

3 November 2022

Ms Anna Collyer  
Chair  
Australian Energy Market AEMC  
Sydney South NSW 1235

By online submission

Dear Ms. Collyer,

### **Transmission Planning and Investment Review (EPR0087)**

The Australian Energy Market Operator (AEMO) welcomes the opportunity to comment on the Australian Energy Market AEMC's (AEMC's) Stage 3 draft report on its Transmission Planning and Investment Review (TPIR).

The TPIR is broad in scope and has the potential to provide significant benefits to customers in the form of material improvements to the timely delivery of Integrated System Plan (ISP) projects, while ensuring an appropriate level of rigour in assessing the merits of these. Given the speed of change in the energy transformation, material improvements in timely delivery of ISP projects are of paramount importance.

AEMO believes that the recommendations summarised below, and expanded on in Attachment 1, provide the best approach to meeting the overall objective of the TPIR:

#### **Economic Assessment process**

AEMO believes that material reforms of the existing economic assessment process are required to ensure a more timely delivery of ISP projects, something which is crucial to helping to deliver a net-zero emissions economy.

Each of the strawpersons considered in the Draft Report have the potential to improve the timely delivery of ISP projects compared with the counterfactual and have merit in being taken forward for further assessment. This includes the concept of a hybrid of strawpersons 1 and 2 which is alluded to in the Draft Report. We provide an initial assessment of this combination in our answer to question 6, which complements the assessment undertaken by the AEMC for the strawpersons proposed.

#### **Value in transitioning to net zero emissions**

Given the agreement for an emissions objective to be incorporated into the national electricity objective (NEO) that was announced at the Energy Ministers' meeting on 12 August 2022, there is a need for a Value of Carbon Emissions (VCE), which should be an explicit benefit class included in the Australian Energy Regulator's (AER's) Cost Benefit Analysis Guidelines (CBA Guidelines). This will allow AEMO to derive any value in reducing carbon emissions beyond the scenario parameters within the ISP, something which is not possible currently.

### **The regulatory treatment of concessional finance**

Further guidance is needed to ensure customers realise the full benefit of concessional finance, given the significant contributions that will occur in the context of the Federal Government's Rewiring the Nation policy. When undertaking the economic assessment, the net impact of the concessional finance (and the reduced impact on consumers) should be taken into account (both in the ISP and Regulatory Investment Test for Transmission [RIT-T]).

Given the multiple ways in which the concessional financing could be applied, we would recommend flexibility be given in the CBA Guidelines as to how the value of concessional finance should be determined.

### **Timely delivery incentive (TDI)**

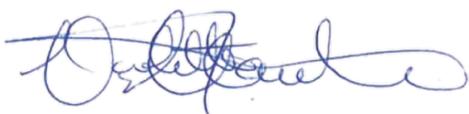
A TDI would be extremely challenging to implement due to changes in the optimal timing for projects, partly because optimal timing for the project may change between ISPs. If a TDI is to be implemented, it should be done to the commissioning date only to ensure flexibility, and aligned to the impact on consumer benefits and costs.

### **Managing cost uncertainty through risk allowances and staging**

Further staging of Contingent Project Approvals (CPAs) could help manage cost uncertainty, but consideration should also be given to the additional effort and time the additional steps will take.

Should you wish to discuss any of the matters raised in this submission, please contact Kevin Ly, AEMO Group Manager – Reform Development & Insights ([kevin.ly@aemo.com.au](mailto:kevin.ly@aemo.com.au)).

Yours sincerely,



Violette Mouchaileh

**Executive General Manager – Reform Delivery**

## **ATTACHMENT 1: AEMO'S VIEWS AND INSIGHTS ON THE STAGE 3 DRAFT REPORT**

This section discusses AEMO's views and insights related to specific questions posed or where views are sought throughout the Draft Report. It is structured in the same way as the Draft Report, and provides views for each topic sequentially.

### **CHAPTER #2: ENSURING THE ECONOMIC ASSESSMENT PROCESS FACILITATES THE TIMELY DELIVERY OF MAJOR TRANSMISSION PROJECTS TO SUPPORT THE ENERGY TRANSITION**

#### **QUESTION 1: THE NEED FOR TIMELY DELIVERY OF MAJOR TRANSMISSION PROJECTS TO FACILITATE THE TRANSITION TO NET ZERO**

- a. Do you agree with the AEMC's view that improvements to the economic assessment process should focus on facilitating the timely delivery of major transmission projects, given their role in providing benefits to consumers and facilitating the energy transition?

AEMO agrees with the objective of the economic assessment workstream – namely that a material reduction in time to complete ISP projects should be sought while maintaining an adequate level of rigour. As pointed out in the Draft Report, the 2022 ISP<sup>1</sup> discussed the asymmetric costs and benefits for consumers relating to whether a project is implemented earlier or later than what is in the Optimal Development Path (ODP), thus highlighting the importance of timely delivery of ISP projects.

- b. What do you think would be a material reduction in time for undertaking the economic assessment process?

AEMO is of the view that a material reduction in time should be at least 12 months.

#### **COMMENT: THE EXPERIENCE OF PAST ISP PROJECTS MAY NOT BE REPRESENTATIVE OF THE CURRENT ACTIONABLE ISP FRAMEWORK**

The AEMC invites stakeholder feedback on our analysis of these projects and how the current ISP framework may apply in future, and whether there are any additional lessons or insights that can be drawn on to inform this Review

AEMO agrees with the assertion made in the Draft Report that the time required to complete the economic assessment process (EAP) might be shorter as the actionable ISP framework matures, due to the points raised (such as fewer options considered in the RIT-T, given proponents are not required to consider options already considered and rejected in the ISP, the feedback loop replacing the AER's preferred options assessment, the potential for RIT-Ts to draw on the ISP, and stronger cost and benefit estimation through the AER's CBA Guidelines).

However, AEMO would also like to make the following points:

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<sup>1</sup> 2022 ISP A6 Cost Benefit Analysis, page 84.

- While feedback loop<sup>2</sup> assessments to date have been completed in a much shorter timeframe than 120 days<sup>3</sup>, this is not guaranteed to be the case in the future. For the VNI Minor and HumeLink assessments, the options that were assessed were consistent with those assessed in the most recent ISP, which meant no re-modelling was required. If there is a material change to the scope, cost, or timing for delivery, significant remodelling would be required by AEMO to determine whether the project meets the requirements in the National Electricity Rules (Rules) for a feedback loop assessment. In this instance, there would likely be little to no time savings compared with the AER's preferred options assessment.
- RIT-T options considered – although it is a fair assertion that future RIT-Ts are likely to have fewer options that are materially different, due to the ISP Rules stating transmission network service providers (TNSPs) do not need to re-evaluate options considered and rejected in the ISP, it is possible that additional variants might be derived as a result of stakeholder engagement during the RIT-T which are driven by social licence issues. These variants would be closely linked to each other, however, and thus are unlikely to lead to a significant increase in the time taken to complete the RIT-T.

### **QUESTION 2: COUNTERFACTUAL ECONOMIC ASSESSMENT PROCESS**

*Do you agree that this is an accurate characterisation of how the counterfactual economic assessment process can be expected to operate in future? If not, what changes would make the counterfactual more accurate?*

AEMO broadly agrees with the characterisation of how the EAP should operate in the future. As shown by the range of time taken for recent ISP projects to progress through the EAP, it is incredibly difficult (and arguably futile) to approximate the time taken for an average project to progress through the EAP, given the significant differences between large transmission projects. The most important consideration is the time savings that can be achieved for each bespoke project (i.e. a % change to the counterfactual).

### **QUESTION 3: STRAWPERSON 1**

- a. *Do you agree with our assessment of the time savings of this strawperson option 1 regarding the delivery of ISP projects, relative to the counterfactual?*

The AEMC noted a saving of 12 months (+/-50%) for this strawperson compared with the counterfactual, primarily based on removing the need for a RIT-T for early works, and the reduction in the risk of a lack of information and disputes occurring due to 'front loading' early works.

AEMO is of the view that the AEMC's assumption of a six month saving for this seems reasonable, and in fact could be a conservative estimate.

Having to undertake a RIT-T for early works is an additional regulatory burden on the TNSP (and AEMO when undertaking the feedback loop assessment), which will take time. A RIT-T for early works would involve additional stakeholder engagement with local communities, landowners and

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<sup>2</sup> The requirements of the 'feedback loop' are captured in NER clause 5.16A.5(b).

<sup>3</sup> Two feedback loop assessment have been conducted to date, for VNI West and HumeLink.

other stakeholders prior to the final route/corridor being decided upon. This could actually make the challenge of obtaining and maintaining social licence harder to achieve, given the comments made by the Australian Energy Infrastructure Commissioner (AEIC) that “*There may be unintended consequences, resulting in widespread project opposition from numerous landholders and communities, due to the public ‘multi-corridor approach’ being used to select a final proposed transmission line route*”<sup>4</sup>.

AEMO agrees with the hypothesis that ‘front loading’ early works will deliver time savings. Currently some TNSPs may have been hesitant to invest in some early works activities until they receive confirmation through the Contingent Project Approval (CPA) process that they can recover these costs. As stated in the Draft Report, this particularly relates to engagement with affected communities and investigation of environmental and other approvals requirements before the preferred option selection. As a result, the risk of later than optimal investment timing is far greater in the counterfactual compared with strawperson 1. The AEMC’s assumption of time savings of six months compared with the counterfactual seems reasonable.

b. *Do you have any suggestions on how this option 1 could be specified differently, to facilitate the timely delivery of major transmission projects while maintaining an appropriate level of rigour?*

AEMO is of the view that Option 1 has the potential to deliver material improvements in the timely delivery of ISP projects compared with the counterfactual. For an actionable ISP project (with or without staging), a CPA for early works can be lodged as soon as the project is identified as “actionable” in the ISP and before the RIT-T for the full project is completed. A separate RIT-T if a project is staged in the ISP would not be required.

We would urge the AEMC to engage further with TNSPs covered by the National Electricity Market (NEM) regulatory framework to investigate whether the ability to submit a CPA based on being ‘actionable’ would assist in timely delivery of the projects.

c. *Do you think that this option 1 should be taken forward?*

AEMO is of the view that there is merit in taking Option 1 forward for further consideration.

AEMO has consistently advocated for the removal of the RIT-T for early works, and we are pleased that this is now being considered as part of the Review. This increases the time taken to deliver an ISP project for the reasons noted in the Draft Report.

For actionable ISP projects that occur in the future, allowing an early works CPA to be submitted as soon as the project is deemed actionable would mean that:

- More certainty is achieved as to whether TNSPs can recover costs at all – if a project does not proceed because the RIT-T does not deem the solution to be preferred, currently there is no cost recovery mechanism for early works. This means there is a risk of delay and the delivery of benefits to consumers from TNSPs being less willing to invest.
- Early works are brought forward, including earlier and more extensive engagement with affected communities and investigation of environmental and other approvals requirements.

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<sup>4</sup> See <https://www.aemc.gov.au/sites/default/files/documents/aeic.pdf>.

- Later stages of development for the preferred option that is eventually selected are de-risked.
- The project would proceed more rapidly through the project assessment conclusions reports (PACR) and final CPA decision points.
- There is increased rigour by improving visibility for stakeholders around the impact of jurisdictional planning and approval requirements on the design, costs and benefits of the project.
- PACR and feedback loop analysis would be made on the basis of improved information on project delivery timelines.

#### **QUESTION 4: STRAWPERSON 2**

- a. *Do you agree with our assessment of the time savings of this strawperson option 2 regarding the delivery of ISP projects, relative to the counterfactual?*

The AEMC noted a saving of 12 months (+/-50%) for this strawperson compared with the counterfactual, based on removing the need to assess benefits in the RIT-T, which might free up time for TNSPs to undertake activities such as route selection and measures to obtain social licence, as well as assessing the cost of those options, which would otherwise be done later.

AEMO believes this assessment of potential time savings is reasonable. TNSPs spend significant time and resources quantifying the benefits associated with an ISP project. The removal of the need to assess benefits as part of the options assessment process will inevitably free resources to speed up delivery of the remaining deliverables required.

The AEMC also highlights the potential for a hybrid of strawpersons 1 and 2, which it estimates will lead to cumulative time savings of 18 months (+/-50%). We also think this assessment of time saving is reasonable, given we see potential for incremental time savings over and above that from strawperson 1, when adding in strawperson 2. Given there could be some overlap when early works would be undertaken in strawperson 1 and when the RIT-T would be undertaken, a saving of 18 months strikes an appropriate balance.

- b. *Do you have any suggestions on how this option 2 could be specified differently, to facilitate the timely delivery of major transmission projects while maintaining an appropriate level of rigour?*

AEMO is of the view that the removal of the benefits assessment as outlined in the strawperson is likely to deliver material improvements in the timely delivery of ISP projects compared with the counterfactual. This is because the resources dedicated to this exercise can be utilised in other activities and deliver these faster.

The Draft Report noted that a concern that “ISP does not routinely consider competition benefits”. While this might be true, we note that this is also true for RIT-Ts. Given the difficulty in assessing competition benefits due to having to rely on forecasting precision that is inherently unreliable, AEMO is of the view that quantifying competition benefits may not be the appropriate method of informing the decision on the preferred solution. Specifically, when valuing competition benefits, significantly greater assumptions regarding market behaviours, generator ownership and operational decisions are required, and long-term market structure and design are increasingly influential when quantifying these market benefits. While in previous years these assumptions may have been relatively easier to calculate (due to portfolios and bidding behaviour becoming

established), given the rapid transformation now occurring it is becoming increasingly difficult due to the large numbers of new participants whose short run marginal costs are very low, and whose bidding behaviours are linked to power purchase agreements (PPAs) which lack transparency. Therefore, while these insights might be useful in informing an assessment, it may not be appropriate to include them into the quantitative net market benefits assessment.

This option could be specified differently to facilitate the timely delivery of major transmission projects required to meet the demands of the energy transformation in the following ways:

- **Method of options assessment:** Rather than simply having a least cost prioritisation of options within the RIT-T to identify the preferred option, AEMO is of the view that there could be an option for an incremental assessment of benefits for any options identified during the RIT-T that were not considered in the ISP, particularly for options identified that have the potential to deliver greater benefits across the network as a whole than other options considered.
  - AEMO is of the view that an incremental benefits assessment could also be required for any non-network solutions that were not modelled in the ISP. Currently the ISP consults throughout the development of the Inputs, Assumptions and Scenarios Report (IASR) on the potential for non-network solutions to meet each identified need, and also undertakes an initial assessment after an expressions of interest (EOI) process to determine whether non-network solutions meet the identified need. If a solution is identified in the IASR consultation, it is modelled in the same way a network solution is modelled. If it is identified after this point through the EOI process, then the RIT-T then undertakes a more detailed assessment of any non-network options. Under the latter of these two scenarios, these would also fall in the bucket of needing incremental benefits to be assessed in the RIT-T. Given recent examples of non-network solutions being part of a hybrid option (e.g. an extension to a network solution), it would be likely that the network element of the hybrid would have already been identified and assessed in the ISP, so the incremental benefits assessment would focus solely on the non-network element of the hybrid.
  - We envisage the incremental benefits assessment would take a relatively short time to complete, given most of the time and effort to conduct the benefits assessment undertaken by TNSPs as part of RIT-Ts involves ensuring alignment with the ISP.
  - In the absence of this amendment, it is possible that:
    - Options that are not considered in the ISP which are subsequently identified by the TNSP which have the potential for larger benefits relative to their costs (but is not the lowest cost solution) will not be preferred under strawperson 2.
    - Generation that would otherwise connect to these upgraded sections of the network will locate elsewhere, potentially resulting in less efficient market outcomes.
  - In addition, we believe that, by adding this amendment, the concern noted in the Draft Report that “*Variations in benefits would not be quantified – or potentially even identified – if the RIT-T is focused on exploring least-cost solutions*” would be substantially reduced. Without needing to conduct modelling and quantify benefits, TNSPs will be able to focus on option variations, and an incremental benefit assessment may help to quantify benefits for variations that may be preferred if need be. The AEMC’s potential solution of

requiring AEMO to consider varying benefits of RIT-T options in the feedback loop is not desirable, because the time needed to undertake this would be disproportionate to the additional benefits from increased rigour. If TNSPs identify a new solution, or a non-network solution is identified through the EOI process in the ISP, then the TNSP could assess incremental benefits associated with these solutions. If they are deemed to be the preferred solution, this will be assessed through the feedback loop assessment.

- **Expanded TOOT (take-one-out-at-a-time) analysis in the ISP:** Removing the assessment of benefits in the RIT-T would still leave gaps to be filled elsewhere within the economic assessment process.
  - Currently the RIT-T tests the net benefits of individual projects within the ODP across all relevant scenarios, which are assigned in the ISP according to the CBA Guidelines. Without this, the ISP could simply expand the existing TOOT analysis, which focusses on determining a project's incremental market benefit, to include scenarios beyond the most likely scenario to provide confidence that individual projects provide net market benefits.

c. Do you think that this option 2 should be taken forward?

AEMO is of the view that there is merit in taking Option 2 forward for further consideration, with the following amendments:

- An incremental benefits assessment for network and non-network solutions not assessed in the ISP.
- Potential for expanded TOOT analysis within the ISP to consider the net market benefits assessment within all applicable scenarios within the ISP (if this is deemed appropriate).

**QUESTION 5: STRAWPERSON 3**

a. Do you agree with our assessment of the time savings of this strawperson option 3 regarding the delivery of ISP projects, relative to the counterfactual?

The AEMC noted a saving of two years (+/-50%) for this strawperson compared with the counterfactual, based on removing the RIT-T.

AEMO is of the opinion that any time savings achieved through this strawperson are more uncertain compared with the other strawpersons, for the following reasons:

- **Lower cost estimation and less consultation opportunities in the RIT-T:** It is unclear what the net impact will be of the removal of the RIT-T process and requiring conditions to be met before the CPA is lodged (such as requiring certain preparatory or early works activities to be complete, or a specific level of cost estimate accuracy is achieved, before the CPA can be lodged).
- **Frequency of the ISP:** A key part of this strawperson involves increasing the frequency of the ISP from every two years (for example, to every year). While this should lead to a more timely end to end process within the ISP, further consideration is required as to the impact of this in key elements such as obtaining social licence and cost estimation accuracy, both of which have the potential to lead to delays later on in the regulatory process. In addition, the current consultation requirements in the Rules would prohibit a move to a more frequent ISP.

The Draft Report notes that there is an assumption of time savings because of a lower level of granularity of cost estimates compared with the counterfactual. However, given that the removal of the RIT-T means more time and resources are freed up, it is not obvious why the cost estimation would be at a lower level of granularity given the resources saved from the removal of the RIT-T could be reallocated to refining cost estimates through greater scope development, which would then flow through to the ISP.

b. *Do you have any suggestions on how this option 3 could be specified differently, to facilitate the timely delivery of major transmission projects while maintaining an appropriate level of rigour?*

AEMO is of the view that strawperson 3 is defined at a higher level compared with the other strawpersons. Further development is needed to remove the significant uncertainty associated with the impact of timeliness and rigour.

c. *Do you think that this option 3 should be taken forward?*

AEMO is of the view that there is merit in taking Option 3 forward for further consideration. Some of the key elements that would need to be considered further in order to reduce uncertainty associated with this option are described below:

- **Clarity on what is meant by ‘enhanced joint planning’:** With the removal of the RIT-T entirely, the ISP would need to articulate the outputs of enhanced joint planning that relate to cost estimation, consideration of option variants and stakeholder engagement. It is crucial that an appropriate balance is defined and agreed here which ensures that TNSPs still undertake this work in practice, given TNSPs and jurisdictional planning bodies (if these are separate) are best placed to undertake these activities.
  - Clarity would need to be sought on:
    - The delineation of roles and responsibilities through the enhanced joint planning process in this regard.
    - The granularity of the assessment undertaken through the enhanced joint planning process, to ensure the benefits of the impact on timeliness is maintained.
  - Given the RIT-T was originally designed for incremental transmission build and is now being used in a system where multiple inter-related projects are being built concurrently, it is often challenging to identify the option that delivers the high net market benefits on an incremental basis. The removal of the RIT-T would mean key decisions on route selection for projects can be considered in a holistic sense through the ISP, factoring in the multiple inter-related projects that are being progressed through the regulatory framework.
- **Further assessment of increasing the frequency of the ISP:** AEMO believes there is merit in further consideration of whether a more frequent ISP process is needed (through strawperson 3) to balance rigour, engagement, and accuracy. As part of this assessment, consideration should be given to the current obligations in the Rules that relate to consultation, noting this prohibits increasing the frequency of the ISP.

**QUESTION 6: ASSESSMENT OF STRAWPERSON MODELS**

a. *Do you agree with our initial assessment of the options based on the assessment criteria?*

AEMO agrees with the initial assessment of strawperson 1. Allowing an early works CPA once a project is deemed actionable will provide incentives for early works activities to be completed earlier on in the process, de-risking future project delivery as these early works activities will inform the RIT-T for the full project. Because it is likely that early works activities will be undertaken at the optimal time, this will involve earlier and more meaningful engagement with local communities (given identification of route selection can be undertaken earlier), councils, and other key stakeholders, improving the transparency of this process and reducing the risk for delays further along the ISP project timeline.

AEMO agrees with the initial assessment of strawperson 2 that relates to the impact on timeliness. The removal of the need to assess benefits in the RIT-T means the process will be completed faster. Although additional work may be required in the ISP to ensure that the elements of the RIT-T which need to be maintained (such as expanded TOOT analysis) are maintained, this will be done more efficiently within the ISP given the synergies with other elements of the current ISP scope.

With regards to the assessment of the impact on rigour for strawperson 2, while it would be accurate to say that there wouldn't be an assessment of benefits (and thus drawing out the differences) between the variations assessed within the RIT-T, we believe that if the proposed amendment suggested by AEMO, whereby any option not identified in the ISP undertakes an incremental assessment of the benefits compared with the option identified in the ISP, this might strike a more appropriate balance between timeliness and rigour. All other solutions must meet the identified need in the ISP, and will go through a feedback loop assessment to ensure alignment with the ODP.

The Draft Report also notes, under rigour, "*ISP may not be able to consider all benefits relevant to preferred option selection*". The Draft Report focuses on competition benefits and local constraint analysis in particular. Regarding these two specifically:

- The assumptions required in quantifying competition benefits are inherently unreliable, and quantifying competition benefits may not be the appropriate method of informing the decision on the preferred solution (increasingly so given the rapid transformation, as mentioned earlier).
- Local constraint modelling could still be undertaken by TNSPs and fed into future ISPs.

Relating to the concerns about stakeholder visibility and the reporting of information valuable to stakeholders, this is something that can be managed within the ISP process.

Finally, we agree that the centralisation of the benefits assessment will provide consistency and simplify stakeholder engagement. It means that stakeholders know to engage with AEMO on anything relating to the assessment of benefits, while continuing to engage with the TNSP for issues relating to the remainder of the current scope of the RIT-T. Arguably AEMO's proposed amendments would weaken this argument, but we would still maintain that there would be significant centralisation of the benefits assessment compared with the counterfactual through the removal of the vast majority of the benefits assessment undertaken in the RIT-T, and the potential for expansion of TOOT analysis if deemed necessary.

With regards to the initial assessment for strawperson 3, it is difficult to comment on the conclusions reached given they are very high level (which reflects the necessary lack of clarity given the potential variations that could occur within this strawperson). Nevertheless, we would

agree with the assertion that substantial process changes would be needed. This strawperson means TNSPs would no longer articulate the outcomes of assessing network variations and non-network solutions, firming cost estimates and consulting with stakeholders (including on social licence issues). It is envisaged this would be articulated through the ISP partly through enhanced joint planning. This means the TNSP’s assessment will no longer be consulted on outside of the ISP.

b. Do you think there are alternative strawperson options that should be considered in this Review? This may include alternative specifications and/or combinations of the options presented in this report. If so, how would your proposed alternative better contribute to timeliness and rigour in the delivery of major transmission projects?

AEMO is of the view that there is merit in further assessing a hybrid of strawpersons 1 and 2 together, as this might provide the best balance between improving timeliness while maintaining rigour. Our initial assessment of the proposed hybrid of strawpersons 1 and 2 is below.

Strawperson	Impact on timeliness	Impact on rigour
<p>Hybrid of strawpersons 1 &amp; 2 with the following amendments:</p> <ul style="list-style-type: none"> <li>• Incremental assessment of benefits in the RIT-T for new options identified</li> <li>• Potential for expanded TOOT analysis in the ISP (if this is deemed required)</li> </ul>	<ul style="list-style-type: none"> <li>• Early funding to undertake early works concurrently with RIT-T will mean earlier engagement with stakeholders and earlier investigation of costs associated with the project, reducing the likelihood of issues relating to social licence and cost increases later on in the ISP project timeline.</li> <li>• Early works inform RIT-T preferred option selection, de-risking future project delivery</li> <li>• Reduces time for TNSPs to complete RIT-T, as they would not be required to undertake complex benefits modelling</li> <li>• May increase TNSPs’ capacity to consider more detailed design and social licence issues during the RIT-T process</li> </ul>	<ul style="list-style-type: none"> <li>• Improves transparency of how jurisdictional planning and approval requirements impact design, costs and benefits</li> <li>• Improves transparency of preferred option selection process for local communities, councils, landowners, etc.</li> <li>• Any options not identified in the ISP could undertake an incremental benefits assessment</li> <li>• Potential for expanded TOOT analysis to ensure all applicable scenarios are considered currently undertaken in the RIT-T may help to maintain rigour</li> <li>• Further centralising of the benefits assessment should provide consistency and simplify stakeholder engagement on this issue</li> </ul>

- c. Do you think there is potential for staging of the strawperson options, e.g. implement one option in the short term and another option in the long term?

AEMO believes the option of staging strawpersons should be considered as part of a further assessment. Whilst this would be unlikely for strawperson 1, there might be a need for this with other strawpersons discussed.

- d. Do you think the counterfactual is the option that best achieves an appropriate balance between timeliness and rigour? If so, why?

AEMO is of the view that the counterfactual does not provide an appropriate balance between timeliness and rigour. As a result, we think there is merit in considering each of the strawpersons discussed for further assessment, as well as the combined impact of the strawpersons 1 and 2 with the amendments discussed above (as a hybrid), as there is a strong possibility that each of these will better achieve an appropriate balance.

## CHAPTER #3: TRANSMISSION PLANNING AND THE TRANSITION TO NET ZERO EMISSIONS

### COMMENT: DRAFT POSITION

The Draft Report notes the proposed amendments being made to the NEO to help to ensure that commitments by governments are met. Given this, we believe the appropriate question to be asking at this time is “how do we create an electricity system to underpin Australia’s transition to a net zero economy by 2050?”.

In asking this question, it is important to consider:

- Whether we have the right regulatory architecture within the energy sector given that the electricity system will underpin this transformation, and
- Given that low carbon electricity will underpin the decarbonisation of other sectors, what the appropriate method of cost recovery should be.

Given the agreement for an emissions objective to be incorporated into the NEO that was announced at the Energy Ministers’ meeting on 12 August 2022, AEMO is of the view that there is now a need for a Value of Carbon Emissions (VCE) which should be a benefit class included in the Rules.

Currently, the NER require the ISP and RIT-T to consider specific classes of market benefit which do not currently include emissions reduction without further legislative change to introduce a compliance cost associated with emissions reduction. Without this additional class of benefit, any emissions reduction benefits over and above those required within an ISP scenario cannot be valued.

For example, where there are two development paths that are identical except that one delivers lower emissions, there should be a mechanism for evaluating that difference. This works hand-in-hand with emissions policy in the same way that Value of Customer Reliability (VCR) works with a reliability standard. For example, our development paths must meet the reliability standard, but we can still add VCR costs for reliability benefits that go beyond that standard (in practice this is calculated as reductions in involuntary load shedding relative to the base case, which are valued at the AER’s VCR). An equivalent for the treatment of carbon is a VCE that would enable investments to demonstrate their value in reducing carbon emissions beyond the scenario parameters.

With the addition of a new market benefits class, any value in reducing carbon emissions beyond the scenario parameters could be ascertained.

## **CHAPTER #4: APPROACH TO THE REGULATORY TREATMENT OF CONCESSIONAL FINANCE IN THE NER**

**COMMENT:** *The AEMC welcomes stakeholder views on these issues and on other matters which should be considered to facilitate the appropriate regulatory treatment of benefits from concessional finance.*

AEMO acknowledges the potential for concessional finance arrangements to be adopted. Concessional finance could be provided for a variety of reasons, such as:

- To support financeability and cash flow.
- To support early works or acceleration.
- Where a financier has a particular mandate (such as the Clean Energy Finance Corporation [CEFC]).

**COMMENT:** *The AEMC welcomes stakeholder views on the additional guidance that may be required to clarify the appropriate treatment of benefits when concessional financing is applied to a project.*

Please see our answer to question 10 below.

### **QUESTION 7: NOTIFYING THE AER**

**Who should notify the AER about the existence of a concessional finance arrangement?**

AEMO is of the view that all parties who are involved in the application of concessional financing should have an obligation to ensure the AER is aware of any concessional financing applied to the project (this would include AEMO when applying to the ISP, the TNSP in the RIT-T, as well as financiers and any other parties involved).

### **QUESTION 8: INFORMATION REQUIREMENTS**

**What types of information about the concessional finance arrangement should be provided to the AER and by whom?**

AEMO agrees with the suggested information to be provided to the AER regarding the concessional finance arrangement in the Draft Report. We also agree that the TNSP would likely be best placed to provide the required information, unless the arrangement was applied prior to the project being deemed 'actionable' in the ISP, in which case AEMO may be better placed to provide this information.

### **QUESTION 9: FINANCIER'S INTENT**

**How should the AER determine the financier's intent?**

With respect to the treatment of the benefits from concessional finance, the regulatory framework should enable the AER to consult with the government funding body to determine:

- Whether the intention was for consumers and/or the TNSP to benefit from the concessional finance, and
- If so, the proportion of the concessional finance intended to benefit each party.

**QUESTION 10: REGULATORY TREATMENT OF CONCESSIONAL FINANCE**

*How should the AER determine the amount of the concessional finance to be treated as a benefit to consumers and/or TNSPs? How should this amount be treated in the revenue determination process? Should this mechanism be specified in the NER, or implemented through the AER?*

When undertaking the economic assessment, the net impact of the concessional finance (and the reduced impact on consumers) should be taken into account (both in the ISP and RIT-T). This could be in the form of a reduction in the capital amount, reduced weighted average cost of capital (WACC) in the economic analysis of different solutions, or another way (which would need to be clarified in the AER's CBA Guidelines). Given the multiple ways in which the concessional financing could be applied, we would recommend flexibility be given in the CBA Guidelines as to how the value of concessional finance should be determined.

Further consideration is needed in Victoria given the different arrangements that exist there. Once the position in other NEM regions has been clarified, it would then be prudent to consider what amendments would be needed in this case.

Given that there may be instances where the availability of concessional finance for conceptual projects is uncertain, there should be flexibility in the ISP to assess the impact of concessional finance before it is committed – perhaps as part of the ISP Methodology or IASR.

## CHAPTER #5: INTRODUCING A TIMELY DELIVERY INCENTIVE IS AN EFFECTIVE WAY TO ENCOURAGE TNSPs TO MAKE TIMELY INVESTMENT DECISIONS

**COMMENT:** *We welcome stakeholder views on whether a new incentive mechanism is considered a proportionate and effective response to manage delays in the decision to invest and in the delivery of a project.*

AEMO is of the view that an incentive mechanism like the one proposed in the Draft Report will be challenging to design and enact in practice. The reasons for this are expanded on in the answers to comments below.

**COMMENT:** *We welcome stakeholder views on whether a TDI should exclusively apply to large projects based on a threshold, on whether a TDI should exclusively apply to actionable ISP projects, or if there is an alternative threshold that should be considered?*

AEMO is of the view that a TDI is not necessary and would be difficult to design in practice. However, if the AEMC determines that a TDI should be developed, the simplest approach would be to exclusively apply the TDI to actionable ISP projects. This is because it would provide greater clarity on which projects it would apply to compared with the threshold concept, given the potential for changes in cost estimates during the process which might mean projects might fall in and out of this definition. There is also the risk that TNSPs may inflate costs to ensure they are eligible for TDIs if they are deemed to be financially favourable, or conversely, it might provide TNSPs with an incentive to do the minimum required to ensure costs are kept below the threshold if the incentive framework is deemed to be high risk.

**COMMENT:** *We welcome stakeholder views on how benchmark dates should be set – whether benchmark dates should be based on the latest ISP and whether the AER could be given a role or discretion in shifting milestone delivery dates where a delay occurs due to reasons outside of a TNSPs control?*

AEMO agrees with the concerns expressed in the Draft Report that relate to the ISP being used to benchmark delivery dates, namely that the optimal timing for the project may change between ISPs. The method by which AEMO determines the optimal timing for actionable ISP projects is also an important consideration here. While the modelling undertaken helps inform AEMO as to when the optimal timing should be, we also take into account information received through joint planning arrangements with the TNSP to understand when the project can actually be delivered. If the modelling indicates that the optimal timing is sooner than when the TNSP is able to deliver it, the optimal timing in the ISP would be later than the modelling would suggest, to accommodate this. Given the consequences of this for whether rewards or penalties would be applicable (as discussed in Section 5.4.4), this looks to be very challenging to do in practice.

A further complication would be when actionable ISP projects transition from the NEM regulatory framework to a jurisdictional one. If the date for delivery was amended when this occurred, this would create further complication in setting an appropriate date, or indeed whether the TDI would apply at all.

**COMMENT:** *We welcome stakeholder views on whether the cumulative amount of TDI should be capped and whether the same cap should apply for all projects or should vary on a project by project basis?*

Noting our statement above that we do not believe a TDI is necessary and would be difficult to deliver, if the AEMC deems a TDI to be desirable, AEMO agrees that the consumer benefit or cost should inform the magnitude of the incentive. A cap would therefore mean that the relationship would break at a certain point. Where a project encounters significant delays, there could be clauses in the TDI agreement which allow exemptions on the part of the TNSP from penalties if the reason for the delays are deemed to be beyond their control, which would help to reduce the risks faced by TNSPs of implementing the TDI.

**COMMENT:** *We welcome stakeholder views on whether the application of the TDI should be symmetrical or asymmetrical and/or whether the value of an incentive should vary over time based on expected benefits and disbenefits to consumers?*

Given the incentive should be aligned with the consumer benefit or cost, theoretically the nature of the design could be:

- Asymmetric (penalty only) in the case where the optimal timing for delivery is not as early as possible (as discussed above).
- Symmetric (reward and penalty) in the case where the optimal timing for delivery is earlier than when TNSPs say they can deliver the project (as discussed above).

The second bullet would provide a financial incentive for TNSPs to speed up delivery, which would move the delivery date closer to the optimal timing.

In practice however, the fundamental flaw with this approach is that we rely on information through joint planning from TNSPs to inform us as to the earliest time in which a project can be delivered. The information asymmetry between AEMO and the TNSP means implementing a TDI using the ISP optimal timing, whether this be symmetrical or asymmetrical, would be immensely challenging to design appropriately.

**COMMENT:** *We welcome stakeholder views on whether applying the TDI to investment decisions is proportionate, and/or whether there are circumstances where a TNSP should not be subject to the TDI if a TNSP fails to make a decision to invest.*

AEMO believes that applying the TDI to the commissioning date only would provide the appropriate flexibility for TNSPs to recover from a later than optimal final investment decision without being penalised during the process. If the TNSP is able to meet the commissioning date, there is no need for a penalty to be applied prior to this.

**COMMENT:** *We welcome stakeholder views on the role of risk pass through in contracts and whether existing arrangements can mitigate potential high project cost outcomes.*

AEMO agrees that the materiality of higher contract costs associated with the TNSP being able to pass through the risk of incurring a penalty if a project is delivered late is likely to be small, and TNSPs should be able to mitigate risk where possible.

**COMMENT:** *We welcome stakeholder views on the identified design considerations and any other design considerations that have not been included but stakeholders deem worthy of consideration.*

AEMO does not have any further identified design considerations.

**COMMENT:** *We welcome stakeholders view on whether the principles-based approach used in the NER for other incentives would be appropriate for the TDI.*

A principles-based approach would seem appropriate in this instance.

## CHAPTER #6: MANAGING INCREASED COST RISK AND/OR UNCERTAINTY ASSOCIATED WITH MAJOR PROJECTS THROUGH RISK ALLOWANCES AND STAGING

***COMMENT:** We welcome stakeholder views on the draft recommendation that the overarching regulatory framework is appropriate in the context of major projects and that the recently adopted approaches of providing risk allowances and staging CPAs should be given the opportunity to mature.*

AEMO agrees that the AER's Guidance Note on the regulation of actionable ISP projects has reduced uncertainty and improved the predictability and transparency of the regulatory process for large transmission projects, as well as promoting prudent and efficient expenditure forecasts for actionable ISP projects. Specifically, the approach to staging CPAs helps to manage cost risk and uncertainty by TNSPs.

However, there remain several elements within pre-CPA regulatory processes in the ISP framework that add uncertainty and delay, despite best endeavours to address uncertainty and streamline regulatory approval processes:

- **The need to update inputs and assumptions used in cost benefit analyses** for ISP and RIT-T processes, as well as feedback loops, ISP updates and assessing material changes in circumstances (note that our proposed strawperson discussed in the economic assessment process section will help to reduce uncertainty and delay associated with this issue, as the benefits assessment of the RIT-T will be removed).
- **Transmission cost estimation consistency and accuracy:** in our response to the Material Change in Network Infrastructure Project Costs Draft Determination, we made five recommendations for improving transmission cost estimate consistency and accuracy:
  1. The Association for the Advancement of Cost Engineering (AACE) international cost estimate classification system should be used as a standard.
  2. The application of AACE cost estimates should be standardised given AACE does not provide guidance on how to apply cost estimates within a cost-benefit analysis<sup>5</sup>. For example, sensitivity testing on the upper end of a cost estimate within a given class could be a standard. A checklist or guidance should be developed to promote consistent application of AACE cost estimates<sup>6</sup>.
  3. Cost estimates should include reasonable approximations for any cost that ultimately impacts on consumer bills, including highly uncertain costs such as contingency allowances and environmental offsets.
  4. AEMO or TNSPs (as relevant) should publish:
    - Breakdowns for all transmission cost estimates used in the ISP (including preparatory activities), RIT-T and CPA, and

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<sup>5</sup> AACE currently provides guidance on estimating a cost and uncertainty range but not on how to apply that distribution of potential costs to an economic assessment.

<sup>6</sup> Similar to the checklist shown in Appendix A1 to AEMO's 2021 Transmission Cost Report, available at <https://aemo.com.au/en/consultations/current-and-closed-consultations/transmission-costs-for-the-2022-integrated-system-plan>.

- Project estimates for RIT-Ts and CPAs using AEMO's Transmission Cost Database to enable stakeholders to understand differences between TNSP estimates and NEM-wide average values.

If this cannot be provided, TNSPs should provide this information to AEMO to enable a public transmission cost database to be developed, published and maintained. Project data for individual projects would be averaged and anonymised for each ISP cycle.

5. Preparatory activities and renewable energy zone (REZ) design reports should be published by AEMO on behalf of TNSPs, including information regarding scope, all component costs, uncertainty ranges and classifications. Costs and scope should not be made confidential.

AEMO believes that these five recommendations will lead to improved cost estimate accuracy and consistency, which in turn will help address issues associated with changes in cost estimates at various regulatory stages by increasing certainty as to how estimates are calculated and the treatment of risk, which can lead to significant delays in project delivery.

**QUESTION 11: Would stakeholders support exploration of a separate, targeted ex-post review process that examines the expenditure associated with specific ISP projects, where the capex allowance for those projects is exceeded?**

AEMO notes that currently an ex-post review can currently only be triggered based on a comparison of total capex spend and total forecast capex and has never been triggered to date. If the proposed approach is implemented, there is a risk that TNSPs will increase their project risk estimates to indirectly mitigate the increased risks associated with these ex-post reviews and the reduction of their Regulatory Asset Base.

**QUESTION 12: The AEMC is interested in stakeholder views on whether additional staging of CPAs to promote flexibility in project delivery could be appropriate. Are there project-specific circumstances that may warrant additional staging, noting the associated risks?**

AEMO is of the view that additional there may be merit in additional staging of CPAs for specific projects, and the framework could provide that flexibility if the TNSP wanted to make use of it. Any consideration of further staging to address cost uncertainty should consider the additional effort and time the additional steps will take.