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Ms Anh Mai  
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Department of Environment, Land, Water and Planning

Lodged by email: [REZDevelopment@delwp.vic.gov.au](mailto:REZDevelopment@delwp.vic.gov.au)

Dear Ms Mai,

## **VICTORIAN RENEWABLE ENERGY ZONES DEVELOPMENT PLAN – DIRECTIONS PAPER**

The Clean Energy Council (CEC) is the peak body for the clean energy industry in Australia. We represent and work with hundreds of leading businesses operating in renewable energy and energy storage. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

The CEC welcomes the opportunity to comment on the Victorian Renewable Energy Zones (REZs) Development Plan directions paper. We commend the Government for its commitment to a 50 per cent renewable energy target for Victoria by 2050 and see the development of REZs as a scale efficient approach to deliver this new renewable energy generation. The development of an additional 10GW of renewable energy generation capacity in REZs would put downward pressure on electricity prices, make a material contribution to meeting the state's emissions reduction goals and also stimulate hundreds of jobs and economic activity across regional communities.

In this submission, the CEC comments on:

1. Initial REZ development plan
2. REZ governance

### **1. Initial REZ development plan**

The CEC appreciates the efforts made by the Victorian Government to identify the potential network investments required to facilitate the state's six REZs and prioritise these investments into two stages. Whilst there is much detail still to be developed in relation to the identified projects, we commend the Government for moving quickly to develop an initial REZ Development Plan given delivering network augmentations is the most critical element for the success of REZs. We also commend the Government for its ambitious timetable to finalise the Development Plan and get on with the delivery of the identified projects. Broadly, the CEC supports the two-staged approach for REZ development, with stage one focused on immediate priority projects that can be delivered by 2025 to address present or project needs and stage two focused on medium-term projects.

## a) REZ projects

### V2: Murray River

The REZ Development Plan suggests increasing the rating of the Western Victoria Transmission Network Project (WVTNP) from 220kV to 500kV from North Ballarat to Bulgana. This a welcome development and addresses a current concern in industry given the Australian Energy Market Operator's (AEMO's) 2020 Integrated System Plan states the current WVTNP, which has completed the Regulated Investment Test for Transmission (RIT-T) process, will only provide 450MW of new capacity.

Given the importance of this project, the CEC recommends using the *National Electricity (Victoria) Amendment Act 2020* (NEVA) may be the best approach to provide for the additional augmentation over what was approved in the WVTNP RIT-T. The CEC also recommend the Victorian Government consider whether the North Ballarat 500kV line could be constructed as a double circuit so that the network is resilient to contingencies on one of the 500kV circuits.

In its assessment of options for the WVTNP, care should be taken by the Government to ensure the upgrade can deliver a positive benefit for consumers without overinvesting in transmission.

### V4: South West

The expansion of generation in the far west of the state relies on being able to transmit the power through to the load centres, mainly increasing the loading on the two 500kV lines between Moorabool (MLTS) and Sydenham (SYTS). These lines are already reaching towards their power transfer limits, meaning voltage collapse could become an issue for the west of Melbourne if under high power transfer coincides with a line fault.

There has been little or no discussion on building the third line between SYTS and MLTS although the existing easement was originally designed to allow for a third 500kV line as is the case when looking past Keilor back to La Trobe Valley. The Victorian Government should consider the use of existing easements for developments in this region that may provide accelerated development and a lower cost, lower regulatory burden approach to transmission development.

### V5: Gippsland

Since the directions paper was released, EnergyAustralia has announced it will close Yallourn Power Station in 2028, four years earlier than anticipated. The Victorian Government should assess whether refinements to the development plan are required as a result of this earlier than anticipated closure. We note there are no stage one projects for this REZ and seek clarity on whether this remains the case with the earlier closer of Yallourn Power Station.

### Batteries

The directions paper suggests eight storage projects, assumed to be Battery Energy Storage Systems (BESS), in stage two of the REZ Development Plan. All of these BESS are recommended to be three hours in duration. The CEC seeks clarity on whether the three-hour duration is a standard assumption given to all the BESS or if detailed modelling was completed that identified that three-hour BESS was optimal in all eight cases.

The CEC notes that the purpose given for all eight BESS is to increase utilisation of renewable energy by enabling the absorption of excess energy from renewable generation during periods of negative customer demand due to rooftop solar PV. This is one use for BESS. BESS can also act as a 'virtual transmission line' or non-network option to alleviate constraints. Where a particular line augmentation is proposed, further detailed consideration of these augmentations should assess BESS alternatives.

Given all the BESS are proposed for stage two of the REZ Development Plan, the CEC suggests the Victorian Government consider progressing a BESS in stage one. This will allow for the demonstration of battery capability early on and ensure the network is better supported across the full suite of essential system services. In supporting a BESS at this early stage and demonstration system strength capability for grid forming, it may potentially avoid the full number of future synchronous condensers needs identified in the REZ Development Plan.

#### *Synchronous condensers*

With respect to the projects proposed for system strength involving synchronous condensers, it should be noted that many of the system strength issues caused in the West Murray Zone and North Queensland have been resolved through retuning the control systems and softening the reactive power response of the control systems in the inverter connected plants. Whilst retuning cannot be planned in the same way as the network projects proposed in REZ Development Plan, it can assist to address system strength issues. The CEC suggests the Victorian Government keep in mind as it delivers REZs that generator retuning can supplement the projects outlined in the Development Plan.

We note, however, that retuning is not without its challenges. Existing generators are hesitant to retune their control systems as it may require all their performance standards be reopened and that they undertake a 5.3.9 process as defined in the National Electricity Rules (NER). Reform of the NER to better facilitate retuning may be required to make this a more viable option.

#### *b) Procurement, cost recovery and asset ownership mechanism*

Given the staged nature of the projects identified in the REZ Development Plan and the different types of identified projects, there is no single procurement, cost recovery and asset ownership mechanism that could be applied across all the projects.

#### *Stage one*

The CEC commends the Victorian Government's ambition for stage one in not just identifying these priority projects but also its intention to release details of the approved projects for immediate financing from the Government's \$540 million REZ Fund in May 2021. We support this approach. Given the Government's intention to deliver these projects by 2025, we consider the least complex and therefore fastest approach to deliver these projects would be through using the existing regulatory framework, namely to use a combination of funding via the Government's REZ Fund and its NEVA legislation.<sup>1</sup> We caution that the RIT-T should be avoided where possible for these projects given the RIT-T tends to be a lengthy and onerous process. It is unlikely that a RIT-T could be completed and a

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<sup>1</sup> This applies to the projects over the \$6 million threshold for the RIT-T. For the minor augmentations and potentially the South West communications upgrade which are estimated to cost less than \$6 million, the RIT-T is not required.

project delivered in the requisite timeframe. It may be appropriate that the remainder of the existing arrangements for the delivery of transmission investment in Victoria, including the tendering of the investment, should be retained for these projects, given these arrangements are well understood and established in Victoria.

The CEC suggests where the REZ Fund is utilised this should not result in recovery of costs from consumers through transmission use of system charges as this would effectively result in a double charging of Victorian consumers.

#### *Stage two – lines*

The directions paper explains that stage two projects are those intended for the medium-term that require further technical analysis and assessment of costs and benefits. Given there is more time to deliver these projects, albeit not a significant amount of time in the scheme of network development, more innovative approaches to procurement, cost recovery and asset ownership could be considered for these projects.

The renewable energy sector can appreciate there is a strong desire to ensure that consumers do not carry excessive risk in relation to network augmentations, particularly through avoiding potential network asset underutilisation or stranded asset risk. However, this worthy principle often leads to discussions of how generators can directly fund network developments. Whilst generators are not opposed to funding network developments, we caution that this will not necessarily result in lower cost outcomes to consumers. A generator's internal rate of return will be higher than a network service provider's (NSP's) regulated weighted average cost of capital. As such, any generator funding of network developments will likely flow through to higher wholesale electricity prices. Given this, where a RIT-T can be satisfied or a positive net benefits test is achieved for potential NEVA projects, the preferred approach should be for the network project to form part of the NSP's regulated asset basis.

Generator funding models should be considered primarily for private network augmentations (akin to the New England Transmission Infrastructure project in NSW) or those that cannot be progressed through the existing regulatory framework. In these cases, the Victorian Government will need to make clear exactly what generators are paying for and the resultant benefits they receive. These discussions often move quickly towards access, as is currently being considered by the Energy Security Board (ESB) in their stage two work on an interim REZ framework. The CEC cautions against too quickly moving the discussion towards access. The ESB and Australian Energy Market Commission's (AEMC's) recent considerations of access demonstrate how complex access reform can be, particularly as there is no clear consensus position on access across all stakeholders. The CEC does not support the introduction of locational marginal pricing and financial transmission rights as proposed by the ESB and AEMC. In addition, the meshed nature of the Victorian transmission network makes it difficult to identify geographical boundaries for REZs where access arrangements could apply.

#### *Stage two – batteries*

Given BESS operate within the energy market, these should be competitively tendered. As the CEC suggested in our October 2020 submission on VRET II, the Victorian Government could consider establishing a Grid-scale Storage Fund. The Storage Fund could award successful projects through an annual capacity payment in line with the service provided or grant funding. Another approach may be to have contracts for difference on the ancillary services provided by a battery but this is more complicated to establish and administer.

The Victorian Government is currently providing support for the Victorian Big Battery (VBB) following an auction process for a System Integrity Protection Scheme (SIPS). We note the VBB has a different objective to the BESS in the REZ Development Plan. Notably, the SIPS is intended to protect against a contingency during peak periods when prices would be expected to be very high whereas the BESS in the Development Plan are intended for periods of negative demand when prices would be expected to be relatively low. This distinction must be kept front of mind when drawing from the recent SIPS experience to develop auction parameters for the BESS.

Any tender process for BESS should specify a minimum duration rather than a firm duration. This will allow proponents to oversize BESS if appropriate, which should still deliver the required service and could provide a stronger underlying business case to the proponent. The Government could also consider a grid-forming capability criterion for the BESS. This could reduce the need for synchronous condensers, however the technology is still maturing and a very clear technical specification of the capability would be required.

#### *Stages one and two – synchronous condensers*

The AEMC is currently undertaking a body work on system strength that could have implications for the proposed synchronous condensers. In late 2020, the AEMC released its final report in relation to its system strength frameworks investigation which outlined a series of recommendations to evolve the existing system strength framework.<sup>2</sup> It is now progressing these recommendations through its consideration of TransGrid's efficient management of system strength on the power system rule change request. A key regulatory evolution being progressed is for transmission network service providers (TNSPs) to become responsible for proactively providing system strength needs to maintain security.

Given the REZ Development Plan has a number of synchronous condensers in both stages one and two, the Victorian Government should be cognisant of the work being undertaken by the AEMC. Depending on the final details of the rule change and its implementation date, the AEMC's potentially revised system strength framework could be used for the proposed synchronous condensers. Should the implementation date be too far in the future to make it not immediately useable for the Victorian Government's REZ needs, we recommend the Government consider the possibility of pursuing legislation to give effect to the AEMC's approach in Victoria until such time as the national framework commences.

#### *c) General comments*

##### *Cost-benefit assessment*

Ensuring the network projects represent value to Victorian consumers and taxpayers will be vital. Irrespective of the procurement and funding method used for any individual project, public transparency of the cost-benefit analysis should be supported. This is already provided for in RIT-T process and should be a feature of other procurement and funding methods.

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<sup>2</sup> AEMC, Investigation into system strength frameworks in the NEM, Final report, 15 October 2020. <https://www.aemc.gov.au/sites/default/files/2020-10/System%20strength%20investigation%20-%20final%20report%20-%20for%20publication.pdf>

## *VRET II*

The Victorian Government has announced a second auction (VRET II) for the supply of at least 600 MW of renewable energy generation. The Government should make clear whether there is a connection between REZs and VRET II, namely whether it is the Government's intention that VRET II projects must locate within a REZ. Such an approach could deliver shared scalable connection solutions. However, this must be weighed up against the potential to narrow the field of potential participants to the detriment of quality projects that are outside of a REZ.

### *The need for flexibility in the REZ Development Plan*

The announcement of the earlier closure of Yallourn Power Station in 2028 raises an important consideration for the REZ Development Plan, namely that it will need to be flexible to changes that may occur in the system, such as other potential earlier retirements of large thermal generators. In the same vein, the Development Plan should be flexible to developments in other states that are therefore outside of the Victorian Government's scope of influence. Examples include REZ developments in NSW and the potential that Project EnergyConnect may not progress, which would likely have implications for stage two of the Development Plan.

Similarly, the REZ Development Plan will need to be flexible for technological advancements that may occur, such as further advancements in battery storage, grid forming inverter capabilities and hydrogen storage.

The CEC suggests the Victorian Government consider how revisions to the REZ Development Plan will take place, including whether formal timeframes for these revisions and a consultative process with industry are warranted.

### *VNI West*

The Commonwealth and Victorian Governments recently announced they would jointly underwrite up to \$200 million to enable early works on KerangLink, reportedly on a 50:50 basis. The CEC seeks clarity on whether the Victorian Government's share of this underwriting will be taken from the \$540 million REZ Fund.

## **2. REZ governance**

The directions paper explains that the Victorian Government will establish VicGrid in mid-2021, tasked with the overarching planning and development of Victorian REZs. The CEC supports the establishment of VicGrid and sees that it could have a number of important responsibilities.

### *a) Transmission planning*

Compared with other National Electricity Market (NEM) jurisdictions, Victoria has unique transmission planning and connection arrangements as these are undertaken by AEMO rather than AusNet Services as the Victorian TNSP. This framework was designed around the contestable delivery of regulated transmission network augmentations.

The arrangements in Victoria create a complicated environment for connecting generators as they are required to negotiate and execute multiple arrangements with AEMO (given its responsibility for new generation connections) and AusNet (given its ownership of shared network assets) in order to

connect. This results in greater costs and delays in the connection process in Victoria compared with the other NEM jurisdictions.

The creation of VicGrid should not cause duplication or uncertainty in terms of AEMO's or AusNet's roles in Victoria. The CEC would particularly caution that it should not create another layer for generators to navigate in order to connect in Victoria and that generators should have a single point for accountability for the generator connection process to ensure no unnecessary complexity for the connection process.

We consider the creation of VicGrid provides an opportunity to review the current arrangements in Victoria across AEMO, AusNet and VicGrid to remove any overlapping responsibilities and iterative processes. In creating VicGrid and assessing responsibilities across all the relevant bodies in Victoria, the Victorian Government should ensure that the responsibilities of each are clearly defined and that these responsibilities sit with the organisation best placed to manage these.

The CEC recommends that Victorian transmission planning and connection arrangements should be transferred from AEMO to AusNet. AEMO should, however, retain its national planning responsibilities. A single point of accountability with respect to the planning of the network is essential for the efficient design of the network and avoiding unintended reliability and security concerns due to reduced complexity. This will also bring the Victorian arrangements into alignment with the other NEM jurisdictions. As AusNet is the owner of the shared network assets and has commercial drivers, this should also help deliver more timely delivery of REZ infrastructure and generator connections. In transferring these functions to AusNet, AusNet should also receive adequate funding to undertake these functions.

In light of this, the CEC considers VicGrid should have a strategic planning function in relation to REZs. This could be similar to the role of the REZ Coordinator as envisaged by the ESB. This could involve coordinating the development of REZs in accordance with any potential framework set out in the NER, holding any tender processes and managing any access frameworks. VicGrid and AusNet should work closely in undertaking these functions.

The CEC agrees that VicGrid should be responsible for the maintenance of the REZ Development Plan, working alongside AusNet to ensure the timely delivery of the identified projects.

#### *b) Financial support for REZ development projects*

The CEC suggests VicGrid could have a role in financial support for REZ development projects as the administrator of the \$540 million REZ Fund. This could involve fully funding stage one projects and providing funding for early development works for projects undertaking a RIT-T in stage two to expedite the construction of these projects. VicGrid could further a further role in expediting the RIT-T process as the current framework does not adequately support anticipatory investments as proposed in the REZ Development Plan. The RIT-T only promotes incremental investment.

#### *c) Community engagement*

The Victorian Government has a critical role to play in establishing and communicating the overarching vision for the REZs in regional communities. As the lead implementation agency, VicGrid should have a strong role in this regard.

The CEC suggests VicGrid should invest heavily in community information and engagement programs to build awareness of the rationale for these development zones, provide assurance that the infrastructure build will be planned and delivered in consultation with communities, and to communicate the Government's commitments to maximising the economic, employment and quality of life benefits for communities, as a result of this landmark investment.

An important function of VicGrid's will be to broadly oversee the communication flows to communities to ensure that the various agencies and proponents operating in the area are acting in concert with the broader development plan and expectations.

VicGrid should also give early consideration – in consultation with communities – to the range of benefits that should be supported through the REZ development, such as local employment and skills programs, initiatives to support opportunities for local supply chains and regional benefit sharing schemes (such as regional community enhancement fund), keeping in mind that such schemes will also need to balance the requirement for delivering competitively priced electricity for consumers.

*d) New industries*

The primary focus of REZs to date has been on the electricity supply side. However, REZs can offer benefits for the demand side as a location for new industries. VicGrid could also have a role in developing approaches to attract new industries, such as renewable hydrogen and manufacturing, to REZs.

*e) Reviewing the role of VicGrid*

The CEC suggests the Victorian Government give consideration to whether there should be a formal timeframe to review the role of VicGrid. It may also be appropriate to consider a sunset for VicGrid.

Thank you for the opportunity to comment on this consultation. The CEC looks forward to supporting the Victorian Government to refine the REZ Development Plan, establish VicGrid and develop the six Victorian REZs. If you would like to discuss any of the issues raised in this submission, please contact me on [lpatterson@cleanenergycouncil.org.au](mailto:lpatterson@cleanenergycouncil.org.au) or (03) 9929 4142.

Yours sincerely,



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