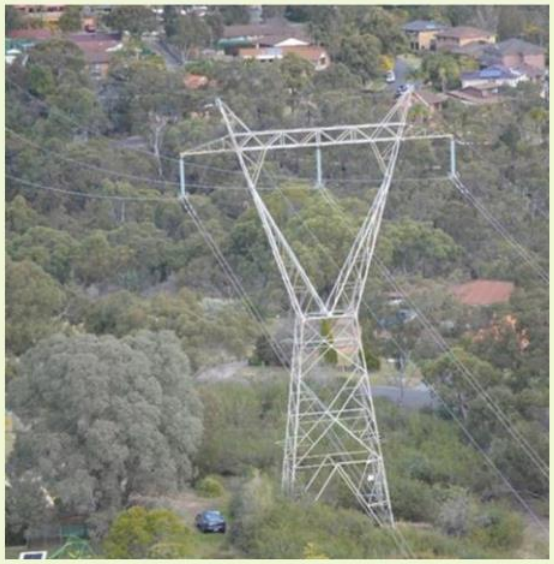
address condition issues on the transmission line, ***avoiding the risk of a failed component sparking a fire in this bushfire danger zone****….*

*Line 11 runs through coastal areas, where towers, conductors, insulators and attachment fittings are at greater risk of corrosion****. It only takes one failing component to cause a disaster.*** *In 2018, in California, a failed transmission attachment fitting sparked a fire that destroyed 18,804 structures and resulted in 85 fatalities. Damages attributed to the network operator ran into billions of dollars.*

Replacement to avoid bushfire risk

We are proposing to invest $61.5 million to replace 60-year-old, corroded towers and the conductor on transmission line 11, which links Dapto to Sydney South substation – a key link between generation in Southern NSW and the Sydney load centre. This investment will address condition issues on the transmission line, avoiding the risk of a failed component sparking a fire in this bushfire danger zone. This part of Southern Sydney and the Illawarra has a history of severe bushfires.

Line 11 runs through coastal areas, where towers, conductors, insulators and attachment fittings are at greater risk of corrosion. It only takes one failing component to cause a disaster. In 2018, in California, a failed transmission attachment fitting sparked a fire that destroyed 18,804 structures and resulted in 85 fatalities. Damages attributed to the network operator ran into billions of dollars.



Source: Transgrid, *2023-28 Revised Revenue Proposal*, December 2022, p92.

It is also worth noting that the recent devasting Hawaiian fires are believed to be started by powerlines. Hawaiian Electric Knew of Wildfire Threat, but Waited Years to Act https://www.wsj.com/articles/wildfire-risk-maui-hawaiian-electric-7beed21e

In July 2021 California announced it will bury 10,000 miles of overhead power lines to reduce the risk of wildfires, at a cost of between $15 to $30 billion. When asked about the cost the CEO said "It's too expensive not to do it. Lives are on the line," https://www.npr.org/2021/07/21/1019058925/utility-bury-power-lines-wildfires-california .

Also the Bushfire Red Hat Review for the HumeLink project by Brendan Nelson recommended undergrounding transmission in bushfire prone land.

Further AEMO defined a criterion in the 2020 ISP of 'do no harm'.

'• Do no harm – ensuring that any new infrastructure does not lead to unsustainable deterioration in grid resilience. Building additional transmission lines along a bushfire prone

transmission corridor would be an example of resilience deterioration', AEMO 2020 | 2020 ISP Appendix 8. Resilience and Climate Change, p14-15.

As a significant proportion of the HumeLink corridor is in bushfire prone land, not undergrounding is leading to 'resilience deterioration'.

5.4.2. Transmission lines preventing bushfire control

The Draft Transmission Guideline states:

> *'In the event of a bushfire, transmission lines can be quickly shut down for safety reasons (if deemed necessary by the Rural Fire Service). This greatly reduces the risk of fire spreading and causing significant damage to infrastructure and also allows on-ground and aerial firefighting activities to be carried out with significantly less risk.'*

Fire captains have said in bushfire situations they have requested that transmission lines be turned off and they have been unable to get lines turned off which has resulted in bushfires getting out of control. As stated above, the 2019 Dunns Road fire was 400 ha and potentially controllable when a call went out to get the transmission lines turned off. The line wasn't turned off and that fire went on to burn 386,000 ha and destroy 147 dwellings

Overhead transmission lines are a hazard to aerial firefighting even when the lines are turned off.

5.5. Regional development impacts

Overhead transmission lines are destroying areas as desirable places for lifestyle farmers – a growth sector for regional economies located two to three hours from major cities. Lifestyle farmers have invigorated and brought prosperity to many regional and local businesses. By not using environmentally sensitive transmission infrastructure solutions such as undergrounding, this important economic stimulus for rural areas is being lost.

The NSW Budget 2023-24 included '$1.8 billion in new regional investment to build on the strengths of the regions….and improve….quality of life in our rural and regional communities' https://www.budget.nsw.gov.au/2023-24/budget-papers/regional-nsw#:~:text=This%20budget%20includes%20%241.8%20billion,our%20rural%20and%20regional%20communities.

Overhead transmission lines, which is taking liveability, workability and beauty from regions, are directly undermining this investment in regional NSW.

5.6. Tourism impacts

Tourism is affected by overhead transmission lines. Tourism is a major growth industry for regional NSW, with the number of visitors increasing 41% from 2014 to 2019 and expenditure of $14.3 billion in 2019. The NSW Office of Regional Development says 'More people visit NSW than any other state and territory in Australia. Visitors are drawn to the vibrant city of Sydney and the region's **natural landscapes**, and famous food, wine and beverages (emphasis added)'.

Also 'The Snowy Mountains in the South East and Tablelands region has been selected as an iconic location to promote regional Australia…….' https://www.investregional.nsw.gov.au/sectors/tourism/

Overhead transmission lines are impacting landscapes of great natural beauty in the Snowy Mountains and Tablelands regions, that have been specifically selected as **iconic** location to promote regional Australia. They are damaging to the natural asset (landscapes of great natural beauty) that is the drawcard for visitors to regions.

Overhead transmission lines will harm tourism, an important growth industry for many regions.

5.7. Biodiversity

The biodiversity offsets policy under the Environment Protection and Biodiversity Conservation Act (EPBC Act) also requires that all avoidance and mitigation measures be undertaken before offsets will be considered. Undergrounding with a much smaller easement, and no towers or wire posing an electrocution and collision hazard, is a means to avoid loss of biodiversity.

5.8. System security

The Department of Home affairs says: 'The Security Legislation Amendment (Critical Infrastructure Protection) Act 2022 (SLACIP Act) came into effect on 2 April 2022….. [T]he SLACIP Act seeks to make risk management, preparedness, prevention and resilience, business as usual for the owners and operators of critical infrastructure assets'.

Actionable projects in the Integrated System Plan – (Marinus, VNI West (via Kerang), and ***Humelink****), have been* being declared transmission of national significance.

There are significant security risks for the grid with HumeLink as a 500kV double circuit overhead line, paralleling existing 330kV overhead lines in high-risk bushfire prone areas. Undergrounding HumeLink will eliminate the risk of interruption to power transmission in severe weather events and/or bushfires and therefore improves transmission security and resilience as required under the SLACIP Act

5.9. Route analysis

Route analysis needs to be regulated with clear guidelines so communities have some recourse when failures occur.

Route options for both underground cables and overhead lines need to be considered concurrently.

For overhead transmission line route analysis to be possible, mapping of prime agricultural land and landcare projects needs to undertaken, so these areas can be avoided by projects. It is particularly important that agricultural irrigation areas are avoided by overhead transmission lines.

5.10. Consultation

Consultation also needs to be regulated with clear guidelines so communities have some recourse when failures occur.

Communities need to be resourced with considerable funds so they are able to engage consultants and undertake independent expert studies to inform consultation with TNSP. Currently consultation comes across as: “let’s not tell them what we’re doing and hope they don’t catch on until it’s too late”.

6. Conclusion

A recent poll by the Guardian said that 70 per cent of people believed the transition to net zero shouldn’t be at the expense of communities and the environment. Also 65 per cent of people were against overhead transmission lines. It is important to take the opinions of the people of Australia into account when developing a Transmission Guideline. Overhead transmission lines cause enormous harm to communities and the environment.

The current rules of the NEM mean that transmission projects have enormous costs to communities and environmental costs. The rules of the NEM must be changed so the cost-benefit analysis of projects include all first round direct and indirect costs, consistent with NSW Government cost-benefit analysis and consistent with ensuring projects have a State benefit. This is also necessary for efficient outcomes in the NEM.

Much of the information presented in the Draft Transmission Guideline on undergrounding transmission is incorrect. This needs to be reviewed and corrected.

Submissions to the Parliamentary Inquiry into undergrounding transmission said the length of current overhead projects are increasing, in an effort to avoid impacts communities, and undergrounding could reduce the length of current transmission projects by 500km, with a saving $4 billion. Also once a HVDC backbone is established in the NEM, there are considerable economies of scales as the same converter stations can be used for multiple projects.

There is an urgent need to independently review international policies and practices with undergrounding transmission. Australia is lagging behind best practice overseas. We need environmentally responsible transmission, as well as generation, as we transition to net zero emissions.

In the Transmission Guideline, we urge you to have:

1. Undergrounding as the default when looking at transmission options in NSW; and
2. All the costs (all first round direct and indirect costs, including costs to communities and the environment) of transmission options included early on in the planning stages of transmission projects – in the cost-benefit analysis of AEMO's Integrated System Plan and in the RIT-T undertaken by Transgrid. Including all costs when assessing transmission options is essential to achieving efficient outcomes in the national electricity market.

January 29th 2024

To: NSW Government Department of Planning's – Draft Energy Policy Framework

On behalf of Climate Action and Sustainable Living Armidale (SLA) and our focused action group Renewable Energy, Education, Advocacy and Community Health (REEACH), we thank you for the opportunity to provide feedback on the NSW Government Department of Planning's – Draft Energy Policy Framework and the following guidelines:

- Wind Energy Guideline,
- Transmission Guideline,
- Solar Energy Guideline Updates,
- Benefit Sharing Guideline,
- and Private Agreement Guideline

Our submission and Recommendations are focused particularly on achieving the outcomes of effective and honest community engagement and long-term community benefits. We are recommending a public policy framework that is cognizant of and accountable to facilitating what is currently an infrastructure construction project under the Department of Planning into a regional development project.

This regional development project would be one attendant to local voices, a partnership approach across developers, government agencies and communities and with consultation with communities early in project design to facilitate the outcomes indicated above. At the same time they would identify and accommodate regional environmental priorities and environmental enhancement opportunities.

Our Recommendations apply to all of the Guidelines in the Energy Policy Framework where relevant however exactly where each Recommendation should be incorporated has not been determined in this submission. We hope that the Recommendations can be incorporated or added into the draft Framework.

Who are REEACH?

In September 2022, we formed an action group called Renewable Energy, Education, Advocacy and Community Health (REEACH). This grew out of the Climate Action group of Sustainable Living and Climate Action Armidale and with a specific focus on engaging with Renewable Energy development on the ground living in the activated New England Renewable Energy Zone (NE REZ).

The objectives of REEACH includes renewable energy education and literacy, advocacy, community benefit, community ownership, and community resilience. We are about enabling/promoting good action locally, facilitating community engagement from ordinary citizens in public policy and with a view that attention to environmental health in all decision making is the bedrock for achieving community health. See https://slarmidale.org/energy

The group aims to play both an educative and advocative role for our community and within the NE REZ. Its goal is to support a vision for renewables that will benefit our communities

and their well-being, provide opportunities for us all to participate, and ensure that the REZ will be regenerative and enhance sustainability rather than follow an extractive industry model.

The Convenor of the Renewable Energy REEACH group is Dr. Sanaz Alian - a University of New England(UNE) lecturer in Urban and Regional Planning. The group has been collaborating with the Community Power Agency (CPA) and networking and/or collaborating with Uralla ZNET, UNE Smart Region Incubator (SRI), Armidale Regional Council (ARC), NEV2030, EnergyCo, DPIE, AEMC, UNE Renewable Energy Hub, ARRA, ATG, StringyBark Ecological, the Black Gully Festival Committee and has had a monthly climate conversations stall at the PCYC Sunday markets here in Armidale.

Since its inception REEACH has made submissions to:

- ARC draft Renewable Energy Action Plan (REAP), September 2022.
- Draft Network Infrastructure Strategy for NSW prepared by EnergyCo, September 2022
- ARC draft Renewable Energy Community Benefit Sharing Framework, September 2023
- AEIC Review of Community Engagement Practices (Survey and Submissions due 5.00pm Sunday 1 October 2023- Final Report due 31st December 2023 (currently pending)

Additional actions of note

- A draft Renewable Energy Education Resource has been developed for Primary Schools year K-6.
- The group has supported and participated in the establishment of the New England Biodiversity Reference Group, facilitated by the CPA community engagement coordinator Heidi McElnea, which has developed draft recommendations for EnergyCo and prospective developers in relation to biodiversity protection along planned development and construction of transmission lines. See https://slarmidale.org/2023/08/18976
- REEACH facilitated and supported the Armidale Uniting Church's recent application to Rewiring Australia's "Electrify my Community" program (see this page).

REEACH Key Learnings September 2022 – end 2023.

Over this past year the key learnings that we have made include the following:

- The complexities as to which jurisdictions each level of Government is responsible for is at best challenging to understand and at worst confusing, unhelpful and illogical.
- Generally speaking energy literacy and understanding by the general public is not high and its development is not facilitated. People just expect to turn the lights on when there is instead here an opportunity to advance a more energy educated public who can adapt, create opportunities and efficiencies and have community ownership of and connection to the renewable energy resource transition.
- This same thinking around opportunity applies to enhancing literacy and engagement with circular economy approaches and shorter energy supply chains.

- We have come to see that the REZ involves impact and jurisdiction from:
    a) renewable energy developments that local council facilitates
    b) renewable energy developments that are deemed State significant and with a different approval and governance process
    c) An altering of the energy transmission landscape involving developments with another process.

  This development landscape is a highly complex and dense arena, and the general public see it as one **behemouth force** of energy transition. In the lack of clarity from respective government authorities the community responds with frustration accordingly. Policy needs to address this front on with a whole of region approach.
- There is a strong anti-renewable sentiment developing regionally and being nurtured by certain political interests often with a "pro-nuclear" solution. This space is often difficult to navigate and the question "how do we create a voice for engagement and problem solving" has been a stressful mental situation to be in and particularly when there has been a lack of government leadership and assistance for a proactive response. When community engagement has not been done well and when there are environmental concerns, community/social engagement concerns including First Nations concerns all coming to the forefront and utilized by anti-renewable sentiment within a "threat framework" this is a difficult space.
- In our experience the community engagement opportunities that we have found presented by EnergyCo and by DPIE have not given sufficient notice to get involved and that notice where it does appear does not come through our local government or community channels effectively if at all. There has been some improvement in the latter part of 2023 and this needs to be comprehensively built on and developed through local networks ongoing and as the renewable energy transition moves forward.
- Community engagement that we have experienced is predominantly understood by the relevant authorities as an "information" process rather than one of "involvement" or engagement in "problem solving" utilizing the local knowledge base.
- Currently and at a Federal Level and thus across States, we lack an overarching national narrative that gives households and communities the ability to see themselves as part of the energy transformation and to understand the critical need for transmission for energy security and climate action. Rather than seeing themselves as agents and beneficiaries in the transition, today people see it as something happening *to* them, their friends and families, with impacts that need to be mitigated.
- Renewable Energy Community Benefit Frameworks are a significant part of the kind of community and partnership building that we need in this context. This area needs more work – a) the governance mechanisms here need to both involve both communities and local government (not local government- or State- alone) b) the regulatory requirements from development proponents needs to establish social relationships between communities and proponents understood as e a long-term (and intergenerational) process and commitment, not a one-off benefit that is negotiated at construction and not visited again.
- Communities require a coordinated approach to training, workforce capability building, procurement and accommodation strategies that is supportive of people of low socio-economic background and facilitates economic opportunity across the

region. It is imperative community engagement processes are designed to view local stakeholders as valuable contributors and recognise the work that locally-based organisations are already undertaking

Key Recommendations to the Draft Energy Policy Framework:

Recommendation 1. There is a need for an **accessible presence on the ground** in the New England so that our townsfolk and rural residents have places where REZ info is disseminated and where they can go to ask questions, access information, get involved and be heard. Both connected to our local government services and a voice up to State, DPIE and EnergyCo, and ideally across other agencies – **see Recommendation 6.**

Recommendation 2. Sufficient notice of consultation activities and much better dissemination of **notice through community networks** including local government channels is needed. An emphasis on involving the community rather than simply informing. Taking the whole community along rather than a landholder by landholder approach only.

Recommendation 3. Programs to directly engage and enable **households, farms, communities and businesses to pursue renewables as wel**l – creating an energy shift where there are many access points for people to be part of the transition rather than it being simply an impost to be mitigated. Support for localised energy and transmission literacy and circular economy.

Recommendation 4. The State Government address misinformation about the energy transition from "anti-renewables" groups by funding broad community awareness and education programs with trusted institutions about energy systems/ technologies and the need for energy transition. Highlight and facilitate of the opportunities for a whole of region partnership and approach.

Recommendation 5. Understanding that the REZ is an impact both from renewable energy developments and an altering transmission landscape is complex. While these two areas for development may have different policy and government processes this needs to be taken into account by the NE REZ communications, engagements and State systems including withing the Energy Policy Framework, **the general public see it as one force of energy transition.**

Recommendation 6. State led resources need to be allocated to coordinate the many different organisations needed to turn what is currently an infrastructure construction project under the Department of Planning into a regional development project. In other words community engagement needs to be developed across government agencies not simply the energy or planning components of the public service. A concerted focus is required on networking and hosting strategic discussion to bring the large number of organisations needed on the ground together. Advocacy at the Federal level is also required here. This role could be hosted through the RDA network or other Federal agency but whether it is State or Federal jurisdiction, partnerships should be fostered across the region and emphasis made on the staff being located locally.

Recommendation 7: Local communities need to be facilitated for involvement in their future and all development. Local knowledge needs to be accessed early and in an ongoing fashion. Developers should not be encouraged to have a fly in fly out approach but rather a

long-term connection to community should be the expectation and norm.

Recommendation 8: Renewable Energy Community Benefit Frameworks are a significant part of the kind of community and partnership building that we need in this context. This area needs more work –
a) the governance mechanisms here need to both involve both communities and local government (not local government- or State- alone)
b) the regulatory requirements from development proponents needs to establish social relationships between communities and proponents understood as a long-term (and intergenerational) process and commitment, not a one-off benefit that is negotiated at construction and not visited again.

Recommendation 9: Last year the AEIC Commissioner undertook a Community Engagement Review. When this report is completed (was due for completion for December 31, 2023 but is currently "pending") the NSW DP should incorporate all relevant recommendations into the relevant sections of its Draft Energy Policy Framework, or create new sections where this is needed.

Recommendation 10: The Draft Energy Policy Framework in its current draft state itself does not adequately account for cumulative impacts nor does it adequately highlight the need for proponents to engage with the Cumulative Impact Assessment Guidelines for State Significant Projects or Social Impact Assessment Guidelines.

The Cumulative Impact Assessment Guidelines and the Social Impact Assessment Guidelines are not sufficiently referenced in the Framework documents and only appear as an addendum under 'Other assessment issues' at the end of the Wind, Solar and Transmission Guidelines (and the Cumulative Impact Assessment is missing entirely from the Transmission Guidelines).

Recommendation 11: The Community Power Agency (CPA) has been engaged with our local community over the past 2-3 years and across numerous regional communities and States over the last decade. CPA has strong expertise and knowledge of the issues here on the ground. We recommend their submission to you as well in this context.

Thank you for developing the Energy Policy Framework and providing the opportunity for comment. We look forward to reviewing a revised version of the documents which better reflects a proactive approach to managing and guiding better community engagement practices and community benefit outcomes within a framework of sustainable regional development rather than simply energy infrastructure construction.

Yours sincerely

Annette Kilarr
Convenor Climate Action Armidale, member of REEACH and coordinating committee Sustainable Living Armidale
0478633100
BA (Hons) Anthropology (USYD), Grad Dip Nat Res Man (UNE), Diploma Project Management (UNEP).

Sustainable Living Armidale

We acknowledge the Traditional Custodians of this land and pay our respects to elders past, present and emerging. Our community pays tribute to their love of land, love of people and love of culture.

From:	Department of Planning Housing and Infrastructure
To:	DPE PS ePlanning Exhibitions Mailbox
Cc:	DPE Energy and Resources Policy Mailbox
Subject:	Webform submission from: Draft energy policy framework
Date:	Monday, 29 January 2024 9:20:53 PM
Attachments:	draft-wind-energy-guideline---a-submission-from-oberon-against-wind-towers-(oawt.pdf

Submitted on Mon, 29/01/2024 - 21:19

Submitted by: Anonymous

Submitted values are:

Submission Type
I am submitting on behalf of my organisation

Name

First name
Chris

Last name
Muldoon

I would like my name and personal contact details to remain confidential
No

Info

Email
[redacted]

Suburb/Town & Postcode
SURRY HILLS 2010

Please provide your view on the project
I object to it

Submission file
draft-wind-energy-guideline---a-submission-from-oberon-against-wind-towers-(oawt.pdf
(211.97 KB)

Submission
Please see attached submission from Oberon Against Wind Towers (OAWT)

I agree to the above statement
Yes

Draft Energy Policy Framework

A Response to the Draft Wind Energy Guideline

From: Oberon Against Wind Towers (OAWT)

Date: 29 January 2024

Introduction

The Oberon community has experienced first-hand the frustration that comes with the arrival of a renewable energy project to a regional Australian community.

The lack of transparency, the token approach to engagement, the anxiety of meeting submission deadlines, the unfamiliarity of the topic, and the overall feeling of helplessness causes great angst and a feeling that communities like ours are not really a player of any significance in a process that appears to be stacked in favour of governments anxious to meet renewable targets and proponents looking for a quick buck.

The process almost feels un-democratic. It is not normal for Australians to feel helpless as major change happens around them. A renewable energy project can desecrate a local business; alter the social fabric of a comfortable population; change the economic circumstances of a family; and make massive visual, ecological, heritage, and environmental differences to a community – yet our only real opportunity to influence the process is to ask questions at a couple of local meetings and then scramble to respond to complex documentation in short timeframes.

At Oberon we have been relatively lucky in the sense that our proximity to Sydney and the mix of businesses across our community has given us access to resources and skills that are not often found in rural communities, but this has made us even more acutely aware of how unfair this process must seem for time-poor agricultural communities throughout NSW and their local support businesses.

In our experience, the unfair consultation process is compounded by the lack of government collaboration or support at all levels – our group has practical experience dealing with the NSW Government during which we were treated like an enemy as opposed to a stakeholder in the planning process – and this attitude extends to bureaucrats, particularly at State level. Their attitude is best summarized as 'shut up, we know best'.

In our experience, there are some simple fixes to the planning process that mainly involve:

- A more rigorous and broader evaluation of the most suitable locations for renewable infrastructure
- Greater transparency in negotiations between proponents and landholders
- Better and more frequent community engagement
- Longer deadlines to ensure communities are given a fairer opportunity to respond to proposals.
- The use of more sophisticated communication tools
- Cultural and process changes that will ensure regional communities are given greater consideration and a genuine seat at the planning table.

Some suggested changes and associated observations relating to the **Draft Wind Energy Guideline** are detailed below.

Section 1.3.1 Renewable Energy Zones

Our Parliament and the State's planning authorities are already well-aware of the community outrage which is often caused by poorly considered and inappropriately sited RE projects.

The establishment and delineation of **specific RE zones** is a welcome step in addressing the harm which badly planned RE projects have caused and are still causing to the critical roll out of policies designed to reduce our carbon footprint.

What purpose does a designated RE Zone serve if RE projects are supported outside those Zones by the very authorities which have created those zones?

Projects that are proposed to be developed **outside** clearly designated RE zones have at least three very unwelcome consequences:

- They squander community goodwill and perpetuate outrage.
- They mock the message of government that it listens to and responds appropriately to communities that are called upon to bear the brunt of the sometimes very intrusive infrastructure needed to reduce carbon emissions.

- They endanger the trust which we all place in orderly planning and development in NSW.

Projects which seek consent outside RE Zones do not warrant the support of our planning authorities. They should in fact be actively discouraged.

The aim of decarbonizing our economy is too important and too urgent to allow poorly planned or sited schemes to derail and delay the rollout of properly sited schemes **within designated RE Zones.**

Section 2.2.2 Regional Cities

Why are these guidelines restricted to the regional cities outlined?

The criteria outlined in this section should be applied to all renewable energy proposals, and not just those located near Albury, Armidale, Bathurst, Dubbo, Goulburn, Mudgee, Orange, Tamworth, and Wagga.

Oberon is a good example. A wind farm located in our LGA conflicts with existing commercial use of surrounding land and will have a significant impact on our capacity to grow and the scenic quality and landscape character of our region. Yet these factors will not be taken into account as we are not one of the designated regional cities.

This doesn't make sense.

Oberon is one of the more significant tourism destinations in NSW (e.g. Jenolan Caves, Blue Mountains UNESCO World Heritage Park, Mayfield Garden) and every business and individual associated with the tourism sector would be destroyed if a wind farm came to our community. Yet this is a factor that will not be considered because we are not one of the chosen eight regional cities.

The three points outlined in this section – land conflicts, urban growth potential, and important scenic values – should be a consideration for every renewable energy proposal in NSW.

Section 2.3.1 Development Applications

There are two elements to our response to this section.

<u>Extend the 28-day exhibition period.</u>
The 28-day exhibition period needs to be extended to 90 days.

The Oberon community has practical experience of the difficulties associated with the designated short exhibition period following the unexpected lodgment of the Paling Yards EIS last October.

Our community had no formal or informal warning that the lodgment of the EIS was imminent, so when it was unexpectedly dumped on us via the NSW Planning Portal, many members of our community were forced to put their lives on hold and cobble together a response as best they could within 28 days.

You are asking hardworking people regional people to down tools, absorb massive amounts of unfamiliar information and data, mobilise their community and present a worthwhile response – all within 28-days!

It is unfair, and probably even undemocratic.

A 28-day exhibition period does not meet the Australian criteria of a fair go.

Here in Oberon, we would have liked far more time to undertake studies on biodiversity and Aboriginal heritage, yet the completion of these studies could not be reasonably completed within 28 days.

Which brings me to my second point relating to Development Applications.

<u>Improve the quality of Environmental Impact Statements.</u>

Again, we have practical experience following the lodgment of the Paling Yards EIS last October.

The Paling Yards EIS was a cobbled together document that drew on legacy documents that have been produced for the project since it was first mooted over 20 years ago. The EIS had many holes in it and contained irrelevant puffery as well as outdated data.

But we believe this lack of quality can be attributed to the fact that NSW Planning and Environment has lowered its expectations. They are now rushing projects through the planning process as the heat is turned up on meeting renewable deadlines.

Proponents now also know that they don't need to spend much time on documents such as an EIS - just as they no longer need to worry too much about engaging with regional communities - because they know that NSW Planning will rush through any renewable project that comes across their desk.

The NSW Planning officials literally acted as cheerleaders for the Paling Yards Wind Farm proponents during the recent EIS exhibition period – in fact, NSW Planning openly told Oberon councilors that the community consultation undertaken by the Paling Yards proponents on this project was acceptable and would pass muster – are they even allowed to say this before the close of the exhibition period?

A sub-standard EIS means that communities like ours end up doing the heavy lifting in terms of researching and detailing the potential issues surrounding the establishment of a renewable energy project. This deeper work should be undertaken by the proponent – the onus rests with them, they need to convince the planners that this is a worthwhile project, yet it is communities like ours that are providing the comprehensive detail as we work feverishly to convince planners that this is a project that has not been researched properly.

In summary, renewable energy developers are cutting corners and taking advantage of the fact that governments have lowered the DA bar in their determination to meet renewable energy deadlines.

Section 3 Community and stakeholder engagement

Proponents have been relying on outdated communication platforms when it comes to engaging with regional communities.

Communication needs to come into the digital age.

Local newspapers and radio stations no longer have the reach or influence that they did 20 years ago.

Community meetings are an important component of regional communication programs, but you won't get people to the meeting if you are advertising the meeting in a local newspaper.

Two-way communication via online forums, websites and social media platforms must be a regulated requirement of any renewable energy proposal.

Proponents have been conveniently using outdated, ineffective communication tactics as a means of keeping community objections to a minimum, hoping that any proposal will slide through quietly with little community knowledge or understanding of its impact.

This might seem like disingenuous behavior, but they are only following the flimsy engagement and communication guidelines required by NSW Planning.

<u>Technical Issues with the NSW Planning Portal</u>

It would be remiss of me not to outline our experiences with the NSW Planning Portal during the Paling Yards exhibition last year.

The EIS and other documentation relating to the Paling Yards Wind Farm was generally unavailable on the NSW Planning Portal, particularly to any member of the community who searched for these documents via a search engine.

This technical glitch was openly admitted by NSW Planning officials (Anthony Ko and Nicole Brewer) and, in fact, led to NSW Planning increasing the exhibition time for the Paling Yards documents by a rather churlish four days - but nevertheless it was an admission that the website's dysfunctionality had impacted our community's access to critical planning and project information.

Oberon Against Wind Towers forwarded a legal letter to NSW Planning during the exhibition period requesting that they fix the Portal and set the clock again for another 28-days of exhibition – our request was rejected.

On the basis that this technical glitch has clearly impeded access to critical project information, Oberon Against Wind Towers is committed to legally challenging any future steps taken by NSW Planning towards approving the Paling Yards project.

A couple of additional points on this matter:

- At one stage during discussions with NSW Planning on this issue, I was contacted by their Technology Manager and asked if I could help them fix the issues they were having with their portal – as you can imagine, we quickly lost any confidence that the Paling Yards documentation would be readily available to members of the Oberon community.

- The arrogance of NSW Planning officials on the issue was breathtaking. Their defensive attitude when we pointed out the technology issues highlighted to our group that NSW Planning does not prioritise community consultation– they pushed back at every opportunity and basically didn't want to listen to us.

- The Oberon community was very active and submitted 450 objections to the Paling Yards project, but how many others did not make a submission due to their frustrations with the NSW Planning Portal? And how many submissions were incomplete or lacking in detail due to the fact that objectors were unable to access the EIS or other documents?

- We believe that NSW Planning has no choice but to re-exhibit the Paling Yards EIS once they have fixed the technical issues that exist on their website.

Section 4.2 Process of Site Selection and project design

There is not enough emphasis on social impacts when choosing sites for renewable energy infrastructure.

Proponents and planners not only need to ask if the local geography and infrastructure is fit for purpose, but they also need to consider whether the social and economic fabric of the region is suited to hosting a wind farm or other renewable infrastructure.

For example, they need to ask:

- What are the primary industries in the region and how will they be affected by the planned renewable project?

- Is there an economic need or desire for a renewable project in the area, or would it be better accepted – in fact, appreciated - in another location?

- Is this already a thriving community that has worked hard to build a local economy and standard of living that does not need to be adversely disrupted or affected by a renewable project?

I would like to use the Oberon region as an example, as we are a thriving and growing community that is under siege from both private and government renewable energy proposals, yet we host:

- One of the State's most important timber mill regions;

- A thriving agricultural community that enjoys 30 inches of rain per year;

- A skyrocketing tourism industry helped by the fact that we have Jenolan Caves, Mayfield Garden and the Blue Mountains UNESCO World Heritage Park inside our boundary;

- A significant number of day-tripping Sydneysiders seeking a rural respite from city life. Oberon is growing closer to Sydney every year as the fast-growing north-western housing corridor heads rapidly in our direction, and this is reflected in the growing number of day-trippers visiting our community. Oberon provides an unspoiled authentic regional experience on Sydney's doorstep – this will be spoiled if we become an industrial park for renewable energy.

- Hundreds of small plot farmers (blockies) are attracted to the location and price of the smaller agricultural enterprises available in our region. These are not profit-driven agriculturists, but mainly city people seeking a peaceful weekend retreat and the opportunity to experience farming as a hobby. This sector will be decimated by falling property prices and the conversion of our community from an unspoiled authentic regional destination to to an industrial wasteland for renewable energy projects.

Oberon is not fit for the purpose of renewable energy infrastructure, yet the questions I have raised above are not being asked of proponents coming to communities like ours with renewable proposals.

Even the construction period associated with a wind farm would kill our tourism industry – hundreds of over-sized trucks bringing massive blades and towers to our community would clog up the roads and bring tourism to a standstill, leading to job losses, business closures, a decrease in property values and a reduction in population.

Oberon host a successful farming community that in most cases is not looking for an additional line of revenue – why not target less lucrative farming regions which would most likely welcome this new revenue opportunity?

Section 5.3.2 Assessment – Aerial Fire Firefighting

In light of Forestry Corporation's plans to install hundreds and maybe thousands of wind towers throughout NSW forests, why has the review not addressed the danger and potential economic and ecological impact of bushfires triggered by wind towers?

Issues that need to be addressed include land clearing, access roads, economic impact of bushfires and collateral danger to private landowners.

Sparks from a single tower could quite feasibly wipe out 50,000 hectares of radiata pine in the Oberon region.

The location of wind towers inside State Forests is an unnecessary risk.

Section 5.5.1 Traffic and Transport – Key Principles

There is no mention of the economic impact that congested roads will have on other local industries.

For example, a community that is heavily reliant on tourism will be decimated if local roads are clogged up with heavy traffic during construction, particularly if multiple projects are planned for the region.

Businesses reliant on transporting manufactured goods in and out of a local community will be similarly impacted if the roads are clogged with giant trucks travelling at less than 20kmh.

This issue comes back to the question of suitability – developers need to address the social and economic impacts of locating renewable energy inside a particular community.

For example, decisions on the location of wind towers are currently being dictated by location of transmission towers and wind performance, yet economic, environmental, and social impacts are equally important factors.

Section 5.6.2 Benefit sharing

Let's put this into perspective.

The proposed 47-tower Paling Yards project in Oberon will deliver a maximum generation capacity of 287MW, meaning that this Benefit Sharing scheme will deliver $301,350 dollars to the Oberon community each year if Paling Yards is delivering at maximum capacity.

This is not enough money to pay for a toilet block, a tennis court, a roundabout, or a playground.

Benefit Sharing is an over-hyped Government scheme that insults the intelligence of regional communities.

In the case of Oberon, any proposed wind farm will annihilate our tourism industry, leading to job losses and business closures.

There will also be a massive reduction in the value of small weekend farms.

It is insulting to insinuate that $1050 per MW of wind power generated is in any way compensating for the environmental, economic, and social impact of any renewable energy project.

Section 5.6.3 Private Agreements

There needs to be greater transparency around the negotiation of private agreements with landholders.

The insistence of Non-Disclosure Agreements by renewable developers has removed transparency across communities and led to a culture of secrecy, often ending up with fractured relationships between regional neighbors that are never repaired.

The use of NDAs has also allowed proponents to play neighbors off against each other – e.g. 'your neighbor has signed; you might as well get some money too'.

Any new planning guidelines should ban the use of NDAs in private landholder negotiations.

Chris Muldoon
Oberon Against Wind Towers
E: chris.muldoon@mayfieldgarden.com.au
P: 0420 602 306

From:	Department of Planning Housing and Infrastructure
To:	DPE PS ePlanning Exhibitions Mailbox
Cc:	DPE Energy and Resources Policy Mailbox
Subject:	Webform submission from: Draft energy policy framework
Date:	Monday, 29 January 2024 9:41:19 PM
Attachments:	coalated-final-submission.pdf

Submitted on Mon, 29/01/2024 - 21:32

Submitted by: Anonymous

Submitted values are:

Submission Type
I am submitting on behalf of my organisation

Name

First name
Batting For Boorolong (B4B)

Last name
B4B Boorolong Armidale NSW

I would like my name and personal contact details to remain confidential
No

Info

Email
[redacted]

Suburb/Town & Postcode
Armidale 2350

Please provide your view on the project
I object to it

Submission file
coalated-final-submission.pdf (210.88 KB)

Submission
Please see attached the submission from Batting for Boorolong (B4B) a community group advocating for Responsible energy Development in the Boorolong and surrounding regions.

I agree to the above statement
Yes

Batting for Boorolong (B4B)

A community group advocating for Responsible Energy Development in the Boorolong and surrounding districts.

SUBMISSION IN OBJECTION/COMMENT to the NSW DRAFT ENERGY GUIDELINES

This submission has been put together by members of the Batting for Boorolong Community Group (B4B). As a test of the draft Guidelines, we have applied the draft guidelines as presented by the DPE to the proposed Squadron Energy Boorolong Wind Project. Although some of our statements refer directly to the proposed Boorolong Wind Project, it is indicative of how these guidelines will be applied to Wind Projects state-wide.

We applaud the department for finally releasing new draft wind and solar guidelines. However, we feel there are a number of short comings that need to be addressed for these guidelines to be sufficiently robust to be accepted by affected communities. These communities are the stakeholders that are directly affected, hold the knowledge of the environments and civil needs, and are the intergenerational custodians of their local environments.

The test for any guidelines is the acceptance that they are a fair reflection of the expectations and standards of the community to which they apply. As such, local social acceptance and commitment will be achieved where the guidelines ensure the best proposals are forwarded and held accountable.

Please read and consider our suggestions carefully.

SETBACKS

The department is to be commended for proposing a mandated minimum setback from neighbouring homes. However, the height and technological growth of the turbines used by the renewable energy industry is advancing faster than legislation and guidelines.

A 2.5-kilometre setback from a neighbouring home regardless of mitigating measures including screening, is simply not sufficient to address the many impacts.

The United Kingdom parliament legislated setbacks (before they banned new wind projects) as follows,

- turbines greater than 50m, but does not exceed 100m, the minimum distance requirement from a neighbouring dwelling is 1500m,
- turbines greater than 100m but does not exceed 150m, the minimum distance requirement is 2000m,
- turbines greater than 150m, the minimum distance requirement is 3000m.

A 300-metre turbine casts a shadow 3.7 kilometres long. Many proposed Wind Projects (including Boorolong) have proposed turbine heights of 250 – 300 metres. Therefore, for proposed projects to garner sufficient community support to proceed to development, neighbour dwelling setbacks for larger turbines should be as follows,

- turbine height of 200 metres a minimum setback requirement of 4 kilometres,
- turbine height of 250 metres a minimum setback requirement of 5 kilometres,
- turbine height of 300 metres a minimum setback requirement of 6 kilometres,
- turbine height of 400 metres a minimum setback requirement of 8 kilometres,
- turbine height of 500 metres a minimum setback requirement of 10 kilometres.

This is actually in line with the recommendations from the Departments 2016 Wind Bulletins. Although not named as “setbacks”, the distances we have proposed were given as guides for best practice in Wind Project design. B4B would accept these distances and it would allow for projects to move forward with much less community opposition.

The use of vegetation screening cannot be used to mitigate setback distances. Vegetation is not permanent. It dies in droughts, blows over in storms and tornadoes. They are often very slow growing. A eucalypt has a very sparse canopy compared to an evergreen pine. Vegetation screening is difficult to class and is season dependent. It needs to be removed from these guidelines.

DWELLING ENTITLEMENTS

Dwelling Entitlements or at the very least, the intention to build applications need to be treated the same as existing dwellings when considering setbacks. The ability for a landholder to construct a dwelling on their land in whatever location they choose is of the utmost importance, and the landholder should not be restricted from doing so because of what their neighbour does, and where their neighbour chooses to place a wind turbine.

If, for example, a host chooses to put one or more turbines on a boundary, this will have a huge impact on the neighbour’s land valuation and his possible future land use, negating the rights under that entitlement.

In many circumstances that entitlement and the ensuing right to subdivide or use that entitlement to build a dwelling is the landowners only superannuation policy or retirement plan. Those entitlements currently have value that would be undermined by this lack of surety.

The setbacks for Dwelling Entitlements need to be 2.5km for a 300m turbine from the boundary of a non-host's property, and nothing less. This will give neighbours peace of mind that their land and what they can do with it in the future will not be affected by wind developments.

GATEWAY ACCREDITATION OF PROPONENT & EARLY VETTING OF UNSUITABLE DEVELOPMENTS.

We have witnessed in our district, many cases of unprofessional behaviour, lack of transparency, poor site selection practices and inadequate community consultation by potential developers. Often these developers cause unnecessary and prolonged angst and stress on the communities that they are prospecting.

To overcome or minimise these shortcomings in the initial processes, we propose the possible **creation of a Representative REZ Board** or similar group to provide a gateway vetting of developers and projects. This has been discussed at length in the four meetings our group has attended with DPE.

We envisage this Board would act as a first point of contact for developers when entering an area in the REZ. The developer would discuss with the Board their proposals about a wind or solar

development. The Board would then consider whether the area and the proposal meet all the guidelines - distance from dwellings, the road network and local resource requirements, flora and fauna protection, strategic land use, Aboriginal heritage protection, to name a few.

This Board could consist of, but not be restricted to, an Aboriginal representative, a local Councillor, an agronomist, a town planner, a real estate agent, a property valuer and a local resident These members of the Board would have extensive knowledge of the local area, the people, the land use, the potential for further population growth, the roads, water and soil, the environment, and the native species.

Advantages of implementing such a gateway vetting process would include:

- Early stage suitability of site locations,
- streamline the approval process,
- promote best practice,
- encourage the best proposals to progress to planning application,
- early illumination of any unworthy developments, saving the community from years of uncertainty and stress from the planning of developments that will undoubtedly fail in the planning process, and
- enhance community participation and acceptance.

THE TRANSMISSION GUIDELINES

The transmission guidelines are somewhat ambiguous and give no real clarification on what determines the transmission line location.

This process of the rollout of the transmission lines has not been transparent, details surrounding hub location or transmission corridors has been non-existent and obtaining any clarification is problematic.

Our community needs details of proposed routes to examine the full extent of the impacts. The modelling for this line has not taken into consideration any ground truthing or local knowledge which would be invaluable to your process. The Draft guidelines appear extremely hip shot with no clauses included to consult with the many stakeholders in the community.

Communication between Enco and the Community has been very poor and when it is done, it is with no detail, the community consultants have no technical expertise and cannot answer many of the questions.

There are members of this community that are not associated with renewable energy projects that have had to wear the brunt of transmission infrastructure. Stakeholders hosting renewable energy need to host the transmission infrastructure, as these go hand in hand. Where possible undergrounding of these lines needs to be used.

THE FIREFIGHTING GUIDELINE

The firefighting guideline is inadequate with no practical application. The presence of high voltage lines and wind turbines pose major physical obstacles and logistical hindrance situations where aerial assisted firefighting would ordinarily be applied.

We have been informed by the rural fire service that wind development areas and transmission lines are no go zones for firefighting. The two aerial firefighting contractors based in Armidale, one uses helicopters the other fixed wing aircraft, have both stated they will not fly near or within Wind Projects. Even if the proponent can stop the turbines from spinning (which often they can't) they still need the turbines to be able to pivot otherwise they could be blow down. With high winds, smoke and dust associated with wild fires, it becomes impossible for aerial firefighting to take place. This leaves surrounding communities extremely vulnerable to fire in the future.

Therefore, setbacks from turbines to neighbouring homes are required to be at least 6 kilometres for 300 metre plus turbines to allow adequate protection from aerial firefighting.

All property owners must have confidence that their assets and those that fight the fires are not put at peril by any development. This confidence is crucial if Wind proponents want to be able to gain community acceptance. Communities will not accept second rate protection for their homes and business infrastructure.

IMPACT AGREEMENTS

Page 6: talks about landscaping / screening to mitigate high visual impact from a project. This is inappropriate and unsuitable with turbine heights of 250 - 300 metres. Vegetation is not permanent screening. It is often very slow growing and is susceptible to storms, tornadoes and drought. Vegetation screening should not be allowed in these guidelines to mitigate visual or noise impacts.

Impact Agreements need to be submitted to planning department. Additionally, for the sake of transparency, Host Agreements should also have to be submitted to the planning department.

Page 7: An explanation of how confidentiality clauses need to done in a fair and reasonable manner. Confidentiality clauses have created huge unrest and distrust in communities by restricting the sharing of information between neighbours and other affected participants in or around wind projects.

Page 8/9 : Decommissioning is discussed including scope, cost and plan but no assurance that decommissioning will take place. Neighbours signing an Impact Agreement must have confidence and an assurance that decommissioning will take place and that there is a plan and watertight chain of responsibility for the process.

Page 18 / 19: An explanation is required about the potential health risks mentioned including from perceived electromagnetic fields. What does the DPE mean by this?
Biodiversity impacts are not discussed except for vegetation clearing. There is other massive biodiversity impacts additional to that of land clearing. There needs to be added robust clauses and ramifications for noncompliance for the protection of both the habitat and for the individual animals The disruption to vital habitat and the killing of bats and birds and Koalas while wind projects are in operation need to be considered.
There is only reference to radio communication disruptions but what about telephones, internet mobile NBN? What is this refering to?

ENDANGERED SPECIES

There is nothing in the guidelines regarding bird and bat impact (clause 5.4) that alleviates any concerns we have for the impact of the proposed erection of over1000 wind turbines on the Northern Tablelands (NT)

These guidelines promulgate an underlying notion that Wind Farms need to manage or mitigate the interaction with endangered animals or even displace them from their current habitats to make way for the installation of turbines. This reflects a lack of comprehension regarding the environment where these turbines are intended, and how these animals live within that ecosystem.

It neglects the delicate interrelationships and dependencies among various plants and animals, ultimately worsening the threat to the existence of these species. The suggestions as set out in the guidelines are completely impractical and ineffective:

- The statement, “ensuring rabbit warrens are ripped to minimize rabbit numbers and consequent attraction to raptors”. This is totally unrealistic. The Wedge tailed Eagle has an estimated territory of 31 sq km (3100ha) and no, they don’t just fly near the prey source. They use their whole territory, from the ground, up to 2000m (and, on occasion, much higher). If the above guideline is to be taken seriously, why didn’t the guidelines suggest that proponents also “minimise kangaroo numbers” to keep eagles away from turbines!? (macropods are a major food source for eagles).
- The statement, “locating turbines at least 100m from national parks, nature reserves etc” What difference will 100m make to the birds, mammals, reptiles and insects within the protected area? Turbines situated 100m, 500m or a kilometre from a reserve will pose just a great a risk creating disturbance, noise, kill, flicker effect during the day and bright lights at night. National parks, nature reserves and identified high value biodiversity areas require at least 10 kilometres setbacks from turbines.
- The statement, “siting turbines away from key habitat and habitat features likely to be utilised by at-risk species (for example, hollow-bearing trees, wetlands and riparian corridors)” the whole of the biome is used by “at risk” and other species. And just what does “away” mean?
- The statement, “maintaining turbine- free movement corridors between key landscape and habitat features such as known roosting or breeding sites and foraging areas”. Will the birds, bats and koalas be given maps to navigate the “movement corridors”? Living creatures do not exist in the biome as separate stationary pieces, as in a jigsaw. They use the “whole” of the whole. Key landscape and habitat is all of the landscape and habitat. If an area is identified as key habitat with an existing healthy biodiversity than wind projects do not belong.

Bird Kill

Bird injury and mortality, is, as the guidelines themselves suggest, difficult to quantify, however data from both here and overseas overwhelmingly suggests injury and death of birds from colliding with wind turbines is always much greater than the renewable energy companies report. Ineffective (ie not using dogs) and infrequent monitoring of turbine kills, and removal of carcases by scavenger's skew company data.

Turbine kills are of significant magnitude for all bird species but especially for migratory species and raptors.

The Tasmanian race of the Wedge tailed Eagle (Aquila audax fleayi) is endangered with only an estimated 300 breeding pairs surviving in the wild. The Cattle Hill Wind Farm (48 turbines) in Tasmania has killed 8 of these birds in less than four years. This slaughter occurred despite the instillation of "IdentiFlight" technology at that wind factory which is designed to stop the turbine when the bird approaches. (The Australian 17/08/23)

Disturbances of electromagnetic fields used for navigation and death by turbine will also negatively affect migratory birds.

A setback of at least 10 kilometres from areas identified for the high quality and number of bird life is essential.

Koala Conservation

The proclaiming of the Northern Tableland (NT) as a REZ (involving possible erection of 1500 turbines) flies directly in the face of the NT Koala Recovery Strategy (2015-2025). The NSW State Govt committed $190 million "to deliver targeted conservation work……to double koala numbers by 2050"

The Koala Strategy document states in part: "Based on these limited research findings, it would appear the protection and enhancement of mature, mixed age, woody vegetation that supports old growth trees is essential for the maintenance of existing koala populations. It also indicates the value of old growth paddock trees in close proximity to remnant patches and across agricultural landscapes."

How do the guidelines propose the Proponents handle the conflict in compliance with the various local council Koala guidelines and the NT Koala Recovery Strategy?

Eighty five percent of woodlands in south eastern Australia have already been cleared.

Each turbine requires at least one km of road, 8m wide, to be cleared, with a minimum of 2 metres cleared either side. For the New England REZ, that is at least 1500 km of new road constructed, with the loss of what is already highly fragmented vegetation, especially old growth trees (trees aged in excess of 200-300 years). The base of each tower will require a base with an 24m diameter, requiring yet more clearing.

To this huge loss of koala habitat, esp. the old growth trees, add disturbance, noise including infrasound, flicker effect and bright lights from each turbine at night. Unless recognition of koala habitat is a requirement in these guidelines, we won't see a doubling

of koala numbers by 2050, as the strategy boasts. The koala will be nearing extinction in the New England.

The level of impact tolerance intimated in the guidelines is unacceptable. The suggestions are misleading and misguided. The fundamental problem with the guidelines is that it is not clear that Wind Farms should not be proposed in areas where these vulnerable species exist.

We strongly advocate for the guidelines to include exclusion of proposals within the whole habitat range of endangered Flora and Fauna and remove suggestions on how to mitigate the impacts. Wind Farms should be situated where there is no impact and the guidelines should be framed to expedite this.

CUMULATIVE IMPACT (CI)

There are several broad issues that need to be more specifically addressed in the Guidelines:

1. PROPONENT DECLARATION OF CUMULATIVE IMPACT

The definition of Cumulative Impact In the Cumulative Impact Assessment Guidelines reads - “Impacts on combination of other future projects that are anticipated or reasonably foreseen”.

The whole community is aware of projects that are on the planning stage by various proponents yet proponents, such as Vestus in their Winterbourne Wind EIS) choose to only declare projects on the Planning Portal.

This does not comply with “reasonably foreseen. ”Some proponents in their EIS, choose a far too broad “Area of Study”. This should be refined.

A true CIS should be submitted at the Scoping Stage.

2. ACTUAL ASSESSMENT OF CUMULATIVE IMPACT

Currently this is very unsatisfactory by nature of the process.
A proper Independent CIS should be undertaken for each REZ PRIOR TO PROPONENTS BEING INVITED IN - A Gateway process.

At present each EIS is assessed as it is submitted without regard for the next project that is common knowledge, but not yet on the Planning Portal
An example, Boorolong Wind Project is not on the Planning Portal but Squadron Energy is in dialogue with Energy Co!!

Cumulative Impact is a major issue in the New England REZ

3. CUMULATIVE IMPACT IN NEW ENGLAND REZ

New England has been allocated 8 GW of generated Energy. This requires some 15 GW of infrastructure to generate. By virtue of the location of proposed new Transmission Lines and the location of the Hubs, this is concentrated in Southern New England. This concentration has been further exacerbated by the withdrawal of the Southern Hub.

Consequently, within a 50 km Radius of Uralla there are, in some form of planning, some 900 Wind Towers and thousands of Hectares of Solar accompanied by the new Transmission Lines, Hubs and Batteries.

This creates huge Cumulative Impact on a very small area and in effect makes it impossible to satisfy even the draft guidelines due to the density of population and the functioning of an Agricultural community.

4. CUMULATIVE IMPACT ISSUES THAT SHOULD BE INCLUDED IN GUIDELINES SPECIFICALLY

Visual Amenity, both day and night.

The density of wind and Solar proposed for New England changes the whole Landscape from Rural to Industrial.

Biodiversity.
Need regulation of density of RE Projects relative to local Biodiversity. For instance, New England has a very delicate Eucalypt population affecting bird and animal habitat health.

Noise. – obvious.

Agriculture.
For example, New England is a well-recognised leading producer of Beef, lamb and Wool. This needs regulatory protection

Bird Kill,
Wedge Tail Eagles WILL NOT SURVIVE the proposed density of Turbines. The mitigation measures in the guidelines are unrealistic. Migratory birds, Dangars Lagoon and other upper wetlands. Planned project density will cause issues.

Land Clearing.
Need regulations to limit land clearing. Farmers are very regulated in this regard. What is the difference? Food and the Environment is more vital than electricity.

Traffic.
No CI Study has been yet done for New England. There is only one road in, The New England Highway. From Newcastle to Muswellbrook this highway has to carry the components for the SW Orana REZ plus same for New England REZ. From Muswellbrook to New England we calculate some 18000 OSOM Vehicles and 1.1 million B Doubles for Wind hardware alone! Combined with disruption of local roads, the Cumulative Impact of Traffic will create gridlock for local businesses, health and emergency providers, livestock transport etc.

Waste Management.
New England is bereft of large-scale waste management facilities.

Land Values.
Obviously, the effect on district land values will be exacerbated by the Cumulative Impact factor.

Resources.
Road Base: For access roads for Wind Towers alone it is estimated that in excess of 15 million Tonnes of Gravel are required. Where is this to be sourced in these quantities?

Water: We have very limited excess water.

Rental Affordability.

A major socioeconomic issue.

All of this will present significant problems going forward if not properly regulated.

NOISE AND HEALTH ISSUES

Issues pertaining to Draft Wind Energy Guideline 5.2 Noise and Health:

As admitted in your guideline, wind turbines emit infrasound. You state in the guidelines that the NSW Government's position on health impacts is informed by the findings of the National Health and Medical Research Council (NHMRC) and that based on their current position that there is no consistent evidence of wind turbines causing adverse health effects in humans, it is not currently necessary for developers to conduct health impact assessments in relation to infrasound and wind energy development.

The actual position of the NHMRC is the following:
The NHMRC: "No studies investigated infrasound as such and so, no conclusions can be drawn about associations between infrasound from wind turbines and any health or health-related outcomes."

The NHMRC continues: "Most studies investigated some aspect of noise exposure, but no studies specifically examined infrasound, shadow flicker or EMR."

Overwhelmingly the biggest concerns raised by people who have lived with windfarms is the illnesses they have suffered due to the infrasound from the turbines.

Yet no true investigations have been launched into this, almost no research is funded or available and the DPE continues to boldly state that there is no link between turbine infrasound and human health.

Many in the Community are very fed up with the blatant misinformation which is being delivered via speeches, draft guidelines, seminars and more.

The very simple fact is that no true, independent studies have been conducted surrounding infrasound and human or animal health.

AERIAL FIREFIGHTING

Commercial Aerial Helicopter Firefighting Helicopter Pilots categorically state the following for a fire in or near a Wind Project:

- They will give aerial support on the upwind side of a fire to a distance of around 500 Meters,
- They will not give aerial support on the downwind side,
- They will not fly over a bushfire in a wind project, and
- Regarding Mitigation, they state, that whilst it may be possible to stop the rotation of blades it is not possible to stop the attitude of the turbine according to the wind direction.

DECOMMISSIONING & REHABILITATION

There is universal community cynicism regarding the accountability for decommissioning and Rehabilitation of Wind and Solar projects. Guidelines should include the requirement of an UPFRONT BOND as required by the mining industry. The risk to accountability is that proponents are able to on sell projects, (Winterbourne wind, three times already) or table insolvency, thus allowing the obligations not to flowing onto the new, sometimes foreign owned proponents operating in foreign legal jurisdictions. Additionally, the guidelines should ensure that the obligations to decommission and rehabilitate will not be forgone in situations of technological obsolescence or financial insolvency.

The fall back is that the onus for decommissioning transfers to the host who would be unlikely to be unwilling or unable to afford the cost.

It has been stated at local forums by EnergyCo and the Dept of Planning, that to impose an up-front bond would be financially disadvantageous to Proponents. It is alarming to be informed that the small land owner is expected to bear this unknown future risk whilst big multinational corporation are not able nor not willing to. This beggars disbelief considering the expected profits and the Government Subsidies for Proponents

The community is very concerned about the long-term obsolescence of this infrastructure and what we as a community and future residents will be burdened with.

The lessons from the mining industry should be learnt and applied.

The decommissioning calculator is flawed. Very little of the components of Wind Towers or Solar Panels are currently practically or economically recyclable, particularly in rural NSW. Decommissioning cost claims in the guidelines/calculator being as little as $5000 are simply fanciful. The underlying assumptions used in this modelling with regard to recycling and or disposal of materials, dismantling of all infrastructure and the rehabilitation of sites to original food producing standards, should be disclosed so that potential hosts have confidence in the legitimacy of the calculations. They will rely on those models to determine future cashflows and thus financial viability.

Document end.

From:	Department of Planning Housing and Infrastructure
To:	DPE PS ePlanning Exhibitions Mailbox
Cc:	DPE Energy and Resources Policy Mailbox
Subject:	Webform submission from: Draft energy policy framework
Date:	Monday, 29 January 2024 9:41:50 PM
Attachments:	cpa-submission-nsw-gov-energy-policy-framework-2024.pdf

Submitted on Mon, 29/01/2024 - 21:40

Submitted by: Anonymous

Submitted values are:

Submission Type
I am submitting on behalf of my organisation

Name

First name
Jarra

Last name
Hicks

I would like my name and personal contact details to remain confidential
No

Info

Email
[redacted]

Suburb/Town & Postcode
2429

Submission file
cpa-submission-nsw-gov-energy-policy-framework-2024.pdf (196.99 KB)

Submission
Please see document attached.

I agree to the above statement
Yes

Community Power Agency
www.cpagency.org.au
January 2024

To: NSW Department of Planning and Environment
RE: Draft Energy Policy Framework

On behalf of the Community Power Agency, we thank you for the opportunity to provide feedback on the Draft Energy Policy Framework. We welcome this timely review of The Department of Planning and Environment's approach to managing the energy transition through the creation and updating of the following suite of guidelines:

- Wind Energy Guideline,
- Transmission Guideline,
- Solar Energy Guideline Updates,
- Benefit Sharing Guideline,
- and Private Agreement Guideline.

1. Who are we

Community Power Agency (CPA) is a not-for-profit organisation that works with a range of stakeholders to facilitate a faster and fairer transition to clean energy and reduced carbon emissions. We have staff working in three different state renewable energy zone (REZ) contexts: New South Wales, Victoria and Tasmania. CPA has been working with the renewables sector for over a decade to build capacity and improve practice around social licence building, community engagement, benefit sharing, co-investment and co-ownership models. We have authored industry guidelines for the Tasmanian, ACT and Victorian governments; along with other specialist publications for bodies such as the Clean Energy Council and the Institute of Sustainable Futures. Notably, we were key authors of the Clean Energy Council's Guide to Benefit Sharing for Large-scale Renewable Energy Projects.

2. Overview

The transition from a fossil fuel based energy system to a renewable one is characterised by a profound variation in the location of energy production, storage and transmission. Industrial

heartlands, like the Hunter Valley and Illawarra's economies and industries are restructuring, while regional communities like those in the New England, NSW are experiencing an influx of significant energy infrastructure and developments for the first time. There are very real and legitimate concerns coming from regional and rural communities about the sale and impacts of these developments and, more broadly, the uneven distribution of new infrastructure burden in the energy transition. Underlying these concerns is a valid sense that the *process* of renewables roll-out, from the gazetting of renewable energy zones (REZ) to the identification of transmission line routes, has not been transparent and genuine, lacking robust meaningful opportunities for community input. Improved community engagement and benefit sharing, alongside greater community participation in decision making around project siting and land use, are some of the elements that will ameliorate community concerns and build social licence to operate for individual projects and the energy transition at large.

Likewise, there is much talk about the cumulative impacts of renewables in regional communities. Already strained services, such as health, education, housing and the provision of utilities – alongside fragile ecosystems and landscapes – will be jeopardised under the pressure of large influxes of workers and developments. And yet, these cumulative impacts could easily be reframed as opportunities and benefits if a holistic approach to managing the regional energy shift is applied. Australia's energy transformation is fundamentally a regional development opportunity: with greater coordination, learning and collaboration, positive changes with lasting benefits could be delivered to regional and rural communities. We provide feedback on how the Department has considered cumulative impacts in the frameworks in the later part of this submission.

State bodies, such as the Department of Planning and Environment, play an integral role in shaping the on-ground experience of energy infrastructure development through the establishment of regulatory contexts, frameworks and policy, such as the current Energy Policy Framework. The rest of this submission is structured as such: each technology's guidelines are discussed with suggestions for improvement and changes. We also provide some general feedback before closing.

3. Wind Guidelines

The updated Wind Energy Guideline provides a comprehensive overview of information for both the sector and community. Overarchingly, there is an understandable tendency within the

Guideline to encourage practice that conforms to standards. Yet we see there is also scope to foster and reward innovation, for example: how might circular economy principles be enhanced in the sector or collaborative governance of benefit sharing schemes be incentivized and applied?

In general, there is a need for greater guidance on the social aspects of wind energy development including attention to the social context during site selection and additional detail on what constitutes good practice community engagement across the unique phases of a wind energy project.

We have noted a few inconsistencies and areas where greater clarity is needed and have highlighted these areas of content from the guideline in italics below with a list of recommendations in blue text to follow.

Section 2: Planning Framework

2.3 Process for assessing wind energy projects. All DAs for wind energy projects will be subject to a rigorous, merit-based assessment that includes extensive community consultation and a detailed consideration of any environmental, social and economic impacts.

The scoping report should also outline how the applicant has engaged with the local community about the project and how it intends to undertake meaningful consultation with affected stakeholders during the assessment process (refer Section 3 for further guidance). P.13

Recommendations

- Details on the merit based assessment are lacking, While it is laudable that extensive community consultation and environmental, social and economic impacts are a priority in development applications and approvals, we suggest that more rigour and detail is needed. Will merit based assessments be weighted? If so, how are these criteria being shared with stakeholders, such as proponents and the local community?

In addition, we recommend in the diagram that a box be added to represent requirements for community and stakeholder engagement to feed into the preparation of an EIS.

Section 3: Community and stakeholder engagement

Please note there is a broken hyperlink on page 18: *Undertaking Engagement Guidelines for State Significant Projects.*

Generally speaking, the aspects of the Undertaking Engagement Guidelines for State Significant Projects reflect similar conditions of engagement guidelines written bespoke for the renewable energy sector (see example: *RecFIT: A Guideline for Community Engagement, Benefit Sharing and Local Procurement*). However, there are certain aspects of community and stakeholder engagement that relate specifically to renewable energy developments. In particular, engagement across project phases presents some unique aspects, and renewable energy zones and their embedded renewable projects pose specific challenges around consultation fatigue, community overwhelm and conflict.

In general, this section of the Guideline requires more detail to provide clearer guidance in terms of expectations of the timing, purpose, practices and outcomes of community engagement. In particular, additional guidance on what constitutes good practice and the links between good engagement and achieving social licence need to be emphasised.

Recommendations:

- Proponents and state bodies, such as EnergyCo, invest in consolidated information platforms, such as the Gippsland New Energy Portal, which provides a one stop shop of all renewable energy developments in the region and the various stages of development.
- Greater detail is added to the policy on how renewable projects, and subsequent engagement approaches differ from other State Significant Projects. For example, unlike the development of a highway, community engagement in renewables is about the fostering of a trusted, ongoing and long term relationship between a developer and a community.
- Emphasise the importance of good practice community engagement in building and maintaining good relationships in local communities and for social licence.
- Emphasise common aspects of community engagement that contribute to better social outcomes from renewable energy projects, such as use of face to face engagement carried out by experienced practitioners in the local area over a sustained period of time using a variety of delivery methodologies (e.g. individual meetings, small focus groups,

public events, drop ins etc). See '*Enhancing Social Outcomes in Wind Development*' report published by the Clean Energy Council, lead author of which is from Community Power Agency.

- Recognise that knowing the social context, the local values and culture, and the communities' relationship to place, is crucial to designing meaningful engagement processes that are fit for purpose, and a project that is appropriate for its context.
- Recommend that project teams must have some locally-based staff, particularly for community engagement personnel to be able to leverage local knowledge, relationships and networks which are invaluable.

Section 4: Site selection and project design

This section should include a requirement to undertake social context analysis in site selection phase and social impact assessment in project design phase. This should reference how community stakeholders will be engaged in these phases as key informants and to assist with identifying likely impacts, opportunities and proposed design elements that are responsive to the social context.

Figure 3 is confusing and implies that most of the state is not appropriate for wind development.

A Constraints Map should also include key areas of high social or ecological importance that need to be considered in project planning.

Section 5.4: Birds and Bat impact assessment

Current content does not offer clear guidance as to how bird and bat assessments should be monitored and evaluated: Is this an annual reporting requirement? And what happens if the project is causing ongoing harm beyond the initial scope of the EIS? Greater clarity is required.

Section 5.5 Traffic and transport

Key principles should include consultation with community members and council regarding potential impacts and possible solutions associated with traffic and transport.

Section 5.6.2 : Benefit sharing – Please see section six below for detailed feedback on benefit sharing framework

Section 5.8: Waste management and circular design

Current targets for recycling and circular design principles are vague and should be strengthened. We acknowledge that certain aspects of wind turbine recycling are nascent, i.e. blade recycling, however, rewards for best practice and innovation at the development application scale, could drive significant improvements for both the environment and economy.

4. Solar Guidelines

We recommend creating incentives for recycling and circular economies. We also recommend encouraging multiple uses of solar farm sites, such as 'agrivoltaics'.

Please see section six for our detailed feedback on the community benefit sharing framework.

5. Transmission Guidelines

The draft Transmission Guidelines present a disparity between community engagement recommendations during the early stages of route planning

From page 19:
"Whilst targeted consultation is encouraged during this phase, proponents should avoid consulting widely on options when details are overly conceptual or uncertain. Engagement needs to carefully balance the benefits of providing stakeholders with the opportunity to participate in the options evaluation process, whilst also avoiding unnecessary anxiety that may be caused by consulting on options that are highly unlikely to proceed.

Community consultation during this phase should focus on building awareness about the project and providing avenues for landowners to provide specific feedback about their properties early in the process. When undertaking consultation, the proponent should identify the elements of the project that can be influenced or shaped by the community."

Inconsistency with page 21:
"The community should be engaged as early as possible to identify potential opportunities and constraints associated with the proposal. These could relate to the design of the project, the characterisation of the area and/or management and mitigation measures.

Examples include:

- *positioning of the transmission infrastructure and easement corridor, including any setbacks*
- *characterisation of the scenic quality and sensitivity of the landscape and viewpoints (see the technical supplement for landscape and visual impact assessment)*
- *visual impacts including mitigation measures.*"

Recommendations

- Remove the suggestions on page 19 of the Transmission Guidelines that broad consultation should not occur during the early stages of transmission planning.
- Update the flow chart Figure 5 (page 18) to indicate that community consultation should occur earlier than at the point of identifying the preliminary study corridor, and that the community has more of a collaborative role than just giving 'views' - they have knowledge, experience and data as well as views.

6. Benefit sharing Guideline

Overall, we congratulate the Government on the framing and the approach to benefit sharing for wind and solar projects. In particular, we feel the approach to projects in the pipeline and those seeking development approval amendments is appropriate and a helpful clarification.

Section 1: Introduction

Regional communities are at the forefront of feeling the impacts of climate induced disasters – decarbonisation will mitigate some of the worst impacts and regional communities will be key beneficiaries. Although this may not be an immediate experience, it will definitely be felt by regional stakeholders in the coming decades.

Recommendation:

- Amend wording on p5: "Broader benefits (such as decarbonisation) are shared across the State and are not *immediately* realised by the communities where the development is undertaken".

Section 2: Benefit sharing for renewable energy

In general, we feel there is a need to emphasise that benefit sharing can only contribute to building social licence and will only be received well in a community where it is accompanied

by good quality community engagement practices as part of project planning. If communities do not feel heard and respected through community engagement and project development, it is unlikely that benefit sharing will be well received.

In addition, benefit sharing is a key opportunity for having positive and tangible conversations with community members. It is a principal means through which a proponent can build relationships in the community and contribute to the future vitality of an area. It is also one aspect of a project that community input can have significant influence. Community participation is fundamental for this opportunity to be maximised in terms of building social licence and delivering social value. Therefore, we include a number of recommendations that increase the scope of participation of community members in the design, delivery, governance and ongoing evaluation of benefit sharing. In particular, it is imperative this extends well beyond involvement of Council.

Section 3.1: Policy Principles

We agree that a fundamental principle of benefit sharing is to be collaborative, however to achieve this, it is imperative that community members (much broader than Council) are involved. To remain collaborative, strategic, community-focused and impactful, community members should also be involved in the ongoing governance and evaluation of benefit sharing programs.

It is important to recognise that local governments are not always seen by their communities as legitimate representatives of community interests, and they are not always well placed to represent community sentiment. In addition, if projects are seeking to establish social licence, they really need to build their own direct, positive relationships that reach deeper into the community than just the Council.

Benefit sharing is an aspect of a project that communities members can be empowered to really contribute to in terms of design and decision making. The Guidelines should include greater reference to how to involve community members in deeper modes of participation through iterative, ongoing co-design processes and ongoing governance roles.

Recommendations

- Principle 2 should read: 'Benefit sharing initiatives are designed in partnership with *community members* and councils *through iterative, collaborative community engagement processes*' p.10.
- Include in Principle 2 and / or Principle 4: '*Community members will be involved in the ongoing governance and evaluation of community benefit sharing programs*' p.10.
- Principle 4: 'benefit sharing should meet community needs ***and aspirations***' p.10**.**

Section 3.2: Mechanisms of Benefit Sharing

Neighbour benefits - it would be good to provide clear guidance on how Principle 1 (Standardised) and Principle 3 (Transparency) are enacted here. It is important that neighbour benefits are consistent and equitable among all neighbours, and that a clear offering and eligibility is transparently communicated. It could also be improved by encouraging that neighbour benefit sharing be collectively discussed and agreed between all neighbours and the proponent.

Local community benefits - it is important to note that many projects span multiple Local Government Areas and that it will be important to engage across all. We have serious concerns about the recommendation put forward by the Department to administer community benefit sharing funds through Council. While this will be appropriate in some instances, there are many instances where it will not be the preferred approach, or even the simplest approach. We do not think that it is appropriate for the Department to influence something that should be a decision made in partnership with local communities.

We are concerned that the current approach does not clarify the existing confusion between contributions to Councils and community benefit funds. We are aware of a number of instances in both New England and Central West Orana where this lack of clarity is causing conflict between community members and Councils. In other states, such as Victoria, this issue has been clarified through two separate payments: Payments in Lieu of Rates (PiLoR) and community benefit sharing. While PiLoR funds go to Council and are used for standard Council expenditure, community benefit sharing funds are directed towards community-identified priorities. Community benefit funds can be administered in a number of ways, depending on what is appropriate for the context, and are fundamentally an opportunity to build a direct and positive relationships between local community stakeholders, the project and the proponent.

It is vital that fair contributions are allocated to councils, however these must be separate and in addition to budgets allocated for community benefit sharing. A PiLoR mechanism would act as a commonly understood method for a new renewable energy project to contribute to Council budgets. Community benefit funds should create additional value in a community.

The list of examples of expenditure needs to include grants to community organisations and initiatives as an option. Grants are substantively different to sponsorship, and this difference should be noted. Historically (and especially in the wind industry) corporate sponsorship of community events and sporting teams has formed part of community benefit sharing in Australia. As community benefit sharing practices and understanding have matured,however, it is now generally understood that the best benefit sharing programs are co-designed with communities and contribute to the needs of that unique area as defined by the community. A tension can arise between what the community sees as important to spend benefit sharing value on versus what creates the best marketing and brand opportunities for a development business. For this reason it is commonly recommended that sponsorship is funded from the proponent's marketing budget where they can have full agency over where and how it is spent to meet their marketing goals, whereas community benefit sharing funding should meet community-focused needs and aspirations.

The concept of coordinating and collaborating benefit sharing across multiple nearby renewable energy projects has been widely identified as a means of generating bigger, more strategic impacts with funds while also reducing engagement fatigue. This is generally referred to as 'regional community benefit sharing', although we note it is different to the Department's use of this phrase. This is still a new concept in Australia and has not yet been implemented in practice to our knowledge. There are many considerations to keep in mind in developing a regional benefit sharing approach, and some of these are worth expanding in the Guideline. For a full discussion of these matters see this document published by Community Power Agency - *Regional Benefit Sharing Discussion Paper*.

Recommendations

- The Department implements a Payment in Lieu of Rates requirement of all new large scale wind and solar projects, akin to that in Victoria.
- The reference to Council administration as the 'recommended' option is removed.
- That 'recurrent costs of infrastructure, services or facilities' is removed as an appropriate use of community benefit funding.
- That the Examples of Expenditure list be expanded to include:

- *Grants to local groups and initiatives such as conservation, social, sporting and other community groups.*
- *Initiatives delivered in partnership with other local organisations to address long term local needs, such as access to youth or health programs.*
- *Establishment of community co-ownership or co-investment opportunities.*

- *Additional guidance should be provided on ways that proponents could partner with local community members and Councils to coordinate and collaborate to deliver strategic impact and reduce engagement fatigue.*

Benefit Sharing Guidelines

With regard to the statement: *Renewable energy projects generally have limited impacts on local infrastructure and services, therefore limiting scope for collecting infrastructure contributions under section 7.11 or 7.12 of the EP&A Act.*

These impacts can, in fact, be very significant in communities and can certainly be a cause for much conflict and concern in communities. We recommend communicating this issue with greater sensitivity in the Guideline. Communities want to know, and need assurance, that these matters are in fact adequately dealt with in the planning approval process. This is also the reason why we recommend the PiLoR approach above.

Recommendation

- Wording be changed to: *Renewable energy projects can have impacts on local infrastructure and services that are a concern to residents and Councils. These impacts are assessed in the planning approval process and conditions of consent can outline requirements for road upgrades or other means of addressing impacts.*

Section 3.3 Applicant Considerations: Proponents should be required to demonstrate quality community engagement and involvement in relation to developing a locally appropriate community benefit sharing program including significant engagement beyond Council. Proponents should also outline how communities will be involved in the implementation, governance and ongoing evaluation of benefit sharing.

Recommendation

- Include requirements of:

- demonstrate community engagement undertaken and level of community involvement in relation to developing benefit sharing plans, including significant engagement beyond Council.
- outline how communities will be involved in the implementation, governance and ongoing evaluation of benefit sharing.

Section 4: Proposed model and total value of benefit sharing

The proposed model of benefit sharing should also include reference to the role of the community in design, implementation, governance and ongoing evaluation of benefit sharing. This should include outlining the means through which community members will be engaged and involved through these stages.

The value presented for benefit sharing is in step with industry norms, however, we recommended that it be presented as a minimum contribution amount and/or a recommended range be given. Proponents should be encouraged to innovate and develop better practice if they wish to.

Questions:

After reading the Benefit Sharing Guideline, we have a number of areas that are not currently addressed and which would merit inclusion. A number of our recommendations above go some way to answering these questions.

- Monitoring of principles – how will the Department ensure ongoing monitoring and evaluation of the principles? (i.e. that funds are being directed to projects that the community values.
- How to evaluate and reward collaboration with communities?
- How can the Guidelines incentivising innovation and practice improvement?
- Is there a mechanism that could be used to encourage pooling of funds in REZs to minimise consultation fatigue?

7. Private Agreement Guideline

Private agreements should not include any clauses that limit the land owner's ability to raise concerns about the project - aka no 'gag clauses'. This recommendation is consistent with the views of the Australian Energy Infrastructure Commissioner.

The benefits (e.g. rent payments, mitigation measures) offered as part of private agreements should have a consistent and equitable means of calculation, and these should be transparently communicated among all parties. In a nut shell, people should be treated equally, and not reliant on better negotiating skills to get a good outcome. Best practice involves opportunities for all involved parties (hosts and neighbours) to collectively discuss and agree on the content of agreements.

8. In conclusion: Addressing cumulative impacts

The Draft Energy Policy Framework is a collection of new and updated documents designed to:

> "support faster and more consistent decisions, provide industry greater investment certainty, and give communities more transparency about how we will assess and manage impacts."

And:

> "ensure that communities benefit from renewable energy projects."

Our review is that the Framework makes some good progress overall towards the documents' aims. However in terms of managing cumulative impacts, it falls short. In particular, it does not:

1. Require identifications of cumulative impacts on issues such as housing, nature and land use.
2. Require sufficient planning by proponents to actively mitigate impacts and realise potential benefits (such as local training, contract and job opportunities).
3. Encourage proponents to work with community and stakeholders on mitigation and management options, especially where solutions could be designed to deliver legacy benefits (such as short term worker accommodation becoming crisis accommodation in the longer term).
4. Provide guidance for proponents and stakeholders to coordinate, collaborate, share or sequence accommodation, training, worker, and procurement needs across projects to minimise cumulative social impacts and to realise potential legacy benefits
5. Encourage community benefit through social procurement as well as via community benefit schemes

Addressing these cumulative impacts will be imperative to actually realising benefits and reducing negative impacts in regional communities.

We provide some additions guidance on some of these aspects below.

8.1 Nature, biodiversity, land use and agriculture

Under Section 5.2 of the Transmission Guidelines, there is some sound advice regarding ways to minimise impacts to biodiversity, for example:

> *The best way of minimising the amount of vegetation clearing required is to avoid and minimise these intersections as far as practicable during the route selection process by:*
> • *prioritising areas where native vegetation and species habitat are in the poorest condition*
> • *using existing access tracks where possible to minimise vegetation clearing*
> • *targeting narrow waterway crossing points to minimise clearing of riparian vegetation.*

In addition, where transmission lines will impact vegetation, the guidelines suggest: "*the remaining unavoidable impacts can be offset by the purchase and/or retirement of biodiversity credits or payment to the Biodiversity Conservation Fund under the Biodiversity Offset Scheme*".

This could mean that biodiversity lost in the area could be offset by credits anywhere in the bioregion, rather than close to the areas affected. Cumulatively, significant impacts to biodiversity will occur from multiple renewable energy projects along with transmission line projects. How could cumulative loss to biodiversity be better avoided?

Recommendations

Additional mitigations could be recommended such as:

- The use of integrated vegetation management to preserve wildlife corridor connectivity

Developers should be guided to integrate wildlife corridors and animal habitat, including at the ground layer, to minimise local biodiversity loss. This could include keeping vegetation under powerlines (e.g. to a height of 5m), revegetating creeks and drainage lines, and planning revegetation on development sites where it could provide connectivity between patches of remnant vegetation and thus minimise the loss to local species by improving connectivity nearby.

- Biodiversity offsets applied locally, and of the same vegetation type:

Properties neighbouring developments could be encouraged to register for conservation stewardship programs; which can be another way to manage cumulative impacts and provide community benefits through social procurement.

Our physical environment, nature and its biodiverse ecosystems need to be protected as we progress towards net zero emissions. Overarchingly, there is a critical need to ensure that the energy transition is not at the expense of nature and biodiversity and that this value is communicated effectively through great community engagement and participatory processes.

There are much publicised tensions between renewable and transmission projects and farming and agricultural land use. Many farming communities are concerned with how transmission lines may impact their farming practices or how large-scale renewables might impair their traditional farming approaches. Currently farmers derive benefits from the renewables sector by hosting projects on their land and receiving funds in return, but they often have large energy bills, and/or irregular supply. There is opportunity for a much more mutually beneficial and enriching story to be told, whereby renewables and agriculture work collaboratively.

Recommendations

- Greater research, funding and policy attention towards 'conservoltaic' systems[1] and agrivoltaic systems[2], so that positive nature and farming outcomes can co-exist with renewable energy targets.
- Proponents consult with communities early in project design to identify and accommodate regional environmental priorities and identify environmental enhancement opportunities.
- Planning authorities and coordinating government bodies need to work with proponents on improving the mapping process of project locations to enable community members to better assess impacts. This needs to include actively reaching out to local ecologists and knowledge holders.

[1] Nordberg, E.J. & Schwarzkopf, L. (2023). *Developing conservoltaic systems to support biodiversity on solar farms.* Austral Ecology, 48, 643–649. Available from: https://doi.org/10.1111/aec.13289

[2] https://energyindustryreview.com/analysis/agrivoltaic-systems-a-promising-experience/

- Engagement processes for projects and transmission need to utilise transparent and accessible visualisation methods; essentially, shared mapping activities that overlay the various land uses, priorities and considerations when making decisions about projects and transmission lines.
- These can also include opportunities for communities to share sites of emotional, cultural and local significance – details often obscured in desktop planning decision making processes.

8.2 Workforce planning, housing and social development

While referencing Renewable Energy Zones, the suite of Energy policy documents does not indicate how social impacts and opportunities will be, or could be managed in a coordinated way. In the New England REZ, for example, an estimated 1,000 workers will be required in southern New England in 2024 for projects already with approval (New England Solar, Tilbuster Solar and Oxley Solar) and with other large-scale projects near the point of determination (Winterbourne Wind, Thunderbolt Wind, Oven Mountain Pumped Hydro, Armidale BESS etc). These guidelines need to support mitigation for social impacts such as housing shortage and not rely on the possibility that at some point EnergyCo may play a role in coordinating cumulative impacts.

The current role of EnergyCo in coordinating aspects of the New England REZ including project sequencing and workers and worker accommodation is not transparent and difficult to report on accurately, but appears limited.

A general comment would be that the Framework in its current draft state itself does not adequately account for cumulative impacts nor does it adequately highlight the need for proponents to engage with the Cumulative Impact Assessment Guidelines for State Significant Projects or Social Impact Assessment Guidelines.

The Cumulative Impact Assessment Guidelines and the Social Impact Assessment Guidelines are not sufficiently referenced in the Framework documents and only appear as an addendum under 'Other assessment issues' at the end of the Wind, Solar and Transmission Guidelines (and the Cumulative Impact Assessment is actually missing entirely from the Transmission Guidelines).

Recommendation

1. That these two critical and complementary guidelines would be better introduced under Section 1 'Application of the guideline' of each guideline, which references noise and visual impact assessment.

While proponents are required to identify potential social impacts of their projects, the draft Framework does not give sufficient guidance to proponents and planners on *avoidance* or *mitigation* of social impacts such as increased housing demand. This is an issue that is already being felt in regional communities and will get more pronounced with cumulative impacts. Access to affordable housing is an issue that has a significant impact on the social fabric of a community and which disproportionately affects already disadvantaged people.

The Framework does not give communities understanding of how impacts will be *managed* - only that they may be *identified*. This is not sufficient. The Framework needs to provide guidance to proponents for developing mitigation and management strategies for cumulative impacts such as housing, and that requires proponents to work with local community stakeholders to develop these.

Section 2.3.1 of the Large-Scale Solar Guidelines, and Section 2.3 of the Draft Wind Guidelines, are almost identical. We will use an excerpt from the Wind Guidelines to provide an example. Section 2.3 of the Draft Wind Guidelines currently says:

> *All DAs for wind energy projects will be subject to a rigorous, merit-based assessment that includes extensive community consultation and a detailed consideration of any environmental, social and economic impacts.*

Following is an example of how the wording could be redrafted to encourage a more proactive approach to the management of cumulative impacts.

Recommendations

1. By suggesting that the Department adds the words highlighted in yellow, we add an expectation of a proactive approach to managing impacts:

   2.3 Process for assessing wind energy projects.

All DAs for wind energy projects will be subject to a rigorous, merit-based assessment that includes extensive community consultation and a detailed consideration of any environmental, social and economic impacts and how they can be avoided or mitigated.

2. Additionally, the Guidelines could go on to give some examples of mitigations, as they do for example in Appendix A - Aviation and lighting impact assessment (p 46 of Draft Wind Energy Guideline).

   For example, in regards to workers accommodation, a proponent may have identified an old hospital suitable for repurposing and have commenced discussions with the local Council and Department of Health, or are scoping a partnership with a Local Aboriginal Land Council with a workers camp for 150 workers (with an arrangement that it's leased for 3 years by developers and then becomes affordable housing).

3. The Department of Planning could consider requiring a workforce and accommodation strategy as part of the EIS to be requested with SEARs, rather than just prior to project construction. This would give additional time to coordinate training and accommodation.

We thank you for developing the Energy Policy Framework and providing the opportunity for comment. We look forward to reviewing a revised version of the documents which better reflects a proactive approach to managing cumulative impacts, to broadening the scope of community benefit to include social procurement and collaborative community governance structures, and to guide better community engagement practices.

Regards,

Heidi McElnea, Dr Jarra Hicks and Dr Elianor Gerrard

Community Power Agency
www.cpagency.org.au
Jarra@cpagency.org.au
0401 952 805

From:	Department of Planning Housing and Infrastructure
To:	DPE PS ePlanning Exhibitions Mailbox
Cc:	DPE Energy and Resources Policy Mailbox
Subject:	Webform submission from: Draft energy policy framework
Date:	Monday, 29 January 2024 9:54:49 PM
Attachments:	submission-to-nsw-planning-re-draft-wind-energy-guidelines.pdf

Submitted on Mon, 29/01/2024 - 21:53

Submitted by: Anonymous

Submitted values are:

Submission Type
I am submitting on behalf of my organisation

Name

First name
James

Last name
Litchfield

I would like my name and personal contact details to remain confidential
No

Info

Email
[redacted]

Suburb/Town & Postcode
Cooma 2630

Please provide your view on the project
I am just providing comments

Submission file
submission-to-nsw-planning-re-draft-wind-energy-guidelines.pdf (243.54 KB)

Submission
See attached file.

I agree to the above statement
Yes

DRAFT WIND ENERGY GUIDELINE - SUBMISSION

This submission is on behalf of the members of Rural Landscape Monaro Incorporated. (1400+ facebook members aka REAL Monaro).

We wish to highlight three points for the Department of Planning to consider:

1. The visual impact of wind turbines from areas other than the dwelling. Farmers spend 90% of their time on their land away from their house.
2. "Grasslands" is currently included in the frame of reference for scenic quality value as an indicator of low value. This fails to recognise that some areas are naturally treeless and are unique because of this.
3. The set back for wind turbines from dwellings where the turbines are higher than 250m should be more than 2km.

Guideline text is in italics, with red text for focus and our comments are highlighted in yellow.

Page 8 1.3 Approach to assessment

Visual impact assessment
This is the process for determining the day-to-day visual effects of a project on people's views (what people see at a place, when they are there) from the private and public domain.

Dwellings
In assessing the visual impacts on dwellings, the assessment must focus only on views from the dwelling and not from the property boundary or other parts of the property.

The "day-to-day" visual effects of a project on people's views surely means during working hours.

Those who farm and graze the land spend 90% of their waking hours outdoors working the land, and a relatively short time at their dwelling, mostly at night time.

Visual impact assessment should include viewpoints from where a landholder spends their day working. The visual impact from a dwelling could be assessed as negligible while at the same time the visual impact from the rest of the property could be huge. This needs to be included and assessed.

1.1 Purpose

The technical supplement also aims to:

- *recognise that changes to our landscapes will be necessary to facilitate the transition to renewable energy, and balance the need for this change with the need to protect unique and high-quality landscapes*

2.1 Baseline analysis

The baseline analysis should identify and describe the elements that make up the landscape in the study area, including:
the aesthetic and perceptual aspects of the landscape, particularly emphasising those that are key characteristics contributing to the distinctive character of the landscape (such as its scale, complexity, openness, tranquillity or wildness)

Page 22 Scenic Quality

Table 4 Frame of reference for scenic quality values

Vegetation	*LOW* *Extensively cleared and cropped areas with very limited variation in colour and texture* *Pastoral areas, human created paddocks, pastures or grasslands and associated buildings typical or grazing lands*

The Purpose of the technical supplement states that the need for change must be balanced with the "need to protect unique"..... landscapes

There are landscape areas with high scenic quality that are grasslands. There should be a provision for unique grassland landscapes to be given high scenic quality.

For example, the Monaro is a natural treeless plain described by prominent Geoscientist Dr Ian Roach, as "a vast naturally treeless plain or steppe that is geographically unique in Australia."

There should be a provision in the **Frame of reference for scenic qualities** that includes "**landscapes that are unique**" as stated in The Purpose above.

Wind Energy Guideline

The new visual impact methodology builds on foundational principles from the existing guideline but provides a wholly revised approach to provide greater certainty and expedite decision-making. This includes a setback for wind turbines that are fully visible from people's homes (for example 2 km from a turbine 250 m tall).

Given that the setback for wind turbines that are fully visible from people's homes should be 2km from a turbine 250 m tall tower, the **setback for a turbine taller than this should be 3km or at least more than 2km.**

Rural Landscape Monaro Incorporated (aka REAL Monaro)

Contact : James Litchfield 0417 676 561
litchfield@hazeldean.com.au