DRAFT DECISION
Powerlink Queensland
Transmission Determination

2022 to 2027

Attachment 11
Pricing methodology

September 2021

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's draft decision on Powerlink Queensland's transmission network revenue determination for the 2022–27 regulatory control period. It should be read with all other parts of the draft decision.

The draft decision includes the following documents:

Overview

Attachment 1 – Maximum allowed revenue

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency benefit sharing scheme

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment 11 – Pricing methodology

Attachment 12 – Pass through events

Attachment 13 – Demand management innovation allowance mechanism

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11 Pricing methodology

This attachment sets out our draft decision on Powerlink's proposed pricing methodology for the 2022–27 regulatory control period.

A pricing methodology must be specified as part of our transmission determination.[1] Its role is to answer the question 'who should pay how much'[2] in order for a transmission business to recover its costs. To do this, a pricing methodology must provide a 'formula, process or approach'[3] that when applied:

- allocates the aggregate annual revenue requirement (AARR) to the categories of prescribed transmission services that a transmission business provides[4]
- provides for the manner and sequence of adjustments to the annual service revenue requirement (ASRR)[5] and allocates that requirement to transmission network connection points[6]
- determines the structure of prices that a transmission business may charge for each category of prescribed transmission services.[7]

An approved pricing methodology does not relate to negotiated transmission services or other transmission services not subject to economic regulation under chapter 6A of the National Electricity Rules (NER).

11.1 Draft decision

Our draft decision is to accept Powerlink's pricing methodology for the 2022–27 regulatory control period (proposed pricing methodology). This is because it gives effect to, and is consistent with, the pricing principles in the NER, and complies with the information requirements set out in the pricing methodology guidelines.[8]

11.2 Powerlink's proposal

Powerlink's proposed pricing methodology for the 2022–27 period is largely identical to the AER's approved pricing methodology for the 2017–22 period, with some amendments.

The most significant amendment concerns the demand measure Powerlink uses to derive prices for prescribed transmission use of system services – locational

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1 NER, cl. 6A.2.2(4).

2 AEMC, *Rule determination: National Electricity Amendment (Pricing of Prescribed Transmission Services) Rule 2006 No. 22*, 21 December 2006, p. 1.

3 NER, cl. 6A.24.1(b).

4 NER, cl. 6A.24.1(b)(1).

5 NER, cl. 6A.24.1(b)(2).

6 NER, cl. 6A.24.1(b)(3).

7 NER, cl. 6A.24.1(b)(4).

8 NER, cll. 6A.23.3 and 6A.24.1(c); AER, *Electricity transmission service providers pricing methodology guidelines*, July 2014.

component (locational prices). Under the current pricing methodology, Powerlink uses a combination of peak and average demand to derive locational prices and charges. For the peak demand component, Powerlink uses either the contract agreed maximum demand or the agreed nominated demand (whichever the customer has nominated).[9]

Powerlink proposed to progressively phase out the average demand component and transition to using peak demand only. This transition would occur over the next two regulatory control periods (10 years), commencing in 2022–27.[10]

Powerlink's other amendments to the proposed pricing methodology are:

- including an adjustment to non-locational prices for AEMO's National Transmission Planner (NTP) function fees[11]
- including a reference to the NER regarding payments between multiple transmission network service providers (TNSPs) in Queensland[12]
- clarification of how it would apply the excess demand charge[13]
- clarification of postage-stamped prices and prudent discounts[14]
- clarification of the publication date of inter-regional charges.[15]

11.3 Assessment approach

We must approve a proposed pricing methodology if satisfied it:

- gives effect to, and complies with, the pricing principles for prescribed transmission services
- complies with information requirements of the pricing methodology guidelines.[16]

These requirements guided our assessment of Powerlink's proposed pricing methodology.

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9 Powerlink, *2018–22 Revised revenue proposal, Appendix 3.03 – Revised pricing methodology*, April 2017, pp. 13–14.

10 Powerlink, *2023–27 Revenue proposal, Appendix 16.01 – Proposed pricing methodology*, January 2021, pp. 13–14 and 22.

11 Powerlink, *2023–27 Revenue proposal, Appendix 16.01 – Proposed pricing methodology*, January 2021, p. 13.

12 Ibid, p. 19.

13 Ibid, p. 18.

14 Ibid, pp. 16 and 20–21.

15 Ibid, p. 29.

16 NER, cl. 6A.24.1(c); AER, *Electricity transmission service providers pricing methodology guidelines*, July 2014.

11.4 Reasons for draft decision

Our draft decision is to accept Powerlink's proposed pricing methodology.

We consider Powerlink's proposed pricing methodology gives effect to, and is consistent with, the pricing principles, and complies with the requirements of the pricing methodology guidelines.

The following sections set out the reasons for our draft decision.

11.4.1 Assessment of amendments in the proposed pricing methodology

11.4.1.1 Demand measure for locational prices

We accept Powerlink's proposal to progressively phase out the average demand component and transition to using peak demand only to calculate locational prices. We consider this proposal gives effect to the pricing principles in the NER and complies with the pricing methodology guidelines.

We agree with Powerlink that the proposed transition would result in locational prices that better reflect the pricing principles. Specifically, that locational prices must be based on demand at times of greatest utilisation of the transmission network and for which network investment is most likely to be contemplated. We agree with Powerlink that peak, rather than average, demand is a key consideration in network investment.[17]

High usage of the network—at particular times, when such usage causes strain in the network—are the principal drivers of investment. Transmission use of system (TUOS) prices should therefore reflect these usage measures. Usage of the network at other times, or the average usage of the network, do not generally drive investment in the network.[18]

At the end of the 10-year transition period, Powerlink would calculate locational prices using either the agreed nominated demand[19] or the contract agreed maximum demand (whichever the customer has nominated).[20] Our pricing methodology guidelines allow TNSPs to use either of these peak demand measures to derive locational prices.[21]

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17 Powerlink, *2023–27 Revenue proposal*, January 2021, p. 163; NER, cl. 6A.23.4(b)(1).

18 There may be a correlation between average demand and network investment, but it is generally peak demand measures that cause strain on the network and, in turn, drive investment.

19 For locational prices, Powerlink clarified that the "agreed nominated demand" reflects the definition in cl. 2.2(c)(2) of the AER's pricing methodology guidelines. Powerlink, *Response to IR009: Pricing methodology*, 24 June 2021, p. 3.

20 Powerlink, *2018–22 Revised revenue proposal, Appendix 3.03 – Revised pricing methodology*, April 2017, pp. 13–14.

21 AER, *Electricity transmission service providers pricing methodology guidelines*, July 2014, p. 6.

Aurizon Network supported the amendment to transition customers to locational charges based on peak demand only.[22] Similarly, the Consumer Challenge Panel (CCP23) supported the amendment and considered it gives effect to the pricing principles for prescribed transmission services.[23]

We also consider the 10-year transition period to phase out the average demand measure is reasonable because it mitigates potential price shocks that might occur from the change in approach. As Aurizon Network submitted, the transition period would also provide "customers with an appropriate period to respond to the price signals of the proposed changes."[24]

11.4.1.2 Other amendments

We also accept Powerlink's other amendments to its pricing methodology. We consider these amendments give effect to the pricing principles in the NER and complies with the pricing methodology guidelines.

AEMO's NTP function fees

In its proposed pricing methodology, Powerlink included an adjustment to the non-locational component of prescribed TUOS services to account for AEMO's NTP function fees.[25]

We accept this inclusion as it is consistent with the requirements of the NER regarding the derivation of non-locational prices.[26] We note this inclusion simply updates Powerlink's pricing methodology to include the requirements of this new NER clause (which was not in the NER in Powerlink's previous transmission determination).

Payments between multiple TNSPs in Queensland

In its proposed pricing methodology, Powerlink included a reference to clause 6A.27.5 of the NER, to outline the mechanism for financial transfers between multiple TNSPs in Queensland.[27]

We accept this inclusion because it, along with the proposed pricing methodology's reference to clause 6A.27.4 of the NER, includes the NER requirements regarding payments between TNSPs in the same region.

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22 Aurizon Network, *Powerlink determination – 2022–27*, May 2021, p. 6.

23 CCP23, *Advice to the AER on the Powerlink transmission regulatory proposal for the regulatory determination 1 July 2022 to 30 June 2027*, May 2021, p. 21.

24 Aurizon Network, *Powerlink determination – 2022–27*, May 2021, p. 6.

25 Powerlink, *2023–27 Revenue proposal, Appendix 16.01 – Proposed pricing methodology*, January 2021, p. 13.

26 NER, cl. 6A.23.3(e)(6).

27 Powerlink, *2023–27 Revenue proposal, Appendix 16.01 – Proposed pricing methodology*, January 2021, p. 19.

Excess demand charge[28]

In its pricing methodology for the 2017–22 regulatory control period, Powerlink applied an excess demand charge if a customer's actual maximum demand exceeds the contract agreed maximum demand. Further, the actual maximum demand becomes the contract agreed maximum demand. Powerlink clarified that it recovers from the customer incremental charges for the increased contract agreed maximum demand for the financial year.[29]

In the proposed pricing methodology for the 2022–27 regulatory control period, Powerlink further clarified that:

> "Incremental charges collected from customers reflect what would have been paid if the contract agreed maximum demand had been the higher actual maximum demand."[30]

We note that Powerlink applies the contract agreed maximum demand to calculate both locational and postage-stamped prices (non-locational prices and prescribed common services prices).[31]

We consider this clarification on the excess demand charge is appropriate.

We consider it is consistent with the pricing principle that locational prices must be based on demand at times of greatest utilisation of the transmission network and for which network investment is most likely to be contemplated.

For postage stamped prices, it simply reflects the principle that higher usage of the network should incur higher charges.

Postage-stamped prices

For postage stamped prices, Powerlink derives two prices: an energy-based price (c/kWh) and a price based on the contract agreed maximum demand ($/kW/month).[32] We note this is consistent with clause 2.3(c)(1) of our pricing methodology guidelines.

In the proposed pricing methodology, Powerlink clarified that the energy or contract agreed maximum demand price used for postage-stamped charges will be the one that results in the lower estimated charge.[33]

We consider this clarification is appropriate because it is consistent with clause 2.3(c)(6) of our pricing methodology guideline.

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28 Ibid, p. 18.

29 Powerlink, *2018–22 Revised revenue proposal, Appendix 3.03 – Revised pricing methodology*, April 2017, p. 17.

30 Powerlink, Powerlink, *2023–27 Revenue proposal, Appendix 16.01 – Proposed pricing methodology*, January 2021, p. 18.

31 Ibid, pp. 13–16.

32 Ibid, pp. 14–16.

33 Ibid, p. 16.

Prudent discounts

Powerlink included a new statement in its proposed pricing methodology that it has a very small number of customers who currently receive prudent discounts calculated in accordance with clause 6A.26.[34]

We consider this statement is appropriate for transparency purposes.

Publication timeframe

Powerlink amended the annual timeframe for publication of the modified load export charges to 15 February each year (this was previously 15 March).[35]

We consider this amendment is appropriate because it reflects the updated requirement in the NER.[36]

11.4.2 Calculation and allocation of the aggregate annual revenue requirement

We accept Powerlink's method for calculating and allocating its AARR as we consider it meets the NER requirements.

The AARR is the 'maximum allowed revenue' adjusted:[37]

- for a number of factors such as cost pass throughs, service target performance incentive scheme outcomes and contingent projects[38]
- by subtracting the operating and maintenance costs expected to be incurred in the provision of prescribed common transmission services
- by any allocation of the AARR within and between regions as agreed between TNSPs.[39]

Table 11.1 summarises our review of how Powerlink's proposed pricing methodology calculates and allocates the business' AARR.

34 Ibid, p. 21.
35 Ibid, p. 29.
36 NER, cl. 6A.24.2(b).
37 NER, cl. 6A.22.1.
38 NER, cl. 6A.3.2.
39 NER, cl. 6A.29.3.

Table 11.1 Powerlink's proposed calculation and allocation of the AARR against the NER requirements

NER requirements	AER assessment
Requirement for the AARR to be calculated as defined in the NER—clause 6A.22.1.	Sections 6.3 and Appendix A of Powerlink's proposed pricing methodology comply with this requirement.
Requirement for the AARR to be allocated to each category of prescribed transmission services in accordance with attributable cost share for each such category of service—clause 6A.23.2(a).	Sections 6.4 to 6.7 and Appendix B of Powerlink's proposed pricing methodology comply with this requirement.
Requirement for every portion of the AARR to be allocated and for the same portion of AARR not to be allocated more than once—clause 6A.23.2(c).	Section 6.4 to 6.7 and Appendix B of Powerlink's proposed pricing methodology complies with this requirement.
Subject to clause 11.6.11 of the NER, requirement for adjusting attributable cost share and priority ordering approach to asset costs that would otherwise be attributed to the provision of more than one category of prescribed transmission services—clause 6A.23.2(d).	Appendices B and E of Powerlink's proposed pricing methodology comply with this requirement.

11.4.3 Allocation of the ASRR to transmission network connection points

We accept Powerlink's proposed pricing methodology for allocating the ASRR as we consider it meets the NER requirements. Table 11.2 summarises our assessment.

Table 11.2 Powerlink's proposed allocation of the ASRR against the NER requirements

NER requirements	AER assessment
Requirement for the whole ASRR for prescribed entry services to be allocated to transmission network connection points in accordance with the attributable connection point cost share for prescribed entry services that are provided by the TNSP at that connection point—clause 6A.23.3(i).	Section 6.8.1 of Powerlink's proposed pricing methodology complies with this requirement.
Requirement for the whole ASRR prescribed exit services to be allocated to transmission network connection points in accordance with the attributable connection point cost share for prescribed exit services that are provided by the TNSP at that connection point—clause 6A.23.3(j)	Section 6.8.2 of Powerlink's proposed pricing methodology complies with this requirement.
Requirement for the ASRR for prescribed TUOS services to be allocated between pre-adjusted locational components and pre-adjusted non-locational components—clause 6A.23.3(a).	Section 6.8.3 of Powerlink's proposed pricing methodology complies with this requirement.
Requirement for the recovery of the ASRR for prescribed common transmission services and the operating and maintenance costs incurred in the provision of those services to be recovered through prices charged to transmission customers and network service and network service provider transmission	Section 6.9.4 of Powerlink's proposed pricing methodology complies with this requirement.

connection points set in accordance with price structure principles set out in clause 6A.23.4—clause 6A.23.3(h).

11.4.4 Development of price structure

We accept Powerlink's proposed pricing methodology and process for developing different prices for recovering the ASRR as we consider it meets the NER requirements. Table 11.3 summarises our assessment.

Table 11.3 Powerlink's proposed pricing structure against the NER requirements

NER requirements	AER assessment
Requirement for separate prices for each category of prescribed transmission services—clause 6A.23.4(a)	Section 6.9 of Powerlink's proposed pricing methodology complies with this requirement.
Requirement for fixed annual amount prices for prescribed entry services and prescribed exit services—clause 6A.23.4(g)	Section 6.9.1 of Powerlink's proposed pricing methodology complies with this requirement.
Requirement for postage stamped prices for prescribed common transmission services—clause 6A.23.4(f)	Section 6.9.4 of Powerlink's proposed pricing methodology complies with this requirement.
Requirement for prices for locational component of prescribed TUOS services to be based on demand at times of greatest use of the transmission network and for which network investment is most likely to be contemplated—clause 6A.23.4(b)(1)	Section 6.9.2 of Powerlink's proposed pricing methodology complies with this requirement.
Requirement for prices for the locational component of ASRR for prescribed TUOS services not to change by more than 2 per cent per year compared with the load weighted average prices for this component for the relevant region—clause 6A.23.4(b)(2)	Section 6.9.2 of Powerlink's proposed pricing methodology complies with this requirement.
Requirement for prices for the adjusted non-locational component of prescribed TUOS services to be on a postage stamp basis—clause 6A.23.4(e)	Section 6.9.3 of Powerlink's proposed pricing methodology complies with this requirement.
Setting of TUOS locational prices between annual price publications–clause 6A.23.4(b)	Section 6.12 of Powerlink's proposed pricing methodology complies with this requirement.

11.4.5 Information requirements

We are satisfied Powerlink's proposed pricing methodology complies with the pricing methodology guidelines' information requirements.

Key features of the proposal include:

- acknowledging that Powerlink is the sole provider of prescribed transmission services in its region (Queensland), but in the event the services are provided by more than one provider, the proposed methodology provides more clarity
- calculating the locational component of prescribed TUOS services costs using a cost reflective network pricing methodology
- basing the locational prescribed TUOS services price on an agreed nominated demand or contract agreed maximum demand and the average half-hourly demand (with the average half-hourly demand being transitioned out over a 10-year period)
- using a postage stamp pricing structure for the non-locational component of prescribed TUOS services and prescribed common transmission services
- using the priority ordering approach under clause 6A.23.2(d) of the NER to implement priority ordering
- describing how asset costs that may be attributable to both prescribed entry services and prescribed exit services will be allocated at a connection point
- describing billing arrangements as in clause 6A.27 of the NER
- describing prudential requirements as in clause 6A.28 of the NER
- including hypothetical worked examples
- describing how Powerlink intends to monitor and develop records of its compliance with its approved pricing methodology.

A. Shortened forms

Shortened form	Extended form
AARR	Aggregate annual revenue requirement
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ASRR	Aggregate service revenue requirement
CCP23	Consumer Challenge Panel, sub-panel 23
NEL	National Electricity Law
NER	National Electricity Rules
NTP	National Transmission Planner
TNSP	Transmission network service provider
TUOS	Transmission use of system