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1 November 2022

Ms Anna Collyer
Chair
Australian Energy Market Commission
GPO Box 2603
SYDNEY, NSW, 2001

Dear Ms Collyer

Re: Submission to the Transmission Planning and Investment Review Stage 3 draft report

The Australian Energy Regulator (AER) welcomes the opportunity to comment on the Australian Energy Market Commission's (AEMC) Transmission Planning and Investment Review (TPIR) Stage 3 draft report. We support the AEMC's review of the frameworks related to the efficient delivery of transmission infrastructure during this period of significant planned investment in major transmission projects to support the National Electricity Market (NEM) transition. The AER seeks to ensure consumers pay no more than necessary for major transmission projects such as the actionable projects identified in the Australian Energy Market Operator's (AEMO) Integrated System Plan (ISP). We also consider it important that the regulatory framework promote the timely delivery of these major projects and certainty of investment where appropriate.

Economic Assessment Process

The AER agrees with the AEMC that an improved economic assessment process for major transmission projects may be necessary to help deliver the full benefits of the NEM transition to consumers. We agree that identifying the appropriate balance between timeliness and economic rigour (i.e., weighing a project's costs against its benefits to market participants and, ultimately, consumers) should be paramount in considering changes and alternative models to the current economic assessment process.

In considering both timeliness and economic rigour, the AER notes that this must be applied to the full regulatory process for major transmission projects. We agree with the AEMC that "the time needed to complete the economic assessment process in isolation is not of primary

relevance, but rather, how the process contributes to overall project delivery times.”¹ Similarly, the economic rigour achieved in the needs identification and options assessment stages (i.e., under the current ISP, Regulatory Investment Test for Transmission (RIT-T) and feedback loop stages) must not be considered in isolation, but alongside the rigour achieved in the subsequent revenue determination stage. Changes to the process and sequencing of the needs identification and options assessment stages can have material implications for the certainty of cost estimates for different elements of a project that may be available for determining a regulated revenue. This can, in turn, affect the chance of project outturn costs varying materially from the estimates on which the AER based its revenue determination, with flow on impacts to how much consumers pay.² While this risk can never be completely removed in a real-world setting, the AEMC must remain cognisant of the degree to which decisions around the design of the economic assessment process offer opportunities to mitigate it.

The AER supports streamlining and removing unnecessary duplication in the economic assessment process for major transmission projects. The AEMC has presented three strawperson models that may replace the current process. We consider any model that is pursued must continue to deliver careful analysis of the benefits of major transmission projects against the costs, to maximise net benefits to consumers. In addition, the model must achieve a number of outcomes, regardless of their structure, to promote consumers’ long-term interests. It must:

- promote transparency
- include formal consultation opportunities for stakeholders
- support robust consideration of a range of viable options, including non-network options.

We expand on each of these below. The AER also notes that these outcomes have strong synergies and achieving one helps to achieve others.

Promoting transparency

Transparency in an economic assessment process is essential to give stakeholders, including consumer groups, investors and impacted local communities, certainty regarding the process undertaken and the basis for decision making. In particular, it is crucial that stakeholders understand how the network planners have developed their cost estimates, including how they have accounted for project risk.

A lack of transparency risks damaging confidence in the outcome of investment decisions and affecting the timeliness of project delivery (e.g., if it contributes to disputes or opposition being raised). It also increases the risk that complementary generation and storage investments that are necessary to realise the benefits of the intended transmission project do not eventuate if investors are unable to coordinate their decisions with the developing transmission project.

Regardless of the strawperson model(s) the AEMC progresses, the scope and remit of various parties in each decision should be clear. In particular, we highlight that strawperson model 3 will require careful consideration of the nature of the AER’s dispute resolution role given the substantial change to the current process.

¹ AEMC, TPIR Stage 3 draft report, 21 September 2022, p 9.

² Chapter 6 of the AEMC’s TPIR Stage 3 draft report discusses the implications for costs to consumers where outturn costs materially depart from the cost forecasts that form the basis of a TNSP’s revenue allowance and rewards/penalties under the Capital Expenditure Sharing Scheme. We comment on this issue below.

We ask the AEMC to further consider how bringing forward options assessment will interact with jurisdictional processes, and how this can be made transparent for stakeholders. All of the strawperson models, particularly models 1 and 3, effectively bring forward some of the options comparison and selection tasks. However, jurisdictional planning processes can have material impacts on cost estimates for different project options. These costs, or the range of costs they could impose, must be incorporated into the options comparison to ensure the selection of the preferred option is as accurate as possible and economic rigour is maintained.

Formalising consultation opportunities

An economic assessment process must include formal, well-defined consultation opportunities for stakeholders, in particular consumer groups. This also includes avenues for raising and resolving disputes. Stakeholder input is key to promoting robust planning outcomes. However, clear consultation opportunities can also promote timeliness by avoiding stakeholder confusion about the appropriate stage for raising matters and reducing the risk that significant concerns are identified later in the process.

The existing RIT-T creates opportunities for stakeholder input into options identification and assessment. If removed, the AEMC must consider the appropriate stages that should be added to the reformed process to ensure opportunities for stakeholder engagement are retained. For example, given the more central role the ISP would have under strawperson model 3, the approach to seeking and transparently addressing stakeholder feedback in developing the ISP may need a substantive overhaul.

Supporting robust options identification and assessment

An economic assessment process must support identifying and robustly considering a range of viable options for meeting an identified network need. To this end, the AER encourages the AEMC to consider how non-network options can be identified earlier in the process. Non-network options could be alternatives to more traditional network assets entirely or reduce the need for such traditional network assets. Their early consideration may offer significant cost and time savings such as by reducing the need for building new transmission lines and hence avoiding potentially costly and time-consuming route selection and land acquisition tasks.

Strawperson models 1 and 2 both may restrict the range of options considered earlier than under the current process. By bringing forward some early works, strawperson model 1 may exclude other options – such as by committing to particular substation locations or line routes. As strawperson model 2 removes the assessment of benefits from the RIT-T, the range of options considered in the RIT-T may need to be restricted to remain consistent with the options that formed the benefits assessment at the ISP stage. For example, an option with a substantially different commissioning date and/or network capacity may not have been considered in the ISP. This puts a greater emphasis on joint planning between AEMO, network service providers and other potential solution providers under all of the strawperson models to ensure a comprehensive range of network and non-network options are considered at the relevant stages.

A further potential implication of bringing forward early works under strawperson model 1, as noted by the AEMC, is that it could risk weakening the imperative for cost efficiency of these early works activities. The AER notes that if the requirement to undertake early works is brought forward very early in the process, it may be difficult for the AER, in assessing ex-ante the efficiency of costs associated with the proposed activities, to link the proposed costs with particular options or deliverable benefits to consumers. The AER considers ex-ante assessment of these costs is preferable as, once these costs are “sunk”, the information asymmetry challenge for the AER is compounded, making it more difficult to effectively

assess their efficiency and question areas of potential inefficiency. We recommend the AEMC consider how this challenge could be addressed, such as the provision of principles in the National Electricity Rules (NER) to guide transmission network service providers (TNSPs) and the AER in considering the appropriate activities and associated costs that may be appropriate to capture at that very early stage of the process.

Regulatory treatment of concessional finance

The AEMC notes concessional financing may be provided by a government funding body with varying objectives, such as to reduce network costs for the end consumer and/or to promote delivery of a project that may not otherwise be undertaken by the TNSP in the absence of concessional finance. The AER considers it is most important that the relevant government funding body be responsible for confirming and directing the objective for its funding, including who the beneficiaries are, as this is a policy decision for that government body. Not only will this impact the AER's assessment of the TNSP's revenue allowance for a project, but it will inform the framework the AEMC is currently developing for how and when the AER assesses whether to adjust the depreciation of the associated assets.³ Specifically, if the TNSP receives concessional financing to address its financeability concerns, we would expect the need for adjusting the assets' depreciation profiles is greatly diminished. If the AER's depreciation adjustment alleviates the TNSP's cash flow concerns, subsequent receipt of concessional financing risks simply providing a windfall gain to the TNSP.

Concessional financing will also affect the AER's assessment of the allowed revenue for the relevant TNSP to deliver a project, be it through the revenue reset process or the contingent project process.⁴ The AER's position is that the AER should be required to take direction from the financier as to the purpose of the funding, including the allocation of benefits (in the form of reduced financing costs) between the TNSP and consumers. While this is our preferred position, the AER considers an acceptable alternative would be to require the TNSP, as the recipient of the funding, to agree with the financier on the value of the cost savings to be passed to consumers, if any. This should then direct the AER's decision-making under the revenue determination framework. Given this is ultimately a policy driver for the financier, we do not consider it appropriate that the AER should have the discretion to depart from the financier's intent.

The AEMC notes that placing an obligation in the NER on the financier to notify the AER of the concessional finance arrangement may not be effective as there is no certainty the financier will be aware of the NER requirements. On this basis, we support an obligation on the TNSP to notify the AER. In practice, we expect the financier will be in contact with the AER regarding its funding for the project, regardless of obligations on the TNSP.

The AER supports additional regulatory guidance on how the value of benefits to the TNSP and/or consumers, as per the financier's intent, should be treated in the revenue determination process. As the AEMC notes, there are a number of mechanisms for ensuring the cost savings are passed on to consumers, such as an adjustment to the TNSP's Maximum Allowed Revenue or as a capital contribution with a corresponding adjustment to the Regulatory Asset Base. The additional guidance could also step through the various structures or methods the financier may adopt to provide the TNSP with project infrastructure funding.

³ This was considered by the AEMC under Stage 2 of its review and will be further considered under the resultant rule change process required to implement the AEMC's recommendations.

⁴ National Electricity Rules, Chapter 6A.

Treatment of benefits from concessional financing in project planning

The AEMC notes that the net impact of the benefits from concessional financing may need to be considered in the economic assessment of project options, including the ISP and the RIT-T. As the market-benefits test under the RIT-T only considers benefits and costs to the market as a whole, it does not capture the allocation of benefits or costs between market participants.⁵ However, the total cost of the project that is passed on to consumers may be reduced by concessional financing and should therefore be captured. Alternatively, concessional financing could accelerate project delivery with benefits accruing to the market earlier than would have otherwise been the case.

Whether the economic assessment of project options captures any market benefits from concessional financing will depend on when in the regulatory process the decision to provide concessional financing is made. For example, a government funding body may only commit to providing financing after the RIT-T for a project has been completed. In this instance, any market benefits of concessional financing might give rise to a material change in circumstances under the NER. Again, this depends on the objective of the financing and whether it impacts the selection of the preferred option.

Timely Delivery Incentive

The AEMC has concluded that TNSPs have an exclusive right but no corresponding obligation to invest and this gives rise to a risk that strategic projects may not proceed in a timely manner. The AEMC further considers that introducing a Timely Delivery Incentive (TDI) that may both reward and penalise a TNSP for early or late delivery may be an appropriate solution to address this.

The existing regulatory framework has carefully constructed incentives and mechanisms to help ensure capital expenditure is efficient in all aspects, including delivery. In this context, the AER does not consider it necessary or appropriate to introduce a separate scheme for delivery alone. Our rationale for this position is discussed below.

The problem statement

The AER questions the AEMC's conclusion that there is a risk of non-delivery or late delivery arising from the TNSP's monopoly position. Historically, the concern with investment by TNSPs has been related to over-investment, or reluctance to pursue more cost-effective, non-network alternatives. By contrast, there has not been a strongly expressed concern about network businesses' reluctance to invest or tendency to invest late. While experience with Project EnergyConnect indicated TNSPs may raise concerns with the financeability of an investment, this is being addressed via other means. To date, there is no evidence that a TNSP's unwillingness to invest has delayed delivery of a project.

The problem – there being an exclusive right but no corresponding obligation to invest – is not unique to TNSPs but applies to *all* services provided by *all* public utility firms. Conventionally, public utility firms are the only potential providers of certain services and hence the only possible source of investment in the assets to provide those services. Despite this, there are typically a range of features of a regulatory framework that ensure a public utility firm delivers services of appropriate quantity and quality, and invests, including:

⁵ This is treated as a wealth transfer: See AER, Application guidelines – Regulatory investment test for transmission, August 2022, Section 3.11.1.

- statutory obligations or incentive mechanisms that set minimum standards and/or incentivise improvements in delivered service quality
- the tendency for the Weighted Average Cost of Capital to be set at a level that would typically encourage rather than discourage investment, which gives rise to an incentive to increase the size of the Regulated Asset Base (RAB) (this is reflected in “RAB multiples”, for example⁶)
- pressure from the media, public, and government (including as the owner in the case of publicly-owned firms) to deliver quality services and invest in a timely manner.

Most of the above mechanisms apply in the context of TNSPs in the NEM.

Risks to consumers associated with a Timely Delivery Incentive

The AER opposes the introduction of a TDI as it is unlikely to deliver net benefits to consumers over the long-term. A TDI would impose a financial incentive on TNSPs to deliver a project in a timely manner through incentive payments either for key milestones or final project delivery. The AEMC has sought feedback on such a TDI potentially having both penalties for late delivery and rewards for early delivery.

The AEMC states that "at present, consumers bear all the consequences of late project delivery, even though TNSPs have more control over the timely delivery of projects. A new incentive could see TNSPs sharing in the benefits to consumers if projects are delivered early and sharing in the costs to consumers if projects are delivered late."⁷

The AER agrees that a TNSP is likely to have a degree of control over the timeliness of project delivery and concedes the factors described above that promote timely delivery are not perfect. Further, penalties for project delivery delays are common in commercial construction contracts. Despite this, the AER is not convinced of the merits of introducing a timeliness incentive on all ISP projects for the following reasons:

- In certain cases, it may be more efficient for a TNSP to delay delivery of a project, rather than to incur additional costs on behalf of consumers to accelerate the project or deliver it on time. For instance, a project may require additional complementary investment to be valuable to consumers (such as investment in generation or transmission in another state), and that complementary investment may be delayed. Alternatively, where a project is designed to address forecast congestion, there is no benefit in delivering that project before the congestion materialises. In either of these circumstances, deferring the project (i.e., delivering it “late”) may be a more efficient decision and in line with consumers’ interests. To address this in a formal incentive scheme without also compromising the intended incentive, baseline dates for each project would need to be updated accordingly, which may be increasingly challenging and burdensome given the dynamic nature of the energy sector.
- Introducing a TDI may give rise to a strong incentive on the TNSP to argue to push out project delivery dates in planning documents including the ISP (beyond when they are optimally required and could be efficiently delivered) so as to be reflected in baselines that are easier to “beat” under the incentive scheme. This would weaken any effectiveness of a TDI scheme in progressing consumers’ interests. If pursued, the AEMC must consider the impact of the TDI within the broader context of the other competing incentives the TNSP currently faces under the regulatory framework.

⁶ “RAB multiples” relates to a situation where a regulated network business is valued at a significantly higher amount than its RAB.

⁷ AEMC, TPIR Stage 3 draft report, 21 September 2022, p 85.

A significant information asymmetry exists in assessing the optimal or realistic project delivery dates and the likelihood of delays, which would make it further challenging to determine the appropriate date. This could result in a significant burden on the party administering the incentive scheme. These include:

- It may be materially difficult to set appropriate baselines for ‘timely’ since, as noted above, TNSPs will have an incentive to artificially push out the delivery dates to more easily receive reward payments. The AER also understands AEMO may provide for allowances in project timing in the ISP Optimal Development Path (ODP). This would exacerbate the complexity in setting baseline dates for a TDI as the ODP dates do not necessarily reflect purely optimal modelling outcomes and may be superseded by market developments after publication.
- While, in principle, uncontrollable events should be excluded from the scheme, it is not always objectively clear what delays are outside the reasonable control of the TNSP. For instance, a business should account for a certain amount of adverse weather affecting project delivery but there may be contentious debate over whether an extended spell of adverse weather should be excluded. With a TDI, TNSPs would have a strong incentive to claim that any and all delays are out of their control (and should therefore not result in a penalty payment).

Ensuring any TDI effectively operates would not be a straightforward or objectively simple matter and the party administering the incentive scheme would have to robustly review material and potentially refute claims. Otherwise, this would introduce a high likelihood that consumers are required to pay significant reward payments without seeing any benefit of earlier or more efficiently delivered projects.

There are other mechanisms better suited to deliver timeliness

The AER considers, if the existing features of the regulatory framework that help ensure timely project delivery are found insufficient to meet consumers’ long-term interests, there are other mechanisms better suited to achieve this than introducing a new incentive scheme.

For one, delivery risk may be better and more directly managed by addressing the likely causes of delays of major projects such as route selection and maintaining social licence. The AER notes the AEMC’s recent final recommendations under Stage 2 of the TPIR will go towards addressing some of these issues.⁸

The AEMC has noted that it “does not consider the option of implementing national contestable arrangements to be a proportionate response to address the exclusive right.”⁹ Whilst the AER agrees introducing transmission contestability to address this problem alone is unlikely to be a proportionate response, the strong stakeholder support for introducing contestability suggests there is merit for considering this reform in a broader context.¹⁰ This may prove a more appropriate solution and may make the proposal to introduce a TDI moot.

Managing cost uncertainty and risk

The AER endorses the AEMC’s conclusion that the current ex-ante incentive-based regulatory framework remains generally appropriate for managing the higher risk and/or uncertainty of major project costs. The AER has been closely involved with the AEMC in this analysis. Recent developments to the framework – such as those relating to providing ex-

⁸ AEMC, TPIR Stage 2 final report, 27 October 2022.

⁹ AEMC, TPIR Stage 3 draft report, 21 September 2022, p 85.

¹⁰ See submissions to the AEMC’s TPIR Contestability Options Paper.

ante risk allowances and allowing the staging of Contingent Project Applications (CPA), as well as updated guidance in relation to major projects¹¹ – provide appropriate tools to help manage this risk and uncertainty for the AER and network businesses and should be given the opportunity to mature.

While proposals to introduce targeted ex-post reviews or increasing CPA stages may introduce elements more commonly found in a cost-of-service (rather than an incentive-based) regulatory regime, the AER considers this may still be warranted to meet consumer interests. Further consideration of these proposals may reveal that they are proportionate responses to capture the unique characteristics of major transmission projects.

These mechanisms are intended to appropriately balance risk between network businesses and consumers around major transmission projects. Consumers risk paying more than necessary for a project as a result of either or both:

- Overstate expenditure forecasts, and
- Inefficient actual expenditure in project delivery.

Accurate expenditure forecasts are important in providing networks with the opportunity to recover their efficient costs, as well as providing the starting point against which rewards (or penalties) under the incentive-based regime are calculated. Overstated forecasts risk passing inefficiencies to consumers in the short-term as they provide the TNSP with its revenue allowance for the project and also set the base against which incentive payments (or penalties) are made. Overstated forecasts also dilute the impact of efficiency incentives and can result in unnecessarily high incentive payments to the TNSP if they underspend.

However, to protect consumers from paying more than necessary over the long-term, it is equally (if not more) important to ensure efficient outturn project costs. This is because the actual expenditure incurred in project delivery is what will ultimately be rolled into a TNSP's regulatory asset base (RAB) and paid for by consumers for the life of the assets (subject to incentive scheme rewards or penalties).¹²

The increased cost risk and/or uncertainty associated with large scale transmission projects results in an increased risk that the outturn costs of these projects will depart significantly from forecasts. It is important to note this risk is expected to be asymmetric – in that overspends are more likely than underspends.¹³ TNSPs may also perceive they are less able to manage the risk of any cost overruns for such projects as they are likely to be larger in magnitude, making them more difficult to balance by finding efficiencies across other 'business as usual' projects in their capital expenditure portfolio. Instead, to avoid wearing a penalty for cost overruns under efficiency incentive schemes, TNSPs could include "buffers" within their expenditure forecasts over and above their best estimates of project costs. This could lead to consumers paying more than they need to for transmission network investment as they are not based on comprehensively identified and efficiently managed risks.¹⁴

¹¹ AER, *Guidance Note – Regulation of Actionable ISP Projects*, March 2021.

¹² For capital expenditure, the balance of incentives is not always clear, as the TNSP will balance the incentive of earning the regulated rate of return on actual capital expenditure over the asset life, with the rewards that can be gained under the capital expenditure sharing scheme.

¹³ Even as these major projects are delivered and, in turn, better information and forecasting tools are able to be developed, there is some evidence that large and/or complex infrastructure projects nevertheless have a higher likelihood of being delivered over-budget: See PwC, *Managing capital projects through controls, processes, and procedures*, 2014, p. 4; KPMG, *Managing risk in the Australian construction industry*, May 2020; Grattan Institute, *Cost overruns in transport infrastructure*, October 2016; McKinsey & Company, *A risk-management approach to a successful infrastructure project*.

¹⁴ If TNSPs fully factor expected cost overruns into their expenditure forecasts, consumers pay the financing costs for this before the risk eventuates, and TNSPs are not as strongly incentivised to proactively manage project risks and find cost efficiencies. Also, if the risk does not eventuate and the TNSP underspends, it will receive a CESS reward.

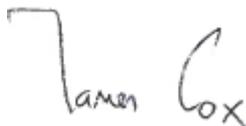
Following the introduction of the ISP, amendments to the NER support improved forecasting for large transmission projects and mechanisms such as the AEMO feedback loop, which limits the ability of TNSPs to overstate capital expenditure (capex) forecasts.

Despite the potential for incentive schemes to encourage TNSPs to add buffers to project forecasts, efficiency incentives such as the capital expenditure sharing scheme (CESS) and ex-post review are arguably more important for major transmission projects. Strong efficiency incentives encourage TNSPs to keep down the actual costs incurred in project delivery (after the project allowance has been approved). Inefficiencies in actual project expenditure risk consumers paying more than necessary over the long-term, given it is the incurred project expenditure that will be rolled into a TNSP's RAB and paid off by consumers over the decades-long asset lives.

Continued engagement

The AER looks forward to continuing working with the AEMC under the Transmission Planning and Investment Review. To discuss any matter raised in this submission, please contact Arista Kontos on (08) 8213 3492.

Yours sincerely

A handwritten signature in black ink that reads "Jim Cox". The signature is written in a cursive style with a large, stylized initial 'J'.

Jim Cox
Deputy Chair
Australian Energy Regulator

Sent by email on: 01.11.2022