

26 May 2023

Ms Anna Collyer
Chair
Energy Security Board
Lodged by email to: info@esb.org.au

Dear Ms Collyer,

Response to *Transmission access reform - Consultation paper (May 2023)*

The Clean Energy Investor Group (CEIG) welcomes the opportunity to provide feedback on the Energy Security Board (ESB)'s *Transmission access reform - Consultation paper* published in May 2023.

CEIG represents domestic and global renewable energy developers and investors, with more than 11GW of installed renewable energy capacity across more than 70 power stations and a combined portfolio value of around \$24 billion. CEIG members' project pipeline is estimated to be more than 18GW. CEIG strongly advocates for an efficient transition to a clean energy system from the perspective of the stakeholders who will provide the longer term low-cost capital needed to achieve it.

KEY POINTS

CEIG outlines key principles for reform to help guide Ministers' decision making:

- Should not undermine development of new generation;
- Should share efficient congestion fairly across existing and new plants;
- Should not undermine bilateral trade, existing contracts or long-term price predictability;
- Should reduce, not increase, risk during asset operation;
- Should account for all types of congestion (thermal limits, voltage stability, pre-contingent and system strength);
- Should not undermine system security;
- Should not be overcomplicated causing huge uncertainty and delaying investment; and
- Must easily satisfy a cost benefit analysis with inputs accounting for material risks.

Disclaimer

Whilst all members of the CEIG have been consulted regarding the details and views contained within this submission, the wide range of perspectives and priorities associated with these different organisations means that some of the content may not reflect the views of all members. The broad message from the submission of the need to improve the investability of the National Energy Market (NEM) is, however, supported by all CEIG members.

PRIORITY ACCESS MODEL**Queue vs. Tiers**

- Despite the shared objective of minimising cannibalisation of higher-priority generators, concerns persist regarding the potential of a new mechanism to inadvertently foster cannibalisation.
- The tiers approach offers a more comprehensible framework for investors, as it clearly indicates transmission availability.
- A significant drawback of the tiers approach is its reliance on a central agency's input and the assumption that transmission availability forecasts will be accurate, despite inherent challenges.
- Achieving a balanced curtailment between new and the newest generation is a critical aspect being obscured within the tiers approach, indicating the need for further refinement.
- Concerns have been raised about the possible distortions from the auction process, which could result in inflated costs and an over-concentration of resources in auctioned areas.
- Concerns have also been raised that the first come, first service approach doesn't account for project impacts such as those with the best social licence.
- The queue model sends a weaker and less clear signal to the market about the optimal allocation of new generation, and its implementation in NEMDE could be more complex.

Treatment of Renewable Energy Zone Generators

- The risk of being leapfrogged by non-REZ generators is unfair to first movers in REZs and may discourage further development in REZs. This area needs attention from the ESB to guarantee queue reservation for REZ generators at an earlier point in time.

Degree of priority

- Concerns have been raised with understanding the implementation of soft priority, as well as suggesting that the queue will have a large enough impact negating the need for the soft priority.
- A hard priority approach could be inefficient due to lack of flexibility and adaptability as well as limited consideration of system conditions
- Furthermore, members have raised the need for the ESB consider how the build order of different generation technologies can impact system efficiency as well as the impact on project finance.

Duration of priority level

- While it's crucial to safeguard the value and revenue generation of these assets, it's equally important not to create barriers that could deter new entrants.
- CEIG members have a preference for a fixed duration as it brings revenue certainty, aiding in securing finance on favourable terms.

- However, members also acknowledge that considering the actual life of the asset or a proportion of the asset's technical life could be beneficial.

Treatment of legacy generators

- It is important to find the right balance in the level of curtailment between existing and new generators. Early movers, or those who invested in the generation capacity earlier, should have some priority.
- Members show a preference for the 'initial assignment to highest priority with glide path' approach.
- If thermal generators are not impacted by congestion as highlighted in the Consultation Paper, then they should not be included in the scheme.
- If thermal generators are given a good queue number, members have expressed concerns with increasing the emissions intensity of generation in the National Energy Market (NEM).

CONGESTION RELIEF MARKET

- Members require further clarity on concerns that if a generator participates in the CRM that they cannot opt out.
- The CRM that is currently proposed is different to the original Edify model and more work needs to be done to ensure the CRM does not turn into mandatory LMP.
- Members are concerned that there may be a disadvantage to not participating in the market, forcing generators to participate into an effective LMP.
- This goes against the specific directive from Ministers not to implement LMPs.
- Finally, the settlement residue formula should not be complicated, and that the CRM should not pollute regular energy settlements

GENERAL COMMENTS

CEIG commends the ESB on the well-crafted consultation paper that addresses some vital aspects of the Transmission Access Reform and recognises that a considerable amount of effort and thought has been put into this work.

CEIG supports the consultation process, and it is highly commendable that the ESB has undertaken a thorough consultation process with stakeholders to address complex issues. Such an inclusive approach fosters transparency and ensures that diverse perspectives are taken into consideration. This will ultimately contribute to a more robust and well-rounded reform.

The inclusion of a review process after 3 years is a suggestion CEIG welcomes. This will allow stakeholders to assess the effectiveness of the implemented reforms using practical data and real-world experiences and avoid and unintended consequences. The review process will not only help in identifying areas for improvement but also serve as an opportunity to adapt the reforms to the evolving needs of the market.

The proposal for an education initiative aimed at market participants is a crucial and valuable element of the reform which CEIG also supports. Given the complexity of the anticipated changes, it is vital to ensure that market participants have a clear understanding of the future NEM and its functioning. This educational initiative will enable a smoother transition and empower market participants to make well-informed decisions within the new framework.

CEIG outlines key principles for reform to guide Ministers' decisions:

- Should not undermine development of new generation;
- Should share efficient congestion fairly across existing and new plants;
- Should not undermine bilateral trade, existing contracts or long-term price predictability;
- Should reduce, not increase, risk during asset operation;
- Should account for all types of congestion (thermal limits, voltage stability, pre-contingent and system strength);
- Should not undermine system security;
- Should not be overcomplicated causing huge uncertainty and delaying investment; and
- Must easily satisfy a cost benefit analysis with inputs accounting for material risks.

PRIORITY ACCESS MODEL

The priority access model (either que or tier-based) leads to a trade-off between efficiency in generator dispatch to manage congestion while maintaining sufficient incentives or risk allocation between new and incumbent generators. This encourages future investment, which is crucial for the energy transition.

However, members have concerns about the potential repercussions for new market entrants. The model could disproportionately burden them with congestion risk, creating a deterrent effect on new investments. We believe that such an effect could be counterproductive to the model's intention, potentially impeding the overall progress of the sector.

CEIG recognises that the proposed policy levers (degree of priority/duration of priority level/treatment of legacy and/or fossil generators) attempt to balance this risk between incumbent and new generators. However, their efficiency in promoting coordinated entry of generation and managing congestion should be assessed against the complexity of their implementation.

Furthermore, it is crucial for the ESB to consider how these new measures could interact with existing and emerging state schemes. The interaction with the NSW access rights scheme for example should not interfere with the effectiveness of the scheme, which would be counterproductive. It is important for the ESB to work closely with the NSW Government to gain insights from the CWO REZ Access Scheme as this could be beneficial for the reform process.

Given the urgency of deploying significant amounts of new generation and storage, CEIG supports Energy Ministers directive to “immediately implement ‘enhanced information’ reforms” as outlined in the Energy and Climate Change Ministerial Council Meeting Communiques.

Model Options

Queue vs. Tiers

CEIG members acknowledge that both the queue and tiers methodologies aim to minimise the cannibalisation of higher-priority generators by those with lower priority. However, members have expressed concerns with the establishment of a new mechanism that could potentially foster such cannibalisation.

The tiers approach is likely to be easier to understand and ‘more legible’ for investors and provide a clearer signal of where there is transmission available or not. However, the tiers approach requires a central agency’s input and assumes that the transmission calculations will be correct despite the challenges forecasting transmission availability. Members have raised this issue, noting that there are concerns with the central agency’s ability to decide if there is room available for new generation when the TNSP’s are unlikely to have data around project specific generation profiles. The Consultation Paper supports this point, noting that getting governance right is important for tiers to work.

In addition, the treatment of new and newest generation must also be considered. Getting the curtailment balance right between new and newest generation is an important consideration that is being blurred within the tiers approach suggesting further work needs to be done to ensure that when a new generator connects to the grid, they bear more, but not all, of the incremental curtailment risk.

CEIG notes a useful feature of the auction option is that an incoming generator can compete with existing generation for available space in a tier (e.g. if new capacity is made available). The auction price also provides a useful signal around which locations are more valuable (i.e., less congested).

However, members are expressing concerns over the potential distortions caused by the auction process, leading to inflated costs and the crowding of resources into auctioned areas. This concentration of resources could create an imbalance in the network and neglect other areas, leading to an overall ineffective utilisation of the overall network. Auction-driven competition can artificially inflate the value of transmission access, causing winners to pay more than its value, which can lead to increased costs for consumers, and reduce confidence in the market.

Concerns have also been raised that the first come, first service approach doesn’t account for project impacts such as those with the best social licence. By solely focusing on the order in which projects are submitted or proposed, the first come, first serve approach neglects the importance of engaging with communities and

stakeholders, understanding their concerns, and incorporating their feedback into the decision-making process.

The queue model provides a weaker and less clear signal to the market on where best to allocate new generation and implementation in NEMDE may be more complex.

Box 1: Treatment of Renewable Energy Zone Generators

Renewable Energy Zones (REZs) need to be developed in a timely way so that priority access in the REZ can be used in the broader NEM. The timely development of REZ is important to ensure that generators are accessing the grid in a comparable way.

The current system doesn't adequately protect generators developing projects in REZs. Where non-REZ generators could secure a connection agreement and move ahead in the queue, the time taken to develop a REZ may result in REZ generators facing delays in receiving a queue number.

This risk of being leapfrogged by non-REZ generators is unfair to first movers in REZs and may discourage further development in REZs. This area needs attention from the ESB to guarantee queue reservation for REZ generators at an earlier point in time.

Policy Levers

CEIG recognises that the policy levers are designed to balance risks between legacy and future generators to ensure that future generators do not bear a disproportionate amount of future congestion. CEIG understands that it is unlikely that transmission investment will keep up so there will likely be some inefficient congestion. Furthermore, future generators are more at risk of having to bear that future congestion because all the 'good priority access' will have already been allocated.

Degree of priority

Members have expressed concerns with understanding the implementation of soft priority, as well as suggesting that the queue will have a large enough impact negating the need for the soft priority.

Members have also expressed concerns a hard priority may be inefficient. A hard priority approach could be inefficient due to lack of flexibility and adaptability as well as limited consideration of system conditions:

- ***Lack of flexibility and adaptability:*** A hard priority approach, even with constraint consideration, can lack flexibility and adaptability to changing grid conditions or emergencies. Real-time adjustments may be required due to unexpected events, equipment failures, or fluctuations in electricity supply and demand. A rigid priority-

based dispatch may not effectively respond to such situations, limiting the system's ability to maintain stability and reliability.

- **Limited consideration of system conditions:** While constraint coefficients account for physical limitations, a hard priority approach might not adequately consider real-time system conditions. These conditions include factors such as load variations, generator outputs, and transmission availability. By not accounting for these factors, the dispatch decisions may not reflect the actual state of the transmission network, potentially leading to suboptimal utilisation of available resources.

Furthermore, members have raised the need for the ESB consider how the build order of different generation technologies can impact system efficiency as well as the impact on project finance.

- **Build order:** A hard priority approach may overlook the build order of generation projects. Different projects have varying economic and technical characteristics, and their construction sequence can significantly impact overall system efficiency. For example, if 500 MW of tier 1 capacity is available and is fully subscribed to solar because it can build quickly, then there might be no wind generation despite the better utilisation on the transmission line.
- **Impact on project finance:** A hard priority approach can have implications for project finance where the risk of curtailment, even in small amounts, can make projects at the margins of financial viability not financeable. Uncertainty surrounding dispatch outcomes and project viability increases perceived risks for investors and lenders, resulting in higher borrowing costs and reduced availability of financing options. This curtailment risk may deter investors, making it challenging to secure the necessary financing for generation projects.

A hard priority approach may have limitations in terms of flexibility and responsiveness to system conditions, however, gives the greatest level of certainty to generators. This is especially true given that equations and therefore coefficients change regularly.

A more comprehensive approach that considers both priority numbers and constraint coefficients, along with real-time system conditions, may be considered more effective in promoting efficient and reliable transmission network operations suggesting these issues need further consideration by the ESB for investors to form a position. The ESB should also provide more detail around how the constraint coefficient would be treated for soft priority.

Duration of priority level

Members are expressing their concerns about the duration of the priority level in relation to the life of the asset. They believe that the duration should correspond with the asset's lifespan and shouldn't change the initial investment decision.

In addition, members highlight the importance of protecting existing assets. They recognize that while it's crucial to safeguard the value and revenue generation of

these assets, it's equally important not to create barriers that could deter new entrants. An overly protective environment could stifle competition, innovation, and growth.

Members have expressed a preference for a fixed duration as it brings revenue certainty, aiding in securing finance on favourable terms. A fixed duration is also less complex and easier to understand than a fixed duration with a glide path. The glide path refers to a gradual change in an asset's value over time, which can add complexity and uncertainty, making it less attractive to investors and financiers.

However, members also acknowledge that considering the actual life of the asset or a proportion of the asset's technical life could be beneficial. This is particularly relevant for assets with a longer lifespan that may need more than a 5-15 year period to recover enough revenue to obtain suitable finance terms. By tying the priority level's duration to the asset's actual or technical life, the asset's value and potential return could be more accurately reflected, enhancing its attractiveness to investors and providing better finance terms.

Treatment of legacy generators

Getting the Balance Right

Members express that it is important to find the right balance in the level of curtailment between existing and new generators. Early movers, or those who invested in the generation capacity earlier, should enjoy some benefits. This benefit could be a lower rate of curtailment, recognising their earlier investment and the potential risks they took at the time. This approach provides an incentive for early investment in the sector, which can drive innovation and development.

Members show a preference for the 'initial assignment to highest priority with glide path' approach. This method is seen as balanced because it provides new entrants with a level of protection when they first join the network, encouraging new investments. At the same time, it gradually lowers this protection, ensuring that the benefits enjoyed by early movers and existing generators are preserved, promoting fairness and sustainable growth in the network.

Treatment of Fossil Generators

The Consultation Paper makes an important observation:

“Many fossil fuel generators are currently in uncongested parts of the grid...The treatment of legacy generators in the priority access model is not a choice between old high emissions generation and new low emissions generators, but between older and newer low emissions generators.”

If thermal generators are not impacted by congestion as highlighted in the Consultation Paper, then they should not be included in the scheme. The scheme is intended to manage market design issues in response to congestion where including unaffected generators could complicate the scheme and potentially skew its effects.

Furthermore, if thermal generators are given a good queue number, members have expressed concerns with increasing the emissions intensity of generation in the NEM. This could result in unintended consequences, undoing policy mechanisms efforts to reduce greenhouse gas emissions.

Therefore, members have the position that thermal generators should not be included in the scheme or should have differential treatment based on emission intensity. This could mean that such generators are only able to bid a portion of their capacity, such as their minimum generation level. This approach would both discourage reliance on higher-emissions generation and incentivise the adoption of newer, lower-emissions technologies.

Congestion Relief Market

Whilst CEIG members have views on the design of the Congestion Relief Market, the CEIGs notes that responding to the CRM is not the substantive focus of our submission. Please refer to individual members submissions to understand their perspectives on the CRM.

As highlighted in our previous submission, CEIG supported the further development of a CRM model that:

- prices congestion relief at the regional reference price, not at the LMP; and
- is genuinely voluntary.

CEIG acknowledges the confirmation by the ESB that the Congestion Relief Market (CRM) is purely voluntary and requires registration with AEMO to participate. Furthermore, that the energy market remains settled at RRP for generators that don't want to participate in CRM.

However, members require further clarity on concerns that if a generator participates in the CRM that they cannot opt out. There is a potential for a generator to bid zero, effectively opting out however, greater clarity is required to understand the rules.

The CRM that is currently proposed is different to the original Edify model and more work needs to be done to ensure the CRM does not turn into mandatory LMP. Although the key directive by Ministers is to rule out LMPs it is not present in the consultation. For those who do not participate in CRM, the ESB notes that if there is full participation in the CRM then arbitrage opportunities will force the RRP/NEM and RRP/CRM to converge over time meaning that all market participants will face an LMP.

Finally, CEIG members have expressed that the settlement residue formula should not be complicated, and that the CRM should not pollute regular energy settlements.

CEIG thanks the ESB and jurisdictions for the opportunity to provide feedback on the Consultation paper and looks forward to further engagement on those issues. Our Policy Director Ms. Marilyn Crestias can be contacted at marilyn.crestias@ceig.org.au if you would like to further discuss any elements of this submission.

Yours sincerely,



Simon Corbell
Chief Executive Officer and Chairperson
Clean Energy Investor Group Ltd
www.ceig.org.au