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By email transmissionstpisreview@aer.gov.au

Dear Kris

RE: Transmission Service Target Performance Incentive Scheme Review

Thank you for the opportunity to make this submission to the Australian Energy Regulator's (AER) review of the Transmission Service Target Performance Incentive Scheme (STPIS).

This submission deals with the three components of the STPIS in turn.

Market Impact Component

The Market Impact Component (MIC) of the STPIS was introduced to manage the cost to consumers of transmission congestion. It sought to optimise the cost of congestion caused when Transmission Network Service Providers take outages on their networks for maintenance or other reasons. The MIC was introduced as a means of encouraging TNSPs to take outages when this would have little impact on the wholesale price of electricity. Consistent with other incentive schemes, it did this by creating a trade off between the cost of the relevant outages and the cost of avoiding or rescheduling them.

While this remains a worthy objective, ENA considers that, the MIC is not currently capable of achieving it. There are four key flaws with the MIC, which are outlined below.

Flaw #1 - The MIC is not focussed on price impacts

When the MIC was developed, the AER considered various measures of the cost of transmission congestion as the basis of the MIC. Of the three that were considered the AER concluded that the Marginal Cost of Congestion (MCC) was best. In making this choice, the AER noted that the MCC is

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a “relatively high quality indicator of the cost of inter-regional constraints.”¹ However, the AER also noted, that “[i]n the case of intra-regional constraints the [MCC] may have little or no meaning.”²

We are not aware of a more recent analysis of the MCC, or of any recent efforts to quantify the market impact of transmission congestion. However, generators are now far more numerous now than when the MIC was designed in 2006 and it follows that intra-regional congestion is likely to be a more substantial issue now than before. If this is the case, the MCC will be an increasingly meaningless measure. This proposition should be tested before the MIC is renewed based on the same, potentially flawed, metric.

Flaw #2 - TNSPs cannot respond meaningfully to MIC incentives

If the MIC is to be able to achieve its objective it must also encourage TNSPs to take actions that they can take.

TNSPs had significant control over outage timing in 2006 when the MIC was designed. Now, though, the window of time in which outages can be taken with minimum impact to the market has reduced considerably. TNSPs can plan outages ahead of time and provide notification. However, the modern reality is that outages are frequently cancelled by AEMO in the days leading up to them.

Cancellations occur because, quite rightly, AEMO cannot approve them if they would jeopardise reliability on the grid. In our understanding, AEMO cannot approve a transmission outage if it forecasts Lack of Reserve 2 conditions for the time of the outage. The challenge is that this relies heavily on forecast availability of wind and solar resources, particularly in the period from 40 to 72 hours out, and that these forecasts are increasingly uncertain during that time.

The details here are complex and are worth reviewing with AEMO. From ElectraNet’s perspective, though, the impact is that we have very few ‘degrees of freedom’ when it comes to scheduling outages. The practical reality is that MIC implications cannot be considered, meaning that even if the MCC was a valid measure of the underlying problem, the other constraints on our ability to schedule outages override the impact it can have.

ElectraNet acknowledges that outage scheduling is not the only behaviour the MIC seeks to encourage. Table 1 below summarises the list of ‘desirable behaviours’ the AER identified in developing the MIC and provides an observation in relation to each in the current context. The table suggests that there may be little or no work left for the MIC to do. Testing this suggestion might be a fruitful area of inquiry for the AER during this review. That is, if the behaviours targeted originally are now being demonstrated to their fullest, the work that remains for an incentive scheme is limited.

Table 1 – ‘Desirable behaviours identified in MIC Issues paper

Behaviour	Comment
Plan outages when unlikely to cause a market impact	LOR2 problem – outages often declined. The cost of rescheduling is material (turn trucks around, ongoing risk). No reliable ‘pattern’ in when outages are likely to be low cost
Reschedule outages if market impacts emerge	
Reduce outages by adopting different maintenance procedures e.g. live-line working	Live line work is undertaken where appropriate, noting that it comes with other risks to workers.

¹ AER, Indicators of the market impact of transmission congestion – Decision, 9 June 2006, p.38, available from <https://www.aer.gov.au/system/files/ac02206-Final%20Decision.pdf>, retrieved 13 February 2024.

² Ibid, p.38

Behaviour	Comment
Increase nominated line ratings by more accurately specifying the thermal, voltage or stability limits of the network	ElectraNet is actively working to improve understanding of dynamic line limits with PEC integration
Increase nominated line ratings by more comprehensively monitoring network conditions (for example ambient temperatures, wind conditions and asset conditions)	There is far more weather data available now than in 2007 and much more use is made of it.
Coordinate network outages so one outage covers multiple network elements rather than making the same impact several times	As above we have very narrow windows in which outages can be taken due to LOR concerns. We have a strong incentive to coordinate already e.g. through the AEMO Coordination Forum
Notify market participants of the outage well enough ahead to allow participants to minimise the impacts of the outage through the contract market or through their own actions	Notice is given well in advance, but there is a very real chance that outages are cancelled with very short notice for reasons beyond our control (indeed beyond anyone's control).

Flaws #3 and 4 - The incentive payment and target are not meaningful

The MIC's approach to target setting relies on the assumption that the efficient level of outages can be revealed over time through the MIC itself. In turn, this depends on the assumption that the penalty a TNSP incurs when outages cause price increases reflects the cost of those increases and that the bonus received when this does not happen also reflects the value of the avoided increase. This is consistent with incentive schemes in various contexts and, as is well understood, requires that the metric is a robust measure of the value of the outages in question.

Contrary to this, the MIC penalty is a function of a TNSP's Maximum Allowable Revenue. It is not connected in any way to the cost imposed by the outages. Indeed, with the current approach it cannot reflect this because the MIC is based on the MCC, which does not measure the underlying cost of outages. The same problem affects the MIC bonus. There is no relationship between the benefit customers enjoy through reduced wholesale prices and the reward TNSPs receive for providing that benefit.

Insofar as targets are concerned the premise of the MIC is that progressive efforts over time will eventually reveal the efficient level of outages, being that which could only be avoided at a cost in excess of the cost imposed by the outage itself. In a different context where the underlying 'problem' is stable, this is a valid approach. In this context, though, the rapid transition of the generation sector means that tomorrow's network does not resemble yesterday's network. It certainly does not resemble that of the previous seven to twelve years, but this is when targets are based on. The current history based target setting is not meaningful because it doesn't represent the future operating environment.

Moving forward – modifying the MIC

In the discussion paper the AER sets out several alternative ways to modify the MIC. In our view none of the proposed alternatives would produce a scheme that can reasonably be expected to deliver the MIC's original objective. None of the proposed modifications will address the flaws articulated above. We set out below a summary of the problems with each option.

Given that we do not see a way forward in the current Issues Paper, we consider that the best approach is to suspend the MIC with immediate effect, including on existing revenue determinations, unless and until relevant improvements can be made. We would also welcome the opportunity to work with the AER to explore whether a suitable incentive mechanism could be designed.

Preserve the status quo

- As discussed above, the MIC is not currently capable of achieving its intended objective. Thus maintaining the status quo is not a suitable approach.
- The MIC should be suspended unless a modification can be found that aligns the incentives with the intended outcomes.

Move to a transparency approach

- The purpose and objective of any reporting should be clear, noting that the current metric is likely to 'have no meaning' in terms of the MIC objective:
- In the absence of a more appropriate alternative, a transparency approach could be considered, but only if a suitable metric can be identified;

Revise the performance targets

- There is no guidance or rationale as to how the targets would be revised
 - as discussed above, a method based on averaging from history cannot appropriately reflect the current and future operating environments;
 - setting targets based on a bottom up forecast of the efficient level of outages would work theoretically, but no such forecast exists to our knowledge
- Changing the targets does not address the fundamental flaw in the underlying metric – the MC will still not connect the incentive value to the customer benefit/cost;
- Given the MCC has no meaning as a measure of the objective, changing the threshold (from 10 to \$100/MWh or any other value) would not give it meaning.

Better target rewards and penalties

- Rerunning the National Electricity Market Dispatch Engine to identify the actual cost of outages might work *ex post* but cannot provide a signal to TNSPs of the cost of their behaviour in advance. Hence it cannot be used as the basis for an incentive scheme. This approach would add to AEMO's costs to an extent likely to outweigh the benefit of the scheme to consumers;
- limiting the scheme to trunk lines is problematic as there is no clear definition of a trunk line.

Network capability component

The objective of the Network Capability Component was set out in the AER's explanatory statement accompanying version 4 of the STPIS in 2012 as follows:³

The network capability component seeks to incentivise TNSPs to reveal the capability of parts of their existing network and to identify measures that would provide greater value to generators and customers. ... the new component seeks to encourage low cost solutions for limitations on all transmission equipment on the TNSP's transmission network which unnecessarily restricts energy flows.

To provide this incentive the Network Capability Component provides TNSPs with a 50% premium on the return they earn on small projects with the characteristics described above.

When the Network Capability Component was introduced, the AER said that it intended that it be in place for one regulatory cycle, with a review at that point.⁴ This reflected the general view that there was some 'low hanging fruit' in the form of small projects that would increase transfer capability and that a temporary intervention would enable these to be addressed.

The Network Capability Component has now been in place for the regulatory cycle initially planned. As the issues paper shows, it seems to have met its original purpose. Numerous projects have been pursued, but the number of projects identified as the second regulatory cycle begins now seems to have reduced.

In ElectraNet's view the AER is right to consider now whether the Network Capability Component should now be wound up. This is an opportune time to consider whether the challenge facing the transmission network today is seeking out small improvements in transfer capacity on the existing network or whether TNSPs and AEMO should be focussed on planning and building the transmission network necessary to facilitate Australia's transition to a low carbon future.

If the AER concludes that the Network Capability Component should remain in place, we support the changes proposed by Energy Networks Australia:

- amend the penalty regime so that penalties are commensurate with the project in question rather than the relevant TNSP's MAR
- emphasise the (existing) 'opt in' nature of the Network Capability Component to make it clear that TNSPs are not to be criticised for diverting their efforts to future growth needs
- reduce the administrative burden associated with the scheme by removing AEMO's role and assessing projects through the standard revenue determination processes.

We would also support the suggestion made by some stakeholders that the project size threshold be increased from the RIT-T threshold to a more substantial level, such as \$30 million (to be indexed from there).

³ AER, "Explanatory Statement Electricity transmission network service providers Draft Service Target Performance Incentive Scheme", September 2012, available from <https://www.aer.gov.au/system/files/AER%20Explanatory%20Statement%20-%20STPIS%20-%20September%202012.doc>, retrieved 28 March 2024

⁴ Ibid. p.51

Service Component

We note that the Service component was not intended to be part of the current review. However, we share the views of our fellow ENA members in relation to the appropriate treatment of the 'X' and 'Y' thresholds in the Service component.

Further details of the proposal are provided in the ENA's submission. In summary, the proposal is that the process for setting 'X' and 'Y' be moved from the STPIS instrument to the revenue determination to create flexibility.

In our view this is a 'no regrets' change for the AER. Shifting 'X' and 'Y' to the Revenue determination will not require the AER to change the levels of those parameters. There are arguments that they should be changed, and the AER can engage with those arguments when presented with them in the relevant revenue determination processes. The change proposed here merely gives the AER the ability to change them if it considers this appropriate.

Thank you again for the opportunity to make this submission and to engage with the AER on this matter. Should you wish to discuss this submission please contact me on [REDACTED]

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Manager Regulation