

CONGESTION INFORMATION RESOURCE GUIDELINES

DRAFT REPORT AND DETERMINATION

Published: **[August 2021]**





NOTICE OF SECOND STAGE CONSULTATION – CONGESTION INFORMATION RESOURCE GUIDELINES

National Electricity Rules – Rule 8.9

Date of Notice: 19 August 2021

This notice informs all interested parties (Consulted Persons) that AEMO is commencing the second stage of its consultation on the Congestion Information Resource Guidelines (CIR Guidelines).

This consultation is being conducted under clause 3.7A(d) of the National Electricity Rules (NER), in accordance with the Rules consultation requirements detailed in rule 8.9 of the NER.

Invitation to make Submissions

AEMO invites written submissions on this Draft Report and Determination (Draft Report).

Please identify any parts of your submission that you wish to remain confidential, and explain why. AEMO may still publish that information if it does not consider it to be confidential, but will consult with you before doing so.

Consulted Persons should note that material identified as confidential may be given less weight in the decision-making process than material that is published.

Closing Date and Time

Submissions in response to this Notice of Second Stage of Rules Consultation should be sent by email to ben.blake@aemo.com.au, to reach AEMO by 5.00pm (Melbourne time) on 3 September 2021

All submissions must be forwarded in electronic format (both pdf and Word). Please send any queries about this consultation to the same email address.

Submissions received after the closing date and time will not be valid, and AEMO is not obliged to consider them. Any late submissions should explain the reason for lateness and the detriment to you if AEMO does not consider your submission.

Publication

All submissions will be published on AEMO's website, other than confidential content.

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EXECUTIVE SUMMARY

The publication of this Draft Report and Determination (Draft Report) commences the second stage of the Rules consultation process conducted by AEMO to amend the Congestion Information Resource Guidelines (CIR Guidelines) under the National Electricity Rules (NER).

AEMO's original proposal was to revise the CIR Guidelines to:

- Require Transmission Network Service Providers (TNSPs) to provide their planned network outages via NOS and only those outages which have a material impact (i.e. those which have historical binding constraint equations).

In response to the 1st stage notice, AEMO received two submissions from EnergyAustralia Pty Ltd and Shell Energy. Both responses generally consider the CIR to be a valuable resource in its current state, but there could be areas of improvement. EnergyAustralia and Shell Energy both suggested AEMO consider how historical and forecast data can be made more accessible to market participants – this information could be in the form of possible future network congestion and binding constraints, and emerging network stability limits. They also recommended more transparency from TNSPs to publish limits advice, and for AEMO to provide statistical reports on the Network Outage Schedule (NOS) and possible future congestion in the form of binding constraints in MT PASA runs.

AEMO agrees the MT PASA information could be used to provide a forecast of network congestion, and that that more granular segregation of data would be appropriate for the constraint reports. AEMO is investigating which information from the MT PASA constraint results can be published and where this would most appropriately be located in the CIR. AEMO is not able to provide MT PASA reporting on interconnector binding constraints as suggested by EnergyAustralia as the MT PASA does not currently report this information.

AEMO's draft determination is to amend the CIR Guidelines in the form published with this Draft Report.



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1. STAKEHOLDER CONSULTATION PROCESS

As required by clause 3.7A(m) of the NER, AEMO is consulting on the CIR Guidelines in accordance with the Rules consultation process in rule 8.9.

AEMO’s indicative timeline for this consultation is outlined below. Future dates may be adjusted depending on the number and complexity of issues raised in submissions.

Deliverable	Date
Notice of first stage consultation published	10 May 2021
First stage submissions closed	17 June 2021
Meetings held with submitting stakeholders	14 July 2021
Draft Report & Notice of second stage consultation published	19 August 2021
Submissions due on Draft Report	3 September 2021
Final Report published	20 October 2021

The publication of this Draft Report marks the commencement of the second stage of consultation.

Note that there is a glossary of terms used in this Draft Report at Appendix A.

2. BACKGROUND

2.1. NER requirements

The NER specifies the following requirements for the CIR Guidelines:

3.7A(k) AEMO must develop and publish guidelines (the congestion information resource guidelines) in relation to:

- (1) the categories of information to be contained in the congestion information resource including the source of that information;
- (2) the scope and type of information to be provided by Transmission Network Service Providers in accordance with paragraphs (n) and (o);
- (3) the processes to be implemented by AEMO to obtain the information from Transmission Network Service Providers in accordance with paragraphs (n) and (o);
- (4) the determination of the intervals for updating and publishing the congestion information resource under paragraph (e); and
- (5) the processes to be implemented by AEMO for providing Registered Participants with information under paragraph (g).

3.7A(l) AEMO must develop and publish the first congestion information resource guidelines in accordance with the Rules consultation procedures by 1 September 2010 and there must be a set of congestion information resource guidelines available and up to date at all times after that date.

3.7A(m) AEMO must amend the congestion information resource guidelines in accordance with the Rules consultation procedures.



2.2. Context for this consultation

The existing CIR Guidelines call for AEMO to undertake consultation with interested parties at least every three years. The previous consultation was undertaken in mid-2018, requiring a new consultation to be undertaken in mid-2021.

2.3. First stage consultation

AEMO issued a Notice of First Stage Consultation on 10 May 2021. The matters for consultation were:

1. Whether the quality, relevance and frequency of information provided in the CIR remains appropriate.
2. What additional information stakeholders consider should be included in the CIR, including explanations of the value to stakeholders.
3. What current congestion-related information AEMO could stop publishing in the CIR with no or little loss of value for stakeholders (for example because it is published elsewhere or no longer relevant).
4. AEMO’s proposal to revise the CIR Guidelines to include a clear requirement for Transmission Network Service Providers (TNSPs) to publish their limit advice on their website or on AEMO’s limits advice page.

AEMO also proposed a number of minor drafting changes to the CIR Guidelines to improve readability, remove redundant text and transition to an updated form. A consultation draft of the CIR guidelines was published with the first stage notice.

AEMO received two written submissions in the first stage of consultation and subsequently held meetings with both stakeholders.

Copies of all written submissions have been published on AEMO’s website at: <https://aemo.com.au/consultations/current-and-closed-consultations/2021-congestion-information-resource-guidelines>. Minutes of the meetings held with stakeholders are attached to this Draft Report.

3. SUMMARY OF MATERIAL ISSUES

The key material issues arising from the proposal and raised by Consulted Persons are summarised in the following table:

No.	Issue	Raised by
1.	Forecasting of future network congestion.	Shell Energy
2.	Replication of the AEMO control room network mimic panel.	Shell Energy
3.	Improved monitoring of network outage planning and provision of a report on timeliness of outage commencement and completions.	Shell Energy and Energy Australia
4.	More proactive engagement with TNSPs on limits advice and emerging network issues.	EnergyAustralia
5.	Request for more information on impact of constraints and forward view of changes.	EnergyAustralia

4. DISCUSSION OF MATERIAL ISSUES

Appendix B sets out the detail of each material issue raised by stakeholders in submissions. These are discussed in this section of the Draft Report, together with AEMO’s assessment and draft conclusions.



4.1. Forecasting of future network congestion

4.1.1. Issue summary and submissions

Shell Energy noted that the CIR provides information in hindsight (i.e. it reports on past binding constraints and how these constraints have impacted the broader network). This information is valuable and should be retained.

However, Shell Energy suggested that it would be useful if the CIR also included a forecast of network congestion in the medium-term future which would help to improve market participant decision making (e.g. in relation to potential future investments and operational and contracting strategies). Shell Energy suggested this information be published in the form of a quarterly report showing the constraints that are forecast to bind (and the frequency of them binding), as obtained from the medium-term projected assessment of system adequacy (MT PASA) POE10 and POE50 demand forecast reliability assessments.

EnergyAustralia suggested clearer reporting on specific constraint equations that are impacting on MT PASA results and where the probability of interconnectors binding is greater than 80 per cent.

Shell Energy also indicated that it would be useful if the monthly and annual constraints report had more granular segregation of data.

4.1.2. AEMO's assessment

AEMO agrees the MT PASA information could be used to provide a forecast of network congestion.

AEMO agrees that more granular segregation of data would be appropriate for the constraint reports.

AEMO is not able to provide MT PASA reporting on interconnector binding constraints as suggested by EnergyAustralia as the MT PASA does not currently report constraints that effect interconnector limits.

4.1.3. AEMO's conclusion

AEMO is investigating which information from the MT PASA constraint results can be published and where this would most appropriately be located in the CIR.

AEMO may be able to consider enhanced information on binding interconnector constraints in the MT PASA improvements process, if there are net benefits in doing so. Interested stakeholders may wish to engage on this as part of the consultation on the MT PASA improvements process.

AEMO will modify the annual and monthly constraint reports to provide more granular segregation of data as recommended by Shell Energy.

4.2. Replication of the AEMO control room network mimic panel

4.2.1. Issue summary and submissions

Shell Energy recommended that AEMO make available to market participants a replica of the network mimic panels used by AEMO's control room. Shell Energy indicated that this would enable participants to react promptly to real-time information following extreme power system conditions in the form of unplanned network outages and provide more efficient market response.

4.2.2. AEMO's assessment

The detailed real-time modelling of the network is based on information obtained from the TNSPs and is not AEMO's information to share. AEMO is also of the view that for security reasons, this information is not appropriate to be made widely available via the congestion information resource.



Relevant information for market participants to inform market response to real-time or near-time issues and forecast conditions is presently made available through the provision of market notices as soon as practical as well as updated NOS information.

4.2.3. AEMO's conclusion

AEMO will not make available to market participants a replica of the network mimic panel used by AEMO's control room.

4.3. Improved monitoring of network outage planning and provision of a report on timeliness of outage commencement and completions

4.3.1. Issue summary and submissions

Shell Energy acknowledged that the Network Outage Schedule (NOS) is a useful tool for market participants but suggested further improvements in the form of a NOS report (either annually or monthly) to capture: the processing time of outages submitted in NOS, statistics on the number of times network outage dates were changed, the timeliness of outage commencements and completions, and include statistics on the number of times the outage return to service (RTS) was delayed, and the length of the delay.

EnergyAustralia suggested AEMO provide statistical reporting in the form of a summary of all constraint equations that have bound for associated planned and forced outages, frequency that discretionary constraints were applied and a summary of dispatch intervals for which more than 4 equations bound thus possibly impacting on market outcomes.

4.3.2. AEMO's assessment

AEMO acknowledges that a NOS summary report would add value as per Shell Energy's suggestion. AEMO notes that all planned outages are included in NOS and TNSPs will enter unplanned outages into NOS if the return to service is not imminent.

AEMO is not observing an issue with "discretionary" constraints over time and does not presently consider that reporting on this would provide value to market participants.

With regard to the proposed 4 constraint analysis, AEMO notes that single or multiple binding constraints can have different impacts in across different dispatch intervals. AEMO already publishes information on the impact of constraints with binding impact in the monthly/annual reports.

4.3.3. AEMO's conclusion

AEMO will investigate the feasibility of providing additional NOS statistics as a part of the existing annual and monthly constraint reports.

4.4. More proactive engagement with TNSPs on limits advice and emerging network issues

4.4.1. Issue summary and submissions

EnergyAustralia encouraged AEMO to engage more with TNSPs on network limits advice and take a more proactive role in general. In EnergyAustralia's view, AEMO is uniquely placed to foresee emerging trends in connecting generation and storage technologies in specific parts of the network and may be able to highlight arising network limitations, and importantly flag to the market well ahead of constraints being put in place (that have immediate, unavoidable market impacts) and so enable participants to modify their behaviour.



EnergyAustralia also indicated that information contained in the CIR relates mainly to thermal ratings of network elements, whereas there is a significant and growing amount of congestion arising from voltage stability and system strength issues. EnergyAustralia suggested providing details of sub-regional or zonal limits, as this level of granularity is also becoming more important for transmission planning and is expected to form part of the 2022 ISP.

EnergyAustralia suggested AEMO provide a transparent view of how constraints are translated into key planning documents such as the ISP and ESOO, and the need for any broad assumptions to reflect their use in such planning documents.

EnergyAustralia also suggested AEMO update its high voltage Network Main system diagrams as referred to in the CIR as the current version is from April 2019.

4.4.2. EnergyAustralia suggested that AEMO publish a rolling 13-month forward work plan of known changes to the constraint library updated weekly. AEMO's assessment

In respect of limits advice, AEMO considers that the development and provision of such advice to AEMO is the primary responsibility of TNSPs. Because the location, scale and performance of future generator connections are uncertain, AEMO is limited in its ability to accurately project how network power transfer limits will change over time.

AEMO's 2020 ISP reported on some suggested leading indicators of network health, such as fault levels. AEMO welcomes input on the scope of ISP reporting via the ISP consultations. Counter-price flows are not assessed in the ISP because they are a market outcome and are unlikely to affect the long-term optimal design of the power system.

Following a two-stage consultation on the ISP Methodology and a single-stage consultation on Inputs, Assumptions and Scenarios, AEMO has developed a fit-for-purpose capacity outlook model for the ISP. This model reduces the power system to ten sub-regions connected by flow paths with notional transfer limits. While this capacity outlook model is validated against a time-sequential model that is somewhat similar to NEMDE, the constraint behaviour is not appropriate for assessing localised congestion risks because it is tailored only to assess the performance of major flow paths in the ISP and is not benchmarked for reporting on individual constraint equations.

AEMO has recently consulted on the ISP Methodology, 2021 Inputs, Assumptions and Scenarios Report (IASR) and the Reliability Forecast Guidelines. AEMO welcomes feedback received through these consultations and has responded to individual suggestions in those consultations.

As indicated above AEMO is limited in how far in advance it can provide information on constraint changes. However, AEMO agrees that more information could be provided on upcoming constraint changes and will investigate what can be provided in the CIR to complement the other changes AEMO has already implemented - major constraint changes are notified to the industry via market notices and flagged in as appropriate in regular industry briefings held by teleconference with minutes circulated).

4.4.3. AEMO's conclusion

AEMO intends to continue to take a proactive role in relation to issue identification and discussion with TNSPs on the need to update limits advice. However, TNSPs have the primary responsibility for the development of limits advice, noting that different TNSPs may prioritise this responsibility differently. AEMO is not in a position to undertake that task.

AEMO publishes a wealth of data to support the ISP, including expansion plans for generation, storage and transmission. AEMO acknowledges EnergyAustralia's recent submissions to the ISP consultations and welcomes their ongoing engagement in that process. AEMO will respond to feedback in the ISP Methodology Consultation Summary Report.



AEMO plans to update the network main system diagrams in late 2021. Due to the number of changes, AEMO is currently not able to update these diagrams as changes occur. AEMO suggests that stakeholders engage with relevant TNSPs for more detailed information on their networks.

AEMO will investigate what information it can provide in the CIR on a forward plan on constraint changes.

4.5. Request for more information on impact of constraints and forward view of changes

4.5.1. Issue summary and submissions

EnergyAustralia requested that AEMO publish a report in the CIR within two weeks of a new or revised constraint equation binding for the first time, check whether the equation was performing as expected, and also investigate the likelihood of the equation becoming more prevalent over time, particularly if it is a system normal limit.

EnergyAustralia requested that the definition of high impact outages be defined in the CIR.

4.5.2. AEMO's assessment

AEMO provides information on upcoming limit advice and constraint changes to the industry via market notices and significant changes are flagged in where appropriate in regular industry briefings held by teleconference with minutes circulated. Performance of constraints is reviewed on an ongoing basis and changes made as required, with advice provided to participants as above.

AEMO also performs analysis on binding trends and this already provided in the monthly and annual constraint reports.

4.5.3. AEMO's conclusion

AEMO does not propose to change the level or extent of reporting already in place to inform participants about new and updated constraints, and binding trends.

AEMO will include the definition of HIOs to the draft CIR Guidelines as suggested by EnergyAustralia.

5. DRAFT DETERMINATION

Having considered the matters raised in submissions, AEMO's draft determination is to amend the CIR Guidelines in the form of published on AEMO's website at: <https://aemo.com.au/consultations/current-and-closed-consultations/2021-congestion-information-resource-guidelines>.



APPENDIX A. GLOSSARY

Term or acronym	Meaning
AEMO	Australian Energy Market Operator
CIR	Congestion Information Resource
ESOO	Electricity Statement of Opportunities
HIO	High Impact outages
ISP	Integrated System Plan
NEM	National Electricity Market
NER	National Electricity Rules
NOS	Network Outage Scheduler
TNSP	Transmission Network Service Provider

APPENDIX B. SUMMARY OF SUBMISSIONS AND AEMO RESPONSES

Consulted person	Issue	AEMO response
Shell Energy	“We recommend that AEMO includes a marked-up version of the Guidelines as part of the next round of consultation. Without a marked-up version for this first round of consultation, it was challenging to identify the proposed changes AEMO has flagged. We also recommend that, in the next round of consultation, AEMO confirms the CIR webpage will include active links to all the documents listed in section 24 of the draft Guidelines.”	AEMO will add this as part of the second stage of the CIR consultation
Shell Energy	“It would be useful if the monthly and annual constraints report had more granular segregation of data with regard to the "TYPE" of constraint. In particular, where a constraint is associated with the provision of power system services (i.e. system strength) or a generator being constrained off due to a lack of power system services, it would be beneficial if the constraint was designated as such rather than the currently used "NIL"(which imply indicates no transmission elements are out of service), This would ensure a consistent, like-for-like comparison of the market impacts of the various types of constraints applied by AEMO. Shell Energy would be happy to discuss this suggestion in more detail with AEMO.”	Noted in S4.1.1 and addressed in S4.1.2.
Shell Energy	“CIR provides information in hindsight. i.e. it reports on what constraints have bound in the past, and how these constraints have impacted the broader network. This information is valuable and should be retained.”	Support for continued publication of information currently in the CIR noted.
Shell Energy	“It would be useful if the CIR also included a forecast of network congestion in the medium-term future. This would help to improve market participant decision making (e.g. in relation to potential future investments and operational and contracting strategies). This suggestion could be implemented by producing a quarterly report showing the constraints that are forecast to bind (and the frequency of them binding) as obtained from the MT projected assessment of system adequacy POE10 and POE50 demand forecast reliability assessments. The report could be <ul style="list-style-type: none"> aligned with the first MT PASA run in each quarter, and cover the MT PASA reliability assessment period. relatively high-level, and direction interested parties to the MTPASA data for more detail.” 	Noted in S4.1.1 and addressed in S4.1.2.

EnergyAustralia	“Clearer reporting on the specific constraint equations that are impacting on MT PASA results where the probability of interconnectors binding is greater than 80 per cent”	Noted in S4.1.1 and addressed in S4.1.2.
Shell Energy	<p>“We recommend that AEMO makes available to market participants a replica of the network mimic panel used in AEMO’s control room. The mimic could be hosted on the Electricity Market Management System (EMMS) or a secure AEMO website to mitigate security risks.</p> <p>Having readily available real-time information would prompt a more efficient response from market participants, which would ultimately flow through to lower prices paid by consumers. Examples include:</p> <ul style="list-style-type: none"> • Real-time outage information may prompt generators to source fuel and/or bring units online prior to being directed by AEMO. • Providers of time-limited services (e.g. short-duration storage or demand response) would be better placed to anticipate system requirements for the near future. Improving the information available to them could avoid a situation where they exhaust their ability to generate (or reduce demand) prior to when their output would be most beneficial to the system. This will become more important as synchronous generating units retire, and storage and demand response become more critical for power system operations.” 	Noted in S4.2.1 and addressed in S4.2.2.
Shell Energy	<p>“The Network Outage Schedule (NOS) is a useful tool for market participants. To further increase its utility, we suggest that the CIR should include a report (either annually or monthly) on:</p> <ul style="list-style-type: none"> • the time blocks between the lodgement of each outage request in the NOS and the outage commencement date • the number of times each network outage date was changed (including a histogram of the number of days each outage date was changed by). • the timeliness of outage commencements and completions. In particular, it would be useful for the report to include statistics on the number of times the outage return to service (RTS) is delayed, and the length of the delay.” 	Noted in S4.3.1 and addressed in S4.3.2.
Shell Energy	“Shell Energy recommends that AEMO continues to publish all the information it currently includes in the CIR. We consider that it remains relevant to stakeholders for making operational, planning and investment decisions.”	Support for continued publication of information currently in the CIR noted.
Shell Energy	“We support AEMO’s proposal to revise the Guidelines to include a clear requirement for NSPs to publish limit advice on their respective websites or on AEMO’s limits advice	Noted support for AEMO’s proposal to revise the Guidelines to include a clear requirement

	page. Where data is published on an individual NSP's website, we recommend an active link to this be established on the CIR website. Where dynamic limits are used, it would be useful for market participants to have access to this information in real time on the system mimic described above."	for NSPs to publish limit advice on their respective websites or on AEMO's limits advice page.
EnergyAustralia	<p>"we would encourage AEMO to engage more with TNSPs about limits advice and take a more proactive role in general:</p> <ul style="list-style-type: none"> Given its foresight of connecting generation and storage technologies in specific parts of the network, which may also include under its ISP scenario modelling, AEMO may be able to highlight arising issues in VRE integration and counter-price flows issues for policy discussion. This longer-term modelling of trends could be supplemented with leading indicators of network health (e.g. voltages, fault levels etc) and of the relevant thresholds or limits. Importantly this can be done well ahead of constraints being put in place (that have immediate, unavoidable market impacts) and so enable participants to modify their behaviour." 	Noted in S4.4.1 and addressed in S4.4.2.
EnergyAustralia	"the inclusion of high impact outages for forecast planned outages, except we note that these high impact outages remained undefined in the CIR."	Noted in S4.5.1 and addressed in S4.5.2.
EnergyAustralia	"AEMO publish a rolling 13-month forward work plan of know changes it intends to make to the constraint library, updated weekly – this is intended to assist participants regarding matters such as the short notice given for the X5 voltage limit"	Noted in S4.5.1 and addressed in S4.5.2.
EnergyAustralia	"At present, information contained in the CIR relates mainly to thermal ratings of network elements, whereas there is a significant and growing amount of congestion arising from voltage stability and system strength issues. Some information on these other sources of congestion can be gleaned from AEMO's limits advices however it is not easily digestible. There may also be further value in providing details of sub-regional or zonal limits, noting this level of granularity is also becoming more important for transmission planning and is expected to form part of the 2022 Integrated System Plan."	Noted in S4.4.1 and addressed in S4.4.2.
EnergyAustralia	"a transparent view of how constraints are translated into key planning documents such as the ISP and ESOO, and the need for any broad assumptions to reflect their use in such planning documents"	Noted in S4.4.1 and addressed in S4.4.2.
EnergyAustralia	"AEMO update its high voltage Network Main System Diagram, as referred to in the CIR whenever new equipment is commissioned – the current version is from April 2019"	Noted in S4.4.1 and addressed in S4.4.2.

<p>EnergyAustralia</p>	<p>“EnergyAustralia requests AEMO include in its statistical reporting:</p> <ul style="list-style-type: none"> • a summary of all equations that have bound that were associated with planned outages sets not included in the NOS • a summary of all equations that have bound that were due to ‘forced’ or unforeseen circumstances, not reasonably expected have been included in the NOS • discussion on the frequency, prevalence and basis of the use of ‘discretionary’ equations to inform how these are changing over time • a summary of DI’s where more than 4 energy constraint equations were found to be binding in any single region to inform how multiple equations may be impacting on market outcomes.” 	<p>Noted in S4.3.1 and addressed in S4.3.2.</p>
<p>EnergyAustralia</p>	<p>EnergyAustralia requests AEMO publish a report in the CIR within two weeks of a new or revised constraint equation binding for the first time covering the following matters:</p> <ul style="list-style-type: none"> • a plain English description of the protective nature of the limit and the drivers of the power system limitation • whether the equation was performing as expected • the likelihood of the equation becoming more prevalent over time, particularly if it is a system normal limit. ”” 	<p>Noted in S4.5.1 and addressed in S4.5.2.</p>



Attachment 1 – Meeting Minutes Shell Energy

MEETING MINUTES

MEETING: Congestion Information Resource Consultation 2021 - 1st Stage Submissions from Shell Energy
 DATE: Wednesday, 14 July 2021
 TIME: 11 am- 12pm
 LOCATION: Teams
 TELECONFERENCE DETAILS: Enter here

ATTENDEES:

NAME	COMPANY / DEPARTMENT
Bruce Miller	Shell Energy
Ron Logan	Shell Energy
Matthew Ladewig	Shell Energy
Ben Blake	AEMO
Diyoni Hoole	AEMO

APOLOGIES:

NAME	COMPANY / DEPARTMENT

Agenda

AEMO has received Shell Energy's submission for the 1st stage of the Congestion Information Resource Consultation 2021.

This is a meeting invite to discuss/clarify some of the items in your submission received 17 June 2021.

Item No.	Items for discussion
1	It would be useful if the monthly and annual constraints report had more granular segregation of data with regard to the "TYPE" of constraint. In particular, where a constraint is associated with the provision of power system services (i.e. system strength) or a generator being constrained off due to a lack of power system services, it would be beneficial if the constraint was designated as such rather than the currently used "NIL"(which imply indicates no transmission elements are out of service), This would ensure a consistent, like-for-like comparison of the market impacts of the various types of constraints applied by AEMO. Shell Energy would be happy to discuss this suggestion in more detail with AEMO.

Meeting Minutes

RL – Require the monthly and annual constraints report had more granular segregation of data:

- Being able to identify binding constraints in system normal and outage conditions. Good to have this level of granularity in both the monthly and annual constraint reports.
- Require more granularity in both the monthly and annual constraint reports on a summary of inter-regional verse intra-regional binding constraints.
- Forward looking binding constraints forecast
- Improved network outage information transparency, particularly during times of system stress



Attachment 2 – Meeting Minutes EnergyAustralia

Meeting Minutes

MEETING: Congestion Information Resource Consultation 2021 - 1st Stage Submissions from Shell Energy

DATE: Wednesday, 14 July 2021

TIME: 2pm-3pm

LOCATION: Teams

TELECONFERENCE DETAILS: [Enter here](#)

ATTENDEES:

NAME	COMPANY / DEPARTMENT
Victor Petrovski	Energy Australia
James Ley	Energy Australia
Ben Blake	AEMO
Diyoni Hoole	AEMO

APOLOGIES:

NAME	COMPANY / DEPARTMENT
Lawrence Irlam	Energy Australia

Agenda

AEMO has received Energy Australia’s submission for the 1st stage of the Congestion Information Resource Consultation 2021.

This is a meeting invite to discuss/clarify some of the items in your submission received 17 June 2021.

Item No.	Items for discussion
1	AEMO publish a rolling 13-month forward work plan of know changes it intends to make to the constraint library, updated weekly – this is intended to assist participants regarding matters such as the short notice given for the X5 voltage limit
2	Energy Australia requests AEMO include in its statistical reporting: <ul style="list-style-type: none"> o a summary of all equations that have bound that were associated with planned outages sets not included in the NOS o a summary of all equations that have bound that were due to ‘forced’ or unforeseen circumstances, not reasonably expected have been included in the NOS o discussion on the frequency, prevalence and basis of the use of ‘discretionary’ equations to inform how these are changing over time o a summary of DI’s where more than 4 energy constraint equations were found to be binding in any single region to inform how multiple equations may be impacting on market outcomes.



3	<p>Energy Australia requests AEMO publish a report in the CIR within two weeks of a new or revised constraint equation binding for the first time covering the following matters:</p> <ul style="list-style-type: none">o a plain English description of the protective nature of the limit and the drivers of the power system limitationo whether the equation was performing as expectedo the likelihood of the equation becoming more prevalent over time, particularly if it is a system normal limit.
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Meeting Minutes

LJ – Item 1: - Energy Australia would like a bit more forewarning on the changes to the grid, ideally going out 13 months. Would also like to see the associated outage constraint sets to be applied to outages going forward 13 months in NOS.

VP – Item 2 & 3: Energy Australia would like a quality/quantitative list of changes to constraints. When can information on limits for network changes be readily available to market participants? Forewarning of changes on upcoming network augmentations/imitations would be much appreciated.

VP: volume of discretionary and offsets constraints have increased. Are there any concerns?

BB: Generally, no concerns applying discretionary constraints. Only concern is if discretionary constraints are applied due to existing constraint limits not working as required.