AUSTRALIAN ENERGY REGULATOR

Wednesday, 6 April 2022

Consultation paper public forum

Pricing methodology guidelines: System strength pricing

Agenda

Time (AEST)	Item
2:00 – 2:10	Welcome and introductions: AER
2:10 – 2:30	Context, scope and approach: farrierswier presentation followed by Q&A
2:30 – 3:30	Pricing based on long-run cost: farrierswier presentation followed by Q&A
3:30 – 3:40	Revenue forecasting: farrierswier presentation followed by Q&A
3:40 – 3:50	Application in Victoria: farrierswier presentation followed by Q&A
3.50 – 4:00	Next steps and closing: AER

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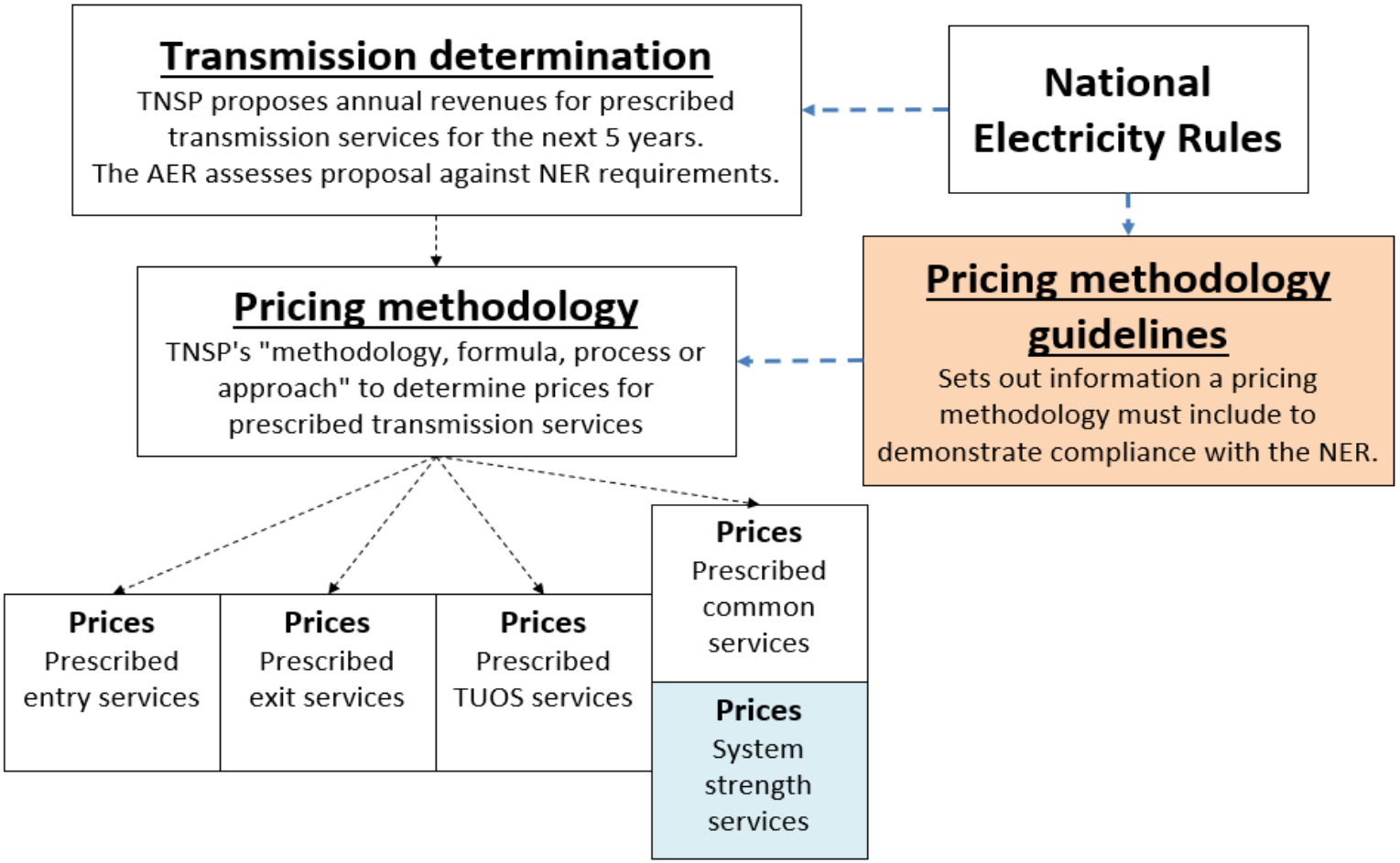
AER welcome and introductions

Pricing methodology guidelines



Current version of the pricing methodology guidelines: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/pricing-methodology-guidelines-2014/final-decision

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Context, scope and approach

Context and scope for our task

System strength is a quality of the power system that is related to the overall stability of the voltage waveform. It includes fault level provision required for the stable operation of generating plant and network protection systems.

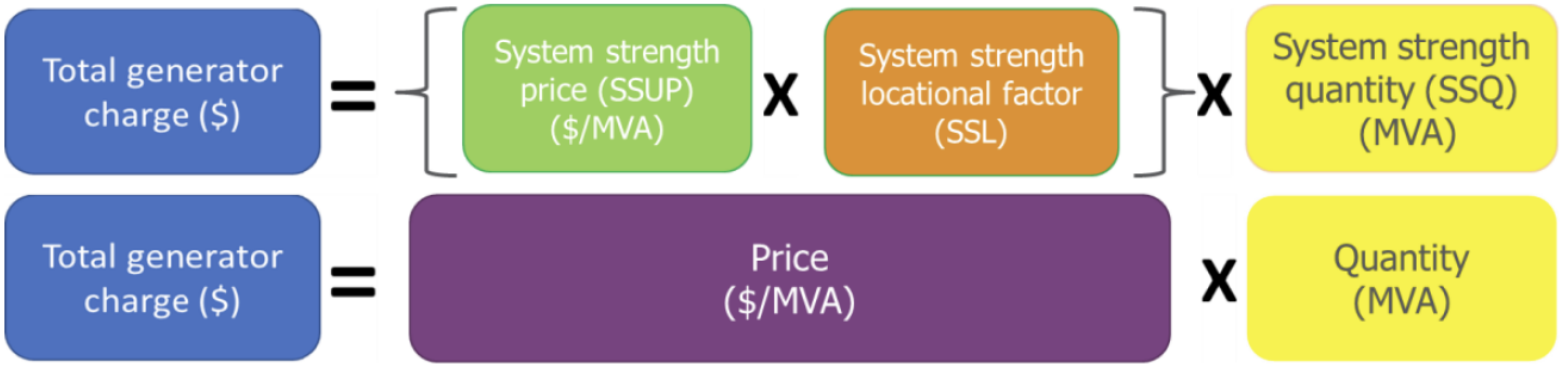
The AEMC's October 2021 final rule in the system strength rule change established a new framework for the planning, provision and charging for system strength services in the NEM.

The AEMC's final rule determined that:

- system strength services will be provided by the TNSP in each region that is the System Strength Service Provider (SSSP) for that region
- generators and certain large loads will have the choice when they connect to:
  - pay a system strength charge for system strength services provided by the SSSP
  - provide their own system strength
- SSSPs' costs of providing system strength services will be partly paid for by connecting parties through the system strength charge, and partly paid for by transmission customers though common transmission services.

Context and scope for our task

The final rule also sets out the required structure of the system strength charge:



- **SSUP**: $/MVA unit price set for each system strength node based on the long-run costs of providing system strength services at that node. The SSUP is fixed for a system strength charging period, which is usually 5 years
- **SSL**: A ratio based on the relative electrical distance from the connecting party to the closest system strength node
- **SSQ**: The expected consumption of system strength by the connecting party ($MVA/MW x MW) estimated based on its size in MW and its short circuit ratio.

Context and scope for our task

The final rule requires the AER to modify the transmission pricing methodology guidelines by 31 August 2022 for two new requirements:

- the permitted methodologies for determining the SSUP component of the system strength charge
- principles for determining forecast annual system strength revenue and estimated actual annual system strength revenue.

Decisions on these issues may have a material impact on pricing outcomes for SSSPs, connecting parties and customers.

These are the only issues we have the power to determine though this guidelines amendment process:

- We cannot change any of the policy issues already determined by the AEMC that are discussed on the previous slides.
- AEMO is responsible for determining a range of issues though its system strength methodology, system strength impact assessment guidelines and annual system strength report, eg the location of nodes.
- Assessing TNSPs' efficient system strength costs will occur through our normal expenditure approval and variation processes, not this guideline.

Purpose of this consultation

Our current consultation objective is to seek initial feedback on:

- How we should approach this task
- Issues and considerations for permitted system strength pricing methodologies
- Issues and considerations for guidance on forecasting system strength revenues.

We will use your feedback to prepare draft guidelines for consultation in June.

Approach and principles

- The rules require us to have regard to:
  - the desirability of providing efficient investment and system strength transmission service utilisation signals to system strength users based on the long-run cost of providing system strength services at the relevant location
  - the desirability of consistent pricing structures across the NEM
  - the costs and benefits associated with calculating, implementing and applying the methodology.
- We are conscious that system strength is a new service, the technology is evolving and some of the concepts such as long-run costs have not previously been used in transmission pricing. These factors and others discussed in the consultation paper suggest that it may be desirable to:
  - preserve flexibility in the pricing methodologies
  - favour simplicity in initial permitted methodologies, and revisit the potential benefits and costs of more complex methodologies as the market matures
  - favour methods that can support relative stability in the SSUP over time
  - seek to place SSSPs' system strength investment and utilisation risk with the parties best placed to manage it.

Questions?

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Pricing based on long-run cost

Pricing based on long-run cost

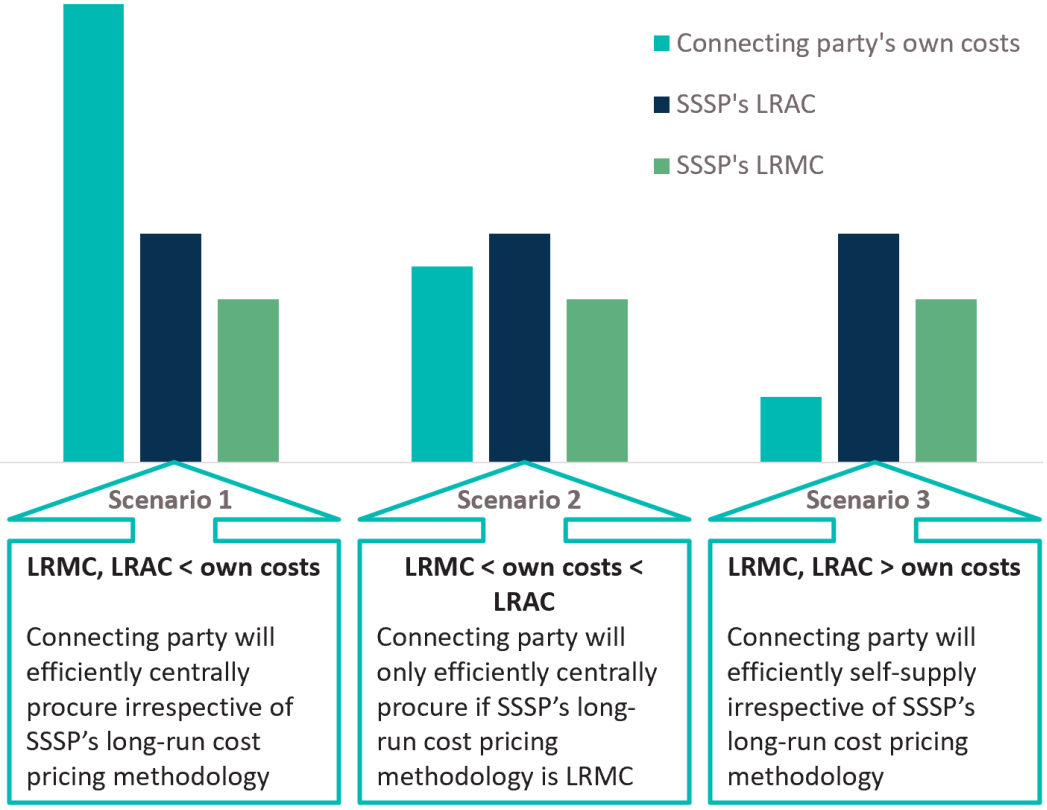
- Long-run cost pricing is different to existing transmission pricing
  - System strength price will be based on estimated long-run costs, not the AER-approved revenue requirement relating to providing system strength services
- Issues in using forecasts beyond the 5-year revenue determination:
  - How long is long-run, and should there be guidance on this?
  - How can the AER and affected stakeholders assess the reasonableness of SSSPs' long-run forecasts for pricing purposes?
- A 10 year period may be a practical solution, because:
  - AEMO's system strength report and TNSPs' DAPRs are both 10 years
  - 10 years is the minimum we approve for DNSPs' estimating long-run cost
  - Longer cost and demand forecasts for this new service my be impractical to predict amid technology change and no take-up experience yet.

Should guidance specify a minimum period for "long-run"?
If so, is 10 years reasonable?

Long-run economic cost concepts

- What are they?
  - Long-run marginal cost estimates the cost of the next unit sold
  - Long-run average cost calculates the unitised cost of all units sold
- When will they affect efficient SS utilisation?
  - Only when the connecting party's costs of self provision are between the SSSP's LRAC and LRMC (**S2**)
  - Central economies of scale suggest this is unlikely to occur, and were a key reason for the rule change (**S1**)

What scenario(s) should inform initial guidance?



Long-run economic cost concepts

- How do they compare for key considerations?

Consideration	LRAC	LRMC
Stability of price estimate	Relatively stable	More volatility
Supports causer pays principle between SS and TOUS users	Stronger	Weaker
Consistency with other TUOS pricing	More consistent	Less consistent
Estimation costs	Low	Will depend on the LRMC estimation method

The consultation paper seeks feedback on these considerations, their level of importance and how the methods compare?
Are there any questions on these?

Questions?

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Revenue forecasting

Revenue forecasting guidance

- Role of revenue forecasts
  - Revenue forecasts will determine SS revenue adjustments each year to SSSPs' prescribed common transmission services revenue recoveries
  - They comprise:
    - Forecast SS revenues for the pricing year (year t)
    - Estimated SS revenues for the year before (year t–1)
    - Actual SS revenues for the year 2 years prior (year t–2).
- We propose a principled approach to our guidance that seeks to:
  - Ensure the revenue inputs that SSSPs use in their pricing methodologies are reasonable estimates for that purpose
  - Impose a compliance burden that is commensurate with:
    - How we and TNSPs administer transmission pricing methodologies
    - Any customer risk arising from forecasting inaccuracy
  - Mnimise costs by relying on data already reported by TNSPs as much as possible.

What level of detail should be in the forecasting principles?
What principles should be included in the guidelines?

Questions?

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Application in Victoria

AEMO is the SSSP in Victoria

- Responsibility for transmission pricing in Victoria is currently split between AEMO and declared transmission system operators (DTSOs, eg AusNet Services)
- AEMO is the SSSP for Victoria
- AEMO is expected to procure system strength services by contracting with DTSOs or non-network providers
- AEMO is responsible for setting the SSUP and prescribed common transmission service charges in Victoria
- AEMO has a transmission pricing methodology that we approve, similar to other TNSPs. AEMO is currently subject to our transmission pricing methodology guidelines in the same way as other TNSPs.

Relevant differences for Victoria?

- AEMO does not have an AER revenue determination. AEMO's maximum allowed revenues as Victorian TNSP are determined in accordance with the NER and a revenue methodology developed by AEMO.
- This may have implications for the availability of cost information for AEMO when calculating its system strength costs and charges. For example, the AER revenue determination process, contingent project applications and cost pass through applications may provide relevant cost information for other SSSPs that will not be available for AEMO.
- AEMO may have access to cost information from tenders and contracts for the provision of system strength services by DTSOs and non-network providers. The availability of this information is likely to increase over time as AEMO procures more of these services.
- We are interested in whether there are any relevant differences between AEMO as SSSP for Victoria and other SSSPs that need to be reflected in our guidelines.

Questions?

Next steps

Next steps

Milestone	Date
AER published its Consultation Paper	22 March 2022
AER held its public forum on the Consultation Paper	8 April 2022
Submissions close on Consultation Paper	26 April 2022
AER publishes Proposed Pricing Methodology Guidelines	**6 June 2022**
Submissions close on Proposed Pricing Methodology Guidelines	19 July 2022
AER publishes Final Pricing Methodology Guidelines	**31 August 2022**
Applicable TNSPs and AEMO submit amended proposed pricing methodologies	*30 November 2022*
AER publishes final decision on proposed pricing methodologies	*31 January 2023*

How you can get involved

- Write a submission to the AER.
  - Stakeholder submissions are due by **26 April 2022.**
  - Our consultation paper and submissions template are at: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/system-strength-pricing/initiation
- Subscribe to the AER's website for updates:
  - https://www.aer.gov.au/newsletter/subscribe
- Contact the AER:
  - AERPricing@aer.gov.au