

30 April 2021

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

Lodged by email: rez@planning.nsw.gov.au

Dear Ms Hicks,

CENTRAL-WEST ORANA RENEWABLE ENERGY ZONE ACCESS SCHEME – ISSUES PAPER

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 renewable energy and energy storage. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

The CEC welcomes the opportunity to comment on the NSW Government's issues paper on the Central-West Orana (CWO) Renewable Energy Zone (REZ) access scheme. We commend and support the Government on its ambitious program to deliver at least five REZs, which will include 3 GW of new capacity in the first of its REZs in the CWO region. Given the industry registration of interest process for the CWO REZ drew proposals from over 27 GW of new energy generation and storage projects, it is clear there is strong interest and support for REZ developments in NSW.

The 2020 NSW Electricity Infrastructure Roadmap sets out an integrated 'whole of system approach' to attract and secure investment in new electricity infrastructure. The Roadmap indicated that as generators and storage projects connect to the shared network through a declared REZ, they would pay an ongoing access fee. The Roadmap is supported by the *Electricity Infrastructure Investment Act 2020* (the Act), which legislates that the development of the REZs will include declaring REZ access schemes.

The debate around the open access framework in the National Electricity Market (NEM) has been ongoing for a number of years. The market bodies and industry have considered various changes to access and different access frameworks, most recently the Australian Energy Market Commission's (AEMC's) proposal for locational marginal pricing (LMP) and financial transmission rights (FTRs). That this topic has been so hotly debated for so many years with no commonly supported resolution is indicative of the complexity of this issue. This debate continues with the work currently underway by the Energy Security Board (ESB) as part of work programs for the post-2025 market design review and interim REZ arrangements.

We welcome the NSW Government's rejection of a REZ LMP model. The renewable energy industry has been vocal in its opposition to the NEM-wide LMP/FTR model as one that is overly complex with limited benefit. However, although we understand that the NSW Government has committed in legislation to an access model and appreciate that the NSW Government has developed access models that are not based on LMPs/FTRs, we caution that an access framework for NSW REZs may not benefit renewable energy generation and storage projects in the way intended.

The issues paper suggests that the access scheme will introduce benefits for connecting generators in relation to reduced cost of capital as a result of greater certainty about constraint risk and greater certainty and stability of marginal loss factors (MLFs). Given the REZ access scheme does not guarantee for constraints outside of the REZ Shared Network and predicts but does not guarantee stable MLFs, it is questionable whether it will produce these suggested benefits. In fact, any access model introduces new costs and complexity that need to be factored into the business case for new projects. This could have the opposite of the intended effect through an increased cost of capital for new connecting projects. In addition, the NSW REZ access fee could be seen as a connection charge to that part of the network that would not exist elsewhere in the network with limited associated benefit, thus potentially reducing the attractiveness of locating in a REZ compared with other areas of the network, such as other NEM jurisdictions.

The NSW Government should give further consideration to the above overarching concern with an access scheme for the CWO REZ. Whilst the ability to offset the cost to consumers of transmission development and the ability to generate funds to support community and employment initiatives as required by the Act are legitimate benefits that could come from a generator access fee, these fees are a cost to generators. This cost could result in an increased cost of capital for new generators, leading to increased wholesale prices and therefore, increased costs to consumers.

The ultimate success of REZs is dependent on these areas being attractive for new renewable energy projects. This concern should not be overlooked and warrants further detailed exploration.

With that said and given the implementation of an access scheme is legislated, the CEC considers Option 1 (limited physical connection) and Option 2B (enhanced financial compensation) warrant further consideration. Option 1 has the benefit of being a simpler model albeit at the expense of efficiency. The NSW Government is committed to deliver a 'shovel-ready' CWO REZ by the end of 2022. History has shown that access model development takes time (the AEMC's LMP/FTR process took approximately two years with no resolution) and so Option 1 is the most likely model that could be implemented in the requisite timeframe. Option 2B is also potentially workable and has the added benefits of a greater potential for optimisation of REZ shared network utilisation, it allows generators to tailor access right holdings to their own preferences and it allow for the trading of access rights. However, the complexity of Option 2B means it could be difficult to develop industry comfort with and understanding of the model, as well as fully develop and implement it, in the requisite timeframe.

The CEC suggests the NSW Government consider whether it is possible to implement Option 1 in the first instance and then transition this to Option 2B at some point in the future. This could address the issue around timing initially and then efficiency at a later point.

Whatever the access model selected by the NSW Government to progress, more detailed analysis and worked examples are required. The discussion in the issues paper is fairly high level and the examples given are helpful but simplistic. The next stage of the access model development requires more detailed design, including more complex worked examples.

The remainder of this submission discusses different access design elements contemplated in the issues paper.

Financial compensation model (Options 2A and 2B)

The CEC does not support further consideration of Option 2A. The flat access right approach creates an inflexibility for rightsholders whereby they must pay for rights that they know they are unlikely to use. This would also likely limit the ability to trade rights.

a) Tier 2 access rights

The NSW Government has indicated its preference for Option 2B. At this stage, Option 2B seems workable given its more flexible interval-based approach but requires further detailed development. In the next stages of the detailed design development, the CEC suggests the NSW Government should consider whether a simpler approach may be for REZ generation projects to only have to pay for Tier 1 access rights. By doing so, they would be granted Tier 2 access rights for free to make up the balance of their nameplate capacity. This could:

- Improve the valuation process for the access rights
- Ensure that projects always hold rights to their nameplate capacity whilst also ensuring they are not paying for rights they do not need
- Simplify access right trading.

In discussions with CEC members, they have indicated that it could be difficult to price the access rights. Specifically, members have raised doubts about the value of Tier 2 rights as they are not firm and therefore, they would be incredibly difficult to price. An approach where Tier 1 access rights are valued and Tier 2 access rights are free could alleviate this problem as generators would only have to price one type of firm access right. Pricing a firm access right is more straightforward than pricing a non-firm access right.

This goes to an area that requires clarification. The issues paper notes that under Option 2B, projects are required to hold (Tier 1 or 2) access rights to cover their nameplate capacity.¹ However, the worked example of Option 2B (on page 30) shows how a 100MW solar farm might hold different combinations of access rights for different time periods. In the example, the solar farm holds 20 MW of Tier 2 access rights for the 'remaining intervals' (i.e. outside of 10:00 to 17:00). This suggests that a generator does not need to hold access rights for all intervals to cover its nameplate capacity and appears contrary to the requirement that a generator must hold rights to its nameplate capacity.

The CEC considers allowing generators to hold rights less than their nameplate capacity in some intervals (as suggested in the worked example) may be unworkable. The issues paper does not contemplate what happens when a generator with no Tier 1 or Tier 2 access rights generates and causes a constraint. For example, in this worked example, it is unclear what would happen should the solar farm generate 30MW at 17:00 when it only has 20MW of Tier 2 access rights.

¹ For example, see table on p. 21.

Holding access rights to nameplate capacity in all intervals would address this. However, generators should not have to pay for rights they will not use, most obviously solar farms during the night. If Tier 2 rights are free and make up the balance of a generator's nameplate capacity above the Tier 1 rights that they have purchased, then there is no issue that they might not have Tier 1 or Tier 2 rights at any point in time nor are they paying for a right that they do not need.

Finally, an approach where Tier 2 access rights are free could simplify rights trading as rather than having to value Tier 1 and Tier 2 rights, any trade would become a swap whereby only the Tier 1 right is valued. In a two-party trade, the parties would basically value the Tier 1 rights and then a swap would occur of one party's Tier 1 rights for the other party's Tier 2 rights. This could result in more trading liquidity. Evaluation of more detailed examples of multi-party swaps should be undertaken to verify that this approach is workable.

b) Term of access rights

The issues paper indicates that the term of the access rights is still to be determined. The CEC considers these should be a long-term access right. A minimum term would be 10 years, but the NSW Government should also consider whether an access right term that aligns with the life of a generation asset is practical.

c) Types of constraints

The NSW Government should contemplate how different types of constraints can affect the proposed compensation mechanism. The issues paper appears to assume constraints are thermal constraints within the boundaries of the REZ Shared Network. This may be overly simplistic. Stability constraints, such as voltage oscillation constraints, are becoming more prevalent in areas of high renewables penetration. It is not trivial to determine whether such a constraint would be inside or outside the REZ Shared Network and therefore how these would be factored into the compensation mechanism.

Similarly, the NSW Government needs to recognise the complexity of the constraints framework in the NEM. Different projects do not have an equal contribution to constraints given they have different participation factors. In addition, multiple constraints can bind at the same time, making it even more difficult to assess how much a Tier 1 generator was constrained by a Tier 2 generator.

More detailed worked examples that explore the complexities discussed here are necessary to demonstrate that the access model is workable.

d) Negative pricing and large-scale generation certificates

It is unclear how compensation would work in periods of negative pricing, which often correlate with periods of high renewable generation and high numbers of binding constraints. It would be a perverse outcome if a Tier 1 project had to pay a Tier 2 project in a period of negative pricing. Worked examples of negative pricing events should be developed to confirm that compensation will only ever be positive.

A further question relates to tier 1 compensation for generators for foregone large-scale generation certificates (LGC) during constraint compensation events. It is unclear if compensation provided to tier 1 rights holders will include lost large-scale generation certificates.

Treatment of storage

The CEC suggests the NSW Government explore whether an access model that does not require storage to purchase access rights (either Tier 1 or Tier 2) is practical. Storages will be an important component of REZs and proponents should have an incentive to build both standalone and hybrid plants. Our preliminary view is that the best incentive for storage is for it to not have to purchase access rights. Based on our above suggestion regarding free Tier 2 rights, the presumption would thus be that storages would be allocated Tier 2 rights at no charge, with the option to purchase Tier 1 rights for specific time periods. Being allocated only Tier 2 rights should provide sufficient incentive for storages to not exacerbate constraint events as they would not want to have to pay compensation to Tier 1 generators.

It is also possible that this approach would facilitate retrofitting of future batteries should a generator choose to do so at a later date as it would not prohibit it from doing so (as could be the case if it were required to purchase access rights, which could be exhausted).

The CEC does not support an incentive mechanism for storage (or loads) to connect to the REZ Shared Network that would be paid for by REZ generators. To do so would only increase uncertainty for REZ generators as the potential costs associated with the incentive mechanism would be unknown. This would in turn complicate the business case for these generators.

The incentive to locate and connect new loads to the REZ Shared Network should be considered through mechanisms outside of the electricity market framework that therefore do not affect REZ generators (for example, government grants).

'Use it or lose it' provisions

With any sort of access right scheme, there is a potential for hoarding whereby an entity could purchase access rights with no real intention of using them in order to dissuade other investments or for purely speculative purposes to on-sell them at a later date at a higher price. Speculation should be avoided. 'Use it or lose it' provisions in the form of a sunset period that would require that access rights be returned (for compensation that is no more than what they were purchased for) or sold if a connecting project does not reach a particular milestone by a particular date could dissuade this. The CEC supports this form of 'use it or lose it' provisions but notes that the specifics of the provision need to recognise that unexpected delays can occur for a number of reasons.

Concerns around hoarding could also be mitigated by requiring that projects already have certain approvals in place in order to obtain access rights. Our recollection is that under the NSW Electricity Infrastructure Roadmap, a project must have certain permits and approvals in place to be eligible for a Long Term Energy Services Agreement so this may already be the NSW Government's intent for the REZ access scheme.

The CEC does not support 'use it or lose it' provisions in relation to minimum utilisation requirements once a project is generating. However, provisions relating to closure or mothballing are appropriate.

Common connection assets

The issues paper discusses possible principles for the connection of large privately funded dedicated connection assets (DCAs) or designated network assets (DNAs) to the REZ Shared Network. The

CEC supports the NSW Government's position that the special access scheme that applies to the large DCA/DNA should not conflict with the access scheme for the REZ Shared Network. We also broadly support the proposed principles for these assets.

We are concerned, however, about the complexity of this framework as a generator that connects via a large DCA/DNA to the REZ Shared Network would be subject to three different access schemes – one for the large DCA/DNA, one for the REZ Shared Network and one for the remainder of the network outside of the REZ (which could be the open access framework or some future access framework depending on the outcomes of the ESB's post-2025 market design review). As a result, the CEC suggests the NSW Government consider the practicality of requiring that the REZ access scheme should also apply to the large DCA/DNA. In this way, a generator that connects via a large DCA/DNA to the REZ Shared Network would only be subject to two access frameworks. This could be a more preferable option but requires further investigation.

Other coordination initiatives

The connection process is currently challenging and leading to increased delays and costs to new generators. The CEC appreciates the NSW Government's recognition of this in looking at how to potentially improve the connection process in the CWO REZ and coordinate connection assets for multiple projects.

In its investigation of opportunities for coordination initiatives, the CEC encourages the NSW Government to maintain the principle that these initiatives should be kept simple. The connection process is already complicated and attempts at coordination could have the unintended outcome of further complicating the process.

In addition, coordination of common connection assets can be valuable in delivering scale efficiency but mandating this should be avoided. In the market currently, connecting generators are increasingly coming together for common connection assets where possible. The NSW Government should preference facilitating discussions between connecting generators to deliver common connection assets rather than forcing it upon connecting generators.

Rights to existing generators

Although existing generators will not be directly connected to the new transmission network as part of the REZ Shared Network, they may still be impacted by the new developments. The NSW Government should evaluate the potential for access rights to be provided to existing generators in the CWO area.

Access fee for community and employment initiatives

The Act requires that the access fee paid by generators to connect to the REZ Shared Network would include a component to support community and employment initiatives. The NSW Government should make clear whether this is a separate standalone fee at the time of connection or if it would be incorporated into the fee access right. The CEC suggests a separate standalone fee may be a simpler approach as it can then be levied on projects that may not pay for access rights, such as those that do not purchase Tier 1 rights (as per our above suggestion) and storages. It will also help generators to more easily and accurately value the access rights if this levy for community and employment initiatives is excluded from the fee for the access rights.

Ongoing access fee

The Electricity Infrastructure Roadmap indicated that as generators and storage projects connect to the shared network through a declared REZ, they would pay an ongoing access fee. The NSW Government should make clear what it means by 'ongoing' as the access right fee considered in the issues paper lends itself an upfront fee (that would at least be known upfront and then could be paid upfront or as an annuity) rather than an ongoing variable fee.

Access rights allocation process

We understand that the access rights allocation process is out of scope at this stage of the consultation on the access scheme. The next stage of the access scheme development process must consider the access right allocation process. In particular, thought should be given to visibility of information in relation to the quantum of access rights available to different generation types. CEC members have indicated that it is important that they know at the bidding stage how many rights will be available in total and for the different generation types. If the NSW Government does not accept the CEC's proposal regarding Tier 1 and Tier 2 access rights, the information on access rights should extend to the amount of Tier 1 and Tier 2 access rights available for different generation types.

Thank you for the opportunity to comment on this consultation. The CEC looks forward to supporting the NSW Government to deliver REZs and the NSW Electricity Infrastructure Roadmap more broadly. If you would like to discuss any of the issues raised in this submission, please contact Tom Parkinson on [REDACTED] or [REDACTED].

Yours sincerely,



Lillian Patterson
Director Energy Transformation