

26 July 2022

Anna Collyer
Chair
Energy Security Board
via email: info@esb.org.au

Dear Ms Collyer

Squadron Energy welcomes the opportunity to comment on the Energy Security Board (ESB) paper titled “Capacity Mechanism, High-Level Design Paper” dated 20 June 2022 (‘Paper’).

Squadron Energy is an Australian-owned energy company dedicated to accelerating the decarbonisation of Australia’s economy. Squadron Energy invests in solar and wind generation and transition projects needed to provide a reliable and secure energy system. Among its projects is a proposed high efficiency combined cycle gas generation plant at Port Kembla, New South Wales.

The Port Kembla power plant will have a peak capacity of 660 megawatts (MW, 635MW nominal) and will be built in two phases - the first phase is an open cycle gas turbine plant, and the second phase involves the conversion of the plant to a combined cycle. The plant will be capable of operating on 50 per cent green hydrogen by volume from its first commissioning, with a development pathway for operation on 100 per cent green hydrogen by 2030. Subject to Final Investment Decision, Squadron Energy expects the plant will be constructed and operational by the summer of 2025/2026.

The introduction of a capacity mechanism will be a critical step towards the business case and final financial approval of the Port Kembla power station and, therefore, the ongoing decarbonisation and reliability of the power system. We make this statement based on the following:

1. Firming generation of the type that the Port Kembla development will provide will continue to be needed for firming renewable generation. Under their Step Change scenario, AEMO forecasts 10 gigawatt (GW) of gas-fired generation for peak loads and firming will continue to be required through to 2050, including new peaking plants as older and less efficient plants are retired¹.
2. Plants such as the Port Kembla investment have a net negative effect on carbon emissions because they enable the power system to support much higher levels of variable renewable generation than would otherwise be achievable. Our modelling suggests the most likely scenario would see Port Kembla reducing emissions by approximately 6M tonnes prior to being converted to green hydrogen in 2030. The net negative effect on carbon emissions is even greater when the plant is being run on green hydrogen and run more frequently.
3. Generators that source their fuel from greener sources such as green hydrogen should attract a higher level of capacity credits to incentivise investment. Dual fuel machines which can source gas from more than one source should also be recognised via high-capacity payments.

Squadron Energy is well positioned to provide comments on the capacity mechanism as it is currently moving its project toward a Final Investment Decision, with the economics and certainty being key considerations in making that decision. Squadron Energy was also one of a small number of participants that participated in the previous Governments Underwriting New Generation Investments (UNGI) program.

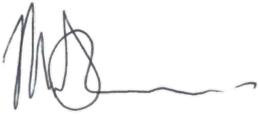
The attachments to this letter are as follows:

¹ AEMO, 2022 Integrated System Plan, 30 June 2022, p. 11.

- Attachment 1 (public) – Responses to ESB consultation paper topics and questions.
- Attachment 2 (confidential) – Modelling of the effect of Port Kembla on carbon emissions.

We welcome the opportunity to discuss our submission, the financial viability of the Port Kembla power station and the role of the capacity mechanism in ensuring plants, such as Port Kembla, can play a role in the more rapid and stable decarbonisation of the NEM.

Yours sincerely

A handwritten signature in black ink, appearing to be 'MS' followed by a long horizontal flourish.

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Attachment 1: Responses to specific areas in the ESB paper.

Forecasting capacity requirement

Squadron Energy supports a centralised approach in which AEMO is responsible for forecasting the capacity requirement for the NEM as a whole and on behalf of liable entities, as this would leverage the existing responsibilities of AEMO, namely in the production of long-term demand forecasts as part of its annual modelling efforts for the ESOO. Squadron Energy agrees with the ESB's comments that suggest AEMO is likely to have the best whole-of-system view of the electricity demand over the long term.

Adopting a centralised approach would provide a more transparent and consistent approach than the alternative decentralised approach. A centralised approach may enable any costs associated with the under-forecasting and under procurement of capacity requirements to be socialised and therefore, more equitably shared amongst energy market stakeholders that may have varying degrees of sophistication.

Q1. What measures could be put in place to improve AEMO's forecasting process and to access the best information from retailers and large customers on their likely demand?

It appears sensible to make use of existing ESOO measures of reliability using USE and to compare forecast USE against both the:

- IRM of 0.0006 per cent of the total energy demanded in a region for a financial year; and
- reliability standard of 0.002 per cent of the total energy demanded in a region for a financial year.

In other capacity markets, this approach is adopted and balanced against alternative measures based on forecast peak demand plus a margin. For example, in the WEM clause 4.5.10(b)(i) of the WEM Rules requires AEMO to forecast a Reserve Capacity Target (RCT) for each capacity year that satisfies the Planning Criterion. The Planning Criterion specified in clause 4.5.9 of the WEM Rules is achieved if there is sufficient reserve capacity to:

- (a) meet the forecast peak demand plus a reserve margin while ensuring sufficient frequency keeping capability, and
- (b) limit expected unserved energy to 0.002% of the annual energy consumption.

The RCT in the WEM must therefore be sufficient to achieve the reserve margin specified in (a) and the unserved energy limit specified in (b) above. In practice, it has been found that achieving the peak forecast demand plus the reserve margin requirement sets the RCT as this amount of capacity is more than sufficient to meet the unserved energy requirement.

Adopting the ESB's proposed approaches may be less conservative than approach (a), which currently sets the reserve requirement in the WEM. Squadron Energy, therefore, considers the ESB should be open to considering alternative, more conservative approaches to estimating the reserve capacity requirement. Allowing for flexibility in the approach is prudent while the mechanism is being established and will allow for a change in approach should the proposed approach result in shortages.

De-rating of capacity

Q2. Do you agree that the capacity mechanism should provide for multiple zones being the existing NEM regions?

Squadron Energy supports a capacity mechanism that provides for multiple zones and supports basing these zones on the NEM regions in the first instance. The NEM regions provide a useful starting point for considering the interconnected power system and enable existing region-based mechanisms such as the reliability standards to be capitalised on.

As the mechanism evolves and the power system becomes more interconnected, analysis that considers how frequently regions (including any differently specified regions) operate independently and the risks this poses to reliability in areas of the power system could be conducted to refine the approach.

Q3. Is there sufficient evidence to say that the at-risk periods can be defined on a time-based definition?

Q4. If there is a risk of the emergence of more than one at-risk period in the NEM how should that be addressed?

The power system is rapidly changing, including the time periods when demand may exceed supply and the reasons for that exceedance. Squadron Energy considers it risky to attempt pre-defining any at-risk periods under these circumstances. Further, pre-empting periods, risks altering participant's behaviour in ways that undermine the value trying to be achieved by the capacity mechanism.

Squadron Energy considers there should be a base level of reliable capacity available in the NEM regardless of the time period or reason for shortages. A capacity mechanism that requires capacity to be available at any point when called on (excepting planned outages) will achieve the reliability outcomes desired by consumers.

For clarity, we do not consider there is sufficient evidence that there is one (or more) risk periods in the NEM.

Q5. The de-rating factors produced by different at-risk period definitions and modelling methodologies can show large ranges particularly for non-traditional technologies. How should this and potential year to year variability in de-rating factors be addressed?

Q6. What approaches should be used to de-rate different technologies? Should different approaches apply to different technologies?

Q7. What is the right balance between transparency/simplicity and accuracy?

Q8. Should de-rating factors be determined at a technology class/region level or at a station level?

Squadron Energy considers a de-rating factor for technologies should be provided initially and reviewed every 3 years to accommodate changes occurring during that time.

Squadron Energy recognises that the reliability of certified capacity is affected by fuel source availability. Therefore, it supports de-rating based on the nature of the fuel source used to generate power and the nature of the technology being used.

Squadron Energy supports de-rating and certification of capacity at a power station level rather than at a facility or unit level. This should enable combinations of technology to be incorporated at a single site and for the net ability for the power station to provide reliable capacity to be focus of the mechanism. While this approach adds a level of complexity for those involved in the certification of capacity, such flexibility recognises and provides an incentive for generators to 'self-mitigate' against fluctuations in reliability rather than strictly relying on the mechanism to match power system requirements.

The fuel resource availability can vary greatly between NEM regions and within NEM regions. Squadron Energy supports a de-rating approach that considers the actual fuel availability to the power station, including the local wind speed, solar radiance and fuel storage as applicable. This means that each power station will be provided certified capacity that is specific to it as a whole. AEMO should be required to develop and publish guidance on the potential range of de-ratings that could apply to various technologies and with consideration to any factors such as on-site storage to provide investors with information on the parameters that may apply to their plant.

Squadron Energy's proposed dual fuel gas generation plant at Port Kembla has the ability to utilise more than one fuel source and could switch between two to accommodate market requirements and deliver greater reliability.

Consistent with Squadron Energy's view that the capacity mechanism should focus on ensuring sufficient reliable capacity is available, de-rating and certification processes should result in power generated that has the same reliability features being treated the same, regardless of the technology producing that reliable power.

Procurement role for retailers

Q11. Should retailers have a role in a centralised capacity mechanism?

Q12. If you support retailer involvement in procurement, what are your views on how this could operate?

Squadron Energy supports the ESB's preferred design of a centralised process where AEMO determines the capacity requirement and has responsibility for procuring the necessary resources to meet the reliability requirements. Under this arrangement, it is expected that transaction costs will be lower and smaller participants may not be disadvantaged than what would otherwise be the case if retailers were to purchase capacity certificates in an initial auction.

A hybrid approach that enables market participants to have a role in capacity procurement is not supported. For a hybrid approach to deliver benefits, the relative market share and power need to be evenly distributed.

To facilitate new capacity entering the market for the first time, Squadron Energy supports longer-term contracts to assist in financing new capacity investment. A longer-term contract of 3 years may also provide additional certainty when forecasting capacity.

Auction frequency and timing

Q13. Do you agree with holding two auctions for each delivery year and is this timing appropriate? If no, what auction frequency and timing is appropriate and why?

Q14. How should the timing of the auctions align with the notice of closure obligation?

The frequency of auctions should be considered based on the benefits of providing additional auctions versus the costs of requiring the market to participate in these auctions.

AEMO's reserve capacity team in the NEM currently employs 10 FTE. The ERA's final determination on AEMO's allowable revenue and forecast capital expenditure proposal for 1 July 2022 to 1 June 2025 indicates this is an area of AEMO that is understaffed, resulting in allowed revenue for this area to increase by 2 FTE (from 8 FTE allowed previously) during the upcoming period.¹ Further, expected reforms associated with the reserve capacity mechanism are estimated to cost around \$6.2 million² for within the legacy workstream and \$11.3 million³ for new reforms. A further \$3.013 million is forecast for projects not included in the upcoming AR5 period⁴.

The WEM reserve capacity mechanism runs once a year and caters to a market that is significantly smaller than the NEM. Considering the above costs, Squadron Energy considers holding more than two auctions per year would risk imposing regulatory burdens (both on AEMO and market participants) that outweigh the benefits of holding auctions more than once a year.

Squadron Energy recognises there are some benefits of holding two auctions per year including:

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- Multiple entrant points for new participants – in the WEM, the 1 October capacity market timing drives all new entrants towards the same critical dates to ensure they do not miss capacity payments in their first year of operation.
- Greater flexibility to respond to market changes – market participants will be better placed to manage load in respect to capacity pricing.

Squadron Energy considers having two auctions annually with each auction for less capacity and longer-term contracts (for 3 years) with certification as eligibility criteria for auction participation will promote greater viability and competition of capacity providers.

Squadron Energy expects a notice of closure obligation will be reflected in capacity auctions.

Auction participation and clearing for capacity providers

Squadron Energy agrees that capacity providers should be required to pass a technical assessment performed by AEMO. We consider the technical assessment should be performed once following initial registration and time intervals afterwards that achieve an appropriate balance between administrative costs and periods when plant equipment and supporting contracts may have materially changed. Where appropriate, the technical assessment should remain for the life of the power station unless there is a material change in the power station's technical capabilities.

The ESB should give consideration to a preference for capacity providers which best promote managed decarbonisation in allowing a mix of different capacity types in auction participation.

The ESB should also give consideration to allowing for different capacity prices for existing and new market participants.

Regarding the final minimum requirement, Squadron Energy recognise network constraints have a role in the physical ability to deliver capacity. However, most network constraints are beyond the control of market participants, so it would not be reasonable to 'penalise' a capacity provider by removing or reducing their ability to participate in the mechanism under all circumstances. Further points are made in the section below.

Q15. What are your views on how existing and new capacity should be treated in the auction process?

Q16. Are there other considerations the ESB should take into account for the detailed design

Q17. Do stakeholders have a view on the optimal duration of certificates or price certainty for new capacity?

Q18. Do stakeholders have a preference as to whether the investment support scheme provides guarantees of price only, or of both price and quantity?

Squadron Energy supports incentives for new capacity in the auction process. It considers market-based incentives for new green generation technologies in the capacity mechanism will improve reliability and energy transition in the NEM.

Squadron Energy supports the minimum criteria for participation set out by AEMO in the Paper, and notes that the policies and investment schemes implemented by individual jurisdictions will refine the eligibility criteria for participation in the capacity mechanism.

Squadron Energy supports a price and volume guarantee in a contract that allocates capacity certificates and sets prices for a long term (1 year or longer).

Auction price settings

Q19. Internationally, capacity mechanisms rely on some multiple of the net-cost of new entry (net-CONE) assessment to determine the capacity mechanism market price cap. Is this appropriate or should an alternative approach be used?

Q20. How should the price settings interact with the energy market price? Over time, when settings are regularly reviewed, should the price settings in the capacity auction and the energy market be jointly determined?

In the WEM, the Economic Regulation Authority (ERA) must calculate the 2022 Benchmark Reserve Capacity Price (BRCP) following the Market Procedure: Benchmark Reserve Capacity Price⁵ as required by clause 4.16 of the Wholesale Electricity Market Rules (WEM Rules). The BRCP is used to set the maximum price that may be offered in a Reserve Capacity Auction, or as an input in the determination of the administered Reserve Capacity Price if an auction is not required. **The BRCP is a main determinant of the price of the reserve capacity credits and small changes can materially influence cash flows for new and existing market participants.**

The BRCP is currently based on a 160 MW liquid-fuelled Open Cycle Gas Turbine (OCGT) power station. However, the choice of reference facility can be revisited and adjusted, including via the ERA's regular reviews of the Market Procedure. To date, the ERA have not changed the reference technology and the most recent Market Procedure review indicated "that an objective assessment of the choice of reference facility for setting the BRCP is not possible at this stage"⁶

Squadron Energy generally agrees with an approach that determines the capacity mechanism price cap that reflects the net-cost of new entry technology. However, it considers a longer-term contract (3 years or more) will ensure greater viability of capacity availability and investor certainty.

In setting price caps and floors, Squadron Energy considers the AER, as a body independent from the operation of the wholesale electricity market, should calculate the reference price.

Interactions with the energy market price should be monitored. However, Squadron Energy does not see a particular need for price caps to be determined concurrently.

Payments and settlement

Q24. Do stakeholders support the proposal to integrate capacity mechanism settlement with the existing NEM settlement process? If not, what alternative process would better meet the design objectives?

Squadron Energy supports the proposal to integrate capacity mechanism settlement with the existing NEM settlement process, including the incorporation of the settlement of capacity certificates by AEMO.

Capacity payments

Q27. Do you support the ESB considering capacity payments based on availability throughout the year and during periods of system stress?

Q28. If you support payments based on two factors, what is the preferred distribution of the first and second payment? Should more or less weight be given to responding to events?

Q29. To support revenue smoothing, should the ESB consider grouping events within the delivery year? If yes, what frequency (such as quarterly or monthly) is appropriate?

Q30. Should an upper threshold of performance events in a delivery year be considered? If yes, what is an appropriate threshold?

⁵ Economic Regulation Authority, Market Procedure: Benchmark Reserve Capacity Price, Version 7, effective 9 November 2020.

⁶ P.4 – see Review of the method used to calculate the benchmark reserve capacity price 2019 (www.wa.gov.au)

Squadron Energy supports the ESB considering capacity payments based on availability throughout the year and at any time. It considers having capacity available throughout the year provides certainty to market participants and consumers. It also considers that consumers should not have to pay underperforming capacity providers who do not contribute to reliability.

Squadron Energy considers events should be grouped in a monthly basis within the delivery year in smoothing revenue.

Interaction between the capacity certification and performance obligation

Q34. What is the appropriate combination of performance obligation and capacity derating methodologies?

Q35. Should de-rating be based on pre-defined time periods or a forecast of when the anticipated trigger periods are expected to occur?

Q36. Given VRE is likely to be particularly affected by any mismatch in the forecast and actual conditions during performance events, should special consideration be given to VRE's compliance with the performance obligation?

The performance obligation should take into account the capacity of the de-rated technology when awarding capacity certificates so that the likelihood of an extensive mismatch of capacity performance during actual performance events is diminished. The uncertainty surrounding de-rating based on pre-defined time periods or a forecast of when the trigger periods are expected to occur cannot be easily resolved. Even when those trigger periods occur, there is no certainty that the de-rated technology will have available capacity.

Squadron Energy does not support discriminatory compliance with the performance obligation based on technology.

Market settings in the spot market and the capacity mechanism

Q37. Do you think the MPC should be reduced if a capacity mechanism is introduced, and if so, by how much? What key issues should the ESB take into account when considering this issue?

Squadron Energy does not support a reduction in the MPC if a capacity mechanism is introduced. It notes that the MPC provides for a level of reliability in the NEM, with a capacity mechanism that provides an additional supporting role for reliability if required. If the intent is for a capacity mechanism to be used as a method of reducing the MPC by having capacity available at a lower price, it is unclear how that capacity would be made available when the existing arrangements do not have that capacity availability to call upon and the price is below what could otherwise be achieved in the NEM by generators that have capacity to dispatch.

Cost recovery through retailers versus NSPs

Q38. Do you agree that costs should be passed on via retailers, rather than NSPs?

Q39. What do you consider to be the most appropriate mechanism to allocate costs to retailers?

Squadron Energy supports costs (on a per MWh basis) being passed on via retailers in the NEM settlements process as it provides a timely, simple understood mechanism and assists retailers manage their costs and customer demand.

Reflecting transmission capacity in design

Q40. Do you think that Option 1 or Option 2 better meets the assessment criteria?

Q41. Are there any other factors that the ESB should consider when assessing the relative merits of the options?

Squadron Energy supports Option 2. Transmission in the NEM (with the exception of Basslink) is subject to an open access regime, which facilitates the efficient conveyance of energy (subject to existing constraints) to secure the reliability of supply in NEM regions. Making the capacity mechanism in one region available to capacity providers in other regions (not merely neighbouring regions) would improve access and availability of capacity to regions that require it and increase competition between capacity providers.

How should inter-regional capacity be procured?

Q42. Are there other ways to ensure that procurement of interstate capacity resources does not exceed inter-regional transmission limits, in addition to the two approaches outlined above?

Interregional capacity should be procured by AEMO as they manage inter-regional transmission constraints and constraint equations.

Participation by interconnectors

Q43. Do you think that where a market interconnector exists between two regions, it should be the entity that is eligible to submit inter-regional capacity bids?

Q44. Do you think that proposed new market interconnectors should be able to participate in the capacity mechanism?

Squadron Energy considers market interconnectors only should be eligible to submit inter-regional capacity bids as they are not subject to the current 'open access' regime in the NEM and they trade energy flowing over their interconnector.

Consistent with this, Squadron Energy considers that market interconnectors only (among NEM interconnectors) should be eligible to participate in the capacity mechanism.

Attachment 1: Responses to specific areas in the ESB paper.

Forecasting capacity requirement

Squadron Energy supports a centralised approach in which AEMO is responsible for forecasting the capacity requirement for the NEM as a whole and on behalf of liable entities, as this would leverage the existing responsibilities of AEMO, namely in the production of long-term demand forecasts as part of its annual modelling efforts for the ESOO. Squadron Energy agrees with the ESB's comments that suggest AEMO is likely to have the best whole-of-system view of the electricity demand over the long term.

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A hybrid approach that enables market participants to have a role in capacity procurement is not supported. For a hybrid approach to deliver benefits, the relative market share and power need to be evenly distributed.

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Auction frequency and timing

Q13. Do you agree with holding two auctions for each delivery year and is this timing appropriate? If no, what auction frequency and timing is appropriate and why?

Q14. How should the timing of the auctions align with the notice of closure obligation?

The frequency of auctions should be considered based on the benefits of providing additional auctions versus the costs of requiring the market to participate in these auctions.

AEMO's reserve capacity team in the NEM currently employs 10 FTE. The ERA's final determination on AEMO's allowable revenue and forecast capital expenditure proposal for 1 July 2022 to 1 June 2025 indicates this is an area of AEMO that is understaffed, resulting in allowed revenue for this area to increase by 2 FTE (from 8 FTE allowed previously) during the upcoming period.¹ Further, expected reforms associated with the reserve capacity mechanism are estimated to cost around \$6.2 million² for within the legacy workstream and \$11.3 million³ for new reforms. A further \$3.013 million is forecast for projects not included in the upcoming AR5 period⁴.

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- Multiple entrant points for new participants – in the WEM, the 1 October capacity market timing drives all new entrants towards the same critical dates to ensure they do not miss capacity payments in their first year of operation.
- Greater flexibility to respond to market changes – market participants will be better placed to manage load in respect to capacity pricing.

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The ESB should also give consideration to allowing for different capacity prices for existing and new market participants.

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Q15. What are your views on how existing and new capacity should be treated in the auction process?

Q16. Are there other considerations the ESB should take into account for the detailed design

Q17. Do stakeholders have a view on the optimal duration of certificates or price certainty for new capacity?

Q18. Do stakeholders have a preference as to whether the investment support scheme provides guarantees of price only, or of both price and quantity?

Squadron Energy supports incentives for new capacity in the auction process. It considers market-based incentives for new green generation technologies in the capacity mechanism will improve reliability and energy transition in the NEM.

Squadron Energy supports the minimum criteria for participation set out by AEMO in the Paper, and notes that the policies and investment schemes implemented by individual jurisdictions will refine the eligibility criteria for participation in the capacity mechanism.

Squadron Energy supports a price and volume guarantee in a contract that allocates capacity certificates and sets prices for a long term (1 year or longer).

Auction price settings

Q19. Internationally, capacity mechanisms rely on some multiple of the net-cost of new entry (net-CONE) assessment to determine the capacity mechanism market price cap. Is this appropriate or should an alternative approach be used?

Q20. How should the price settings interact with the energy market price? Over time, when settings are regularly reviewed, should the price settings in the capacity auction and the energy market be jointly determined?

In the WEM, the Economic Regulation Authority (ERA) must calculate the 2022 Benchmark Reserve Capacity Price (BRCP) following the Market Procedure: Benchmark Reserve Capacity Price⁵ as required by clause 4.16 of the Wholesale Electricity Market Rules (WEM Rules). The BRCP is used to set the maximum price that may be offered in a Reserve Capacity Auction, or as an input in the determination of the administered Reserve Capacity Price if an auction is not required. **The BRCP is a main determinant of the price of the reserve capacity credits and small changes can materially influence cash flows for new and existing market participants.**

The BRCP is currently based on a 160 MW liquid-fuelled Open Cycle Gas Turbine (OCGT) power station. However, the choice of reference facility can be revisited and adjusted, including via the ERA's regular reviews of the Market Procedure. To date, the ERA have not changed the reference technology and the most recent Market Procedure review indicated "that an objective assessment of the choice of reference facility for setting the BRCP is not possible at this stage"⁶

Squadron Energy generally agrees with an approach that determines the capacity mechanism price cap that reflects the net-cost of new entry technology. However, it considers a longer-term contract (3 years or more) will ensure greater viability of capacity availability and investor certainty.

In setting price caps and floors, Squadron Energy considers the AER, as a body independent from the operation of the wholesale electricity market, should calculate the reference price.

Interactions with the energy market price should be monitored. However, Squadron Energy does not see a particular need for price caps to be determined concurrently.

Payments and settlement

Q24. Do stakeholders support the proposal to integrate capacity mechanism settlement with the existing NEM settlement process? If not, what alternative process would better meet the design objectives?

Squadron Energy supports the proposal to integrate capacity mechanism settlement with the existing NEM settlement process, including the incorporation of the settlement of capacity certificates by AEMO.

Capacity payments

Q27. Do you support the ESB considering capacity payments based on availability throughout the year and during periods of system stress?

Q28. If you support payments based on two factors, what is the preferred distribution of the first and second payment? Should more or less weight be given to responding to events?

Q29. To support revenue smoothing, should the ESB consider grouping events within the delivery year? If yes, what frequency (such as quarterly or monthly) is appropriate?

Q30. Should an upper threshold of performance events in a delivery year be considered? If yes, what is an appropriate threshold?

⁵ Economic Regulation Authority, Market Procedure: Benchmark Reserve Capacity Price, Version 7, effective 9 November 2020.

⁶ P.4 – see Review of the method used to calculate the benchmark reserve capacity price 2019 (www.wa.gov.au)

Squadron Energy supports the ESB considering capacity payments based on availability throughout the year and at any time. It considers having capacity available throughout the year provides certainty to market participants and consumers. It also considers that consumers should not have to pay underperforming capacity providers who do not contribute to reliability.

Squadron Energy considers events should be grouped in a monthly basis within the delivery year in smoothing revenue.

Interaction between the capacity certification and performance obligation

Q34. What is the appropriate combination of performance obligation and capacity derating methodologies?

Q35. Should de-rating be based on pre-defined time periods or a forecast of when the anticipated trigger periods are expected to occur?

Q36. Given VRE is likely to be particularly affected by any mismatch in the forecast and actual conditions during performance events, should special consideration be given to VRE's compliance with the performance obligation?

The performance obligation should take into account the capacity of the de-rated technology when awarding capacity certificates so that the likelihood of an extensive mismatch of capacity performance during actual performance events is diminished. The uncertainty surrounding de-rating based on pre-defined time periods or a forecast of when the trigger periods are expected to occur cannot be easily resolved. Even when those trigger periods occur, there is no certainty that the de-rated technology will have available capacity.

Squadron Energy does not support discriminatory compliance with the performance obligation based on technology.

Market settings in the spot market and the capacity mechanism

Q37. Do you think the MPC should be reduced if a capacity mechanism is introduced, and if so, by how much? What key issues should the ESB take into account when considering this issue?

Squadron Energy does not support a reduction in the MPC if a capacity mechanism is introduced. It notes that the MPC provides for a level of reliability in the NEM, with a capacity mechanism that provides an additional supporting role for reliability if required. If the intent is for a capacity mechanism to be used as a method of reducing the MPC by having capacity available at a lower price, it is unclear how that capacity would be made available when the existing arrangements do not have that capacity availability to call upon and the price is below what could otherwise be achieved in the NEM by generators that have capacity to dispatch.

Cost recovery through retailers versus NSPs

Q38. Do you agree that costs should be passed on via retailers, rather than NSPs?

Q39. What do you consider to be the most appropriate mechanism to allocate costs to retailers?

Squadron Energy supports costs (on a per MWh basis) being passed on via retailers in the NEM settlements process as it provides a timely, simple understood mechanism and assists retailers manage their costs and customer demand.

Reflecting transmission capacity in design

Q40. Do you think that Option 1 or Option 2 better meets the assessment criteria?

Q41. Are there any other factors that the ESB should consider when assessing the relative merits of the options?

Squadron Energy supports Option 2. Transmission in the NEM (with the exception of Basslink) is subject to an open access regime, which facilitates the efficient conveyance of energy (subject to existing constraints) to secure the reliability of supply in NEM regions. Making the capacity mechanism in one region available to capacity providers in other regions (not merely neighbouring regions) would improve access and availability of capacity to regions that require it and increase competition between capacity providers.

How should inter-regional capacity be procured?

Q42. Are there other ways to ensure that procurement of interstate capacity resources does not exceed inter-regional transmission limits, in addition to the two approaches outlined above?

Interregional capacity should be procured by AEMO as they manage inter-regional transmission constraints and constraint equations.

Participation by interconnectors

Q43. Do you think that where a market interconnector exists between two regions, it should be the entity that is eligible to submit inter-regional capacity bids?

Q44. Do you think that proposed new market interconnectors should be able to participate in the capacity mechanism?

Squadron Energy considers market interconnectors only should be eligible to submit inter-regional capacity bids as they are not subject to the current 'open access' regime in the NEM and they trade energy flowing over their interconnector.

Consistent with this, Squadron Energy considers that market interconnectors only (among NEM interconnectors) should be eligible to participate in the capacity mechanism.