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12 September 2014

John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
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Dear Mr Pierce

Submission on early application of STPIS components to transmission businesses

Please find attached the Australian Energy Regulator's (AER) submission regarding the Australian Energy Market Commission's (AEMC) Consultation Paper. The AER welcomes the opportunity to comment on the rule change proposal by ElectraNet.

The AER would be pleased to provide further assistance to the Commission on this area of work. If you would like to discuss any aspect of this submission please contact Peter Adams, Acting General Manager, Wholesale Markets, on (03) 9290 1465.

Yours sincerely



Andrew Reeves
Chairman
Australian Energy Regulator



AER Submission

National Electricity Amendment

**Early application of Service Target
Performance Incentive Scheme components
for transmission businesses**

September 2014

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1 Summary

The Australian Energy Regulator (AER) welcomes the opportunity to respond to the Australian Energy Market Commission's (AEMC) consultation paper on the National Electricity Amendment (Early application of Service Target Performance Incentive Scheme (STPIS) components for transmission businesses) Rule 2014, requested by ElectraNet.

ElectraNet's rule change request proposes that an eligible transmission business can apply to the AER to seek early application of the network capability component of version four of the STPIS within the transmission business' current regulatory control period.

In its regulatory determinations the AER applies the entirety of the current STPIS scheme to the TNSP. The network capability component (NCC) is a new component of version 4 of the STPIS which became operative in December 2012, and currently only applies to Transend, TransGrid and SP AusNet. The possibility of an early application of the NCC was discussed in 2013 with the remaining two TNSPs, ElectraNet and Powerlink. At this time, Powerlink indicated, given the relatively short time before the commencement of its next regulatory control period, that it would not be interested in seeking early application of the NCC.

As a new standalone component of version 4 of the STPIS, the early application of the NCC to ElectraNet is not inconsistent with the determination made by the AEMC with respect to the early implementation of the Market Impact Component in 2010 as proposed by Grid Australia.¹

The AER supports a rule change that is confined to allowing ElectraNet specifically to apply to the AER for approval to be included in the NCC of version 4 of the STPIS despite their regulatory determination having been finalised. We consider that there is sufficient time remaining in ElectraNet's current regulatory control period to realise the benefits identified. Also, ElectraNet, at the time of the AER's assessment of its regulatory proposal, stated its intention to seek early access to the NCC and accordingly modified its regulatory proposal by identifying and removing expenditure related to NCC projects. As a result, we do not anticipate that any issues will arise regarding the interrelationships between the NCC and aspects of ElectraNet's revenue determination as these have already been taken into account.

While the components of the STPIS are designed to work together to provide incentives to improve market outcomes and together they provide comparable and reliable regulatory framework during a regulatory control period, they are largely independent of each other in terms of their targeted business improvements. As the NCC is a new component, its early application to ElectraNet should not, in this case, compromise that intention.

Previously the AER proposed that ElectraNet should also apply to adopt the amended Market Impact Component of version 4 of the STPIS. We have reconsidered this position. The MIC as a pre-existing component that was materially adjusted between version 3 and 4 may have driven assumptions supporting the existing determination. Consequently, variation of pre-existing aspects of the scheme would warrant re-opening the regulatory determination. We now consider that a full re-opening or even a limited re-opening would be complex, resource intensive and could conflict with the established balance of incentives and expenditure allocations that exist under the revenue determination.

¹ <http://www.aemc.gov.au/getattachment/3861e461-eabe-4675-aefd-02ea55cdb277/Final-Rule-Determination.aspx>
AER Submission to AEMC consultation on rule change proposal: Early Application of STPIS components for transmission businesses (September 2014).

2 Background

Service Target Performance Incentive Scheme (STPIS)

Under the National Electricity Rules (NER), the AER creates, maintains and administers the service target performance incentive scheme for Transmission Network Service Providers (TNSPs). The purpose of the STPIS is to provide incentives to TNSPs to focus on cost effectively maintaining and improving their networks for the benefit of participants in the National Electricity Market (NEM) and end users of electricity. The AER applies to each TNSP the version of the STPIS (currently version 4) that is current at the time of making a TNSP's regulatory determination. Version 4 of the STPIS was released by the AER in late 2012 after a comprehensive review. Changes were made to both the existing service and market impact components and, importantly, the network capability component (NCC) was introduced; it is only to the NCC that the proposed ElectraNet rule change has sought access. The NCC provides a financial incentive to TNSPs to improve the capability of transmission assets through one-off projects that can be delivered through low cost (less than \$5 million) operational and/or capital expenditure. This component provides the opportunity for TNSPs to identify and pursue projects that will improve network capability at times when users place greatest value on reliability or that are pivotal to determining spot prices.

ElectraNet's proposal

The ElectraNet proposal only covers the voluntary early application of the NCC, and not the adoption of the amended version 4 MIC and/or service components. ElectraNet contend that revisiting values that have been approved as part of a regulatory determination process is inconsistent with the principle of regulatory certainty. ElectraNet differentiates the NCC on the basis that, as it is a new component, there is no content in existing revenue determinations that requires amendment. As such, ElectraNet considers reopening of transmission determinations is not required.

ElectraNet proposed the following procedure for early application of the NCC:

- ElectraNet submits a proposal to the AER which includes, amongst other things, the NCIPAP derived in accordance with version 4 of the STPIS;
- The AER publish the proposal as soon as practicable and allow 20 business days for submissions, and
- The AER makes a final decision in relation to the proposal, considering any written submissions received.

3 Regulatory framework considerations

Our comments in this section 3 are general and concern the nature of the regulatory framework and whether it can accommodate the rule change proposed. In particular, our responses address questions 1(a)(i) and (ii) and 2 of the Consultation Paper:

- a. To the extent that any decision to apply a new version of a STPIS, a new component of a STPIS or amended components of a STPIS requires a full or limited reopening of a determination, we consider the cost of implementation would significantly outweigh the benefits and there would be a corresponding decrease in regulatory certainty.
- b. Where all components of version 4 of the STPIS could be practically applied at any time during a regulatory control period, their application needs to be weighed against the cost/benefit of that transition. While the components of the STPIS are relatively independent of each other and could potentially be applied individually, ideally they should be applied together as this provides the greatest level of certainty and consistency for the AER, participants and consumers. Overall, we are concerned that providing the ability for a TNSP to selectively apply for the application of an individual component of an incentive scheme reduces the intended synchronicity of the scheme and as a result some of the net benefits that customers should expect may not be achieved.
- c. For the reasons set out a. and b. above, we consider that where a version of the STPIS is applied to a TNSP as part of its regulatory determination, but a component of that version is later amended (in what becomes the subsequent current version of the STPIS), the amended component should only be applied at the time of the next revenue determination. This is because it would require amendments to values and parameters that have already been set as part of a comprehensive revenue determination process that had taken into account any interactions between components.
- d. However, in the present circumstances where ElectraNet is primarily seeking application of one new component, the NCC, we consider it is possible to apply that one new component without upsetting the regulatory certainty and the associated balance of incentives achieved through the revenue determination. While components of the STPIS and the overall regulatory determination are closely interlinked, ElectraNet modified their regulatory proposal to withdraw NCC-type projects from their operational expenditure (opex) forecasts. Subsequently, because this proposal is for ElectraNet, we have a lower level of concern with potential overlaps. The same would not necessarily be the case with other TNSPs but we do not envisage other TNSPs pursuing this option. A limited rule allowing ElectraNet to request the application of only the new NCC would be consistent with the AEMC's approach in its 2010 rule change providing for early implementation of the market impact component.
- e. We also note this process would not be subject to merits review; this is also consistent with the AEMC's approach in 2010. Where the scope of the decision is limited to whether to apply NCC of version 4 to ElectraNet, we do not consider it would warrant merits review.
- f. We note that, in its proposed rule change, ElectraNet has provided that the NCC proposal submitted to the AER must specify how the TNSP has engaged with electricity consumers in relation to its NCIPAP. It also provides for a 20 business day consultation period on its proposal prior to the AER making a decision. Given the requirement for consumer engagement by the TNSP prior to submission to the AER, the close involvement of AEMO in

the process and the 20 day consultation period, we consider there to be sufficient consultation built into ElectraNet's proposed process.

We recognise that, as the components are currently defined, only the NCC can be practically and effectively applied during the course of a regulatory control period. The complexity of determining the values for the service component parameters and replacing MIC values are such that, from a practical perspective and taking into account regulatory costs, these components are best applied at the time of a regulatory determination for the full regulatory control period. These practical aspects of applying the different components of the STPIS are further considered below.

4 Components of the STPIS

This section details our position on the practical application of ElectraNet's rule change proposal and the benefits of early implementation of each of the version 4 STPIS components.

The service and market impact components from version 3 of the STPIS currently apply to ElectraNet. Version 4 of the STPIS includes amended service and market impact components. Variation of parameters or targets of the service and market impact components to reflect those version 4 amendments would potentially be possible during the course of a regulatory period. However, the application of both these components involves some complexities and for the service component in particular, there would be a relatively large amount of work to undertake. In addition, as noted above, any amendments would appear to require the reopening of a determination and this would significantly change the cost/benefit analysis.

By contrast, the NCC is a new component introduced in version 4. The definitions and parameters for this measure are largely independent of the other factors in the STPIS but do have a bearing on overall operational and capital expenditure approved in a revenue determination. Prior to the AER making its final revenue determination for ElectraNet, ElectraNet actively engaged with the AER and removed projects and costs that were consistent with the principles of the NCC from its forecast expenditure arrangements on the grounds that it would seek early access to the NCC.

For the purpose of the below discussion, the AER has assumed that the process for early application would be along similar lines to that proposed by ElectraNet and there are no interdependencies between NCC and other elements in the revenue determination, such as other incentive schemes.

4.1 Network capability component

The NCC was introduced in version 4 of the STPIS and is designed to encourage TNSPs to take steps to operate, maintain and improve their network in a manner that delivers improved levels of network capability at the least sustainable cost. TNSPs identify incremental or small improvements that can resolve limitations or emerging constraints on the network, promoting economically efficient outcomes through the maximisation of network capability to improve network service delivery and wholesale market outcomes at least cost. Improved wholesale market outcomes should ultimately be passed onto consumers. Increased network capability from the existing network can delay augmentation expenditure to meet increasing demand. The NCC promotes the nationally electricity objective (NEO) and economic efficiency by obtaining greater value out of transmission networks in the long term. Thus, the early application of the NCC would generally promote economic efficiency in the NEM.

The key component of the NCC is the network capability incentive parameter action plan (NCIPAP) submitted by each TNSP as part of its revenue proposal. The NCIPAP must:

- outline the key network capability limitations on each transmission circuit or load injection point on the network, and
- include a ranked list of priority projects to improve, through operational and/or minor capital expenditure, some of the network capability limitations identified and the value of the priority project improvement target for the projects. Projects are prioritised according to their benefits based on the likely impact on customers and/or wholesale market outcomes.

In each annual STPIS compliance review, the TNSP is required to report on steps it has taken towards reaching the priority project improvement target, including any measurable improvements in network capability as a result of implementing a priority project.

Presently, SP AusNet is the first network provider to participate in the NCC when its 2014–2017 regulatory control period commenced on 1 April 2014. The NCC applied to TransGrid and Transend from 1 July 2014. It does not apply to the interconnectors, Directlink and Murraylink. Thus, the scope of this proposed rule change would only apply to ElectraNet and Powerlink; Powerlink has previously indicated it would not seek early application of the NCC.²

Benefits of early implementation

Benefits from the NCC accrue to customers, generators and the overall operating efficiency of the market. Generators benefit from increased network capability as they are less likely to be constrained by network limits, leading to more efficient dispatch. Customers benefit from the improved wholesale market competition, potentially lower wholesale costs and efficient improvements in network capability. While customers will pay slightly more for transmission services as a result of early adoption, the AER considers that the flow on benefits to the wholesale market will outweigh the additional cost.

Since the scheme depends on the implementation of small projects to improve network capability, the actual benefits delivered will take some time to accrue. The AER will monitor both the progress of proposed projects and the improved capability as part of our annual compliance review.

Discussion with AEMO indicates that ElectraNet has been able to identify projects to meet the acceptable criteria and that it anticipates the benefits of its NCIPAP would exceed the expenditure.

Costs of early implementation

The early implementation of the NCC adds a relatively minor burden on TNSPs, as it is effectively an extension of the existing obligations on TNSPs to identify known and emerging limitations in their annual planning reports. However, there are compliance and assessment costs: AEMO has a role in prioritising the projects that will deliver best value for money for consumers and ranking those priority projects, and the AER must approve the priority project improvement target if it is consistent with the requirements of the scheme.

The assessment of ElectraNet's NCIPAP in the middle of a regulatory control period may raise concerns about whether the capital or operating costs of any proposed priority projects have already been accepted in its regulated expenditure forecast. ElectraNet has advised that the relevant projects were removed from expenditure forecasts in its revised Revenue Proposal. The AER will verify this as part of its assessment of the NCIPAP, by reviewing the proposal against the revenue determination.

While mandating the early application of the NCC would not be appropriate because of the resources involved for TNSPs and AEMO in preparing the NCIPAP, we support the option for a TNSP to voluntarily apply to the AER to their participation in the scheme. Given the time and resource requirements the AER considers that it is not practicable for a TNSP nearing the end of its regulatory control period to participate in the NCC. The NCC is ideally designed to run for the length of a TNSP's

² Correspondence from Powerlink, *AER Draft Decision - Early Application of Version 4 of the STPIS*, dated 24 September 2013 See: <http://www.aer.gov.au/sites/default/files/20130924-%20submission%20-%20Powerlink%20Submission%20to%20AER%20-%20Early%20Application%20of%20V4%20of%20STPIS%20-%2024%20September%202013.PDF>

regulatory control period, or a minimum period of around three years, to allow time for the TNSPs to respond to the incentives of the NCC in a meaningful way.

Powerlink begins its next regulatory period on 1 July 2017 and it is part-way through the third year of its current regulatory control period. For this reason, it would not be appropriate for early application to the NCC to be granted to Powerlink.

On the other hand, ElectraNet is in the second year of its current regulatory period as its next period commences on 1 July 2018 and as such an expeditious completion of the review process would maximise the probability of benefits from the NCC being realised by ElectraNet. We understand from discussion with AEMO and ElectraNet that some preliminary work has already occurred and the detailed NCC assessment would be able to commence almost immediately following a favourable result from the AEMC to this rule change.

4.2 Service component

The service component of the STPIS measures the reliability of the network and the overall availability of a TNSP's network to transport energy. This is a symmetrical component where the maximum incentive or penalty that a TNSP may achieve is limited to 1 per cent of its MAR for the year. Incentives or penalties are determined by the TNSP's performance against the relevant target, limited by an upper and lower bound (the cap and floor).

The version 4 service component focuses on unplanned outages, regardless of whether an interruption to a customer occurs, so as to act as a lead indicator of potential reliability issues and encourage TNSPs to maintain or improve the reliability of their assets. The changes introduced in version 4 include:

- Replacing the transmission circuit availability with an average circuit outage rate parameter. This then measures the average number of times circuits were unavailable as a result of unplanned outages during the relevant time period;
- and
- Introducing a parameter to monitor the proper operation of equipment. This measures the number of incidents where a protection or control system has failed or where there has been incorrect operational isolation of equipment during maintenance.

These changes bring greater alignment between the data being recorded by all TNSPs by standardising the definitions, inclusions, exclusions, sub-parameters and their weightings.

Benefits of early implementation

The revisions made to the service component are beneficial to market participants and end users by providing early indicator of improvement or deterioration in reliability thereby increasing the incentive to maintain the capability of the network. The STPIS is designed to address factors such as maintenance and operating practices, staffing levels and the like. Changes made by TNSPs may take many years to have a material impact on network reliability. The service component, structured as it is now and based on a suitable long term dataset, should detect earlier an improvement or deterioration in reliability.

Costs of early implementation

The version 4 changes to the service component will require TNSPs to re-categorise historic performance data across each parameter. While this has to some degree been completed to meet the regulatory information notices associated with economic benchmarking, setting new targets, floors and caps is more involved and time consuming and requires collaboration between TNSPs and the AER.

Notwithstanding our view that the revisions to the service component would be beneficial to market participants and end users, the level of analysis and cost necessary to establish appropriate parameters is not inconsiderable and would require reopening the regulatory determination. It is not therefore appropriate, from a cost benefit and regulatory certainty basis, to seek to apply the service component at any time other than at the start of a regulatory control period.

4.3 Market impact component

Changes to the market impact component (MIC) in version 4 provide a more stable measure for assessing the TNSPs' impact on the operation of the market. The MIC provides an incentive to TNSPs to minimise the impact of unplanned and planned transmission outages on wholesale market outcomes. It does so by measuring the number of dispatch intervals where a relevant outage on the TNSP's network results in a network constraint with a marginal value greater than \$10/MWh.

The payment a TNSP receives in each year is calculated by measuring the TNSP's calendar year annual performance against its target. As a bonus only scheme the TNSP receives the full 2 per cent payment if it can reduce the number of dispatch intervals with a marginal value greater than \$10/MWh to zero.

The MIC is directly linked to the controllable activities of TNSPs; around 80 per cent of outages affecting the MIC result from planned activities, which can be varied to significantly influence performance against the MIC. The incentives from the MIC have already delivered a significant improvement in network outage planning. Implementing rolling performance measures and targets drives continual improvement of performance.

Version 4 of the MIC incorporates two principal changes: the development of rolling average measures and amendments to the exclusions related to third party outages. The application of the rolling averages for the performance measure and target is best expressed somewhat algebraically: the performance target for year N is the average of years N-3, N-2 and N-1 while the performance measure is calculated from the average of the results for years N and N-1.

Benefits of early implementation

The amended MIC has benefits for customers as it sharpens incentives for transmission businesses to consistently manage the timing of outages on their prescribed assets to reduce the impact on the wholesale market. Improved management of these outages benefits market participants and end users through reduced spot price volatility and strongly advances the NEO.

Costs of early implementation

Transitioning from the previous version of the MIC to version 4 does not impose significant costs to TNSPs. TNSPs currently subject to the previous version of the MIC need to review their previous performance in line with the changes to the scheme. This is unlikely to materially disadvantage a

TNSP because its historical performance and targets are also revised in accordance with the same approach.

While it is relatively straightforward for TNSPs to implement version 4 of the MIC, in earlier versions of the scheme MIC targets were set during the revenue determination process. ElectraNet's version 3 target may have influenced their work estimates and their operational and maintenance approach. Adoption of version 4 of the MIC partway through a regulatory period may therefore require the revenue determination to be re-opened. Even assuming that the re-opening could be limited to just the appropriate parameters, the cost of this would outweigh potential customer benefits.

5 STPIS interaction with other incentive schemes

The AER administers two incentive schemes that relate to transmission businesses opex: the STPIS and the efficiency benefit sharing scheme (EBSS).

The EBSS aims to provide an incentive for TNSPs to pursue efficiency improvements in opex and to share such efficiency gains between the network business and its users. Under the EBSS, a TNSP is rewarded for incremental reductions in opex and penalised for incremental increases. The EBSS allows TNSPs to retain incremental gains or losses for six years, thus allowing it to retain approximately 30 per cent of the efficiency gain or loss.

The NCC expressly excludes the inclusion of the cost of proposed NCIPAP projects in a TNSP's forecast opex or capital expenditure, to prevent a TNSP being funded to undertake a priority project through both their regulated revenue and NCC incentive payments.

NCC-type projects and EBSS

The regulatory arrangements outside the STPIS do not incentivise TNSPs undertaking small low cost measures to improve network capability. As seen in our rejection of ElectraNet's proposed network optimisation projects in the draft 2013–2018 revenue determination, the cost of network capability improvement projects is unlikely to be included in a TNSP's forecast operating expenditure as it would not meet the opex criteria.

ElectraNet currently operates under version 1 of the transmission EBSS. This version of the EBSS prescribes that in calculating the benefits or losses to be carried over, the measurement of actual expenditure over the regulatory period must be done using the same cost categories and methodology used to calculate the forecast expenditure for that period. Adjustments will be made where necessary to correct for variances in the cost categories and methodology, and errors.

Given, in ElectraNet's case, NCC-type project opex was not included in the opex forecast amounts in the EBSS it should also not be included in the actual opex amounts. Thus the expenditure would not be subject to the EBSS and the total opex for NCC-type projects would be recorded separately from operating expenditure costs in the regulatory accounts.

Where projects have been explicitly excluded from the opex forecast, it would be perverse for any expenditure on those rejected projects to be subject to the EBSS because TNSPs would be able to recover a significant portion of that expenditure. Where the project does not involve recurrent expenditure, the voluntary project would actually result in a positive EBSS payment. In the absence of the EBSS the TNSP would incur 100 per cent of the cost. The EBSS compensates the NSP for the opex cost of the project six years later such that it only incurs 30 per cent of the cost in net present value terms.

As a matter of principle, there should be no overlap between the EBSS and expenditure on approved NCIPAP priority projects.

Recouping net costs through the service component

The maximum value of the service component is ± 1 per cent of MAR. To recoup the total NCC project cost through the service component alone, the projects would need to have a positive impact on service component to take it from at -1 per cent to 0 (up to +1%).

Under version 3 of the STPIS, the service component has a total circuit availability parameter and two parameters measuring the magnitude of unplanned outages. Most NCIPAP projects are designed to increase throughput on a particular circuit (increase circuit limit). Such project expenditure could improve service component performance, to the extent that projects: returned circuits into service quicker than what would otherwise occur; improve reliability; or reduce the severity of an outage. Relevantly:

- Where a project increases the system normal capability of a circuit, performance would not be improved under the total circuit availability parameter because it measures whether a circuit is in service or not, not the transfer capability. Where a project allows a circuit to be returned to service more quickly, only an incremental improvement on performance under the total circuit availability parameter could be achieved given the number of circuits counted.
- With the average outage duration and loss of supply parameters, a voluntary project may provide benefits if it prevented/reduced the impacts of an outage, depending on what other outages occur on the network.

Thus, it is unlikely that TNSPs could recover the costs of voluntary NCC-type projects over time through the service component alone.

Recouping benefits through the MIC

The MIC provides an incentive payment up to 2 per cent of MAR, but only measures performance under outage conditions. As above, if the NCC-type projects improve transfer capability during system normal, this benefit is not necessarily captured by the MIC. However, a project could improve MIC performance if it improves reliability or reduces the impact of an outage. Conversely, if the implementation of a project required equipment outages, then it would also be subject to a MIC penalty, but would also affect future MIC targets. As with the service component, it is possible, although unlikely, that TNSPs could recoup benefits of voluntary expenditure on some projects through the MIC.