



Minutes

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| Meeting Title: | Power System Security and Reliability Standards Working Group (PSSRSWG) |
| Date: | 18 April 2024 |
| Time: | 2:00pm to 4:00pm |
| Location: | Microsoft TEAMS |

| Attendees | Company | Comment |
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| Dora Guzeleva | Chair, Energy Policy WA | |
| Toby Price | AEMO | |
| Mena Gilchrist | AEMO | |
| Aditi Varma | ERA | |
| Tessa Liddelow | Shell Energy | |
| Rhiannon Bedola | Synergy | Joined 2.08pm |
| Noel Schubert | WA Expert Consumer Panel | |
| Hugh Ridgway | Alinta Energy | |
| Daniel Cassidy | Western Power | Joined 2.08pm |
| Sabina Roshan | Western Power | Joined 2.08pm |
| Bronwyn Gunn | Energy Policy WA | |
| Sanna Pember | Energy Policy WA | |
| Stephanie Hemsley | Energy Policy WA | |
| Ashwin Maharaj | Mott MacDonald | |
| Tyson Vaughan | Mott MacDonald | |
| Ed Chan | Mott MacDonald | |
| Jaden Williamson | Merz | |
| Geoff Glazier | Merz | |
| Apologies | From | Comment |
| Luke Skinner | WA Expert Consumer Panel | |
| Patrick Peake | Perth Energy | |
| Robert Ceic | Mott MacDonald | |

| Item | Subject |
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| 1 | <p>Welcome and Agenda</p> <p>The Chair opened the meeting at 2:00pm with an Acknowledgement of Country and welcomed members.</p> |
| 2 | <p>Meeting Attendance</p> <p>The Chair noted the attendance and apologies as listed above.</p> |
| 3 | <p>Competition and Consumer Law Statement</p> <p>The Chair noted the Competition and Consumer Law statement circulated with the meeting agenda.</p> |
| 4 | <p>Minutes of previous PSSRSWG meetings</p> <p>The Chair noted that the minutes from the 1 and 29 February 2024 PSSRSWG meetings have been published on the PSSRSWG website.</p> |
| 5 | <p>Updates on the Technical Working Group</p> <p>The Chair noted that the Technical Working Group has met twice since the last PSSRWG meeting (on 6 and 20 March 2024). She added that the meetings' discussions focused on issues identified for stage 2 of this project and the content of the PSSR Analysis Workbook.</p> |
| 6 | <p>Stage 2 – Issues Analysis</p> <p>The Chair noted that:</p> <ul style="list-style-type: none">• as outlined in the Scope of Work, the title of stage 2 has been revised to 'Issues Analysis' to cover gaps, duplications and inconsistencies;• the Market Advisory Committee (MAC) members were updated on the activities of the PSSRSWG at the 21 March MAC meeting; and• the PSSRSWG members have been provided with an updated version of the PSSR Analysis Workbook, detailing the existing PSSR Standards, related mechanisms (stage 1) and identified issues (stage 2). <p>The Chair outlined the purpose of today's meeting (slide 2).</p> <p>Mr Glazier presented the agenda for today's meeting (slide 3). He noted that analysis was performed on the identified PSSR mechanisms within the existing instruments, and this was collated in the PSSR Analysis Workbook. He added that this has been done 'clause-by-clause'.</p> <p>Mr Glazier presented a consolidated list of issues previously discussed with the PSSRSWG (slide 5). He noted that no new comments were raised by the members.</p> <p>Mr Glazier presented a consolidated list of the issues for today's discussion (slide 6).</p> <p>Mr Glazier presented Issue 2 – Lack of Coordinated Approach to Forecasting (slide 8). He noted that this issue was initially raised by Western Power. He pointed out that relying on one type of forecast for all purposes is not ideal for PSSR. However, there must be consistencies in the inputs and methodology for forecasting.</p> <p>Mr Cassidy, Ms Roshan and Mrs Bedola joined the meeting.</p> <ul style="list-style-type: none">• Mr Schubert agreed with the issue. He noted that forecasts serve different purposes, and that Western Power's forecasts are limited as its network does not encompass the entirety of the South West Interconnected System (SWIS). He noted the |

Item

Subject

importance of not overlooking alternative approaches by assuming forecasting should be based on the same set of assumptions.

Mr Glazier agreed with Mr Schubert that 'one-size does not fit all'.

- Ms Gilchrist agreed with Mr Schubert's statement. She supported the idea of a consistent standard, but questioned the feasibility of applying the same methodology across the board as this might not be suitable for forecasting that have different purposes.

Mr Glazier noted that the framing of this issue aligns with the views expressed by Mr Schubert and Ms Gilchrist, and that the slide will be updated.

The Chair agreed that the word 'methodology' should be replaced with 'assumptions and inputs' to reflect the inputs from the working group members.

Mr Glazier asked Ms Roshan whether she had any input regarding this issue, given that she initiated the discussion on it.

- Ms Roshan noted that she agreed with Ms Gilchrist and added that the inputs and assumptions need to align between forecasts.

The Chair agreed, that fundamental inputs, such as system demand forecast, must be aligned.

Mr Glazier presented Issue 4 – Application of Generator Performance Standards (GPS) requirements (slides 9 and 10), referring to the inconsistencies between the Technical Rules and the Wholesale Electricity Market (WEM) Rules Appendix 12 (WEMR A12).

- Ms Gilchrist agreed that the framework in Chapter 3A will not be appropriate for all facilities. She pointed out that during Chapter 3A's development, it was determined that a process involving a minimum and ideal standard, and the opportunity for negotiation, was superior to a derogation. She added that the current framework aligns with international best practice and asked for clarification whether this review is questioning the inclusion of certain Technical Rules standards in this framework, or if the concerns are with the framework under the WEM Rules.

Mr Glazier responded that since the intention is that the Technical Rules will be repealed over time, it is necessary to review the technical requirement for all facilities connecting to the system to maintain PSSR. He noted that the second part of the issue relates to the implementation of the GPS, which doesn't permit a facility to request a negotiated position until it has demonstrated it cannot meet the requirements.

- Ms Gilchrist disagreed with Mr Glazier's statement and pointed out that the rules allow for negotiation, and that there hasn't been any issues with new generator connections.
- Ms Roshan agreed with Ms Gilchrist.

The Chair clarified that all PSSR related standards are within scope and the purpose of this review is to create a comprehensive single end-to-end standard, including assessing how the framework for facilities connecting to lower voltages aligns with that for other facility types. She added that the governance of the standards is also within scope of this review. She noted that there are gaps, inconsistencies and duplications in the current framework, especially between the Technical Rules and the WEM Rules. She added that the different standards are governed by different mechanisms.

- Mr Schubert agreed with the issue outlined on slides 9 and 10 but noted that historically the standards required of small generators have been more onerous than necessary in many cases. He noted that the standards should not be more onerous than required, as this can create barriers to the participation of small generators.

Item

Subject

The Chair agreed with this, highlighting that the purpose of this review is to establish a minimum standard. She stated that anything above a minimum standard could be negotiated.

- Ms Roshan asked the Chair to clarify the meaning of 'minimum standard' and whether this implies that exemptions and negotiations to that standard are not permitted.
- Ms Roshan pointed out that the current Technical Rules do not explicitly mention 'minimum' standards and exemptions from those standards may be possible. She noted the importance of clarifying that a minimum standard would not permit negotiations below that standard.
- Ms Gilchrist asked whether this entails establishing one standard for all participants, with failure to meet it resulting in inability to connect.

The Chair clarified that the purpose is to establish an end-to-end standard that applies to various voltages and technologies, applying a common standard where feasible. She added that the minimum standard should apply to both connected equipment and the network. She added that the minimum standard is not a "one standard fits all" that the minimum standards are to be set for different types of equipment and voltages.

- Ms Gilchrist responded that there already exists a minimum standard. She asked whether this review is considering removing the ideal standard, noting that this in her view would be taking a step backwards.

The Chair responded that this is not to be taken as a criticism on previous work carried out under the GPS framework but a reflection of the project scope, under which all standards and governance arrangements need to be considered.

- Mr Schubert noted that minimum standards for different size and technology must recognise the relative impact various technologies can have on the system.
- Mr Price responded that chapter 3A in the WEM Rules tries to do this for Tx-connected generators.
- Mr Schubert clarified that he was referring to small generators, e.g. 1 MW or lower, for which past requirements have been more onerous than necessary.
- Ms Gilchrist noted that setting a minimum and ideal standard allows for negotiations in an efficient way. She added that under the Technical Rules, there is just one standard, and you must derogate with very limited visibility on the negotiation. A minimum standard allows for that visibility and allows for those facilities in parts of the network to understand the lower boundaries that might be applicable in their circumstances. She clarified that she understands that bringing in new generators (those currently under the Technical Rules) will require consideration on whether they should be captured under Chapter 3A and Appendix 12 or a different part of the ESMR. Or alternatively, whether the minimum standard needs to be revised to account for smaller generators.
- Mr Price sought clarification on whether this review has identified two gaps in the GPS framework. He noted that the first appears to concern the specific standards associated with GPS for connection of generators at different voltages, while the second pertains to the administration of the ideal and minimum standard. He stated that AEMO and Western Power do not perceive any gaps in the current GPS framework.

The Chair clarified that the identified issue is around addressing duplications and inconsistencies, and there are currently two separate instruments governed by different mechanisms. She added that the objective is to consolidate them into a single framework.

Item

Subject

- Mr Price asked if the desktop audit/jurisdictional review can be shared with the working group members, as this may provide some useful insights.

The Chair responded that once finalised, the jurisdictional review will be distributed to the members and be used to inform the discussions on the options analysis.

- Ms Varma stated that the framing of the slide suggests that there are gaps in the GPS requirements, noting that this in her view is questionable. She noted that there are distribution related requirements still within the Technical Rules that need to be moved across to the GPS under a streamlined governance framework. She added that the argument for altering the current framework outlined in Chapter 3A of the WEM Rules need to be more compelling given this framework already applies to both incumbent generators and new transmission connected generators. She stated, that, in her view, there are a widespread agreement between AEMO, Western Power and generators that the current framework is workable and that the standards are reasonable.

The Chair clarified that the wording of the slide will be amended.

Mr Glazier noted that some generators on some locations on the system are required under Appendix 12 of the WEM Rules to meet the ideal standard to maintain power system security.

- Ms Varma asked whether the negotiation process for these generators is not functioning effectively.

Mr Glazier pointed out that technical requirements must be studied by generators, even if the studies are not relevant to security in that area of the network or relate to that generator. He added that retaining this approach, while bringing across additional generators that currently connect under the Technical Rules, would result in additional burden as every generator would have to study every standard and then show whether it's applicable or not.

- Ms Varma noted that Mr Glazier's statement assumes that the work for GPS around distributed connected generators has been done, which is not the case. She noted that the relevant standards and how they are brought into the process must be properly considered.

Mr Glazier provided another example involving a 50 MW generator with an isolated T-connection. He explained that such a setup would not need to meet all of the current GPS in order for power system security and reliability to be maintained – for example, the ride-through requirements in the WEM Rules will not be applicable in this scenario. He noted that it would be more efficient to identify this before studies have started to reduce the scope of the studies and the cost of connection.

The Chair returned to Mr Schubert's previous statement that it is not desirable to have a one-size fits all approach. She clarified that the scope is to review the standards in the WEM Rules and Technical Rules and bring them where feasible into one standard. She added that size, voltage and configuration of the surrounding network will be considered in deciding how the standard applies to each facility. Lastly, she noted that the governance of the standard will be reviewed.

- Ms Roshan noted that there is currently an exemption framework in place that allows a facility to apply to connect under the Technical Rules instead of the WEM Rules. She added that in the Technical Rules review an approach similar to that in Chapter 3A was proposed to apply to distribution connected generators over 5MW, with some tweaks to make the approach a lighter touch. She clarified that an even less onerous approach was proposed for generators under 5MW.
- Ms Roshan noted that, in her view, these changes would work effectively in the ESMR. However, the exemption framework for smaller generators connected within

Item

Subject

the distribution network may also need to be brought across. She emphasised the importance of reviewing the governance of the GPS Standards.

The Chair clarified that the purpose of reviewing the current GPS framework is to provide as much clarity as possible regarding connection requirements for equipment to avoid the need for prolonged negotiations. She noted that the standards and their governance in the WEM Rules and Technical Rules have evolved at different times and under different circumstances and now is the time to bring them together.

- Ms Varma noted that a size threshold could be applied to determine which standards should apply to a facility.
- Mr Ridgeway noted that a size threshold can create perverse incentive, like specifically designing facilities to meet thresholds, resulting in having to apply stricter standards.
- Ms Gilchrist agreed with Ms Varma, noting that Western Power recommended a 5 MW threshold. She clarified that she is not suggesting that this is the right level but noted that it could be a starting point for discussion. She emphasised the importance of not changing the framework and retaining the negotiation process, as altering this could create adverse outcomes for generators.

Mr Glazier clarified that the intent is to ensure, once everything is in one mechanism, that facilities are only required to comply with standards that are necessary for PSSR, and reducing administrative burden.

The Chair summarised the discussion, noting that this review is not proposing changes to the GPS standard itself, but rather considering how the different standards in the WEM Rules and Technical Rules can be brought into one. She highlighted that this work would include reviewing how the standard is organised, ensuring that this meets various needs instead of a one-size-fits-all approach.

- Ms Gilchrist noted that, in her view, it may not be ideal to bring all the different type of generators into the Chapter 3A/Appendix 12 framework. She agreed that the minimum standard would need to be reconsidered to account for smaller generators.
- Ms Varma pointed out that it would be useful to see some examples of standards being onerous for generators. She noted that the concept of location-based GPS was incorporated into Chapter 3A.

The Chair noted that a jurisdictional comparison will be done as part of this review

- Mr Ridgeway suggested that the minimum standards should be applied across the board regardless of size. He added that the negotiated standards can provide allowances for smaller facilities.

The Chair questioned whether size is the best way to apply standards in the future, and whether type of facility and type of network connection is likely more important.

- In response to Mr Ridgeway's comments, Ms Gilchrist noted that it would be useful to include information in the negotiation criteria to explain where the minimum standards are likely to be applicable, otherwise the risk is that this would create unrealistic expectations on larger generators.
- Ms Roshan agreed that the ideal and minimum levels of compliance need to continue for transmission connected facilities, with some concessions for the distribution connection facilities greater than 5MW. She added that for generators less than 5MW the GPS framework may be too onerous and an exemption framework/new section in the ESMR may be needed for them. She pointed out that it will be important to put stringent conditions in place for exemptions otherwise every generator will try to apply for that exemption.

Item

Subject

The Chair agreed and noted that the suitability of the current 10MW cut-off need to be properly considered.

- Mr Schubert pointed out that AS4777 for inverter-connected generators works much more efficiently than the process for other generators and is much more efficient to administer.

Mr Glazier noted there is a question about whether AS4777 is suitable once these types of facilities are the dominant ones on the system, but this is not part of the scope of work.

Mr Glazier presented Issue 7 – Addressing Limitations on fuel, storage and renewable location diversity on supply security (slide 11).

- Mr Price stated that he had provided comments on this slide during the last Technical Working Group meeting, but the wording of this slide remains unchanged. He added that AEMO can look at these requirements as part of the assessment, but that there are no prescription in the WEM Rules about how to do this.

Ms Gunn responded that the amendment - 'no clarity in the rules', to dot point 4 was intended to capture Mr Price's previously concerns to this slide.

- Mr Price suggested extending the wording to "the existing security standards may not adequately prescribe a methodology to consider future limitations in fuel supply...".
- Ms Varma asked whether this issue is already considered as part of the Reserve Capacity Mechanism Review, noting that the inclusion of a fuel dependent variable in the capacity certification process has been a discussion point for some time. She agreed that that the unserved energy standard should be in scope, and it would be useful to understand how to operationalise that, but the point about the 14 hour fuel requirement is more related to capacity certification and the availability of certain types of generators.

The Chair welcomed inputs from the working group members regarding this question but noted the 14 hour fuel requirement is not within scope.

Mr Glazier clarified that the example of the 14-hours fuel requirement was only included in the slide to demonstrate the specific guidance within the standard in the WEM Rules for AEMO to consider how the unserved energy requirements are met. He added that Issue 7 pertains to a broader issue regarding fuel certainty if the system faces the potential loss of a fuel source.

- Mrs Bedola asked how this review will consider the diversity of renewables on the system going forward.

The Chair responded that the 0.0002% EUE requirement also includes assessing the diversity of renewables across the system. She added that the question is how to provide stronger incentives as the Relevant Level Method (RLM) does not provide strong locational signals to renewables.

- Mr Price noted that the reliability assessment includes consideration of the location of specific facilities and their contribution to reliability. He added that AEMO does not send signals to locate in a particular wind region because it promises a greater contribution to the energy supply.
- Mr Cassidy noted that the Whole of System Plan (WOSP) identifies locational signals.

The Chair noted that the WOSP is only undertaken every five years. She noted that the question is about scarcity of resources, be it fossil fuel or wind, and how that is taken into account in planning activities.

- Ms Bedola noted that there are two parts – peak reliability for renewables, which capacity credits cater for, and diversity during the year which didn't seem to be

Item

Subject

captured anywhere. She added that capacity credits are not a key driver for renewable investment.

- Mr Price noted that the calculation of EUE outcomes considers the contribution of all intermittent generation (existing and committed) in half hour intervals across the outlook horizon.

The Chair noted that, while the risk is assessed, there isn't a mechanism to send a signal and correct the behavior. The current process would be to procure more capacity, which might not be in the right location.

Mr Glazier asked Mr Price whether AEMO would prefer to have more prescription in the WEM Rules about the methodology or the inputs to the assessment process.

- Mr Price responded that historically it has been simpler to establish a set threshold in the rules. He noted that the energy transition will create more factors impacting on risks. He added that the concern is that AEMO could have to apply a methodology that fails to capture all relevant aspects.

The Chair noted that the risk cuts both ways. On one hand, if you fail to consider a risk in the methodology, it remains unaddressed. On the other hand, there is also the risk of overreacting due to a perceived risk without having a focused approach to address it.

- Mr Price agreed with this.
- Mr Price noted that the capacity mechanism treats capacity from different capability classes as interchangeable, without specifying quantities for each. He added that the Electricity Statement of Opportunities (ESOO) does not address the outcomes of different capability classes' contributions to reliability, even before considering where this capability is located. He asked whether there is a broader inquiry within this work stream to explore this potential gap further.

The Chair was uncertain about including this issue in the review. The Chair noted that this needed to be included in a log of issues to be addressed in other projects.

Mr Glazier agreed, noting that considering specific classes of certified capacity and related details is more about procurement, which is not in scope for this project.

- Mr Price noted that it might be beneficial to provide more detailed guidance on how the unserved energy standard is calculated and determine which assumptions are reasonable for AEMO to make and whether these should be set out in the new ESMR.

Mr Glazier agreed with this, noting that it would be beneficial to incorporate a few more requirements into that calculation without limiting the ability of AEMO to consider other factors. He added that this would provide for calculations with a stronger foundation while maintaining consistency with the current approach.

Mr Glazier presented Issue 8 – System Strength (slides 12-16), noting that there is a need for a long term forecast of the fault levels at each node on the network, so that connecting generators know which level of system strength they need to comply with during ride through events. There is also a need to make sure that the forecast is met. He added that the forecast will need to consider credible generation scenarios, and that accounting for RoCoF requirements may result in a natural floor for system strength. The key issue is that there is no responsibility or approach for forecasting the fault levels, and no mechanism to make sure that forecast is met. There is also a range of standards that have system strength as an input.

- Ms Gilchrist noted that, while minimum Fault Levels are not currently a "standard", AEMO is required to manage System Strength (including altering dispatch when necessary) based on maintaining the Technical Envelope (under clause 3.2.5 of the WEM Rules). She added that this requires AEMO to respect any applicable System Strength requirements, which may include any minimum fault level requirements.

Item

Subject

Mr Glazier noted that the challenge is that AEMO has no forecast to manage against. He clarified that the standards exist, but there is no visibility about the likely system strength levels in coming years/decades.

- Mr Cassidy highlighted the complexity/difficulties in practice with providing minimum fault levels and the uncertainty around forecasting 20 years out.

Mr Glazier agreed, noting the importance of providing guidance for the assumptions going into the long-term forecast, and of monitoring to ensure the system remains at the level of the forecast operationally. He added that the actual calculation itself is not difficult but certainty around the inputs (e.g. the generation mix) that go into those calculations is needed.

- Ms Roshan noted that the following items need consideration.
 - Minimum requirements for System Strength;
 - Roles and responsibility for System Strength maintenance;
 - Forecasting of System Strength – the roles and responsibilities; and
 - System Strength charges and whether to introduce that as in the National Electricity Market (NEM).

The Chair responded that the issue around charges will need some more consideration.

Mr Glazier pointed out that there are currently no gaps identified around charges. He clarified that, if Western Power require system strength to maintain the operation of one of their facilities, it must procure it. He added that, similarly, if a generator requires system strength to meet ride-through requirements, it must pay for it.

- Mr Cassidy questioned whether that is efficient for each generator to self-serve or if there should be a centralised provision.

Mr Glazier noted that, in his view, generator ride-through is becoming less of an issue, and that it will become more of an issue for the network to maintain over-current protection.

- In response to the comment about forecasting a minimum fault level required on the system over a 20-year horizon, Ms Varma questioned whether this approach may inadvertently prevent some renewables from connecting in certain areas because they would have to meet a potentially higher than otherwise minimum fault level. She raised concerns about the efficiency of this approach for the overall system.

Mr Glazier noted that the minimum fault level is not an issue for grid-forming inverters. He noted that central procurement wouldn't be warranted given the size of the SWIS, and that there is a fundamental change in inverter technologies, with newer ones able to operate at much lower minimum fault levels.

The Chair returned to Mr Cassidy's statement about a centralised approach and noted that there is an approach between the two ends of the spectrum. If a generator can convince Western Power that it can mitigate its impact, through a grid forming inverter or otherwise, Western Power can procure the rest and charges can flow through either general tariffs or back to the generator that is not self-mitigating. The aim should be to have a solution at the lowest overall cost.

Mr Glazier noted that Western Power has an obligation to provide a certain amount of system strength to make sure that all of its customers protection devices and facilities operate efficiently.

- Mr Cassidy questioned Mr Glazier's statement, noting that if Western Power would decide to alter its protection system to operate under lower system strength,

Item

Subject

customers would need to make their own decisions about how to respond. He noted that Western Power does not 'sell' system strength at the moment.

Mr Glazier noted that, if that is a service that Western Power need to provide to its customers, it can make that investment and charge the customer for it.

- Mr Price noted that the challenge will be that system strength is a 'grab bag' for variety of needs and it depends which one sets the threshold for system strength in a region – it could be the ride through of the generation fleet or the safe operation of the network. The answer to this will inform consequent questions about who pays, who solves the issue and what is the most effective way. He noted that issues are not always global across the network, and consideration should be given to how costs flow for locational issues. He noted this can be worked through but would need to be discussed in more detail.

The Chair noted that it is not out of the question to have a locational service for which only certain participating generators pay.

- Mr Cassidy questioned whether a generator that has connected and met the fault level requirements at the time of connection should be required to make investments to remain stable for the life of the asset based on the 20-year forecast. He noted that the question is who bears the risk of error, Western Power or the proponent.

Mr Glazier responded that the options analysis would need to consider this. The intent is that Western Power provides proponents the long-term design forecasts as they currently provide them with the maximum fault level.

Mr Cassidy questioned whether this was the right option, noting that the information could be made available for proponents to make this assessment themselves. He added that one of the pertinent issues is who pays for any issues caused by retirement of the existing plants.

Mr Glazier presented Issue 10 – Unclear when Western Power should implement alternate options and when they can rely on constraint equations (slide 17).

The Chair clarified that this issue is around duplication, and these provisions need to be bought into the ESMR and the Non-Cooptimised Essential System Services (NCESS) procurement framework.

- Ms Varma pointed out that, in her view, the temporary obligations outlined the Electricity Industry (Network, Quality and Reliability of Supply) Code 2005 (NQRS Code) are not considered to be inconsistencies due to their time-limited nature. She highlighted that the intent of the NCESS framework is to supersede those temporary reliability obligations originally established for the Eastern Goldfields and North Country regions. She noted that the first dot point on the slide already has been contemplated in the policy framework for the NCESS. She added that the aim was to move these requirements into the NCESS to improve transparency.
- Ms Varma clarified that the inconsistency that persists is on the network regulatory side with alternate options and network opportunities. She emphasised the importance of streamlining these elements into one framework. She noted that the current NCESS framework is working, having been triggered approximately six times by AEMO and Western Power. She added that the current framework should be used as a policy framework to supersede the others.

The Chair agreed and noted that the issue lies in the existence of the parallel duplicate frameworks. She emphasised the importance of consolidating these frameworks within the ESMR.

- Mr Cassidy noted, with regard to when Western Power can rely on constraints, that there are some obligations under the Transmission System Plan (TSP) around managing cost of congestion, as well as obligations for Western Power to understand

Item

Subject

the value of constraints in net present terms, and to invest against that when it's economically efficient to do so. He noted that the drafting may need to be tidied up, but the mechanisms exist.

The Chair agreed, noting that any duplications within the TSP requirements in Chapter 4B of the WEM Rules may need to be addressed as part of resolving this issue.

Mr Glazier presented issue 11 – There is no coordinated approach to financial penalties for distribution outages (slide 18).

The Chair noted that the wording of the issue outlined in the slide has changed following input from the Technical Working Group and that the wording of the headline will also be amended.

- Ms Varma pointed out that there are no current issues with the ERA determining appropriate financial penalties as necessary under the Access Arrangement. She asked for clarifications whether this framework will be diluted. Ms Varma clarified that she was not questioning the standard for reliability but rather was seeking clarifications around whether the concept of financial penalties, which is a matter for the economic regulator, is within scope of this review.

The Chair clarified that this issue pertains not to the financial penalties, but rather the inconsistencies in the standards around these. She noted that once the standards are set, the regulator can decide the incentives.

- Mr Schubert asked for clarifications on how this would apply to individual customers considering SAIDI, SAIFI and CAIDI are averaged across groups of customers. He also inquired about ensuring that an individual customer has a minimum standard and what penalties would apply for not meeting these standards on an individual customer basis.

Mr Glazier responded that there needs to be consideration of the broader penalties through the economic regulation process and the penalties that are paid to individual customers under the NQRS.

- Mr Schubert asked whether the penalty is determined by the average across the group of customers.

Mr Glazier clarified that the NQRS payments are based on how long an individual customer has been on a power outage.

- Mr Schubert noted that the payments are relatively small and may not provide the necessary motivation to improve reliability in a remote area.

Mr Glazier noted that the incentives around individual customers have always been a difficult issue to solve. He added that this review must consider reliability more broadly as well as the reliability of an individual customer.

- Ms Roshan noted that;
 - there are some overlaps that this project must address;
 - the value of customer reliability (VCR) will be an important part to consider in solving this issue; and
 - issues in regional areas need to be looked into, including whether SAIDI and SAIFI need to be reviewed by geographical area and customised.

Mr Glazier clarified this issue is not just about financial incentives and penalties, but making sure the package of standards work together and that financial penalties and incentives are linked to this, without duplication or gaps.

The Chair clarified that the extended outage payments may need to be prescribed through different means. This project may look at whether there needs to be

| Item | Subject |
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| | <p>differentiation between different groups of customers but should not prescribe levels of compensation.</p> <p>Mr Glazier presented Issue 12 – Customers to negotiate their reliability standard (slide 19).</p> <ul style="list-style-type: none"> • Mr Price noted that an element of this is outlined in clause 3.2.5(d) of the WEM Rules, however this requirement may need further elaboration. • Mr Price noted that while North Country is islanded, the battery contribution at Kalbarri can be quite significant and there are no provisions for any data to be shared with AEMO for the behavior of that equipment. He added that when it is islanded, AEMO has limited visibility over it and, given the minimum demand can get quite low in North Country when it is islanded, that is an issue. • Mr Cassidy added that it should be clear in the constraint equations how a load on a non-reference service might be treated differently to other loads. <p>The Chair noted that the Demand Side Response (DSR) Review and the related rule drafting cover part of this and the proposal is to address this in the constraint equations.</p> <ul style="list-style-type: none"> • Mr Price highlighted the importance of being precise about who is being curtailed and on what basis. He noted that the constraint equations cannot account for curtailable load that isn't registered. <p>Mr Glazier presented Issue 13 – Governance of PSSR Standards including ability to respond flexibly to emerging technologies (slide 20)</p> <ul style="list-style-type: none"> • Ms Gilchrist noted the importance of also evaluating whether the current process under the WEM Rules is working, given it hasn't had much of a chance to be tested. • Ms Roshan agreed with Ms Gilchrist, noting that the GPS was written predominantly with generators in mind, not technologies such as batteries, and the current GPS requirements in Appendix 12 must be reviewed with that in mind. <p>Mr Glazier presented Issue 14 – Approach to Operating and Limits Margins (slide 21). He noted that Issues 14 and 15 have not been discussed with the Technical Working Group.</p> <ul style="list-style-type: none"> • Ms Gilchrist pointed out that AEMO publishes the approach in a procedure but publishes the actual operating margins as part of the constraints library. She added that Issue 14 might be a non-issue given this. • Ms Roshan and Ms Varma agreed with this. • Ms Varma added that the initial design around this required some transparency as to how the limits margins are defined by Western Power. She pointed out that operating margins are more dynamic given that they must account for matters such as ESS. <p>Mr Glazier clarified that the framing of this issue relates to the publishing of the margins. He agreed with Ms Gilchrist that, if the operating margins are published by AEMO as part of the constraints library, this might be a non-issue and therefore be removed from the issues list.</p> <p>The Chair clarified that as part of the governance framework this review must consider what is published and by whom/when.</p> <p>Mr Glazier presented Issue 15 – Capturing previous efforts (slide 22). He clarified that these are the issues that are not picked up as part of other issues. The approach is to take Western Power's analysis and options as they appear in the ERA submission.</p> <ul style="list-style-type: none"> • Ms Roshan inquired about the staging approach for the provisions in the subsidiary instruments and how the structure of the ESMR is to be determined. |



| Item | Subject |
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| | <p>The Chair explained that the structure of the ESMR is yet to be determined. She added that careful consideration must be given to the definitions and location in the rules.</p> <p>Mr Glazier noted that he could provide Ms Roshan with some examples of integrated technical requirements for other jurisdictions.</p> <p>The Chair highlighted that a complete set of PSSR definitions are required prior to the commencement of stage 4 (rule drafting).</p> <p>Ms Roshan agreed with this.</p> |
| <hr/> 7 | General Business <hr/> No general business was discussed. <hr/> |

The meeting closed at 4:00pm