Submission: Gannawarra Shire Council

AEMO Western Victorian Renewable Energy Integration | Regulatory Investment Test – Transmission | Project Assessment Draft Report

1. Council supports upgrades to the Transmission Network, but the Preferred Option is limited in scope and will not unlock the potential for solar generation in the North West Victorian region.

1.1. The AEMO Preferred Option provides for only minor system augmentation for the parts of the transmission network critical to the Bendigo to Kerang and to unlock the enormous solar generation potential in the North West area of Victoria.

1.2. Council is disappointed that AEMO did not consider the further options set out in our submission to the PACR of upgrading the Bendigo – Kerang – Wemen- Red Cliffs transmission network which would not only support additional investment, but would work to bring forward infrastructure that will be built in the medium term such as the "Snowy-Link" interconnector between Sydenham – Kerang and into NSW.

1.3. Council believes that the Victoria – NSW interconnector from Sydenham to Wagga should be immediately considered to meet the revised V-RET and capture the commercial opportunities currently on offer.

2. The Preferred Option is predicated on assumptions for growth in solar generation in the North West that do not align with regional data

2.1. AEMO assumptions are that some 5000MW of generation capacity will be built in the west of the state in total by 2025.

2.2. Gannawarra Shire Council data shows that the current pipeline for potential large scale solar generation is 5810MW in the North West of Victoria i.e. Gannawarra, Mildura, Swan Hill, and Loddon Shires. Of this, projects totalling 2660MW of generation currently have Planning Permit Approval.

3. The constraints on the RIT-T process prevent the Preferred Option from responding in the best possible way to the fast pace of change in the industry and Government policy

3.1. The RIT-T process is heavily constrained by the National Electricity Rules and these constraints have, in our view, resulted in the Preferred Option.

3.2. The Preferred Option does not take account of potential industry investment in the transmission network. Currently Gannawarra Shire is facilitating two such proposals.

3.3. The industry is moving at a far faster pace than AEMO is able to and Government policy is also moving (for example, February 2019 announcements for investment which may bring forward a second Tasmanian interconnector and Snowy 2.0) - potentially undermining the RIT-T assumptions about the retirement of coal. We believe the advancement of renewables and the retirement of coal is moving much faster than anyone has anticipated.

3.4. The geographical and time limitations on the RIT-T mean, that in our view, it does not take proper account of the development of the NSW-SA interconnector and of the future "Snowy Link" Victoria-NSW interconnector.

4. Council is supportive of the proposed Sydenham – Ballarat 500kV line and is in principle supportive of the minor augmentations to the Ballarat – Horsham – Red Cliffs – Wemen – Kerang – Bendigo Transmission Network

4.1. The proposed construction of a new 500kV line between Sydenham and Ballarat is a critical part of the required infrastructure. It is vital that this upgrade is prioritised and commences in the immediate term.

4.2. As set out in the AEMO 2018 Integrated System Plan (ISP), this will support the future construction of a 500kV interconnection via Kerang into NSW "Snowy Link". It is the view of Council that this is a critical piece of infrastructure that should be prioritised in order to maximise the current investment opportunity.

4.3. Council supports the upgrade to the interconnector at Red Cliffs – Buronga as part of the proposed new SA – NSW interconnector from Wagga Wagga to Robertstown which will provide additional capacity for further solar generation primarily in the Mildura area.

4.4. Council believes that commercial investment should be considered to accelerate the proposed transmission upgrade to the Bendigo- Kerang line. There may even be scope to accelerate the Sydenham to Kerang section prior to further connection in NSW.

The **VRET** will ensure that 25 per cent of Victoria's electricity generation comes from renewable sources by 2020, and *40 per cent by 2025*. It is expected the targets will drive around $9 billion of investment and create more than 11,000 jobs over the life of the scheme. The Andrews Government aligns the Victorian party with its federal counterpart, which proposes a nationwide target of 50 per cent renewables by 2030, and matches the targets made by the Queensland and Northern Territory Labor governments.

The renewable energy targets are great news for Victoria and great news for the environment and we congratulate the Andrews Government for their commitment to renewable energy. Additionally the development of renewable energy, in particular solar in North West Victoria, has the potential to create in excess of 5,000MW of new generation.

The area between Bendigo and Mildura already has **2,660MW** 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 Gannawarra, Swan hill, Mildura & Loddon local government areas. This is fantastic news for the environment and for future sustainability; especially for small rural Councils who have been so proactive in promoting renewable energy.

BUT, this investment faces the dilemma of a massively constrained transmission network primarily between Bendigo and Kerang, where there is currently 1657mw of permitted projects and an additional 1,800mw of serious interest in large scale solar projects.

Location	Permitted projects	Capacity	Interest
Gannawarra	8	1200mw	1580mw
Mildura	6	1003mw	750mw
Swan Hill	3	217mw	620mw
Loddon	1	240mw	200mw
Total	18	2660mw	3150mw

The transmission network from Bendigo to Mildura is certainly constrained and this area of north west Victoria is by far the most capable area for solar generation in Victoria. The North West area "should' be playing a much greater role in meeting the Victorian RET.

The recent AEMO Project Assessment DRAFT report proposes to build a new line from Redcliffs to Buronga in NSW which will improve capacity for generation close to Mildura, but do nothing to alleviate the constraints between Bendigo and Kerang to Wemen (Swan Hill) where much of the generation is proposed, and where we already have Victoria's FIRST large scale solar farm and battery storage. The Gannawarra Shire believes that the proposal to upgrade the Sydenham to Bendigo to Kerang to Wagga line outlined in the AEMO Project Assessment DRAFT report should be accelerated to ensure Victoria meets the revised V-RET by 2025.

Gannawarra is currently dealing with 2 companies that have expressed a serious interest in upgrading the Bendigo to Kerang line. Both of these companies are major players in the international renewable energy sector and have indicated their interest to resolve the network issues.

AEMO Project Assessment DRAFT proposes a new, large New South Wales – Victoria interconnector (Sydenham – Wagga via Bendigo, Kerang, and Darlington Point) that would increase inter-regional transfer capacity and relieve transmission constraints between Kerang and Sydenham. It would increase the need for additional capacity on the Sydenham – Keilor 500kV line, and on the Keilor 500/200 kV transformers.

This work has been suggested for around 2030 but the demand from energy generators is now and the Councils wish to capture these opportunities that will contribute significantly to the Governments V-RET. These transmission projects are transformational for many of the small rural communities and will go a long way towards making many sustainable, as well as provide jobs and business opportunities in rural Victoria.

Improve Victoria to New South Wales export capability
The 2017 VAPR assessment of export capability to New South Wales concluded that the gross market benefits of increasing Victoria to New South Wales export capability was likely sufficient to justify augmenting the associated three limitations within the Victorian DSN.
The 2018 VAPR reassessed the export capability to New South Wales considering the latest available information.

If the issue is not addressed, Victoria may be forced to import electricity from interstate imports. Already some potential generators are going into holding mode due to the uncertainty around capacity and uncertainty around the timing of transmission upgrades.

Several private companies have expressed serious interest in upgrading the existing 220k line, building a new line or even building a private line. It is understood AusNet is also keen to upgrade this network. With generation demand, with investor interest in the line and with AusNet keen to upgrade, this is a perfect chance to maximise the opportunities of the commercial sector companies.

Identified need for investment
The identified need is to increase the capability of the Western Victoria power system, to reduce constraints on projected new generation in that region.

AEMO projects that over 3,000 megawatt (MW) of new renewable generation may be constructed in Western Victoria as a result of the Victorian Government's VRET target. New generators connecting to this part of the Victorian electricity network are expected to be heavily constrained by emerging thermal limitations on the 220 kilovolt (kV) transmission system, with up to half of their energy output curtailed (depending on proximity to constraints).

- *Work undertaken at Local Government level indicates that these figures based on network connection applications, are not a true representation of what the*

commercial market is actually doing. Many development companies are not actively applying for connection because of the huge costs associated with this work and that they are aware that the network is constrained and see the network connection process as a futile waste of time and money. They know there is no capacity so they are holding back on connection applications.

Thermal limitations in the transmission network may result in a lost generation opportunity for Western Victoria generation of over 1,600 gigawatt hours (GWh) per year. Inefficient generation dispatch could result in higher prices for electricity for consumers. Preliminary market modelling, assuming connection of over 3,000 MW of new renewable generation, shows that removing thermal limitations in Western Victoria, either through network augmentation, non-network services, or a mix of both, could result in a gross market benefit of $300–500 million over 30 years, from reducing the cost of generation alone. The next stage of this RIT-T will further quantify the benefits of augmentation across different scenarios, and with more accurate assumptions.

- *With the new V-RET now aiming at 40% renewables by 2025 there isn't much time to be playing a waiting game. The Sydenham to Bendigo to Kerang to Wagga interconnector needs to be accelerated to at least meet the new V-RET and make use of the significant investment proposed in North West Victoria.*
- *We are not asking for something that isn't recognised – we are asking that the timeframe be accelerated to meet the V-RET 2025 and the current commercial interests.*

AEMO Project Assessment DRAFT suggests replacing four transmission line structures, with conductors and insulators between Bendigo to Kerang, by 2025. This work could be carried out with the minor line works proposed in Section 7.1, or if new 220KV network capacity is built between Bendigo to Kerang, OPGW can be built at the same time.

This proposed work will do little to remedy any capacity limitations on the Bendigo to Kerang line. In fact, given the V-RET has moved to a 2025 target this work should be replaced with a more robust upgrade to better represent the generation proposed and the revised V-RET.

Origin Energy expects the capacity of renewable energy in Australia to double over the next three years, through a mix of large-scale plants and rooftop solar, and is looking at multiple options for big batteries around the grid.

"We see the energy markets rapidly accelerating into a de-carbonised world," CEO Frank Calabria told an analysts briefing on Wednesday after the company delivered a hefty first half underlying pre-tax profit of $1.74 billion