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RE: Amendments to the Reliability Standard Implementation Guidelines, MT PASA Process Description and Energy Adequacy Assessment Projection Guidelines Consultation Draft Determination and Report

ERM Power Limited (ERM Power) welcomes the opportunity to respond to the Australian Energy Market Operator's (AEMO) consultation Draft Determination and Report (the Determination) issued 17 August 2020 on amendments to AEMO's Reliability Standard Implementation Guidelines (RSIG), Medium Term Projected Assessment of System Adequacy (MT PASA) Process Description and Energy Adequacy Assessment Projection (EAAP) Guidelines.

About ERM Power

ERM Power (ERM) is a subsidiary of Shell Energy Australia Pty Ltd (Shell Energy). ERM is one of Australia's leading commercial and industrial electricity retailers, providing large businesses with end to end energy management, from electricity retailing to integrated solutions that improve energy productivity. Market-leading customer satisfaction has fuelled ERM Power's growth, and today the Company is the second largest electricity provider to commercial businesses and industrials in Australia by load[1]. ERM also operates 662 megawatts of low emission, gas-fired peaking power stations in Western Australia and Queensland, supporting the industry's transition to renewables.

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General Comments

This consultation covers three significant AEMO processes with regards to the assessment of future reliability in the National Electricity Market (NEM). AEMO's responses to issues raised in submissions to the Consultation Paper and the subsequent proposed changes are complex in nature, and we are concerned that AEMO's compressed timeframe for consultation on the Determination has provided an inadequate time period for stakeholders. We recommend that where matters under consultation involve more complex issues such as those considered under this consultation, that AEMO allow an appropriate time period for stakeholders to develop replies.

We also note that the date stamp on the AEMO consultation webpage indicating the date on which the consultation documents were released for stakeholders is Monday 17 August 2020. With submissions closing on Friday 28 August 2020, we question if the minimum requirement of 10 business days as set out in clause 8.9(i) of the National Electricity Rules has been met. In this case we believe the closing date for submission should have been Monday 31 August 2020.

[1] Based on ERM Power analysis of latest published information.

Further, we note that AEMO's consultation timetable indicates the Final Determination and Report will be issued on Monday 31 August 2020, we question with submissions only closing on Friday 28th August how best practice consultation will be achieved with such a small timeframe for issues raised by stakeholders to receive adequate consideration.

Given the inadequate consultation timeframe, we have assumed that AEMO's amendments are limited to those set out in the Determination and based on submissions received to the Consultation Paper, and therefore we have not undertaken the same detailed review of the amended draft RSIG, MT PASA Process Description and the EAAP Guideline issued on the 17 August 2020 as that undertaken for the first stage of the consultation process.

We ask that AEMO inform stakeholders prior to the publication of the Final Determination and Report if any further amendments were made to the draft documents and extend to stakeholders an opportunity to review and provide feedback.

Reliability Standards Implementation Guideline

We offer comments to AEMO's proposed amendments to the RSIG as follows;

Interaction with the Interim Reliability Measure

ERM notes the Energy Security Board has released its Decision Paper to support the introduction of the Interim Reliability Measure.

As stated in our submission to the Consultation Paper, we note that the Interim Reliability Measure has an expiry date of 31 March 2025 and that the last date AEMO can enter into a 3-year contract for Interim Reliability Reserve will be 2022 for the 2024/25 summer. We restate our view that for clarity purposes these details be included in section 1.5 of the Guideline.

Reliability standard implementation process

We note that AEMO has indicated that the Electricity Statement of Opportunity (ESOO) will be used to determine a forecast exceedance of the Interim Reliability Measure and note that in the amended Guideline, Table 3 under the area of Second Action, AEMO has continued to use the words 4.8.9 Instruction, RERT or Direction. We disagree strongly with AEMO proposed use of these terms in relation to the ESOO.

The amended rules associated with implementing the Interim Reliability Measure sets out that the purpose of the ESOO is to inform the NEM of potential future reliability issues and request a Retailer Reliability Obligation (RRO) reliability instrument if required. The Interim Reliability Measure rule changes allow for AEMO to procure Interim Reliability Reserves for an exceedance of the Interim Reliability Measure. The ESB decision paper to implement the Interim Reliability Measure rule notes that in referring to the Interim Reliability Reserve,

> *"The reserve would temporarily replace long notice RERT (with the short and medium notice RERT to remain in place),"* [2] and "*The Interim Reliability Reserve consists of reserves contracted to mitigate the risk of exceeding the Interim Reliability Measure in any financial year in any region. The Interim Reliability Reserve is intended to operate in place of the existing long-notice RERT mechanism on a temporary basis during the transition to the post-2025 market design."* [3]

[2] Page 6 ESB Recommendation for National Electricity Amendment (Interim Reliability Measure) Rule 2020 Decision Paper July 2020

[3] Page 8 ESB Recommendation for National Electricity Amendment (Interim Reliability Measure) Rule 2020 Decision Paper July 2020

It is our view that as the Interim Reliability Reserve replaces the long-notice RERT, the proposed amendments to the RSIG seek to activate market interventions not defined within the RRO or Interim Reliability Measure within the ESOO reliability forecast period, and this could potentially lead to activations based on out of date information.

Further;

> *"This means AEMO must not procure a contract for the Interim Reliability Reserve if the forecast is published less than 10 weeks before the forecast exceedance is expected to occur. In these cases, AEMO must use medium and short notice RERT in accordance with the existing RERT Guidelines which is on the basis of unserved energy exceeding the 0.002% Reliability Standard under a medium term situation (low reserve condition) or there is a forecast lack of reserve under a short term situation."*[4]

Given the replacement of the long-notice RERT with the Interim Reliability Reserves we believe that the routinely updated MT PASA, supported where appropriate by the EAAP, is the appropriate reliability assessment for activating the procurement of medium-notice RERT contracts and the issue of clause 4.8.9 instructions or directions (having a 10 week timeframe). Similarly, the Short Term PASA (ST PASA) is the appropriate reliability assessment for activating the procurement of short-notice RERT contracts and the issue of clause 4.8.9 instructions or directions. In our view, the use of the ESOO reliability assessment to initiate RERT procurement or issuing a clause 4.9.9 Instruction or Direction risks AEMO needlessly intervening in the market by procuring RERT or issuing clause 4.8.9 Instructions and Directions based on out of date information, and could result in significant and unwarranted costs to consumers.

Therefore we do not support the proposed change to indicate that AEMO may, as a second action to the ESOO reliability assessment, initiate a "Clause 4.8.9 instruction, RERT or direction" and believe that decisions to procure or activate RERT, as opposed to Interim Reliability Reserves, and issue a Clause 4.8.9 instruction or direction should remain subject to a breach of the Reliability Standard as identified in the MT PASA, EAAP or ST PASA. We support the inclusion of the words "Interim Reliability Reserves" as the appropriate Second Action for the ESOO reliability assessment for an exceedance of the Interim Reliability Measure as this is the action permitted under the NER.

We note and support the proposal that AEMO will allow for the most up to date and relevant information when considering whether to take a secondary action under clause 4.8.9 instruction, RERT or direction of the RSIG. We are however concerned that the definition of the term " most up to date relevant information" is somewhat subjective and AEMO's view regarding this may not align with the views of stakeholders. For transparency prior to the Final Determination and Report being issued, AEMO should provide stakeholders with more information on what would constitute "relevant information" and the proposed consultation process for its inclusion, so that we may consider whether it meets the requirements of best forecasting practice.

In this regard, the 2019 ESOO provided a perfect example of where data that was not consulted on with stakeholders prior to its use in the ESOO reliability assessment was then used as "relevant information" by AEMO to justify long-notice RERT procurement at additional costs to consumers.

<u>ESOO generation capacity</u>

We note AEMO has included our proposed amendment;

[4] Page 9 ESB Recommendation for National Electricity Amendment (Interim Reliability Measure) Rule 2020 Decision Paper July 2020

The historical information may not be considered suitable in instances where a deteriorating or improving trend in reliability is evident in the historical data and there are reasonable grounds to indicate that this trend may continue.

However, we remain concerned by what we perceive as a willingness to insert modelling bias in the form of the following additional provision;

"AEMO may further validate these assumptions through consultant peer review."

ERM Power's remains concerned that this may imply AEMO could engage additional consultants to substitute the information provided by a registered participant at AEMO's request, if AEMO deems it invalid. We again recommend that this proposed amendment not be included in the Guideline. If AEMO determines the inclusion of these words is appropriate, then we consider that an additional amendment is required to ensure the modelling inputs satisfy best forecasting practice;

Where AEMO determines that the registered participants advice be substituted by advice from any consultant engaged by AEMO, AEMO will fully document the reasons for this and undertake stakeholder consultation prior to implementing this substitution.

In the Determination, AEMO indicated that; "*It is inappropriate for AEMO to consult with participants on each decision to engage consultants, as this would increase delivery timeframes and add further cost*." ERM Power did not make such a request in its submission to the Consultation Paper. ERM Power's request was that AEMO document the reasons for this change and undertake stakeholder consultation prior to implementing this substitution.

Further, AEMO indicated with regards to effective stakeholder consultation that "*Furthermore, such consultation with participants would be ineffective given the need to maintain strict confidentiality of participant information.*" ERM Power's proposed amendment does not request that confidential advice from a participant be revealed, only that where this advice is substituted by information obtained from AEMO's consultant that the reasons for this be documented and consulted on prior to implementing this substitution.

Absent the provision of reasonings for the substitution of advice from a registered participant with advice from an AEMO engaged consultant and a requirement for AEMO to undertake stakeholder consultation prior to implementing this substitution, ERM Power fails to see how this would meet the requirements of best forecasting practice.

ESOO intermittent generation

As indicated in our submission to the Consultation Paper, we support AEMO amendment to indicate;

"For intermittent generation, AEMO prepares intermittent generation profiles from a model that includes historical performance and/or meteorological variables proven to be effective for this purpose."

However, we reiterate our view that the use of intermittent generation profiles based on meteorological variables should be subject to documentation of reasoning behind AEMO's decision to depart from historical profiles of existing generators when these are available. We recommended the following additional amendment to the Guideline.

Where AEMO determines that historical intermittent generator profiles are to be substituted by profiles based on meteorological variables, AEMO will fully document the reasons for this and the level of expected improvement.

Whilst AEMO indicates in the Determination that; "*AEMO does not believe the RSIG to be an exhaustive list of all assumptions used in implementing the reliability standard.*", we query how best forecasting practice is achieved absent the provision of details of why the substitution of data is warranted and the improvements achieved.

ESOO energy constraints

We note AEMO's assessment of the concerns raised in our submission to the Consultation Paper in this area. We remain concerned that it is still unclear from the RSIG and the ESOO Methodology Document how the ESOO reliability forecast calculation includes the use of pumped storage hydro to supplement natural water inflows.

It is also unclear that the calculation methodology allows for all hydro plant to be at rated capacity whenever USE is forecast. We believe these points should be made clearer in both the RSIG and the ESOO Methodology Document.

We note that AEMO has indicated; "*AEMO has amended Table 4 in the RSIG to clarify that the optimisation of hydro storages is over an annual period.*" However, this fails to recognise that, as indicated by data supplied with our submission to the Consultation Paper, initial and final hydro storage levels between any annual period do not remain constant as set out in AEMO's reliability modelling methodology. Further, that AEMO's assessment does not indicate that available hydro capacity is dispatched to full capability at times where forecast USE is recorded.

We note that AEMO have indicated that; "*AEMO does not consider the RSIG requires amendments to reflect these modelling details, but will seek to provide greater clarity in the upcoming release of the ESOO methodology document.*" We look forward to working with AEMO to achieve an improved outcome to the current methodology as part of the consultation on an updated ESOO methodology document.

ESOO forecast demand

We note that this issue was not listed in the Determination as being considered by AEMO.

We support AEMO's proposal that modelling be undertaken on the basis of the operational sent-out demand definition. However, it should be noted that significant confusion has occurred when stakeholders have sought to compare the published ESOO demand forecasts with other historical data published by AEMO.

We resubmit that in the interests of improved transparency, ERM Power recommends that the forecast demand data published in the ESOO be based on the operational "as generated" definition to align with other AEMO data, including the MT PASA demand forecasts and real time operational demand. This will remove the level of confusion which occurs when ESOO published demand does not align with readily observable demand data.

Network constraints

We note that AEMO has accepted a number of our recommended changes to the RSIG with regards to Section 1.6 – ESOO network constraints.

In our submission to the Consultation Paper, we noted that unplanned network outages may be included in the ESOO modelling and recommended that the Guideline be amended to state that;

Unplanned network outages of designated *inter-regional transmission elements* may be modelled as set out in the ESOO Methodology Document.

As set out in NER subclause 3.9.3.(c)(a), unserved energy (USE) is calculated based on events associated with generation and inter-regional transmission elements. We believe that forecasts of potential USE should be based on the same NER definition.

We note that AEMO has chosen to implement a different definition to that set out in the NER; "*Unplanned network outages in the transmission network that significantly impact the ability to transfer power between regions are stochastically modelled using probabilities derived from historical performance*."

This definition would include unplanned outages of intra-regional transmission elements which under the NER do not contribute to the calculation of USE. AEMO's proposed methodology will therefore overstate the forecast level of potential USE derived from the modelling.

As the NER is quite specific with regards to the calculation of USE, we question why AEMO's proposed methodology seeks to overstate the forecast level of potential USE derived from the modelling. In our view this outcome fails to meet the requirements of best forecasting practice.

Updates to the ESOO

In our submission to the Consultation Paper we set out that; "Whilst the Guideline sets out a new section as to when an ESOO update will be provided when information becomes available, that in AEMO's opinion materially changes the statement of opportunities based on historical events, it is unclear to ERM Power that this would occur when the material change would potentially result in an improvement to the prevailing reliability forecast. We consider that the section should be amended to provide confidence to stakeholders that the ESOO will be updated for material changes with the potential to both positively and negatively impact the reliability forecast."

Whilst AEMO in the Determination indicates that; "*AEMO considers the existing wording "As per clause 3.13.3A(b), AEMO is required to update the statement of opportunities when information becomes available that in AEMO's opinion materially changes the statement of opportunities." sufficient.".* We remain of the opinion that this does provide confidence to stakeholders that AEMO will take a balanced approach with regards to the issuing of updates to the ESOO.

We ask that AEMO reconsider its view in this area and provide confidence to stakeholders that a balanced approach will be applied to a decision to issue an update to the ESOO.

Factors for additional EAAP reporting

We note AEMO's decision to include one of our recommended amendment to section 2.2.5

- A major positive or negative change in operational consumption.

We also note AEMO's decision not to include the following changes section 2.2.5 as set out in our submission to the Consultation Paper.

- A significant increase or decrease in Hydro storage levels
- Any other events or emerging events that may materially impact ~~reliability~~ the reliability forecast by way of energy limitations
- Deletion of the factor - The requirement for AEMO to exercise the RERT under rule 3.20.

AEMO argues in the Determination that the inclusion of the words "A significant increase or decrease" in Hydro storage levels is not required to improve clarity for stakeholders as AEMO would already do this. On this basis, it is unclear from our perspective why AEMO would reject improved clarity in the RSIG regarding this.

Further, AEMO argues that the inclusion of the words "the reliability forecast" *is not warranted "as the term reliability forecast has specific meaning under the NER which is inconsistent with the forecast undertaken in the EAAP".* As an alternative we offer the following suggested amendment;

- Any other events or emerging events that may materially impact ~~reliability~~ the energy adequacy projection by way of energy limitations

As we consider the use of "reliability" in this case could be viewed as a generic and wide-ranging term.

We also recommended that AEMO consider deleting the factor "The requirement for AEMO to exercise the RERT under rule 3.20." as from ERM Power's perspective, it is unclear as to the purpose of inclusion of this factor. We note that AEMO's argues in the Determination that; "*AEMO does not consider it appropriate to remove the consideration of RERT from the factors considered when determining whether an EAAP update may be required, as EAAP analysis may help inform decisions around RERT procurement.*"

However, it is unclear to ERM Power what benefit would be delivered to the market for the provision of additional generator energy limitation framework (GELF) data for the purpose of a EAAP update, when a decision to exercise RERT for an exceedance of the reliability standard by AEMO has already been made based on a previous EAAP report or a more recent MT PASA update. Provision of additional GELF data and the update of EAAP modelling incurs additional costs to the Market and would in our view generally not provide additional new data to that upon which the decision to exercise RERT has already been made. As noted in our submission to the Consultation Paper, we are unaware of an updated EAAP report being issued following any decision to exercise RERT.

Projected Assessment of System Adequacy

For completeness we recommended the following additional amendment to that proposed by AEMO;

Separate reserve assessments are applied for MT PASA and ST PASA processes. MT PASA identifies LRC (as does the ESOO and EAAP) while ST PASA identifies LOR conditions based on determined capacity reserve levels.

It is unclear from the Draft Determination where this proposed amendment was considered by AEMO.

Medium Term PASA (MT PASA)

We note AEMO's acceptance in the Determination for inclusion in the RSIG of our recommended amendment as follows;

AEMO's response to projected LRC identified in MT PASA may be to take direct action in the form of directions – for example, directing a Generator to reschedule an outage – or contracting for RERT under rule 3.20. AEMO is able to dispatch these contracted reserves to manage power system reliability and, where practicable, security noting that AEMO may not specifically contract reserves for the purpose of maintaining power system security.

However, the draft amended RSIG as published fails to include the words "*noting that AEMO may not specifically contract reserves for the purpose of maintaining power system security.*" It is unclear from the Determination if AEMO intended to not include this proposed section of the amendment and the reasons for not doing so.

MT PASA demand

For completeness we recommended the following additional amendment to that proposed by AEMO;

At a minimum, a combination of the most probable daily peak load (50% POE) and 10% POE demand profiles are sampled probabilistically in the Monte-Carlo simulations to develop the expected USE. At AEMO's discretion and following consultation with stakeholders, more POE demand profiles (such as 90% POE) may be included, if USE outcomes are expected to be materially different from 50% POE outcomes.

AEMO have argued that; "The 50% POE demand profiles are not the most probable daily peak load, but a profile whose maximum value will be exceeded on average every second year.

Daily peak load has a special meaning in the context of MT PASA, which is different from this." This seems at odds with other AEMO information which indicates the "*most probable daily peak load*" and "*50% POE*" demand forecast are interchangeable.

AEMO also argued in the Determination that where at AEMO's discretion, more POE demand profiles (such as 90% POE) may be included, if USE outcomes are expected to be materially different from 50% POE outcomes that; "*The delivery timeframes associated with the ESOO make it impractical to consult on this matter.*" With regards to this, we question how AEMO's stated intention not to advise and consult with stakeholders regarding the inclusion of additional POE demand profiles in the modelling meets the requirements of best forecasting practice.

Table 4 – Implementation Summary

For clarity in the USE calculation methodology we recommended the following amendment to the ESOO, MT PASA and EAAP to that proposed by AEMO;

The 90% POE demand profiles are not normally modelled, as USE values are assumed to be zero.

We note and accept AEMO's inclusion of "*If not explicitly modelled, the USE values included in the probability weighted calculation of expected USE arising from 90% POE demand profiles are assumed to be zero.*", in this Table.

Medium Term Projected Assessment of System Adequacy Process Description

In our submission to the Consultation Paper we offered comments to AEMO's proposed amendments to the MT PASA Process Description as follows;

Semi-scheduled wind and solar generation forecasts

Similar to the proposed amendment in the RSIG with regards to semi-scheduled wind and solar generation forecasts, we recommended that an additional amendment be included to indicate;

Where AEMO determines that historical intermittent generator profiles are to be substituted by profiles based on meteorological variables, AEMO will fully document the reasons for this determination, and the level of expected improvement.

It is unclear to ERM Power where this proposed amendment was considered by AEMO in relation to the MT PASA Process. Similar to our comments to the draft RSIG, we query how best forecasting practice is achieved absent the explanation of why the substitution of data is warranted and the improvements achieved.

Demand Side Participation (DSP)

In our submission to the Consultation Paper we proposed an alternative to the amendment in this area to that proposed by AEMO. We note that AEMO has considered and accepted our concerns and has proposed the following alternative wording.

MT PASA uses the estimates of existing and committed DSP consistent with those used in the most recent ESOO (or any more recent updates if available).

We also note that AEMO has moved this information from the MT PASA Process Description to the demand side participation section of the RSIG. We support the alternative wording and the change in location.

AEMO inputs – demand forecasting

In our submission to the Consultation Paper we recommend the following amendments to section 4.3 ;

"To capture the impact of weather variations on demand, at least sixteen different annual demand profiles" and Table 1 in section 4.3 be amended to indicate "At least 8 reference years"

We note that AEMO has included these amendments in the amended draft MT PASA Process Description.

MT PASA Reliability Run

With regards to output from hydro generators, we noted in our submission to the Consultation Paper that the draft Process Description included what we believe are a number of conservative limits on hydro generation output.

"Energy limits are implemented through the requirement that the storage at the end of the year must be equal to or greater than the storage at the start of the year."

Storage levels are also subject to "a series of optimal storage targets for each weekly period are set" by AEMO, and if these AEMO determined "optimal storage targets" are not met then "penalties are applied according to a series of penalty bands that are low for small variations and high for large variations from target levels". It is unclear from the Process document if the setting of these weekly "optimal storage targets" are subject to consultation with the registered participant. Lastly, "In addition to the storage targets, hydro generation is also constrained according to any MT PASA weekly bids submitted." It is unclear if this applies only to capacity availability or includes energy constraint bids.

In our submission we noted that given the normal year on year fluctuations observed in hydro power schemes storage levels, we questioned the requirement in the modelling that "the storage at the end of the year must be equal to or greater than the storage at the start of the year." We saw no valid reasoning for this to be the case and recommended that this be amended to;

Energy limits are implemented through the requirement that the storage at the end of each modelled year must be above the lower storage limit and levels must also remain within upper and lower limits supplied by the registered participant as part of the ESOO data collection request. Monthly inflows to the modelling are to be based on historical average monthly inflows across the modelling period.

In addition, we questioned the need to apply an AEMO determined weekly "optimal storage targets" on the basis that the registered participant already supplies weekly energy consumption targets as part of their MT PASA submission. The current process would use the lower of the registered participant supplied weekly energy constraint or the AEMO determined energy constraint based on meeting the weekly "optimal storage targets". We submitted that in our view, the current process is overly conservative and could result in forecast USE being higher that is warranted. We recommend that the process be simplified to;

In addition to the application of a yearly lower storage limit, hydro generation is also constrained according to any MT PASA weekly available capacity and energy constraint bids submitted by the registered participant.

We note that in the Determination, AEMO has indicated that; "*AEMO disagrees with ERM Power's assessment that the methodology is conservative*." AEMO has also indicated that "*in addition to the storage targets*" that "*AEMO will clarify in the MT PASA Process Description that hydro generation is constrained according to both the PASA availability bid into MT PASA and any weekly energy constraints that are submitted*."

However, we note that AEMO has maintained all the requirements in the draft Process Description regarding annual, monthly and weekly storage targets.

ERM Power remains concerned that this methodology applies an overly conservative assessment of hydro generation capability which fails to reflect the real world experience of hydro generating plant operation where storage levels routinely fluctuate between weeks, months, seasons and years. In particular, we consider the methodology as implemented may result in a forecast of USE when hydro generating plant remains available but not dispatched in the model due to one of the various energy output constraints.

ERM remains of the opinion that rather than AEMO setting rules around hydro plant operation, AEMO should engage with the operators of hydro generation to ensure better accuracy.

This would allow for AEMO to obtain on a confidential basis and as part of the ESOO data collection process, upper and lower storage limits within which storage levels are allowed to fluctuate to more accurately to reflect real world hydro plant operation, rather than impose a limit that the storage at the end of the year must be equal to or greater than the storage at the start of the year.

MT PASA Loss of Load Probability (LOLP) Run

In our submission to the Consultation Paper, we considered the methodology with regards to the LOLP run remains somewhat unclear. We noted the stated purpose of the LOLP run is to;

"To determine days most at risk of load shedding, AEMO conducts a LOLP assessment for each day in the two-year horizon, assuming that weather conditions associated with high demand and/or low VRE generation availability were to occur on that day."

We noted the draft Process Description contained no definition for VRE generation availability. We expressed a view that there would be value defining this term in the Glossary.

We note that AEMO has agreed with our suggestion and has defined the term as;

"Variable renewable energy

Demand met by semi-scheduled and large non-scheduled generators excluding the impact of network constraints. This is a non-standard demand definition used for LOLP modelling".

We also raised that the document is less clear as to the application of support from an interconnected region and contribution from large non VRE non-scheduled generation. In particular we noted that the; "the example LOLP graph supplied in Appendix E – Figure 14 and graphs available from AEMO's Market Portal do not include data with regards to flow limits from interconnected regions or large non VRE non-scheduled generators for the LOLP calculation. We also included by way of example, in our view the LOLP graph for Victoria should at least include the capability of interconnector support from Tasmania noting that interconnector flow limits are an output from the MT PASA modelling process.

AEMO in the Determination indicated that; "*As previously communicated to ERM Power, the visualisations provided to assist in interpreting LOLP results exclude interconnector flows or limits, as they add confusion to the figures given these are based on stochastic outcomes. The visualisation illustrates the key process inputs, namely the demand, scheduled capacity and contribution from VRE. Interconnector support is considered in the same way in the simulations as for all AEMO modelling, that is, interconnector flows are optimised to minimise the objective cost*."

We thank AEMO for confirming that the interconnector support is explicitly included in the modelling process, however, this fact remains less clear in the Process Description. We suggest the following amendment to section 3.2.2.

"Each region is considered independently but allows for support from adjacent regions across interconnectors."

We do not accept AEMO's view that confusion may be caused by the inclusion of interconnector flows or limits in the graphs, based on the daily interconnector limits published by AEMO as an output derived from the modelling run. We remain of the view that to improve transparency and reduce confusion with regards to interconnector support between regions that the daily interconnector limits as published in the MT PASA report should be included as a supporting capacity source on the graph.

MT PASA daily peak maximum and minimum demand values

We thank AEMO for providing additional clarity in the Determination in this area.

Additional reporting data

We note AEMO's view that the inclusion of additional data to that required under the NER in the area of adjusted aggregate scheduled generating unit PASA availability values for each region will improve transparency.

We do not agree with this and are concerned that the additional data will increase confusion, noting that in the Australian Energy Market Commission's Draft Determination to the Improving Transparency and Extending Duration of MTPASA rule change did not accept this alternative proposal from AEMO's submission and retained the original rule change request as submitted.

Energy Adequacy Assessment Projection Guideline

We offer comments to AEMO's proposed amendments to the EAAP Guideline as follows;

EAAP principles

With regards to principle (6)(B), we are not aware that AEMO continues to publish an Annual National Transmission Statement. We understand the requirements of NER clause 5.6.5 were deleted in NER Version 30 commencing 1 July 2009.

We note that this item was not discussed in the Determination and remains in the amended draft Guideline.

Scenarios that must be studied in preparing the EAAP

For consistency with proposed amendments as set out in the Issues Paper, we suggest the following amendment to the EAAP Guideline.

The following scenarios must ~~will~~ be included in the ~~first~~ EAAP ~~to be published by 31 March 2010~~:

We note that this item was not discussed in the Determination and remains in the amended draft Guideline.

Simulation cases

In accordance with the forecasting best practice guidelines we recommend that additional simulation scenarios be developed in consultation with stakeholders and offer the following suggested amendment for AEMO's consideration;

If the need arises, AEMO following consultation with stakeholders with regards to additional scenario development will conduct simulations of additional scenarios as appropriate in future using the GELF information provided by Scheduled Generators in accordance with these EAAP guidelines.

We note that AEMO has determined that; *AEMO agrees stakeholder consultation should be done when time allows and stakeholders are directly affected*." and "*AEMO may therefore consult on these scenarios, time permitting*.". We also note AEMO's view; "*Given the timetable imposed on the EAAP process it would not be possible to consult on such sensitivities and scenarios*".

We note that whilst not adopting our suggested amendment, AEMO has proposed an amendment that is not disclosed or discussed in the Determination, and whilst initially amending the paragraph to include some level of consultation, this amendment has been subsequently struck through.

> If the need arises, AEMO will conduct simulations of 90% POE demand traces or additional scenarios as appropriate in future using the GELF information provided by Scheduled Generators in accordance with these EAAP guidelines. ~~Any extra scenarios that would require additional information from participants will be done in consultation with stakeholders~~.

We again stress the importance of effective consultation with stakeholders, and whilst changed conditions can occur during any assessment process, the requirement for consultation, as opposed to the implementation of a unilateral decision by AEMO, is a key component of best forecasting practice.

Consultation with stakeholders need not be an onerous requirement and consultation via AEMO's Forecasting Reference Group has proven to be a sound and effective stakeholder consultation forum. We ask AEMO to reconsider their determination in this area.

Modelling assumptions for the EAAP

We recommended that demand side participation (DSP) also be included in the EAAP modelling assumptions – Section 4 on the same basis as DSP in the ESOO and MT PASA with the methodology for its inclusion set out in the EAAP Guidelines.

We noted in the Determination that AEMO indicated; "*AEMO sees it as appropriate to have assumptions described in only one document. This approach avoids potential inconsistencies and the need to consult on multiple documents if a change is required. Thus, AEMO will continue to describe DSP assumptions in the DSP Forecasting Methodology. The DSP assumptions have been updated to be consistent with the changes suggested for MT PASA too.*"

We agree with the outcome and note that appropriate wording has been included in section 2.2.5 of the RSIG.

We also raised concerns with regards to the capacity of generating units which use the MT PASA availability submission where values may understate capacity to meet forecast demand for average summer days and potentially unnecessarily consume energy from hydro power schemes that could otherwise be used to reduce forecast USE. We recommend consideration be given to incorporating higher capacity values for average summer days based on the process to be utilised for the 2020 ESOO.

We note in the Determination that; "*AEMO therefore considers that the over-riding of MT PASA offers with average summer deratings would be inconsistent with the rules*."

We accept AEMO's view in this area and will consider required rule changes to remove what we believe results in overconservative outcomes from the EAAP reliability assessment as indicated in our submission.

Please contact me if you would like to discuss this submission further.

Yours sincerely

[signed]

David Guiver
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