



DRAFT DECISION

TasNetworks Transmission and Distribution Determination 2019 to 2024

Overview

September 2018

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Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

Tel: 1300 585165

Email: AERInquiry@er.gov.au

AER reference: 60152

Invitation for submissions

Interested parties are invited to make submissions on our draft decision by 11 January 2019.

We will consider and respond to all submissions received by that date in our final determination.

Submissions should be sent to: TasNetworks2019@aer.gov.au.

Alternatively, submissions can be sent to:

Chris Pattas
General Manager
Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001

Submissions should be in Microsoft Word or another text readable document format.

We prefer that all submissions be publicly available to facilitate an informed and transparent consultative process. Submissions will be treated as public documents unless otherwise requested. Parties wishing to submit confidential information should:

- (1) clearly identify the information that is the subject of the confidentiality claim
- (2) provide a non-confidential version of the submission in a form suitable for publication.

All non-confidential submissions will be placed on our website. For further information regarding our use and disclosure of information provided to us, see the *ACCC/AER Information Policy* (June 2014), which is available on our website.¹

¹ <https://www.aer.gov.au/publications/corporate-documents/accc-and-aer-information-policy-collection-and-disclosure-of-information>

Note

This overview forms part of the AER's draft decision on TasNetworks' 2019–24 transmission and distribution determinations. It should be read with all other parts of the draft decisions. In addition to this overview, the draft decisions include the following attachments:

Transmission determination	Distribution determination
Attachment 1 – Maximum allowed revenue	Attachment 1 – Annual revenue requirement
Attachment 2 – Regulatory asset base	Attachment 2 – Regulatory asset base
Attachment 3 – Rate of return	Attachment 3 – Rate of return
Attachment 4 – Regulatory depreciation	Attachment 4 – Regulatory depreciation
Attachment 5 – Capital expenditure	Attachment 5 – Capital expenditure
Attachment 6 – Operating expenditure	Attachment 6 – Operating expenditure
Attachment 7 – Corporate income tax	Attachment 7 – Corporate income tax
Attachment 8 – Efficiency benefit sharing scheme	Attachment 8 – Efficiency benefit sharing scheme
Attachment 9 – Capital expenditure sharing scheme	Attachment 9 – Capital expenditure sharing scheme
Attachment 10 – Service target performance incentive scheme	Attachment 10 – Service target performance incentive scheme
Attachment 11 – Pricing methodology	Attachment 11 – Demand management incentive scheme
Attachment 12 – Pass through events	Attachment 12 – Classification of services
	Attachment 13 – Control mechanism
	Attachment 14 – Pass through events
	Attachment 15 – Alternative control services
	Attachment 16 – Negotiated services framework and criteria
	Attachment 17 – Connection policy
	Attachment 18 – Tariff structure statement

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Shortened forms

Shortened form	Extended form
AARR	aggregate annual revenue requirement
ACS	Alternative control services
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ASRR	annual service revenue requirement
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CCP 13	Consumer Challenge Panel, sub-panel 13
CESS	capital expenditure sharing scheme
CPI	consumer price index
DRP	debt risk premium
DMIA/DMIAM	demand management innovation allowance (mechanism)
DMIS	demand management incentive scheme
distributor	distribution network service provider
DUoS	distribution use of system
EBSS	efficiency benefit sharing scheme
ERP	equity risk premium
Expenditure Assessment Guideline	Expenditure Forecast Assessment Guideline for Electricity Distribution
F&A	framework and approach
MAR	maximum allowed revenue
MRP	market risk premium
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules
NPV	net present value
NSP	network service provider

Shortened form	Extended form
opex	operating expenditure
PPI	partial performance indicators
PTRM	post-tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia
repex	replacement expenditure
RFM	roll forward model
RIN	regulatory information notice
RPP	revenue and pricing principles
SAIDI	system average interruption duration index
SAIFI	system average interruption frequency index
SCS	standard control services
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
TNSP	transmission network service provider
TSS	Tariff structure statement
TUoS	transmission use of system
WACC	weighted average cost of capital

About this decision

The Australian Energy Regulator (AER) works to make all Australian energy consumers better off, now and in the future. We regulate energy networks in all jurisdictions except Western Australia. We set the amount of revenue that network businesses can recover from customers for using these networks.

The National Electricity Law and Rules (NEL and NER) provide the regulatory framework governing electricity transmission and distribution networks. Our work under this framework is guided by the National Electricity Objective (NEO):²

...to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to—

- (a) price, quality, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system.

TasNetworks is the sole owner and operator of the monopoly electricity transmission and distribution networks in Tasmania. The networks comprise the towers, poles, wires and transformers used for transporting electricity to homes and business. TasNetworks designs, constructs, operates and maintains the distribution and transmission electricity networks in Tasmania. On 31 January 2018, TasNetworks submitted joint regulatory proposals covering both its distribution and transmission networks for the five years commencing 1 July 2019. Its proposals set out the revenue it proposes to recover from its customers for the provision of electricity distribution and transmission services, and the methodology it proposes to use to set its prices each year.

Although TasNetworks has submitted joint regulatory proposals for its distribution and transmission networks, under our legislative framework we must undertake separate assessments and make separate transmission and distribution determinations. This overview sets out our draft decisions for TasNetworks' transmission and distribution determinations. We have published separate attachments for each component of the determination required for transmission and distribution.

A key component of our determination for TasNetworks will be the total revenue it can recover from customers for the provision of common transmission and distribution services (or 'standard control services') –those used by most of TasNetworks' customers. This is our 'building block determination' (section 2), and will form the basis of TasNetworks' transmission and distribution tariffs for the 2019–24 regulatory control period.

² NEL, s. 7.

TasNetworks' transmission pricing methodology allocates the regulated revenue associated with its transmission network and determines the structure of prices that TasNetworks may charge for its transmission services.

In the case of distribution services, TasNetworks' Tariff Structure Statement (TSS) sets out the tariff structure through which it will recover its regulated revenue for distribution standard control services from customers (section 4).

TasNetworks' also provides distribution alternative control services, such as metering and public lighting services, the costs of which are separately recovered from users of those services directly, through a capped price on the individual service.³ We discuss TasNetworks' alternative control services in attachment 15 to this draft decision.

TasNetworks will now have the opportunity to submit a revised proposal in response to this draft decision by 29 November 2018. Submissions from interested stakeholders on both the draft decision and revised proposal are invited by 11 January 2019.

Throughout this review we will also have the benefit of advice from our Consumer Challenge Panel (CCP13).⁴ The expert members of the CCP help us to make better regulatory decisions by providing input on issues of importance to consumers and bringing consumer perspectives to our processes.

The table below sets out the key milestones for our review of TasNetworks' proposal:

Milestone	Date
TasNetworks submitted its proposal	31 January 2018
AER issues paper published	28 March 2018
Public forum on TasNetworks' proposal held in Hobart	10 April 2018
Submissions on AER's issues paper TasNetworks' proposal closed	16 May 2018
AER draft decision published	27 September 2018
Public forum on draft decision	23 October 2018
TasNetworks submits revised proposal	29 November 2018
Submissions on draft decision and revised proposal due	11 January 2019
AER final decision to be published	April 2019

³ AER, *Framework and Approach for TasNetworks*, July 2017, p. 44.

⁴ Members of CCP13 are Andrew Nance and Mark Grenning. Member biographies are available on our website: <https://www.aer.gov.au/about-us/consumer-challenge-panel>

1 Our draft decision

We estimate that in the forthcoming 2019–24 regulatory control period our draft decision on TasNetworks' transmission and distribution businesses, if implemented, would in overall terms result in an average 1.8 per cent annual (\$nominal) increase in TasNetworks' combined network charges from 2018–19 levels.⁵

TasNetworks submitted that it prepared its proposals to achieve the lowest price outcome for its customers while maintaining network reliability and safety now and into the future⁶ –customers consider service levels and reliability to be generally acceptable, but affordability is their primary concern.⁷ Whilst TasNetworks' submitted a reasonably comprehensive proposal following its early engagement process, we consider that TasNetworks' can do more to ensure that its proposed or forecast expenditures are directed toward genuinely meeting customers' needs.

Our draft decision allows small nominal increases in TasNetworks' revenue. The outcome is a relatively flat revenue path over the 2019–24 regulatory control period compared to TasNetworks' proposal (see figures Figure 1 and Figure 2 in section 1.1 below).

In this draft decision we have highlighted concerns with the way TasNetworks assesses its risks in its analysis supporting its forecast capital expenditure for asset replacement. We have included \$473.4 million (\$2018–19) in our substitute estimates of transmission and distribution replacement capital (29 per cent lower than TasNetworks' proposed \$667.5 million (\$2018–19)). TasNetworks' approach to risk drives higher investment and ultimately higher costs to consumers. TasNetworks' proposed a significant step up in forecast capital expenditure from its actual and estimated spending over the current period. We consider this requires further substantiation before we can be satisfied it reasonably reflects the efficient replacement costs and is in the long term interest of consumers.

Instead of a step up in forecast capital expenditure, this draft decision adopts a business as usual approach, consistent with the current expenditure for the 2014–19 period. We consider TasNetworks can defer a number of its proposed replacement expenditure projects into the following 2024–29 period and still continue to maintain reliability for its customers.

⁵ This has been calculated by us, using the weighted proportions of transmission and distribution charges to the total networks component of an average Tasmanian electricity bill. TasNetworks' proposal did not include a composite figure for comparative purposes.

⁶ TasNetworks, *Tasmanian Transmission and Distribution Regulatory and Revenue Proposals Overview 1 Jul 2019 to 30 Jun 2024*, January 2018, p. 14.

⁷ TasNetworks, *Tasmanian Transmission and Distribution Regulatory and Revenue Proposals, 1 Jul 2019 to 30 Jun 2024*, January 2018, p. 9.

TasNetworks needs to demonstrate to customers that its regulatory proposal is driven by a strategy that is commercially and customer outcome focussed. This draft decision represents our initial position, which TasNetworks will respond to in its revised proposal. TasNetworks will need to satisfy us and its consumers that its proposal is only that necessary to maintain service levels and reliability, and meet its safety and security obligations.

Our draft decision seeks to address what we have heard from consumers, including our consumer challenge panel.⁸ Affordability is a primary concern for customers in Tasmania. This is relevant as network investments are paid for over time and include the prevailing interest rate. It is for this reason that it is important to limit capital expenditure to only that necessary to meet the network businesses obligations and provide the services that customers require. This is reflected in comments made by CCP13:

This significant expenditure in a low interest rate environment has the potential to trigger significant price rises in future years when interest rates inevitably return to a higher point in the cycle. In our view the long-term interests of consumers is better served by lower [Regulatory Asset Base] RAB values over time - not growing as proposed by TasNetworks.⁹

In its regulatory proposal for the 2019-24 regulatory period, TasNetworks proposed to align the allowed return on debt for both its distribution and transmission networks in a manner that affects their transition to the trailing average portfolio approach. Our draft decision is to maintain the current transition paths for TasNetworks' transmission and distribution networks. Our draft decision rate of return guideline is to apply a consistent rate of return and transition approach to all networks.

Transmission

Our draft decision would allow TasNetworks to recover \$787.5 million (\$nominal) revenue from its transmission customers over the five years from 1 July 2019 to 30 June 2024. This is a total average decrease of \$31.9 million (\$2018–19) or 17.9 per cent compared to the average revenue allowed for in the 2014–19 regulatory control period.¹⁰ We estimate that this draft decision, if implemented, would result in:

- A nominal reduction of 10.2 per cent in TasNetworks' transmission charges in 2019–20 compared to the current, 2018–19 level. This is followed by average annual increases of 1.8 per cent over the remaining four years (2020–21 to 2023–24).

⁸ Consumer Challenge Panel, CCP Sub-Panel No. 13, *Advice to the AER, Response to proposals from TasNetworks for a revenue reset for the 2019–24 regulatory period*, 16 May 2018, p. 5.

⁹ Consumer Challenge Panel, CCP Sub-Panel No. 13, *Advice to the AER, Response to proposals from TasNetworks for a revenue reset for the 2019–24 regulatory period*, 16 May 2018, p. 5.

¹⁰ TasNetworks' proposed a real 17 percent decrease in the annual average revenues from our previous determination for 2014–19. See AER, Issues Paper, *TasNetworks Distribution and Transmission Determination 2019 to 2024*, p. 15.

- A nominal reduction of 1.2 per cent in the average annual electricity bill in 2019–20 compared to the current, 2018–19 level. This is followed by annual average increases of 0.2 per cent over the remaining four years (2020–21 to 2023–24).

The effects of our draft decision for transmission can be largely attributed to our decision on TasNetworks' rate of return and assessment of forecast capital expenditure. We have accepted TasNetworks' proposed transmission operating expenditure in this draft decision.

In Tasmania, more than half the energy delivered in the State is used by major industrial customers connected to the transmission network.¹¹ This means that the proposed transmission network expenditure and as a consequence, the overall affordability of transmission charges, is critical to the few large businesses that underpin the Tasmanian market. This is also important for all customers in Tasmania, including small business and residents because a large proportion of TasNetworks' costs are shared across all network users. We consider it important for TasNetworks to continue to engage with its major customers, particularly concerning its proposed contingent projects that have the potential to significantly increase the RAB over the period (see RAB section 2.1 below).

Contingent projects are significant network augmentation projects that may arise during the regulatory control period but at the time of the determination the need and or timing is uncertain. While the costs for such projects do not form a part of our assessment of the total forecast capital expenditure that we approve in this determination, the cost of the projects may ultimately be recovered from customers in the future if certain conditions are met.

Current plans and expectations for the development of large scale renewable generation and energy storage in diverse locations across the NEM are increasingly driving network businesses to consider the need for investment to integrate these developments into the transmission grid. AEMO has published its first Integrated System Plan, which aims to identify investments in the grid that can best unlock the value of existing and new resources in the system, at the lowest cost, while also delivering energy reliably to consumers. In the early stages of planning major network investments, the need, scope and optimal timing for these projects can be uncertain. Contingent projects are one way in which the regulatory framework for transmission investment addresses this uncertainty. Contingent projects provide early transparency to consumers on significant investments for which they may ultimately be asked to pay, while providing some assurance to network service providers and other market participants that investments can proceed in a timely way should certain project triggers be met. As the economic regulator in the NEM, our focus is on ensuring that network investments are prudent and efficient, provide the maximum net benefit to the market, and are in the long term interests of

¹¹ TasNetworks, *Tasmanian Transmission and Distribution Regulatory and Revenue Proposals, 1 Jul 2019 to 30 Jun 2024*, January 2018, p. 29.

consumers. We only allow for contingent projects in our regulatory determinations where we are satisfied that doing so will contribute to achieving these objectives, in accordance with the requirements of the NER. Contingent projects can be included in a revenue determination only where they are reasonably required to achieve the capital expenditure objectives in the NER.

TasNetworks has proposed five transmission contingent projects so that the business can address uncertain future investment needs as they arise, and thereby minimise the cost impact on customers. These contingent projects are proposed to address the potential market benefits from greater system security and energy transfer. While TasNetworks recognises that these projects may lead to a significantly higher network expenditure if certain pre-defined conditions are met, the business argues that they will ultimately be offset by greater customer benefits. One of the contingent projects identified is a second Bass Strait interconnector that the business states would mean that Tasmania could expand the amount of renewable energy it provides to the national market, allowing the State to play a greater role in the NEM.¹²

The potential impact on consumers bills of these contingent projects was of concern to stakeholders. TasNetworks recognises that it will be required to undertake a cost benefit analysis as outlined in the NER and supporting guidelines (the regulatory investment test) as well as further consumer consultation in advance of submitting a proposal for the incremental revenue required in each remaining year of the regulatory control period as a result of the contingent project. Our process would be to thoroughly test any proposed capital expenditure in arriving at any decision to provide for incremental revenue.

We have not included TasNetworks' proposed contingent project trigger events in our draft decision. At this stage, based on the information before us, we consider that the project trigger events are not reasonably specific as required by the NER, and do not support the conclusion that the projects are probable to occur in the 2019–24 regulatory control period. This is not a decision on the prudence or efficiency of the proposed contingent capex, which is ultimately a matter for any future contingent project application, but rather a decision on the inclusion of a contingent projects with appropriate project triggers for the 2019–24 regulatory control period. TasNetworks has the opportunity to provide further supporting information and revised contingent project triggers in its revised proposal, which we will consider in our final decision.

Distribution

For distribution services, our draft decision would allow TasNetworks to recover \$1308.3 million (\$nominal) in revenue from its distribution customers over the five

¹² TasNetworks has commenced the RIT-T process for this project to consider all the credible options to meet its identified need. See Project Marinus, Project Specification Consultation Report, Additional interconnection between Victoria and Tasmania, July 2018.

years from 1 July 2019 to 30 June 2024. This is a total average increase of \$3.1 million (\$2018–19) or 1.3 per cent compared to the average revenue allowed for in the 2017–19 regulatory control period.¹³ We estimate that this draft decision, if implemented, would result in:

- A nominal increase of 1.8 per cent in TasNetworks' distribution charges in 2019–20 compared to the current, 2018–19 level. This is followed by annual average increases of 2.8 per cent over the remaining four years (2020–21 to 2023–24).
- A nominal increase of 0.6 per cent in the average annual electricity bill in 2019–20 compared to the current, 2018–19 level. This is followed by annual average increases of 1.0 per cent over the remaining four years (2020–21 to 2023–24).

As is the case for transmission stated above, the effects of the draft decision for distribution can be largely attributed to our decision on TasNetworks' rate of return and assessment of forecast capital expenditure. We have accepted TasNetworks' proposed distribution operating expenditure in this draft decision.

Our draft decision also recognises TasNetworks' need to take measures designed to create more cost reflective network tariffs for customers in Tasmania. TasNetworks has been consulting on its TSS with its customers prior to and after submission of its regulatory proposal to us. This consumer engagement is helping to shape TasNetworks' tariff policy reflected in the TSS that we approve as part of our decision for distribution customers. We are pleased to see that TasNetworks has undertaken further consultation with its customers regarding a move to opt-out, opposed to opt-in, arrangements for cost reflective tariffs. This is consistent with our stated expectation that distributors move to opt-out arrangements in the next round of proposals (2019–24 TSS for TasNetworks).

1.1 What is driving revenue

The changing impact of inflation over time makes it difficult to compare revenue from one period to the next on a like-for-like basis. To do this we use 'real' values based on a common year (in this case 2018–19), which have been adjusted for the impact of inflation.

In real terms, TasNetworks' proposed a 16.4 percent decrease in real average annual transmission revenue than recovered from customers in the 2014–19 regulatory control period. Our transmission draft decision would allow 17.9 per cent less revenue (difference of 1.4 per cent).

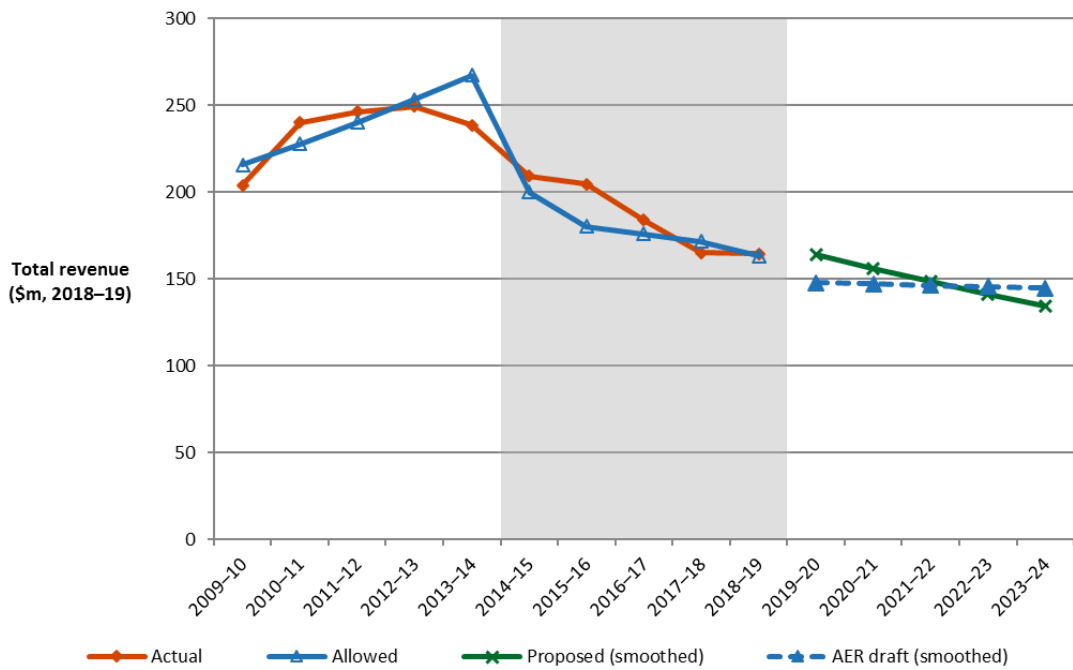
Our previous determination for TasNetworks distribution network only covered the 2017–19 two-year period. In real terms, our distribution draft decision would allow on average 1.3 per cent more revenue per year than recovered from customers in the 2017–19 regulatory control period. This is a more significant revenue adjustment

¹³ This is lower than TasNetworks' proposed increase of 4.2 per cent (\$nominal) to its forecast distribution network charges from current prices.

than transmission. TasNetworks proposed a 7.7 per cent increase in its real average annual revenue.

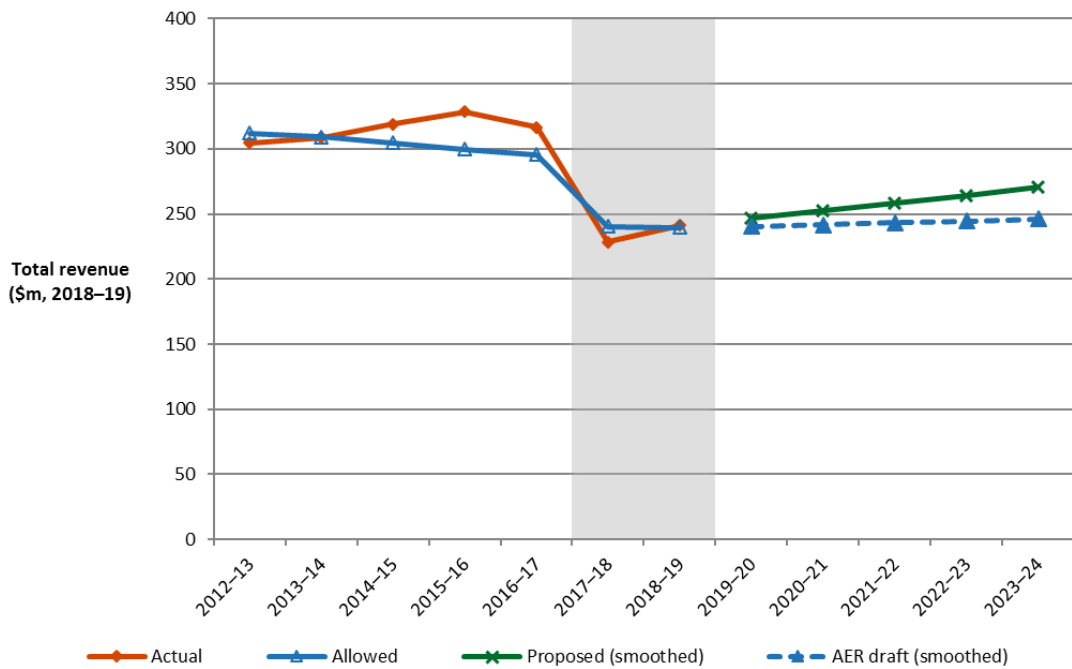
Figure 1 and Figure 2 show our draft decision for transmission and distribution, together with TasNetworks' actual and forecast revenues for the 2019–24 regulatory control period. These show our transmission revenue will fall in the first year and then remain largely constant for subsequent years, whereas, our distribution revenue provides a relatively flat revenue impact each year of the 2019–24 regulatory control period.

Figure 1 Transmission revenue over time (\$millions, 2018–19)



Source: AER analysis, smoothed revenue.

Figure 2 Distribution revenue over time (\$millions, 2018–19)

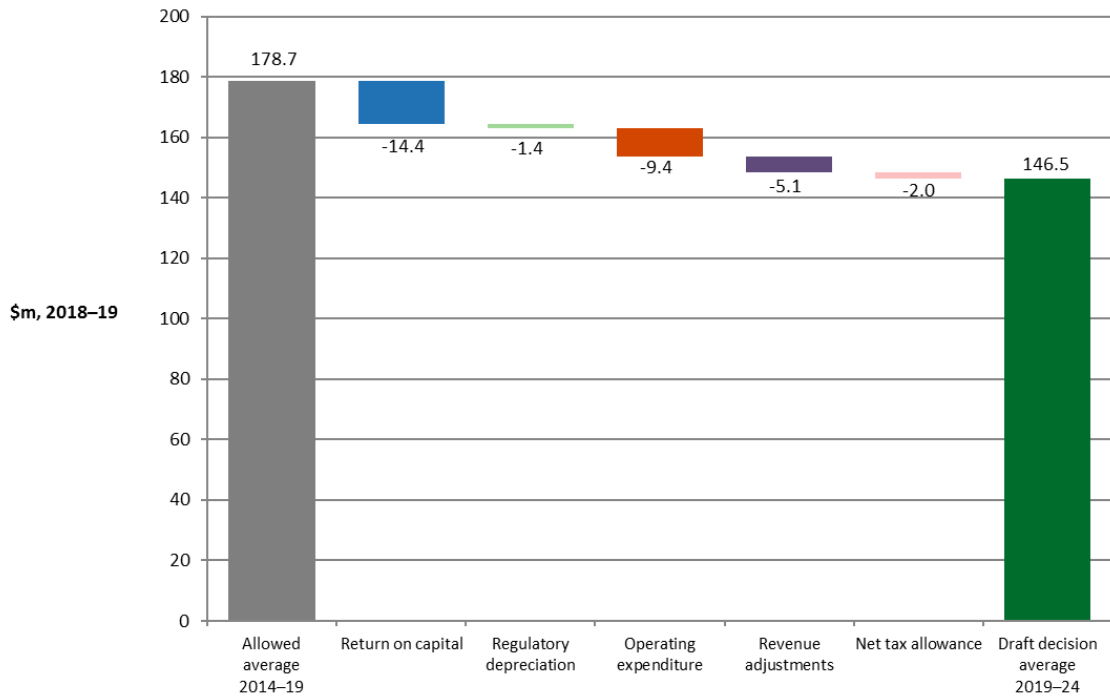


Source: AER analysis, smoothed revenue.

Figure 3 and Figure 4 highlight the key drivers of the decrease in TasNetworks' transmission and distribution revenues that would result from this draft decision, by reference to the revenue 'building blocks' that form the basis of our assessment.¹⁴ These figures compare our draft decision against the allowances for the previous regulatory control period (2014–19 for transmission and 2017–19 for distribution). They illustrate that our draft decisions for TasNetworks' transmission network and distribution network are quite different. The building blocks for transmission show an overall reduction, however, the average annual revenue for distribution is increasing due to increases, particularly for depreciation and opex.

¹⁴ These comparisons are of average annual revenues because our previous determination for TasNetworks only spanned two financial years (2017-19).

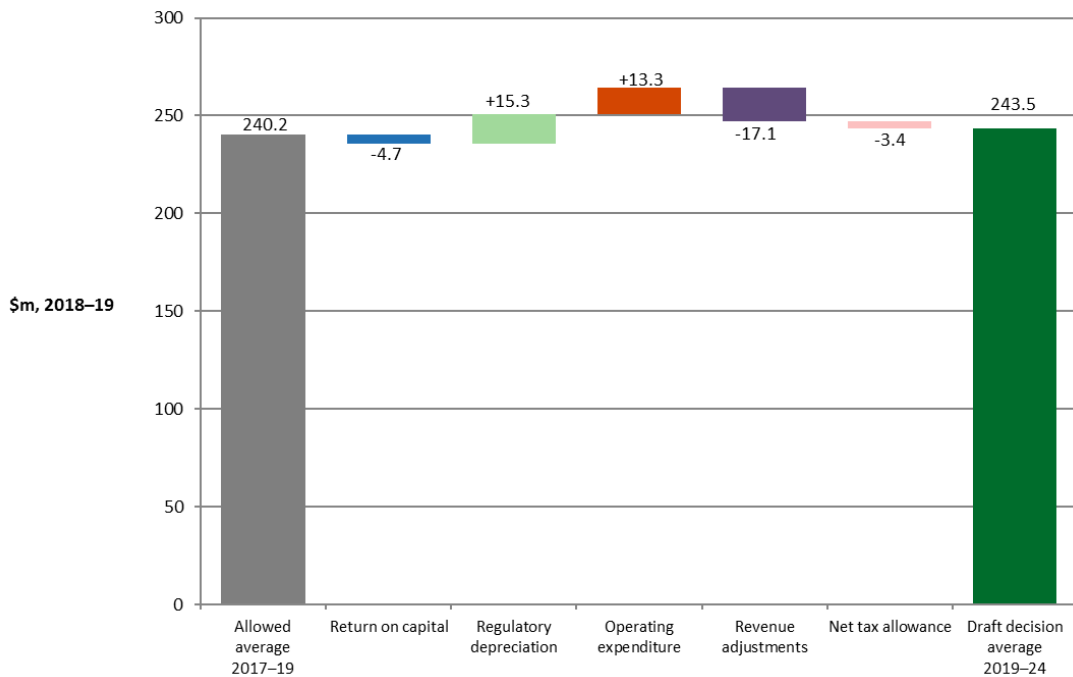
Figure 3 Change in transmission revenue from 2014–19 to 2019–24 (\$million, 2018–19)



Source: AER analysis, unsmoothed revenue.

Note: The revenue adjustment is a decrement carried over from the previous regulatory control period as a result of the application of the efficiency benefit sharing scheme and capital expenditure sharing scheme.

Figure 4 Change in distribution revenue from 2017–19 to 2019–24 (\$million, 2018–19)



Source: AER analysis, unsmoothed revenue.

Note: The revenue adjustment is a decrement carried over from the previous regulatory control period as a result of the application of the efficiency benefit sharing scheme and capital expenditure sharing scheme, and also includes an allowance provided under the demand management innovation allowance mechanism.

1.2 Key differences between our draft decision and TasNetworks' proposal

As we noted above, our draft decision does not reflect the full \$2192.2 million in revenue (\$nominal, smoothed) proposed by TasNetworks for its network services, and instead allows a lower total revenue of \$2095.8 million, a reduction of 4.4 percent. In a number of areas, the information provided has not justified that TasNetworks' proposal is prudent and efficient.

These include:

- TasNetworks' total forecast capex includes provision for a level of capital investment that we consider goes beyond what is efficient and prudent for the maintenance and operation of its network and given expected demand.

The lower capex forecast we have substituted for the purposes of this draft decision has resulted in a reduction in TasNetworks' RAB over the 2019–24 period, and also a reduction in the regulatory depreciation allowance. We have approved \$777.2 million (22 per cent reduction) in transmission and distribution capex compared to TasNetworks' proposed value of \$997.7 million. This is driven by reductions in repex and non-network expenditure, such IT costs (section 2.4)

- Rate of return, which is a large contributor to the difference between our draft decision and TasNetworks' proposal (and therefore the return on capital). We have approved a rate of return of 5.77 per cent for transmission and 5.51 per cent for distribution (nominal vanilla, indicative) for the first year of the 2019–24 regulatory control period, compared to TasNetworks' proposed 5.89 for transmission and distribution.

Our draft decision is to maintain the current debt transition paths for TasNetworks' transmission and distribution networks and not align the two. We have adopted the approach proposed in our draft 2018 rate of return guideline¹⁵ to calculate a lower rate of return.

Also reflecting our draft 2018 rate of return guideline, our draft decision adopts a value of imputation credits (gamma) of 0.5 compared to TasNetworks' proposed 0.4, which has contributed to the reduction in the corporate income tax allowance relative to TasNetworks' proposal (section 2.2)

¹⁵ Consultation on our draft 2018 guideline is ongoing, and is expected to conclude in December 2018. Legislation currently before the South Australian House of Assembly will (if passed) make our final 2018 rate of return guideline binding on this and other decisions.

- A \$1.3 million and \$3.5 million (\$nominal) reduction in the depreciation allowance for TasNetworks transmission and distribution respectively (section 2.3)
- A \$9.2 million and \$17.3 million (\$nominal) reduction in the corporate income tax for TasNetworks transmission and distribution respectively (section 2.6). Our draft decision to apply a gamma of 0.5 as reflected in our 2018 rate of return guideline draft decision has also contributed to the reduction in the corporate income tax allowance relative to TasNetworks' proposal.

In addition to the standard control components outlined above, there are also key differences in our draft decision for alternative control services. Our draft decision on alternative control services is set out in attachment 15. A key issue raised by stakeholders concerned TasNetworks' proposal to fully depreciate its entire metering fleet over the 2019–24 regulatory control period – in effect, halving the depreciation period of all its metering assets.

We have previously indicated that we would be open to applying accelerated depreciation if it received stakeholder support. TasNetworks undertook its own customer engagement regarding this issue. We also received submissions from stakeholders in response to TasNetworks' proposal. We do not consider TasNetworks' engagement or the submissions we received have demonstrated customer support for accelerated depreciation. On this basis we have not accepted TasNetworks' proposal for accelerated depreciation of its meters.

Before we make our final decision, TasNetworks will have the opportunity to respond to these issues in its revised proposal. We will also seek further submissions from stakeholders on both our draft decision and TasNetworks' revised proposal.

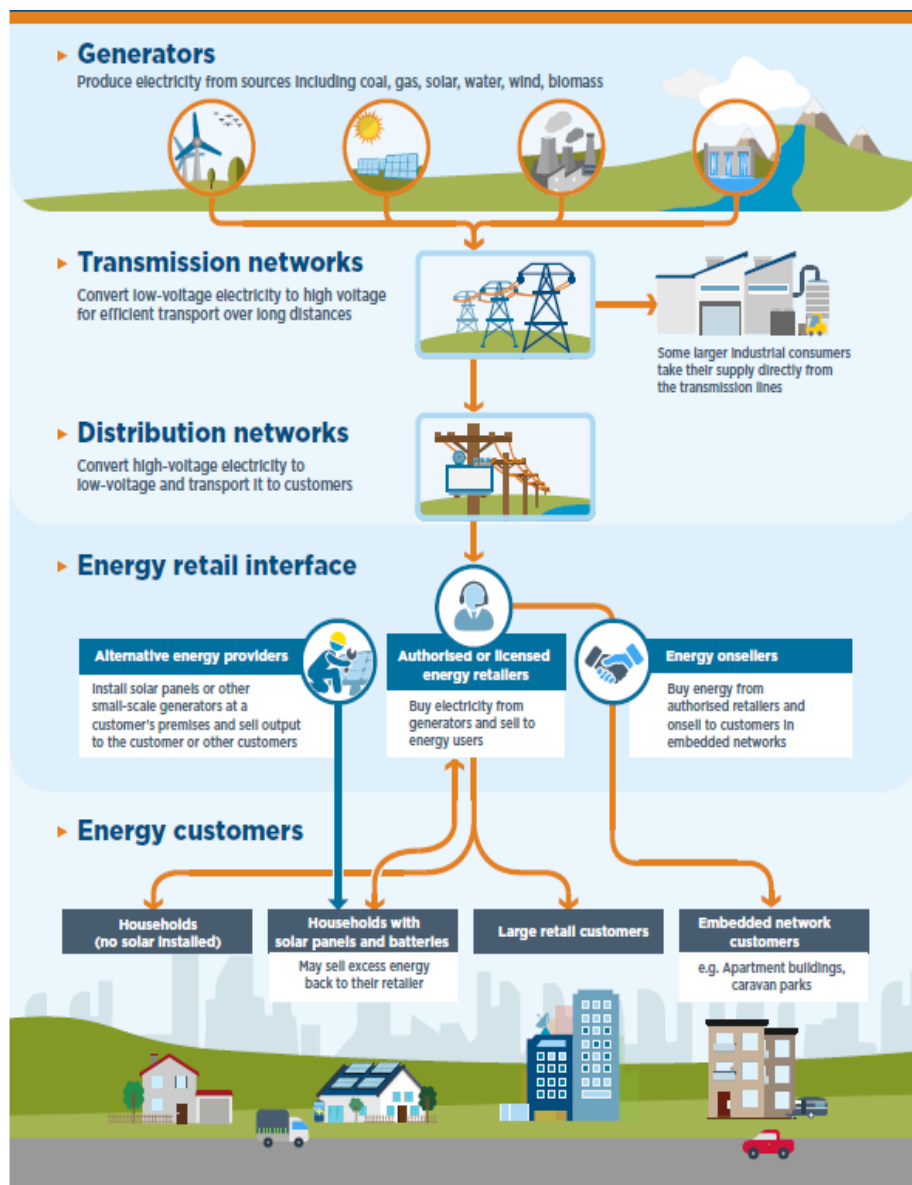
1.3 Expected impact of our draft decision on electricity bills

TasNetworks' network charges make up a significant component—around 46 per cent—of the electricity bills paid by residential customers in Tasmania.¹⁶ Other components of the electricity bill include environmental policy costs, wholesale electricity costs and retail costs. Figure 5 illustrates the different components of the electricity supply chain.

The cost of the network components of the electricity supply chain are ultimately recovered through electricity retail charges. The Office of the Tasmanian Economic Regulator is responsible for setting maximum retail prices for the sale and supply of electricity services to (regulated) standing offer customers.

¹⁶ AEMC, *2017 Residential electricity price trends – Tasmanian information sheet*, December 2017; AER analysis.

Figure 5 Electricity supply chain



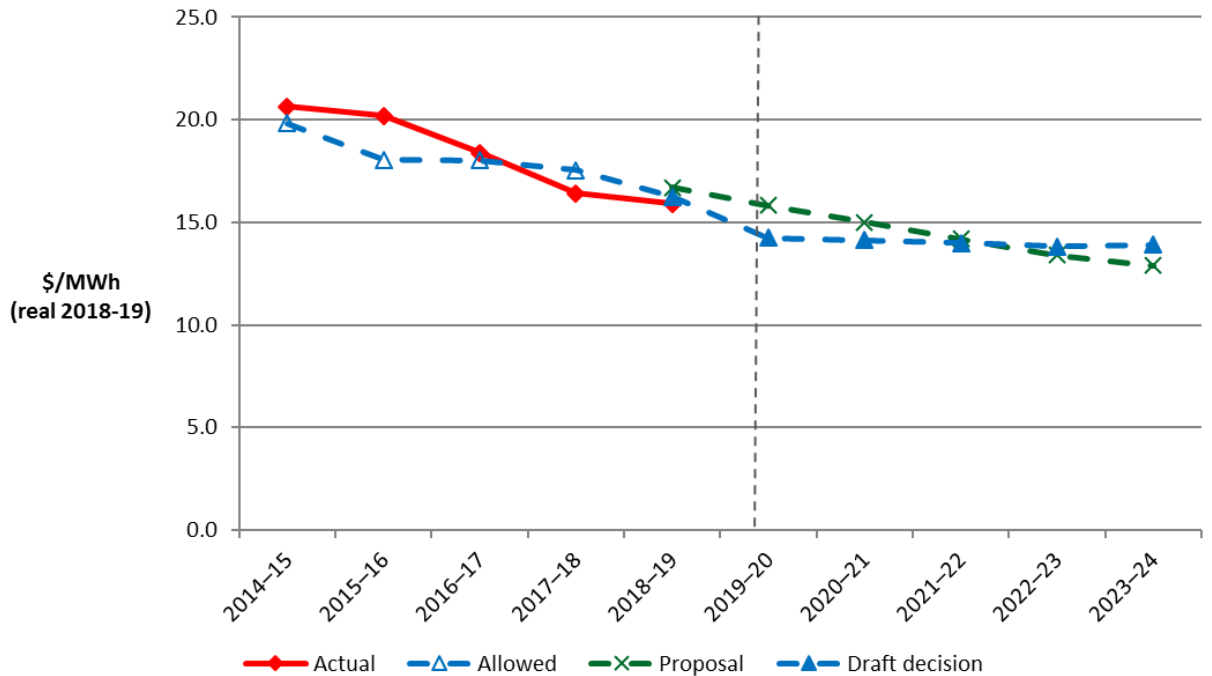
Transmission charges

Figure 6 below shows the indicative average transmission charges over the period 2014–15 to 2023–24 in real 2018–19 dollar terms. These amounts are an approximation of transmission charges as they are simply TasNetworks' transmission forecast revenue divided by TasNetworks' proposed forecast energy delivered (measured in MWh).¹⁷ The average transmission charges are expected to

¹⁷ TasNetworks, *Response to information request #037 – Indicative bill impact information source*, August 2018.

decrease from around \$18.4/MWh for the 2014–19 regulatory period¹⁸ to \$14.0/MWh for the 2019–24 regulatory period.

Figure 6 Indicative transmission price path for Tasmania (\$/MWh, 2018–19)



Source: AER analysis.

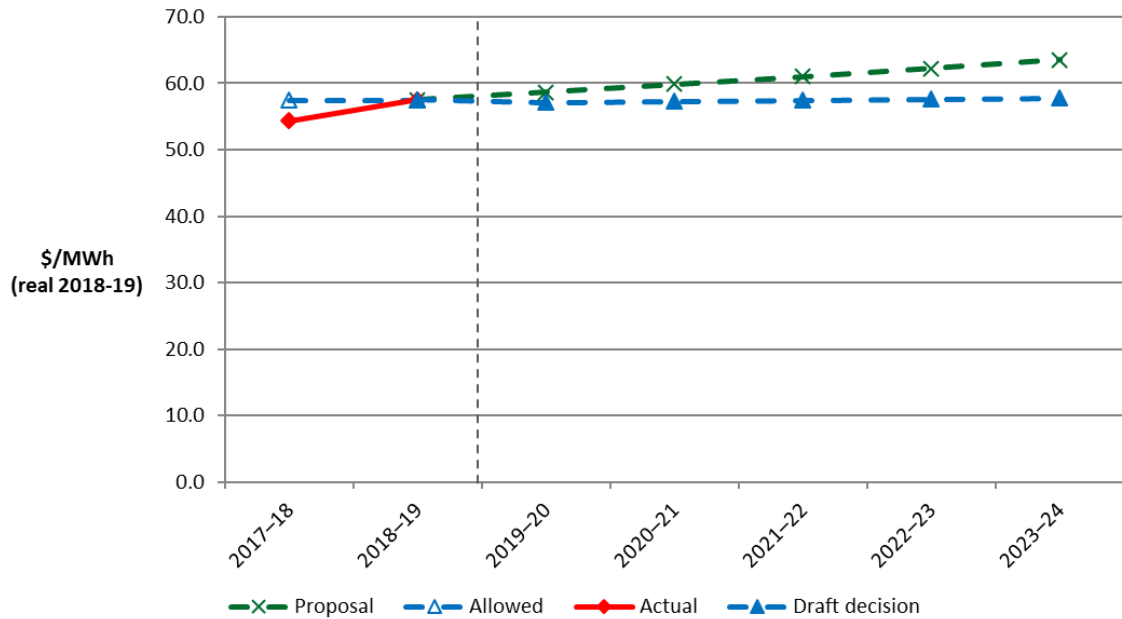
Distribution charges

Figure 7 below shows the indicative average distribution charges over the period 2017–18 to 2023–24 in real 2018–19 dollar terms. Like the transmission charges above, these amounts are an approximation of distribution charges as they are simply TasNetworks' distribution forecast revenue divided by their forecast energy delivered (measured in MWh). Based on our draft decision, the average distribution charges are expected to increase slightly from around \$55.9/MWh for the 2017–19 regulatory period¹⁹ to \$57.4/MWh for the 2019–24 regulatory period.

¹⁸ Transmission charges for 2014–15 to 2016–17 are based on actual revenue, while 2017–18 and 2018–19 transmission charges are based on estimated revenue.

¹⁹ Due to the TasNetworks distributions' short regulatory period, the distribution charges for 2017–18 and 2018–19 are based on estimated revenue.

Figure 7 Indicative distribution price path for Tasmania (\$/MWh, 2018–19)



Source: AER analysis.

Potential bill impact

We estimate the combined impact of TasNetworks' transmission and distribution charges on the average annual residential electricity bill in Tasmania. We expect that, holding other components of bills constant, our draft decision will result in an increase of \$80 or 4.2 per cent (\$nominal) in the average annual electricity bills for residential customers in Tasmania compared to the current, 2018–19 levels.²⁰ This involves a \$11 (\$nominal) decrease in the first year, followed by gradual increases of around \$23 (\$nominal) for the remaining years.

1.4 TasNetworks' consumer engagement

The NEO puts the long term interests of consumers at the centre of our decisions as a regulator and the way TasNetworks operates its network. An important part of this is ensuring the regulatory proposals TasNetworks puts to us for approval reflects the NEO, and that TasNetworks has engaged with its consumers to determine how best to provide services that align with their long term interests.

Consumer engagement in this context is about TasNetworks working openly and collaboratively with consumers and providing opportunities for their views and preferences to be heard and to influence TasNetworks' decisions. In the regulatory

²⁰ This consists, in nominal terms, of a \$88.0 or 4.6% increase attributable to the distribution determination and a reduction of \$7.6 or 0.4% as a result of the transmission determination.

process, stronger consumer engagement can help us test service providers' expenditure proposals, and can raise alternative views on matters such as service priorities, capital expenditure proposals and tariff structures.

TasNetworks was one of the first network businesses to develop an early consumer engagement framework, which it undertook prior to submitting its electricity distribution regulatory proposal for the current regulatory control period. This included the release of a preliminary revenue proposal for consultation, which now sets the benchmark for all network service providers.

TasNetworks has continued its established approach to early consumer engagement for the 2019–24 regulatory control period. However, with its regulatory proposal now covering both distribution and transmission, it has tailored its consultation approach to its distribution and transmission customers.²¹ TasNetworks consulted extensively in developing its regulatory proposal commencing in May 2016. This consultation included the publication of a Directions and Priorities Paper which set out its preliminary revenue proposal.²²

We consider TasNetworks continues to recognise the importance of consumer engagement and the value it delivers for the network business and customers. It has been one of a handful of network businesses that has commenced its engagement with consumers well in advance of submitting its regulatory proposal and appears to be responsive to customer feedback in shaping outcomes. This is reflected in the AER's Consumer Challenge Panel (CCP13) advice to us on TasNetworks' regulatory proposal.

We tasked CCP13 specifically with advising us on the effectiveness of TasNetworks' engagement activities with consumers and how this was reflected in the development of its proposal. CCP13 attended a number of TasNetworks workshops and met on several occasions with TasNetworks executives and staff. CCP13 also talked to a number of stakeholders who are represented on TasNetworks' formal Customer Council²³ and Pricing Reform Working Group.

With the exception of TasNetworks' consumer engagement on its proposed contingent projects (discussed further below), CCP13 has commended TasNetworks for a committed, well planned and executed consumer engagement process in support of its regulatory proposal.

²¹ It engaged more one on one and through small workshops with its transmission customers - large industrial customers and generators that make up over 50 percent of the demand for electricity in Tasmania. Whereas with distribution customers, residential and business, engagement included surveys, public forums and workshops

²² TasNetworks, Direction and Priorities Consultation Paper Transmission and Distribution Determination 2019–24, August 2017.

²³ TasNetworks' Customer Council is a standing body of representatives of consumer bodies and other stakeholders including TasCOSS, Anglicare, Aged Care Association, representatives of small business, agriculture, local government, the State Ombudsman and the incumbent retailer Aurora Energy.

We were particularly encouraged to see CCP13 confirm that:

- TasNetworks positions its consumer engagement as an on-going part of its business aimed at developing a deeper understanding of customer's views and not just a process around the revenue and pricing review process²⁴
- The well planned engagement process provides for a building up of ideas through a listening phase followed by a period of active engagement with a range of stakeholders and consumer interests²⁵
- TasNetworks has actively sought to inform stakeholders on the feedback from its consumer engagement process and how it has sought to address this in the proposal²⁶
- TasNetworks' engagement has not stopped at lodgement of its proposal to the AER²⁷
- Senior management of TasNetworks were represented in a large number of workshops, presenting and engaging with participants, which demonstrates a positive consumer culture within TasNetworks.²⁸

There is one area in which we think further improvement can be achieved – the approach to consumer engagement on proposed contingent projects. TasNetworks is not alone here. We are seeing a significant amount of expenditure being proposed as contingent projects across the NEM, which have the potential to lead to substantial price increases should these be triggered. In the case of TasNetworks, the proposed expenditure for contingent projects is greater than the expenditure proposed to be recovered through its forecast capex for 2019–24.²⁹ Further, given the composition of the Tasmanian electricity market, where more than half the energy delivered to the State is used by major industrial customers connected to the transmission network, any additional costs are going to have a greater impact on these customers.

CCP13 expressed concerns about TasNetworks approach to contingent projects:

CCP13's view is that in the lead-up to submitting its 2019–24 Regulatory Proposal, TasNetworks consumer engagement has underplayed these projects, with much more focus on the formal expenditure proposal

²⁴ Consumer Challenge Panel, CCP Sub-Panel No. 13, *Advice to the AER, Response to proposals from TasNetworks for a revenue reset for the 2019–24 regulatory period*, 16 May 2018, p. 15.

²⁵ Consumer Challenge Panel, CCP Sub-Panel No. 13, *Advice to the AER, Response to proposals from TasNetworks for a revenue reset for the 2019–24 regulatory period*, 16 May 2018, p. 25.

²⁶ Consumer Challenge Panel, CCP Sub-Panel No. 13, *Advice to the AER, Response to proposals from TasNetworks for a revenue reset for the 2019–24 regulatory period*, 16 May 2018, p. 18.

²⁷ Consumer Challenge Panel, CCP Sub-Panel No. 13, *Advice to the AER, Response to proposals from TasNetworks for a revenue reset for the 2019–24 regulatory period*, 16 May 2018, p. 16.

²⁸ Consumer Challenge Panel, CCP Sub-Panel No. 13, *Advice to the AER, Response to proposals from TasNetworks for a revenue reset for the 2019–24 regulatory period*, 16 May 2018, p. 22.

²⁹ TasNetworks has proposed forecast capex of \$738.6 million (\$2018–19) and \$938 million for contingent projects.

elements. While the uncertainty around their progress is a contributing factor to TasNetworks' approach, their sheer size demands that they should have had much more focus and the lack of consultation only increases consumers' concerns.³⁰

We are pleased to see that TasNetworks has recognised the need to put a greater focus on consumer engagement regarding its proposed contingent projects. In its submission to the AER's Issue Paper, TasNetworks stated:

We will continue to examine each contingent project in terms of the need, cost/benefit and timing to ensure that customer value can be demonstrated. We will conduct a targeted engagement with stakeholders, customers and the community.

We will be updating our assumptions and re-examining the appropriate contingent triggers in relation to our proposed contingent projects as part of our Revised Revenue Proposal in November 2018.³¹

TasNetworks' proposed contingent projects and trigger events is considered further in attachment 5.

³⁰ Consumer Challenge Panel, CCP Sub-Panel No. 13, *Advice to the AER, Response to proposals from TasNetworks for a revenue reset for the 2019–24 regulatory period*, 16 May 2018, p. 25.

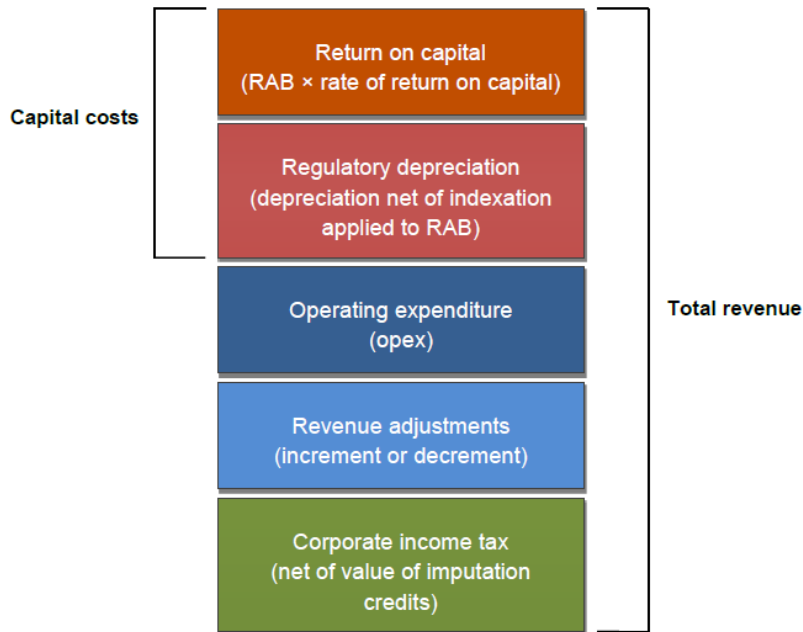
³¹ TasNetworks, *Response to the AER's Issues Paper*, May 2018, p. 9.

2 Key components of our draft decision on revenue

The total revenue TasNetworks has proposed reflects its forecast of the efficient cost of providing its transmission and distribution network services over the 2019–24 regulatory control period. TasNetworks' proposal, and our assessment of it under the NEL and NER, are based on a 'building block' approach to determine a total revenue allowance (see Figure 8) which looks at five cost components:

- A return on the RAB (or return on capital, to compensate investors for the opportunity cost of funds invested in this business) (section 2.2)
- depreciation of the RAB (or return of capital, to return the initial investment to investors over time) (section 2.3)
 - capex—the capital costs and expenditure incurred in the provision of network services—mostly relates to assets with long lives, the costs of which are recovered over several regulatory control periods. The forecast capex approved in our decisions directly affects the size of the RAB and therefore the revenue generated from the return on capital and depreciation building blocks (section 2.4)
- forecast opex – the operating, maintenance and other non-capital expenses, incurred in the provision of network services (section 2.5)
- revenue adjustments, namely, increments or decrements carried over from the previous regulatory control period, including the application of incentive schemes, such as the Efficiency Benefit Sharing Scheme (EBSS), the Capital Expenditure Sharing Scheme (CESS) and the Demand Management Innovation Allowance Mechanism (DMIAM) allowance for 2019–24 (See attachment 11 for further discussion on the DMIAM)
- the estimated cost of corporate income tax (section 2.6)

Figure 8 The building block approach for determining total revenue



We use an incentive approach where, once regulated revenues are set for a five year period, networks who keep actual costs below the regulatory forecast of costs retain part of the benefit. This benchmark incentive framework is a foundation of our regulatory approach and promotes the delivery of the NEO. Service providers have an incentive to become more efficient over time, as they retain part of the financial benefit from improved efficiency. Consumers also benefit when efficient costs are revealed and a lower cost benchmark is set in subsequent regulatory periods.

Our draft decision on TasNetworks' transmission and distribution revenues for the 2019–24 regulatory control period are set out in Table 2.1 and Table 2.2 below.

Table 2.1 AER's draft decision on TasNetworks' transmission 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	84.2	85.4	87.6	89.7	90.5	437.4
Regulatory depreciation ^a	18.1	22.1	24.4	27.8	31.2	123.5
Operating expenditure ^b	39.9	40.6	41.4	42.0	42.6	206.6
Revenue adjustments ^c	9.8	0.9	1.7	–4.3	1.2	9.3
Net tax allowance	1.5	1.8	2.1	2.5	3.0	10.9
Annual building block revenue requirement (unsmoothed)	153.5	150.8	157.2	157.7	168.6	787.8
Annual expected MAR (smoothed)	151.5	154.5	157.4	160.5	163.6	787.5^d

X factor (%) ^e	n/a ^f	0.51%	0.51%	0.51%	0.51%	n/a
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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 12.0 per cent lower than the approved MAR for 2018–19 in real terms, or 9.9 per cent lower in nominal terms.

Table 2.2 AER's draft decision on TasNetworks' distribution revenues for the 2019–24 regulatory control period (\$million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Return on capital	96.2	99.8	103.1	105.3	108.0	512.5
Regulatory depreciation ^a	57.4	62.9	69.3	73.9	78.3	341.8
Operating expenditure ^b	85.4	87.1	88.4	89.7	91.0	441.5
Revenue adjustments ^c	-11.5	-11.7	-12.0	12.9	0.2	-22.2
Net tax allowance	6.9	7.2	7.6	8.0	8.8	38.4
Annual revenue requirement (unsmoothed)	234.5	245.3	256.2	289.8	286.3	1312.1
Annual expected revenue (smoothed)	246.1	253.7	261.4	269.4	277.7	1308.3
X factor ^d	n/a ^e	-0.60%	-0.60%	-0.60%	-0.60%	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), capital expenditure sharing scheme (CESS) and demand management innovation allowance mechanism (DMIAM).
- (d) 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.
- (e) TasNetworks is not required to apply an X factor for 2019–20 because we set the 2019–20 expected revenue in this decision. The expected revenue for 2019–20 is around 0.3 per cent lower than the approved expected revenue for 2018–19 in real terms, or 2.1 per cent higher in nominal terms.

In the sections below, we discuss each component of our decision on TasNetworks' revenue for 2019–24 in turn. Incentive schemes, including the EBSS and CESS are discussed in section 3 and the tariff structure statement is discussed in section 4.

2.1 Regulatory asset base

The RAB accounts for the value of TasNetworks regulated assets over time. The size of the RAB—and therefore the revenue generated from the return on capital and return of capital building blocks—is directly affected by our assessment of capex.

Our draft decision is to determine an opening RAB value as at 1 July 2019 of \$1459.4 million and \$1747.0 (\$nominal) for TasNetworks' transmission and distribution networks respectively. We roll forward these opening RAB values year-by-year by indexing it for inflation, adding new capex, and subtracting depreciation and other possible factors (for example, disposals or customer contributions).³² This gives us a closing value of the RAB at the end of each year of the regulatory control period. The value of the RAB is used to determine:

- the return on capital building block, which is the product of the RAB and our approved rate of return
- regulatory depreciation (or the return of capital, discussed further below in section 2.3).

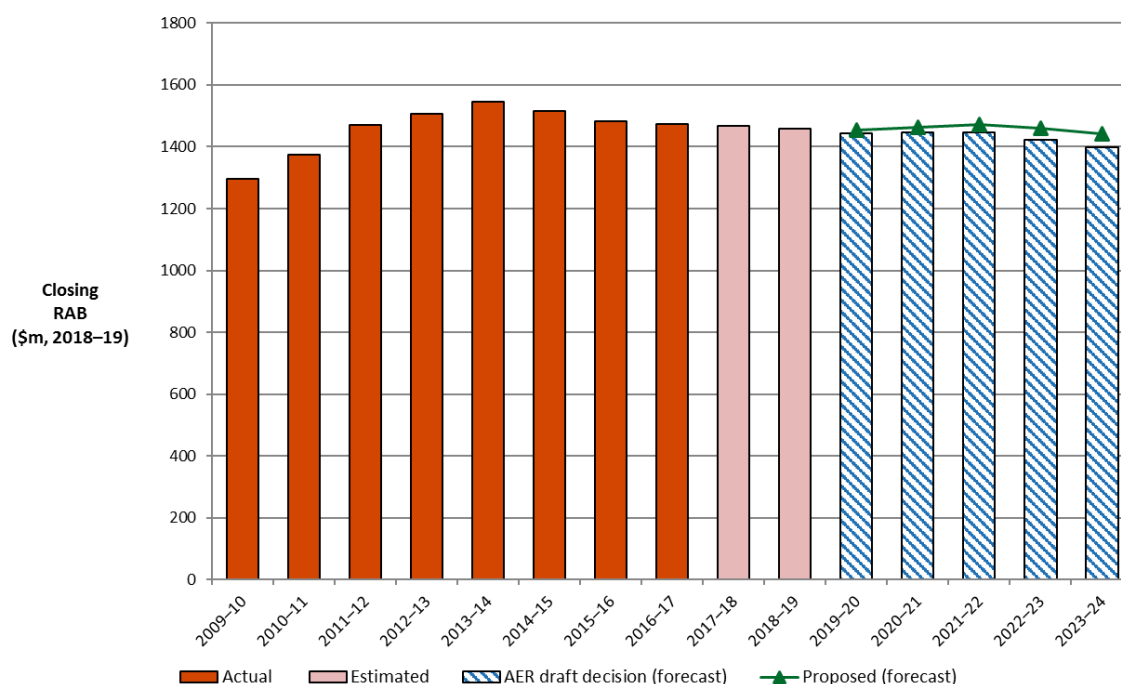
RAB growth is a key issue for many stakeholders. TasNetworks' transmission and distribution RABs tell a different story.

Transmission RAB

Figure 9 compares our transmission draft decision on TasNetworks' forecast RAB to TasNetworks' proposal and actual RAB in real dollar terms. This shows that TasNetworks' transmission RAB is decreasing in value. However, TasNetworks' transmission RAB may well increase by the end of the period. TasNetworks has proposed five contingent projects estimated at over \$938 million, or more than three times TasNetworks' proposed forecast capex for 2019–24. Should all these contingent projects proceed, they would increase TasNetworks' transmission RAB by more than 60 per cent. These contingent projects cover a second Bass Strait interconnector and upgrades to manage new generation. Our draft decision on TasNetworks' contingent projects is discussed further in section 2.4 below.

³² The term 'rolled forward' means the process of carrying over the value of the capital base from one regulatory year to the next.

Figure 9 TasNetworks' actual transmission RAB, proposed forecast RAB and AER draft decision (\$millions, 2018–19)



Source: AER analysis.

TasNetworks' transmission proposal calculated its opening RAB as at 1 July 2019 and its closing RAB at 30 June 2024 in accordance with our RFM. Table 2.3 sets out our draft decision on the forecast RAB values for TasNetworks' transmission network over the 2019–24 regulatory control period.

Table 2.3 AER's draft decision on TasNetworks' transmission RAB for the 2019–24 regulatory control period (\$million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24
Opening RAB	1459.4	1479.4	1518.8	1554.3	1568.4
Capital expenditure ^a	38.1	61.5	59.9	41.8	41.5
Inflation indexation on opening RAB	35.8	36.2	37.2	38.1	38.4
Less: straight-line depreciation ^b	53.9	58.3	61.6	65.9	69.6
Closing RAB	1479.4	1518.8	1554.3	1568.4	1578.6

Source: AER analysis.

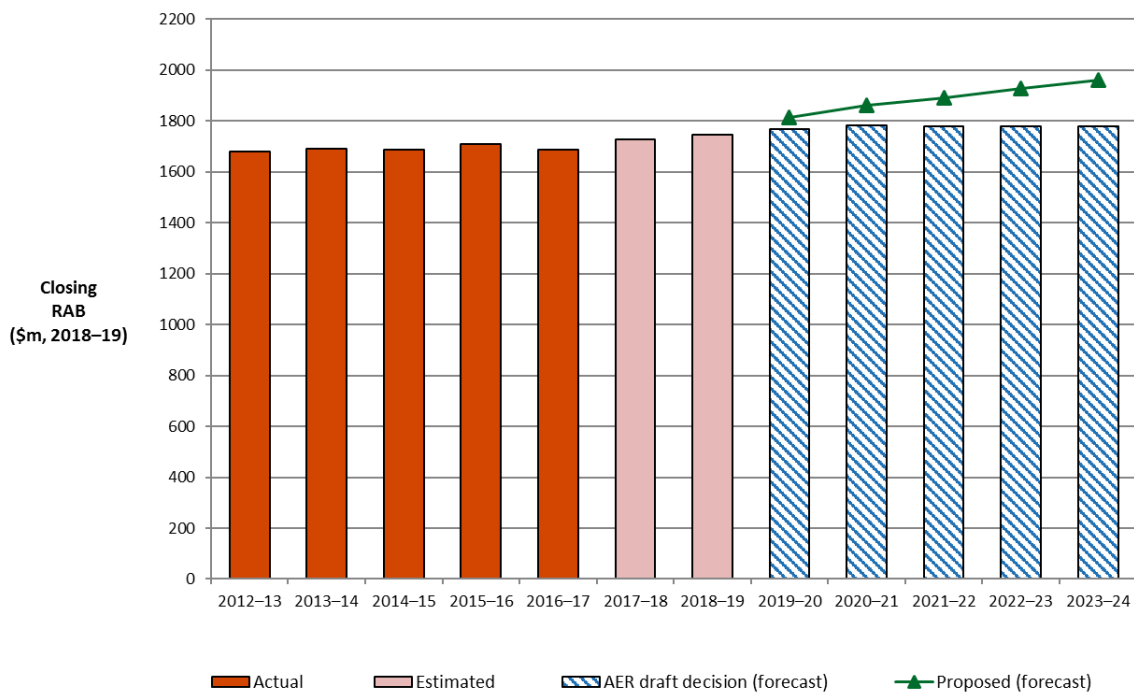
- (a) As-incurred, and net of forecast disposals and capital contributions. In accordance with the timing assumptions of the post-tax revenue model (PTRM), the capex includes a half-WACC allowance to compensate for the six month period before capex is added to the RAB for revenue modelling.
- (b) Based on as-commissioned capex.

Further details regarding the roll forward of TasNetworks' transmission RAB is set out in attachment 2 of the transmission determination.

Distribution RAB

Figure 10 compares our distribution draft decision on TasNetworks' forecast RAB to TasNetworks proposal and actual RAB in real dollar terms. This shows that TasNetworks' distribution RAB is increasing in value, due to increases in capex, but only slightly compared to TasNetworks' proposed forecast. Our draft decision on TasNetworks' capex is discussed further in section 2.4 below.

Figure 10 TasNetworks' actual distribution RAB, proposed forecast RAB and AER draft decision (\$millions, 2018–19)



Source: AER analysis

TasNetworks' distribution proposal likewise also calculated its opening RAB as at 1 July 2019 and its closing RAB at 30 June 2024 in accordance with our RFM. Table 2.4 sets out our draft decision on the forecast RAB values for TasNetworks' distribution network over the 2019–24 regulatory control period.

Table 2.4 AER's draft decision on TasNetworks' distribution RAB for the 2019–24 regulatory control period (\$million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24
Opening RAB	1747.0	1812.4	1870.7	1912.1	1961.1
Capital expenditure ^a	122.8	121.2	110.7	123.0	123.7

Inflation indexation on opening RAB	42.8	44.4	45.8	46.8	48.0
Less: straight-line depreciation	100.2	107.3	115.1	120.8	126.3
Closing RAB	1812.4	1870.7	1912.1	1961.1	2006.5

Source: AER analysis.

(a) Net of forecast disposals and capital contributions. In accordance with the timing assumptions of the post-tax revenue model (PTRM), the capex includes a half-WACC allowance to compensate for the six month period before capex is added to the RAB for revenue modelling.

Further details regarding the roll forward of TasNetworks' distribution RAB is set out in attachment 2 of the distribution determination.

2.2 Rate of return and value of imputation credits

The return (the 'return on capital') each business is to receive on its RAB continues to be a key driver of proposed revenues. We calculate the regulated return on capital by applying a rate of return to the value of the RAB.

We estimate the rate of return by combining the returns of the two sources of funds for investment: equity and debt. The allowed rate of return provides the business with a return on capital to service the interest on its loans and give a return on equity to investors

A good estimate of the rate of return is necessary to promote efficient prices in the long term interests of consumers. If the rate of return is set too low, the network business may not be able to attract sufficient funds to be able to make the required investments in the network and reliability may decline. Alternatively, if the rate of return is set too high, the network business may seek to spend too much and consumers will pay inefficiently high tariffs.

TasNetworks' proposal applied a rate of return of 5.89 per cent for both transmission and distribution, notwithstanding the application of the AER's rate of return guideline would result in a rate of return of 6.15 per cent for transmission. This is a placeholder, to be updated with more recent data at key milestones throughout this review (this draft decision, TasNetworks' revised proposal and our final decision).

We estimated our draft decision allowed rate of return using the approach set out in our draft 2018 rate of return guidelines. This reflects a departure from the current 2013 Guidelines. After considering all the material submitted to us, we consider that this departure will, for the reasons set out in the draft 2018 Guidelines,³³ contribute to the achievement of the NEO and allowed rate of return objective to the greatest degree.

³³ AER, Draft rate of return guidelines explanatory statement, July 2018, p. 17.

Our draft decision rate of return for transmission is 5.77 per cent (nominal vanilla, indicative) and for distribution is 5.51 per cent (nominal vanilla, indicative), for the first year of the 2019–24 regulatory control period.

Our draft decision is to maintain the current transition paths for TasNetworks' transmission and distribution networks and not align the two. This is consistent with our 2018 rate of return guideline draft decision to apply a consistent rate of return and transition approach to all networks.³⁴

TasNetworks adopted a value of imputation credits (gamma) of 0.4, consistent with our recent decisions. Our draft decision is to apply a gamma of 0.5 as reflected in our 2018 rate of return guideline draft decision. This has contributed to the reduction in the corporate income tax allowance relative to TasNetworks' proposal (section 2.6 below).

Consultation on our draft 2018 guideline is ongoing, and is expected to conclude in December 2018. Legislation currently before the South Australian House of Assembly will (if passed) make our final 2018 rate of return guideline binding on this and other decisions.

2.3 Regulatory depreciation (return of capital)

In our draft decision, we include an allowance for the depreciation of TasNetworks' asset base (otherwise referred to as return of capital). Regulated service providers invest in large sunk assets to provide electricity services to customers. While some of the cost of such assets may be recovered from customers upfront, a greater proportion is recovered over time. The depreciation allowance is used for this purpose.

In deciding whether to approve the regulatory depreciation allowance proposed by TasNetworks, we make determinations on the indexation of the RAB and depreciation building blocks for TasNetworks' 2019–24 regulatory control period.³⁵

Below we consider TasNetworks' regulatory depreciation allowance for transmission and distribution separately. Further detail on our draft decisions regarding depreciation are set out in attachment 4.

Transmission

Our draft decision approves a regulatory depreciation allowance of \$123.5 million (\$nominal) for the 2019–24 regulatory control period. This is \$1.3 million (or 1.0 per cent) lower than TasNetworks' proposed value of \$124.8 million (\$nominal). This reduction occurs mainly as a consequence of our determinations on other components of TasNetworks' proposal that affect the forecast regulatory

³⁴ AER, *Draft rate of return guidelines, Explanatory statement*, July 2018, p. 55.

³⁵ NER, cl. 6.12.1, 6.4.3, 6A.5.4 and 6A.14.1.

depreciation allowance. Specifically, they relate to the opening RAB as at 1 July 2019 (attachment 2) and forecast capital expenditure (attachment 5) including its effect on the projected RAB over the 2019–24 regulatory control period.³⁶

For our draft decision on TasNetworks' regulatory depreciation, we accept TasNetworks' proposal to use the year-by-year tracking approach to calculate the straight-line depreciation of existing assets. However, we made a few amendments to the depreciation model to update inputs and correct minor modelling errors. We also accept TasNetworks' proposed straight-line method used to calculate the regulatory depreciation allowance and its proposed asset classes and standard asset lives for its existing asset classes (but did not retain the proposed new 'Business Management Systems' asset class and the proposed standard asset life of 10 years for this asset class).

Table 2.5 shows our draft decision on TasNetworks' transmission depreciation allowance for the 2019–24 regulatory control period.

Table 2.5 AER's draft decision on TasNetworks' transmission depreciation allowance for the 2019–24 regulatory control period (\$million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Straight-line depreciation	53.9	58.3	61.6	65.9	69.6	309.3
Less: inflation indexation on opening RAB	35.8	36.2	37.2	38.1	38.4	185.7
Regulatory depreciation	18.1	22.1	24.4	27.8	31.2	123.5

Source: AER analysis.

Distribution

Our draft decision approves a regulatory depreciation allowance of \$341.8 million (\$nominal) for the 2019–24 regulatory control period. This is \$3.5 million (or 1.0 per cent) lower than TasNetworks' proposed value of \$345.4 million (\$nominal). Similar to transmission, this reduction occurs mainly as a consequence of our determinations on other components of TasNetworks' proposal that affect the forecast regulatory depreciation allowance. Specifically, they relate to the opening RAB at 1 July 2019 (attachment 2) and forecast capital expenditure (attachment 5)

³⁶ Capex enters the RAB net of forecast disposals. It includes equity raising costs (where relevant) and the half-year WACC to account for the timing assumptions in the PTRM. Our draft decision on the RAB (attachment 2) also reflects updates made to the WACC for the 2019–24 regulatory control period.

including its effect on the projected RAB over the 2019–24 regulatory control period.³⁷

For our draft decision on TasNetworks' regulatory depreciation, we accept the continuation of TasNetworks' year-by-year tracking approach to calculate the straight-line depreciation of existing assets. However, we made a few amendments to the depreciation model to update inputs and correct minor modelling errors. We also accept TasNetworks' proposed asset classes, its straight-line depreciation method, and the standard asset lives used to calculate the regulatory depreciation allowance, consistent with those approved for the 2017–19 distribution determination.

Table 2.6 shows our draft decision on TasNetworks' distribution depreciation allowance for the 2019–24 regulatory control period.

Table 2.6 AER's draft decision on TasNetworks' distribution depreciation allowance for the 2019–24 regulatory control period (\$million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Straight-line depreciation	100.2	107.3	115.1	120.8	126.3	569.8
Less: inflation indexation on opening RAB	42.8	44.4	45.8	46.8	48.0	227.9
Regulatory depreciation	57.4	62.9	69.3	73.9	78.3	341.8

Source: AER analysis.

2.4 Capital expenditure

Capital expenditure (capex) refers to the investment in assets to provide services. This investment mostly relates to assets with long lives and these costs are recovered over several regulatory periods. On an annual basis, however, the financing cost and depreciation associated with these assets are recovered (return of and on capital) as part of the building blocks that form part of TasNetworks' total revenue requirement.

Below we consider TasNetworks' proposed capex for transmission and distribution separately. Further detail on our draft decision regarding capex is set out in attachment 5.

Transmission capital expenditure

³⁷ Capex enters the RAB net of forecast disposals and capital contributions. It includes equity raising costs (where relevant) and the half-year WACC to account for the timing assumptions in the PTRM. Our draft decision on the RAB (attachment 2) also reflects our updates to the WACC for the 2019–24 regulatory control period.

Our draft decision on TasNetworks' revenue includes \$222.6 million (\$2018–19) in forecast total net transmission capex for the 2019–24 regulatory control period. This is \$37.5 million (or 14 per cent) lower than TasNetworks' proposed value of \$260.0 million. Table 2.7 shows our decision compared to TasNetworks' forecast.

Table 2.7 AER draft decision on total net transmission capex (\$million, 2018–19)

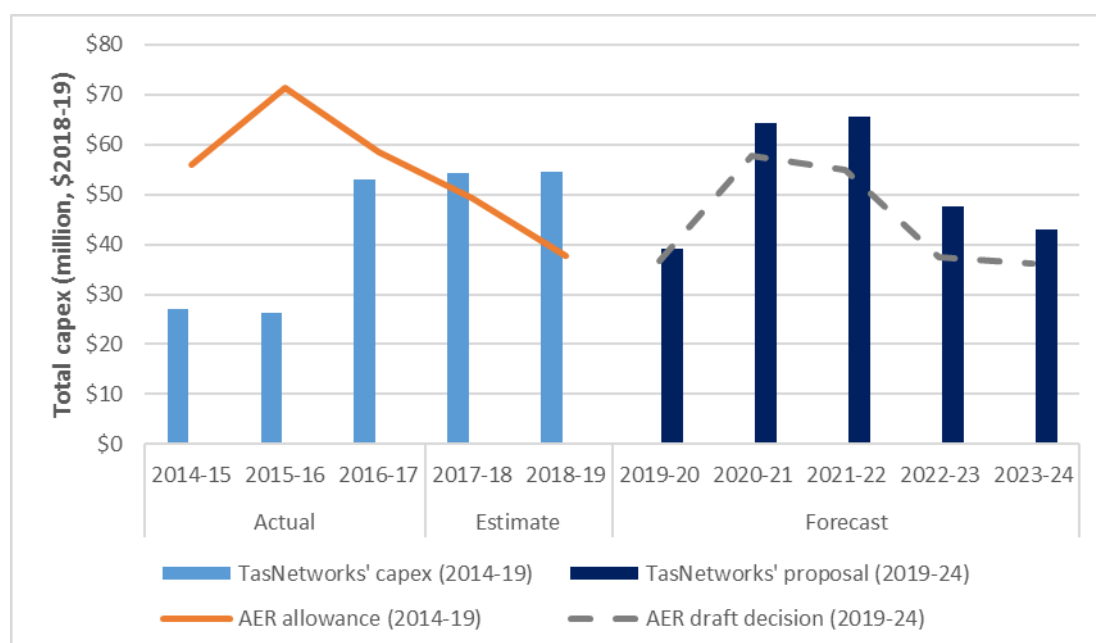
	2019–20	2020–21	2021–22	2022–23	2023–24	Total
TasNetworks' proposal	39.3	64.3	65.6	47.7	43.1	260.0
AER draft decision	36.6	57.7	54.8	37.4	36.2	222.6
Difference	-2.7	-6.6	-10.8	-10.3	-7.0	-37.5
Percentage difference (%)	-6.9%	-10.3%	-16.5%	-21.7%	-16.2%	-14.4%

Source: AER analysis.

Note: Numbers may not total due to rounding.

Figure 11 shows our transmission capex draft decision compared to TasNetworks' proposal, its past allowances and past actual expenditure.

Figure 11 AER draft decision on total forecast transmission capex (\$million, 2018–19)



The key aspects of our draft decision are highlighted below.

Replacement

Our draft decision for TasNetworks includes total forecast replacement capex of \$167 million (\$2018–19, including overheads), which is 18 per cent lower than TasNetworks' forecast of \$204.5 million (\$2018–19, including overheads).

We consider that TasNetworks is able to defer a number of its proposed projects beyond the forecast regulatory control period and still ensure that network reliability is maintained. We reviewed a number of TasNetworks' investment evaluation summaries and NPV analysis files, and found that:

- for two transmission line and seven switchgear replacement projects, TasNetworks has made overly-conservative assumptions about the risks and consequences of asset failures
- for four transformer replacement projects, recent asset condition reports suggest that a number of replacements can be deferred beyond the 2019–2024 regulatory control period.

Further, TasNetworks did not adjust or undertake sensitivity analysis with respect to the value of customer reliability (VCR) it used in its calculation of unserved energy, which is the primary driver of the proposed replacement capex projects.

Our alternative estimate of \$167 million for replacement capex is largely in line with TasNetworks' actual/forecast replacement capex over the 2014–19 regulatory control period (\$154.5 million).

Growth

Our draft decision is to approve TasNetworks' forecast growth (development) transmission capex of \$24.2 million. This is not a significant category of expenditure for TasNetworks, as demand growth is forecast to remain flat in the 2019–24 regulatory control period.

The majority of TasNetworks' proposed growth capex relates to a single project to install a static var compensator (STATCOM) to address voltage control issues and network constraints at the George Town substation. This project is subject to a RIT-T process, which TasNetworks has now commenced. At this stage, we have included the project in our alternative estimate of forecast capex for the 2019–24 regulatory control period. We anticipate that the RIT-T process will provide all stakeholders with additional transparency around this project.

Non-network

Our draft decision is to approve TasNetworks' forecast non-network capex of \$31.9 million as a reasonable estimate of prudent and efficient capex requirements. TasNetworks' forecast reflects a significant reduction in expenditure from current levels for these categories (ICT, motor vehicles, property, network control and asset management systems).

Transmission contingent projects

TasNetworks proposed five contingent projects for the transmission network, with a total estimated capital cost of approximately \$938 million. The detailed scope, timing and costs of contingent projects are uncertain. We are therefore often limited in our ability to assess these issues in detail at the revenue determination stage, depending on the level of information available. An important focus for our assessment is whether the trigger events for the proposed contingent projects are appropriate, as defined by the NER. The definition of the trigger events associated with each project is important, as it is the occurrence of these events that determines if and when TasNetworks may apply to us to recover the efficient costs of undertaking the projects.

For this draft decision, TasNetworks' has not justified that the set of proposed project triggers for its proposed contingent projects meets the NER requirements. TasNetworks has undertaken to conduct further engagement with stakeholders, and to update its assumptions and re-examine appropriate contingent project triggers as part of its revised revenue proposal. This work should assist TasNetworks to submit a revised proposal that provides additional supporting information and frames an appropriate set of contingent projects and project triggers for the 2019–24 regulatory control period.

Distribution capital expenditure

Our draft decision on TasNetworks' revenue includes \$550.9 million (\$2018–19) in forecast total net distribution capex for the 2019–24 regulatory control period. This is \$183.5 million (or 25 per cent) lower than TasNetworks' proposed value of \$734.4 million. Table 2.8 shows our draft decision compared to TasNetworks' forecast.

Table 2.8 AER draft decision on total net distribution capex (\$million, 2018–19)

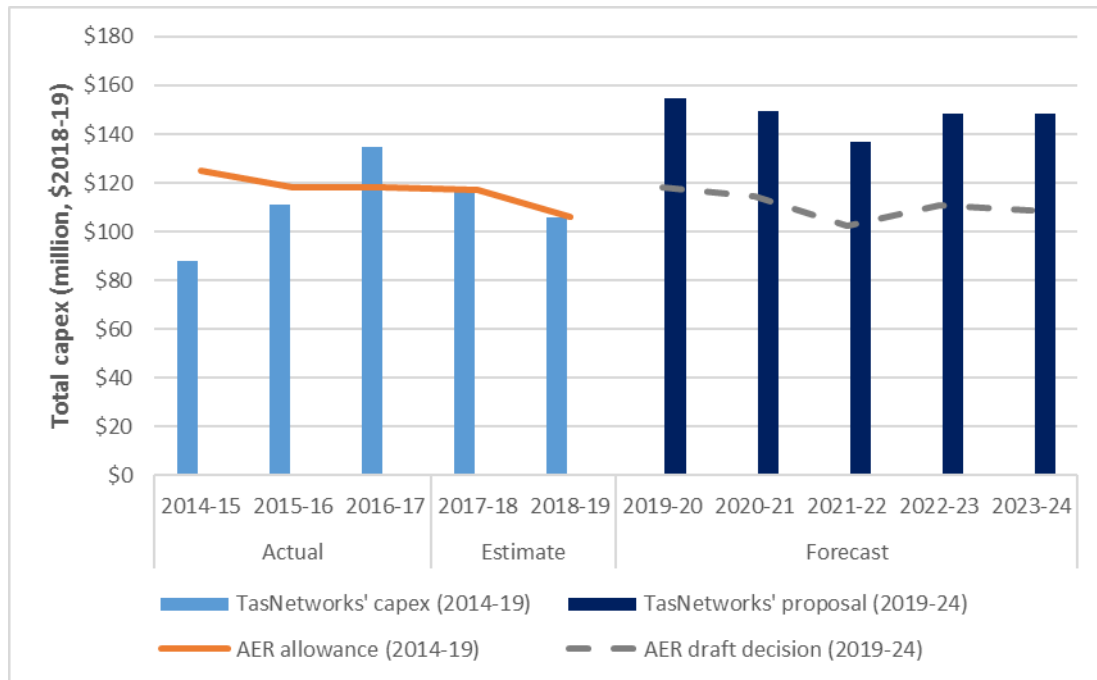
	2019–20	2020–21	2021–22	2022–23	2023–24	Total
TasNetworks' proposal	153.9	149.0	136.2	147.8	147.6	734.4
AER draft decision	117.7	113.8	101.4	110.0	108.0	550.9
Difference	-36.2	-35.1	-34.7	-37.8	-39.6	-183.5
Percentage difference (%)	-23.5%	-23.6%	-25.5%	-25.6%	-26.9%	-25.0%

Source: AER analysis.

Note: Numbers may not total due to rounding.

Figure shows our distribution capex draft decision compared to TasNetworks' proposal, its past allowances and past actual expenditure.

Figure 12 AER draft decision on total forecast distribution capex (\$million, 2018–19)



The key aspects of our draft decision are highlighted below.

Replacement

Our draft decision for TasNetworks includes total forecast replacement capex of \$306.4 million (\$2018–19, including overheads), which is 34 per cent lower than TasNetworks' forecast of \$463.0 million (\$2018–19).

Our alternative estimate includes \$210 million (\$2018–19, direct costs) for pole, overhead conductor, underground cable, service line, switchgear and transformer replacements (modelled repex). This amount is in line with our 'repex model threshold' and is \$117 million (36 per cent) lower than TasNetworks' forecast for these modelled asset groups. We consider that TasNetworks has not adequately justified the proposed repex for its proactive replacement programs. In particular, TasNetworks has not demonstrated that the claimed safety risks associated with overhead conductors, service lines and underground cables require significant increases in capex to be sufficiently mitigated. Our bottom-up and top-down considerations support our view that the repex model threshold amount is the best estimate of modelled repex.

Our alternative estimate also includes \$22 million (\$2018–19, direct costs) for network control and pole top structures (unmodelled repex), as proposed by TasNetworks.

Our alternative estimate of \$306.4 million for replacement capex is largely in line with TasNetworks' actual/forecast capex over the 2014–19 regulatory control period (\$302.1 million).

Growth

We have made no specific adjustment to TasNetworks' forecast growth (development) capex of \$155.4 million. This forecast reflects the expected continuation of low demand growth on the distribution system. The majority of this expenditure relates to forecast customer connections. We consider that TasNetworks' methodology for forecasting capex for new customer connections is reasonable and likely to produce a prudent and efficient forecast reflective of the macroeconomic drivers of new connection activity.

TasNetworks will review its forecast of customer contributions towards the cost of new connections for its revised regulatory proposal using actual data from 2017-18, the first year of application of TasNetworks' current customer connection policy. We understand this is likely to result in an increased forecast of customer contributions (lower net capex) in the 2019–24 regulatory control period.

Non-network

Our draft decision includes \$79.4 million (\$2018–19) in forecast ICT capex for the 2019–24 regulatory control period. This is \$24.4 million (or 23.5 per cent) lower than TasNetworks' proposed capex of \$103.8 million.

Our assessment focussed on the drivers and justifications for TasNetworks' proposal for increased investment above historical levels of expenditure in this category. Based on the information available, TasNetworks' has not justified that its ICT capex proposal is likely to reflect an efficient level of expenditure in the 2019–24 regulatory control period. Our review of the TasNetworks' supporting documentation for major ICT projects identified a number of issues, including a lack of justification for selecting preferred project options, a lack of quantification of expected project benefits and insufficient supporting evidence for project cost estimates. Our consultant, Arup, also identified similar concerns.

Our alternative estimate of ICT capex requirements in the 2019–24 regulatory control period provides for lower estimates of costs for the major Meter Data Management System (MDMS) replacement and upgrade projects, and is in line with historical levels of expenditure in this category.

We have accepted TasNetworks' estimates of forecast capex for other categories of non-network expenditure (motor vehicles, property and operational support systems) as reasonable estimates of prudent and efficient capex requirements for these categories.

2.5 Operating expenditure

Operating expenditure (opex) is the forecast of operating, maintenance and other non-capital costs incurred in the provision of prescribed transmission services and distribution standard control services. Forecast opex is one of the building blocks we use to determine TasNetworks' total regulated revenue requirement.

Our draft decision is to accept TasNetworks' forecast transmission and distribution opex.

Below we consider TasNetworks' proposed opex for transmission and distribution separately. Further detail on our draft decision regarding opex is set out in attachment 6.

Transmission operating expenditure

We accept TasNetworks' transmission opex forecast of \$192.1 million (\$2018–19).³⁸

We have tested TasNetworks' proposal by comparing it to our alternative estimate of total opex forecast \$194.7 million (\$2018–19) which is not materially different from TasNetworks' opex forecast. On this basis we have accepted TasNetworks' proposed opex.

Table 2.9 compares the differences between our alternative estimate and TasNetworks' proposal. While the components of our forecast are different to TasNetworks', the differences largely offset each other. The key difference between us and TasNetworks is that we have not included an efficiency adjustment.

Table 2.9 Our alternative estimate of transmission forecast opex compared to TasNetworks' proposal (\$million, 2018–19)

	TasNetworks	Our alternative estimate	Difference
Base opex	192.2	191.5	-0.7
Efficiency savings	-4.4	-	4.4
Opex change 2017–18 to 2018–19	-2.7	-2.6	0.0
Price growth	0.8	1.3	0.5
Output growth	1.2	0.9	-0.2
Productivity growth	-	-	-
Debt raising costs	5.1	3.6	-1.4
Total opex	192.1	194.7	2.6

Source: TasNetworks, *Revenue proposal, Opex model*, 31 January 2018; AER analysis.

Note: Numbers may not add up to total due to rounding.

TasNetworks' proposed opex for 2019–24 is 2.2 per cent higher than its actual and estimated opex for the 2014–19 regulatory control period.

³⁸ Including debt raising costs; TasNetworks, *Revenue proposal, PTRM*, 31 January 2018.

TasNetworks adopted our base–step–trend approach to forecast opex for the 2019–24 regulatory control period.³⁹ TasNetworks:

- used estimated opex in 2017–18 as the base to forecast⁴⁰ and proposed no adjustment⁴¹
- applied our standard approach to calculate the 2017–18 to 2018–19 increment (the starting point for its forecast). This reduced its opex forecast by \$2.7 million (\$2018–19)
- adopted our general approach to calculate the overall rate of change.⁴² This increased its opex forecast by \$2.0 million (\$2018–19), including real price growth of \$0.8 million, output growth of \$1.2 million and zero productivity growth
- proposed no step change⁴³
- adopted our benchmark approach to forecast debt raising cost. This increased its opex forecast by \$5.1 million (\$2018–19)⁴⁴
- proposed efficiency savings, which reduced its opex forecast by \$4.4 million (\$2018–19).

This resulted in total transmission opex forecast of \$192.1 million (\$2018–19), which we have accepted.⁴⁵

Figure 11 shows TasNetworks' opex forecast, its actual opex, our previous regulatory decisions and our alternative estimate.

³⁹ TasNetworks, *Regulatory proposal*, 31 January 2018, p. 136.

⁴⁰ TasNetworks, *Regulatory proposal*, 31 January 2018, p. 141.

⁴¹ TasNetworks, *Regulatory proposal*, 31 January 2018, p. 141.

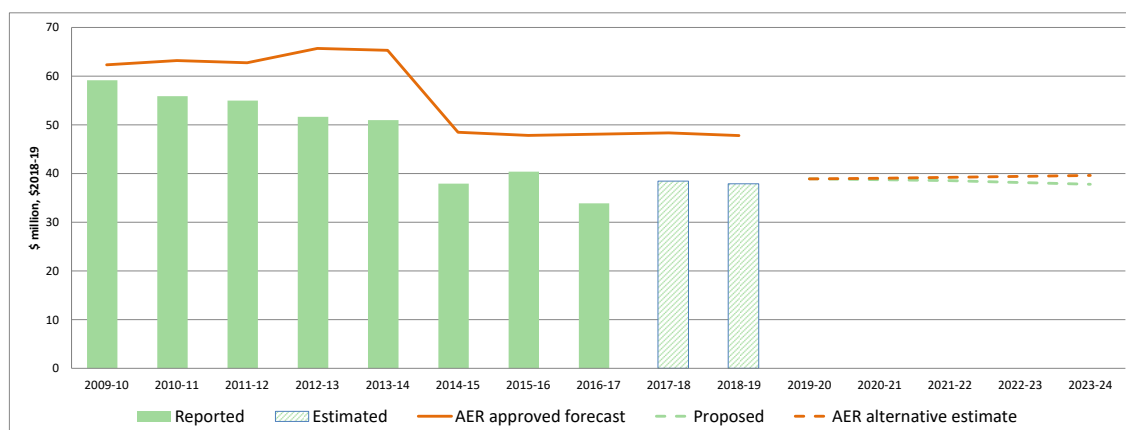
⁴² TasNetworks, *Revenue proposal – opex model*, 31 January 2018.

⁴³ TasNetworks, *Revenue proposal*, 31 January 2018, p. 103; TasNetworks, *Revenue proposal, Opex model*, 31 January 2017.

⁴⁴ TasNetworks, *Revenue proposal, PTRM*, 31 January 2018.

⁴⁵ TasNetworks, *Revenue proposal, PTRM*, 31 January 2018.

Figure 11 Our draft decision – forecast transmission opex (\$million, 2018–19)



Distribution operating expenditure

We accept TasNetworks' distribution opex forecast of \$410.5 million (\$2018–19).⁴⁶

We have tested TasNetworks' proposal by comparing it to our alternative estimate of total opex forecast (\$414.0 million, \$2018–19). Our estimate of \$414.0 million (\$2018–19) is not materially different from TasNetworks' opex forecast. On this basis we have accepted TasNetworks' proposed opex.

Table 2.9 compares the differences between our alternative estimate and TasNetworks' proposal.

Table 2.9 Our alternative estimate of distribution forecast opex compared to TasNetworks' proposal (\$million, 2018–19)

	TasNetworks	Our alternative estimate	Difference
Base opex	410.7	409.2	-1.5
Efficiency savings	-19.2	-	19.2
Opex change 2017–18 to 2018–19	-7.6	-7.6	0.0
Price growth	4.1	3.8	-0.2
Output growth	2.2	1.5	-0.7
Productivity growth	-	-	-
Step changes	13.0	-	-13.0
Category specific forecasts	2.8	2.7	-0.1

⁴⁶ Including debt raising costs; TasNetworks, *Regulatory proposal*, PTRM, 31 January 2018.

Debt raising costs	4.5	4.4	-0.1
Total opex	410.5	414.0	3.5

Source: TasNetworks, *Revenue proposal, Opex model*, 31 January 2018; AER analysis.

Note: Numbers may not add up to total due to rounding.

For the rate of change, we have applied a zero productivity growth forecast.⁴⁷ We have derived this forecast using our standard approach to forecasting the productivity growth component of the rate of change. However, we are currently reviewing whether this remains appropriate. This review may change our approach going forward. As part of this review we will consult with all distributors and any other interested stakeholders. We will take the outcome of this review into consideration in our final decision.

TasNetworks' proposed opex for 2019–24 is 0.9 per cent higher than its actual and estimated opex for the 2017–19 period calculated on an annual average basis.⁴⁸

TasNetworks adopted our base–step–trend approach to forecast opex for the 2019–24 regulatory control period.⁴⁹ TasNetworks:

- used estimated opex in 2017–18 as the base to forecast⁵⁰ and proposed no adjustment⁵¹
- applied the approach in the Guideline to calculate the 2017–18 to 2018–19 increment (the starting point for its forecast).⁵² This reduced its opex forecast by \$7.6 million (\$2018–19)
- applied its forecast of the overall rate of change to its estimate of opex for 2018–19, consistent with the Guideline.⁵³ This increase its opex forecast by \$6.3 million (\$2018–19), including real price growth of \$2.2 million, output growth of \$4.1 million and zero productivity growth⁵⁴
- proposed four step changes for damage to assets, ring fencing costs, compliance with voltage issues and capex-opex trade off (demand management incentive scheme).⁵⁵ This increased its opex forecast by \$13.0 million (\$2018–19)

⁴⁷ Using the outputs and weights from our stochastic frontier analysis Cobb-Douglas (SFACD) econometric model.

⁴⁸ Excluding debt raising costs.

⁴⁹ TasNetworks, *Regulatory proposal*, 31 January 2018, p. 150.

⁵⁰ TasNetworks, *Regulatory proposal*, 31 January 2018, p. 151.

⁵¹ TasNetworks, *Regulatory proposal*, 31 January 2018, p. 152.

⁵² AER, *Expenditure forecast assessment guideline for electricity distribution*, November 2013, pp. 22–23.

⁵³ TasNetworks, *Regulatory proposal – opex model*, 31 January 2018.

AER, *Expenditure forecast assessment guideline for electricity distribution*, November 2013, pp. 23–24.

⁵⁴ TasNetworks, *Regulatory proposal*, 31 January 2018, pp. 153–154

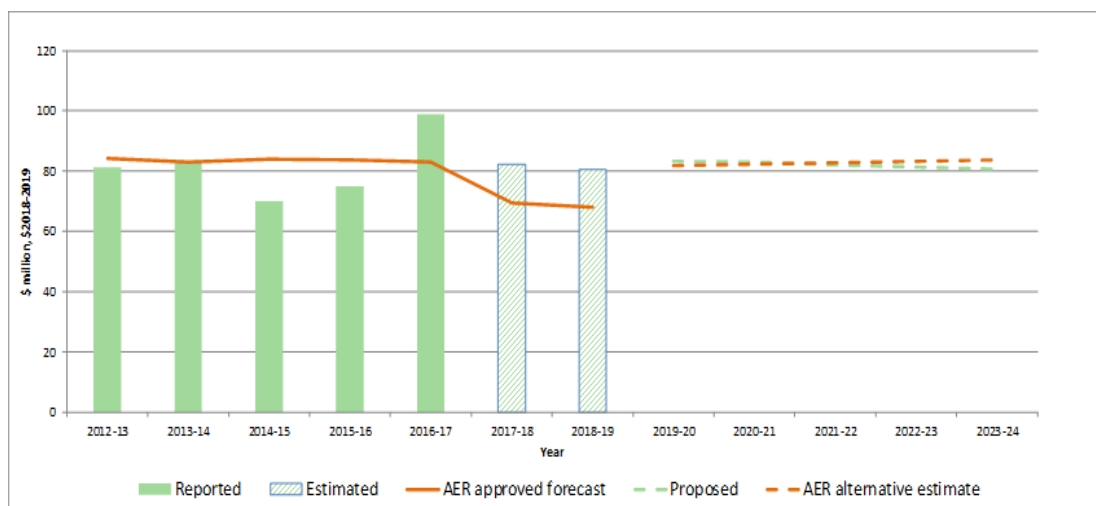
⁵⁵ TasNetworks, *Revenue proposal*, 31 January 2018, pp. 152–153; TasNetworks, *Revenue proposal, Opex model*, 31 January 2018.

- proposed opex category specific forecasts for:
 - guaranteed service level (GSL) payments, electrical safety levy, national electricity market (NEM) levy, which incrementally increased its opex forecast by \$2.8 million (\$2018–19)
 - debt raising costs, which increased its opex forecast by \$4.5 million (\$2018–19).⁵⁶
- proposed efficiency savings, which reduced its opex forecast by \$19.2 million (\$2018–19).

This resulted in total distribution opex forecast of \$410.5 million (\$2018–19), which we have accepted.⁵⁷

Figure 12 shows TasNetworks’ opex forecast, its actual opex, our previous regulatory decisions and our alternative estimate.

Figure 12 Our draft decision - forecast distribution opex (\$million, 2018–19)



2.6 Corporate income tax

Our draft decision includes a decision on the estimated cost of corporate income tax for TasNetworks' 2019–24 regulatory control period as part of our revenue determination.⁵⁸ It enables TasNetworks to recover the costs associated with the estimated corporate income tax payable during the regulatory control period.

Our transmission draft decision includes an estimated cost of corporate income tax of \$10.9 million (\$nominal) for TasNetworks over the 2019–24 regulatory control

⁵⁶ TasNetworks, *Regulatory proposal, PTRM*, 31 January 2018.

⁵⁷ TasNetworks, *Regulatory proposal, PTRM*, 31 January 2018.

⁵⁸ NER, cl. 6A.6.4 and 6.5.3.

period. This is \$9.2 million (or 45.7 per cent) lower than TasNetworks' proposed value of \$20.1 million.⁵⁹

Our distribution draft decision includes an estimated cost of corporate income tax of \$38.4 million (\$nominal) for TasNetworks over the 2019–24 regulatory control period. This is \$17.3 million (or 31.0 per cent) lower than TasNetworks' proposed value of \$55.7 million.⁶⁰

The reduction in the transmission and distribution corporate income tax reflects our amendments to TasNetworks' proposed value of imputation credits—gamma. Our adjustments to the return on capital (attachments 2, 3 and 5)⁶¹ and the return of capital (attachment 4) building blocks affect revenues, which in turn impact the tax calculation. The changes affecting revenues are discussed in attachment 1.

Table 2.10 and Table 2.11 shows our draft decision on TasNetworks' corporate income tax allowance for transmission and distribution for the 2019–24 regulatory control period, respectively.

Table 2.10 AER's transmission draft decision on corporate income tax allowance for TasNetworks (\$million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Tax payable	2.9	3.7	4.1	5.0	6.0	21.8
Less: value of imputation credits	1.5	1.8	2.1	2.5	3.0	10.9
Net corporate income tax allowance	1.5	1.8	2.1	2.5	3.0	10.9

Source: AER analysis.

Table 2.11 AER's distribution draft decision on corporate income tax allowance for TasNetworks (\$million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Tax payable	13.8	14.3	15.1	16.0	17.5	76.8
Less: value of imputation credits	6.9	7.2	7.6	8.0	8.8	38.4
Net corporate income tax allowance	6.9	7.2	7.6	8.0	8.8	38.4

Source: AER analysis.

For this draft decision, we have used our current regulatory models (PTRM and RFM) to calculate the various components required to estimate TasNetworks' cost

⁵⁹ TasNetworks, *Revenue proposal*, 31 January 2018, pp. 173–175.

⁶⁰ TasNetworks, *Revenue proposal*, 31 January 2018, pp. 173–175.

⁶¹ The forecast capex amount is a key input for calculating the return of and return on capital building blocks. Attachment 5 sets out our draft decision on TasNetworks' forecast capex.

of corporate income tax for the 2019–24 regulatory control period. Our assessment approach for this draft decision is discussed in attachment 7. We are currently undertaking a review of our regulatory tax approach (the tax review). As discussed in the initial report to the tax review published on 28 June 2018, we intend to apply any changes to our regulatory models arising from the tax review to the final decision for TasNetworks' 2019–24 regulatory control period in April 2019.⁶²

Further detail on our draft decision regarding corporate income tax is set out in attachment 7.

⁶² AER - Tax Review 2018 - Initial Report - 28 June 2018. See <https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/review-of-regulatory-tax-approach-2018/consultation>

3 Incentive schemes to apply for 2019–24

Incentive schemes are a component of incentive based regulation and complement our approach to assessing efficient costs. These schemes provide important balancing incentives under the revenue determination we've discussed in section 2, to encourage TasNetworks to pursue expenditure efficiencies and demand side alternatives to capex and opex, while maintaining the reliability and overall performance of its network.

The incentive schemes that might apply to an electricity network as part of our decision are:

- the opex efficiency benefit sharing scheme (EBSS)
- the capital expenditure sharing scheme (CESS)
- the service target performance incentive scheme (STPIS)
- the demand management incentive scheme (DMIS) and demand management innovation allowance mechanism (DMIAM). This applies to TasNetworks' distribution network but not transmission.

Once we make our decision on TasNetworks' revenue cap, it has an incentive to provide services at the lowest possible cost, because its returns are determined by its actual costs of providing services. Our incentive schemes encourage network businesses to make efficient decisions. They give network businesses an incentive to pursue efficiency improvements in opex and capex, and to share them with consumers. If networks reduce their costs to below our forecast of efficient costs, the savings are shared with their customers in future regulatory periods through the EBSS and CESS.

The STPIS ensures that the network is not simply cutting costs at the expense of service quality. Incentives for opex and capex are balanced with the incentives under the STPIS to maintain or improve service quality. The incentive schemes encourage businesses to make efficient decisions on when and what type of expenditure to incur, and meet service reliability targets. The DMIS and DMIAM encourages distribution businesses to pursue demand side alternatives to opex and capex. The incentive schemes encourage businesses to make efficient decisions on when and what type of expenditure to incur, and meet service reliability targets.

Our draft decision is that each of the EBSS, CESS, STPIS, DMIS and DMIAM should apply to TasNetworks for the 2019–24 regulatory control period. TasNetworks' performance under these schemes in the 2019–24 regulatory control period will be reflected in its annual pricing proposals throughout that period and its revenue proposal for the subsequent, 2024–29 regulatory control period.

We discuss our draft decisions on each incentive scheme further in attachments 8 to 10 for both distribution and transmission, and attachment 11 regarding the DMIAM for distribution.

4 Tariff structure statement

TasNetworks' 2019–24 proposal includes the second iteration of its tariff structure statement (TSS). Its current TSS applies from 1 July 2017 to 30 June 2019.

The requirement on distributors to prepare a TSS arises from a significant process of reform to the NER governing distribution network pricing. The purpose of the reforms is to empower customers to make informed choices by:

- providing better price signals—tariffs that reflect what it costs to use electricity at different times so that customers can make informed decisions to better manage their bills
- transitioning to greater cost reflectivity—requiring distributors to explicitly consider the impacts of tariff changes on customers, and engaging with customers, customer representatives and retailers in developing network tariff proposals over time
- managing future expectations—providing guidance for retailers, customers and suppliers of services such as local generation, batteries and demand management by setting out the distributor's tariff approaches for the entire duration of the regulatory control period.

Among other matters, TasNetworks' TSS must set out its proposed tariffs, structures and charging parameters for each proposed tariff, and the policies and procedures the distributor proposes to apply assigning customers to tariffs or reassigning customers from one tariff to another.⁶³

Our decision in this determination is on the structure of tariffs that will form the basis of tariff proposals throughout the regulatory period. While an indicative pricing schedule must accompany the TSS, TasNetworks' tariffs for the entire 2019–24 regulatory control period are not set as part of this determination. Rather, and as per past practice, tariffs for 2019–20 will be subject to a separate approval process that takes place in May 2019, after we make our final revenue determination in April 2019. Tariffs for the following four years will also be approved on an annual basis in May of each year.

TasNetworks proposed some significant changes to its tariffs and tariff structures for the 2019–24 regulatory control period, including:

- unwinding discounts in current tariffs, with increased transparency on how this unwinding is to occur in TasNetworks' revised proposal
- introducing distributed energy resources tariffs but within a non-discriminatory access regime.

⁶³ NER, cl. 6.18.5.

Our draft decision is broadly supportive of the proposals. However, in attachment 18 we have set out a series of changes to several aspects of TasNetworks' tariff strategy, which are required before we can approve the TSS. These include amending its opt-in tariff assignment policy and providing greater justification for its embedded network tariffs both in terms of objective and calculation.

5 The National Electricity Objective

The NEL requires us to make our decision in a manner that contributes, or is likely to contribute, to achieving the NEO.⁶⁴ The focus of the NEO is on promoting efficient investment in, and operation and use of, electricity services (rather than assets) in the long term interests of consumers.⁶⁵ This is not delivered by any one of the NEO's factors in isolation, but rather by balancing them in reaching a regulatory decision.⁶⁶

In general, we consider that the long-term interests of consumers are best served where consumers receive a reasonable level of safe and reliable service that they value at least cost in the long run.⁶⁷ A decision that places too much emphasis on short term considerations may not lead to the best overall outcomes for consumers once the longer term implications of that decision are taken into account.⁶⁸

There may be a range of economically efficient decisions that we could make in a revenue determination, each with different implications for the long term interests of consumers.⁶⁹ A particular economically efficient outcome may nevertheless not be in the long term interests of consumers, depending on how prices are structured and risks allocated within the market.⁷⁰ There are also a range of outcomes that are unlikely to advance the NEO, or advance the NEO to the degree than others would. For example, we consider that:

- the long term interests of consumers would not be advanced if we encourage overinvestment which results in prices so high that consumers are unwilling or unable to efficiently use the network.⁷¹ This could have significant longer term pricing implications for those consumers who continue to use network services.
- equally, the long-term interests of consumers would not be advanced if allowed revenues result in prices so low that investors do not invest to sufficiently maintain the appropriate quality and level of service, and where customers are making more use of the network than is sustainable.⁷² This could create longer term problems in the network, and could have adverse consequences for safety, security and reliability of the network.

⁶⁴ NEL, section 16(1).

⁶⁵ This is also the view of the Australian Energy Markets Commission (the AEMC). See, for example, the AEMC, *'Applying the Energy Objectives: A guide for stakeholders'*, 1 December 2016, p. 5.

⁶⁶ Hansard, *SA House of Assembly*, 26 September 2013, p. 7173. See also the AEMC, *'Applying the Energy Objectives: A guide for stakeholders'*, 1 December 2016, pp. 7–8.

⁶⁷ Hansard, *SA House of Assembly*, 9 February 2005, p. 1452.

⁶⁸ See, for example, the AEMC, *'Applying the Energy Objectives: A guide for stakeholders'*, 1 December 2016, pp. 6–7.

⁶⁹ *Re Michael: Ex parte Epic Energy* [2002] WASCA 231 at [143].

⁷⁰ See, for example, the AEMC, *'Applying the Energy Objectives: A guide for stakeholders'*, 1 December 2016, p. 5.

⁷¹ NEL, s. 7A(7).

⁷² NEL, s. 7A(6).

The legislative framework recognises the complexity of this task by providing us with significant discretion in many aspects of the decision-making process to make judgements on these matters.

5.1 Achieving the NEO to the greatest degree

Electricity determinations are complex decisions. In most cases, the provisions of the NER do not point to a single answer, either for our decision as a whole or in respect of particular components. They require us to exercise our regulatory judgement. For example, chapter 6 of the NER requires us to prepare forecasts, which are predictions about unknown future circumstances. Very often, there will be more than one plausible forecast,⁷³ and much debate amongst stakeholders about relevant costs. For certain components of our decision there may therefore be several plausible answers or several plausible point estimates.

When the constituent components of our decision are considered together, this means there will almost always be several potential, overall decisions. More than one of these may contribute to the achievement of the NEO. In these cases, our role is to make an overall decision that we are satisfied contributes to the achievement of the NEO to the greatest degree.⁷⁴

We approach this from a practical perspective, accepting that it is not possible to consider every permutation specifically. Where there are choices to be made among several plausible alternatives, we have selected what we are satisfied would result in an overall decision that contributes to the achievement of the NEO to the greatest degree.

5.2 Interrelationships between constituent components

Examining constituent components in isolation ignores the importance of the interrelationships between components of the overall decision, and would not contribute to the achievement of the NEO. We have considered these interrelationships in our analysis of the constituent components of our draft decision in the relevant attachments. Examples include:

- underlying drivers and context which are likely to affect many constituent components of our decision. For example, forecast demand affects the efficient levels of capex and opex in the regulatory control period (see attachment 5 and 6).
- direct mathematical links between different components of a decision. For example, the level of gamma has an impact on the appropriate tax allowance;

⁷³ AEMC, *Rule Determination: National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006*, (16 November 2006), p. 52.

⁷⁴ NEL, s. 16(1)(d).

the benchmark efficient entity's debt to equity ratio has a direct effect on the cost of equity, the cost of debt, and the overall vanilla rate of return (see attachments 3 and 7).

- trade-offs between different components of revenue. For example, undertaking a particular capex project may affect the need for opex or vice versa (see attachments 5 and 6).

A Transmission constituent decisions

Our draft decision on TasNetworks' transmission determination includes the following constituent components:⁷⁵

Constituent component

In accordance with clause 6A.14.1(1)(i) of the NER, the AER's draft decision is not to approve the total revenue cap set out in TasNetworks' building block proposal. Our draft decision on TasNetworks' total revenue cap is \$787.5 million (\$nominal) for the 2019–24 regulatory control period. This decision is discussed in Attachment 1 of this draft decision.

In accordance with clause 6A.14.1(1)(ii) of the NER, the AER's draft decision is not to approve the maximum allowed revenue (MAR) for each regulatory year of the regulatory control period set out in TasNetworks' building block proposal. Our decision on TasNetworks' MAR for each year of the 2019–24 regulatory control period is set out in Attachment 1 of this draft decision.

In accordance with clause 6A.14.1(1)(iii) of the NER, the AER's draft decision is to apply the service component, network capability component and market impact component of Version 5 of the service target performance incentive scheme (STPIS) to TasNetworks for the 2019–24 regulatory control period. The values and parameters of the STPIS are set out in Attachment 10 of this draft decision.

In accordance with clause 6A.14.1(1)(iv) of the NER, the AER's draft decision on the values that are to be attributed to the parameters for the efficiency benefit sharing scheme (EBSS) that will apply to TasNetworks in respect of the 2019–24 regulatory control period are set out in Attachment 8 of this draft decision.

In accordance with clause 6A.14.1(1)(v) of the NER, the AER's draft decision is to approve the commencement and length of the regulatory control period as TasNetworks' proposed in its revenue proposal. The regulatory control period will commence on 1 July 2019 and the length of this period is five years, expiring on 30 June 2024.

In accordance with clause 6A.14.1(2) of the NER and acting in accordance with clause 6A.6.7(d), the AER's draft decision is not to accept TasNetworks' total forecast capital expenditure of \$259.4 million (\$2018–19). Our draft decision therefore includes a substitute estimate of TasNetworks' total forecast capex for the 2019–24 regulatory control period of \$222.6 million (\$2018–19). The reasons for our draft decision are set out in Attachment 5 of this draft decision.

In accordance with clause 6A.14.1(3) of the NER and acting in accordance with clause 6A.6.6(c), the AER's draft decision is to accept TasNetworks' proposed total forecast operating expenditure inclusive of debt raising costs of \$192.1 million (\$2018–19). This is discussed in Attachment 6 of this draft decision.

In accordance with clause 6A.14.1(4) of the NER, the AER has determined that the proposed contingent projects are not contingent projects for the purpose of the revenue determination. The reasons for our decision, having regard to the requirements of clause 6A.8.1(b) are set out in

⁷⁵ NEL, s. 16(1)(c).

Attachment 5 of this draft decision.

In accordance with clause 6A.14.1(5A) of the NER, the AER's draft decision is that version 1 of the capital expenditure sharing scheme (CESS) as set out in the Capital Expenditure Incentives Guideline will apply to TasNetworks in the 2019–24 regulatory control period. This is discussed in Attachment 9 of this draft decision.

In accordance with clause 6A.14.1(5B) and 6A.6.2 of the NER, the AER's draft decision is that the allowed rate of return for the 2019–20 regulatory year is 5.77 per cent (nominal vanilla), as set out in Attachment 3 of this draft decision. The rate of return for the remaining regulatory years 2020–24 will be updated annually because our decision is to apply a trailing average portfolio approach to estimating debt which incorporates annual updating of the allowed return on debt.

In accordance with clause 6A.14.1(5C) of the NER, the AER's draft decision is that the return on debt is to be estimated using a methodology referred to in clause 6A.6.2(i)(2), and using the formula to be applied in accordance with clause 6A.6.2(l). The methodology and formula are set out in Attachment 3 of this draft decision.

In accordance with clause 6A.14.1(5D) of the NER, the AER's draft decision is that the value of imputation credits as referred to in clause 6A.6.4 is 0.5. This is set out in section 2.2 of this draft decision overview.

In accordance with clause 6A.14.1(5E) of the NER, the AER's draft decision, in accordance with clause 6A.6.1 and schedule 6A.2, is that the opening regulatory asset base (RAB) as at the commencement of the 2019–24 regulatory control period, being 1 July 2019, is \$1459.4 million (\$nominal). This is set out in Attachment 2 of this draft decision.

In accordance with clause 6A.14.1(5F) of the NER, the AER's draft decision is that the depreciation approach based on forecast capex (forecast depreciation) is to be used to establish the RAB at the commencement of TasNetworks' regulatory control period as at 1 July 2024. This is discussed in Attachment 2 of this draft decision.

In accordance with clause 6A.14.1(8) of the NER, the AER's draft decision is to approve TasNetworks' proposed pricing methodology. This is set out in Attachment 11 of this draft decision.

In accordance with clause 6A.14.1(9) of the NER, the AER's draft decision is to apply the following nominated pass through events to apply to TasNetworks for the 2019–24 regulatory control period in accordance with clause 6A.6.9:

- Insurance cap event
- Natural disaster event
- Terrorism event

These events have the definitions set out in Attachment 12 of this draft decision.

B Distribution constituent decisions

Our draft decision on TasNetworks' distribution determination includes the following constituent components:⁷⁶

Constituent decision

In accordance with clause 6.12.1(1) of the NER, the AER's draft decision is that the following classification of services will apply to TasNetworks for the 2019–24 regulatory control period (listed by service group):

- Standard control services include common distribution services and type 7 metering services
- Alternative control services includes type 5–6 metering services (for meters installed before 1 December 2017), public lighting services (including new/emerging public lighting technology) and ancillary network services (fee based and quoted services)
- Unregulated services include type 1-4 metering services, distribution asset rental to third parties and contestable metering support roles.

Attachment 12 of the draft decision discusses classification of services.

In accordance with clause 6.12.1(2)(i) of the NER, the AER's draft decision is not to approve the annual revenue requirement set out in TasNetworks' building block proposal. Our draft decision on TasNetworks' annual revenue requirement for each year of the 2019–24 regulatory control period is set out in attachment 1 of the draft decision.

In accordance with clause 6.12.1(2)(ii) of the NER, the AER's draft decision is to approve TasNetworks' proposal that the regulatory control period will commence on 1 July 2019. Also in accordance with clause 6.12.1(2)(ii) of the NER, the AER's draft decision is to approve TasNetworks' proposal that the length of the regulatory control period will be 5 years from 1 July 2019 to 30 June 2024.

In accordance with clause 6.12.1(3)(ii) of the NER and acting in accordance with clause 6.5.7(c), the AER's draft decision is not to accept TasNetworks' proposed total forecast capital expenditure of \$738.3 million (\$2018–19). Our draft decision therefore includes a substitute estimate of TasNetworks' total forecast capex for the 2019–24 regulatory control period of \$554.6 million (\$2018–19). The reasons for the draft decision are set out in attachment 5 of the draft decision.

In accordance with clause 6.12.1(4)(i) of the NER and acting in accordance with clause 6.5.6(c), the AER's draft decision is to accept TasNetworks' proposed total forecast operating expenditure inclusive of debt raising costs and exclusive of DMIAM of \$410.5 million (\$2018-19). This is discussed in attachment 6 of the draft decision.

In accordance with clause 6.12.1(5) of the NER, the AER's draft decision is that the allowed rate of return for the 2019–20 regulatory year is 5.51 per cent (nominal vanilla), as set out in Attachment 3 of this draft decision. The rate of return for the remaining regulatory years 2020–24 will be updated annually because our decision is to apply a trailing average portfolio approach to estimating debt

⁷⁶ NEL, s. 16(1)(c).

which incorporates annual updating of the allowed return on debt.

In accordance with clause 6.12.1(5A) of the NER, the AER's draft decision is that the return on debt is to be estimated using a methodology referred to in clause 6.5.2(i)(2) and using the formula to be applied in accordance with clause 6.5.2(l). The methodology and formula are set out in Attachment 3 of this draft decision.

In accordance with clause 6.12.1(5B) of the NER, the AER's draft decision on the value of imputation credits as referred to in clause 6.5.3 is to adopt a value of 0.5. This is discussed in section 2.2 of this draft decision overview.

In accordance with clause 6.12.1(6) of the NER, the AER's draft decision on TasNetworks' regulatory asset base as at 1 July 2019 in accordance with clause 6.5.1 and schedule 6.2 is \$1747.0 million (\$nominal). This is discussed in attachment 2 of the draft decision.

In accordance with clause 6.12.1(7) of the NER, the AER's draft decision is not to accept TasNetworks' proposed corporate income tax of \$55.7 million (\$nominal). Our draft decision on TasNetworks' corporate income tax is \$38.4 million (\$nominal). Our estimated cost of corporate income tax for each year of the regulatory control period is set out in attachment 7 of the draft decision.

In accordance with clause 6.12.1(8) of the NER, the AER's draft decision is not to approve the depreciation schedules submitted by TasNetworks. Our draft decision substitute's alternative depreciation schedules in accordance with clause 6.5.5(b) and this is set out in attachment 4 of the draft decision.

In accordance with clause 6.12.1(9) of the NER, the AER makes the following draft decisions on how any applicable efficiency benefit sharing scheme, capital expenditure sharing scheme, service target performance incentive scheme, demand management incentive scheme or small-scale incentive scheme is to apply:

- The AER's draft decision is to apply version two of the EBSS to TasNetworks in the 2019–24 regulatory control period. This is set out in attachment 8 of the draft decision.
- We will apply the CESS as set out in version 1 of the Capital Expenditure Incentives Guideline to TasNetworks in the 2019–24 regulatory control period. CESS is discussed in attachment 9 of the draft decision.
- We will apply our Service Target Performance Incentive Scheme (STPIS) to TasNetworks for the 2019–24 regulatory control period.
- Our draft decision on the STPIS reliability of supply and customer service parameters, along with the incentive rates and performance targets, are set out in attachment 10.
- The AER has determined to apply the Demand Management Incentive Scheme (DMIS) and the Demand Management Innovation Allowance Mechanism (DMIAM) for TasNetworks in the 2019–24 regulatory control period. DMIS and DMIAM are discussed in attachment 11 of the draft decision.

In accordance with clause 6.12.1(10) of the NER, the AER's draft decision is that all appropriate amounts, values and inputs are as set out in this determination including attachments.

In accordance with clause 6.12.1(11) of the NER and our framework and approach paper, the AER's draft decision on the form of control mechanisms (including the X factor) for standard control services is a revenue cap. The revenue cap for TasNetworks for any given regulatory year is the total annual

revenue calculated using the formula in attachment 13 plus any adjustment required to move the DUoS under/over account to zero. This is discussed at attachment 13 of the draft decision.

In accordance with clause 6.12.1(12) of the NER and our framework and approach paper, the AER's draft decision on the form of the control mechanism for alternative control services is to apply price caps for all services. This is discussed in attachment 13 of the draft decision.

In accordance with clause 6.12.1(13) of the NER, to demonstrate compliance with its distribution determination, the AER's draft decision is TasNetworks must maintain a DUoS unders and overs account. It must provide information on this account to us in its annual pricing proposal. This is discussed in attachment 13 of the draft decision.

In accordance with clause 6.12.1(14) of the NER, the AER's draft decision is to apply the following nominated pass through events for the 2019–24 regulatory control period in accordance with clause 6.5.10:

- terrorism event
- insurance cap event
- natural disaster event.

These events have the definitions set out in Attachment 14 of the draft decision.

In accordance with clause 6.12.1(14A) of the NER, the AER's draft decision is not to approve the tariff structure statement proposed by TasNetworks. Our draft decision requires series of suggested changes to several aspects of TasNetworks' tariff strategy, including amending its opt-in tariff assignment policy and providing greater justification for its embedded network tariffs. This is discussed in attachment 18 of the draft decision.

In accordance with clause 6.12.1(15) of the NER, the AER's draft decision is to apply the negotiating framework as proposed by TasNetworks for the 2019–24 regulatory control period. The negotiating framework is set out in attachment 16 of the draft decision.

In accordance with clause 6.12.1(16) of the NER, the AER's draft decision is to apply the negotiated distribution services criteria published in February 2018 to TasNetworks. This is set out in attachment 16 of the draft decision.

In accordance with clause 6.12.1(17) of the NER, the AER's draft decision on the procedures for assigning retail customers to tariff classes for TasNetworks is set out in attachment 13 of the draft decision.

In accordance with clause 6.12.1(18) of the NER, the AER's draft decision is that the depreciation approach based on forecast capex (forecast depreciation) is to be used to establish the RAB at the commencement of TasNetworks' regulatory control period as at 1 July 2024. This is discussed in attachment 2 of the draft decision.

In accordance with clause 6.12.1(19) of the NER, the AER's draft decision on how TasNetworks' is to report to the AER on its recovery of designated pricing proposal charges is to set this out in its annual pricing proposal. The method to account for the under and over recovery of designated pricing proposal charges is discussed in attachment 13 of the draft decision.

In accordance with clause 6.12.1(20) of the NER, the AER's draft decision is to require TasNetworks to maintain a jurisdictional scheme unders and overs account. It must provide information on this

account to us in its annual pricing proposal as set out in attachment 13 of the draft decision.

In accordance with clause 6.12.1(21) of the NER, the AER's draft decision is to modify the TasNetworks' proposed connection policy as set out in attachment 17 of the draft decision.

C List of submissions

We received eight submissions in response to TasNetworks' revenue proposal. These are listed below.

Submission from	Date received
Anonymous	16 May 2018
Aurora Energy	18 May 2018
CCP13	16 May 2018
EMFacts Consultancy	16 May 2018
Local Government Association of Tasmania	16 May 2018
Tasmanian Renewable Energy Alliance	21 May 2018
Tasmanian Small Business Council	16 May 2018
TasNetworks	15 May 2018