2023-27
POWERLINK QUEENSLAND REVENUE PROPOSAL

Appendix 16.04 – PUBLIC

Transmission Pricing Consultation Final Positions Paper

Powerlink Queensland

TRANSMISSION PRICING CONSULTATION

Final Positions

November 2020

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Executive Summary

Powerlink commenced discussions with our customers in 2018 to explore opportunities to improve the delivery of safe, cost-effective and reliable electricity transmission services. We recognised the role that transmission pricing plays in this as well as addressing electricity affordability and adapting to the many ways in which the transmission network is used. The purpose of the review was to:

- provide stronger signals to customers to encourage more efficient use of the network, driving lower future network costs; and
- enable customers to reduce their costs by changing their utilisation of the network.

As part of this consultation, we published two consultation papers based on a number of potential alternative pricing arrangements and pricing criteria to help guide our assessment. In July 2019, our Transmission Pricing Consultation Paper outlined nine potential alternative pricing options. In August 2020, our Draft Positions Paper provided more detailed customer impact analysis of four of the alternative pricing options.

Customer input and feedback throughout our transmission pricing consultation has been pivotal in determining our final positions. This paper discusses how this feedback has influenced the pricing consultation.

Engagement covered a broad customer base including our Customer Panel, Energy Queensland (including customers connected directly to the distribution network), other Transmission Network Service Providers (TNSPs) and customers directly connected to Powerlink's transmission network.

Our final positions include one proposed amendment to our existing Pricing Methodology, which will be submitted to the Australian Energy Regulator as part of our 2023-27 Revenue Proposal. Specifically this change will progressively transition customers towards locational charges based on peak demand only over two regulatory periods (or 10-years). Currently both peak demand and average demand is used in the calculation and billing of locational charges.

Powerlink also considers there would be benefit in undertaking further discussions on MVA charging and relaxing the annual side constraint on movements in locational prices. While some customers understood the benefits of these potential changes, key concerns were raised that prevented support at this time.

The purpose of our Final Positions Paper is set out in Section 1. Section 2 provides an overview of the engagement we undertook as part of this consultation as well as the key themes that came through in the feedback from customers and stakeholders. Section 3 outlines the feedback received on the individual options and how it influenced our final positions.

1 Purpose

The purpose of this paper is to advise customers and stakeholders of our final positions in relation to the transmission pricing consultation. The paper will:

- summarise discussions and feedback received;
- describe how engagement has influenced our final positions; and
- identify what changes we intend to make going forward and how they will be progressed.

1.1 Feedback opportunities

Formal engagement on our transmission pricing consultation has closed. However, customers and stakeholders are welcome to contact us regarding pricing arrangements in the normal course of business. Queries can be sent via email to pqpricing@powerlink.com.au.

Interested stakeholders will have a further opportunity to provide feedback on Powerlink's Proposed Pricing Methodology following submission of our 2023-27 Revenue Proposal to the Australian Energy Regulator (AER) in January 2021.

1.2 Timeframes

The release of this Final Positions Paper concludes our transmission pricing consultation. Future key milestones associated with our final positions are set out below:

Timeframe	Activity
18 November 2020	Publish Final Positions Paper and 2023-27 Proposed Pricing Methodology (marked up version of current methodology)
January 2021	Submit Proposed Pricing Methodology to the AER as part of our 2023-27 Revenue Proposal. The AER will provide the opportunity for stakeholders to respond to Pricing Methodology matters as part of its Issues Paper and its Draft Decision between February 2021 and 2022.
2nd Half 2021	Progress pricing options that sit outside our Pricing Methodology

2 Engagement

2.1 How we engaged on transmission pricing arrangements

Powerlink is committed to genuine engagement with our customers and stakeholders and is keen to ensure that such feedback informs our direction going forward. This chapter will outline the feedback received at key stages of our transmission pricing consultation and how it influenced our decision-making.

Transmission pricing is a complex topic. To help our customers participate in the engagement process and better understand why potential changes were proposed, we sought to uplift our customer's knowledge through the preparation of a concise Pricing Overview document as well as an introductory Understanding Transmission Pricing video, which are available on our website.

While broader customer representatives provided input to how we could better engage on this matter, the most valuable engagement occurred through individual discussions with customers directly connected to our transmission network. Through this format, customer-specific information regarding the interaction and impacts of potential alternative pricing arrangements could be discussed openly and in more detail. It gave customers a further opportunity to clarify their understanding of what was being proposed and what this could mean for their individual business circumstances. Our customers acknowledged the enhanced transparency of this format. Many customers welcomed and appreciated the time we took to enable tailored discussions to occur.

In addition to individual discussions with customers, other key engagement milestones included:

- Early engagement with Powerlink's Customer Panel – 19 April 2018;
- Transmission Pricing Webinar – 11 May 2019;
- Transmission Pricing Consultation Paper – published 26 July 2019;
- Update at Powerlink's Customer Panel – 27 February 2020;
- Draft Positions Paper – published 26 August 2020; and
- Final Positions Paper – published 18 November 2020.

We initially engaged with members of our Customer Panel on the pricing criteria[1], potential alternative pricing options and how they would like to be involved in the review. The criteria and alternative pricing options were refined in light of feedback received on our Consultation Paper. Input from the transmission pricing webinar also helped to guide the general direction of the review.

We received 10 submissions in response to the Draft Positions Paper. Five of these were formal submissions and five other stakeholders provided input via email[2]. Three of these submissions were provided on a confidential basis. Submissions were received from a broad range of stakeholders including directly connected customers, a member of our Customer Panel and large distribution connected users. Formal public submissions have been published on our Transmission Pricing Consultation Process page of our website[3].

[1] Appendix Section 4.1

[2] Where customers have converted email feedback into a submission we will include this in our Revenue Proposal

[3] https://www.powerlink.com.au/transmission-pricing-consultation-process

2.2 Summary of feedback

The following tables provide a summary of the key themes drawn from feedback on the Consultation and Draft Positions Papers as well as how Powerlink has responded to this input. Feedback specific to individual alternative pricing options from the Draft Positions Paper is discussed in Section 3. Other more general views are presented in the table.

Feedback on the Consultation Paper

Feedback	Powerlink Response
General agreement with the pricing criteria, acknowledging its 'give and take' nature.	Proposed pricing criteria will be used to understand the interaction with alternative pricing arrangements.
Need more details about individual customer impacts prior to providing formal responses.	Conducted modelling at an individual customer level on the four options to provide greater detail. Offered to engage with individual customers to discuss direct impacts.
Questioned the usefulness of enhancing demand based pricing signals in the current low growth environment	The Draft Positions Paper provided further information on a range of options including alternatives to those that wholly impact demand signals.
Acknowledge the complex nature of transmission pricing but prefer that the next consultation papers be as brief as possible.	The Draft Positions Paper was concise with information and modelling analysis presented at a high level. We offered and held detailed discussions with individual customers and stakeholders during the consultation period.
Valued the nature of individual discussions and information could be tailored to how individual customers use the network.	To balance the ongoing transparency of this consultation against the sensitive nature of individual customer impacts, we engaged with a wider audience and continued direct discussions with our directly connected customers.
Acknowledge the principles behind increasing cost reflectivity noting that there are limitations to how far this can be progressed.	The majority of options included in the Draft Positions advance cost reflectivity in a way which can be advanced further in future.

Feedback on the Draft Positions Paper

Feedback	Powerlink Response
Loads have the capability to achieve similar outcomes (increased efficiency) through other avenues without the need for fundamental pricing reform.	We intend to progress with further engagement on MVA charging through other work streams outside our revenue determination process.
A clear transitional path should be included with any change, mindful of customer impacts.	We have proposed a transitional pathway over two regulatory periods in relation to locational charges being based on peak demand only.
Impacts of any change on the wider customer base should be considered in the overall outcome.	Our final position to move to locational charges based on peak demand only will be gradual, which should limit the impact on the wider customer base.

Proposals considered are significant, given the timing of broader reviews currently occurring (for example, the Coordination of Generation and Transmission Investment (COGATI) and Energy Security Board's (ESB) Post 2025 Review). Material changes now may lead to unexpected outcomes.	Our final positions do not propose fundamental changes from the existing pricing framework. We will engage with customers and stakeholders again and seek wider customer support before progressing broader pricing framework changes like relaxation of the locational price side constraint.
Overall, support no change to pricing arrangements. The current pricing methodology provides a reasonable basis for price allocations.	As above.
Powerlink should focus on reducing the overall cost burden for all consumers.	Powerlink's Revenue Proposal recognises that affordability remains a key concern for customers. We have forecast in our Draft Revenue Proposal a 12% nominal reduction in overall transmission prices in the first year of the 2023-27 regulatory period and for increases over the remainder of the regulatory period to be within Consumer Price Index.
The application of the side constraint appears to operate in conflict with the objectives of cost reflective network pricing in the current market transition.	We recognise the impact that the side constraint has on efficient pricing particularly in periods where higher levels of change are expected. We plan to engage further with customers on what alternative options for relaxing the side constraint would look like and if these arrangements would lead to better outcomes for customers.

3 Alternative Pricing Options Outcomes

3.1 Introduction

Our Draft Positions Paper included further information on four alternative pricing options:

- Rebalancing the locational and non-locational transmission charge split to 60/40;
- Locational charges based on peak demand only;
- MVA charging; and
- Accounting for the side constraint on annual movements in locational prices.

This section outlines the feedback received on the individual options and how it influenced our final positions. Feedback received from the 10 submissions to the Draft Positions Paper has been split into three broad groups - support, reject and neutral. A summary of feedback is provided in Section 4.2 of the Appendix.

3.2 Rebalancing the Locational and Non-Locational Split to 60/40

Final Position

We have decided not to progress this change in our Pricing Methodology for the 2023-27 regulatory period or through business as usual.

Summary

We raised a number of alternative options during the consultation that would enable a change in the methodology for locational charge allocation. The costs of providing shared network services are currently split (or allocated) on a 50/50 basis between locational and non-locational transmission charges. As an initial step to further enhance the cost reflectivity of locational charges, we proposed a shift to a higher weighting or allocation towards locational charges of 60/40.

Feedback Summary

Support	Reject	Neutral
3 (2 in principle)	5	2

<u>Key supporting views</u>

- Would promote new demand to locate in less utilised parts of the network.
- Strongly support any move to more cost reflective pricing.
- The higher weighting reflects the actual use of assets providing the transmission service.

<u>Key opposing views</u>

- Customers have limited ability to change existing investment locations and consequently, unlike other options presented, have limited ability to react.
- Questioned the relevance of a strengthened locational signal in a very low demand growth environment.
- Some customers already see very strong locational charges and are positioned in very efficient locations on the network. Enhancing the weighting would penalise these customers.
- Long-run marginal cost (LRMC) would provide a more efficient locational signal.

Considerations

Customers appear to have understood the link between enhanced efficiency of transmission prices and a higher weighting of locational charges. However, customers also recognised that practical limitations exist in adapting to a change in locational price signals. One of the key reasons for the pricing review was to enable customers to reduce their costs by changing their utilisation of the network.

In making the decision not to progress with this option, we acknowledge customer feedback that highlighted their limited ability to react to a locational price signal, particularly where customers have already located (and sunk costs).

In our 2020 Transmission Annual Planning Report, we have forecast relatively flat demand growth over the next 10-years[4]. Given that demand growth (network augmentation) is not expected to drive significant network investment over the 2023-27 or subsequent regulatory periods at this time, there appears to be little value in seeking to allocate a higher proportion of transmission charges to locational drivers.

3.3 Locational Charges Based on Peak Demand Only

Final Position

We have decided to progress this change in our Pricing Methodology for the 2023-27 regulatory period. The change will be proposed along with a transitional mechanism to phase in the change gradually each year over 10 years (or two regulatory periods).

Summary

Powerlink's current structures for the collection of locational revenue are based on an even (50/50) split between peak demand (nominated or maximum contract demand) and average demand. This option would simplify locational charging arrangements by removing the average demand component from charging structures. This option does not change the principles for the allocation of locational revenue requirements.

Feedback Summary

Support	Reject	Neutral
4	5 (2 ICC* Customers)	1

*ICC is an Individually Connected Customer connected to the Energy Queensland distribution networks. This group includes the largest customers on the distribution network who connect at voltages of 11kV and above with annual demand and energy requirements above 10MVA and 40GWh.

<u>Key supporting views</u>

- Supportive of further moves towards capacity (demand) based pricing. Investment in the network is driven by maximum demand.
- Support a peak demand basis as network augmentation costs are more likely to be driven by peak demand.
- Is consistent with other jurisdictional TNSPs.
- Will address inconsistencies in distorted signals between investment and usage decisions for large customers, particularly those connected to the transmission network.

[4] Powerlink 2020 Transmission Annual Planning Report – Section 2.3

Key opposing views

- Sites with low load factors are likely to be disproportionately disadvantaged and face significant price increases.
- This change will drive a material and inequitable increase in costs and will exaggerate already strong locational signals.

Considerations

Our decision to base locational charges on peak demand only from the start of the next regulatory period (1 July 2022) would better align how customers are charged with the locational price calculation principles in the Rules. In particular, a core principle for the allocation of locational revenues in the Rules is that they be based on demand at times of greatest utilisation of the transmission network for which network investment is most likely to be contemplated[5]. Peak rather than average demand is a key consideration in network investment. Other benefits of a move to peak demand only locational charges include:

- providing a stronger, simpler link between each customer's peak usage of the transmission network and what they are billed each month;
- a reduction in the volatility that the average demand component introduces to monthly bills. This should provide customers with greater certainty in monthly charges and thereby assist with cash flow management throughout the year;
- it will help to limit the under/over recoveries of revenue we currently experience each month due to the variation between actual and forecast average demand and the size of the pass through of these variations into non-locational charges in the subsequent year[6]; and
- would also enable our pricing structures to be consistent with those applied by all other NEM TNSPs and by Energy Queensland to large customers connected to the distribution network.

We note that some of the opposing views identified above were put forward by distribution ICCs, who are either already subject to or are in the process of transitioning to demand only based tariffs.

Modelling presented in the Draft Positions Paper showed that, for the overwhelming majority of customers directly connected to the transmission network, overall charges are not expected to be materially impacted. Two customers (one in particular) are outliers to this arrangement given they have low load factors. As a result, in the short term, these customers will be subject to a higher allocation of locational charges until such time as locational prices reflect the peak demand only arrangement. As a design principle, this option was not intended to disproportionately disadvantage low load factor customers directly.

To help address concerns raised by customers that did not support this option, to minimise consequential price impacts and to allow time for customers to better understand and prepare for this change, we propose to transition the introduction of peak demand only charges over two regulatory periods (10-years). This transition period should also limit the cross subsidisation between customers that would occur while annual changes in locational prices are controlled by the side constraint as a result of the change.

Our Proposed Pricing Methodology for the 2023-27 regulatory period provides that the average demand component of locational charges be reduced by 10 percent per year over 10-years.

We note that a change to peak demand only based locational charges may impact Avoided Transmission Use of System (TUOS) payments from Energy Queensland to generators embedded in the distribution network. Following discussions with Energy Queensland on the Draft Positions

[5] National Electricity Rules – Clause 6A.23.4(b)(1)
[6] National Electricity Rules – Clause 6A.23.3(e)(5)

paper, we consider that the transitional arrangements will allow sufficient time for Energy Queensland to implement the new charging arrangements in its own tariffs. Energy Queensland also supports implementation of peak demand only locational charges and considers this can be reasonably implemented with its customers, namely, ICCs.

3.4 MVA Charging

Final Position

We have decided not to implement MVA charging in our Pricing Methodology for the 2023-27 regulatory period. At this stage we also consider that a Rule change is not required for key benefits of MVA charging to be realised.

Summary

MVA is a measurement of electricity that accounts for how loads use the transmission network. MVA is a key determinant of network investment as it represents the full measurement of power flow through electricity assets. A shift towards MVA charging will enhance cost reflective pricing principles by factoring in reactive power efficiencies of loads.

Stakeholder Feedback Summary

Support	Reject	Neutral
3 (2 in principle)	3	4 (or further consideration)

Key supporting views

- Are currently able to increase power factor, but currently have no incentive to do so.
- Generally supportive of the change however ultimate wider customer impacts need to be considered.

Key opposing views

- Would require changes to the National Electricity Rules and does not have a strong precedent elsewhere.
- May not be complimentary to wider reviews currently occurring (COGATI and ESB Post 2025 Review).
- Would further erode the competitiveness of the business in the global market.

Considerations

We consider that an overall improvement in power factors will result in a more efficient network. Loads that are more efficient reduce additional demand on the network and hence the need for further investment.

There are a number of ways to achieve this improvement. One of these would be through a direct MVA transmission pricing signal. While some customers who responded to our Draft Positions Paper directly supported such a change to our pricing arrangements, others were concerned at the prospect of a potential future Rule change proposal. Customers indicated that there were a number of other ways to achieve the same result without the need for a Rule change. Encouraged by the constructive interaction with our customers on this matter, we agree that it may be possible to improve the efficiency of loads connected to our transmission network without a Rule change. We have committed to working with our customers in future to achieve this.

At this stage we anticipate that part of our future work will include further involvement with Energy Queensland to investigate the possibility for more distribution customers to face MVA signals. Currently a growing number of Connection Asset Customers (CAC)[7] and Standard Asset Customers (SAC)[7] already have transmission charges passed through on a MVA/kVA basis. We will also engage individually with our directly connected customers to help improve understanding of the linkages between power factor and transmission charges to explore where customers have the ability and appetite to do something different in this regard. This may include, for example, for customers to invest in power factor correction equipment or be able to change how they operate.

Discussions with Energy Queensland have already commenced. We plan to engage further with individual customers in the second half of 2021.

3.5 Accounting for the Side Constraint

Final Position

We have decided not to propose any change to the existing locational price side constraint arrangements at this time. However, we consider there would be value in revisiting this matter with our customers in the future to refine the scope of any potential change.

Summary

Currently, the Rules limit the rate of change of locational charges between years to within two percent of the load-weighted average for the region (in our case, for Queensland). In practice, the side constraint mechanism protects users from price shocks in either direction relative to what the average customer base would observe. Our Draft Positions Paper discussed the impacts that the side constraint has on customers and the potential consequences of its removal. From a practical perspective, further investigation into this option would need to consider a range of options for 'resetting' the side constraint.

Stakeholder Feedback Summary

Support	Reject	Neutral
3 (further consideration)	6	1

Key supporting views

- Price stability becomes a source of inefficiency and consumers are subject to much wider variability in other non-network price components.
- Notes the impacts of the rapidly changing and evolving flows on the network and the impact that the side constraint has.
- Without changes to the side constraint, the effectiveness of other changes is limited.

Key opposing views

- Difficult to support in the absence of a similar customer safeguard as there is risk that some customers may be adversely impacted and unable to mitigate these.

[7] These customer groups are generally small to medium business' who observe a more direct pass through of TUOS charges.

- The side constraint is an important mechanism to protect customers from price shocks. The current unprecedented financial pressures and uncertainty outweigh the risk of financial shocks in sending swifter pricing signals.

Considerations

We acknowledge that our Draft Positions Paper did not include any options for relaxing the side constraint for which customers and stakeholders could provide direct feedback. Rather the paper discussed and highlighted the impacts the side constraint can have in terms of limiting the efficiency of transmission pricing signals. As a result of this, many customers could only support a review in principle or opposed a Rule change proposal on this matter. In the absence of any details in our earlier paper, such feedback is entirely reasonable. Many customers also highlighted the benefits of having a mechanism in the Rules that controls price volatility. We agree with the need to strike a balance between stability and efficiency of transmission pricing signals. We also agree that the side constraint affords customers some protection from annual volatility in transmission prices. On the other hand, as drawn out in discussions with customers, the side constraint, in some cases, limits our ability to send more efficient price signals quickly through existing pricing arrangements or more broadly, can limit the effectiveness of any change we might try to implement.

We plan to engage further with customers on what alternative options for relaxing the side constraint would look like and if these arrangements would lead to better outcomes.

4 Appendix

4.1 Pricing Criteria

Our Consultation Paper proposed the following criteria to help guide the assessment and discussion of alternative pricing arrangements. The interaction with these criteria were highlighted for each of the four individual alternative pricing arrangements included in the Draft Positions Paper.

Proposed Pricing Criteria	**Description**
Equity and fairness	• *Equity* – transmission prices should apply to all network users based on the services provided to them • *Fairness* – transmission prices should be fairly applied and allow for transitional arrangements where network users face significant price impacts resulting from changes to pricing arrangements
Price stability and transparency	• *Price stability* – Transmission prices should be sufficiently stable to enable network users to make informed investment decisions with a level of confidence • *Transparency* – Transmission prices should be sufficiently transparent to enable network users to understand how prices are derived
Efficient price signals	• Transmission prices should provide *efficient signals* to inform network users about how their use of transmission services affects existing and future network investment and costs.

4.2 Summary of Feedback Table

Option	RTA Yarwun	Wilmar	Energy Queensland	Direct Connect - Confidential Submission	EUAA	Aurizon	SMC	Direct Connect - Confidential Feedback	ICC – QLD Magnesium	ICC – Confidential Submission
Submission	Formal	Formal	Formal	Formal	Email	Email	Email	Email	Email	Formal
60/40	No	No	Prefer LRMC	Neutral	Yes (in principle)	No	No	Neutral	No	Yes
Demand Only	No	No	Yes	Yes	Yes (in principle)	No	Yes	Neutral	No	No
MVA	No (when considered on balance with other options)	No	Yes (in principle)	Yes	Yes (in principle)	Further consultation required	Neutral	Neutral	No	Further consultation required
Side Constraint		No	No	Further consultation required	Further consultation required	Further consultation required	No	Neutral	No	No