

18 May 2018

Therese Grace
Australian Energy Market Commission

Lodged electronically: www.aemc.gov.au

Dear Ms Grace,

RE: Coordination of Generation and Transmission Investment Stage 2 Discussion Paper (EPR0052)

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 solar, wind, hydro, bioenergy, marine and geothermal energy, energy storage and energy efficiency along with more than 5,000 solar installers. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

Understanding the potential for coordination of generation and transmission investment is key to increasing the efficiency of the transmission network and to realising the benefits for the wider system. The CEC welcomes the opportunity to input into the Australian Energy Market Commission's (AEMC's) Coordination of Generation and Transmission Investment (COGATI) Stage 2 Discussion Paper.

The current energy market reforms underway must be progressed as a package

There are a number of reform processes currently underway in the National Electricity Market (NEM). Transmission investment and network operation are a focus of many of these processes, including the:

- the rule changes resulting from the AEMC's System Security Market Frameworks Review, particularly the rule change on managing the rate of change of power system frequency;
- Australian Energy Market Operator's (AEMO's) Integrated System Plan (ISP);
- Australian Energy Regulator's Regulatory Investment Test for Transmission (RIT-T) Application Guidelines; and
- AEMC generator technical performance standards rule change.

In addition to these processes, at its 20 April 2018 meeting the COAG Energy Council announced that the Energy Security Board (ESB) would have responsibility for coordinating the work of the energy market bodies on planning and regulation of the transmission system and interconnection.

It is important that these processes are coordinated and progressed in tandem. The objectives of the COGATI review, specifically this stage to develop Renewable Energy Zones (REZs) and investigate transmission development and investment options, are closely linked to the market reforms stated above, and should be considered interrelated. Although the details of the ESB's responsibilities are not yet clear, there is a

potential that ESB coordination of the reforms currently underway could achieve better outcomes than separate, uncoordinated processes.

Renewable Energy Zones are a positive step in the transition

The concept of REZs as stated in Finkel Recommendation 5.1 has the potential to support the investment in energy generation required to achieve a future NEM that is reliable, secure, low emissions and affordable. REZs could benefit the market by increasing economies of scale and improving efficiencies in generation output. If REZs are well-planned, communities could benefit from development and investment that is strategically located in respect to towns and communities.

The capacity issues currently expected must be anticipated in future models

The CEC agrees that improved planning and coordination between generators and transmission networks would improve investment outcomes, and that REZs have the potential to meet this future need of the NEM.

However, identifying REZs must also be cognisant of inadequate network capacity issues that are likely to develop across the NEM in the future and potentially in these identified areas. Realising the benefits from REZs requires that these issues are addressed. As such, the AEMC's consideration of how to practically define REZs must also consider how to address these potential capacity issues. The proposed solution of clustering may be appropriate in this regard.

Network strength should not impact the viability of coordinated investment

Additionally, system strength must be considered. There are parts of the renewable industry that are currently facing generation curtailment and additional license conditions that impose generator requirements for system strength. This is in addition to the rule changes currently being progressed as an outcome of the System Strength Market Frameworks Review. The AEMC must outline how system strength requirements will impact the success of REZs and provide assurances for their viability.

The likelihood of constrained access in future networks should be considered

The AEMC notes that its modelling currently shows limited congestion between regions, and that transmission network service providers (TNSPs) are studying plans for interconnector upgrades. However, this focus is misplaced. The key issue is that congestion patterns could change in the future, and this could impact the cost of connection and operation for market participants. Although the AEMC notes that the modelled cost of congestion (approximately \$17 million) for the 2016/17 year is relatively small, this focus on the current state of congestion is not indicative of the future state of congestion.

There are options for future management of congestion

There is increasing concern among market participants regarding future transmission congestion. This raises the issue of the necessity for future congestion management. However, the CEC urges the AEMC to consider alternative options to its preferred

optional firm access (OFA) model. Solutions for congestion must be considered holistically, particularly within the context of the upcoming ISP. The introduction of OFA would not contribute to a holistic vision. Congestion management must not be considered separately to the assessment of the potential for REZs and models for transmission investment.

Current transmission investment frameworks are not appropriate

It is widely acknowledged that the primary framework for transmission investment, the RIT-T, is inadequate for the scale of transmission required to support the current market transition. Transmission is currently planned by individual TNSPs in each jurisdiction except in Victoria where AEMO is responsible for network planning, which does not necessarily support a wholesale transition from a market dominated by conventional generation to a renewable system.

The RIT-T process does not currently support coordinated investment models and REZs. As a starting point, the RIT-T framework should be enhanced to consider a wider scope of benefits, in addition to its market benefits test, as a means of capturing the greater value of investment. This could assist in providing support for the coordinated investment required as outlined in the COGATI review.

CEC assessment of new models proposed for transmission investment

The AEMC has provided a valuable summary of the spectrum of options available to develop REZs (Table 5.1). The CEC has analysed the options presented against our criteria for assessing policy proposals, particularly the principle that policy changes should aim to provide a long-term investment signal that supports financing of new energy generation capacity and can lead to lower wholesale and retail electricity prices. We consider none of the options is a perfect solution and that further consideration is required for the following reasons:

- Option 1 – Enhancing information provision is unlikely to provide the change required to incentivise coordinated transmission and generation planning in the NEM as it represents an enhanced business-as-usual approach.
- Option 2 – Although possible, it is unlikely that generators will be incentivised to put aside commercial and competitive differences in order to coordinate connection processes.
- Option 3 – Although TNSP speculation is a viable option, TNSPs do not currently have the appetite for this level of risk-taking and as such this approach would require a significant change to their business models.
- Option 4 – Prescribing a TNSP service would be a significant change to the current network business models and poses a significant cost to consumers.

In its further deliberation on this issue, we emphasise that the open access regime should not be changed.

The inclusion of batteries in transmission networks is a unique market arrangement

Utility-scale storage is a unique asset in the market. The CEC supports the consideration of utility-scale batteries as a separate market classification. Its unique characteristics

mean it cannot be clearly categorised as generation, load or hybrid asset classes. This is a position supported by the treatment of battery assets in international markets.

The behaviour of utility-scale batteries as time-varying generators and loads means the current method of calculating and applying transmission use of system (TUOS) charges is not appropriate for these storage assets. Utility-scale storage assets are also unique in their potential to provide network support, congestion management services and an alternative to network augmentation works. This provides support for the rationale that applying TUOS charges as they are currently calculated would not fairly represent the value that utility-scale storage assets provide. This lends itself to a more innovative cost-reflective approach to TUOS charging for batteries.

We would welcome the opportunity to discuss this submission with the AEMC at any stage. Please contact Emma White on ewhite@cleanenergycouncil.org.au or (03) 9929 4107 in the first instance for any queries regarding this submission.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lillian Patterson', with a stylized flourish at the end.

Lillian Patterson
Director Energy Transformation
03 9929 4142
lpatterson@cleanenergycouncil.org.au