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Dear Board Members



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Transmission Access Reform — Directions paper — 10 November 2022

EnergyAustralia is one of Australia's largest energy companies with around 2.4 million electricity and gas accounts in NSW, Victoria, Queensland, South Australia, and the Australian Capital Territory. We own, contract, and operate a diversified energy generation portfolio spanning coal, gas, battery storage, demand response, solar, and wind assets. Combined, these assets comprise over 4.5GW of generation capacity.

We welcome the opportunity to comment on the Energy Security Board's (ESB's) Directions paper on the Transmission Access Reform (TAR) in the National Electricity Market (NEM). We are appreciative of the ESB's efforts to investigate the options to overcome issues with congestion and associated long-term investment signals in the NEM. Ensuring these arrangements are fit for purpose will be vital enabler of a rapid and robust energy market transition.

Our key responses to the directions paper are:

- there should be another directions paper to consolidate and formalise the ESB's thinking, and clarify issues raised in the last several weeks during consultation
- there does not appear to be a satisfactory understanding of the proposed Congestion Relief Market (CRM). Stakeholders should be given more time to digest recently released materials before being asked to endorse a particular set of options
- the NERA cost benefit report and other reform options being considered by Officials should also be consulted on before the ESB reaches a draft position
- access reform needs to be integrated with other NEM-wide market settings
- the ESB should be clear regarding the intent of the CRM. Some of the CRM design options it presents appear to contradict the objective of access reform, adding to stakeholder confusion

- The CRM should be evaluated in terms of the congestion relief it achieves and its ability to address complex congestion issues in the NEM.

These points are elaborated below. Responses to the ESB's detailed questions are attached.

Another directions paper should precede draft recommendations to Ministers

The ESB should publish a further directions paper as a next step before recommending a draft preferred model. An additional consultation step need not be overly burdensome and could take the form of a further update or set of clarifications from the ESB. The short period of time required for this would be a worthwhile investment at what is now a critical stage in the ESB's consultation process. It would ensure important issues are explored and formally communicated in a transparent manner, thus would contribute towards better reform outcomes for customers, as well as solidifying stakeholder buy-in. There is a risk that Ministers will pre-maturely endorse any draft ESB position at their next meeting in February and this should be resisted.

We understand other stakeholders also remain cautious about the options presented by the ESB. We believe that this caution reflects the genuine complexities arising in access reform rather than a negative stance towards changes to the status quo. EnergyAustralia believes that material changes to the current open access regime are necessary. We have devoted considerable resources to analysing and suggesting refinements to the different options being explored by the ESB, and will continue to do so.

The CRM is still not fully understood and open questions should be answered before stakeholders are asked to endorse options

We consider that currently stakeholders do not have a common shared understanding of the CRM. There is therefore a risk that stakeholders' feedback will be based on poor or partial understanding of the proposed models.

The ESB's published materials have been difficult to digest. In the past month we have attended several sessions with the ESB and its advisors in different fora in discussing different elements of and options within the CRM. Despite these sessions there still appears to be a level of confusion around fundamental design elements. A key example of this is the options presented in calculating the RRP_{CRM}^1 and what this would entail in practice. The time taken to resolve confusion has likely been at the cost of not focussing on other, equally important aspects of the CRM.²

Transparency and further scrutiny of options and evidence is critical

The ESB has not yet published the quantitative material from NERA Consulting. Consideration of the costs and benefits of the reform will be critical. NERA's report is also likely to illustrate how design concepts would work in real world constraint conditions. Given that the NERA modelling report will guide the ESB's thinking, and the prospects of

¹ See Table 13 in the Directions paper which has become the focus of several discussions.

² Several key documents have only been provided at a late stage of the consultation process. For example, answers to FAQs were provided to stakeholders on 9 December and detailed explanation of CRM examples were only made available to stakeholders on 13 December, a week prior to submissions being due.

premature ministerial endorsement, stakeholders should be afforded the opportunity to comment on NERA's findings before recommendations are made to ministers.

We also understand that the ESB and senior officials are considering options not canvassed in the directions paper. These options need to be published for further transparency and scrutiny.

Access reform needs to be consistent across the NEM, and integrated with other NEM-wide market settings

The electricity network is interconnected and network-level issues such as congestion can only be resolved with network-level solutions. The reform landscape is being complicated with concurrent progress on state-based access regimes and introduction of new markets, including the OSM. These are all complex changes and it is important they are implemented in a considered, coordinated manner.

Our preference is to implement a NEM-wide and market-based approach to congestion management. Reliance on consistent market signals across jurisdictions will ensure that desirable outcomes for customers can be delivered at least cost across both operational and investment timeframes. We acknowledge that access reform has been debated over many years. We are wary of policy makers feeling compelled to diverge from the ESB's independent process, with more simplistic or uncoordinated reforms, as we now approach what appears to be the conclusion of these debates.

Some of the ESB's design options contradict access reform objectives and are inconsistent with market-based solutions to congestion management

As noted above, key pieces of information are still missing that are important to consider prior to progressing to draft recommendation. These include, for example, the pre-dispatch processes and forecasts of both the energy market and CRM. Stakeholders should have an opportunity to engage with these important aspects of the energy dispatch process.

We are concerned with some of the options tabled by the ESB, some of which seem to contradict the objective of access reform. For example, the rounding of coefficients would not achieve more efficient dispatch outcomes. Truncating the LMP at the RRP, or limiting storage providers' participation in the CRM, also seem to run counter to the intent of the CRM.

We do not support the ESB's proposed administrative approach to setting boundaries to market participant bidding behaviour in the CRM. We consider that this reflects a central planner's approach to congestion management and again seems inconsistent with a market-based solution. Whilst we appreciate the ESB's effort, some of the options entertained by the ESB undermine stakeholders' confidence in the ESB's willingness (or capacity) to embrace market-based solutions to congestion management. As a result, there may be a level of reluctance by stakeholders to support solutions if there is a risk that the detailed design will negate key benefits sought.

The CRM should be evaluated in terms of the congestion relief it achieves and its ability to address complex congestion issues in the NEM

The key comparison to assess whether the CRM is 'working' should not be based on the comparison of the RRP and CRM price. The NEM energy and CRM are two interlinked but different markets. The energy market prices reflect the marginal cost of meeting energy demand at the reference node; energy market prices are mostly linked to aggregate demand levels. The CRM prices reflect the cost of constraints (congestion) at the local nodes; CRM prices are linked to local supply conditions and network investments and technical limits. In our view, energy and CRM prices should not be compared to each other in determining whether the CRM is 'working'. The approach by which ESB aims to constrain CRM participants to certain perceived desirable dispatch outcomes is, in our view, problematic.

The CRM is designed as a market to overcome congestion issues where administrative processes fail to achieve this. It is important to recognise that a CRM bid will only be dispatched by NEMDE if the market participants' congestion relief contributes to efficient dispatch and when there is a willing counterparty in the congestion relief market. Therefore, the assessment of the CRM should focus on whether the CRM participant's congestion relief revenues (or payments) are in line with the value of the congestion relief they provide (or receive) in the CRM. To ensure this, the CRM design should not interfere with CRM participant's bidding space. Instead, the ESB should ensure that there would be healthy levels of competition and open entry of new participants as these are what guarantee achieving the intent of the CRM. We therefore encourage the ESB to fully embrace the potential benefits of the CRM in achieving a complex, network-level optimisation using market-based incentives. Pursuing a central planner's attitude to network management in designing the CRM is counterproductive.

If you would like to discuss this submission, please contact me on 03 9060 0612 or Lawrence.irlam@energyaustralia.com.au.

Regards

Lawrence Irlam

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Attachment: responses to ESB's direction paper questions

Implementation considerations

Q1. Should the core elements of the hybrid model be implemented on a staged basis and if so, what factors should inform the decision with respect to staging?

We do not consider that there is sufficient information on implementation options in the directions paper to provide an informed response to this question. We look forward to working with the ESB on the details of how best to implement the reform and whether staging will be required.

Detailed design choices - operational timeframes

Q2. Do you agree with the proposed scope of market participants included in this access reform?

Q3. Should different treatments apply to any particular categories of market participant?

We generally agree that key market participants should be scheduled and semi-scheduled participants. To ensure a technology neutral approach, all market participants should be treated as equally as practicable.

However, we consider that the next direction paper should more explicitly consider how the implications from the TAR for some specific groups of market participants. Some participants may be adversely impacted by or gain competitive advantage from the proposed reform. These participants include:

- network demand response providers (those with network demand response contracts with TNSPs or DNSPs)
- wholesale demand response providers
- market participants between 5-30MW of registered capacity.

Alternative distributions of congestion risk in the energy market – rounding of constraint coefficients

Q4. Do you agree with the assessment of risks and opportunities for these design options?

Q5. What is your preferred option and why?

The role of coefficients is to represent the physical realities of the electricity network. Coefficients are already a simplified representation of a complex physical world. They are needed for efficient dispatch and for reasonable NEMDE solver times.

Given that a key objective of the TAR is to improve dispatch efficiency, rounding of coefficients seems to directly undermine this objective. The rounding of coefficients is an act of direct and systematic erosion of dispatch efficiency.

The coefficients are also intended to facilitate efficient dispatch in the CRM. Rounding coefficients undermines market participants' ability to meaningfully gain competitive advantage in congestion management and it erodes the efficiency of the CRM. We see no reason why the CRM should be implemented with such handicap.

Furthermore, in order to avoid potential issues with network security, coefficients would need to be rounded up to a higher number than generators' current coefficients. This would ensure that generators are not collectively dispatched at levels that are inconsistent with the technical limits of the network. However, this treatment of the coefficients means that the network is utilised below its true capacity. That is, the network assets that consumers have paid for is essentially administratively written off. This is inconsistent with the TAR reform objectives and not in line with long term interest of consumers.

Furthermore, both the energy and the CRM NEMDE solver would rely on being able to clearly distinguish between dispatched and non-dispatched generators, and determining their dispatch levels. Rounding of coefficients will more frequently require tie-breaking rules to be used. Tie-breaking rules may not be accurately reflected in pre-dispatch processes and thus this could further increase the discrepancy between pre-dispatch and dispatch outcomes. This could lead to inefficient operational outcomes, which in turn is inconsistent with the TAR reform objectives.

Arbitrage opportunities between the energy market and the CRM for out of merit order generators

Q6. Do you agree with the analysis of key risks and opportunities for each design option?

Q7. Are the design choices more applicable to certain categories of market participant?

Q8. Do you have a preferred design choice (either standalone, or combination of options) and what is your rationale?

The ESB has identified some 'arbitrage opportunities' in the combined energy and CRM markets whereby some market participants bid low in the energy market and then bid their true costs in the CRM market. The ESB's key concern is that this bidding behaviour results in some level of wealth transfer among generators. As more and more market participants seek to take advantage of the 'arbitrage opportunities', the efficient outcome of the CRM is achieved.

Whilst there may be a wealth transfer issue among generators when the CRM is introduced, this does not appear to significantly impact the outcome for consumers. This potential wealth transfer should create incentives for more market participants to enter the CRM and to bid their true costs, ultimately leading to a more efficient dispatch. We note that it is not possible (whether it is through COGATI, CMM, or any other options investigated previously by the ESB) to achieve a more efficient dispatch outcome without some levels of distributional impact among generators.

Introducing the CRM in the current NEM design has the potential to lead to a more efficient dispatch outcome. The 'arbitrage opportunities' that the ESB has identified should be viewed as an incentive for market participants to (voluntarily) enter the CRM. The arbitrage opportunities should give ESB confidence that despite its voluntary nature, the CRM is likely to be a well-used marketplace and it will successfully improve efficient dispatch.

The ESB discusses three options to address the above arbitrage opportunities: do nothing, update bidding guidelines, and automatically exclude market participants from CRM dispatch if CRM bid > forecast RRP. These options are considered in detail below.

Option 1: do nothing

We consider that the arbitrage opportunities incentivise CRM participation and thus they improve the potential for the CRM to achieve a more efficient outcome. Therefore, we consider that it is a reasonable approach to 'do nothing' at first and if significant issues arise later then to assess the nature and magnitude of these issues and implement commensurate measures at that time.

Implementing measures that may protect the status quo of some market participants at the expense of undermining incentives to participate in the CRM does not seem prudent.

Option 2: updated the bidding guidelines

This option would require the AER, for example, to consider historical bidding records, perform comparison of energy and CRM bids, or infer costs. Market participants' costs and bids could change significantly in short periods of time and the ESB has already indicated that calculating storage providers' costs is challenging. Furthermore, coefficients and MLFs also interact with market participants' revenue and thus what may be considered a 'reasonable' bid. Therefore, this approach could lead to an outcome where market participants are uncertain about the AER's interpretation of their costs, and they withdraw from the CRM. This would also be a potentially lengthy and burdensome approach that offsets any efficiency gains sought via the CRM.

Option 3: Automatically exclude generator if CRM bid > forecast RRP

The ESB provides an example rule that if a generator were bidding in the CRM above forecast RRP, its bid into the energy market would be excluded. Implementing such option is problematic for several reasons:

- It relies on the accuracy of 'forecast RRP'. Constraining the CRM to such 'administrative' solutions could undermine efficient dispatch objectives as it constrains market participants to act in line with AEMO's forecasts, rather than to rely on their own, potentially better, RRP forecast.
- A CRM bid is not in itself indicative of the market participant's revenue. Coefficients and MLFs also interact with this revenue and thus there will be no 'one size fits all' rule that will help establish what may be a reasonable bid by a CRM participant under all circumstances.
- The CRM is a market. A CRM bid (which may be above the forecast RRP) will only be dispatched by NEMDE if this bid is required for the successful completion of a CRM transaction, and thus it contributes to efficient dispatch. In a well-functioning CRM, ensuring that there is healthy levels of competition and open entry of new participants is what should set limits to market participants' revenue rather than administrative processes.
- There are various unique cases in the energy dispatch and thus it is hard to find a rule without unintended or undesirable outcomes. For example, market participants with negative coefficients in certain constraint equations, or some market participants that are in a specific part of the network with unique opportunities may be advantaged or disadvantaged by any given rule.

- There may be several reasons why CRM participants bid above RRP. For example, the establishment of the CRM may lead to a CRM-derivate market outside the NEM where market participants may agree to congestion relief contracts. These contracts may require market participants to bid in line with their contractual obligations in the CRM. The development of a CRM-derivative market should not be prevented or discouraged with CRM design features.

In summary, we are concerned about the ESB's administrative approach to setting boundaries to market participant bidding behaviour in the CRM. We consider that this reflects a central planner's approach to congestion management and thus defeats the purpose of putting in place a market, where finding solutions to overcome congestion is delegated to market participants. We consider that at this stage the 'do nothing' approach is preferred and if significant and systematic issues arise, these should be considered at a later stage.

Treatment of storage acting as a generator and as a load

Q9. Do you agree with the underlying assumptions for the respective incentives of storage acting as a generator and as load?

Q10. Do you agree with the analysis of key risks and opportunities for each design option?

Q11. Do you have a preferred design choice (either standalone, or combination of options) and what is your rationale?

The ESB notes that "a key benefit of a congestion model is to reward storage for its services in relieving congestion. The CRM unlocks a new market for this congestion relief and provides a clear price signal for its value. The CRM creates opportunities for higher price spreads for storage to charge at its LMP and facilitates new contract arrangements between storage/scheduled load and congested parties."³ We agree with this characterisation. The intent of the CRM is to reward market participants in line with the value they provide in the energy market. The fact that battery storage can have smart bidding algorithms and fast ramp rates should be welcomed in an energy market, and in particular in the CRM. If there are perceived excessive profits for storage providers in the CRM due to their high ramp rates and their ability to act as a generator and a load, then this should incentivise investment in storage, which is a key objective of the TAR work program.

The ESB discusses two options to 'clip the wings' of storage providers. Our responses to these options are below.

Option 1: treat storage with the same design choices as for other generators

A key design principle in the NEM has been to maintain a technology neutral design. It is unfortunate that limiting storage providers' bidding behaviour is discussed in the context of a market that is intended take advantage of the services they may provide. Setting administrative boundaries to storage providers' bidding behaviour defeats the purpose of establishing the CRM. We consider that at this stage the 'do nothing' approach is preferred and if significant and systematic issues arise, these should be considered at a later stage.

³ ESB directions paper, p. 50.

Option 2: assign storage providers a "strike price" which determines whether the storage unit is in-merit

This option assigns a strike price to storage providers, for example \$300/MWh based on over-the-counter cap contract, and uses the cap contract strike price to determine whether they should be dispatched in the CRM. We strongly oppose this option. Cap contracts are 'derivative' contracts, and the contract prices are 'derived from' the NEM wholesale prices. Hard coding wholesale market derivative contract prices into the NEM dispatch engine to determine congestion management outcomes would be highly inappropriate. We appreciate the ESB exploring potential design issues and solutions however this particular option appears to be based on a lack of understanding of what the CRM is intended to achieve and how it may contribute to efficient congestion relief.

We furthermore disagree with the suggestion that this variant would be beneficial as it could lock out the storage provider from the CRM market at times of high RRP prices. This seems to defeat the purpose of the CRM.

The ESB's comment that "a 2-hour storage unit might be assigned an availability of 2 hours over the morning peak and 2 hours over the evening peak"⁴ seems to reflect an erroneous view that a 'central planner' with perfect foresight can determine when and how storage providers will relieve congestion, disregarding a range of incentives that may drive a storage provider's behaviour.

EnergyAustralia's preference is for storage providers to be treated the same as other market participants and that they are not subject to specific controls. The key comparison to assess whether the CRM is 'working' should not be by comparing the RRP and the CRM price. The energy and CRM are two interlinked but different markets. The energy market price reflects the marginal cost of meeting energy demand. The CRM price reflects the cost of constraints (congestion) in the NEM. Furthermore, CRM transactions cannot happen without willing counterparties in the CRM transactions. Therefore, the assessment of the CRM should focus on whether the CRM participant's revenues are in line with the value that their congestion relief services provide to willing counterparties. There are two key features of the CRM to ensure this:

1. that the CRM transaction will only occur if there are willing counterparties in the CRM transaction, i.e. when there are market participants that are willing to pay the CRM bid price.
2. that there is open entry to participate in the CRM and competition to provide congestion relief is encouraged.

Calculation of RRP – Two options presented in Table 13

Q12. Do you have a preferred calculation for RRP and why?

Q13. Which approach do you prefer for the treatment of FCAS and why?

Q14. If the technical implementation plan requires that we adopt your non-preferred calculation of RRP and FCAS prices, what are the risks?

Table 13 has become a focal point of the stakeholder forums yet there still remains a level of potential misunderstanding among stakeholders about what these options may

⁴ ESB, p. 51.

entail. Helping stakeholders understand the two options better may be facilitated by worked examples and a better explanation of how the RRP_{CRM} may be calculated under the two options. It would be also valuable to better understand how RRP and the RRP_{CRM} may vary between the two approaches, and if so, under what circumstances.

Settlement of metered output – two options for settlement formula

Q15. Do you agree with the risks and benefits of the two options and their materiality?

Q16. Do you have a preferred settlement formula and why?

We consider that Option 1 seems more consistent with current practice where variations from target are priced at the energy market price. This option also appears to be consistent with the CRM being an optional mechanism.

Market Participants that alleviate constraints

The ESB expresses concerns that participants may withhold from the energy market and participate in the CRM instead and get paid the LMP which may be higher than the RRP. A long-debated option in the NEM has been a full nodal LMP pricing. The AEMC, AEMO, ESB have long recognised that full nodal pricing is more efficient and (absence of implementation issues) more desirable than current NEM pricing. We are surprised that the ESB considers that market participants opting into a CRM nodal pricing is not desirable and one that would need to be moderated by, for example, capping CRM prices at the RRP. This negates the locational signals for new congestion relief providers and also undermines the dispatch efficiency benefits. Therefore, we do not support capping the CRM prices. The situation when LMP is higher than the RRP may happen in 'constrained-on' situations. A benefit of CRM is that it can provide value under all circumstances when MW-based constraint equations bind, including (currently rare circumstances) when generators are constrained on.

An LMP that is systematically higher than the RRP reflects a locational scarcity and thus it provides a signal to attract new entry. This is a key objective of the TAR reforms and one that should be supported by the CRM design. Therefore, EnergyAustralia does not support truncating the LMP at the RRP.

DETAILED DESIGN CHOICES – INVESTMENT TIMEFRAMES OPTIONS – LOCATIONAL SIGNALS

Form of queue right

Q17. Should the ESB work towards providing as many unique queue numbers as is feasible (given implementation challenges) or is a tiered approach preferable?

If priority access is implemented then, in theory, unique numbers are a more preferred approach. However, we recognise and understand the challenges involved in implementing priority access with such granularity. Therefore, in case priority access is implemented, we understand the need for a tiered approach.

We consider that if priority access is implemented, then the queue position should be limited to the MW capacity of the generator at the time of entry. That is, the generator should not be able to add capacity or storage at that location (DUID) at a later stage and have that associated with the more favourable queue position. Any 'added capacity' should join the end of the queue. The ESB should consider how this may be implemented in dispatch.

Allocation mechanism

Q18. What mechanism should be used to allocate queue positions to generators? E.g. first come first served, auctions, a combination or another approach?

We consider the first come first serve mechanism is preferable and the auction process is highly problematic. It would be very challenging for new market participants to estimate a price they would be willing to pay for a particular queue position. For example, they would need to be able to forecast their revenues under different queue position scenarios. This is a highly complex calculation that depends on other market participants' entry and bidding behaviour. There is therefore a real risk that participants would either pay too much or do not pay for the right type of queue priority.

This added complexity has the potential to defeat the purpose of the TAR process which is to encourage efficient entry and provide locational signals. Given that priority access does not guarantee dispatch, there is a risk that generators in the future that purchase the same type of priority access later undermine the value of the priority access.

Also, if a price is to be paid for priority access, then this option becomes similar to congestion fees. Our concerns with the congestion fee approach are discussed below.

We also note that the proposed approaches by the ESB do not seem to address issues relating to interconnectors. Interconnectors are significant investments by the general public and priority access further erodes their efficient use. We encourage the ESB to consider whether it is in the long-term interest of consumers to provide priority access to private generation assets to the detriment of the efficient use of public infrastructure.

Duration of rights

Q19. Would stakeholders prefer that the priority access rights (i.e. queue positions) be set for: the life of the participant's asset, a fixed duration, or a fixed duration with a glide path?

Q20. If set for a fixed duration, what period of time do stakeholders consider would be most appropriate? Should this period be adjusted if combined with a glide path?

On the one hand there are convincing arguments that investors should have confidence in network access for the life of their assets. On the other hand, it has been a design principle from market start that generators do not have guaranteed access to the market.

Given the genuine uncertainties about how priority access could affect dispatch outcomes, it may be reasonable to implement some safeguards. For example, limiting the duration of queue 'rights' could be warranted. New investment should only enjoy a priority access for a certain period of time (e.g. for 10 or 15 years). Furthermore, if priority access is implemented, we consider it important for the AEMC to review whether

it is working as intended and a review every 2 to 5 years should be included in the draft rules.

Method used to calculate fees

Q21. Which of the proposed metrics do stakeholders consider should be used as the basis for calculating congestion fees? Are there alternative metrics the ESB should consider?

We do not consider that congestion fees should be implemented. We have concerns with all three approaches proposed by the ESB. It is not clear what participants receive in return for the congestion fee.

Option 1: Estimate the value of access to the RRP

The ESB proposes that the Congestion fee = NPV sum over dispatch intervals [forecast RRP – forecast LMP] x forecast generation in energy market.

The congestion fee being calculated in this way will potentially punish 'high value' generators and will favour 'low value' generators. For example, will a generator that is expected to generate at high price events pay higher connection fee than one that is likely to generate at low RRP events? This appears to be contrary to what the market should encourage and also inconsistent with locational price signals for investment purposes.

Also, the congestion fee calculation is proposed to be based on forecasts of the RRP, LMP and generation output. We do not have great confidence that these can be forecast accurately for the upcoming 10 to 20 year period. However, if AEMO is confident in its forecasts then perhaps new entrants can be provided with this information as part of the 'enhanced information provision'. For example, if the LMP can be calculated with certainty over the lifetime of the asset by AEMO, then this information should be provided to the generator at the time of market entry. This alone could be enough to deter market participants from entering the market or at certain locations.

Option 2: Estimate of the total cost of congestion caused by the connecting generator

Similarly, we have concerns about whether AEMO could estimate these accurately. Nevertheless, if AEMO is confident in its forecast accuracy, this information should be provided to market participants as part of enhanced information provision.

Option 3: Estimate of the long run incremental cost of future transmission investment as a result of the generator connection

For this option to work, there needs to be a commitment to transmission investment if the total sum of congestion fees received from generators achieve the threshold required for the transmission investment to go ahead. In effect, this would need to be a 'transmission access right' but such model is not viable in the NEM.

DETAILED DESIGN CHOICES – INVESTMENT TIMEFRAME – ENHANCED INFORMATION

Q32. Would investors find indicative network hosting capacity values useful for their siting decisions, noting the fundamental limitations of static modelling of the network?

Q33. If so, do stakeholders support defining "zones" of the network based on the sub-regions developed by AEMO for its capacity outlook modelling for the ISP? Are there alternative approaches the ESB should consider? Do stakeholders have feedback on how granular congestion zones need to be to provide useful information to investors?

Q34. Should the ESB focus its efforts on an alternative approach, including making underlying data accessible for investors to conduct their own modelling, more granular ISP modelling by the joint system planners or calculating curtailment forecasts? Are there further alternative approaches that the ESB should consider?

Q35. Do stakeholders support hosting capacity assessments that provide investors with a single figure of static capacity under a single set of pre-determined operating circumstances? If so, do stakeholders have feedback on what the assumed operating circumstances for the assessment should capture?

Q36. If stakeholders prefer multiple hosting capacity values that reflect a range of scenarios, should seasonal conditions be relied on? Alternatively, Should the information be presented in terms of technology-specific values?

Q37. Do stakeholders have any feedback on how load and storage is best captured in the assessment of hosting capacity? Do stakeholders support assuming peak demand for the assessment?

Q38. Should the hosting capacity assessment be based on all types of constraints, and not just thermal, even though this may result in more conservative figures?

Q39. Do stakeholders support relying on the notional transfer capabilities for interconnectors identified by AEMO through its ISP process?

At this stage we have not formed an opinion on the questions posed by the ESB. In general, we support hosting capacity assessments though we understand that there are limitations of static modelling of networks. We note that a CRM would provide accurate, dynamic, commercially-relevant (\$ based) information on networks without AEMO having to undertake further modelling. We also note that the CRM treats all MW-based constraints equally and therefore the distinction between thermal and non-thermal constraints is not relevant under the CRM. Whilst we encourage the provision of more information, we consider some of this information is naturally and more accurately provided by the CRM. In essence, the CRM would provide a snapshot of the network's congestion on a five-minute basis.

Capacity included in the forecasts

Q40. If indicative hosting capacity values are calculated, do stakeholders support capturing only committed network augmentations, generation and load or should anticipated projects also be included?

Q41. Do stakeholders support overlaying network congestion metrics with information about historical and forecast network constraints?

We consider that only committed network augmentation capital expenditure, generation and load should be included in the forecast.

Form of information

Q42. Do stakeholders support using existing interactive mapping tools as a basis for developing a NEM-wide central portal of information for investors?

At this stage we do not have an opinion as to the best way to present (and receive) the information.

Governance

Q41. Do stakeholders support the proposed governance arrangements?

Q42. What additional obligations are required to ensure that the right parties can access the right information, and how can security concerns be managed?

We consider that AEMO should have responsibility in providing accurate information and forecast.