Shell ENERGY

26 May 2023

Anna Collyer
Chair
Energy Security Board

Dear Ms Collyer

RE: Transmission Access Reform

Shell Energy Australia Pty Ltd (Shell Energy) welcomes the opportunity to respond to the Energy Security Board's (ESB) consultation paper on Transmission Access Reform (TAR).

About Shell Energy in Australia

Shell Energy is Shell's renewables and energy solutions business in Australia, helping its customers to decarbonise and reduce their environmental footprint.

Shell Energy delivers business energy solutions and innovation across a portfolio of electricity, gas, environmental products and energy productivity for commercial and industrial customers, while our residential energy retailing business Powershop, acquired in 2022, serves more than 185,000 households and small business customers in Australia.

As the second largest electricity provider to commercial and industrial businesses in Australia[1], Shell Energy offers integrated solutions and market-leading[2] customer satisfaction, built on industry expertise and personalised relationships. The company's generation assets include 662 megawatts of gas-fired peaking power stations in Western Australia and Queensland, supporting the transition to renewables, and the 120 megawatt Gangarri solar energy development in Queensland.

Shell Energy Australia Pty Ltd and its subsidiaries trade as Shell Energy, while Powershop Australia Pty Ltd trades as Powershop. Further information about Shell Energy and our operations can be found on our website here.

General comments

Shell Energy has actively participated in the various consultations associated with the Transmission Access Reform (TAR) initiative over the past several years. We proposed a connection fees model which was similar to the ESB's connection fees model previously outlined in the December 2022 TAR Directions Paper. We note that the ESB has recognised one of our, and other stakeholders', major concerns that previous models could have had negative effects on contracts markets. This has been a positive development through the consultation process.

Now that Energy Ministers' have confirmed the ESB should further develop the priority access model along with the Congestion Relief Market (CRM), Shell Energy seeks to ensure that these are designed in such a way that

[1] By load, based on Shell Energy analysis of publicly available data.

[2] Utility Market Intelligence (UMI) survey of large commercial and industrial electricity customers of major electricity retailers, including ERM Power (now known as Shell Energy) by independent research company NTF Group in 2011-2021.

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the policy delivers the right incentives to the market and continues to support contracts markets. We remain concerned about the high implementation costs that this proposed reform will impose on the market as a whole and the as yet unproven technical changes that will be required to facilitate the proposed changes in market dispatch.

We welcome confirmation of several design elements that were discussed in the ESB's February 2023 paper on TAR. In particular, Shell Energy supports the decision to ensure that the Regional Reference Price (RRP) is determined based on the existing calculation and not based on bids on the marginal price in the CRM. We also support the ESB's commitment to the CRM being a genuinely opt-in arrangement, without any penalty to generators who choose not to participate. Shell Energy urges the ESB to maintain these features on an enduring basis.

Shell Energy also appreciates the manner in which the ESB has set out the main areas for consultation in terms of options and policy levers that could be used to deliver the reforms. As a brief summary, Shell Energy recommends the ESB adopt the following design choices for the priority access model:

- Retaining voluntary participation in the CRM on an enduring basis
- Queue model with positions allocated on a quarterly basis
- Hard priority
- Access rights lasting the life of a generator, for both existing and new generators.

In our view this combination of choices best delivers the aims of the reform by providing certainty to investments.

The submission that follows provides more detail on our preferences for TAR design. For more detail on this submission please contact Ben Pryor, Regulatory Affairs Policy Adviser (ben.pryor@shellenergy.com.au or 0437 305 547).

Yours sincerely

[signed]

Libby Hawker
GM Regulatory Affairs & Compliance

Model options

In the first instance, Shell Energy's preference is for priority access to be implemented using the queue model, rather than the centrally determined tiers approach. We consider the queue model provides the clearest and strongest signal for generators to invest in unconstrained parts of the network and the greatest degree of certainty in terms of the priority access they hold. Provided priority access is implemented on a chronological basis it would provide generators connecting to the grid earlier, with improved access relative to those connecting later, and potentially giving rise to increased congestion.

In our view, the centrally-determined tiers model creates too much uncertainty to generators, given that assigning tier levels to a generator could also be determined by technology as well as capacity level. We consider this gives rise to uncertainty for existing participants and investors and creates the risk of errors in modelling and assigning tier levels leading to poor outcomes both with regards to costs and reliability for generators (and consumers). We are also concerned about the prospect of tier levels changing over time, which the ESB suggests could occur, as this would reduce certainty for generators. The paper suggests tier levels could change to reflect the potential for improved access over time through transmission augmentations or generator retirements. While this is possible, the ESB does not countenance that access may also degrade over time, depending on issues such as TAR design options, reclassification of transmission line ratings, new constraints emerging etc. Improving investor confidence in access was one of the key aims of this reform. As such, we fail to see the benefits in adopting the centrally-determined tiers model and consider that this model will weaken the clarity and strength of the locational signals for new generators.

The use of a queue model also negates the need for auctions of queue positions. Consistent with our position set out several times over the course of the development of TAR options, Shell Energy remains opposed to the use of auctions to allocate priority access. Auctions were a key feature of the previously proposed and strongly rejected Locational Marginal Pricing/Financial Transmission Rights (LMP/FTR) approach. Our main opposition to the use of auctions stems from the risks that it reduces liquidity in contract markets. While the winning bidder (or bidders) would have more certainty as to their ability to dispatch during times of congestion, this only lasts as long as the access rights do. Other bidders, without access rights, have far less certainty and consequently, are likely to be less willing to make contracts available in electricity financial markets. This will hamper the ability of many electricity retailers to hedge their pricing risk and make contracts available to users.

Shell Energy's preference for the queue model underpins our views on a range of other issues relating to the full design on the queue model. Firstly, it will be critical for the ESB, in conjunction with AEMO and stakeholders, to determine at what point a generator obtains its place in the queue. We consider this must be sufficiently advanced enough that it does not allow for developers to receive a queue position without necessarily intending to build. We share the ESB's concerns that if queue numbers were assigned too early it could lead to speculative behaviour and increase uncertainty to genuine entrants. In our view, AEMO's acceptance of a connection agreement and generator performance standards would be an appropriate point at which to allocate a generator's queue position. We do not support allocation of an indicative queue number at the time a connection agreement is lodged as this may lead to confusion and disputes due to the time taken to complete the connection agreement and approval of the applicant's generator performance standards.

We also recommend that generators be allocated queue positions in chronological order, each quarter. That is, all generators connecting in the same quarter would receive the same queue position. We accept the ESB's view that a strict chronological order could create an inefficient rush to reach the relevant stage in the connection process. On the other hand, we see that longer windows, such as calendar year or financial year do not provide an adequate advantage to generators who have connected earlier. As the ESB notes, it could also serve to create a different rush to reach the relevant stage for queue position allocation before the time-window closes. We consider that a quarterly window would likely avoid promoting inefficient behaviours while still providing a sufficient advantage to generators reaching the relevant connection stage earlier.

Shell Energy also recommends that the capacity allocated in the queue position allows for staged implementation based on a pre-agreed construction and commissioning plan. This would allow a participant the ability to construct and commission what may be a large capacity project over a long period safe in the knowledge that an agreed queue position for the capacity of the project is in place. This would be similar to the proposal for the allocation of a single queue position for all generators located within a REZ.

We note the Paper states "It would be the REZ coordinator's responsibility to assign the reserved quantity between the generators participating in the REZ".[3] What is unclear to Shell Energy is how NEMDE would then be able to dispatch generators within a REZ as all generators within that REZ would have the same dispatch priority number for NEMDE's purposes. We request the ESB provide more details on this issue.

Shell Energy disagrees with the assessment of reductions in congestion risk set out in the paper.[4] We consider that the reduction in congestion risks would be greater under the queue as opposed to the centrally-determined tiers model due to its increased certainty of allocation.

Policy levers

The ESB's consultation paper also discusses several policy levers that could be used to deliver whichever model of priority access is selected. These policy levers can be used to establish how long access rights last for and how much certainty a more advantageous queue position would deliver to generators.

One of the areas the ESB is asking for detail on is how much weight a generator's queue position should have in the event of congestion (and bids tied at the market floor price). The ESB terms this as either soft or hard priority. Hard priority would mean that a generator's queue position would be more important than constraint coefficients when determining dispatch when constraints apply. A soft priority approach would only rely on queue positions in limited cases to determine dispatch when a constraint binds.

Shell Energy considers that if this reform is to achieve its aims and provide certainty to investors, then the only logical approach is to adopt a hard priority approach. Hard priority would mean that a generator's queue position would play a greater role than constraint coefficients in determining dispatch when a constraint binds. In our view this meets the aim of the policy reform in terms of providing a strong locational signal to invest in unconstrained areas. Providing hard priority also delivers sufficient certainty to generators to be able to offer contracts thereby supporting contracts market liquidity and efficient price discovery.

Further, we query the ESB's view that one of the weaknesses of the hard priority approach is that it may have a significant impact on the RRP. Given that the priority queue position is only designed to apply when bids are at the market floor price, and would only impact generator bids within the constrained part of the network, there are limited circumstances where this would in fact influence the calculation of the RRP. As such, significant changes to the RRP associated with the queue position can only occur if the marginal generator in a region has bid to the market floor price and is located in a constrained part of the network. At times of network congestion, where the application of the queue position allocation would be active, RRP setting is primarily based on the marginal generator in the uncongested part of the network.

We also question why the ESB sees that a stronger reliance on the CRM to unwind dispatch inefficiencies under the hard priority option. Given that the ESB has touted more benefits with a greater use of the CRM, then this would seem to be a positive outcome.

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[3] ESB, Transmission access reform – Consultation Paper, May 2023. p 30

[4] ESB, op cit. p 38

Duration of access rights

One of the other key areas is how long priority rights should last for. Shell Energy considers that for both new entrants and legacy assets, priority rights should last for the life of the asset. That is, rights should not degrade over time, but may improve due to generator retirements, transmission expansion or self-funded transmission augmentation. The life of the asset could be tied to the date a generator submits as part of the generator notice of closure obligation. Ensuring that priority access rights last for the life of a generator – either existing or new – delivers predictability and consistency to generators allowing them to sell contracts in the contracts markets confident that their access will not degrade over time. This is crucial to maintaining liquidity in contracts markets over the long-term.

The other options raised in the consultation paper, such as degrading over time, or in the case of incumbent generators, being placed in multiple queue positions, create too much uncertainty and complexity for participants. As noted above, it may also impact liquidity in contracts markets. Additionally, it could drive further inefficient investments by bringing unnecessary new capacity to an already constrained area because an older generator's access is degrading by virtue of time alone. This approach would therefore appear to increase congestion, undermine existing investments and lead to inefficient investments. This is entirely counter to the aims of TAR.

Additional comments

As we have previously outlined to the ESB, we firmly believe that generators that invest in transmission augmentations should receive the highest level of priority access to the extent that their augmentation has relieved congestion and increased transfer capacity to consumer load centres. This should not degrade the access of existing generators of course. For example, a generator that funds an augmentation that increases network capacity by 300 MW should receive the highest priority access for 300 MW of their capacity. Other generators would not face increased congestion as a result.

This model could be extended to obligate AEMO and the relevant TNSP to notify other generators within the same part of the network in order to provide them with the opportunity to co-fund network augmentations. This may deliver superior benefits at lower costs to the generators choosing to participate and ultimately lower costs to consumers. Ensuring TAR facilitates generator-led transmission augmentation is in our view the most effective way to ensure the optimum coordination of generator and transmission investment.

In the consultation paper, the ESB asks how priority access should be implemented: either by using different market floor prices (MFPs) or through sequential solves in the National Electricity Market dispatch engine (NEMDE). Shell Energy considers that using different floor prices risks distorting market dispatch and adding complexity to participants' bidding systems. Were this approach to be implemented, we believe the lower floor prices should be theoretical in nature. That is, while generators could bid at the lower levels, the lowest market floor price possible for settlement purposes should be at -$1000/MWh.

On balance, Shell Energy argues the sequential solve model is preferable as it would be simpler to implement from a participant's perspective. We consider that the dispatch priority numbers (or queue positions) could be implemented using different violation penalty factors. This may allow for a relatively low-cost approach to incorporate dispatch priority into NEMDE compared to the ESB's suggested options. We encourage the ESB to engage with AEMO to determine whether this is a feasible approach.

We share the ESB's concern that the sequential solve model could lead to a situation where dispatch instructions are delayed by an unreasonable length of time. Yet, this cannot entirely be attributed to implementing priority access alone. There may be opportunities to update NEMDE and/or the systems on which it operates to avoid the existing delays in issuing dispatch instructions, thereby, minimising the impact of any change for TAR.

Congestion Relief Market

The ESB presents a largely well-defined explanation of the CRM with few questions for stakeholder input. As a first comment, we welcome the confirmation that CRM prices will not be used to settle dispatch variations or to set the RRP.

We also share the ESB's position that storage technologies do not require different rules for participation compared to other generators. This is a sensible decision, and one we recommend be retained in the final package of rules sent to Energy Ministers for agreement.

One area we note the ESB is still investigating is whether the energy market rules need to be modified to adjust to new bidding incentives. Our interpretation is that the ESB is concerned that higher short-run marginal cost generators could seek to manipulate the market by bidding low into the energy market to ensure access to the RRP, but have no intention to run, and use the CRM to then effectively be paid not to generate. The ESB does not call for comments but notes it is working with the AER to explore what changes may be needed. It is unclear how the proposed hybrid model could work in practice where the design requires generators to bid at the market floor price to access their queue position rights but may then be prevented from bidding at a higher price in the CRM to optimise the most efficient dispatch outcomes.

We recognise the ESB's concerns around this kind of behaviour potentially resulting in sub-optimal outcomes. Yet, we do not concede that changes to bidding rules of the CRM are necessary or in fact practical to avoid these outcomes in the hybrid model. The competitive dynamics of the market may be sufficient to deter generators from acting in this manner. Participants observing out-of-merit generators seeking to arbitrage the CRM and energy market, could decline to bid into the CRM, removing any inefficient arbitrage payment for the out-of-merit generator. If this situation eventuated, an out-of-merit generator may face losses until it returned to a different bidding strategy. While the ESB is right to consider such bidding issues at this stage, it needs to consider them from the perspective of the hybrid model as a whole. The potential for such bidding issues to eventuate does not mean that changes to the rules are required to discourage the behaviour.

A further consideration in the design of the CRM market could be the inclusion of queue position in CRM dispatch where an electrical sub-region is subject to significant congestion. This would provide a clear and strong signal to an intending generator that could still benefit from cannibalising existing generators dispatch under the CRM from locating in the congested area when this would result in a reduction in efficient dispatch outcomes.

Settlement residues

Shell Energy supports allocation of potential changes in settlement residues associated with the implementation of the CRM proposal to intra-regional settlement residue auction unit holders. We agree that CRM may not always result in changes in flows across an interconnector, provided that the loss adjusted CRM prices in the exporting and importing regions supports such an outcome. However, implementing CRM will result in a change to prices on which the settlement residue would be calculated, i.e., the regional CRM prices. If as argued in the Paper, CRM results in increased dispatch efficiency in interconnector exchange between regions, then the value of the inter-regional settlement residue can be calculated and allocated to the intra-regional settlement residue auction unit holders using the loss adjusted CRM prices and interconnected flows. We acknowledge that this may not necessarily result in a perfect inter-regional hedge, yet may act to "firm" the level of inter-regional hedge compared to current outcomes.

CRM bidding structures

Shell Energy supports the inclusion of the proposed quantity limits and buy/sell spreads as an optional part of the CRM bidding process. These could be helpful tools in the initial stages for some generators looking to participate in the CRM.

We add that our support is contingent on the cost and complexity that including these parameters would add to the total system cost of implementation. If including these options would add significantly to the costs (relative to the scale of change and potential benefits) then it may make more sense not to implement them.

Frequency control ancillary services and CRM

Finally, we agree with the ESB's proposal to only require a single set of bids in the Frequency Control Ancillary Service (FCAS) markets. Consistent with the ESB's reasoning, we see that maintaining a single set of bids will lower the implementation costs to both participants and AEMO, without forgoing any meaningful efficiency gains.

In contrast, we dispute the ESB's assertion that participants opting out of the CRM "should not need to avoid exposure to CRM FCAS differences".[5] In our view, generators opting out of the CRM or bidding for zero dispatch in the CRM should have their FCAS volumes and prices locked in at the time of the initial energy market and FCAS dispatch. Only where there is a difference in FCAS enablement between the initial energy market dispatch run and the CRM run should this be settled at the CRM FCAS price. This mirrors how the CRM settles compared to the energy market. The ESB argues that exposing all generators to CRM FCAS prices limiting participants' exposure to CRM FCAS outcomes would limit the amount of CRM energy trading and so reduce the benefits of the broader TAR. We struggle to see how this would be the case.

The driver for participating in the CRM will be outcomes in the energy market given the volumes and revenue at stake. Generators choosing to participate in the CRM will do so understanding that there is the possibility their dispatch levels could be adjusted up or down. Generators choosing not to participate in the CRM – either by not opting in or by setting bidding volumes at zero – do so for specific reasons. In summary, participating in FCAS markets will not be the driver for whether to participate in CRM or not. Imposing variations to FCAS volumes and CRM prices on generators who have chosen not to participate in the CRM would undermine the rationale for making participation voluntary. We strongly recommend the ESB change its approach to FCAS to ensure that opt-out generators, or generators with zero CRM bids do not face adjustments to their FCAS volumes or prices following the energy market dispatch run.

Conclusion

Shell Energy welcomes the narrower focus the ESB has brought on the priority access model and CRM design. In response to the ESB's questions, Shell Energy recommends the ESB adopt the following design choices for the priority access model:

- Retaining voluntary participation in the CRM on an enduring basis
- Queue model with positions allocated on a quarterly basis
- Hard priority
- Access rights lasting the life of a generator, for both existing and new generators.

[5] ESB, Transmission Access Reform Consultation Paper, May 2023, p 62.

However, we remain concerned regarding the complexity and potential costs of and the as yet unproven technical changes that will be required to facilitate the proposed changes in market dispatch. Any proposed change must ensure both the ongoing secure operation of the power system and the continued efficient functioning of the wholesale spot and contracts markets.

In additional, we reiterate our call for generators investing in transmission augmentations to receive the highest priority position in the queue. This would incentivise generators to invest in network infrastructure, and potentially reduce the costs to consumers having to pay to build additional transmission infrastructure.