

Congestion management Technical Working Group

Staff working paper – Objectives and assessment criteria

1. Context

As requested by TWG members, the 18 February 2022 TWG meeting included a discussion of the ESB's transmission access reform objectives and assessment criteria. We have subsequently refined the TAR objectives and assessment criteria, considering recent feedback from the technical working group. In particular, we have sought to map them against two main categories – investment challenges and operational challenges – to better assess which model addresses which of these challenges.

The following tables set out the technical working group's feedback on the TAR objectives and assessment criteria, respectively, with an explanation of how we have incorporated this feedback. The specific changes are reflected via a marked-up version of the amended objectives and assessment criteria, for the TWG's ease of reference.

2. Objectives

The technical working group's comments on the objectives, and our corresponding changes, are as follows:

TWG comments	Change to objectives
Mention the timeframes we are targeting and the longevity of what we are trying to achieve.	<ul style="list-style-type: none">• Additional line to introduce the objectives, which specifies the timeframe for implementing the reform and that it is intended to be enduring.
Any planning around congestion should align with central planning under the ISP.	<ul style="list-style-type: none">• Addition to objective 1 to specify that signals to reflect transmission capacity will align with both the ISP and state government policies.
The market should be responsible for coming up with risk management tools. Policy makers should only be considering how to protect investments against <i>inefficient</i> generators subsequently co-locating and constraining incumbents.	<ul style="list-style-type: none">• Amended objective 4 to replace the reference to risk management tools with the notion of promoting investor confidence.• Made further edits to objective 4 to clarify what is meant by subsequent inefficient connections.
Separate the objectives into "allocating" and "solving" congestion.	<ul style="list-style-type: none">• Added a supplementary table to demonstrate which objectives meet operational timeframes (i.e. which allocate congestion) and which meet investment timeframes congestion (i.e. which solve congestion).

Updated TAR objectives (with tracked changes):

The following objectives seek to guide the assessment of transmission access reform, to be implemented by 2025 on an enduring basis:

1. **Investment efficiency (locational signals)**: Better signals for generators to locate in areas with available transmission capacity ~~efficient areas – including, but not necessarily limited to, REZs delivered in line with the ISP and state government policies –~~ where they can provide the most benefit to customers.
2. **Operational efficiency (dispatch signals) Congestion management**: Better use of the network in operational timeframes, resulting in more efficient dispatch outcomes and lower costs for consumers.
3. **Enabling new technologies**: Establishing a framework that rewards ~~for~~ storage and demand-side resources to ~~who~~ locate where they are needed most and operate in ways that benefit the broader system.
4. **Risk management tools Increased investor confidence**: Measures to give ~~promote~~ investors' confidence that subsequent inefficient connections – that are not lower-cost generators – will not undermine their investments. ~~will not be undermined by inefficient subsequent connections.~~

These objectives arise in two different timeframes. Table 2 shows how the TAR objectives relate to each other.

Table 2: Refined TAR objectives

Objective categories	Sub-objectives 1	Sub-objectives 2	Sub-objective 3
Investment timeframes <i>Goal: We have the right amount of congestion.</i>	Investment efficiency (locational signals)	Enabling new technologies	Increased investor confidence
Operational timeframes <i>Goal: When congestion occurs, we manage it well.</i>	Operational efficiency (dispatch signals)	Enabling new technologies	

3. Assessment Criteria

The technical working group’s comments on the assessment criteria, and our corresponding changes, are as follows:

TWG comment	Change to assessment criteria
<p>Concern that criteria 3 and 4 have the potential to conflict; do not consider allocation of transmission costs to be a main goal of this access reform.</p>	<ul style="list-style-type: none"> • Remove criteria 4 on grounds that as currently drafted, it is beyond scope. • <i>[Note: Criteria 4 was included in recognition of the opportunity for commercial investors to fund transmission investment to release new capacity and receive access rights in return. However, the drafting did not convey this intent, which in any case is already addressed by criteria 1 and 3.]</i>
<p>Regarding criterion 3, confusion around what is meant by efficiently allocating risk. Risks should be allocated to the party best placed to manage them.</p>	<ul style="list-style-type: none"> • Updated criterion 3 to replace references to efficiently allocating risk with the notion of allocating risk to the party that is best placed to manage them.
<p>Flesh out the points in criterion 5 to specifically capture consideration of system complexities and appropriate mitigation strategies in implementation.</p>	<ul style="list-style-type: none"> • Amended criterion 5 to clarify that complexity of implementation should account for the impact of the physical complexities of the system. • Further edits to capture consideration of whether the option can mitigate disruption for market participants.
<p>Regarding timing and uncertainty (criterion 5), there should be consideration of the costs versus the benefits of the proposal.</p>	<ul style="list-style-type: none"> • Updated criterion 5 to specify that the costs of each option be assessed against its benefits.
<p>Add “achievability” as a part of implementation, to capture whether a solution is likely to be acceptable to consumers and/or governments.</p>	<ul style="list-style-type: none"> • Reflected in additional bullet point to criterion 5

Updated assessment criteria (with tracked changes):

No.	Criteria	Description
1	Efficient market outcomes – investment	<ul style="list-style-type: none"> Better incentives for generators, storage such as batteries, and load such as hydrogen electrolyzers to locate in efficient areas. In the case of generation, this is most likely where there is low congestion levels, such that transmission assets are better utilised. In the case of storage and load, this may be areas that are congested to help alleviate that congestion and use otherwise wasted renewable electricity that was unable to reach the load.
2	Efficient market outcomes - dispatch	<ul style="list-style-type: none"> Better incentives for generation, storage such as batteries, and load such as hydrogen electrolyzers to bid in a fashion that best reflects its underlying costs, resulting in more efficient dispatch outcomes and reducing fuel costs across the NEM. In turn, this may also reduce emissions.
3	Appropriate allocation of risk	<ul style="list-style-type: none"> The allocation of risk arising due to congestion in the NEM should be <u>allocated, to the extent possible, to the party that is best placed to manage them, done as efficiently as possible</u> noting the practical limitations on exposing parties to risk without appropriate mitigation tools and measures.
4	Appropriate allocation of the cost of transmission investment	<ul style="list-style-type: none"> The efficient allocation of the cost of transmission should be allocated between consumers and generators in a way that promotes the beneficiary pays principle. This criterion should seek to support the appropriate allocation of risk (criterion 3) and should be considered second order where it may conflict with the other criteria.
54	Implementation considerations	<ul style="list-style-type: none"> Cost and complexity: cost and complexity of implementation, <u>including impact of the system's physical complexities</u>, and ongoing regulatory and administrative costs to all market participants, <u>consumers and market bodies, compared to the expected benefits of the option, across all potential solutions (consider timing, nature of issue)</u> Timing and uncertainty: uncertainty of outcome, and the likely timing of benefits versus costs, <u>and whether there are strategies to mitigate the impact of the changes on market participants.</u> <u>Achievability: the authorising environment for the proposed solution.</u>
65	Flexibility to enable consideration of jurisdictional differences	<ul style="list-style-type: none"> As requested by Ministers, the proposed rules must provide flexibility such that differences between jurisdictions, such as those without REZ schemes, can be appropriately adapted.