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## **RESERVE CAPACITY MECHANISM REVIEW: STAGE 1 CONSULTATION PAPER**

Alinta Energy appreciates the opportunity to provide feedback on the RCM Review – Stage 1 consultation paper.

Alinta Energy strongly supports strengthening incentives in the RCM for the capacity required to achieve the State's net zero emissions targets and maintain reliability, considering the inadequacy of the current revenue streams,<sup>1</sup> and the need for significant investment both imminently and for the remainder of the decade to maintain reliability.<sup>2</sup>

While we support most of the conceptual design proposals outlined in the Stage 1 consultation paper, we have material concerns that:

- Retaining the 14-hour fuel requirement has not been adequately justified. We consider that this may unnecessarily increase procurement costs to potentially extreme levels as a shortfall in domestic gas supply is predicted even if there's no further increases in demand to cover forecast electricity supply shortfalls and retirements. It may also create an uneven playing field if "capability class 2" facilities receive the same CRC for meeting a lower duration requirement.<sup>3</sup>
- The delta method and amended hybrid method risk producing implausible and volatile results as their sample size can be as few as three observations over a 7-year sample period. We consider that the latter would also expose the total fleet value to diminishing returns from new entrants and undervalue generators that shift peak LSG periods from peak demand periods – key pitfalls identified in ERA's RLM report. Alinta Energy strongly recommends that the unamended hybrid method should be included in the options modelled.
- Assigning CRC using a facility's expected output at a projected 10% POE peak ambient temperature may undervalue its capacity and unnecessarily increase costs noting that peak demand and peak temperature no longer coincide. AEMO's analysis shows that peak demand has occurred increasingly later than peak temperature due to rooftop PV and below the ambient temperature currently applied (41°C) during 2022.
- Requiring AEMO to procure independent expert reports would unnecessarily reduce

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<sup>1</sup> As identified in [MJA's report on revenue adequacy in the WEM](#), and [ERA's effectiveness review](#).

<sup>2</sup> Alinta Energy notes that [AEMO's 2022 ESOO](#) (p.8) forecasts the excess to be near zero by as soon as 2024 and become increasingly negative thereafter. The recent call for SRC may indicate an earlier need.

<sup>3</sup> Using the same example as the consultation paper, if the availability duration target was 10 hours, and a facility has 10 hours availability at maximum output would receive CRC of 1 times its maximum output, and be required to make this quantity available during all hours of the availability duration requirement.

transparency and investor certainty noting that AEMO already has discretion to override inaccuracies it perceives in reports and that new entrants shifting peak LSG intervals – not 'bias' is likely to be the cause of the rapid decreases in intermittent generators' CRC after they connect. If implemented, we recommend that some participant oversight is retained given that the reports are key to supporting investment decisions and without adequate access, investors face greater risk.

- A move to net CONE where storage sets the BRCP may introduce needless complexity and risk for investors for negligible benefit because the risk of under-incentivising storage appears more prevalent than the inverse<sup>4</sup> and forecasting ESS and energy revenues in an evolving WEM would be fraught, especially as more storage and intermittent generation connects.

Alinta Energy's comments on each of the conceptual design proposals is contained in attachment 1.

Finally, as raised in its feedback to the Minister's draft policy statement, and the ERA's effectiveness review, Alinta Energy considers that although RCM will remain a critical mechanism to incentivise investment, and that incremental reforms are necessary to strengthen and refine the RCM's signals; we agree with the ERA<sup>5</sup> that an additional mechanism may be required to send adequate incentives that are sufficiently timely, flexible, targeted, and certain to ensure the WEM procures the capacity it requires to achieve a least cost and orderly transition.

These revenue adequacy and investment uncertainty issues are not unique to the WEM and other states are implementing separate mechanisms to deliver large scale renewable energy and storage. While problematic in the context of the interconnected NEM, policies like NSW's LTESA scheme and Victoria's Renewable Energy Target could inform the design of a WEM mechanism. However, adjustments would be required to ensure that the WEM's mechanism is competitively neutral and merit-based, minimises risks for consumers and taxpayers, and is fit for purpose in the context of the small, isolated, peaky, and 'stringy' SWIS.

Thank you for your consideration of Alinta Energy's submission. If you would like to discuss this further, please contact me at [jacinda.papps@alintaenergy.com.au](mailto:jacinda.papps@alintaenergy.com.au) or on 0417 065 955 or Oscar Carlberg at [Oscar.Carlberg@alintaenergy.com.au](mailto:Oscar.Carlberg@alintaenergy.com.au) or on 0409 501 570.

Yours sincerely



**Jacinda Papps**

Manager, National Wholesale Regulation

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<sup>4</sup> ERA [Triennial review of the effectiveness of the Wholesale Electricity Market 2022 Discussion paper](#) (p.13 - p.18)

<sup>5</sup> ERA, [Triennial review of the effectiveness of the Wholesale Electricity Market 2022 Discussion paper](#) "The ERA acknowledges that the State Government's review of the reserve capacity mechanism is likely to partially fill the revenue gap required to incentivise investment in storage and renewable generation. However, further initiatives will be needed to provide efficient price signals if the net zero emissions target is to be achieved on time and at the lowest sustainable cost to electricity consumers."

**Attachment 1: Summary of Alinta Energy's position on EPWA's conceptual design proposals**

Conceptual design proposal	Alinta Energy position
<p><b>Proposal 1:</b> Retain the existing 'peak capacity' product to provide an explicit price signal several years ahead of the need for new capacity to meet peak demand and overall energy demand.</p>	<p><b>Support</b></p>
<p><b>Proposal 2:</b></p> <ol style="list-style-type: none"> <li>1. The RCM will not include a specific product to manage minimum demand.</li> <li>2. The RCM design and the capacity certification process will seek to avoid incentives for <b>new facilities</b> that could make minimum demand more difficult to manage, such as facilities with high minimum stable generation, and/or long start-up, minimum running or minimum restart times.</li> </ol>	<ol style="list-style-type: none"> <li>1. <b>Support</b> We agree that other mechanisms to manage minimum demand will be more effective than designing a bespoke capacity product in the RCM.</li> <li>2. <b>Tentatively support with qualifications.</b> Alinta Energy supports the intent to avoid inadvertently incentivising new facilities that exacerbate minimum demand issues. However, we suggest these considerations should be balanced with the risk that a given 'inflexible' facility presents minimum demand, and the benefits the facility can provide in terms of peak capacity, the proposed flexibility product and the broader market. For example, it would be perverse if new facilities with relatively longer minimum running times or larger minimum loads were disincentivised where: <ul style="list-style-type: none"> <li>- AEMO had contracted services sufficient to manage minimum demand, or</li> <li>- The new facility was required to provide reserve capacity, noting the SWIS's currently negative excess.</li> <li>- They are required to support the energy transition. <a href="#">Grattan Institute notes</a> that gas-fired generation with storage will play a "critical but not expanded" role in balancing the system, and that "Gas generation with offsets looks to be the lowest-cost 'backstop' solution until zero-emissions alternatives – such as hydrogen-fired generation or near-perfect carbon capture and storage – are economically competitive".</li> </ul> </li> </ol>
<p><b>Proposal 3:</b> Introduce a new capacity product into the RCM (alongside the existing peak capacity product) to incentivise flexible capacity that can start, ramp up and down, and stop quickly.</p>	<p><b>Support</b></p>

**Conceptual design proposal****Alinta Energy position****Proposal 4:**

It is not proposed that the Planning Criterion includes reference to volatility in the output of intermittent facilities.

Volatility in operational load and intermittent generation over short timeframes can be managed through Essential System Services (ESS) and re-dispatch. The addition of the flexible capacity product, proposed under the Conceptual Design Proposal 3, is expected to provide adequate capacity that is capable of providing these services.

**Support****Proposal 5:**

The two current limbs of Planning Criterion will be retained, requiring sufficient capacity to:

- meet the 10% probability of exceedance (POE) demand; and
- achieve expected unserved energy (EUE) no greater than a specified percentage of expected demand.

**Support****Proposal 6:**

Amend the reserve margin so that:

- sub-clause 4.5.9(a)(i) uses the (AEMO determined) proportion of the generation fleet expected to be unavailable at system peak due to forced outage, rather than a hardcoded percentage; and
- sub-clause 4.5.9(a)(ii) refers to the largest contingency on the power system, rather than the largest generating unit.

Introduce the proposed amendment to clause 4.5.9(a)(ii) to change the determination of the largest contingency for the calculation of the reserve margin, in time for the 2023 Reserve Capacity Cycle (for the Capacity Year starting on 1 October 2025).

**Support with some considerations for detailed design:**

- The drafting should define what is meant by "historical" facility forced outage rates
- Consideration will need to be given to the fact that forced outage quantities currently overstate outages. Under the current rules, forced outage quantities are calculated as the difference between a participant's maximum capacity and what it was able to provide. Consequently, where a participant has a partial deviation from a dispatch instruction that is much lower than its total capacity, the resulting forced outage is significantly overstated.
- AEMO should be required to draft a methodology procedure to allow for both a consistent approach year on year and for participants to be able to replicate the expected outcome in their own modelling, which is vital as a normal part of business.

Conceptual design proposal	Alinta Energy position
<p><b>Proposal 7:</b> The target EUE percentage in the second limb of the Planning Criterion will remain at 0.002% of annual energy consumption.</p>	<p><b>Support</b></p>
<p><b>Proposal 8:</b> The Planning Criterion will include a third limb requiring AEMO to procure flexible capacity to meet the size of the steepest operational ramp expected on any day in the capacity year from either the 10% or 50% POE load forecasts</p>	<p><b>Support</b></p>
<p><b>Proposal 9:</b> The Economic Regulation Authority (ERA) will remain responsible for setting the detail of the method used to calculate the BRCP.  The WEM Rules will provide guidance for the ERA on the factors to be considered in setting the BRCP methodology.</p>	<p><b>Support with some considerations for detailed design:</b>  The BRCP methodology will need to balance investment certainty with the need for flexibility to respond to emerging inflation pressures, commodity issues and tightening markets. For example, the previous BRCP had hard-coded in some WACC parameters which led to anomalous outcomes.</p>

## Conceptual design proposal

## Alinta Energy position

### Proposal 10:

1. The WEM Rules will define the BRCP as the per MW capital cost of the new entrant technology with the lowest expected capital cost amortised over the expected life of the facility.
2. A BRCP is to be calculated for each of the peak capacity product and the flexible capacity product, and the BRCP methodology must differentiate between the two, taking into account any differences between the reference technologies used for each product, where appropriate.
3. The ERA review of the BRCP methodology (under clause 4.16.9 of the WEM Rules) must consider the appropriate reference technology, the design life of the relevant facility, and identify any cost components that differ between the technology providing the peak capacity product only and that providing the peak capacity plus the flexible capacity product.
4. The ERA can review the BRCP methodology more frequently than every five years, if it considers that the reference technology has changed significantly and must consult with stakeholders each time it does.

1. **Tentatively support with qualifications.** Alinta Energy has some concerns with aspects of the BRCP definition:
  - Whether it should consider the cost of installed MWhs of capacity as well rather than MWs only, noting that this would be required to recover the cost of retaining the fuel requirement in a tightening gas market, and the cost of storage where MWhs – not MWs tend to drive fixed costs and would be required to meet the proposed duration requirement.
  - Careful consideration is required on how the 'expected life' is determined, noting the material implications for price and therefore investment signals.
2. **Support**
3. **Support**
4. **Support with qualifications.** While Alinta Energy supports the ERA reviewing the BRCP methodology as frequently as it needs to, for investment certainty, we consider that there needs to be sufficient notice of a change in reference technology.

## Conceptual design proposal

## Alinta Energy position

### Proposal 11:

1. Where the RCM reference technology has the highest short-run costs in the fleet, the BRCP methodology can use the simpler gross cost of new entry (CONE) approach, as this will be the same as the net CONE.
2. Where the RCM reference technology does not have the highest short-run costs in the fleet, the use of net CONE approach would need to be considered together with all other factors that may influence investment decisions.
3. The BRCP will be set based on a facility located in the least congested part of the network. If there is no uncongested network location to accommodate the size of the lowest fixed cost technology, the Network Access Quantity (NAQ) regime may affect the choice of reference technology. This location will be considered as part of the ERA's regular review of the BRCP methodology.

**Support retaining gross CONE**, noting that under a gross CONE approach, congestion does not need to factor in the BRCP calculations.

**Do not support** moving to net CONE at any stage.

We understand that the key risk that this approach aims to resolve is storage capacity receiving excessive returns due to it not having the highest short-run costs and being overcompensated where more expensive facilities set the price.

Noting MJA's and ERA's findings about revenue adequacy for storage and flexible capacity, we suggest that a greater risk is inadequate incentives for investment and therefore that a net CONE approach may:

- introduce significant complexity for negligible benefit, and
- undermine investment certainty, noting the difficulty of forecasting the energy and ESS revenues a storage facility may derive from the WEM to adjust the BRCP (especially as intermittent generation and storage capacity continue to increase).

## Conceptual design proposal

## Alinta Energy position

### Proposal 12:

1. The administered RCM price curve for the flexible capacity product will be the same as the one used for the peak capacity product, as defined in WEM Rule 4.29.1 (b) (iv).
2. The capacity price paid to a facility providing flexible capacity will never be lower than the peak capacity price.
3. Proposed facilities will have the option to seek a five-year fixed price for flexible capacity, on the same basis as is currently available for peak capacity. A facility must opt for a fixed price for both products, it cannot select fixed price for one product and floating price for the other.

### Tentatively support with qualifications

- We have some concern that the current conditions for fixing a capacity price are only available where the excess level is within a very narrow band and suggest consideration of whether these conditions should be broadened both for flexible and peak capacity products.
- Given the revenue adequacy and uncertainty concerns for flexible capacity highlighted by MJA and ERA's effectiveness review, we suggest further consideration of whether the proposed price curve, BRCP method and 5-year contracting scheme are sufficient to bank a project before the expected shortfall in capacity is expected in 2027, or whether further practical considerations are required.
- We also suggest further consideration of whether amendments to the current price cap and floor regime are required to ensure existing capacity has appropriate signals to participate.
- In the absence of a separate investment initiative, a broader review of peak capacity product price curve (existing RCP curve) may be required to resolve the issues about revenue adequacy and uncertainty raised by MJA and ERA.

### Proposal 13:

1. The current Availability Classes will be removed from the WEM Rules.
2. The RCM will allocate facilities to one of three Capability Classes.
3. CRC allocation methodologies will be amended to consider hybrid facilities as a single entity.
4. Capability Class 1 facilities will be required to demonstrate fuel arrangements that enable them to run for 14-hours, with this requirement's practical implementation to be considered in stage 2 of the review.
5. Capability Class 1 facilities will be required to be available during all dispatch intervals, unless on an outage.

The proposed design for Capability Class 2 is outlined in design Proposal 14 and the design for Capability Class 3 will be developed in stage 2 of the RCM Review.

### 1. Support.

### 2. Support

### 3. Support

### 4. Do not support.

We consider that:

- Unlike for the flexible product, the paper lacks adequate analysis justifying why 14-hour operation is required:
  - o The paper notes a duration gap of 14 hours will only exist by 2050, once all thermal generation has retired.
  - o There's no detail on the likelihood of a duration gap up to 14 hours occurring.
  - o The 14-hour gap is not estimated in terms of megawatts.
  - o As noted by the paper, the current requirement is based on an estimate of how much time is required on re-supply for distillate fuel – which we suggest is no longer relevant.
  - o The paper states that further consideration is required to determine the appropriate duration requirement for class 2 facilities. However, this analysis should inform the appropriateness of the 14-hour requirement as the key question is the same: 'how much energy for how long is continuously required to maintain reliability?' We suggest this answer should only have one answer and therefore one requirement.
- Maintaining this requirement may be extremely expensive, if not infeasible, as the gas market tightens due to further reserve downgrades. [AEMO's GSOO](#) forecasts that the market is finely balanced and will experience shortfalls between 2024-2027 of up to 87TJ/d (p.4). So even if no increase in gas fired generation is required, maintaining 14 hours of gas capacity may necessitate prices closer to export levels. Any increase in gas fired generation would exacerbate this, and we suggest this is likely noting that more gas generation may be required to cover the coal supply issues currently restricting capacity and Synergy's planned retirements.
- These cost increases may necessitate a significant increase in the BRCP, noting:
  - o the current method does not compensate the significant cost of reserving fuel capacity.

- If the BRCP does not cover these costs, generators would need to be permitted to recover them in the RTM and the price cap would need to significantly increase, noting that we expect generators would not recover these costs otherwise based on average run times.
- The paper lacks adequate justification for why a separate duration requirement for capability class 2 facilities. We do not perceive a reason why different durations should apply to different self-selected classes.
- Having two different availability requirements with similar payments for either would create an uneven playing field and result in generators abandoning class 1.
- Only a few facilities would be required to meet either gap, especially for the full duration. Once a gap is filled, other facilities offering less than either 14 hours or the class 2 duration would not be contributing less to reliability, all else being equal. Consequently, further penalties for not meeting either duration (or incentives for the opposite) would present unnecessary costs. For example, if duration were considered a product like reserve capacity and flexible capacity – a lower price would be offered to avoid the total cost of the product bought continuing to increase.
- The [ERA's effectiveness review](#) outlined that there's inadequate revenue to justify storage investment, and [MJA's analysis](#) showed this is the same for other types of flexible capacity like aero OCGTs (p.47). This proposal may impose further penalties, where further incentives are required for investment in flexible capacity.
- The paper infers that the duration gap would apply regardless of business days, which may significantly increase the requirement (and costs) compared to currently.

## 5. Support.

### Position on methods for the class 3 facilities

#### Our preferred method is the unamended hybrid.

**Compared to the Delta**, it provides a more robust sample for forecasting output during future system stress periods. While CRC is based on performance at times of actual system stress, [Alinta Energy's analysis shows](#) that there have been so few 'high system stress' intervals in the WEM that the Delta Method allocates CRC based on generators' average output in as few as 3 observations. This would result in volatility and a highly uncertain investment signal, undermining the incentive to invest. It also results in implausible results, with Albany Grasmere Wind Farm being assessed as a near firm resource (at an ~80% capacity factor) while Walkaway Wind Farm would only 10% of its maximum capacity in

the same year.

The hybrid method avoids this issue by increasing the sample size: it partitions each year when determining the fleet ELCC and uses the mean of each year in the sample period and allocates the fleet value to individual facilities based on peak demand and peak LSG intervals.

The paper states that this is a weakness of the method because it means it may incorporate periods that do not reflect peak system stress. Consequently, it recommends using the full period ELCC and the top -0.5% of peak LSG intervals over the period (adjusted to exclude the candidate facility), creating the amended hybrid method'.

**Compared to this amended hybrid method**, Alinta Energy strongly prefers the hybrid to this amended method because:

- 1) We disagree with the key reason for the amendments: we do not consider that incorporating non-peak system stress intervals is an issue by default. We consider that this an issue if the additional intervals used in determining the fleet ELCC and are relatively poorer predictors of future system stress intervals compared to the extremely small sample size that would drive the full period results, and the 0.5% of peak LSG intervals. To determine this, we suggest considering whether the conditions in the additional intervals could reasonably occur in future peak system stress periods.
- 2) Using the full period ELCC for determining the fleet value creates the same risk as the Delta Method does in determining individual generators' ELCC, for the same reason: in the SWIS only a few intervals drive the LOLE of the system – so the value of the fleet or a single generator alike depends on what they were producing during these intervals. As stated, this is shown to produce implausible and volatile results.
- 3) Using only the top 0.5% peak LSG periods during period (adjusted for the candidate facility) and excluding peak demand periods used in the hybrid ignores the contribution intermittent generators have made in reducing the loss of load probability during peak demand intervals such that the at-risk periods no longer occur during these times and occur during peak LSG periods. Those contributions are still valuable noting that removing them could significantly increase LOLE and reduce the capacity value of generators that are valuable during the most current peak LSG periods as peak system stress would shift back to peak demand intervals. This is recognised in [ERA's report](#) (p.49),
- 4) We question whether the amendments would send a more efficient investment signal, noting that output during both peak demand and peak LSG intervals are important,

especially as large renewables retire. The extent to which either peak demand or peak LSG better predict future system stress intervals is uncertain noting that both are subject to change with new technologies or evolving consumer behaviour. Having both may hedge the risk of forecast error.

- 5) Using the full period results for the ELCC makes incumbents' CRC unduly sensitive to new entrants. As the full period ELCC is dependent on very few intervals, there's very limited opportunity for a new entrant to reduce LOLE further and therefore contribute to the fleet ELCC: the new entrant needs to be performing well in those few intervals, and there needs to be some LOLE remaining that the new generator can reduce for it to add to the fleet ELCC. This means its contribution to the whole fleet is lower, and each new intermittent will deliver diminishing returns. These diminishing returns are spread across all facilities due to the scaling.
- By contrast, under the hybrid there's more intervals driving the fleet ELCC, so there's more opportunity for the new facility to contribute to fleet ELCC. We suggest this is intuitively more correct as the conditions in future high system events will not be identical to the very few driving the full period results such that outcomes are binary with certain facilities having no perceived contribution while others always would.

**Finally, we do not support the amended non-probabilistic method** and suggest it be disregarded. We proposed the unamended non-probabilistic to:

1. better approximate the conditions in future system stress periods based on RBP's modelling
2. avoid using peak LSG periods only, noting (as stated above) ERA's findings that this can understate capacity value by ignoring the contribution of generators in shifting peak system stress to those intervals. However, the adjusted method contradicts this aim, using an even smaller subset of peak LSG observations compared to the current method.

## Conceptual design proposal

## Alinta Energy position

### Proposal 14:

1. AEMO will determine an availability duration requirement for new Capability Class 2 facilities, based on the capacity of the existing and committed fleet, and publish it in the ESOO, including forecasts for subsequent years.
2. Capability Class 2 facilities will receive CRC equal to their maximum instantaneous output pro-rated by the number of hours they can sustain this output divided by the availability duration requirement.
3. Proponents can request a five-year fixed availability duration requirement for a Class 2 facility but this request will only be accepted if the facility is needed to meet the reserve capacity target.

### Support reviewing the appropriate availability duration but recommend:

- If implemented, this duration requirement should replace the current fuel requirement (per the response to 13.4)
- Further consideration of whether the duration target, once identified, would be better met outside the RCM, for example via an AEMO contract. We suggest that if the duration target can be met by a small subset of facilities via contracts (potentially long-term), then imposing penalties, incentives or higher universal duration requirements may impose unnecessary costs and barriers to entry for other forms of reserve capacity.
- Consideration of alternatives to time-based RCOQs that match the duration requirement, noting that the current requirements on storage may result in energy and ESS capacity being routinely withheld unnecessarily. Our suggestions include: permission to offer the entire capacity and have it exhausted during the RCOQ window, or RCOQs only on days where AEMO anticipates a need,

**Proposal 15:**

1. CRC allocation will remain on an installed capacity (ICAP) basis, with refunds payable for any forced outage.
2. The reserve margin in the first limb of the Planning Criterion will be set at the greater of the fleet-wide Equivalent Forced Outage Rate (EFORd) and the largest contingency expected at system peak, with AEMO assessing both each year.
3. Where, over a three-year period, a facility has an EFORd higher than 10%, AEMO will be required to reduce its CRC by the EFORd.
4. The method for calculating EFORd will also account for forced outages reported at times the relevant facility had not been called to run.
5. A facility whose CRC has been reduced under clause 4.11.1(h) will be excluded from the calculation of fleet outage rate for the purposes of setting the planning criterion reserve margin.

**1. Support.**

**2. Support**

**3. Neutral. If implemented, we suggest AEMO retain some discretion and transitional measures may be required.**

While we recognise the intent, we suggest that the benefit of this proposal in terms of increasing generator availability may be limited noting that generators with higher outage rates tend to be those that run more often – i.e. mid-merit or baseload plant – and therefore already have the highest incentives to be available (assuming no other external factors like coal supply restrictions). We also note that this subset of generators may become smaller with increasing levels of intermittent generation and flexible capacity required to meet net zero targets and this would limit the reach of the reform and potentially make it more unbalanced compared to these other facilities that are less exposed.

If implemented, we recommend that AEMO retain some discretion to avoid a scenario where an event outside the generator's control triggers the penalty and impacts its future accreditation (and the reserve capacity price) despite the issue being fully rectified. This discretion in relation to outages is already contemplated in the rules where clause 4.27.3A<sup>6</sup> allows AEMO to assess whether the outage(s) were attributable to specific, infrequent events or are indicative of an underlying performance deficiency.

Reforms to outage quantities may also be required to avoid over-reporting which occurs as outages must be reported as the difference between available generation and maximum capacity.

If implemented, a transitional approach to accounting for outages may need to be undertaken due to the differing interpretations of outage reporting by participants and the over-reporting issues identified above. This would be a similar approach to the Scheduled Generator availability reforms where the Refund Exempt Planned Outage Count set outages prior to 1 June 2016 to zero.

Finally, some consideration may need to be given to the interaction with the NAQ regime.

**4. Support if #3 is implemented**

**5. Support if #3 is implemented**

**Proposal 16:**

**Do not support**

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<sup>6</sup> Reserve Capacity Performance Monitoring and request for performance or performance improvement reports where outages are above a certain threshold.

To ensure independent estimates of intermittent generator output, AEMO will procure expert reports to derive estimates of performance on behalf of participants.

Alinta Energy does not support AEMO procuring the independent expert reports because:

- The data in the chart does not appear to reliably support that there are significant declines in the first 5 years of their operation. That the plants are not grouped according to their year of entry also complicates this, considering CRC methods have changed dramatically during the life of older generators, as have the timing of peak LSG intervals with new entrants and rooftop PV, impacting CRC levels.
- It is only assumed that 'bias' has caused declines in CRC since the first year of capacity certification. There is no attempt to eliminate other explanations or the "many factors" which impact allocation. Further, if bias was a factor, we would expect to see the decline slow even during the 5 years, as operational data is incorporated.
- We suggest a key reason why the CRC of intermittent generators could decline 'over the first five years of their operation' is that under the current RLM, new generators have an advantage in that their output does not impact the timing of peak LSG intervals until they are operational. This advantage (and subsequent decline) would be more pronounced for larger generators, as their relatively larger output is incorporated and shifts peak LSG intervals to when they are less productive. This was identified by ERA's [RLM report](#) (p.29).
- We question the extent to which bias can impact an IER's results and CRC noting that:
  - o the independent experts are already hand-picked by AEMO, and this proposal suggests that participants can unduly influence them despite their 'expert' judgement and experience.
  - o AEMO already has discretion to assess and override an IER if with its own estimates it considers if it is inaccurate. If this proposal is implemented ([p.8](#)). If bias is influencing IERs, we would question why it has not been identified by AEMO and how the proposed process would make AEMO better placed to identify or avoid inaccuracies.

If the proposal is implemented despite these considerations, we strongly recommend a procedure be drafted to:

- Permit proponents to interrogate and approve the quality of the data and the key assumptions of the report as well as the outcomes from the report prior to finalising. Reports are key to supporting investment decisions and without adequate access, investors face greater risk and uncertainty.

Conceptual design proposal	Alinta Energy position
	<ul style="list-style-type: none"> <li>- Ensure AEMO appropriately manages costs and potential conflicts of interest.</li> <li>- Manage any disputes.</li> </ul>
<p><b>Proposal 17:</b></p> <p>The methodology to assign CRC to facilities in each of the different Capability Classes will differ by class as follows:</p> <ol style="list-style-type: none"> <li>1. Class 1: Expected output at projected 10% POE peak ambient temperature;</li> <li>2. Class 2: Expected output at projected 10% POE peak ambient temperature, adjusted for required availability duration; and</li> <li>3. Class 3: To be confirmed in stage two of the RCM review.</li> </ol>	<p><b>Do not support</b></p> <p>Alinta Energy does not support using 10% POE peak ambient temperature for classes 1 and 2 because:</p> <ul style="list-style-type: none"> <li>- The paper does not justify this requirement: it states that the reference temperature may no longer be appropriate (without presenting analysis or a problem statement) and that this will be considered in stage 2 of the review. Despite this, it proposes a 10% POE forecast regardless, prior to this consideration.</li> <li>- There may not be an issue for the 10% POE requirement would resolve. <a href="#">Per AEMO's ESOO</a> peak demand is occurring increasingly later than the peak temperature (and peak underlying demand) due to rooftop PV (p41-43.) For example, the highest demand days during 2022 all occurred after temperature had peaked and had dropped below 40°C (see figure 12). EVs may continue this trend.</li> <li>- Data on plant capability at the 10% POE peak temperature forecast may be very limited, producing inconsistent and inaccurate CRC assignments.</li> <li>- Increasing the maximum ambient temperature unnecessarily would impose avoidable costs on customers by decreasing the level of CRC assigned, increasing the reserve capacity price and necessitating further investments.</li> </ul>