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30 April 2021

**Response to Issues Paper – Central-West Orana Renewable Energy Zone Access Scheme**

Dear Ms Hicks,

Thank you for the opportunity to provide feedback on the NSW Department of Planning, Industry and Environment Issues Paper published in March 2021 on the [Central-West Orana \(CWO\) Renewable Energy Zone \(REZ\) Access Scheme](#).

RWE is a global renewable energy company with 9.5GW of installed renewable energy capacity across our core technologies and markets. Its global renewable energy development pipeline exceeds 20GW. RWE operates across core markets including the Americas, Europe and Asia Pacific with operations in 18 countries.

RWE's first Australian project is the 349 MW<sub>p</sub> Limondale solar farm in Balranald, south-west NSW.

**We support the NSW Government's approach**

RWE welcomes the NSW Government's openness to the concerns of renewable generators, your genuine consultation, and your commitment to finding a solution that balances our concerns with those of consumers, network owners, Government and other market participants. We think that the approach of the NSW Government, first in its Electricity Infrastructure Roadmap, and now in the proposed CWO REZ Access Scheme, has much to admire.

Under the National Electricity Market's (NEM) open access model, the inability of a generation investor, at the time of their investment decision, to accurately predict subsequent market entrants' locational decisions has led in the past few years to many assets' business cases being significantly impacted by congestion, losses and grid connection and commissioning delays at levels never before seen in the NEM.

Bringing greater certainty for generation investors around the curtailments and transmission losses that can be anticipated over a project's life will, in our view, lower the cost of

capital and improve investability in new generation in NSW, with flow-on benefits for consumers and the Government's policy objectives.

The NSW REZ model recognises that we need to move away from the open access regime to a more centrally-planned restricted-access model, still leaving a role for the market to find efficiencies. We support that general intent, although with some modifications described below.

## **Access policy needs to increase generator certainty substantively if it is to succeed**

Ultimately, long-term generation investors will be prepared to pay upfront to de-risk their projects, with quantum commensurate with the degree of certainty on offer. An access policy which only de-risks a project slightly when compared with a project connecting to the shared network is unlikely to attract little in generator funding of REZ infrastructure.

The point is not for generators to be free of future constraint and push risk onto consumers, but for generators to have more certainty in the range of losses and curtailments they will experience over project life and pay upfront for that certainty, lowering the amount consumers pay for transmission.

The most certainty would be where a deep connection charge was set prior to final investment decision (FID) and curtailments and MLFs were known or restricted to a defined range. To do so would require addressing access policy within the existing shared network, something which the Government has not progressed to date.

As we understand it, the Government's thinking is that, because long-term energy service agreements (LTESAs) will primarily be offered to REZ participants, the vast majority of new generation will locate in REZs and therefore the shared network could be assumed to be relatively stable over a new project's life. Based on this thinking, access reform would only be needed for the new REZ infrastructure, and generators can take it on faith that there should be relatively little degradation of the shared network outside of the REZ they have invested in. While we are attracted to the logic of this thinking, we would still be interested to hear more from the Government on this point, and see supporting modelling and assumptions.

We would also be interested to hear from the Government about its contingency planning, should the above theory not play out. What if LTESAs and REZ access rights are not a sufficiently strong locational signal for new generation, and a host of new projects locate outside REZs without paying grid access fees, undermining the access of REZ investors? In those circumstances, would REZ generators face several years of lost revenue, while waiting for the analysis, consultation, development and construction of shared network augmentations to relieve constraints, and all while paying access fees that their competitors outside REZs are not?

Even if LTESA and access policy succeeds in directing all new generation investment into REZs over the next 10 years, what happens post-2030 when the Government's 12 GW target has been met? If there is no locational signal for new generation to locate in REZs from that point, the open access problems of the shared network will return. In 2030, foundation generation projects in the CWO will still have 20-25 years of operation ahead of them – leaving those projects subject to the vagaries of the open access shared network for the majority of their life. The industry does not want to hear that the answer from 2030 is COGATI – a policy criticised by generators, consumers and networks, and something which the majority of stakeholders across those groups has lobbied against being implemented.

In considering the shared network degradation risk for REZ investors, the Government should be alive to how that same risk may manifest for the Government itself. It is a common model in Australia for early stage developers to sell prior to construction. Such developers may be prepared to take on more of the MLF and curtailment risk when bidding for capacity, believing the risk in relation to shared network degradation lies with the final owner/investor. That could mean those projects win capacity through the Government allocation process but never get built because they cannot find debt or equity financiers, meaning more capacity needs to be sourced from the market to fill the REZ's potential, and meaning delays in the generator contributions to grid build. Or, it could mean more injudicious generation investors entering the market, subsequently facing revenue impacts they did not take into account, and then putting pressure on the Government to build out the constraints at customer and/or taxpayer expense. Or, perhaps most detrimental to the NSW energy vision, if access policy does not address shared network risks, the locational signal for REZs may not be strong enough, and the continued unplanned build-out of generation without regard to the borders of REZs may continue.

## **NSW already has the tools to manage shared network risks**

We note that, under the *Electricity Infrastructure Investment Act 2020*, the Minister has discretion in exactly how a REZ is defined in terms of geography and infrastructure. We urge the Government to consider defining a REZ upfront to include certain key existing backbones of the network, so that REZ generation investors could have more certainty about grid stability over time? While the Minister has powers to amend a REZ declaration and to direct the development of priority transmission infrastructure, clearly the use of those powers is discretionary and cannot be assumed. Having a REZ defined upfront as including key existing infrastructure would give REZ generation investors more certainty at FID about their ability to deliver power to consumers over project lifetimes.

Working with AEMO and networks, the Government could identify the weakest points of the shared network that could cause REZ access to decline over time, and just include

those highest priority assets within the defined REZ. In this way there would not be massive investor shocks with a state-wide change to access policy. Projects currently at early development stages across NSW and outside planned REZs, would get a sense of when grid access rules might change in their area, based on the proposed timing of any adjacent REZs and so could plan accordingly.

Alternatively, there could be some portion of REZ access fees that is set aside for shared network augmentation over time so that the transmission backbone that connects the REZ to the regional reference node can be maintained. The ESB, in its post-2025 January directions paper discusses the deep connection charge model, where a new generator pays for both the cost of physical connection to the grid along with the costs of any transmission network reinforcement, over that already committed, required to maintain access for all existing network users. If such a model was applied over parts of the shared network that could affect foundation REZ investments, and the grid access costs were known at FID, the incentives to locate within (and contribute to) the REZ would be further strengthened.

The greater the safeguards provided around grid capacity and stability in the shared network, particularly between the REZ and major load centres, the deeper the pool of investors would be, and the more easily the REZ transmission capacity would be filled to its potential. The increased competition would also increase the REZ access fees, as investors bid higher with a lower risk profile.

## **Access scheme models**

RWE believes that any of the 3 access models proposed by the Government, if applied across new REZ transmission assets as well as carefully chosen key existing network infrastructure, would deliver much greater certainty for generation investors than under the status quo. Of the 3 options (1. limited physical connection, 2a. financial compensation, 2b. enhanced financial compensation) we would suggest option 2b provides the most efficient use of the network by different technologies across days and seasons.

When it comes to deciding the finer details of the preferred access model, the Government should consider the correlation of investor certainty and what investors will be prepared to pay for grid access. Longer-lasting rights will attract a premium, as will capping the REZ generation capacity only moderately above maximum generation levels. Some flexibility to trade rights in the event of short or long-term capacity changes would also be valued.

We also suggest the Government explore whether access rights could be implemented through constraint equations. We note the Government considered the limited NEM bidding model which involved filtering all dispatch bids from both Tier 1 and Tier 2 rights holders within a REZ through a bespoke software system prior to submission to AEMO's

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NEM dispatch engine. If there was insufficient REZ export capacity in a given dispatch interval, Tier 2 bids would be filtered out to allow Tier 1 bids to proceed. That option was not progressed due to its apparent complexity and software requirements. However, could the same result be achieved simply through constraint equations applied through the existing NEMDE? Such an approach, if practical to implement, would offer a high degree of certainty to REZ generators, and removes the need to develop a complex compensation mechanism and associated compliance and enforcement framework to cover non-payments.

## Transition issues

We note that the Government has not explicitly stated a position on how existing generators will be integrated into the CWO REZ access scheme. Although RWE does not have existing projects in the CWO REZ, we are interested in hearing more on the Government's thinking on transition planning and how this might be dealt with more broadly across the NSW network.

Would the Government consider running an initial capacity allocation process for existing generators, before running a second process for new build? Those non-REZ transmission projects currently going through the RIT-T which are aimed at alleviating existing constraints could also have a capacity allocation process and access policy attached to them. Existing generators currently facing constraints could bid for firm access rights on the new transmission with a second allocation round for new projects that want to connect to the new line. In this way, projects like Energy Connect or VNI West that are still facing significant consumer concern about cost, could get some funding contribution from existing generators that want to remove themselves from a constraint and prospective generators that want greater assurance about future grid capacity before they invest.

We would welcome further discussion on this submission. We strongly appreciate the leadership taken by NSW in managing the energy transition, and look forward to further engagement as the policy vision is rolled out.

Yours sincerely,



Matthew Dickie

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RWE Renewables

