

26 April 2022

Warwick Anderson
General Manager Network Pricing
Australian Energy Regulator
Email: AERPricing@aer.gov.au

Dear Warwick,

Consultation Paper - Pricing methodology guidelines: System strength pricing

Energy Networks Australia (ENA) appreciates the opportunity to make this submission in response to the AER's consultation paper on its guidelines for system strength pricing.

ENA is the national industry body representing Australia's electricity transmission and distribution and gas distribution networks. Our members provide more than 16 million electricity and gas connections to almost every home and business across Australia.

The AER's consultation paper addresses the National Electricity Rules requirement for it to modify the current pricing guidelines to address the pricing of System Strength Services (SSS). This requirement follows from the AEMC's System Strength Rule change, which was finalised in October 2021.

ENA's key messages in response to the AER's consultation paper are:

- » Our objective is to minimise the costs to electricity consumers. ENA considers that the AER's guidelines for pricing SSS should reflect this overriding objective. Electricity consumers will ultimately benefit if TNSPs are able to leverage economies of scale in the provision of SSS and set prices in a manner that encourages connecting parties to make efficient decisions.
- » We support the concept of 'long run' pricing, as stable price signals are desirable for connecting parties in making efficient decisions. In this regard, long run average cost (LRAC) is likely to be preferable to marginal cost pricing. Furthermore, LRAC will provide better scope for cost recovery from connecting parties and reduce the extent to which costs are recovered from load customers.
- » Flexibility in pricing SSS should be factored into the AER's guidelines, given the existing level of immaturity and cost uncertainty in the provision of SSS. This immaturity relates to the technical and commercial aspects of service provision, which are likely to change materially over time. Pricing flexibility is required so that TNSPs can respond to new information as it becomes available.
- » The timetable for publishing the initial prices for SSS is highly compressed.
 - AEMO's first SSS report will be published by 1 December 2022;
 - the AER is scheduled to approve the TNSPs' amended pricing methodologies by 31 January 2023; and
 - TNSPs must set prices for SSS by 15 March 2023.

This tight timeframe and the paucity of cost data that will be available when initial prices are set further highlights the need to provide flexibility in the pricing arrangements to the extent

permissible by the Rules. ENA notes that the timetable is further complicated for TasNetworks by the requirement to lodge its revenue proposal by 31 January 2023.

- » The objective of minimising the total costs to electricity consumers depends on ensuring that investment in the provision of SSS is not stranded through inflexible or inefficient pricing arrangements. Accordingly, the AER's guidelines should recognise the need to respond to market developments in the provision of SSS, so that TNSPs can 'meet the market' and minimise the risk of asset stranding.

ENA has provided more detailed comments in the Attachment. While the Attachment focuses on the key issues noted above, ENA recognises the need to continue to work collaboratively with the AER to ensure that the updated pricing guidelines appropriately balance the need for consistency in the pricing approach while also facilitating flexibility. As part of this process, ENA would also welcome further dialogue with the AER on the detailed questions raised in the consultation paper that have not been directly addressed in this submission.

If you would like to discuss any aspect of our submission in further detail, please contact Verity Watson at

[REDACTED]

Yours sincerely

[REDACTED]

Andrew Dillon
Chief Executive Officer

Attachment

Our objective is to minimise costs to electricity consumers. This is achieved by leveraging economies of scale in the provision of SSS and setting prices in a manner that encourages connecting parties to make efficient decisions

ENA considers it important that the AER's guidelines establish an overarching objective for pricing SSS, which is to minimise the costs to electricity consumers. As noted in the consultation paper, this objective will be achieved by providing connecting parties with incentives to:¹

- » locate in areas with a lower cost of providing system strength;
- » develop and utilise technologies that can reduce their demand for system strength services where this is efficient;
- » procure centrally-sourced system strength where this is more efficient than self-sourced system strength; and
- » manage system strength risks where it is efficient to do so.

The context for establishing these incentives is that the SSS Providers are required to procure system strength in accordance with the system strength requirements set by AEMO. The purpose of this planning framework is to enable the SSS Providers to obtain economies of scope and scale in centrally-procuring the required services. As such, the framework is designed to promote a lower cost outcome for connecting parties which, in turn, will ultimately be passed on to electricity consumers.

ENA considers that the pricing arrangements for SSS should not lose sight of the overarching objective of the framework, which is to drive the lowest cost outcomes for electricity consumers. Other objectives, such as stable price signals and consistency, while important should be regarded as secondary to the overarching objective of cost minimisation. As such, ENA's position is that the AER's guidelines should explicitly set out the objective of the pricing arrangements for SSS as a guiding principle for setting SSS prices.

Long run average cost (LRAC) is likely to be preferable to marginal cost pricing

It is an accepted economic principle that setting prices on the basis of marginal cost provides the appropriate price signal for customers to make efficient consumption decisions. In the context of a connecting party deciding whether to purchase the centrally-sourced system strength or self-source system strength services, the concept of marginal cost pricing is important. In particular, if prices reflect the marginal costs of providing system strength services centrally, then connecting parties will only self-source if it is genuinely more efficient to do so. Conversely, if prices are set above marginal costs, there is a risk that a connecting party may inefficiently 'bypass' the centrally-procured service in preference for a self-sourced service, to the ultimate detriment of electricity consumers.

While the concept of marginal cost pricing is important from a price signalling perspective, it may not enable the service provider to recover the total cost of providing the service from those customers. In particular, where a service is characterised by economies of scale, as is often the case in electricity networks, the marginal cost of providing an extra unit of output is lower than the average cost. In these

¹ AER, consultation paper, Pricing methodology guidelines: System strength pricing, page 22.

cases, pricing on the basis of marginal cost alone will not enable the total cost of the service to be recovered from those customers.

For SSS, the Rules ensure that any shortfall in the revenue that TNSPs recover from connecting parties will be recovered from load customers. In the short to medium term, this shortfall may be significant because SSS will be procured by TNSPs in advance of new parties connecting to the transmission network, and paying for SSS.

While the cost recovery arrangements are appropriate, it is desirable to minimise the amount of any revenue shortfall to be recovered from load customers. In this regard, ENA considers that long run average cost pricing (LRAC) may be more desirable than long run marginal cost (LRMC) pricing, as the former may provide greater scope for cost recovery from the connecting party and provide more stable price signals. ENA also notes that the additional complexity of calculating marginal costs may not be warranted. This is particularly so in relation to the 'perturbation method', which would raise a number of practical implementation issues.

The consultation paper raises a question about what is meant by the 'long run' in defining LRAC or LRMC. In particular, the consultation paper makes the following observation before suggesting that a 10 year period may be appropriate for defining the long run:²

"We consider a 5-year forecasting period does not meet the requirement for "long-run". If the AEMC had intended system strength pricing to reflect the five-year regulatory control period costs, we would expect the rule to have adopted that time horizon. That is not what the new rule 6A.25.2(h) does."

The AER also correctly observes that AEMO's System Strength Services report adopts a 10 year forecasting horizon.

ENA is comfortable that a 10 year period provides a reasonable starting point for defining the 'long run'. Having said that, ENA also notes that the arrangements for procuring SSS are immature and cost estimates will be uncertain. It will be important, therefore, that any guidance in relation to the definition of 'long run' costs should recognise the limited and uncertain nature of the available cost information. Specifically, prices may need to change materially as new information becomes available and market conditions change.

To summarise, ENA considers that pricing on the basis of long run average cost (LRAC) is likely to be preferable to long run marginal cost (LRMC). ENA considers LRAC to be less complex than LRMC, which is appropriate given the newness of the current arrangements. Furthermore, LRAC is consistent with greater cost recovery from the connecting parties and, therefore, a lower level of revenue shortfall to be recovered from load customers.

² AER, Consultation paper, Pricing methodology guidelines: System strength pricing, 22 March 2022, p.28.

Flexibility in the pricing arrangements is essential given the immaturity and cost uncertainty in the provision of SSS

ENA agrees with the observations in the consultation paper³ that point to the immaturity in the provision of SSS, which relates to the newness of the regulatory arrangements; the changing needs of the electricity system; and the development of new technology. In particular, the following factors illustrate the extent to which the provision of SSS may change over time:

- » AEMO's approach to forecasting long-term and short-term demand for centrally-procured system strength is likely to evolve in light of experience, noting that AEMO will need to estimate the extent to which connecting parties self-source or make technology choices that affect the required quantity of SSS.
- » Connecting generators and large inverter-based loads may not take up the centrally-procured system strength service at the rates anticipated by AEMO and the SSS providers.
- » The number and location of system strength nodes, and the system strength locational factors may change over time.
- » Generators who retune their plant in future, or replace their inverter, may seek to revisit their system strength quantity needs by triggering a review of the performance standards.
- » Technology is evolving that could see grid-forming inverters in future become a cost-effective solution for either generator self-provision of system strength or procurement by SSS providers.
- » Understanding and predicting the impact of system strength pricing on decision making by generators and large inverter-based loads will need to be developed in light of experience.

All of these factors illustrate the highly immature state of the regulatory and market conditions relating to the provision of SSS. ENA therefore considers it important that the AER's guidelines anticipate the need to modify prices as parties respond to new information and experience, including in relation to costs. In the absence of flexibility, prices for SSS are unlikely to drive the most efficient procurement decisions and the lowest cost outcome for electricity consumers. ENA therefore supports a flexible approach to pricing to the extent permissible by the Rules, noting that prices are required to be set for a 5 year period.

The timetable for setting prices is highly compressed

The timetable for publishing the initial prices for SSS is highly compressed:

- » AEMO's first SSS report will be published by 1 December 2022;
- » the AER is scheduled to approve the TNSPs' amended pricing methodologies by 31 January 2023; and
- » TNSPs must set prices for SSS by 15 March 2023.

This tight timeframe and the paucity of cost data that will be available when initial prices are set further highlights the need to provide flexibility in the pricing arrangements to the extent permissible by the Rules. In particular, the desire for price stability based on 'long run' cost and service information does not

³ AER, Consultation paper, Pricing methodology guidelines: System strength pricing, 22 March 2022, p.19-20.

reflect the practical limitations facing TNSPs in setting these initial prices. It is highly likely, therefore, that significant revisions to prices will be required at the end of the first 5 year period.

ENA therefore considers that the AER's guidelines should recognise the likely improvement in cost information that will emerge during the first regulatory period, rather than expecting prices to be 'locked in' for an extended period.

TNSPs should 'meet the market' and minimise the risk of asset stranding

As TNSPs will be required to procure SSS in advance of parties connecting to the transmission network, there is a risk of asset stranding (or 'contract stranding') if AEMO over-forecasts the need for centrally-procured services. The immaturity in the current regulatory and market arrangement for the provision of SSS, as discussed earlier, exacerbates the risk of stranding.

It is in electricity consumers' best interests if TNSPs are able to price SSS in a manner that minimises the risk of stranding. For example, cases may arise where it would be efficient to discount the SSS price in order for the connecting party to choose the centrally-procured service instead of self-sourcing. As already discussed, in theory setting SSS prices on the basis of marginal cost will ensure that any decision to self-source is efficient. In practice, however, marginal cost pricing is difficult to estimate 5 years in advance. It also has the disadvantage of requiring a significant portion of the costs to be recovered from load customers, rather than connecting parties.

ENA therefore considers that the AER's guidelines should provide sufficient flexibility for TNSPs to 'meet the market' by discounting published prices if there is an economic case for doing so. ENA acknowledges that the Rules may not permit a discounting approach, in which case the AER's guidelines should provide flexibility to the extent permissible by the Rules. For example, this may include adopting a pricing approach that has regard to the connecting parties' likely costs in self-sourcing SSS, rather than focusing narrowly only on the TNSP's costs.