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Dear Ms Mai,

### **Victorian Renewable Energy Zones Development Plan Directions Paper**

AGL Energy (AGL) welcomes the opportunity to comment on the Department of Environment, Land, Water & Planning (DELWP) Victorian Renewable Energy Zones (REZs) Development Plan Directions Paper. We appreciate the manner in which DELWP has commenced this consultation with early engagement and by providing specific details of proposed investments at an early stage. We are generally supportive of the Victorian Government's proposal to augment the transmission network in Victorian REZs to facilitate the connection of more renewable generation in the NEM and the proposal to create VicGrid to actively plan and develop Victoria's REZs. Our concerns and suggestions regarding the proposals are outlined below.

AGL is one of Australia's leading integrated energy companies and the largest ASX listed owner, operator, and developer of renewable generation. Our diverse power generation portfolio includes base, peaking and intermediate generation plants, spread across traditional thermal generation as well as renewable sources. AGL is also a significant retailer of energy and provides energy solutions to over 3.6 million customers in New South Wales, Victoria, Queensland, Western Australia, and South Australia.

### **Interaction with existing market bodies**

AGL encourages DELWP in its REZ development, and framing of VicGrid, to ensure alignment with AEMO and its Integrated System Plan (ISP). We note that the specific network investments contemplated in the initial REZ Development Plan have been chosen in consultation with AEMO and we suggest that VicGrid be bound to continue to do so in future. VicGrid should be guided by AEMO's ISP as it is a whole of system plan and it is crucial that transmission augmentation to facilitate Victorian REZs be considered with regard to the potential impact on all regions of the NEM, including the impact of transmission upgrades on interconnector flow. If VicGrid works closely with AEMO this should also help to minimise duplication.

We consider that VicGrid could add particular value in adopting a connection coordination role through which it facilitates negotiations between developers, original equipment manufacturers, AEMO, and AusNet. VicGrid could for example assist with disputes regarding connection issues such as the need for system modelling, process transparency, scheduling of generator testing, determining inverter settings, and system strength concerns.

We note that the ESB is proposing a national REZ framework which the States may or may not decide to adopt, as they consider their own REZ and renewable frameworks. We are concerned that this may lead to a disconnect between NEM regions and may create potentially contradicting requirements between the states, which may create inefficiencies and increase costs for market participants which will ultimately flow to consumers. We therefore suggest that VicGrid adopt a coordinated approach to REZ development with a mechanism which is consistent with other NEM regions.



In regard to the ESB and AEMC Coordination of Generation and Transmission Investment proposal to introduce Locational Marginal Pricing (LMP) and Financial Transmission Rights (FTRs) in the NEM, AGL suggests that DELWP not include support for this proposal in progressing the Victorian REZ Development Plan and VicGrid. AGL considers that whether LMP and FTRs in the NEM are required and will be cost effective remains an open question. While the absence of adequate mechanisms to ensure new investment is well located has led to the inefficient location of a much investment in new generation capacity in the NEM in the last decade, we note that an increased understanding regarding the congestion risk of poorly located investment, including improved access to system information due to the Transparency of new projects rule change, combined with the ISP and REZs are likely to significantly improve this problem.

## Competition

The NEM operates with the basic principle that competition delivers the most efficient allocation of resources and therefore markets are used for the supply of products and services where possible, the exception of course being networks which are effectively monopolies and therefore regulation is the most efficient alternative. This structure means that the supply of electricity, frequency, and system services is subject to competition and the investment risk is borne by investors. Which contrasts with networks for which competition does not provide a constraint on prices and the investment risk is borne by consumers. The AEMC and ESB are striving to apply these principles in the design of new markets for system services and we suggest that DELWP have the same objective with regard its REZ development and the framing of VicGrid.

AGL suggests that only transmission augmentation which does not intervene in markets for electricity, frequency, and system service is suitable for direct Victorian government or TNSP funding (e.g., the network capacity additions, new transmission lines, and communications upgrades contemplated in Stage 1 and Stage 2 of the initial REZ Development plan). Since batteries and synchronous condensers provide services in competition with generators, AGL suggests that it would be preferable if assets of this type were not funded directly by government where possible. We suggest that a competitive procurement process to obtain tenders from market participants with proposed remediation solutions to address an identified system need would be a more efficient approach. Ideally the procurement process would be technologically neutral, and therefore it would define the system need (e.g., increased system strength) without mandating the technology required to remedy it. Proposed solutions could include commitments to operate from existing synchronous generators, synchronous condensers, network augmentation, battery solutions, modification of a hydro unit to allow it to run in synchronous condenser mode, conversion of decommissioned thermal plant into a synchronous condenser, or any other technology that could address the shortfall. Further information on this suggested approach is included in AGL's 20 August 2020 submission to the *AEMC System Services rules changes consultation paper* and the 2016 AGL *Inertia ancillary service market rule change request*.

DELWP has indicated that batteries are not included in the Stage 1 immediate priority projects of the initial REZ Development Plan because batteries clearly compete with generators and therefore it is more complicated to fund a battery directly through the Victorian Government initial REZ fund. AGL agrees with this rationale, however we suggest it can also apply to synchronous condensers since they can provide system services in competition with generators.

While many market participants suggest that system services (excluding frequency) are not currently valued in the NEM. AGL is of the view that while system services are not currently valued through price, they are valued through volume. Synchronous generators do not receive a higher price for the system services they provide (which is appropriate since the supply of system services does not increase their short-run marginal cost) however they are dispatched in higher volumes when these services are required e.g., when asynchronous generators are curtailed, or directions apply. We therefore consider that the non-competitive procurement of system strength and inertia (by way of the installation of synchronous condensers or



batteries with these capabilities) would amount to a government intervention in existing markets, and any new markets for these services that will be created through the ongoing AEMC and ESB work in this space.

For these reasons, we suggest that the specific services required from the eight batteries and eight synchronous condensers proposed in the initial REZ Development Plan should be procured as services (not assets) on a competitive basis to reduce the potential negative impact of this intervention on existing and future markets. This would ensure that existing and future incentives for market participants to invest in generation, synchronous condensers, and batteries (including incentives to install grid-forming rather than grid-following inverters) are not undermined through the Victorian Government's development of REZs. In addition, it would ensure the risk of investment in the assets required to provide the services would be carried by investors rather than taxpayers (or customers if these assets are included as part of the regulatory asset base). Although we note that in some instances private investors may not be interested in a particular project, in which case, once this is determined, direct government investment may be necessary.

## Existing generators

To ensure efficient network development and generation investment we encourage DELWP to ensure that REZ development in Victoria does not increase costs or reduce transmission access for existing generators. This includes ensuring REZ developments do not create network congestion for existing generators and ensuring government interventions through direct investment in batteries and synchronous condensers (as discussed above) does not occur.

If you have any queries about this submission, please contact Anton King on (03) 8633 6102 or [aking6@agl.com.au](mailto:aking6@agl.com.au).

Yours sincerely,

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