

Thursday, 12 March 2020

## Murray River Group of Councils Submission to the AEMO – TransGrid VNI-West RIT-T PSCR

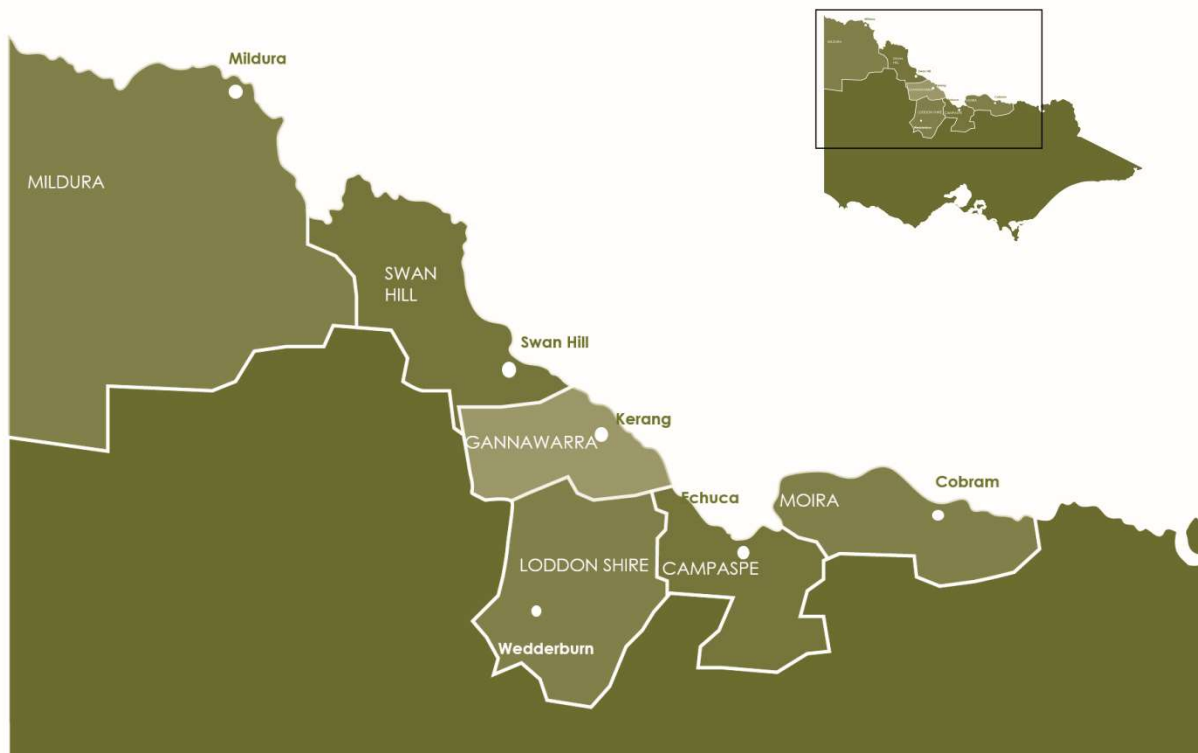
### Introduction

Thank you for the opportunity to comment on the AEMO – TransGrid Victoria to New South Wales Interconnector West (VNI West) Regulatory Investment Test for Transmission (RIT-T) Project Specification Consultation Report (PSCR).

The Murray River Group of Councils (MRGC) comprises six councils in northern Victoria: Mildura Rural City Council, Swan Hill Rural City Council, Gannawarra Shire, Loddon Shire, Campaspe Shire and Moira Shire.

MRGC is home to the Murray Renewable Energy Zone (REZ) and part of the Central North Victoria REZ. The six MRGC councils have been working collectively since 2017 to unlock the huge renewable energy resource in our region which has the potential to turn the Murray Valley into the clean energy valley that will power South Eastern Australia.

Map1: The Murray River Group of Councils region



## Transmission Network Requires Urgent Upgrading

The MRGC holds the strong view that the Victorian Transmission network requires significant and urgent upgrading to ensure reliable supply into the future and to enable the State to meet its ambitious 50 per cent renewable energy target by 2030.

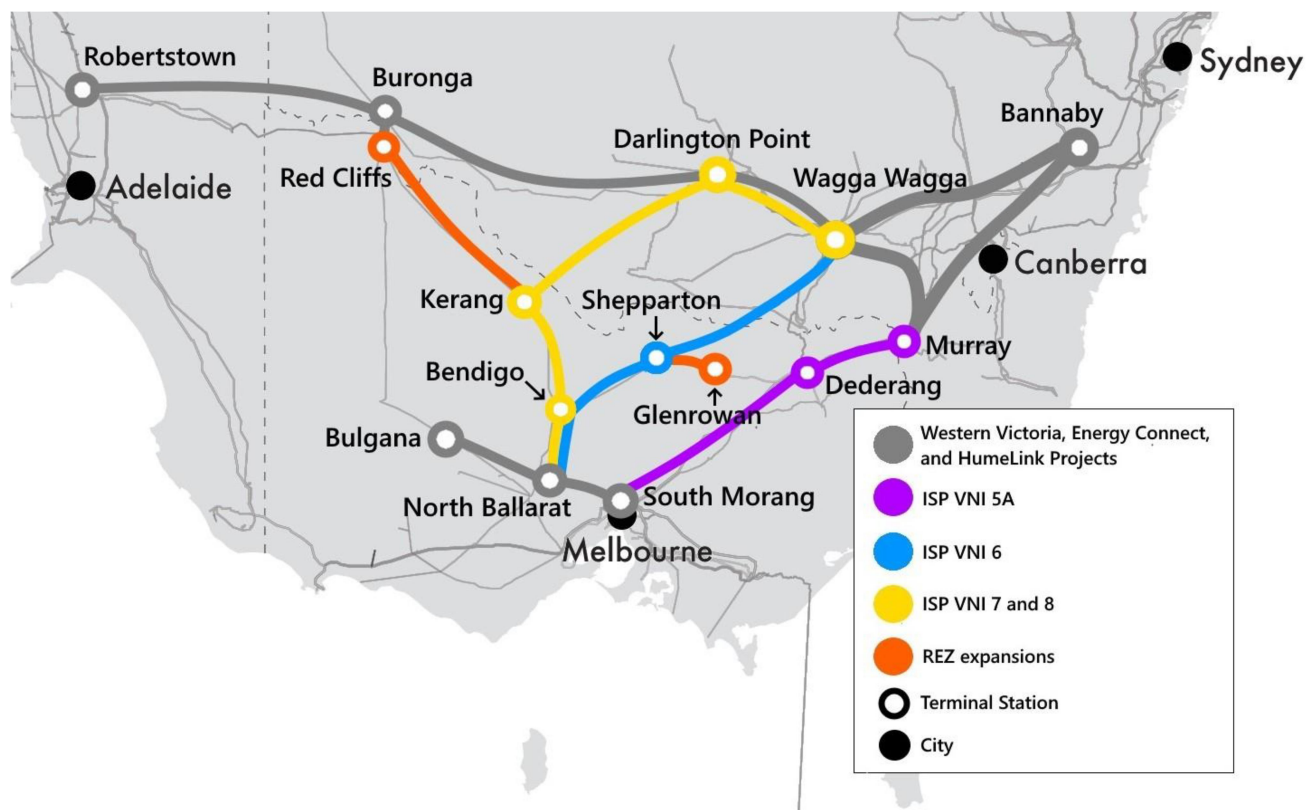
The MRGC supports upgrading the interconnector capacity between Victoria and NSW as part of this overall upgrading of the transmission network. However, these upgrades are required now. The timeframes set out in the PSCR are too long and will place significant renewable investment in our region at risk.

The required upgrades include a new 500 kV transmission line from Ballarat – Bendigo – Kerang with double-circuit 220 kV transmission lines from Kerang – Wemen – Red Cliffs and a minimum double-circuit 220kV transmission line from Bendigo – Shepparton – Glenrowan.

MRGC considers that both these upgrades are required urgently and that work to progress these could be undertaken in parallel with the RIT-T process in order to deliver certainty to project proponents and maximise investment in renewables.

## VNI-West RIT-T

Map 2 Credible Options – source: AEMO PSCR



### **Preferred Option: VNI 7 with REZ Expansion A**

The MRGC contends that of the credible options put forward in the PSCR, **VNI 7 with REZ Expansion A** is clearly the preferred option.

VNI 7 with REZ Expansion A would provide the most benefits to the system as a whole and would result in the swift development of significant amounts of renewable large scale solar power generation in the Murray REZ.

It would also provide significant benefits that are outside the scope of the RIT-T but are critical to the ongoing prosperity of our region.

VNI 7 with REZ Expansion A would

- unlock the potential 5.7GW (current issued permits or interest) of solar power generation in the Murray REZ
- be the best in terms of the planning and land acquisition task given the social licence in the north west
- provide the highest level of diversification for the transmission network
- be the most resilient of the options given the topography and geography of the corridor
- provide the highest level of system strength of the proposed options

#### **VNI 7 Credible Option as described in the PSCR**

VNI 7 involves constructing new 500 kV double circuit lines from North Ballarat – Bendigo – Kerang – Darlington Point - Wagga, new 500 kV terminal station equipment with two 500/220 kV transformers at Bendigo and Kerang Terminal Stations, new 500 kV terminal station equipment with two 500/330 kV transformers at Darlington Point Substation, and a new 500/330 kV transformer at Wagga Wagga Substation, using high capacity equipment. This option will require additional power flow controllers within existing terminal stations and potential reactive plant within existing and new terminal stations along the route.

### **Unlock the solar power potential of the North West**

The Murray River REZ already has 2,614MW of planning permits issued for projects ranging from 5mw to 510mw. There is also strong interest in another 3,150MW from developers keen to invest in the region.

MRGC regards AEMOs figures of 2000MW of solar generation in the Murray REZ as a significant underestimate.

Many other prospective investors have registered initial interest but have been discouraged due to the network congestion issue currently limiting renewable generation in the region.

Given the solar resource and available suitable land in the Murray REZ this interest is likely to consolidate into investment should the VNI-7 transmission line upgrade be completed. Particularly if the Expansion A component is also commissioned.

The potential for solar expansion as demand grows into the future is greater in the Murray REZ than in the other corridors being considered by the RIT-T with more land available in the North West.

#### Current and future project potential of the MRGC Region

Location	Permitted projects	Capacity	Interest
Mildura	6	1003mw	750mw
Swan Hill	3	217mw	620mw
Gannawarra	8	1154mw	1580mw
Loddon	1	240mw	200mw
Campaspe	12	707mw	440mw
Moira	4	381mw	??mw
Total			

Source: MRGC councils

#### Community Engagement and Social Licence

The community in the north west of Victoria is supportive of large scale solar farms.

This has been demonstrated over a number of years by the planning permit processes MRGC member councils have undertaken in approving applications for 2,614MW of generation to date.

The community is actively supportive of the use of what is predominantly marginal farming land, much of it that has been dewatered in the past two decades.

Further, the development of the Loddon Mallee Renewable Energy Roadmap has clearly demonstrated that there is strong social license for renewable energy development in the North West of the state with little opposition.

This is in contrast to the VNI – 6 route which would traverse high quality soils and significant irrigation infrastructure. The land values are also relatively higher than in the VNI 7 corridor and the settlement pattern, with relatively smaller parcel size, makes for a more protracted planning and land acquisition task.

While there is support in parts of the Central North Victoria REZ for renewable projects, the

social license is less consistent and community opposition has already been felt to solar projects. Further community engagement will be required to build the social license in this corridor.

It is for this reason that, while MRGC supports the upgrading of the Shepparton transmission network, the Group holds the view that this is the secondary priority.

The social licence combined with the settlement pattern and land values in the Murray REZ and VNI-7 corridor makes this the most viable option in terms of land acquisition and planning considerations.

### **Diversification of the Transmission Network**

VNI-7 provides a new high capacity interconnector making it immediately more suitable than the VNI-5 route. It provides a more geographically diverse spread of interconnector capacity than either VNI-5 or VNI-6.

Combined with the REZ Expansion A option it would also provide further system strength and interconnector diversification by providing improved access to the Buronga-Red Cliffs interconnector. This additional benefit would not result from either the VNI 5 or VNI 6 routes.

### **System Resilience**

The VNI-7 corridor is considered by MRGC as the most resilient route for 500KV transmission lines given the relatively flat terrain over largely marginal agricultural land with relatively less infrastructure.

While subject to inundation, the existing transmission infrastructure coped with the 1/100 yr flood event in 2010/11 and it proved relatively straightforward to secure the Kerang substation. The inundation risk is quantified and is unlikely to change

The bushfire risk in the area of the VNI-7 corridor is minimal. This is particularly in contrast to the VNI-5 route which traverses densely wooded and mountainous terrain with significant environmental value.

Access to the corridor for future maintenance and management is also far better for VNI-7 than for the VNI-5 route, again due to the terrain. The VNI-6 route, while better than VNI-5, would not deliver all the benefits of VNI-7 in terms of increased interconnector resilience.

### **Other Comments**

MRGC is of the view that the project completion timeframes outlined in the PSCR are too long and that investment in this critical infrastructure must be brought forward as a matter of urgency.



As part of an overall transmission system upgrade strategy, there are parts of the network that would be common to both VNI-6 and VNI-7 – namely 500kV lines between North Ballarat and Bendigo that should be considered for investment in parallel with the interconnector upgrade project.

### **Other Benefits**

The RIT-T process is restricted by the National Electricity Rules to consider only specific benefits. If wider regional development goals of Government were able to be considered then the VNI 7 option would deliver a significant economic benefit to North West Victoria.

The Loddon Mallee Renewable Energy Roadmap recently completed by the Central Victorian Greenhouse Alliance on behalf of the Loddon Mallee New Energy Taskforce, estimates that by mid- decade, renewables could deliver well over \$1 billion in supply chain benefits alone to the region and create over 3200 jobs during construction. This would create much needed growth in an area of Victoria with the highest rates of social and economic disadvantage.

The Murray River REZ and South West NSW REZ are large areas of land with scope for further renewable energy development. The landscape is flat and agriculture is predominately lower value cropping and grazing – ideal development zones.

### **Conclusion**

While the MRGC believes that the transmission network upgrades that would be delivered by VNI-7 and VNI-6 are both vital need to be completed urgently, in terms of the interconnector upgrade that is the focus of the PSCR, the option that would deliver the highest return on investment is **VNI-7 with REZ Expansion A**.

While the PSCR suggests that this would be the most expensive of the options, MRGC believes that the costs associated with land acquisition, land use planning, construction and long term maintenance would be less along this route meaning that the whole of life cost would not be as disparate as initial estimates by AEMO indicate.

Furthermore, the benefits of this option far outweigh the other credible options in terms of the amount of renewable energy potentially available in the Murray and SW NSW REZ's; the speed at which projects could be realised in the north west and the future expansion potential of these areas; and the system strength and resilience outcomes that would be achieved.

Should you have further questions please don't hesitate to contact MRGC Executive Officer Geoff Turner on 0419 030 314 or [gturner@mrhc.com.au](mailto:gturner@mrhc.com.au)