grid australia
BACKBONE OF THE NEM

Draft service target performance incentive scheme

Version 5, June 2015

30 July 2015

Powerlink Queensland · TransGrid · ElectraNet · TasNetworks Delivering your power · AusNet services

Table of Contents

1. Introduction

On 15 June 2015 the Australian Energy Regulator (AER) released its proposed draft version 5 of the transmission service target performance incentive scheme (STPIS) and the associated explanatory statement.

Transmission Network Service Providers (TNSPs) have been subject to the STPIS, administered by the AER, and earlier performance incentive schemes administered by the Australian Competition and Consumer Commission (ACCC) and jurisdictional regulators for more than 10 years.

During this period the schemes have provided incentives for TNSPs to improve or maintain network performance against parameters set by the regulator. These parameters inform TNSPs of the relative value consumers and market participants place on observable performance of transmission systems and influence the maintenance and operating priorities of TNSPs accordingly.

Changes to the STPIS have typically been incremental with the periodic introduction of new components such as the market impact component (MIC) and the network capability component. These new components have typically been subject to subsequent "fine tuning" to provide clarity and better target incentives.

Grid Australia is broadly supportive of the incremental adjustments currently proposed to the service component and the network capability component.

However, it does not support the change proposed to the market impact component which would see the parameter move to a notionally symmetric bonus/penalty scheme with caps and floors that are not determined with reference to the proposed performance targets using a sound, statistically based methodology as is required for the service component parameters. Also it is noteworthy that changes introduced to the MIC in version 4 have not yet had the opportunity to be implemented by most TNSPs and so have not yet had a chance to work.

Each component of the STPIS is addressed in turn.

2. Market Impact Component

The MIC was introduced in version 2 of the STPIS as an asymmetric, bonus only, incentive which sought to target outages that have an adverse impact on dispatch outcomes and thus on the average price of wholesale energy traded in the spot market. Under this component:

> "TNSPs are encouraged to improve the availability, security and ultimately reliability of the transmission system at the times most valued by transmission network users"1.

[1] Final Decision STPIS (V2) – March 2008 p. 4

This incentive is in addition to obligations under the Rules and jurisdictional instruments to minimise the impact of TNSP operational decisions on transmission network users.

2.1 Reward, penalties and revenue at risk

In establishing the MIC the AER considered symmetric and asymmetric incentive options, ultimately electing to implement the component as a bonus only parameter with a target (zero bonus) equal to the average performance of the five year target setting period and maximum bonus (+2% of MAR) being reached by achieving performance of zero dispatch intervals (Dis). In arriving at this position the AER noted that a:

> "more realistic scenario is that TNSPs will reduce outage events with a market impact of over $10/MW by up to 50 per cent, in which case the maximum likely reward is likely to be no higher the 1 per cent." [2]

Subsequently in version 4 of the STPIS the AER amended the component to have the target based on a rolling three year average of performance and performance measured over two years to limit perceived strategic behaviour on the part of TNSPs.

> "A rolling performance measure limits the ability for TNSPs to artificially 'zig zag' their performance to receive large incentive payments. A rolling performance measure over a two year period addresses the incentive for a TNSP to schedule all critical outages in one year at a time likely to deliver high market impacts (that also flow into an easier target) and no critical outages in the next period. Under a rolling performance measure, artificially spiking the performance in one year will 'penalise' the TNSP with very low incentive payments for two years before benefiting from high targets." [3]

2.2 Timing of the introduction of a symmetrical incentive

While the draft decision notes that the MIC has been in effect for 8 years there have been material changes to the target setting and performance measurement arrangements over this period. In fact, those introduced in version 4 in late 2012 have not yet had the opportunity to be implemented by most TNSPs. Only AusNet Services (1 April 2014), TransGrid (1 July 2015) and TasNetworks (1 July 2015) are subject to the new MIC arrangements having revenue determinations made under version 4 or later.

Grid Australia does not consider it is reasonable to make another fundamental change to the MIC when the amendments made in version 4 have not yet had the opportunity to prove their effectiveness in reducing the behaviour inferred by the AER.

[2] Draft STPIS (V2) explanatory statement - 20 November 2007 p. 18

[3] AER Final Decision STPIS Version 4 - 19 December 2012 pp. 46-7

2.3 The methodology for setting targets, floors and caps

Notwithstanding Grid Australia's opposition to making a fundamental change to the MIC before the changes introduced in version 4 have had a chance to work, the following comments are provided on the proposed targets, floors and caps.

The AER has proposed to set targets consistent with version 4 and 4.1 of the STPIS with an arbitrary minimum target of 100 counts.

While Grid Australia appreciates the issue of disproportionately high values per dispatch interval observed in some regions it is not clear that the proposed change is appropriate to addressing this issue. The proposal does not address the significant variances in network topologies and operating characteristics of the regions which significantly influence the long run sustainable MIC performance across the transmission networks.

The AER proposes the maximum bonus of 1 per cent of MAR would be achieved for performance of zero dispatch intervals while maximum penalty of -1 per cent of MAR would apply for performance of double the target.

Grid Australia considers the proposed methodology for establishing the cap for full bonus and floor for full penalty lacks rigour and does not result in a symmetrical incentive. The likelihood of a double the target outcome is far greater than achieving zero dispatch intervals.

In the event the AER were to introduce a bonus/penalty scheme Grid Australia considers that caps and floors should be set in a similar fashion to the Service Component. This could be achieved by setting caps and floors based on the statistical distribution that fits each TNSPs historical performance.

Setting caps and floors using a statistical method would achieve consistency between the design of the Market Impact and the Service Components of the scheme and provides a means of introducing a more symmetric incentive. Regarding the setting of caps and floors, section 3.2(e) of the draft scheme states that:

> "The proposed [Service Component] floors and caps must be calculated by reference to the proposed performance targets and using a sound methodology."

While this requirement relates to the Service Component, the soundness of the methodology used to set caps and floors should equally apply to establishing values for the MIC parameters.

Given the shortcomings identified above with respect to the AER's proposal, Grid Australia considers a scheme based on the statistical distribution is a more sound basis to set caps and floors. An AusNet Services submission outlines one possible methodology which may achieve this.

Grid Australia looks forward to engaging with the AER and other stakeholders in developing a sound methodology.

2.4 Statistical outlier adjustment

Grid Australia recognises that the AER's proposed statistical outlier adjustment is intended to mitigate the impact of single large events, and reduce the volatility of performance measures and targets. However, the 17% cap is also intended to serve a similar purpose.

Accordingly greater clarity is required with respect to the circumstances in which the AER will remove the impact of an event (i.e. make an adjustment for a statistical outlier) or include the impact of the event but apply the 17% cap.

This clarification will strengthen the incentive properties of the scheme by providing certainty to TNSPs regarding which events can be included or excluded from their performance measures and targets.

2.5 Exclusions and adjustments

In principle, Grid Australia supports the capping of events to no more that 17% of the target per single outage event. The present definition of "a single outage event" as "A network outage event described by the constraint set invoked by AEMO to manage a single network outage" is ambiguous. Unless this definition is changed, it will be unlikely that the AER's stated intent to "*mitigate the risk of unforseen events, significant capex projects or major outages dramatically changing the measure and target*"[4] will be achieved.

Major projects are likely to involve AEMO invoking multiple constraints multiple times over an extended period of time as the project progresses. This is consistent with the TNSP seeking to schedule works in "windows" so as to minimise their impact on the market.

In order to meet the AER's intent, the definition of single outage event must be amended to ensure that major project outages occurring over a period of time are subject to the cap. Similarly, the common cause of the outages must be recognised rather than AEMO's response with the invocation of a single constraint or constraint set. Accordingly, Grid Australia proposes the following, alternative definition:

> "A network outage event includes all constraints invoked by AEMO to manage network outages initiated by a common event".

Grid Australia welcomes the opportunity to discuss this issue in more detail.

Grid Australia supports the exclusion of planned third party outages. While the TNSP is required to negotiate with the third party with respect to outages on assets not providing a prescribed service ultimately the third party is likely to determine its outage requirements without regard for the impact on other market participants. This exclusion should ensure that outages required on prescribed assets as a consequence of the outage of assets which are not providing a prescribed service are also excluded.

[4] Draft STPIS (V5) explanatory statement p. 16

Grid Australia supports the further exclusions proposed to address ramping constraints and restrictions to connections in accordance with connection agreements where this has been provided for to address the particular lower service standard connection arrangements.

2.6 Other Proposed Changes

Regarding ERM's proposal to publish annual TNSP performance targets and monthly performance data, we agree with the AER that the data and computational burden to produce monthly or year-to-date performance measures is significant for participants and should not be applied.

3. Service Component

Grid Australia notes the limited changes proposed to the service component which include changing the title of the average circuit outage rate, the introduction of non-zero weightings to the forced outage sub-parameters.

3.1 Changing average circuit outage rate name

Grid Australia supports this proposed amendment.

3.2 Forced unplanned outage circuit event rate sub-parameters

While Grid Australia agrees in principle with the proposal to apply non-zero ratings to the forced unplanned sub-parameters the AER's rationale for expanding the bonus/penalty range is unclear.

4. Network Capability Component

4.1 Pro-rating of incentive allowance

Grid Australia supports this amendment as it addresses an anomaly in the existing arrangements and enhances the long term sustainability of the scheme.

4.2 Introduction of requirement to consider payback period

This proposal appears proportionate however the scheme should not preclude minor projects of an exploratory nature that have the potential to identify material benefits to customers.

The NPV of the project should remain the key measure used to assess projects, rather than payback (which could be a secondary measure), as NPV ultimately will determine whether customers stand to benefit or not.

4.3 Enhancing ability to reduce incentive allowance in the last year

Grid Australia opposes the proposed change given the detailed ex ante assessment of priority projects required by the scheme.

Where priority projects have been progressed by a TNSP in good faith and the benefit realised is inconsistent with that detailed during the ex ante assessment it is unreasonable to penalise the TNSP. To do so would substantially reduce the incentive for TNSPs to undertake projects of benefit to customers and runs counter to the intent of the original scheme which was to be a light handed scheme.

4.4 Enhanced ability for TNSPs to propose additional priority projects

Grid Australia supports this proposal.

Grid Australia agrees that the provision of greater flexibility for TNSPs to propose additional priority projects during the regulatory control period will enhance the scheme. However, there may be circumstances where the TNSP wishes to withdraw a project and is not willing or able to propose an alternative project. The scheme as drafted does not appear to address this possible decision path.

4.5 Ex post project reviews

Where, prior to commencing, a priority project is demonstrated to no longer provide the benefits anticipated in the network capability incentive action plan (NCIPAP) the TNSP should either remove the project and have the incentive reduced proportionately or propose alternative priority projects as noted in 4.4 above.

Seeking to assess the benefits ex-post against those included in the NCIPAP as approved by AEMO and the AER ex-ante is not necessarily feasible.

By way of example, in a manufacturing setting, consider an improvement project which is framed around the likelihood of failure of an aged motor driving a conveyor with consequent costs associated with the failure of the drive and the lost production. The motor is replaced and an ex post assessment is conducted which notes the new drive has not failed but that no improvement in productivity has occurred. The benefits modelled ex-ante are unable to be proved ex-post. In a real world setting with many motors a statistical correlation could perhaps be made between those motors that were changed and those that were not. In the transmission system, however, the nature of the NCC projects are diverse and bespoke and do not lend themselves to statistical analysis. Similarly the magnitude of the benefit associated with each priority project is small versus the background performance of the system.

In addition, ex post reviews of NCIPAP projects would blunt the incentive for TNSPs to undertake these projects as it is costly to continue to monitor the project benefits and there is a risk that a penalty can be applied after the project is delivered. This type of ex post review is not permitted under the Rules in relation to capital works undertaken by TNSPs under their ex ante capex allowances. It appears disproportionate that NCIPAP projects could be subject to such an assessment.

5. Annual Compliance Review

Grid Australia notes that the AER is process owner for the Service Target Incentive Performance Scheme, and is therefore both accountable and responsible for the scheme. This would include any efficiency improvements relating to the compliance review.

Recent Rule changes made by the AEMC now require that TNSP prices must be published by 15 March each year. In order for the TNSP to consult properly with its billing customer prior to publication, it is important that the AER publishes it final compliance review reports by 1 March each year. The impact of late delivery is primarily carried by the billed customer who potentially sees movements in prices which could otherwise have been avoided.

In the last three years it is notable that the AER has not met the agreed timetable. The AER has acknowledged that timeliness is an improvement opportunity. While we would expect the AER as the process owner to take the lead on the process improvements, Grid Australia remains committed to working with the AER in this matter5.

Separately, it should be noted that including additional ex-post project reviews into the same timeframe is likely to prove problematic.

[5] Note that this concern does not apply to AusNet Services given the different timing of its regulatory years.