DRAFT DECISION
Powerlink Queensland
Transmission Determination

2022 to 2027

Attachment 8
Efficiency benefit sharing scheme

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

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Attachment 10 – Service target performance incentive scheme

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8 Efficiency benefit sharing scheme

The efficiency benefit sharing scheme (EBSS) is intended to provide a continuous incentive for service providers to pursue efficiency improvements in operating expenditure (opex), and provide for a fair sharing of these between transmission businesses and network users. Consumers benefit from improved efficiencies through lower regulated prices.

This attachment sets out our draft decision and reasons on the EBSS carryover amounts Powerlink has accrued over the 2017–22 regulatory control period, and how we will apply the EBSS over the 2022–27 regulatory control period.

8.1 Draft decision

Our draft decision is to include EBSS carryover amounts totalling $6.9 million ($2021– 22) from the application of the EBSS in the 2017–22 regulatory control period.[1] This is $1.5 million less than Powerlink's proposal of $8.4 million.[2] This difference reflects adjustments we have made to:

- update actual and forecast inflation
- reverse Powerlink's self-insurance adjustments
- remove losses on disposals and asset write-offs compensated for by the regulatory asset base (RAB).

We set out our draft decision in Table 8.1.

Table 8.1 Draft decision on carryover amounts ($ million, 2021–22)

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
Powerlink's proposal	8.3	–7.6	–	1.6	6.1	**8.4**
AER draft decision	5.1	–5.8	–	2.2	5.4	**6.9**
Difference	**–3.2**	**1.8**	**–**	**0.5**	**–0.7**	**–1.5**

Source: Powerlink, *2023–27 Revenue proposal*, January 2021, p. 139; AER analysis.

Note: Numbers may not add up due to rounding. Differences of '0.0' and '–0.0' represent small variances and '–' represents no variance.

We will continue to apply version 2 of the EBSS to Powerlink in the 2022–27 regulatory control period.[3] Consistent with Powerlink' proposal, we will exclude debt raising costs from the scheme because we have forecast them on a category specific basis and

1 NER, cl. 6.5.4(a)(5).

2 Powerlink, *2023–27 Revenue proposal*, January 2021, p. 139.

3 NER, cl. 6.12.1(9); AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013.

expect to continue doing so in the 2027–32 regulatory control period.[4] We will also make other adjustments as permitted by the EBSS, such as removing movements in provisions (as outlined in section 8.4).

Table 8.2 sets out the opex forecasts we will use to calculate efficiency gains in the 2022–27 period, subject to any further adjustments required by the EBSS.

Table 8.2 Forecast total opex for the EBSS ($ million, 2021–22)

	2018–19	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27
Forecast total opex	213.5	211.6	207.4	209.8	209.2	209.9	210.1
Less debt raising costs	–3.8	–3.7	–3.5	–3.5	–3.4	–3.3	–3.2
Forecast opex for the EBSS	**209.7**	**207.9**	**203.9**	**206.3**	**205.8**	**206.5**	**206.9**

Source: AER, *Draft decision, Powerlink transmission determination 2022–27, Post tax revenue model*, September 2021; AER, *Draft decision, Powerlink transmission determination 2022–27, EBSS model*, September 2021; AER analysis.

Note: Numbers may not add up due to rounding.

8.2 Powerlink's proposal

8.2.1 Carryover amounts from the 2017–22 regulatory control period

Powerlink included EBSS carryover amounts totalling $8.4 million ($2021–22) in its revenues for the 2022–27 regulatory control period from the application of the EBSS in the 2017–22 period. Powerlink excluded the following cost categories in calculating its EBSS carryover amounts:[5]

- debt raising costs
- network support costs
- network capability incentive parameter action plan (NCIPAP) project costs
- movements in provisions related to opex.

[4] Powerlink, *2023–27 Revenue proposal*, January 2021, p. 140.

[5] Ibid, pp. 139–140.

8.2.2 Application in the 2022–27 regulatory control period

Powerlink proposed to continue to apply the latest version of the EBSS in the 2022–27 regulatory control period. Consistent with the EBSS, it proposed we exclude categories of opex not forecast using a single year revealed cost approach, including:[6]

- debt raising costs
- network support costs
- Australian Energy Market Commission (AEMC) levies.

8.3 Assessment approach

Under the National Electricity Rules (NER) we must determine:

- the revenue increments or decrements for each year of the 2022–27 regulatory control period arising from the application of the EBSS during the 2017–22 period.[7]
- how the EBSS will apply to Powerlink in the 2022–27 period.[8]

The EBSS must provide for a fair sharing of opex efficiency gains and efficiency losses between Powerlink and network users.[9] We must also have regard to the following matters when implementing the EBSS:[10]

- the need to provide Powerlink with continuous incentives to reduce opex
- the desirability of both rewarding Powerlink for efficiency gains and penalising it for efficiency losses
- any incentives that Powerlink may have to inappropriately capitalise expenditure
- the possible effects of the scheme on incentives for the implementation of non-network alternatives.

8.3.1 Interrelationships

The EBSS is closely linked to our revealed cost approach to forecasting opex. When we assess or develop our opex forecast, the NER require us to have regard to whether the opex forecast is consistent with any incentive schemes.[11]

Our opex forecasting method typically relies on using the ‘revealed costs’ of the service provider in a chosen base year to develop a total opex forecast, if the chosen base year opex is not considered to be 'materially inefficient'. Under this approach, a service

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6 Ibid, p. 140.
7 NER, cl. 6A.5.4(a)(5).
8 NER, cll. 6A.14.1(1)(iv) and cl. 6A.14.3(d)(2).
9 NER, cl. 6A.6.5(a).
10 NER, cl. 6A.6.5(b).
11 NER, cl. 6A.6.6(e)(8). Further, we must specify and have regard to the relationship between the constituent components of our overall decision: NEL, s. 16(1)(c).

provider would have an incentive to spend more opex in the expected base year. Also, a service provider has less incentive to reduce opex towards the end of the regulatory control period, where the benefit of any efficiency gains is retained for less time.

The application of the EBSS serves two important functions:

- It removes the incentive for a service provider to inflate opex in the expected base year in order to gain a higher opex forecast for the next regulatory control period.
- It provides a continuous incentive for a service provider to pursue efficiency improvements across the regulatory control period.

The EBSS does this by allowing a service provider to retain efficiency gains (or losses) for a total of six years, regardless of the year in which the service provider makes them. Where we do not propose to rely on the single year revealed costs of a service provider in forecasting opex, this has consequences for the service provider's incentives and our decision on how we apply the EBSS.

When a business makes an incremental efficiency gain, it receives a reward through the EBSS, and consumers benefit through a lower revealed cost forecast for the subsequent regulatory control period. This is how efficiency improvements are shared between consumers and the business. If we subject costs to the EBSS that are not forecast using a revealed cost approach, a business would in theory receive a reward for efficiency gains through the EBSS (at a cost to consumers), but consumers would not benefit through a lower revealed cost forecast in the subsequent regulatory control period.

Therefore, we typically exclude costs that we do not forecast using a single year revealed cost forecasting approach.

For these reasons, our decision on how we will apply the EBSS to Powerlink has a strong interrelationship with our decision on its opex (see Attachment 6). We have careful regard to the effect of our EBSS decision when making our opex decision, and our EBSS decision is made largely in consequence of (and takes careful account of) our past and current decisions on Powerlink’s opex.

8.4 Reasons for draft decision

8.4.1 Carryover amounts from the 2017–22 regulatory control period

Our draft decision is to include EBSS carryover amounts totalling $6.9 million ($2021–22) from the application of the EBSS in the 2017–2022 regulatory control period. This is $1.5 million lower than Powerlink's proposal of $8.4 million. This difference is due to:

- updating actual inflation for 2020–21 and forecast inflation for 2021–22, which reduced total carryovers by $1.5 million
- reversing Powerlink's self-insurance adjustment to actual opex, which increased total carryovers by $4.4 million
- removing losses on disposals and asset write-offs compensated for by the RAB from actual opex, which reduced total carryovers by $4.5 million.

We discuss each of these reasons in more detail below.

We consider that the EBSS carryover amounts we have calculated provide for a fair sharing of efficiency gains and losses between Powerlink and its network users. It both rewards Powerlink for the efficiency gains it has made and penalises it for its efficiency losses. Further, we consider that the benefit to consumers, through lower forecast opex, is sufficient to warrant the EBSS carryover amounts we have determined.

8.4.1.1 Inflation

Consistent with our standard approach and opex forecast, we used unlagged inflation to convert opex amounts to 2021–22 real terms. Powerlink adopted the same approach.

We used updated consumer price index (CPI) index values compared to those Powerlink used. For 2020–21, we used the actual headline June 2021 CPI figure published by the Australian Bureau of Statistics (ABS), which was released after Powerlink submitted its proposal.[12] For 2021–22, we used the inflation forecast for the year to June 2022 in the Reserve Bank of Australia's (RBA) August 2021 Statement on monetary policy,[13] which was published after Powerlink submitted its proposal.

8.4.1.2 Self-insurance

When Powerlink reports its opex in its annual regulatory accounts, it makes an adjustment to its statutory accounts for self-insurance. It removes the actual losses it

[12] ABS, *6401.0 Consumer Price Index, Australia*, June 2021.

[13] RBA, *Statement on monetary policy*, August 2021.

incurs for self-insured risks and substitutes those costs with a notional self-insurance premium.[14]

However in contrast with insurance, no premium is actually paid for self-insurance. Rather, a theoretical premium is calculated on an actuarial basis. Such a notional or theoretical amount is not an actual cost incurred in delivering prescribed transmission services. Nor is it a cost capable of being 'revealed' under our revealed cost forecasting approach. Rather, any notional self-insurance premium is an estimate based upon particular assumptions and accounting standards. It would be inappropriate to report an estimate, calculated at the start of the control period, as an actual opex amount. To do so would not share any efficiency gains or losses associated with Powerlink's self-insured risks with Powerlink's network users.

The approach we have adopted, to include actual self-insurance losses, is consistent with the AER's decision for AusNet Services' electricity distribution network for the 2016–20 regulatory control period. In that instance AusNet Services appealed the AER's decision to include its actual self-insurance losses in the base year in base opex rather than including a notional self-insurance premium as a category specific forecast. The Australian Competition Tribunal affirmed the AER's decision.[15]

We explained to Powerlink our reasons for using actual self-insurance losses, rather than its notional self-insurance premium, and brought to its attention the Australian Competition Tribunal's decision for AusNet Services' electricity distribution. Powerlink maintained 'that the actual opex used to calculate the EBSS carryovers (and used as base opex to forecast opex) should include the notional self-insurance premium, not the actual losses.' It noted that 'self-insurance losses are unpredictable and volatile from one year to the next, and have the potential to result in a significant impact on operating costs in a single year.' However, Powerlink recognised that the Australian Competition Tribunal upheld our decision on the treatment of self-insurance for AusNet Services electricity distribution having considered the potential for materially different amounts under the different approaches.[16]

We also note that Powerlink's proposed approach exposes it to 100 per cent of its self-insurance losses because its actual losses are not recognised in the EBSS calculations. However, under our approach, if Powerlink incurs significant self-insurance losses it will get those costs back six years later through the EBSS, sharing those losses (or gains if the forecast losses don't eventuate) with its networks users.

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14 As reported in the 'PTS Adj' sheet of the regulatory accounts

15 Australian Competition Tribunal, *Application by AusNet Electricity Services Pty Ltd [2017] ACompT 3*, paragraphs [163]–[166].

16 Powerlink, Response to information request AER IR005, questions 5–8, 19 May 2021, p. 4.

8.4.1.3 Losses on disposals and asset write-offs

Powerlink included net losses on disposals in the actual opex amounts it used to calculate EBSS carryover amounts. These costs related to asset write-offs.

When networks report disposals for the roll forward model (RFM) they report gross proceeds. This means that if a network sells an asset for less than its residual value the 'loss' (the difference between the proceeds from the sale and the residual value) remains in the asset base. The network will thus recover the 'loss' through the return on and of capital. In a similar way, networks also recover the remaining value of asset write-offs, either through accelerated depreciation or the return on and of the asset value remaining in the RAB over the remaining life of the asset.

If losses on disposals and asset write-offs are included in the actual opex amounts used to calculate EBSS carryover amounts, then the EBSS would provide EBSS carryovers six years after the loss or write-off of the same value. For example, for every extra dollar of actual opex in 2016–17, the EBSS carryover for 2022–23 will increase by one dollar. In this way, the loss or write-off would be shared between Powerlink and its network users.

Consequently, if losses on disposals and asset write-offs are included in actual opex amounts, the network would get the amount back six years later though the EBSS in addition to recovering the amount through the RFM. To the extent that the losses on disposals and asset write-offs relate to the recovery of capital costs included in the RAB we consider these costs should be recovered through the RFM and not through the EBSS. As such, we consider any such losses or write-offs should not be included in the actual opex amounts used to calculate EBSS carryover amounts.

Powerlink agreed with these reasons to exclude such costs from actual opex in the EBSS. It noted that the losses on disposals it reported in its regulatory accounts included two different write-offs: inventory write-off costs and transformer write-off costs.[17]

Inventory write-off costs: Powerlink stated that the value of its inventory is a working capital item on its balance sheet and is only included in its RAB if it is utilised and assigned to a specific regulated project. It stated that any inventory stock that it writes-off is reported as opex. We agree with Powerlink that because these assets have not been included in its RAB it is appropriate to include these amounts in the opex amounts used to calculate EBSS carryover amounts.[18]

Transformer write-off costs: Powerlink stated that a transformer at its Belmont substation failed in January 2017 and was replaced with a new transformer at a capital cost of $4.3 million. Powerlink recovered the cost of the new transformer through an insurance claim. Powerlink's reported opex for 2016–17 includes $4.1 million to reflect

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17 Ibid, questions 5–8, 19 May 2021, p. 4.

18 Ibid, question 8, 19 May 2021, pp. 4–5.

the written-down value of the failed transformer. However, Powerlink did not adjust the RAB for either the value of the failed transformer or the new transformer. Consequently Powerlink will continue to recover the initial investment through the RAB. Powerlink agreed that for the purpose of calculating EBSS carryovers, the $4.1 million write-off cost should be excluded from actual opex for 2016–17.[19]

8.4.2 Application in the 2022–27 regulatory control period

Our draft decision is to continue to apply version 2 of the EBSS to Powerlink during the 2022–27 regulatory control period. We consider applying the scheme will benefit the long term interests of electricity consumers as it will provide continuous incentives for Powerlink to reduce opex. Provided we forecast Powerlink's future opex using its revealed costs in the 2022–27 period, any efficiency gains that Powerlink achieves will lead to lower opex forecasts, and thus lower network tariffs.

Version 2 of the EBSS specifies our approach to adjusting forecast or actual opex when calculating carryover amounts.[20] We provide details on these below.

8.4.2.1 Adjustments to forecast or actual opex when calculating carryover amounts

The EBSS allows us to exclude categories of costs that we do not forecast using a single year revealed cost forecasting approach in the following control period. We do this to fairly share efficiency gains and losses. For instance, where a service provider achieves efficiency improvements, it receives a benefit through the EBSS and consumers receive a benefit through lower forecast opex in the next regulatory control period. This is the way consumers and the service provider share in the benefits of an efficiency improvement.

If we do not use a single year revealed cost forecasting approach, we may not pass the benefits of these revealed efficiency gains to consumers. It follows that consumers should not pay for EBSS rewards where they do not receive the benefits of a lower opex forecast.

We do not forecast debt-raising costs using a single year revealed cost forecasting approach. Instead, we provide a benchmark allowance. Accordingly we have excluded these costs from the EBSS for the 2022–27 regulatory control period, since any achieved efficiency gains (or losses) would not be passed on to network users.

We will also exclude NCIPAP projects approved under the network capability component of service target performance incentive scheme (STPIS) because including them in the EBSS would distort the incentives provided under the schemes.

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[19] Ibid, question 8, 19 May 2021, p. 5.

[20] AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013.

In addition to the excluded cost categories discussed above, we will also make the following adjustments when we calculate the EBSS carryover amounts accrued during the 2022–27 period:

- adjust forecast opex to add (subtract) any approved revenue increments (decrements) made after the initial regulatory determination, such as approved pass through amounts or opex for contingent projects.
- adjust reported actual opex for the 2022–27 period to reverse any movements in provisions.
- adjust actual opex to add capitalised opex that has been excluded from the regulatory asset base.
- adjust forecast opex and actual opex for inflation.[21]
- exclude categories of opex not forecast using a single year revealed cost approach for the regulatory control period beginning in 2022 where doing so better achieves the requirements of clause 6A.6.5 of the NER.[22]

AEMC levy

Powerlink proposed that AEMC levy costs be excluded from the EBSS. It stated that this was consistent with the EBSS, which excludes categories of opex not forecast using a single year revealed cost forecasting approach.[23] Powerlink included a category specific forecast for the AEMC levy in its opex forecast for the 2022–27 regulatory control period.[24]

The EBSS states that we will exclude categories of opex not forecast using a single year revealed cost approach for the 'regulatory control period n + 1' where doing so better achieves the requirements of the NER.[25] In this case 'regulatory control period n + 1' is the period commencing in July 2027. Consequently, if we do not forecast AEMC levy costs for the period commencing in July 2027 on a single year revealed cost basis we will exclude those cost from the EBSS for the 2022–27 period. However, for the reasons set out in Attachment 6, we consider AEMC levy costs should be forecast on a single year revealed cost basis and have done so for the for the 2022–27 period.

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21 Ibid, p. 7.

22 Ibid, Explanatory Statement, p. 14.

23 Powerlink, *2023–27 Revenue proposal*, January 2021, p. 140.

24 Ibid, p. 102.

25 AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013, p. 7.

A. Shortened forms

Shortened form	Extended form
ABS	Australian Bureau of Statistics
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
CPI	Consumer price index
EBSS	Efficiency benefit sharing scheme
NEL	National Electricity Law
NER	National Electricity Rules
NCIPAP	Network capability incentive parameter action plan
opex	Operating expenditure
RAB	Regulatory asset base
RBA	Reserve Bank of Australia
RFM	Roll forward model
STPIS	Service target performance incentive scheme