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David Swift  
Independent Deputy Chair  
Energy Security Board

By email to: [info@esb.org.au](mailto:info@esb.org.au)

Dear Mr Swift,

**Interim REZ framework - Phase 2 consultation Paper.**

Enel Green Power (EGP) appreciates the opportunity to respond to the Energy Security Board (ESB)'s Consultation Paper.

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 28 countries on 5 continents with a managed capacity of over 46 GW and over 1,200 plants. EGP is the largest privately owned renewable energy company in the world, generating approximately 100 TWh of renewable electricity from hydro, solar, wind and geothermal resources every year.

EGP supports the framework for Renewable Energy Zones (REZ) proposed by the Energy Security Board (ESB). We consider it will lead to faster and simpler connections and lower overall connection costs.

We also agree with the ESB that a mechanism for managing access to scarce transmission capacity will be needed given the extraordinary influx of renewable generation capacity entering the market. We are less persuaded than some others that transmission investment will keep pace with the expected level of new entry, despite the best of intentions of the Integrated System Plan (ISP). The ISP is an action plan. It says little about the practicalities of delivering the transmission projects it proposes - in particular the resource, cost and community constraints that might get in the way.

Building transmission infrastructure is hard, complex, contentious and expensive. It takes a long time relative to the construction of renewable plants - some four to five times longer. We do not see this changing any time soon. Some form of congestion hedging mechanism that does not depend on transmission itself to alleviate the congestion risk, would seem eminently sensible as Australia transitions into a fundamentally different energy market environment. The National Electricity Market (NEM) is changing from one characterised by a few large thermal generation plants located close to demand centres and with access to plentiful transmission capacity, to one dominated by much smaller and more numerous zero marginal cost generators competing for access to limited transmission capacity in areas remote from existing demand centres.

We are disappointed the development of an enduring framework for nodal pricing and financial transmission rights has been put on hold for now. EGP acknowledges however that by and large industry is not supportive of such a framework. The threat of congestion has so far not materialised, with the prevailing view that the purported benefits of such a framework are not worth the complexity and cost of implementation as well as impacts on financial contracting arrangements.

Given the prevailing industry sentiment against such a framework it would seem prudent to delay further development and implementation of a more generalised framework for now, perhaps until such time as progress in current planned transmission developments and future patterns of congestion become clearer.

### **Access Options**

With the above in mind, we support the efforts of the ESB to develop a transitional localised framework for pricing and access within REZ. This will be essential if industry players are expected to help fund such developments. We also note that in other markets, such as in the US, the UK and in parts of Europe - where generators pay for transmission they also have a guaranteed level of access to that transmission.

Ideally, the approach developed and recommended under the Phase 2 process will have general application across transmission developments that pass the regulatory cost-benefit analysis (and thus confer net benefits to the market) and those which are primarily privately funded, because they benefit a group of generators and/or other market participants (i.e. Designated Network Assets ).

Regarding the specific access models covered in the consultation paper, we do not consider Models 3 and 4 would be feasible without a more generalised FTR/Nodal pricing framework being applied across the whole network. This is because it would be difficult for industry players to understand or model interactions between NEM and local REZ prices and the impacts of this on financial transmission access and contracts.

On the other hand, Model 1, which would maintain an agreed level of transfer capability for rights holders, would be complex to apply in a meshed network, as the existing 'do no harm' provisions for connection would attest. Model 1 is likely to cause precisely the types of delays for new entrants that occur under the 'do no harm' provisions currently applying in the connections process.

Our preference is for Model 2, the financial access protection model. This model bears some similarities to the 'constrained off' payments that apply in the UK and some European markets. An important difference to these arrangements is that compensation under model 2 is paid for by future new entrants who locate nearby, rather than by end users. This limits perverse incentives for generators to purposefully locate in constrained areas in order to collect constrained-off payments, increasing costs for customers.

The proposed model, in our view, also would deal with one of the key issues facing investors in the market: the clustering of renewable generators in particular areas of high resource potential and limited transmission capacity. Nothing under the current framework prevents first movers into a renewable energy zone from inevitably losing access over time as new generators connect close by and congest the available transmission capacity. Lower access to market is compounded by adverse changes to loss factors for all within a REZ as too much generation attempts to push itself through the limited available transmission capacity.<sup>1</sup> These issues will worsen as transmission capacity inevitably fails to keep pace with new generation entry.

We consider that Model 2 could help alleviate these issues, providing new entrants with greater certainty of reliable access to transmission over time and more stable loss factors – the latter would arise as a consequence of new entry better matching the available transmission capability.

We understand the proposed access rights based on Model 2 would not be fully financially firm. Congestion occurring outside the REZ could potentially constrain off both rights and non-rights holders within a renewable energy zone. Compensation will not be payable in these circumstances. This is not

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<sup>1</sup> We note that line losses vary with the amount of electricity conveyed and are proportional to the square of the current. A 1 % increase in line flow therefore leads to a more than 1% increase in losses. Heavily loaded lines suffer significantly more losses than lightly loaded lines.

fatal to the workability and value of Model 2 in our view and can be mitigated through efficient siting of REZ. That said, making access rights fully financially firm through some form of top up payment would have real benefits for the market, by increasing incentives for transmission to get built with private sources of funding and reduced risk premiums for new renewable generation investment.

Customers could provide top payments for any congestion that arises from events occurring outside the REZ, which would be recovered from customers through their network charges. This occurs in the UK and EU markets, although in those markets customers fully fund congestion compensation payments to generators. Here they would only partly fund those payments.

While customers would face an additional component in their transmission charges, this amount would likely remain small relative to the proportion of compensation funded by generators (i.e. those without rights). Further, it might also be expected that this approach would lower risk premiums for new generation projects and increase their bankability. So any increase in transmission charges for customers would arguably be offset by lower future energy prices, since the overall costs that a new entrant generator would need to recover through energy prices will be lower.

To summarise, for the reasons set out above, EGP supports further development of Model 2 as the preferred interim mechanism for managing transmission access in renewable energy zones. We believe it holds the most promise for managing future congestion risk in an efficient way and will encourage generators to participate in and help fund future transmission capacity.

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,



Werther Esposito

Country Manager

Enel Green Power Australia