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Jess Boddington
Australian Energy Market Commission
201 Elizabeth Street
Sydney NSW 2000
Submitted via AEMC website 'lodge a submission' function.

11 November 2019

Dear Ms Boddington,

Re: AEMC Discussion Papers - Proposed Transmission Access Model and Renewable Energy Zones

Enel Green Power (EGP) welcomes the opportunity to respond to the Australian Energy Market Commission's (AEMC's) Proposed Transmission Access Model[1] and Renewable Energy Zones (REZs) Discussion Papers.[2]

Founded in 2008, and part of Enel Group, EGP builds and operates large scale renewable generation capacity in energy markets around the world. EGP operates in 29 countries on 5 continents with a managed capacity of over 43 GW and over 1,200 plants. EGP is one of largest renewable energy companies in the world, generating approximately 82 TWh of renewable electricity from hydro, solar, wind and geothermal resources.

EGP considers the AEMC's proposals for reforming transmission access, pricing and investment in the National Electricity Market (NEM) hold promise. If carefully designed and implemented a framework for financial transmission rights and dynamic regional pricing could help address some critically important transmission issues generators are increasingly facing due to the pace and scale of the energy transition.

However, while we provide 'in principle' support for the proposals, the details will matter. We stop short of expressing our full support for the proposed reforms until we have had an opportunity to fully assess the detailed rule changes that will be necessary to implement the new framework.

With this in mind, we make some observations on each of the discussion papers below and look forward to engaging on the detailed rule change proposals in the new year.

Proposed Access Model

The Australian Energy Market Operator (AEMO) forecasts that some 50,000 MW of new renewable generation capacity will enter the NEM over the next two decades. EGP considers that generator competition for scarce transmission capacity and its impacts on generator access to market will become an increasing financial risk for generator businesses, which is currently almost impossible to for them to manage. If the erosion of predictable and secure access to the grid is not addressed this could undermine

[1] AEMC, Coordination of Generation and Transmission infrastructure Proposed Access Model, Discussion paper, 14 October 2019
[2] AEMC, Renewable Energy Zones and Renewable Energy Zones, Discussion paper, 14 October 2019

investment in new renewable generation capacity in the NEM, placing at risk the achievement of Australia's climate change objectives.

The existing transmission system was built to connect large fossil fuel generators located near coal and gas resources to demand centres. Renewable resources are typically located in different areas, often at the fringes of the grid where network infrastructure is either non-existent or weak. As most excess transmission capacity near demand centres has now been used up, new entrant renewable generators are being forced to cluster in weaker parts of the grid, requiring generators to compete for limited transmission capacity and causing system strength issues. This is already causing connections to be delayed and the dispatch of some generators to be constrained well below their desired dispatch levels - some recently well publicised events have caused several renewable generators in North Western Victoria to have their dispatch levels reduced by more than 50% of their capacity.

There is currently no way for generators to manage the erosion of access and impact on their loss factors caused by the subsequent co-location of other connecting parties over time. This issue is likely to worsen in the context of a power system that will become increasingly characterised by the clustering of generators in renewable resource rich areas.

The AEMC's proposals for financial transmission rights could provide a tool for addressing this transmission (congestion) risk, particularly if transmission access rights can be designed in a way that:

- accommodates the intermittency of renewable capacity;
- allows loss factors to be hedged;
- captures both thermal and non-thermal constraints (i.e. if generators are required to contribute to the costs of maintaining system strength then they should be able to capture the benefits of doing so); and
- are sufficiently long term to match the tenure of power purchase arrangements.

Critical to the design of financial transmission rights however is that they can be made sufficiently firm so that they achieve their intended objective of creating a reliable hedging instrument for generation businesses.

In this regard, while we support the proposal for a settlement residue fund to underpin the simultaneous feasibility of such rights, EGP also considers that a proportion of auction revenues should be made available to supplement the fund, rather than being used solely to offset transmission use of service (TUOS) charges for consumers. Having an additional pool of funds available to enhance the firmness of transmission rights will lower perceptions of risk for generation businesses and increase confidence in the new framework. This will support new investment in both generation and transmission capacity, which should more than offset any loss in transmission benefits for customers.

Renewable Energy Zones

Achieving Australia's climate change objectives will increasingly require accessing areas of rich renewable resources, so called Renewable Energy Zones (REZs), located remote from existing demand centres. To access these resources is going to require significant investment in new transmission capacity .

The Regulatory Investment Test for Transmission (RIT-T) consultation process currently provides the principal mechanism for building new transmission capacity in the NEM. Because customers pay for transmission investment however, the RIT-T is a slow and fraught consultation process, which uses a complex assessment framework for justifying investments based on modelling potential future benefits under multiple different scenarios. As forecasts of the future are necessarily uncertain, the modelled benefits and how they a distributed among different classes of participants is often open to interpretation and dispute. For this reason, the RIT-T has typically favoured smaller incremental investments where improvements in lowering congestion or increasing reliability can be clearly demonstrated relative to the cost of the investment.

However, as a decision-making framework for establishing what transmission projects should be built where and when to support access to remote renewable resources, the RIT-T lacks the timeliness and predictability necessary to effectively support the speed and scale of the transition necessary to support climate change objectives.

While there are significant weaknesses inherent in the regulated transmission investment framework, there are few incentives for generators themselves to fund the transmission infrastructure necessary to support development of REZs. As is clearly articulated by the AEMC in the discussion paper, this is because a generator that invests in the shared transmission network cannot stop others from connecting nearby and free riding on the additional capacity created. Despite its investment, the generator would continue to face the risk of being dispatched below their desired levels and having their access to market eroded by others. This clearly undermines the incentive for investing in transmission in the first place.

For these reasons, we see some merit in the AEMC's proposed new framework for supporting private investment in transmission. In return for privately funding transmission capacity, generators would receive long dated financial transmission right, providing them with predictable access to the market price for the life of the asset. Under this model, generators should have stronger incentives to collaborate and collectively fund transmission capacity in order to capture economies of scale in network infrastructure. This is because they would be able to individually secure the long-term benefits of doing so.

This framework, supported by AEMO's Integrated System Plan, is likely to be better suited to supporting future generator access to REZs, because a complex and lengthy consultation process which takes a lowest common denominator approach to building new transmission would no longer be necessary. This is because it would be the collective interest of generators, demonstrated through their up front financial commitments, rather than central planning that would determine which REZs should be supported by transmission investment and the scale and scope of the investment required.

Further, because generators rather than consumers are funding the transmission under the proposed model, they would bear the costs and stranding risk of the investments. The process for getting transmission built should therefore be more straightforward and timely compared with the existing RIT-T process.

Concluding thoughts

EGP sees some merit in the proposals set out in the discussion papers. However, our full support for the proposed reforms to transmission will be conditional on a detailed assessment of the rule changes required to give effect to the new framework. This will be critical for EGP to be able to fully assess its implications on EGP's growing generation portfolio.

Please feel free to contact Con Van Kemenade, Head of Regulatory Affairs, on 0439399943 to discuss anything we have raised in this submission.

Yours faithfully,

Javier Blanco

Country Manager

Enel Green Power Australia