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Ms Chloe Hicks  
Director, Energy Infrastructure and Zones  
Department of Planning, Industry and Environment

Email: rez@planning.nsw.gov.au

**Renewable Energy Zones- Access Scheme, Issues Paper on Central - West Orana Renewable Energy Zone Access Scheme**

Dear Ms Hicks

Energy Networks Australia (ENA) appreciates the opportunity to provide a response on the NSW Renewable Energy Zone (REZ)- Access Scheme Issues Paper on Central- West Orana (CWO).

ENA is the national industry body representing Australia's electricity transmission and distribution and gas distribution networks. Our members provide more than 16 million electricity and gas connections to almost every home and business across Australia.

There are benefits to a more connected grid in the transition to a highly renewables-based energy mix. ENA supports the intent of the REZ Access Scheme and the approach to deliver timely and efficient transmission projects to support generation and facilitate for the energy transition. Whichever access model is progressed, there is benefit in the model selected being complementary to the long-term access reform and is sufficiently flexible to accommodate changes in the access regime.

ENA also encourage NSW to consider how the processes can be designed to dovetail/co-ordinate with the national planning activity for the Integrated System Plan (ISP) to instil stakeholder confidence. In planning the development of REZs in NSW it is also important to consider the broader interactions on the power system of cross border flows, system security and reliability.

ENA supports the NSW consultative approach and welcome further engagement as the design of the access model for CWO and other NSW REZs progresses. Some of the ENA points may be outside scope for this current consultation, however it is important that the selected access model and the design of the access granting part of the framework work together as they will provide investment confidence for both generation applicants and REZ transmission network owners.

ENA appreciates the attempts that NSW have made to seek alignment with the Energy Security Board (ESB) proposals, further the detail of the access models and consider a common approach where possible. ENA notes that the ESB post 2025 market design options paper has been released only today, its implications have not been considered in this response.

ENA has provided a more detailed response in the Attachment. In summary ENA supports:

- » Efficient investment in and utilisation of REZs that are in the long-term interest of consumers;
- » A strong and clear governance framework with consistent, transparent arrangements. The forward revenue recovery path to support the new entities, long term energy services agreements and access schemes and the impact on customer bills should be made clear as the scheme's commercial arrangements become firmer;
- » In principle the objectives and benefits identified in the paper. This is a complex undertaking and the CWO REZ could be considered a pilot to investigate the benefits and broader applicability of REZ specific access for this and future REZs;
- » Clarification of when the access rights/model needs to be made available vs the underlying compensation system, the quantum of Tier 1 and Tier 2 rights available by generator type and the term of the access rights;
- » Efficient REZ utilisation and caution against locking in a REZ access model that might preclude future design choices;
- » Option 1 as it is the simplest model to implement and may provide a least regrets path to be ready by 2022, the start of REZ construction. It could also transition to option 2a or 2b later by enabling an auction of Tier 1 rights;
- » Flexibility in the access model adopted for different REZs (i.e. not just different locations but different network configurations; potential for future constraints to affect dispatch of generation from a REZ);
- » Further clarity regarding the options for the REZ access administrator role to be costed and who pays;
- » A central register of access rights which acknowledges any trades. Whether a fit for purpose trading model is required will depend on volume of trades and cost;
- » The role of the primary Transmission Network Service Provider (TNSP) on the Designated Network Asset (DNA) connected REZ or on the REZ being made clear for allocation of connection point, metering and generator performance standards and connection process.

ENA looks forward to further engagement with DPIE as the framework progresses.

Should you have any queries on this response please feel free to contact Verity Watson,

[REDACTED]

Yours sincerely,



Andrew Dillon  
**Chief Executive Officer**

## Attachment

### Objectives and evaluation

ENA supports in principle the objectives and benefits identified in the paper. In planning the development of REZs in NSW, it is also important to consider the broader interactions on the power system of cross border flows, system security and reliability.

ENA supports minimising departure from the national electricity law and rules and encourages a transition to ESBs reforms where possible, as opposed to co-existing with the national reforms. Where state-led approaches are deemed necessary, it is important that appropriate governance arrangements are put in place to provide transparency and assurance to stakeholders that supported projects are in the interests of customers.

ENA welcomes the opportunity to understand further detail on the holistic framework, roles, responsibilities, and processes.

### Access Scheme Models

#### ***Access model selection – Option 1 or 2b should be considered further***

The REZ access models deal with access rights within the REZ and generators may still be constrained on the shared network, the value of these options will depend on generators' perceptions of firmness and project risks.

Before selecting a final access model or transition path, NSW should consider how well the access model is suited to a meshed REZ as opposed to a radial REZ. The access models proposed may be more difficult to apply in a meshed situation, a worked example may be beneficial.

While consistency and reducing complexity is desirable, there should be some flexibility for REZs in different locations to adopt different access models, e.g. an edge of grid radial REZ compared to a meshed REZ.

Consistent with the ESB's interim REZ approach it will be important to have clear REZ boundaries for the access rights and compensation. As the needs of a REZ change with staged development, it would be useful to understand whether there are any commitments being made by the NSW Government for the capacity on the shared network.

#### ***Access rights- clarify auction process, portion allocated to Tier 1 etc***

The model appears to be an open season, negotiation/selection of generators with initial access rights granted without further development. It would be useful to provide further detail on the auction process and frequency, access term etc.

ENA would welcome further clarity regarding the portion of access rights allocated to Tier 1 and Tier 2 and which role makes the decision - Consumer Trustee, REZ owner/operator, Primary TNSP. This will impact the revenue adequacy or firmness for Tier 1 access rights.

The value of the Tier 1 access rights may also be impacted by constraints on the shared network and system services. These issues may arise as part of the REZ generator connection process or later as other parties connect to the shared network.

There is benefit in clarifying how and when the access rights are made available for generators that may have staged developments and the quantum of Tier 1 and Tier 2 rights available for a late connection applicant to the REZ.

The access model selected and its implementation timing may influence the granting of access rights. Is there an opportunity to coordinate generators to connect to a future REZ and provide a meaningful up-front payment to secure access rights with the access model and annual payments for the REZ transmission agreed later?

***Access models – enable a transition to the preferred model***

In the 2020 ISP, the CWO REZ is expected to commence construction in 2022 and for a central scenario be implemented by 2024-2025.

The simplicity of Option 1 may enable earlier negotiation and selection of generators for the CWO REZ and should not be discounted if this option better meets the timeframes to negotiate and grant access. ENA notes that option 1 does not provide the firmness generators may be seeking and the rights are not tradeable.

Option 1 is the simplest model to implement and may provide a least regrets path to be ready by 2022, the start of construction. This may provide a useful holding pattern while the ESB implement the interim access model or Options 2a or 2b are implemented and overlaid onto Option 1. For example, connection applicants could seek access rights to the REZ under option 1, essentially all rights would be considered a Tier 2 access right with a later auction process to convert some Tier 2 access rights to Tier 1.

To enable higher utilisation of a REZ, ENA supports the aggregate nominated capacity of the connections exceeding the REZ capacity. The extent above REZ capacity may depend on the generator mix and should be left flexible for the Consumer Trustee and REZ owner to decide. It is likely that one of these bodies will provide the key inputs into the central access register.

Given that CWO is the first REZ, ENA cautions against locking in a model which might preclude future design choices.

Options 2a/2b provide financial compensation with varying incentives for batteries and should be explored further to maximise efficient utilisation compared to option 1. Options 2a/2b are essentially a post settlement revenue adjustment and don't provide a locational price signal for the constraint.

If Option 2a/2b were to be adopted then the financial adequacy to pay Tier 1 access rights should be modelled to test the arrangements in real world examples e.g. one circuit of a double circuit is offline in the REZ and generators are constrained, does the payment to Tier 1 holders get reduced, is there a funding pool available or is the pool limited for each settlement interval? If meshed REZs will be allowed and form part of the backbone transmission flowpath to load centres, how suitable are these models with flows outside the REZ traversing the REZ and potentially constraining Tier 1 generators?

ENA agrees with NSW that a Tier 2 access holder should not be out of pocket, rather it's a reallocation of revenue earned. If price is negative there would be no compensation paid to Tier 1 access holders, if compensation were to be paid this would act as a disincentive to locate in the REZ.

ENA agrees there appear to be inefficiencies in the limited NEM bidding model and this option should not be progressed.

The REZ locational marginal pricing (LMP) model appears to be more aligned with the ESB post 2025 model and may not lack the coordination envisaged as the ESB's proposed REZ Coordinator may have that role or the NSW proposed Consumer Trustee. ENA agrees that the LMP model may not be ready for a CWO shovel ready date of late 2022, however it is likely to provide better incentives for charging/discharging batteries at the appropriate times to increase REZ utilisation. Similarly for load connections. The CWO REZ could provide a useful testing ground for an LMP type model for example as a trial before broader application.

Whichever model is progressed, there is benefit if the model selected is complementary to the long-term access reform and is sufficiently flexible to accommodate changes in the access regime.

The impact on Marginal Loss Factors (MLF) will change over time and may be impacted by congestion on various network elements on the shared network. MLF volatility will depend on the level of connections and whether transmission development leads the generation development as REZ staging progresses. Whether on the DNA or on the REZ, ENA understands the connections are transmission network connection points and AEMO will be calculating the MLFs. As the regulations develop the materiality of settlement residues to parties beyond the primary TNSP should be clarified.

***REZ access administrator – need further clarity of the function with the connection process, access granting and compensation***

ENA welcomes careful consideration of the access administration options. Where a new REZ access administrator role or function is needed there needs to be consideration of the connection process, granting of access rights and the linkage to REZ constraint models, and post settlement adjustment/payment processes. In addition, the access rights within the REZ should not be considered in isolation to the constraints on the shared network that may arise with the proposed connection.

How the REZ access administrator functions sit with the ESB's proposed REZ Coordinator role and the NSW Consumer Trustee role needs to be clarified. Whether the role is properly formed and has protections under the NER for settlements adjustments should be made clear. TNSPs may not be best placed to administer the calculations and post settlement arrangements.

Whether AEMO undertake the financial compensation calculations, or a third party should be subject to a cost/benefit approach. Including transparency of the implementation and ongoing costs and who will be paying e.g. NSW tax payers, all NSW electricity customers or the REZ owner?

The issues paper suggests that the financial compensation is a post settlement adjustment, the timeframe needed to deliver the systems needed may influence the access model for CWO.

Given that AEMO already manages prudential and settlement processes, there is benefit if the Tier 2 generators settlements are reduced by the financial compensation needed for Tier 1 generators before payment is made as this would reduce the counterparty risk.

## Access Scheme design issues

***Flexibility to trade or re-assign access rights***

ENA supports flexibility to trade access rights and agree there is a need for a central register at least for each REZ that acknowledges these trades. The costs and benefits of a fit for purpose trading platform vs central register only should be assessed and take into account the likely volume or materiality of trades.

ENA supports a pragmatic approach to the use it or lose it provisions. It is not clear whether the access rights are a day 1 type purchase with a long term or whether there may be other rights made available at regular intervals so that a generator that was planning on staged delivery is able to access what they need later.

The test or principles for the “lose it” should be made clear in the regulations, including who determines this.

#### ***Treatment of Storage and load***

ENA agrees that storage should be incentivised to charge and discharge at optimal times to reduce congestion and efficiently increase utilisation of the REZ. An LMP type access model may provide the best incentives for storage and load connections.

Storage should not be precluded from consideration as network infrastructure to support virtual transmission capability and support the range of network services needed.

Load connections within the REZ should be treated on a case-by-case basis as the headroom within the REZ needs to be assessed along with the load profile vs the REZ profile.

#### ***Interactions with the distribution network – need careful consideration via a joint planning approach***

The interactions of distribution connections of load and generation and the impact on the REZ should be managed through joint planning. In the case of NSW, this may be between the REZ owner, primary TNSP, distribution network service provider, NSW infrastructure planner, the Consumer Trustee and the Australian Energy Market Operator.

#### ***Treatment of non-scheduled generation – query the materiality***

The interactions of non-scheduled generation should be considered in the access model design if it is likely to be a material issue. AEMC is currently considering the generator registration thresholds with a view to making a draft rule on 24 June 2021, there is some consideration of reducing the registration threshold as a scheduled generator to 5MW or possibly even 1MW.

#### ***Layered access model – roles and processes need to be clear***

The implications of a DNA-connected generator assessing the financial and operational risks of the three access models appears complex. The Dedicated Connection Asset (DCA) rule may be completed and implemented well before the CWO is built, a DNA - shared network connection could be altered by a DNA to REZ to shared network arrangement potentially altering the access model risks for DCA / DNA connections.

ENA agree that connections to the CWO REZ can be managed having regard for the REZ export capability. However, as with the DNA framework there is still the issue of access granted by the DNA or REZ access administrators to a connecting party to the DNA/REZ and then having limitations on the shared network. This needs to be a multi-party agreement or an iterative process.

Generation or storage connecting to the proposed DNA would need to be able to demonstrate feasibility of building the DNA and that the DNA can accommodate the access rights purchased by the connecting parties and could also be subject to a use it or lose it arrangement if not developed in time.

Subsequent connections to the DNA may only connect if they augment both the DNA and possibly the REZ to ensure they do no harm to the power transfer capability available to existing connected generators (with Tier 1 access rights).

The role of the primary TNSP in the connections process needs to be clearly defined on the REZ. As with the DNA rule change, the allocation of transmission network connection point, metering, generator performance standards and connection processes need to be clear. Ultimately the NSW regulations need to ensure a workable framework end to end with the national electricity rules.

There could also be consideration of not allowing DNAs on REZs but rather extending the REZ, this may reduce complexity, instead the assets could just be considered connection assets.