

## Submission: Gannawarra Shire Council

### VNI West Consultation Report – Options Assessment

Victoria is undergoing a once-in-a-generation energy transition and VNI West is the first major transmission project that will set Victoria up for a renewable energy future. Getting the right alignment right, the capacity right and giving the community confidence for future power supply is critical for the ongoing success of this transition.

As Victoria's ageing coal-fired power stations retire in the coming decades, our electricity system needs to evolve. Investment in large-scale renewable energy generation and storage will help provide reliable and affordable electricity at the scale needed to power Victorian homes and businesses. To date the Gannawarra Shire has been a leader in facilitating renewable energy projects and advocating for new transmission infrastructure that is for the greater good of all Victorians. The Gannawarra solar farm was the first integrated solar and storage project in Victoria and among the largest of its kind in the world when constructed. It is fair to say that Gannawarra has been leading renewable energy development and advocacy in northwest Victoria since 2010.

Gannawarra Shire and the Murray River Group of Councils have worked tirelessly to advocate for new infrastructure that will support the energy transition. Gannawarra have 3,000MW proposed and construction of solar farms underway. This includes planning permits for eight solar farms and serious plans underway for the construction of three wind farms the largest being 1,400MW. With the 3,000MW of wind and solar, six battery projects are also proposed. Gannawarra is one of few locations in Victoria capable of hosting both large scale wind and solar projects that will deliver a cleaner, cheaper, stronger energy system for all Victorians.

Unlocking the potential of these renewable energy zones is becoming more pressing. According to Bloomberg, investment in new Australian renewable energy projects fell by 60 per cent in 2019. A

Renewable energy zones (REZ's) are areas in Victoria with the greatest potential for renewable energy such as wind, sunshine, rain, tides, waves and geothermal heat. Developing these clean energy resources at scale and in a coordinated way with batteries and high voltage wires required to store and transport electricity will support the next generation power grid of renewable energy generation in Victoria.

**“Our electricity system must also change to carry energy from where it is generated to where it is needed”**

large part of this decline has been blamed on difficulty gaining approval to connect new projects to the grid, transmission losses, and congestion in parts of the network.

*It is true that the sun doesn't always shine, and the wind doesn't always blow, but with the right transmission infrastructure we can harness energy from a **variety of sources** across the country.*

*Extract from the ARENA website.*

### What the updated 2022 AEMO ESOO says;

While the latest update to the 2022 ESOO identifies numerous new developments that have increased the adequacy of supply in some regions, the changes to timing of other developments is cause for concern.

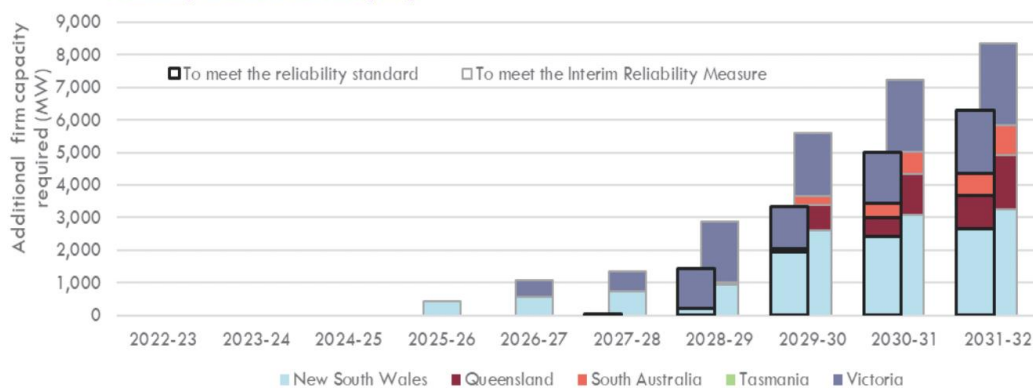
The update examines the adequacy of existing supply, considering only those developments which have completed all necessary approvals and met AEMO's commitment criteria.

### Here's the crucial statement:

“Overall, there remains an urgent need for additional commitments to occur, including in dispatchable projects such as long duration storage, to satisfy reliability requirements over the next 10 years.”

In Kerang developers have invested heavily to provide new generation based on information on AEMO websites regarding the construction of KerangLink. TRANSMISSION has been identified as a critical issue so why isn't AEMO giving serious consideration to the levels of new generation around Kerang? New renewable energy projects will need to be developed over many years to maintain growth in predicted energy use. We MUST provide the market with certainty and confidence for this investment to continue well into the next 50 years.

**Figure 2** Additional firm capacity requirement identified to deliver reliable electricity supply consistent with the reliability standard and IRM (MW)



The growth in renewables will continue well into the future so the transmission capacity MUST be maximised now to enable future generation capacity of both WIND and SOLAR. **Kerang is one of few locations in Victoria with a strong mix of wind and solar projects proposed.**

The proposed VNI west Option 5 is embarking on a completely NEW route that is untested and the risk is it will blow out timely implementation. A key strength of the KerangLink option has been the strong social licence and a sound understanding of the environmental factors and landscape. The Murray River Group of Councils has been a strong supporter of this option.

- The initial KerangLink option was well accepted by Councils and communities between Bendigo and Kerang. No protests, positive advocacy and ongoing support for solar and wind projects from both landowners and developers. Now we have a completely new option, untested with potential to generate serious opposition. Several areas in Option 5 are likely to be problematic due to high value agriculture, cultural heritage and social. Refer MCA. Communities between Gunbower and Echuca have not been adequately consulted on the proposed crossing site and the Campaspe Shire and Murray River Council don't support Option 5 crossing between Gunbower and Echuca. Twelve businesses, farmers and community members in the Gunbower – Echuca area were contacted during the week commencing 6th March. Not one person was aware of the VNI West proposal. This indicates significant shortcomings in the consultation process that has the potential to seriously impact the overall timing of the project. Recent media in the Weekly Times highlights landowner discontent around St Arnaud and the integrity of project data and information being questioned by Professor Simon Bartlett. Gannawarra has also been contacted by the NSW Farmers Bunaloo branch. This organisation is seriously concerned that VNI West will be fragmenting prime agricultural land if the line crosses near Echuca. They believe the most logical crossing is further north where the area is sparsely populated. **Option 5 or 3 with a northern connection needs more scrutiny and consideration.**
- The area between Charlton and Boort may be problematic. Lake Marmal between Charlton and Boort is the start of a high value horticultural area. Boort hosts the largest Olive Grove in the southern hemisphere comprising around 14,000 acres. There are two large vineyards that won't be easy to navigate. Woolshed swamp is a valuable environmental area located south of Boort. The area around Boort is culturally sensitive and recognised as hosting the largest amount of scar trees in Australia and any developments likely to impact the landscape would need serious consultation. Further to the south is irrigation supplied from the Waranga channel with travelling irrigators and centre pivots as well as new horticultural developments near Fernihurst. The Boort route should be seriously considered due to quality soils, horticulture, high value irrigation, cultural heritage, and natural waterways. **Again Option 1 or 3 north have obvious advantages.**
- Very few people in Boort have heard of the proposal and this is a serious problem. The submission timeframe is too short and the level of consultation to date is inadequate. The lack of consultation and the level of understanding of the new route cannot be resolved in six weeks. It is unfair to even think this consultation can be considered to make sound decisions.
- **Maintaining a northern crossing option for Option 1 or 3** makes sense on several fronts in particular the additional generation, the broad social licence and the ability to work with proactive Councils. Local consultation could resolve any likely concerns AEMO may have the environmental aspects and local Councils have significant expertise and understanding to assist in the planning and construction process that would be a massive benefit for AEMO. The northern link also has additional wind, solar and battery proposals and it covers an area that is sparsely populated broad acre cropping country. **Option 1 and 3 need serious revision and consideration.**

- We believe Option 5 is at least two years behind in terms of appropriate consultation and support along with reduced capacity and technical design challenges. It is likely that this will delay the project.
- Not connecting to Bendigo results in heavy loading of the Kerang- Bendigo 220kV line due to shared network loading and limits the achievable REZ transmission limit. AEMO is suggesting they will consider upgrades when there is required demand. The demand is current and despite previous submissions and presentations, AEMO is overlooking the Murray River REZ and Kerang. This is a transformational project, and the on-ground activities need to be considered in the planning stage and not after the event. Gannawarra has been involved in energy since 2010 and we want to work positively with AEMO to ensure the best option is selected. We know the areas extremely well and can assist to achieve the best route.
- Rural Councils in Victoria’s northwest have been advocating for transmission upgrades for years. Previous submissions have outlined generation figures that seem to be overlooked? There seems to be a disconnect between AEMO and the proposed developments in the Murray River Renewable Energy Zone – one of the key generation areas in northern Victoria. In Kerang we are still receiving calls from developers and as recently as the 20th March, received a serious enquiry for 1,000MW of wind. Is the likelihood of being an importer of energy outweighing the ability for local generation? Is Victoria happy to be reliant on NSW? What about the economic loss to Victoria? What about the communities such as Gannawarra who are providing leadership, aligning to the Victorian energy vision and offering advice and assistance. What about the value adding losses from reduced generation in rural Victoria?
- **KerangLink Northwest** Option1 or Option 3 should be considered as a “NEW “proposal with connections north of Kerang for AEMO to consider.
  - Gannawarra Shire has been promoting and telling the KerangLink story for several years now and this has developed social licence and landowner support. With 3,000MW of generation proposed and developers still making project enquiries, Kerang is the generation hub for the interconnector project.
  - Several energy developers are working on a proposal south of Kerang on a large property with a permit for 510MW of solar. The proposal is to develop 510MW solar (staged) with a 400MW battery. A wind developer is looking at 1,000MW close by that would also be in the Loddon Shire. Network capacity is choking this proposal and the REZ strategy is not addressing this.
  - Several proponents have suggested they could provide land for the VNI West Terminal station.
  - There is opportunity to consider routes to the west of Kerang in open sparse country where wind and solar is proposed along with mineral sands mining. **This option should be considered as the NEW northern river crossing.**

- Our discussions with neighbouring Councils in particular the Murray River Council in NSW and Campaspe Shire indicate that Option 5 crossing between Gunbower and Echuca isn't supported for the reasons we have highlighted in this submission. Murray River Council has also indicated that Option 5 crosses into higher value irrigated farmland and areas of higher population in NSW. Murray River Council has similar views to Gannawarra suggesting that VNI West crossing further north traverses less populated areas. Campaspe Shire have been expecting the crossing to be north of Kerang and have only just heard of the Option 5 proposal.
- NSW Farmers Branch (Bunaloo) are concerned with a crossing between Gunbower and Echuca. They believe a crossing further north makes far more sense than the intensive area between Gunbower and Echuca.

Option 5 is very focussed on Bulgana and the fact it can provide 3,500MW of wind generation. Bulgana provides wind generation while Kerang provides a mix of wind and solar. The AEMO website states that the sun doesn't always shine, and the wind doesn't always blow but with the right infrastructure energy can be harvested from a variety of sources. Option 5 is limiting generation diversity and the line route of Option 5 needs serious realignment to maximise performance and value to Victoria for the next 50 years. Anything less is a compromise for energy performance in Victoria at a time when maximisation is critical.

- Connecting Bulgana seriously reduces any chance of further connections in the northwest as marginal loss factors in the north will see Bulgana dispatched first taking all the capacity. This will further alienate landowners and Councils in northwest Victoria and rightly so.
- Option 5 provides the "lowest indicative improvement to REZ transmission limits of all seven options assessed," at just under 3.5GW, while others promised to open closer to 5GW of new hosting capacity. Why in 2023 would anyone want to limit generation when we urgently need to replace coal fired generation? This is not future proofing but restricting future renewable energy generation in Victoria and becoming more dependent on generation from NSW. If a new transmission line is to be constructed it should provide maximum benefit to Victoria. VNI West Option 5 is maintaining the consistency of transmission infrastructure with NO CAPACITY. The preferred option should be building for the future, maximising generation, maximising connection into NSW and giving the community confidence. Numerous AEMO documents refer to the lack of suitable transmission as the reason for slow uptake in renewable investments. Sadly Option 5 fails to deliver on several key fronts and does little to stimulate the level of investment in solar or provide confidence for the Murray River Renewable Energy Zone.
- The executive summary states that Option 5 impedances are relatively high, and the design is more technically challenging from a power system perspective. While harnessing an additional 3.4GW of new renewable energy in Victoria the high impedances and a differing network configuration do result in less renewable energy being supported compared to other options considered. Has this been explained to the landowners in the northwest? Do they realise that what they are getting is not a 500kv active transmission line but a piece of giant artwork that does nothing to support energy generation in rural Victoria?
  - o Transitioning from coal and taking an option that is already at capacity doesn't pass the pub test and doesn't generate confidence for the future of Victoria's power network.
  - o Choosing a route that is technically challenging is also asking for trouble. It is highly likely to be subject to budget increases and won't have capacity. It is likely to encounter increased environmental issues, especially the Echuca component.

- o How can Option 5 be supported when the two most critical aspects don't meet expectations? The transmission network in Victoria is already highly constrained and building a new interconnector line that is already constrained doesn't make sense especially in a critical transition to renewables.
  - How can the community be confident their power needs will be met into the future when the new line will be built at capacity?
  - Option 5 is going to make the transition to renewable much harder than it should be.
  
- The focus for VNI West Option 5 is about wind generation at Bulgana. VNI West needs to consider options in Victoria's Murray River Renewable Energy Zone. Why even bother to have a Murray River Renewable Energy Zone if it cannot be serviced with transmission infrastructure? The Murray River Group of Councils have continually promoted the generation capacity in the northwest, yet the current option is focussed on the southwest. The new route needs to be built for the future with capacity to pick up generation in the north and south. This will enhance security of generation and provide more diversity of generation with wind and solar. Option 5 is all about Bulgana – end of story.
  
- While Bulgana is benefiting from connection it is compromising broader line capacity, and a more technical design. Option 5 needs to be reconsidered so that capacity increases, and design complexity is reduced. Gannawarra would support the Bulgana option if it didn't compromise generation in the northwest. **Therefore Option 1 or option 3 that bypasses Bendigo and crosses north of Kerang is the only option that gives access to wind and solar and provides diversity of generation.**

## KerangLink Northwest “Revised Options”

### PRIORITY 1:

#### OPTION 1 revised - NORTH OF BALLARAT – PYRAMID HILL – KERANG - MURRAY RIVER

Any connection to Bulgana isolates future wind and solar generation in the northwest and this is incredibly disappointing. Not only disappointing but short sighted in planning for the future transition to renewables.

North Ballarat to near Bendigo to Pyramid hill to Kerang to the Murray River has to be the cheapest and best option for Victoria. This option could use a combination of wind in the south and wind and solar in the north. It's by far the most logical option and has been prioritised by poor MCA assessment.

We realise there is no best option and that no matter where the route is people won't be happy. Therefore, the preferred option needs to be the original KerangLink. This must be the most cost effective and this obviously has the highest level of social licence apart from small groups in the south. Refine the southern component and retain the northern component and share the pain.

## PRIORITY 2:

### OPTION 3 revised - WAUBRA – PYRAMID HILL – KERANG – MURRAY RIVER

Similar to Priority 1 starting at Waubra and heading north past Bendigo and via Pyramid Hill and Kerang. The route has a reasonable level of social licence and Council support, has greater capacity and shares the generation between north and south. Its cost effective and fair.

This option passes the pub test and Victorians will feel comfortable knowing the line has greater capacity for the future.

Bulgana should be connected as a stand-alone project that doesn't restrict capacity of VNI West.

Other;

**Q19 Is there potential for a terminal station at Wedderburn?** The answer states the line will be open for connections along the route. Our consultants are telling us the line is seriously constrained from day 1 and figures for new connections can't be confirmed.

- Our consultant has advised we should consider the transfer capacity of renewable energy into NSW as zero. The VNI West line could transfer 900 – 1800 MW when needed for interstate transfer, however this will not be used when renewable energy is being generated. There is effectively no difference in the wind and solar profiles between the Victorian Murray REZ and the NSW South West REZ, therefore when generating at full capacity and sending power towards Melbourne and Sydney respectively, there will be no opportunity for interstate transfer.

**Page 10 of the July 2022 PADR** recognises the Murray River REZ is projected to build substantially higher solar capacity and this diversity of generation needs to be a serious consideration for the optimal route. These revised routes are strong for wind, solar and battery and are significant distances away from populated areas.

Maintaining a connection to Bulgana in Option 5 significantly reduces Victoria's generation capacity and diversity and increases Victoria's reliance on NSW. It offers limited value to regional Victoria and favours one mode of generation – wind. Option 5 is a risk to power security in Victoria and makes Victoria highly reliant on NSW power imports.

[While AEMO claims the new Option 5 outperforms other options there is serious doubt around the MCA results. The MCA results show no justification for the ratings. Anyone with strong local knowledge of the Option 5 areas would consider some of the ratings questionable.](#)

There are some serious questions relating to the MCA results that are being challenged by local people with sound knowledge around environment, social, cultural heritage, and land use. The following points raise questions around the ratings of Option 5 and in particular the area from Boort to Echuca.

The area between Gunbower and Echuca is a high growth area on both sides of the River and it is clear the results in the MCA outcomes are skewed to the preferred option 5.

**Figure 25** of the Consultation report shows the complexity ratings used to determine the results in table 14 of the report. The following points in Option 5 have been identified by those with local knowledge as falling into categories Very High and High. Has table 14 of the report been subject to any local scrutiny, local consultation or is it based on desktop information?

**Very High:** There are active mining tenements in the Mitiamo and Pyramid Hill areas (Gold)

**Very High:** There are numerous State Parks and Conservation Reserves including Woolshed Swamp south of Boort and the Terrick Terrick National Park including the grasslands south east of Pyramid Hill. There are several conservation reserves around Patho to Echuca and an area of grassland home to the critically endangered Plains Wanderer. There are also native grasslands linked to Terrick Terrick National Park on the east side of the Terricks.

**Very High:** The area between Gunbower and Echuca hosts the Gunbower Creek, Murray River and numerous local swamps and wetlands. These would also have cultural heritage values.

**Very High:** Patho Plains is home to the Plains Wanderer and is listed as critically endangered under the Environment Protection and Biodiversity Conservation Act.

**Very High:** Kow Swamp north east of Pyramid Hill is one of the most important cultural heritage sites in northern Victoria and has international significance.

**Very High:** There is one of the largest active landfills in regional Victoria at Patho north west of Echuca.

**High:** There are numerous water bodies from Charlton on the Avoca floodplain, Lake Marmal, numerous swamps in and around Terrapee the many wetlands and lakes around Boort and the Loddon floodplain to the east.

**High:** The area around Boort has serious agricultural potential in particular high value horticulture. The area between Gunbower and Echuca is large scale dairy with much of the highway frontage irrigated by centre pivot and travelling irrigators. There are olive groves and large-scale nurseries closer to the Murray. The Mologa Ridge southeast of Pyramid Hill is very good farming land of moderate to high in the complexity chart.

**High:** The area from Torrumbarry to Echuca should be considered a significant landscape as the Murray River is the main tourism destination for recreational water sports, camping, fishing and events such as the Southern 80 Ski Race. The area is popular with lifestyle living, hosts numerous caravan parks and accommodation facilities and much of the residential expansion is along the highway. In NSW there are a range of tourism businesses including Perricoota Station (heritage), Deep Creek Marina and several vineyards.

**The MCA results for Option 5 land use needs serious scrutiny**, anyone who knows the area well will agree the rating of 0.06 compared to the other option ratings of 0.17 needs to be questioned and justified.

### **Cultural Heritage**

- The Boort area has very strong cultural heritage links.
- The Boort Lakes, Loddon River, Terrapee Nature Conservation Reserve, Woolshed Swamp Wildlife Reserve, Buckrabunyule Nature Conservation Reserve, Mysia Nature Conservation



Reserve and Mysia Bushland Reserve as well as the Kinypaniel Creek are all important cultural areas.

- The Mitiamo area is littered with significant environmental and cultural features including:
  - Mount Terrick Nature Conservation Reserve, Terrick Terrick National Park, Terrick Terrick National Park Roslynmead Grasslands, Little Kotta Nature Conservation Reserve and Mount Hope Creek, yet rated by AEMO as the lowest risk area?
- The cultural heritage issues along the area from Gunbower to Echuca can't be underestimated. There are numerous small swamps and wetlands along the eastern side of the highway along with the Gunbower Creek and Murray River. The area between Gunbower and Echuca is likely to come under intense scrutiny as people become aware of this new proposal.

The MCA results for Option 5 cultural heritage are highly underrated. How can Option 5 have such an MCA score with critical cultural heritage?

## Social

- There is no doubt that the level of social licence from near Bendigo to near Kerang has been a standout that hasn't been achieved elsewhere.
- Option 5 has an MCA score of 21 for social compared to the others at 40,41,42. Does AEMO understand the values around the Murray River from Gunbower to Echuca?
  - This is the water sports playground for Echuca Moama Tourism.
  - The River is home to the largest water ski race in the world, the Southern 80.
  - This area is packed with campers during holiday periods.
  - This area has strong links to indigenous people.
  - It's a key area for freshwater fishing and camping.
  - The area along the west side of the highway is large scale corporate dairy with huge travelling irrigators. The NSW side is valued agricultural land.
  - The area along the Murray on both Victoria and NSW is popular for lifestyle living and includes places such as Perricoota Station, Deep Creek Marina, caravan parks and accommodation, houseboat hire and function centres.
  - The impacts in this sensitive area are likely to be significant when communities recognise what is proposed.

It's interesting that the social aspects of Option 5 have again rated well and yet some areas within the option are considered some of the key regional tourism destinations in Victoria. Tourism at Echuca Moama is all about the Murray River. Residential developments are heading towards Torrumbarry following the river on both sides. The Murray Valley Highway is extremely busy and population growth in Echuca Moama is extremely high. In fact, Moama is one of the fastest growing areas in NSW.

**MCA;** We would have no hesitancy in debating the MCA results. It is clear they have little resemblance to what is on the ground. It looks to be an exercise in justifying Option 5?

## In Closing

Thank you for the opportunity to provide comments on the VNI West proposal. We are incredibly disappointed with the way this new option has rolled out and the way that as a leader in renewable energy in the local Government sector have had limited consultation and communication around the options.

1. Option 5 crossing near Echuca isn't supported by the Murray River Council in NSW, the Campaspe Shire or the Murray River Group of Councils and the proposed crossing of the Murray River near Echuca is seriously problematic.
2. The KerangLink variation to **Option 1 and 3** needs serious consideration. These options address the concerns of many stakeholders, increases network capacity, increases social licence, and provides a lower risk, lower cost option.
3. Building a new line with no capacity is seriously questionable and that Bulgana will be dispatched first due to marginal loss factors and take all capacity. This will leave the northwest stranded.
4. Gannawarra is prepared to help with a route west of Kerang but with clear direction on connection capacity. We are not prepared to engage landowners to justify a constrained transmission line.
5. Bulgana sees Victoria relying on wind generation and imports from NSW.

We strongly urge AEMO to reconsider the options and provide Victoria with a serious renewable energy future.



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