



30 April 2021

Department of Planning Industry and Environment

Sent by: email to rez@planning.nsw.gov.au

**CWO REZ access scheme
Issues Paper**

Major Energy Users Inc (MEU) is pleased for the opportunity to provide its views on the Issues Paper released by DPIE on the proposed NSW renewable energy zone (REZ) access scheme which would apply to the Central-West Orana (CWO) REZ.

The MEU was established by very large energy using firms to represent their interests in the energy markets. With regard to all of the energy supplies they need to continue their operations and so supply to their customers, MEU members are vitally interested in four key aspects – the cost of the energy supplies, the reliability of delivery for those supplies, the quality of the delivered supplies and the long-term security for the continuation of those supplies.

Many of the MEU members, being regionally based, are heavily dependent on local staff, suppliers of hardware and services, and have an obligation to represent the views of these local suppliers. With this in mind, the members of the MEU require their views to not only represent the views of large energy users, but also those interests of smaller power and gas users, and even at the residences used by their workforces that live in the regions where the members operate.

It is on this basis the MEU and its regional affiliates have been advocating in the interests of energy consumers for over 20 years and it has a high recognition as providing informed comment on energy issues from a consumer viewpoint with various regulators (ACCC, AEMO, AEMC, AER and regional regulators) and with governments.

The MEU stresses that the views expressed by it in this response are based on looking at the issues from the perspective of consumers of electricity and it has not attempted to provide any significant analysis on how the proposed changes might impact other stakeholders.

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The MEU view of the market and proposed changes

The NSW approach for establishing an access scheme to the REZs in its state (especially the proposed first at Central-West Orana - CWO) should be seen in context with all the work that is currently underway – by the ESB now and in the recent past by AEMC with its reviews of the Optional Firm Access and then the more recent CoGaTI with its proposed local marginal pricing (LMP) and financial transmission rights (FTR). The ESB has highlighted that its current approach is to implement a form of access arrangement for REZs as it transitions to its final view that the access for supply should be based on a LMP/FTR regime. We have been a consistent opponent of the LMP/FTR regime, and we support the NSW government approach to reject this approach for CWO.

Despite this negative view of the LMP/FTR regime, the MEU is of the view that there needs to be consistency across the NEM in the rules that control the market. With this in mind, the MEU considers that the NSW model needs to be strongly compatible (perhaps even be the basis) with what is eventually implemented for the post 2025 electricity market. We see the NSW government implementing an approach based on the principles outlined in the Issues Paper as a sensible move and hope that the final national approach will follow similar principles.

The MEU recognises the challenges associated with such a view in as much as the NSW proposal for an access scheme for CWO REZ will be required before the ESB recommendations are reviewed and potentially implemented by the Council of energy ministers. This means that for national consistency, the NSW access scheme needs to be structured in such a way that will lead the way to providing a sensible model for the national approach to follow.

In addition to responding to the ESB consultation of REZs Interim framework¹ and then the stage 2 consultation², the MEU has been an active member of the recently formed ESB technical working group (TWG) looking at interim options for access schemes for REZs. The MEU points out that the TWG deliberations occurred subsequent to the writing of the Issues Paper and therefore include some detail and observations that is not fully evident in the Issues Paper.

A core element that comes from the TWG discussions is that, in light of the extensive constraint experienced by VRE (variable renewable energy) sources across the NEM, an investor of new generation assets will need to have a high degree of certainty of access to regional demand centres (ie with the likelihood of little constraint on its export) coupled to a known ex ante price, the benefits and costs to achieve this unconstrained access in order to invest. While a preference of VRE investors has been consistently been that this be provided at no cost, if there was a

¹ See <https://energyministers.gov.au/publications/energy-security-board-renewable-energy-zones-planning-consultation>

² See <https://energyministers.gov.au/publications/stage-2-rez-consultation-energy-security-board>

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cost, then this needed to be known before a commitment was made to construct the new generation.

Equally, consumer advocates were quite clear that end users of electricity should not be required to fund providing the necessary infrastructure to allow the export from the new REZ, neither in terms of the cost of establishing the REZ nor the cost of connecting the REZ to the load centres. End users have consistently been of the view that the cost for VRE (or indeed any generator) getting its product to market is a cost that the provider should wear as they have control over these costs through their location selection³.

The discussion at the TWG concluded there was no “perfect solution” with all options suffering some detriment, but it was clear that each option had a different severity for the detriments identified. While there was expressed a need for a weighting to be allocated to each identified detriment, it was clear that any option that did not provide a high degree of certainty of the costs involved in each generator in the REZ gaining access to the demand centre needed to be strongly discounted. On this basis, the G-TUoS and connection fee approaches were preferred over the less firm congestion management model with its financial reparation process.

What was also identified, was that the REZ needed to be managed closely to avoid two identified challenges, viz:

1. That one REZ member should not be permitted to impede the ability of any other member in the REZ from exporting by causing constraint in the REZ. This would require careful management by the REZ coordinator (REZ administrator? Infrastructure planner?) to achieve this outcome through physical means but which might also be achieved using financial reparation tools.
2. A new generator (whether within another REZ or outside any REZ), should not establish itself between the REZ and the load centre, and so potentially constrain off generators which had paid to be within the REZ.

Another aspect identified, but not fully developed, was where a load might deliberately locate (or already be) close to a REZ in order to benefit from the lower costs for electricity that the REZ might provide. The MEU considers that in this instance, if a REZ locational price is established as part of management within a REZ, the load (whether an end user or a battery) should be able to benefit from buying at the REZ price, rather than a regional reference node (RRN) price. Such an arrangement makes sense and replicates the value to the electricity market⁴

³ The MEU points to the example of a market gardener who evaluates the higher cost of land in order to be near the demand centre to locating further away with a lower cost of land but subject to higher delivery costs, noting that the cost of the road is funded through a tax on fuel. The MEU sees that this example is quite analogous to electricity generation.

⁴ The MEU points to some existing loads that have located near a generator to minimise costs for its operation but had to get around the RRN problem by having a unique connection to the generator to avoid unnecessary costs that the market imposes.

provided by such an arrangement. In the context of a REZ, this would allow the installed capacity in a REZ to be increased above the transmission network constraints if this is seen to be beneficial to the market and those operating within the REZ.

It is pleasing that the Issues Paper does identify a number of these concerns and has identified potential solutions to some of them, although there are still some aspects left “hanging” without a solution. The MEU considers these have to be addressed before the CWO REZ process is implemented.

Aspects absent from the Issues Paper.

While the Issues Paper provides extensive analysis on how the process for using the rights held by generators (tier 1 and tier 2) will be used to enable certainty of access for tier 1 generators, what is not clear from the Issues Paper is how the generators will access these rights, what they will pay for them, how this will be done and what they will be buying in terms of capacity and duration. Until this detail is provided, the MEU cannot see how the process can progress beyond expressions of interest from generators to locate in the REZ.

What is also not clear is how REZ based generators will avoid congestion caused by generators external to the REZ but located between the REZ and the load centre. This is a major drawback of the program and limits the ability of the government to offer generators the ability to maximise their access to the load centres, which is the prime reason for establishing REZs in the first place. A REZ that cannot ensure access to load is severely constrained in its value to new generation.

The MEU observed that the Issues Paper notes these issues are “out of scope” yet the MEU considers that they are an essential element of any access regime that purports to provide an incentive on VRE developers to get involved with a REZ. There is reference to Long Term Energy Service Agreements (LTESAs) which would, presumably, detail the associated access rights and fee setting. In the absence of these LTESAs, it is difficult to provide more detailed input about how the access rights might be used.

The options.

The Issues Paper provides a good explanation of the benefits and detriments of the various options for managing the REZs. On balance the MEU considers that option 2 provides a better solution for maximising the value of the investment in REZs, as option 1 does not readily allow the ability of the REZ to reflect the likelihood that there will be times when the generators in the REZ will provide supply at levels well below the nominal ratings of the generation installed.

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For example, in the instance where all generation is solar based, peak output tends to occur between 10 am and 2 pm, with lower output before and after this period. Constraining the REZ capacity to the nominal rating of the installed solar generation will mean that no additional generation can be provided even when the actual output from the tier 1 generators is less than the nominal rating. Allowing more capacity within the REZ will allow the REZ to provide output closer to the transmission capacity for longer periods as additional generation (from tier 2 generators) is allowed access when the output from tier 1 generators starts to reduce.

However, the MEU has mixed views between options 2a and 2b. Where a REZ is comprised entirely of one type of generation technology (eg just all solar or perhaps just all wind) then having the access based on trading intervals provides a better outcome as it allows greater control and optimisation of the available transmission capacity when considered on a REZ basis.

Where there is a mix of technologies, (eg a mix of PV solar, PV thermal, wind and batteries, as well as new technologies) perhaps a better solution is option 2a as there is no certainty as to the time of day when each generation technology will be able to generate. While PV solar and PV thermal have a clear time period where they will generate directly⁵, wind generation is much less predictable and will require access at varying and indeterminate times; batteries will seek to export at times when spot prices are high which is also indeterminate, indicating that option 2a would be more appropriate.

On balance, the MEU favours option 2a as it reflects the reality that each REZ is likely to have a diverse generation mix although, if a REZ was uniquely one form of VRE, then option 2b should be allowed as an option. Having a dual approach with either option be used to reflect the reality of a REZ should be considered, rather than locking in a unique solution.

The MEU also considers that a more appropriate approach might be developed which addresses some of the MEU concerns. The MEU comments that it has been approached by Shell Energy (previously ERM) who outlined a modified approach for access management, and this appeared to the MEU as providing a variant which, potentially, could address a number of the MEU concerns. The MEU considers that this variant should be examined in detail.

Paying for the infrastructure

Consumers do not expect to pay for the assets needed to provide the infrastructure within the REZ, access to the shared network from the REZ or indeed augmentations to the shared network to allow REZ based (or other generators) access to the load centres – consumers consider this is the responsibility of generators, just as

⁵ Noting that PV thermal can generate electricity directly but also provide some storage

consumers are required to pay to augment the network for them to access the network to provide increased demand.

The MEU can see a clear risk for consumers in the development of the REZ. The REZ will be sized on the basis of expectations of AEMO and the REZ administrator of what VRE will take residence in a REZ. If this forecast is not achieved, or is achieved over a longer timeframe than expected, consumers, as well as carting the risk inherent in the REZ development as planned, will be expected to carry the risks if the expectations are not achieved.

Consumers will also be expected to carry any residual cost if the recovery from the generators does not cover the ongoing costs of the REZ infrastructure. For example, transmission infrastructure has an expected life of 50-60 years, yet the expected life of most VRE is 20-25 years. There is a clear assumption in the Issues Paper that the VRE plant will be replaced at the end of its technical life and if this occurs, then they will continue to fund the infrastructure provided. But if the VRE is not replaced as expected, there will be stranded assets that consumers will have to continue to fund. The Issues Paper does not address this very real risk.

Conclusions

While the MEU considers that the Issues Paper not only provides a good assessment of the issues involved and provides potential solutions for the operation of a rights of access regime, but there are also still some critical aspects that must be developed.

The MEU considers that option 2 provides a more flexible solution but the sub-elements (options 2a and 2b) need to be adjusted to reflect what might occur not just in the CWO REZ but in other REZs in NSW.

The MEU has provided responses below in the "Submissions Response options form" to some of the questions raised and observes that the responses should be read in conjunction with the commentary included in this letter. The MEU apologises for the brevity in some of the responses but points to the current excessive amount of consultation on energy issues that is occurring.

The MEU is happy to discuss the issues further with you if needed or if you feel that any expansion on the above comments is necessary. If so, please contact the undersigned at [REDACTED] or [REDACTED]

Yours faithfully



David Headberry
Public Officer

Central-West Orana Renewable Energy Zone Access Scheme Issues Paper



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Submission form

Access Schemes are a key part of the NSW Government's work to coordinate and encourage investment in Renewable Energy Zones (REZ) and realise the objectives of the Electricity Infrastructure Roadmap and enabling legislation. The Central-West Orana REZ Access Scheme will be the first of its kind in the National Electricity Market.

The Department has published the Central-West Orana Renewable Energy Zone Issues Paper (the Issues Paper) to facilitate consultation on the access scheme models being considered for the Central-West Orana REZ. This form is for use by stakeholders who wish to make a submission on the Issues Paper to provide feedback to the Department. This form is not required to have your say on the Issues Paper - the Department also welcomes free form submissions.

Submission response options

We encourage stakeholders to use this form to respond to the specific questions raised in the Issues Paper. This will help us interpret and incorporate your responses into our decision making process.

We also welcome free form submissions and responses instead of, or in addition to, this submission form.

Please email your submission form and/or free form response to: rez@planning.nsw.gov.au with 'CWO REZ Access Scheme Issues Paper' in the subject line. Please identify if you would like your submission to be confidential or anonymous.

Disclaimer

The Department encourages publication of submissions to build transparency in the decision-making process and ensure that a variety of views are understood by the public and relevant stakeholders.

Providing submissions is voluntary, is not assessable, and will not impact an entity's participation in, or be used in the assessment of, any future procurement or competitive process regarding the Central-West Orana REZ or other NSW Government programs.

All submissions will be made publicly available on the Department's website unless a submission author indicates a preference below for confidential treatment. In the absence of an explicit declaration to the contrary, the Department will assume that all information can be made public.

The Department may disclose appropriate confidential information provided by stakeholders to:

- the NSW Minister for Energy and Environment or Minister's office
- the NSW Ombudsman, Audit Office of NSW or as may be otherwise required for auditing purposes or Parliamentary accountability
- directly relevant Department staff, consultants, professional service providers and advisers
- other parties where authorised or required by law to be disclosed.

Participants should also be aware that provisions of the *Government Information (Public Access) Act 2009 (NSW)* may apply to any documents submitted (and information should be submitted on that basis) and to any summary report compiling key information and feedback.

Submissions may also be shared with the Australian Energy Market Operator, Australian Energy Market Commission, Australian Energy Regulator, the Energy Security Board, TransGrid, the Clean Energy Finance Corporation, Australian Renewable Energy Agency, Essential Energy, Endeavour Energy and AusGrid to better understand and respond to issues raised. Please make

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Submission form

clear in your form response below or otherwise in your submission if you do not want your submission to be shared with the above parties.

Submission type and contact details

Submission type	<input type="checkbox"/> Individual <input checked="" type="checkbox"/> Organisation <input type="checkbox"/> Other Click or tap here to enter text.
Approving author name	David Headberry
Organisation	Major Energy Users
Approving author title	Public Officer
Phone	██████████
Email	████████████████████
Stakeholder group	<input type="checkbox"/> Energy generation <input type="checkbox"/> Energy storage <input type="checkbox"/> Ancillary services <input type="checkbox"/> Electricity distribution provider <input type="checkbox"/> Transmission provider <input type="checkbox"/> Energy industry/market body <input type="checkbox"/> Financial institution of financial services <input type="checkbox"/> Consumer advocacy <input type="checkbox"/> Government <input type="checkbox"/> Individual <input checked="" type="checkbox"/> Other (please specify) Consumer advocacy - the button would not indicate this category

Submission form

Confidentiality and submission publication preferences

Submissions may be published in whole or in part on the Department's website. Authors may elect for some or all of their submission to be confidential.

Would you like your submission to be confidential?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Some confidential submissions may be shared with the Australian Energy Market Operator, Australian Energy Market Commission, Australian Energy Regulator, the Energy Security Board, TransGrid, the Clean Energy Finance Corporation, Australian Renewable Energy Agency, Essential Energy, Endeavour Energy and/or AusGrid to better understand and respond to issues raised. Would you like your submission to be kept confidential from these parties?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If published, would you like your submission to be anonymous and personal details redacted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

If you do not want your personal details or any part of your submission published, please state this clearly in your submission. We may be required to release the information in your submission in some circumstances, such as under the *Government Information (Public Access) Act 2009*.

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Questions

The fillable fields for answers to these questions will expand to accommodate the length of your response.

1. Objectives and evaluation

Question 1: If the CWO REZ Access Scheme delivers on the proposed objectives and benefits, how would connecting projects value connecting under this Scheme rather than elsewhere under current NEM network access arrangements? Should proposed benefits be given weightings, and if so, what should these be?	The MEU considers that weighting of the detriments is essential, as some detriments provide a “no go” decision whereas others merely provide a “need to address” aspect
Question 2: What, if any, additional benefits should the CWO REZ Access Scheme deliver to provide value to connecting generation and storage projects?	Click or tap here to enter your answer to question 2.
Question 3: Do you agree with the proposed evaluation criteria? What, if any, additional criteria should be considered?	The MEU considers that the impact on consumers of each model examined is essential ie the focus must be on consumer benefit. Any model developed must aim to provide the lowest cost for the purchase of electricity but at the same time minimise the cost to consumers for provision of networks and the residual risks they might face

2. Access scheme models

Question 4: Which of the shortlisted models presented is preferred? Which best balances the need to deliver value to investors with the need to maximise utilisation of the REZ, and together achieve the access scheme’s objectives? In particular, does the ‘non-firm’ connection right, under Option 1 provide sufficient certainty to investors to be of value? If it does not, is this outweighed by the increased utilisation of the REZ that would result under such non-firm connection rights?	The MEU has a bias towards option 2 but is concerned that each of the sub-options have detriments that vary with the mix of generation in the REZ
Question 5: Are there other access models that you consider would be superior to the shortlisted models in this paper? If so, what are these models, and what are their strengths in comparison to the shortlisted models?	The MEU has been approached by Shell Energy with a variant that would appear to address a number of the MEU concerns
Question 6: How could the characteristics of either Option 1, 2A or 2B be adjusted to improve them in a manner that achieves the access scheme’s objectives?	See commentary in letter above
Question 7: Characteristics such as more granular access rights (for example, rights defined in five-minute intervals) and tradeable rights can provide	See commentary in letter above

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flexibility to access right holders, but also make the access scheme more complex. How should the trade-off between flexibility for access right holders and simplicity of the access scheme be assessed? Which better achieves the access scheme's objectives?	
Question 8: If not nameplate capacity, what is the appropriate level of capacity that should be used to determine requirements for access rights coverage that would better achieve the scheme's objectives? If a Probability of Exceedance (POE) value is used, what process should be used to verify this?	The MEU supports using nameplate rating as probabilistic approaches add complexity that is not warranted
Question 9: How should the allocation of access rights to hybrid (storage plus generation) assets be approached? What 'shape' of access rights would suit a hybrid asset? How could projects which use some of their maximum capacity 'behind the meter' be accounted for in determining the appropriate level of capacity for access rights coverage?	The MEU considers that storage should be treated as a load (when charging) and a generator when discharging. On this basis, it would up to the owner of the asset to decide whether to apply for Tier 1 or Tier 2 access rights, recognising that for the most part the discharge is more likely to discharge when the Tier 1 generators are not generating and therefore there is capacity available to the battery
Question 10: Is there a minimum term (in years) for which access rights would need to apply to benefit project finance?	The term of an access agreement must be at least for the expected life of the generation asset Alternatively the access right could apply for the term of the life of the transmission asset with the rights being tradeable but also subject to a "use it or lose it" provision which would give the access right holder the ability, for a limited period, to replace its assets that have reached the end of their life

Option 1: Limited physical connection model

Question 11: Under Option 1, connected generation capacity could be capped above the capacity of the REZ Shared Network. How should generation and storage capacity be set or capped to optimise REZ Shared Network utilisation without introducing too much constraint risk?	The MEU observes that the greater the likelihood of congestion occurring, the less value the access rights would deliver. This means that the cap must reflect a balance between these competing elements. As the answer to this question also is dependent on the generation mix within the REZ, this cap should be determined when a better understanding of the generation mix is known. However, the less diversity in the generation mix, the greater the need for the cap to reflect the transmission capacity plus maybe an allowance for expected down time and degradation of the resource over time
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<p>Question 12: How could network capacity be allocated between different generation types? Should it, for example, be based on a particular, pre-defined generation profile ("shape") for different types of generation technologies?</p>	<p>The generation shape will be defined by the generation mix expected in the REZ so to attempt to determine the shape before the generation mix is determined is impossible. This means that the REZ administrator should be tasked with setting this amount when the mix is determined, with the calculation based on some clearly defined parameters</p>
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Option 2A and 2B: Financial compensation models

<p>Question 13: How would 24-hour access rights impact the value and efficiency of a financial compensation model? If access rights were defined as flat, 24-hour, access rights, would access right holders be incentivised to firm up their generation to make efficient use of the access rights (either technically, or commercially with sharing arrangements)? If not, what adjustments would need to be made to the access scheme design to incentivise this?</p>	<p>As noted in previous questions, and in the letter above, it is the mix of generation that determines the optimal approach to either 24 hour flat (better for wind) or time shaped (better for solar PV)</p>
<p>Question 14: Would currently available information, including solar and wind forecasts for corresponding Tier 1 generators, be sufficient for Tier 2 access right holders to make a reasonable assessment of the risk of being constrained off? Or would additional data need to be available to achieve this?</p>	<p>Tier 2 rights holders would need to have full detail as to what Tier 1 access rights are allocated, to whom (ie technology) and under what conditions. For solar VRE a reasonable assumption could be made based on knowledge of daily solar intensity but for wind VRE, weather data is unlikely to be sufficiently accurate to make decisions on this alone</p>
<p>Question 15: With reference to Appendix B, to what extent should curtailment (and therefore the compensation mechanism) take bid price or market settlement price into account? In particular, what would be the downside to limiting compensation to only the bids from Tier 1 access right holders that are below the market settlement price?</p>	<p>The MEU considers that constraints based on volume and settlement price is probably the most appropriate</p>
<p>Question 16: In what ways could the proposed models and compensation mechanism design result in changes to the bidding strategies of Tier 1 and Tier 2 access right holders? Would this be expected to have a material impact on the NSW market?</p>	<p>Bidding strategies will vary depending on what is known of the Tier 1 rights and how compensation will be determined</p>
<p>Question 17: There could be circumstances in which the revenue earned by Tier 2 access right holders will not equal the revenue lost by the Tier 1 access right holders through subsequent curtailment. This includes instances of intra-REZ constraints, and when MLFs for Tier 2</p>	<p>The MEU points out that this question cannot be answered readily as the losses faced by all generators in the REZ will be influenced by any contracts they have for their output (eg PPAs and LGCs) The MEU suggests that modelling be carried</p>

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generators are systematically lower than for Tier 1 generators. What are the other circumstances, if any, in which potential 'compensation inadequacy' may occur? How material is this risk for Tier 1 access right holders in comparison to the open-access regime?	out to test the degree to which any losses might occur
Question 18: Does this Issues Paper identify the key risks associated with the Financial Compensation Models? Can the risks be sufficiently managed through the design features of the models and the proposed compensation mechanism referred to in this Issues Paper?	The MEU is not convinced that the Issues Paper has fully identified (and accommodated) the risks faced by Tier 1 generators. This means that any assumption as to the value put on the access rights by Tier 1 generators might be lower than that assumed by the REZ administrator and therefore expose consumers to more risk and costs
Question 19: How would the implementation of the financial compensation models impact existing contracts, such as PPAs? Could the compensation mechanism be appropriately accounted for in the design of new contract structures?	Click or tap here to enter your answer to question 19.

Other models considered but not progressed

Question 20: The NSW Government is not proposing to progress the Limited NEM Bidding and REZ Locational Marginal Pricing models further at this time. Are there elements unique to these two models which should be considered for integration into the models that have been shortlisted?	The MEU supports these decisions, but does consider that the model proposed by Shell Energy (which has some similarities with the Limited NEM bidding model) has merit for deeper investigation
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3. Access scheme design issues

Question 21: How valuable is the ability to trade access rights, and in what circumstances would this be useful?	The MEU considers this is an essential element. It must be recognised that the access right holder will have invested funds to obtain this right and if it cannot use the right at any point in time, being able to trade the right will provide an ability to minimise the costs they have incurred. Having tradeable rights increases the value of the rights and so increases the purchase price, an essential element to recover the full costs incurred in establishing the REZ
Question 22: To what extent would flexibility to trade access rights increase the value of access rights for their holders? How flexible and unrestricted would access rights trading need to be to provide value?	See answer to question 21

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<p>Question 23: Would the introduction of a central access rights trading platform be of benefit to access right holders? If so, why? If beneficial, then which party would be best placed to design, maintain and operate this trading platform?</p>	<p>The MEU cannot see that rights would be trading on a regular basis implying that a trading platform would be overkill. If trading does increase, then implementing a trading platform could be examined at a later stage</p>
<p>Question 24: For generation projects connecting to the REZ, how important is it that storage is required to purchase access rights (i.e. that total connecting storage capacity is limited)? If storage was not to be required to purchase access rights, how high is the risk of storage competing with (i.e. curtailing) generation dispatch?</p>	<p>While storage is seen as a benefit to a REZ, its introduction should not be at the detriment of Tier 1 rights holders. As noted earlier, the MEU considers that when discharging storage should be treated no differently to any other generator</p>
<p>Question 25: Would proponents of storage projects value firm access rights? In the financial compensation models, how would storage operations differ under Tier 1 versus Tier 2 access rights? How could an access scheme provide sufficiently flexibility for storage to connect in future as technology costs come down and the market evolves?</p>	<p>The MEU considers that to a degree this depends on what the generation mix is. If the REZ has only solar PV, then a battery might consider that Tier 2 access might be sufficient for its needs, as it would be most likely to discharge when the solar PV had reduced its output.</p> <p>If the REZ is predominantly wind, storage might want to have access rights at peak price times which tend to occur late afternoon and early evening, so might want to have certainty to discharge at this time. It might therefore want to be tier 1 to ensure that it can operate despite what wind assets might operating at the time</p>
<p>Question 26: Would prevailing market signals provide sufficient and appropriate incentive for storage to operate in a manner that is aligned with the needs of the REZ? If not, then what REZ-specific types of incentive mechanisms should be considered to incentivise load and storage to consume electricity when the REZ Shared Network is congested?</p>	<p>There is a distinct value in having storage in a REZ, to pick up any energy that might otherwise be “spilled” within the REZ, but this benefit would be primarily for Tier 2 generators, rather than Tier 1. To assist Tier 2 generators, the REZ administrator should look to incentivising storage in the REZ, with the incentive payment coming from the Tier 2 generators or from the additional access rights created by its presence</p>
<p>Question 27: If an incentive mechanism for storage is implemented how should the costs of this arrangement be recovered?</p>	<p>See response to Q26</p>
<p>Question 28: How should the treatment of storage under the CWO REZ Access Scheme account for differences between long-duration storage and fast-firming technologies?</p>	<p>Click or tap here to enter your answer to question 28.</p>
<p>Question 29: How should load be integrated into REZs and what types of incentives (if any)</p>	<p>Load directly connected to the REZ will provide a benefit to the market as a whole as it uses up any energy that might otherwise be “spilled”.</p>

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would be needed to attract load to connect to the REZ Shared Network?	Potentially adding load to a REZ could be incentivised by a reduced TUoS reflecting the lesser amount of wider transmission asset usage that this would deliver
Question 30: Would additional incentives be necessary, beyond market-based commercial incentives, to encourage storage/load to increase their electricity use during periods of REZ network congestion?	See response to earlier questions. The MEU supports an incentive above that provided by the market
Question 31: If an incentive mechanism for load is implemented how should the costs of this arrangement be recovered?	See response to Q29. This would increase overall network utilisation so the costs could come from the wider transmission network but also from the greater access rights that are generated
Question 32: How should the potential impact of changes in distribution load and embedded generation on the CWO REZ hosting/export capacity be incorporated into the REZ Access Scheme design and implementation?	Click or tap here to enter your answer to question 32.
Question 33: Should non-scheduled generation and exempt generators be required to hold access rights under the CWO REZ Access Scheme, and/or should the total capacity of non-scheduled generation or generation from exempt generators permitted to connect be capped? Is there an alternative approach to the treatment of non-scheduled generation or generation from exempt generators which should be considered?	Generally, they should be treated as all other generation in the REZ. The only exception would be non-scheduled generation that is embedded within an end user's facility and is part of their normal operations. Eg if the generation is part of the manufacturing process and there is a problem in the plant leading to unexpected export of power, or if generation has to be maintained due to emissions licence requirements, or for safety reasons then unconstrained export should be permitted with no penalty
Question 34: If 'use it or lose it' provisions were introduced, how should the utilisation requirements be set/measured? What exemptions or concessions should be considered?	The purpose for a "use it or lose it" provision is to prevent a rights holder "sitting" on a right with it not being used for its primary purpose. In principle a fixed duration is the most reasonable approach but this should be moderated if the intention is for the right to be used but is prevented by circumstances out of its control or if the proponent has declared an intention to stage its project over a number of years
Question 35: If an access right holder was required to return some or all of its access rights under the 'use it or lose it' provisions, how should these provisions be structured?	The access right is purchased and therefore there is a property right created. With this in mind, the access right owner could be forced to sell its right or the REZ administrator could recall

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	the right, sell it and return the proceeds to the initial owner.
Question 36: What impact do you consider capping of connection in a REZ, and the proposed access scheme models, will have on reducing the risk of volatile MLFs? Are additional measures warranted? If so, what measures?	Click or tap here to enter your answer to question 36.
Question 37: What are your views on the appropriateness of the principles for managing the interface between the CWO REZ Access Scheme and common DCAs/DNAs? How could consistency between the CWO REZ Access Scheme and access policies on DCAs and DNAs best be achieved?	Click or tap here to enter your answer to question 37.

4. Other coordination initiatives

Question 38: Would a process to coordinate connection assets for multiple projects be of interest? If so, what coordination initiatives would be of interest?	The REZ administrator should look continuously for potential of optimal utilisation of transmission assets so that there is a minimum of duplicated transmission assets being created through increasing the size of the assets allowing more VRE to connect to the same asset
Question 39: Given the unique nature of connecting to coordinated REZs, such as the CWO REZ, the barriers to coordination of connection assets may be reduced. What further barriers to coordination will still need to be overcome, and how could this be achieved?	The MEU has noted that the interfaces between a project developer and AEMO and the regional TNSP are often fraught. This is an area where the REZ administrator could act to expedite actions to get the REZ up and running in the shortest possible time.
Question 40: What opportunities exist for the NSW Government to improve connection processes in the CWO REZ? What improvements would deliver greatest value?	See answer to Q39. The government should also be looking to ensure there is no over-building of the REZ and that other aspects (eg system strength) are being addressed appropriately and expeditiously. In particular the government could act to ensure there is sufficient information provided by the TNSP and AEMO to a project developer
Question 41: What, if any, additional connection challenges could be created under the CWO REZ Access Scheme? How could these be mitigated?	See covering letter. A critical issue is that the REZ output is not constrained by generators locating between the REZ and the load centres. The REZ has to be seen in context with the wider network and that intra-regional and inter-regional flows are not impacted

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Question 42: What value could be delivered to generation and storage projects through centralised approaches to connection and system services, and what are the trade-offs? For example, would projects be willing to forego optionality around aspects of their project through requirements like minimum equipment standards, to reduce costs and the risk of potential delays to commissioning?

Click or tap here to enter your answer to question 42.

5. Open comment

Question 43: Are there any other matters you wish to raise relevant to this issues paper?

Click or tap here to enter your answer to question 43.

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