FINAL DECISION

TasNetworks
Transmission Determination
2019 to 2024

Attachment 1
Maximum allowed revenue

April 2019

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's final decision on TasNetworks' 2019–24 transmission determination. It should be read with all other parts of the final decision.

The final decision includes the following attachments:

Overview

TasNetworks transmission determination 2019–24

Attachment 1 – Maximum allowed revenue

Attachment 2 – Regulatory asset base

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 7 – Corporate income tax

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment A – Pricing methodology

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Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
capex	capital expenditure
CESS	capital expenditure sharing scheme
CPI	consumer price index
EBSS	efficiency benefit sharing scheme
MAR	maximum allowed revenue
NPV	net present value
NER	national electricity rules
opex	operating expenditure
PTRM	post-tax revenue model
RAB	regulatory asset base
RIN	regulatory information notice

1 Maximum allowed revenue

This attachment sets out our final decision on TasNetworks' maximum allowed revenue (MAR) for the provision of prescribed transmission services over the 2019–24 regulatory control period. Specifically, it sets out our final decision on:[1]

- the estimated total revenue cap, which is the sum of the annual expected MAR
- the annual building block revenue requirement
- the annual expected MAR
- the X factor.

We determine TasNetworks' annual building block revenue requirement using a building block approach. We determine the X factors by smoothing the annual building block revenue requirement over the regulatory control period. The X factor is used in the CPI–X methodology to determine the annual expected MAR (smoothed).

1.1 Final decision

We do not accept TasNetworks' revised proposed annual building block revenue requirement, annual expected MAR and total revenue cap. This is because we have not accepted all the building block costs set out in TasNetworks' revised proposal. We have calculated the X factor and the annual expected MAR (smoothed) to reflect our final decision on TasNetworks' annual building block revenue requirement.

We determine a total annual building block revenue requirement for TasNetworks of $735.3 million ($nominal) for the 2019–24 regulatory control period. This is a reduction of $50.6 million ($nominal) or 6.4 per cent to TasNetworks' revised proposal and reflects the impact of our final decisions on the various building block costs.

We determine the annual expected MAR and X factor for each regulatory year of the 2019–24 regulatory control period by smoothing the annual building block revenue requirement. Our final decision is to approve an estimated total revenue cap of $736.1 million ($nominal) for TasNetworks for the 2019–24 regulatory control period. Our approved X factor for 2020–21 to 2023–24 is 1.0 per cent per annum.[2]

Table 1-1 AER's final decision on TasNetworks' annual building block revenue requirement, annual expected MAR, estimated total revenue cap and X factor ($million, nominal)sets out our final decision on TasNetworks' annual building block revenue requirement, the X factor, the annual expected MAR and the estimated total revenue cap for the 2019–24 regulatory control period.

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1 NER, cll. 6A.4.2(a)(1)–(3), 6A.5.3(c) and 6A.6.8.

2 TasNetworks is not required to apply an X factor for 2019–20 because we set the 2019–20 MAR in this decision.

Table 1-1 AER's final decision on TasNetworks' annual building block revenue requirement, annual expected MAR, estimated total revenue cap and X factor ($million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Return on capital	80.1	80.7	80.8	80.6	79.8	402.0
Regulatory depreciation[a]	16.5	22.4	25.2	26.4	31.1	121.7
Operating expenditure[b]	30.8	31.6	32.6	33.5	34.5	163.0
Revenue adjustments[c]	18.5	9.8	10.8	5.0	0.9	44.9
Net tax allowance	0.7	0.4	0.5	0.6	1.4	3.6
Annual building block revenue requirement (unsmoothed)	146.6	144.9	149.8	146.2	147.7	735.3
Annual expected MAR (smoothed)	**143.2**	**145.2**	**147.2**	**149.3**	**151.3**	**736.1**[d]
X factor (%)[e]	n/a[f]	1.00%	1.00%	1.00%	1.00%	n/a

Source: AER analysis.

(a) Regulatory depreciation is straight-line depreciation net of the inflation indexation on the opening RAB.

(b) Includes debt raising costs.

(c) Includes revenue adjustments from the efficiency benefit sharing scheme (EBSS) and the capital expenditure sharing scheme (CESS).

(d) The estimated total revenue cap is equal to the total annual expected MAR.

(e) The X factors will be revised to reflect the annual return on debt update. Under the CPI–X framework, the X factor measures the real rate of change in annual expected revenue from one year to the next. A negative X factor represents a real increase in revenue. Conversely, a positive X factor represents a real decrease in revenue.

(f) TasNetworks is not required to apply an X factor for 2019–20 because we set the 2019–20 MAR in this decision. The MAR for 2019–20 is around 16.9 per cent lower than the approved MAR for 2018–19 in real terms, or 14.9 per cent lower in nominal terms.

1.2 TasNetworks' revised proposal

TasNetworks' revised proposal included a total (smoothed) revenue cap of $785.9 million ($nominal) for the 2019–24 regulatory control period.

Table 1-2 TasNetworks' revised proposed annual building block revenue requirement, annual expected MAR, estimated total revenue cap and X factor ($million, nominal)sets out TasNetworks' revised proposed annual building block revenue requirement, the X factor, the annual expected MAR and the estimated total revenue cap.

Table 1-2 TasNetworks' revised proposed annual building block revenue requirement, annual expected MAR, estimated total revenue cap and X factor ($million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24	Total

Return on capital	84.0	86.5	88.8	90.8	92.2	442.3
Regulatory depreciation[a]	16.3	22.5	25.6	27.3	32.5	124.2
Operating expenditure[b]	30.8	31.7	32.6	33.6	34.6	163.2
Revenue adjustments[c]	18.6	9.9	10.9	5.1	0.9	45.5
Net tax allowance	1.4	1.9	2.1	2.3	3.0	10.7
Annual building block revenue requirement (unsmoothed)	151.1	152.4	160.0	159.0	163.3	785.9
Annual expected MAR (smoothed)	**151.1**	**154.1**	**157.1**	**160.2**	**163.4**	**785.9**[d]
X factor (%)	n/a[e]	0.47%	0.47%	0.47%	0.47%	n/a

Source: TasNetworks, *Transmission and Distribution Revised Proposals 2019–2024*, November 2018, p. 11.

(a) Regulatory depreciation is straight-line depreciation net of the inflation indexation on the opening RAB.

(b) Includes debt raising costs.

(c) Includes revenue adjustments from EBSS and CESS.

(d) The estimated total revenue cap is equal to the total annual expected MAR.

(e) TasNetworks is not required to apply an X factor for 2019–20 because we set the 2019–20 MAR in this decision.

1.3 Assessment approach

We did not change our assessment approach for the MAR from our draft decision. Section 1.3 of our draft decision details that approach.[3]

1.4 Reasons for final decision

For this final decision, we determine a total annual building block revenue requirement of $735.3 million ($nominal) for TasNetworks for the 2019–24 regulatory control period. This is a reduction of $50.6 million ($nominal) or 6.4 per cent to TasNetworks' revised proposed total annual building block revenue requirement of $785.9 million ($nominal) for this period. This reflects the impact of our final decision on the various building block costs.

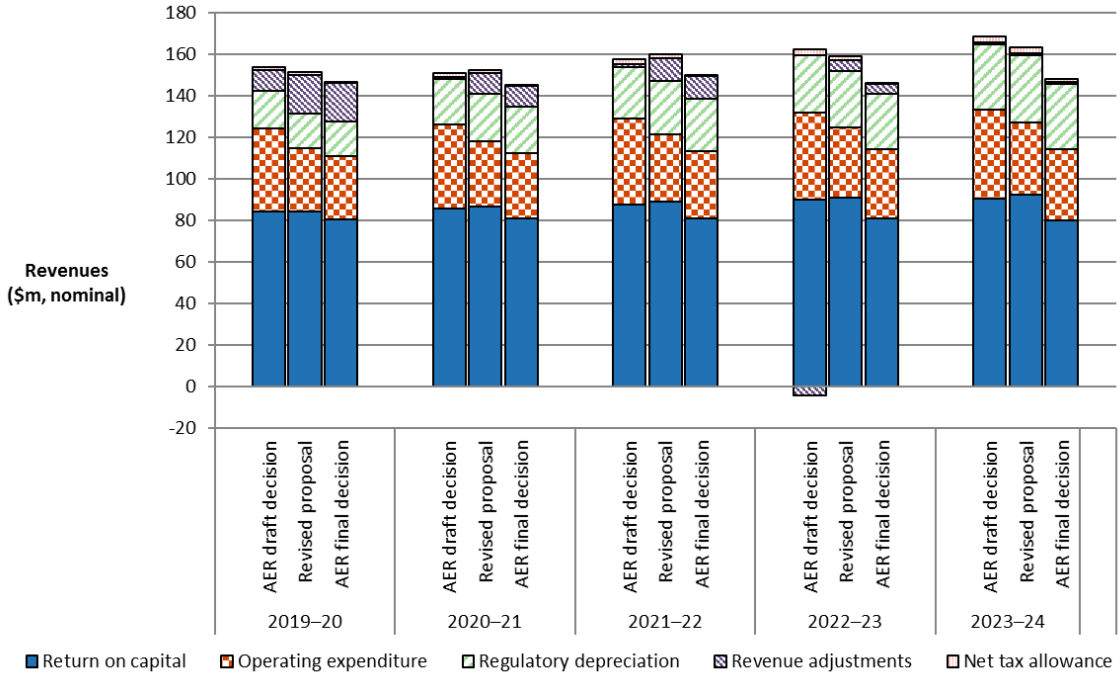
Figure 1-1 AER's draft and final decision, and TasNetworks' revised proposed annual building block revenue requirement ($million, nominal)shows the building block components from our final determination that make up the annual building block revenue requirement for TasNetworks, and the corresponding components from its revised proposal and our draft decision.

The changes we made to TasNetworks' revised proposed building blocks include (in nominal terms):

[3] AER, *TasNetworks 2019–24 – Transmission – Draft Decision – Attachment 1 – Maximum allowed revenue*, pp. 8–10, September 2018.

- a reduction in the return on capital allowance of $40.3 million or 9.1 per cent (attachments 2, 5 and 2.4 of the Overview)
- a reduction in the regulatory depreciation allowance of $2.5 million or 2.0 per cent (attachment 2, 4 and 5)
- a reduction in the cost of corporate income tax allowance of $7.2 million or 66.8 per cent (attachment 7)
- a reduction in the revenue adjustments of $0.6 million or 1.2 per cent arising from changes to EBSS (section 3.1 of the Overview) and CESS (attachment 9).

Figure 1-1 AER's draft and final decision, and TasNetworks' revised proposed annual building block revenue requirement ($million, nominal)



Source: AER analysis.

Note: Revenue adjustments include EBSS and CESS amounts. Opex includes debt raising costs.

1.4.1 X factor, annual expected MAR and estimated total revenue cap

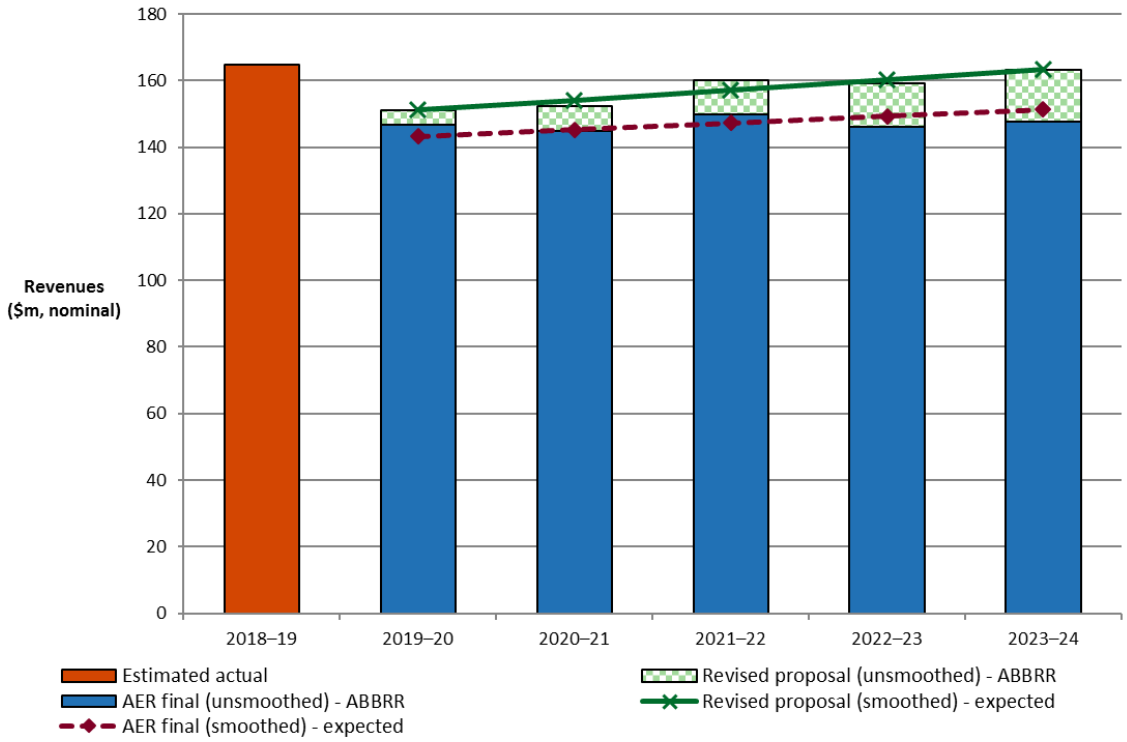
For this final decision, we determine an X factor for TasNetworks of 1.0 per cent per annum for the four years of the regulatory control period from 2020–21 to 2023–24.[4] The net present value (NPV) of the annual building block revenue requirement is $629.7 million ($nominal) as at 1 July 2019. Based on this NPV and applying the CPI–

[4] TasNetworks is not required to apply an X factor for 2019–20 because we set the 2019–20 MAR in this decision.

X method, we determine that the annual expected MAR (smoothed) for TasNetworks is $143.2 million in 2019–20 increasing to $151.3 million in 2023–24 ($nominal). The resulting estimated total revenue cap for TasNetworks is $736.1 million for the 2019–24 regulatory control period.

Figure 1-2 AER's final decision on TasNetworks' annual expected MAR (smoothed) and annual building block revenue requirement (unsmoothed) ($million, nominal)shows our final decision on TasNetworks' annual expected MAR (smoothed revenue) and the annual building block revenue requirement (unsmoothed revenue) for the 2019–24 regulatory control period.

Figure 1-2 AER's final decision on TasNetworks' annual expected MAR (smoothed) and annual building block revenue requirement (unsmoothed) ($million, nominal)



Source: AER analysis.

Note: Annual building block revenue requirement (ABBRR).

To determine the expected MAR for TasNetworks, we have set the MAR for the first regulatory year at $143.2 million ($nominal) which is $3.5 million lower than the annual building block revenue requirement. We then apply an expected inflation rate of 2.42 per cent per annum and an X factor of 1.0 per cent per annum to determine the expected MAR in subsequent years.[5] We consider that our profile of X factors results

[5] NER, cl. 6A.5.3(c)(3).

in an expected MAR in the last year of the regulatory control period that is as close as reasonably possible to the annual building block revenue requirement for that year.[6]

Our final decision results in an average decrease of 1.8 per cent per annum ($nominal) in the expected MAR over the 2019–24 regulatory control period.[7] This consists of an initial decrease of 14.9 per cent from 2018–19 to 2019–20, followed by average annual increases of 1.4 per cent during the remainder of the 2019–24 regulatory control period.[8] Our final decision also results in a decrease of 22.7 per cent in real terms ($2018–19) to TasNetworks' average annual allowed revenue relative to that in the 2014–19 regulatory control period. This is primarily because we have determined a lower rate of return, opex and tax allowance in this final decision for the 2019–24 regulatory control period than those approved in the 2014–19 determination.

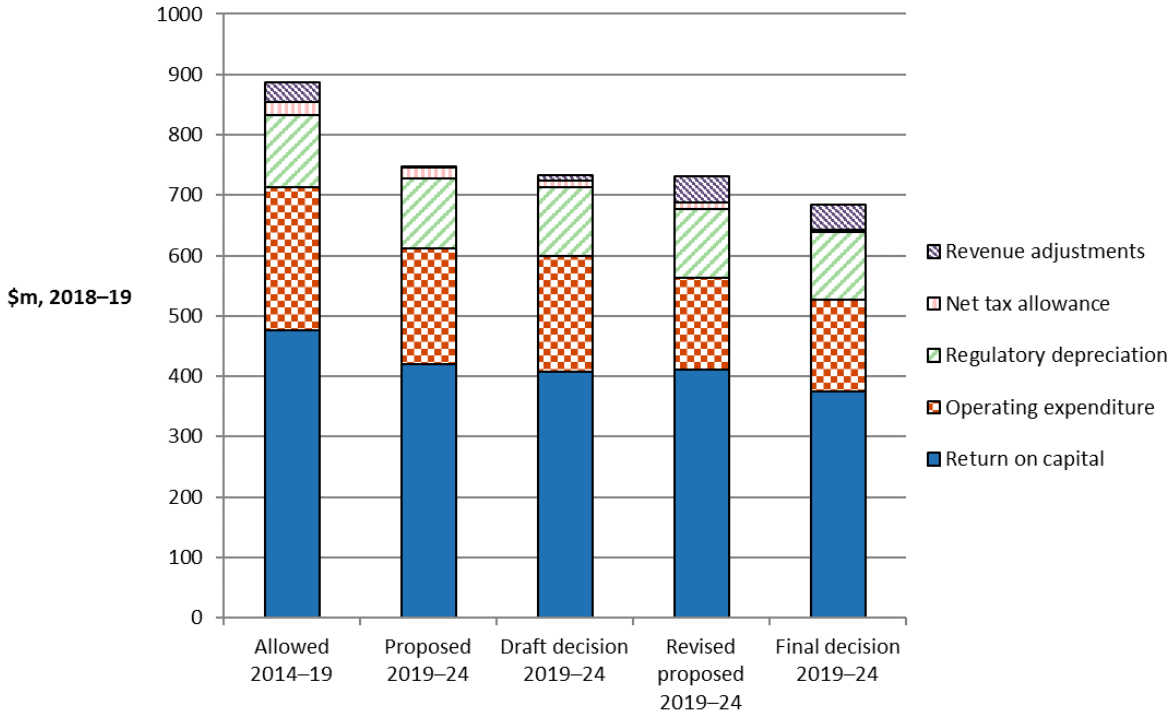
Figure 1-3 Total revenue by building block components ($million, 2018–19)compares our final decision building blocks for TasNetworks' 2019–24 regulatory control period with TasNetworks' revised proposed revenue requirement for the same period, and the approved revenue for the 2014–19 regulatory control period.

6 NER, cl. 6A.6.8(c)(2). We consider a divergence of up to 3 per cent between the expected MAR and annual building block revenue requirement for the last year of the regulatory control period is appropriate, if this can achieve smoother price changes for users over the regulatory control period. In the present circumstances, based on the X factors we have determined for TasNetworks, this divergence is around 2.4 per cent.

7 In real 2018–19 dollar terms, the average decrease in our approved expected MAR for TasNetworks is 4.2 per cent per annum over the 2019–24 regulatory control period.

8 In real 2018–19 dollar terms, this consists an initial decrease of 16.9 per cent from 2018–19 to 2019–20, followed by subsequent average annual decreases of 1.0 per cent during the remainder of the 2019–24 regulatory control period.

Figure 1-3 Total revenue by building block components ($million, 2018–19)



Source: AER analysis.

1.4.2 Shared assets

Our final decision is not to apply a shared asset revenue adjustment to TasNetworks' total revenue cap for the 2019–24 regulatory control period.

Service providers, such as TasNetworks, may use assets to provide both the prescribed transmission services that we regulate and other unregulated services. These assets are called 'shared assets'.[9] If the revenue from shared assets is material, ten per cent of the unregulated revenues that a service provider earns from shared assets will be used to reduce the service provider's revenues for prescribed transmission services.[10]

The shared asset principles establish that use of shared assets should be material before cost reductions are applied.[11] The NER do not define materiality in this context. Our approach to what constitutes a material use of shared assets is that unregulated use of shared assets in a specific regulatory year is material when a service provider's

9 NER, cl. 6A.5.5.

10 AER, *Shared asset guideline*, November 2013, p. 15.

11 NER, cl. 6A.5.5(c)(3).

annual average unregulated revenue from shared assets is expected to be greater than one per cent of the MAR for that regulatory year.[12]

In our draft decision, we did not apply a shared asset revenue adjustment to TasNetworks' total revenue cap because it forecast zero unregulated shared asset revenues in each year of the 2019–24 regulatory control period.[13]

We note that unregulated revenues from shared assets may in future become material. We will monitor TasNetworks' shared asset unregulated revenues for future regulatory control periods.

1.4.3 Indicative average transmission charges

TasNetworks is the main transmission network service provider in Tasmania. Therefore, our final decision on TasNetworks' expected MAR will ultimately affect the annual electricity bills paid by customers in Tasmania. There are several steps required to translate our revenue decision into indicative transmission charges.

Since we regulate TasNetworks' prescribed transmission services under a revenue cap, changes in the consumption of electricity will affect the transmission charges ultimately paid by consumers. We estimate the indicative effect of our final decision on forecast average transmission charges in Tasmania by:

- taking TasNetworks' annual expected MAR determined in this final decision, and
- dividing it by the forecast annual energy delivered in Tasmania published by AEMO.[14]

Based on this approach, we estimate that this final decision will result in a decrease in annual average transmission charges from 2018–19 to 2023–24.[15]

Figure 1-4 Indicative transmission price path for Tasmania ($/MWh, 2018–19) shows the indicative average transmission charges over the periods 2014–15 to 2023–24 in real 2018–19 dollar terms based on the expected revenues established in our final decision compared to TasNetworks' revised proposed revenue requirement. The average transmission charges are expected to decrease in real terms ($2018–19) from around $16.2 per MWh in 2018–19 to $12.9 per MWh in 2023–24.

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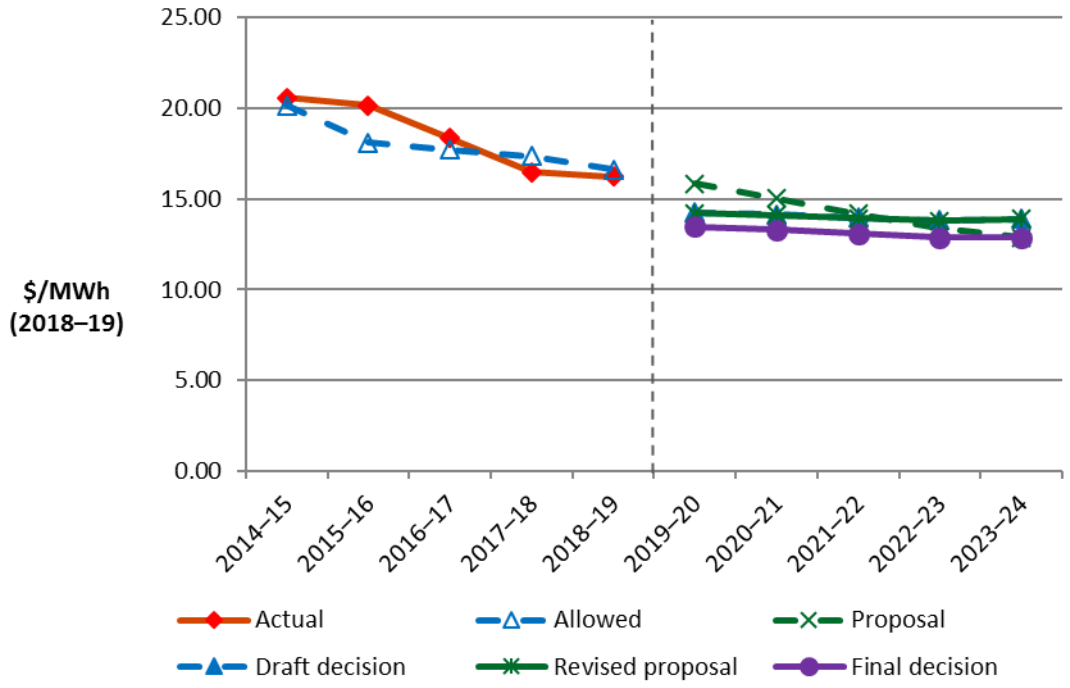
12 AER, *Shared asset guideline*, November 2013, p. 8.

13 AER, *TasNetworks 2019–24 – Transmission – Draft decision – Attachment 1 – Maximum allowed revenue*, pp. 17–18, September 2018.

14 AEMO, *National Electricity and Gas forecasting - 2018 Electricity Statement of Opportunities*, http://forecasting.aemo.com.au/Electricity/AnnualConsumption/Operational, accessed on 4 April 2018.

15 On average, the final decision transmission revenues will decrease by 1.8 per cent ($nominal) per annum from 2018–19 to 2023–24. The forecast energy delivered in Tasmania will increase by an average of 0.1 per cent per annum across that period. As a result, the indicative transmission charge will decrease by 2.2 per cent ($nominal) per annum from 2018–19 to 2023–24.

Figure 1-4 Indicative transmission price path for Tasmania ($/MWh, 2018–19)



Source: AER analysis.

1.4.4 Expected impact of combined decisions on electricity bills

The annual electricity bill for customers in Tasmania reflects the combined cost of all the electricity supply chain components—wholesale energy generation, transmission, distribution, metering, and retail costs. This final decision primarily relates to the transmission charges for prescribed transmission services. We also made a final decision for TasNetworks' distribution determination for the 2019–24 regulatory control period which relates distribution charges for standard control services. The expected impact on electricity bills discussed in this section reflects the combined impact of both final decisions.

TasNetworks' transmission and distribution charges represent approximately:

- 42 per cent on average for residential customers' annual electricity bill in Tasmania[16]

[16] This can be broken down to 10 per cent and 32 per cent for transmission and distribution proportions of the annual customer bill respectively; AEMC, *Final report: 2018 Residential Electricity Price Trends*, 21 December 2018, p. 95; AER analysis.

- 43 per cent on average for small business customers' annual electricity bill in Tasmania.[17]

We estimate the expected bill impact by varying the transmission and distribution charges in accordance with our final decision, while holding all other components—including the metering component—constant. This approach isolates the effect of our final decision on the core network charges only. However, this does not imply that other components will remain unchanged across the regulatory control period.[18]

Based on this approach, we expect that the networks component of the average annual residential electricity bill in 2019–20 would decrease by about $53 ($nominal) from the 2018–19 level, followed by average annual increases of $30 ($nominal) over the remaining years of the 2019–24 regulatory control period (2020–24).[19] By comparison, had we accepted TasNetworks' revised proposals, the networks component of the average residential electricity bill in 2019–20 would increase by about $1 ($nominal) from the 2018–19 level, followed by average annual increases of $30 ($nominal) over the remaining years of the 2019–24 regulatory control period (2020–24).[20]

Similarly, for an average small business customer in Tasmania, we expect the networks component of the average annual small business electricity bill in 2019–20 to decrease by about $162 ($nominal) from the 2018–19 level, followed by average annual increases of $87 ($nominal) over the remaining years of the 2019–24 regulatory control period (2020–24).[21] By comparison, had we accepted TasNetworks' revised proposals, the average small business electricity bill in 2019–20 would decrease by about $4 ($nominal) from the 2018–19 level, followed by average annual increases of $89 ($nominal) over the remaining years of the 2019–24 regulatory control period (2020–24).[22]

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17 This can be broken down to 11 per cent and 32 per cent for transmission and distribution proportions of the annual customer bill respectively; TasNetworks, *Reset RIN final template 1 - Regulatory determination distribution*, January 2018; TasNetworks, *Reset RIN final template 1 - Revenue determination transmission*, January 2018.

18 It also assumes that actual energy delivered will equal the forecast adopted in our final decision. Since TasNetworks operates under a revenue cap, changes in energy delivered will also affect annual electricity bills across the 2019–24 regulatory control period. The 2018 AEMC price trends report for Tasmania forecasts the networks component making up an increasingly higher proportion of the total customer bills; AEMC, *2018 Residential electricity price trends – Tasmanian fact pack*, December 2018, p. 3.

19 This equates to a 2.3 per cent decrease in the average residential customer's total electricity bill in 2019–20, followed by average annual increases of 1.3 per cent in the remaining years of the 2019–24 regulatory control period.

20 This equates to a 0.1 per cent increase in the average residential customer's total electricity bill in 2019–20, followed by average annual increases of 1.3 per cent in the remaining years of the 2019–24 regulatory control period.

21 This equates to a 2.5 per cent decrease in the average small business' total bill in 2019–20, followed by average annual increases of 1.4 per cent in the remaining regulatory years.

22 This equates to a 0.1 per cent decrease in the average customer's total bill in 2019–20, followed by average annual increases of 1.3 per cent in the remaining regulatory years.

Our estimated impact on TasNetworks' customers is based on an average annual electricity usage of around 7908 kWh for residential households[23] and 23700 kWh for small businesses.[24] Therefore, customers with different usage will experience different changes in their bills. We also note that there are other factors, such as metering, wholesale and retail costs, which affect electricity bills.

Table 1-4 shows our estimated impact of our final decision and TasNetworks' revised proposal on the average annual electricity bills for residential and small business customers in Tasmania over the 2019–24 regulatory control period.

Table 1-4 Estimated impact of TasNetworks' revised proposal and the AER's final decision on annual electricity bills for the 2019–24 regulatory control period—combined transmission and distribution ($nominal)

	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24
AER final decision						
Residential annual bill	2250[a]	2197	2226	2254	2284	2318
Annual change[c]		–53 (–2.3%)	28 (1.3%)	29 (1.3%)	29 (1.3%)	34 (1.5%)
Small business annual bill	6485[a]	6323	6406	6489	6574	6673
Annual change[c]		–162 (–2.5%)	83 (1.3%)	83 (1.3%)	85 (1.3%)	99 (1.5%)
TasNetworks revised proposal						
Residential annual bill	2250[b]	2251	2280	2309	2338	2373
Annual change[c]		1 (0.1%)	29 (1.3%)	29 (1.3%)	30 (1.3%)	34 (1.5%)
Small business annual bill	6485[b]	6482	6566	6650	6736	6836
Annual change[c]		–4 (–0.1%)	84 (1.3%)	84 (1.3%)	86 (1.3%)	101 (1.5%)

Source: AER analysis; AER, Energy Made Easy website (standing offer); AEMC, *2018 Residential Electricity Price Trends Report*, December 2018; OTTER, *Typical electricity customers*, April 2017; TasNetworks, *Post Tax Revenue Model (PTRM) Transmission, November 2018*; TasNetworks, *Post Tax Revenue Model (PTRM) Distribution, November 2018.*

(a) Annual bill for 2018–19 is sourced from Energy Made Easy and reflects an average residential customer's consumption of 7908 kWh per year (postcode 7000).

(b) Annual bill for 2018–19 is sourced from Energy Made Easy and reflects an average small business customer in Tasmania consuming 23700 kWh of electricity per year (postcode 7000).

(c) Annual change amounts and percentages are indicative. They are derived by varying the networks component of the 2018–19 bill amounts in proportion to yearly expected revenue divided by TasNetworks' forecast energy delivered for Tasmania for transmission and distribution components respectively. The

[23] This reflects the average annual consumption for residential customers using tariffs 31 and 41 in Tasmania. AEMC, *2018 Residential Electricity Price Trends Report*, December 2018, p. 94.

[24] This reflects the average annual consumption for small business customers using tariff 22 in Tasmania. OTTER, *Typical electricity customers*, April 2017, p. 4.

combined impact is calculated by summing the two transmission and distribution bill impacts together. Actual bill impacts will vary depending on electricity consumption and tariff class.