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31 January 2020

Mr Sebastian Roberts
General Manager – Transmission and Gas
Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001

Cc: Slavko Jovanoski, Director
David Chan, Director

Dear Sebastian,

Proposed Service Target Performance Incentive Scheme (STPIS) Review

I refer to Powerlink's Framework and Approach (F&A) initiation letter dated 31 October 2019 and correspondence dated 3 December 2019, regarding Powerlink's request to amend the STPIS to apply to its 2023-27 Revenue Proposal and regulatory period.

This letter provides evidence to support Powerlink's request, specifically regarding the Market Impact Component (MIC), and proposes a range of potential changes and improvements to Version 5 of the STPIS.

The basis of Powerlink's request for a review of the STPIS is:

- rapid changes have occurred within the energy market post-2015, when the current Version 5 STPIS was introduced. This includes significant changes in power flows and generation mix across the National Electricity Market (NEM), which are outside Powerlink's control;
- these changes have resulted in system strength issues and constraints in Queensland, which impact the MIC; and
- the MIC uses historical performance data for future target setting. Due to the extent and speed of the changes which have occurred, the current target setting methodology is not fit-for-purpose for the upcoming regulatory period.

As a result of its discussions with other Transmission Network Service Providers (TNSPs), Powerlink is aware that these changes and issues have also been observed and experienced in other jurisdictions.

Powerlink will engage with customers regarding the STPIS at its next Revenue Proposal Reference Group (RPRG) meeting on 31 January 2020 and will continue to involve customers and other interested stakeholders should a review progress.

Constraints emerging in 2019 due to generation mix changes

Powerlink's current STPIS MIC target is 333 Dispatch Intervals (DIs), with a floor of 666 DIs. This applies to Powerlink until the end of its current regulatory period, namely 30 June 2022. Our STPIS MIC result for 2019 was 12,620 DIs or 127 times more than the average of the previous four year period.

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Powerlink has categorised constraints experienced in 2019 in two ways:

1. **Increase in “traditional” constraints** – approximately 9,000 of the DIs observed in 2019 were due to a significant increase in flows on critical transmission lines which connect North and South Queensland. This was a result of increased generation located within North Queensland compared to previous years, with over 1,300 MW of new wind and solar generation connected since 2017. The increase in north-south flows has created a situation where system normal constraints are binding more often which, in turn, severely restrict outage windows. Powerlink has categorised this as a “traditional” type of constraint to separate it from “new” system strength related constraints.
2. **Emergence of “new” constraints** – approximately 3,000 of the DIs observed in 2019 were due to system strength related constraints. In May 2019, the Australian Energy Market Operator’s (AEMO) National Electricity Market Dispatch Engine (NEMDE) first began recognising system strength constraints in Queensland. System strength constraints did not exist in the Queensland up until this point and therefore are not reflected in any historical constraint data (i.e. prior to May 2019).

The driver of the increase in both “traditional” and “new” constraints is the rapid change in generation mix and location. These changes are outside Powerlink’s control and the constraints arising from these changes are expected to continue into the future.

MIC target setting

Under Version 5 of the STPIS, the AER’s Final Decision for Powerlink’s MIC target for the next (2023-27) regulatory period is expected to be the median five-year average from the seven years between 2015 and 2021.

Figure 2 shows Powerlink’s performance over the 2015 to 2019 period, including a forecast of performance for 2020 and 2021. Because the rapid change in generation mix and location is anticipated to continue into the next few years, there is considerable uncertainty in forecasting potential MIC results within the current operating environment. Accordingly, Powerlink’s estimate for 2020 and 2021 reflects its 2019 result carried forward.

Figure 1: Calendar Year DIs – History and Forecast

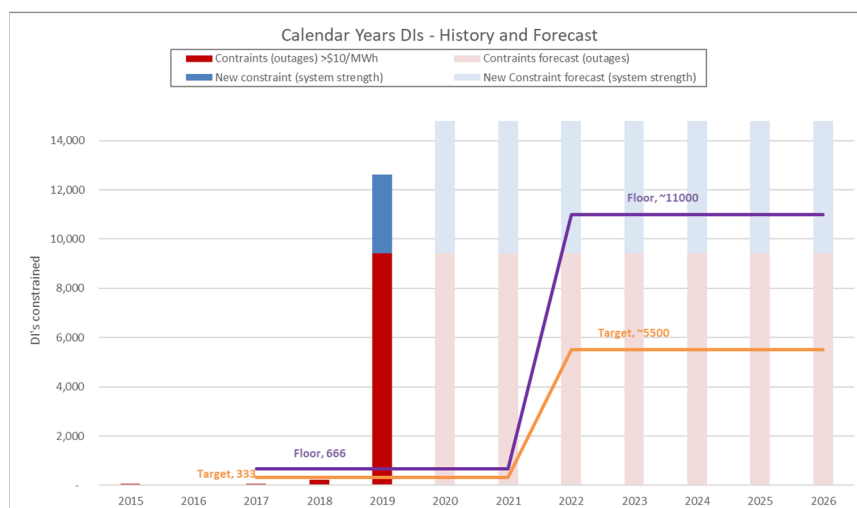


Figure 1 explanatory notes:

- Red = “traditional” STPIS reportable DIs.
- Blue = “new” constraints related to system strength.
- Light red (2020 and 2021) = estimated number of “traditional” constraints, based on 2019 year actuals.
- Light blue (2020 and 2021) = estimated number of “new” constraints, based on 2019 year actuals.
- Target 333 and floor 666 = current DI targets, which are applicable to Powerlink until 30 June 2022.
- Target ~5,500 and floor ~11,000 = forecast DI targets for Powerlink’s 2023-2027 regulatory period.

The increase in DIs from 12,635 in 2019 to approximately 14,000 in 2020 and 2021 is related to “new” constraints. In 2019, system strength constraints only emerged in the period May-December 2019 (8 months, after system strength constraints were recognised in AEMO’s NEMDE) and equated to 3,000 DIs. For the full 12 month periods in 2020 and 2021, Powerlink has estimated constraints related to system strength will be approximately 5,000 DIs.

Powerlink’s estimate is based on continued growth in asynchronous generation during the 2023-27 regulatory period and the view that no current committed capital expenditure projects within the 2023-27 timeframe would significantly alleviate the number of constraints in the network.

Based on the 2015-2021 MIC actuals and forecasts, and using the V5 target setting process,, Powerlink has estimated its target for the 2023-27 regulatory period would be approximately 5,500 DIs, with a floor of approximately 11,000 DIs.

Given actual annual performance for 2019 is 12,000 DIs, and this is anticipated to increase in 2020 and 2021 to over 15,000 DIs, Powerlink estimates that it will exceed the maximum penalty (the forecast ~11,000 floor) for the entire 2023-27 regulatory period.

Powerlink’s view is that this potential result supports the proposal that the Version 5 STPIS target setting methodology is not fit-for-purpose for the next regulatory period and will result in a target that is not reflective of the current operating environment.

Potential changes and improvements to STPIS Version 5

The STPIS scheme is intended to provide incentives for each TNSP to provide greater reliability of the transmission system at all times when customers place greatest value on reliability. The scheme is also intended to improve and maintain the reliability of those elements of the transmission system most important to determining spot prices¹.

Powerlink considers that, consistent with the underlying principles noted above, the scheme and its target setting arrangements need to reflect the current NEM operating environment and adapt to significant changes in it, such as those observed in Queensland.

Powerlink recognises the AER’s view that STPIS will be reviewed as part of the Coordination of Generation and Transmission Investment (COGATI) reforms that are currently proposed. Powerlink notes the recent deferral of the COGATI Final Report to March 2020, and the likely deferral of the implementation of COGATI-related reforms beyond June 2022.

Given this, Powerlink remains of the view that the STPIS should be reviewed now and the continuation of the current STPIS arrangements into Powerlink’s 2023-27 regulatory period would not present an appropriate outcome for Powerlink or its customers.

Powerlink has developed a range of potential options that could be considered and explored as part of a review of the STPIS Version 5.

- Progress changes to target setting/measurement of performance methods to enable TNSPs to influence operational work and timeframes and provide benefits to customers. This option may consider and bring forward potential changes considered within COGATI, such as nested caps which were first outlined in the Optional Firm Access Final Report².
- Expand the suite of exclusions to reflect current circumstances. A specific exclusion (holiday/exemption) for impacts due to new generation and closure of thermal generators (“new limits” causing restrictions in the market). This exclusion could be applied to the actual performance while historical data builds up to enable sensible future target generation.

¹ NER, 6A.7.4(b)

² *Final Report – Volume 2 Optional Firm Access, Design and Testing*, AEMC, 9 July 2015, pp.118-123.

- Re-define the marginal value of >\$10/MWh to better reflect current market trends.
- Consider applying the “alternative target setting methodology” clauses³ that are currently available for the Service Component of the STPIS to the MIC, and enable TNSPs to propose alternative target setting arrangements which are reflective of the current operating environment.

Conclusion

Powerlink considers that changes to the current version of the STPIS are warranted and should be progressed and applied to its 2023-27 Revenue Determination process. Powerlink welcomes the opportunity to work further with the AER, its customers and other interested stakeholders on this matter.

Should you have any questions regarding this submission, please contact Matthew Myers at the details below.

Yours sincerely,

Darryl Rowell
Chief Financial Officer

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³ AER electricity transmission service target performance incentive scheme (STPIS) version 5 (corrected) clauses 3.2(g), (i) and (j), AER, 1 October 2015, p.6.