



**DRAFT DECISION**

**TasNetworks Distribution  
Determination  
2019 to 2024**

**Attachment 6  
Operating expenditure**

September 2018

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## Note

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

The draft decision includes the following attachments:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency benefit sharing scheme

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment 11 – Demand management incentive scheme

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 19 – Tariff structure statement

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## Shortened forms

Shortened form	Extended form
ACS	alternative control services
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
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
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
MRP	market risk premium
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules
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
WACC	weighted average cost of capital

## 6 Operating expenditure

Operating expenditure (opex) refers to operating, maintenance and other non-capital expenses. Forecast opex for standard control services is one of the building blocks that make up a service provider's total revenue requirement.

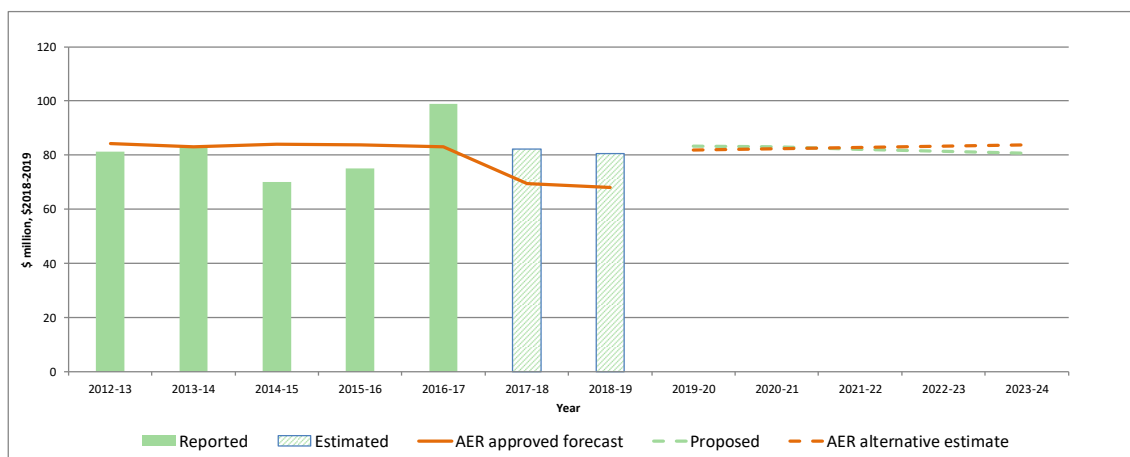
This attachment outlines how we assessed TasNetworks' proposed total opex forecast.

### 6.1 Draft decision

We accept TasNetworks' opex forecast of \$410.5 million (\$2018–19) for the 2019–24 regulatory control period.<sup>1</sup> We are satisfied that it reasonably reflects the opex criteria.<sup>2</sup> We have tested TasNetworks' proposal by comparing it to our alternative estimate of total opex forecast (\$414.0 million, \$2018–19). Our alternative estimate is not materially different from TasNetworks' opex forecast.

Figure 6.1 shows TasNetworks' opex forecast, its actual opex, our previous regulatory decisions and our alternative estimate.

**Figure 6.1 Historical and forecast opex (\$million, 2018–19)**



Source: TasNetworks, *Regulatory accounts 2009–10 to 2016–17*; TasNetworks, *Economic benchmarking RIN response 2006 to 2017*, TasNetworks, *Transmission and Distribution regulatory proposal, Opex model*, 31 January 2018; TasNetworks, *Post Tax Revenue Model (PTRM) PTRM Distribution*, 31 January 2018; AER analysis.

Note: Includes debt raising costs.

<sup>1</sup> Including debt raising costs; TasNetworks, *Post Tax Revenue Model (PTRM) PTRM Distribution*, 31 January 2018.

<sup>2</sup> NER, cl. 6.5.6(c).

## 6.2 TasNetworks' proposal

TasNetworks proposed total forecast opex of \$410.5 million (\$2018–19) for the 2019–24 regulatory control period (see Table 6.1).<sup>3</sup> This is 0.9 per cent higher than TasNetworks' actual and estimated opex for the 2017–19 regulatory control period calculated on an annual average basis.<sup>4</sup>

**Table 6.1 TasNetworks' proposed opex (\$million, 2018–19)**

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Opex excluding category specific forecasts	74.9	74.5	73.7	72.9	72.1	367.9
Debt raising costs	0.9	0.9	0.9	0.9	1.0	4.6
Guaranteed Service Level payments	2.9	2.9	2.9	2.9	2.9	14.7
Electrical safety inspection payments	4.0	4.0	4.0	4.0	4.0	20.1
National Energy Market levy payments	0.6	0.6	0.6	0.6	0.6	3.1
<b>Total opex</b>	<b>83.3</b>	<b>83.0</b>	<b>82.2</b>	<b>81.4</b>	<b>80.6</b>	<b>410.5</b>

Source: TasNetworks, *Post Tax Revenue Model (PTRM) PTRM Distribution*, 31 January 2018; TasNetworks, *Distribution Operating Expenditure Model*, 31 January 2018.

Note: Includes debt raising costs. Numbers may not add up to total due to rounding.

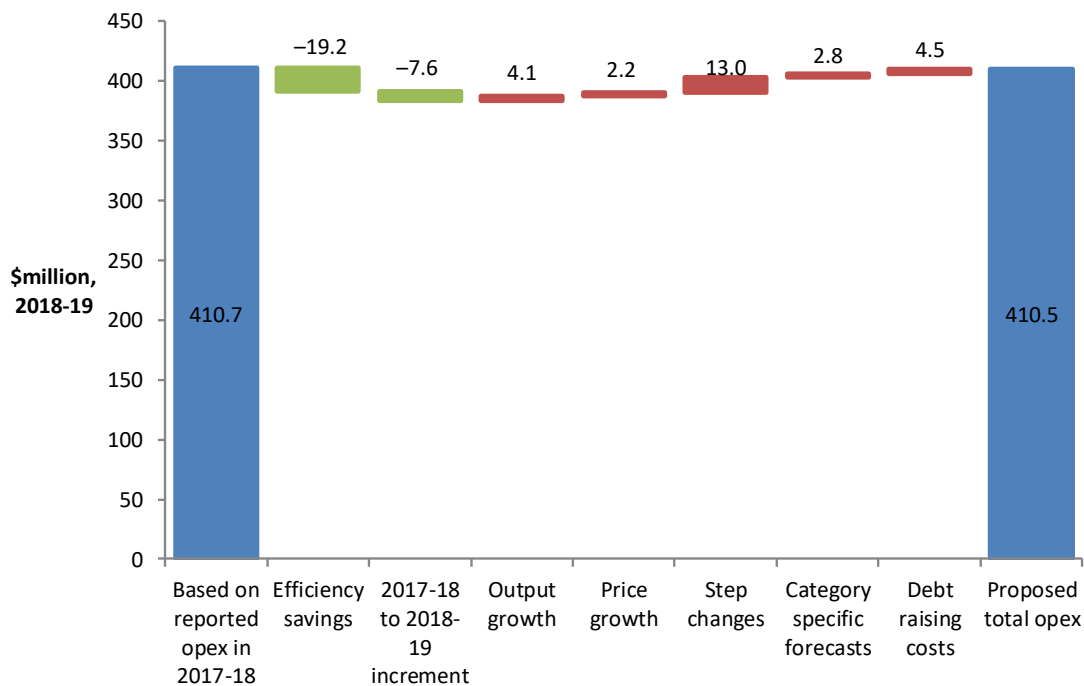
In Figure 6.2 we separate TasNetworks' opex proposal into the different elements that make up its forecast.

<sup>3</sup> Including debt raising costs. TasNetworks, *Post Tax Revenue Model (PTRM) PTRM Distribution*, 31 January 2018.

<sup>4</sup> Including debt raising costs.



**Figure 6.2 TasNetworks' opex forecast (\$million, 2018–19)**



Source: TasNetworks, *Distribution Operating Expenditure Model*, 31 January 2018; AER analysis.

TasNetworks stated that it adopted our base–step–trend approach to forecast opex for the 2019–24 regulatory control period.<sup>5</sup> We set out the key elements of TasNetworks' proposal below:

- TasNetworks used estimated opex in 2017–18 as the base to forecast.<sup>6</sup> If no other adjustments were made for non-recurrent opex or provisions, this would lead to base opex of \$410.7 million (\$2018–19) over the 2019–24 regulatory control period. TasNetworks proposed no adjustment.<sup>7</sup>
- TasNetworks applied the approach in the *Expenditure forecast assessment guideline* (the Guideline) to calculate the 2017–18 to 2018–19 increment (the starting point for its forecast).<sup>8</sup> This reduced its opex forecast by \$7.6 million (\$2018–19).
- TasNetworks applied its forecast of the overall rate of change to its estimate of opex for 2018–19, consistent with the Guideline.<sup>9</sup> This increased its opex forecast

<sup>5</sup> TasNetworks, *Transmission and distribution regulatory proposal*, 31 January 2018, p. 136.

<sup>6</sup> TasNetworks, *Transmission and distribution regulatory proposal*, 31 January 2018, p. 151.

<sup>7</sup> TasNetworks, *Transmission and distribution regulatory proposal*, 31 January 2018, p. 152.

<sup>8</sup> AER, *Expenditure forecast assessment guideline for electricity distribution*, November 2013, pp. 22–23.

<sup>9</sup> TasNetworks, *Distribution Operating Expenditure Model*, 31 January 2018;

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

by \$6.3 million (\$2018–19), including real price growth of \$2.2 million, output growth of \$4.1 million and zero productivity growth.<sup>10</sup>

- TasNetworks proposed four step changes for damage to assets, ring fencing costs, compliance with voltage issues and capex-opex trade off (demand management incentive scheme).<sup>11</sup> This increased its opex forecast by \$13.0 million (\$2018–19).
- TasNetworks proposed opex category specific forecasts for:
  - guaranteed service level (GSL) payments, electrical safety levy, national energy market (NEM) levy, which increased its opex forecast by \$2.8 million (\$2018–19)
  - debt raising costs, which increased its opex forecast by \$4.5 million (\$2018–19).<sup>12</sup>
- TasNetworks proposed efficiency savings, which reduced its opex forecast by \$19.2 million (\$2018–19).

This resulted in a total opex forecast of \$410.5 million (\$2018–19).<sup>13</sup>

## 6.2.1 Stakeholder views

We received three submissions on TasNetworks' opex proposal, including from the AER's Consumer Challenge Panel (CCP 13), the Tasmanian Small Business Council (TSBC) and an anonymous party. A summary of these submissions is provided in Table 6.2 below.

**Table 6.2: Submissions on TasNetworks' opex proposal**

Stakeholder	Issue	Description
CCP 13, Anonymous, TSBC	Choice of base year and assessment of efficient base opex	Stakeholders raised concerns about TasNetworks' choice of 2017–18 as the base year. <sup>14</sup> They questioned the increase in some costs categories, specifically stating that vegetation management costs have been increasing since the 2009–14 regulatory control period. <sup>15</sup> It was noted that TasNetworks' opex proposal is projecting a 2016–17 vegetation management step change to continue in the 2019–24 period

<sup>10</sup> TasNetworks, *Transmission and distribution regulatory proposal*, 31 January 2018, pp. 153–154; AER analysis.

<sup>11</sup> TasNetworks, *Transmission and distribution regulatory proposal*, 31 January 2018, pp. 152–153; TasNetworks, *Distribution Operating Expenditure Model*, 31 January 2018.

<sup>12</sup> TasNetworks, *Post Tax Revenue Model (PTRM) PTRM Distribution*, 31 January 2018.

<sup>13</sup> TasNetworks, *Post Tax Revenue Model (PTRM) PTRM Distribution*, 31 January 2018.

<sup>14</sup> 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, pp. 51–56; Anonymous, *Submission on TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, p. 2; Tasmanian Small Business Council, *TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, pp. 8–9.

<sup>15</sup> 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, pp. 51–56; Anonymous, *Submission on TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, p. 5; Tasmanian Small Business Council, *TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, p. 9.

Stakeholder	Issue	Description
		<p>over.</p> <p>While TSBC proposed 2014–15 or 2015–16 as the base year, the other stakeholders only raised concerns about TasNetworks' proposal of 2017–18; they did not propose a specific year<sup>16</sup></p> <p>CCP 13 raised concerns about how we assess opex, stating that it is unclear what we mean by 'not materially inefficient' when relying on economic benchmarking. It proposed we should benchmark distributors against the frontier firm, rather than the low benchmark comparison point as we did in previous determinations. CCP 13 encouraged us to review how we exercise our discretion in this respect.<sup>17</sup></p>
CCP 13, TSBC	Efficiency and productivity	<p>CCP 13 supported TasNetworks' proposed efficiency adjustment while TSBC submitted we should test it.<sup>18</sup></p> <p>CCP 13 questioned our zero productivity growth forecast, which we applied in previous determinations. It recommended we review it, pointing to productivity improvement in the sector in recent years.<sup>19</sup></p> <p>TSBC encouraged us to test TasNetworks' proposed efficiency.<sup>20</sup></p>
CCP 13, TSBC	Output growth / labour price growth	<p>Stakeholders encouraged us to test TasNetworks' price and output growth forecasts.<sup>21</sup></p> <p>CCP13 raised concerns about the approach TasNetworks' consultant (Jacobs) used to forecast internal and external labour price growth:</p> <ul style="list-style-type: none"> <li>• For external labour, it noted that Jacobs focused on average weekly ordinary time earnings (AWOTE) data for workers in the utilities sector and did not provide a breakdown of utilities AWOTE for Tasmania</li> <li>• For internal labour, it submitted that Jacobs appeared to have misunderstood us by suggesting that we have relied on enterprise agreements (EA) to forecast labour price growth. CCP 13 noted that we use forecasts of labour price growth from independent consultants to assist our understanding of the (opex) trend.</li> </ul>
TSBC	Step changes	<p>TSBC raised concerns about TasNetworks' proposed ring fencing and voltage management step changes. However, it supported TasNetworks' demand management project.<sup>22</sup></p>

<sup>16</sup> Tasmanian Small Business Council, *TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, pp. 57–58; Anonymous, *Submission on TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, p. 2 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, pp. 51–56.

<sup>17</sup> 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, pp. 51–56.

<sup>18</sup> Tasmanian Small Business Council, *TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, pp. 54, 59 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, pp. 60–61.

<sup>19</sup> 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, pp. 60–61.

<sup>20</sup> Tasmanian Small Business Council, *TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, pp. 54, 59.

<sup>21</sup> 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. 62; Tasmanian Small Business Council, *TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, pp. 55, 58.

## 6.3 AER's assessment approach

Our role is to decide whether to accept a business's total opex forecast. We are to decide whether a business's forecast of total opex 'reasonably reflects the opex criteria'.<sup>23</sup> In doing so, we must have regard to the opex factors specified in the NER.<sup>24</sup>

The Guideline together with an explanatory statement sets out our assessment approach in detail.<sup>25</sup> While the Guideline provides for greater regulatory predictability, transparency and consistency, it is not mandatory. However, if we make a decision that is not in accordance with the Guideline, we must state the reasons for departing from the Guideline.<sup>26</sup>

Our approach is to assess the business' forecast opex over the regulatory control period at a total level, rather than to assess individual opex projects. To do so, we develop an alternative estimate of total opex using a 'top-down' forecasting method, known as the 'base-step-trend' approach (see Figure 6.3).<sup>27</sup> We compare our alternative estimate with the business' total opex forecast to form a view on the reasonableness of the business' proposal. If we are satisfied the business' forecast reasonably reflects the criteria, we accept the forecast.<sup>28</sup> If we are not satisfied, we substitute the business' forecast with our alternative estimate that we are satisfied reasonably reflects the opex criteria.<sup>29</sup>

In making this decision, we take into account the reasons for the difference between our alternative estimate and the business' proposal, and examine each driver of the differences and adjust our alternative estimate if we consider it necessary. Further, we take into consideration interrelationships between opex and the other building block components of our decision.<sup>30</sup>

Figure 6.3 summarises the base–step–trend forecasting approach.

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<sup>22</sup> Tasmanian Small Business Council, *TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, p. 58.

<sup>23</sup> NER, cl. 6.5.6(c).

<sup>24</sup> NER, cl. 6.5.6(e).

<sup>25</sup> AER, *Expenditure forecast assessment guideline for electricity distribution*, November 2013; AER, *Expenditure forecast assessment guideline*, Explanatory statement, November 2013.

<sup>26</sup> NER, cl. 6.2.8(c)(1).

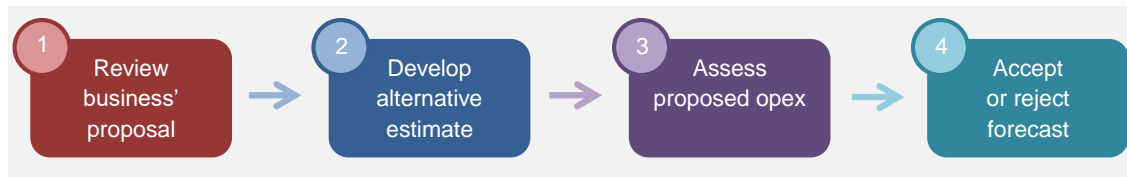
<sup>27</sup> A 'top-down' approach forecasts total opex at an aggregate level, rather than forecasting individual projects or categories to build a total opex forecast from the 'bottom up'.

<sup>28</sup> NER, cl. 6.5.6(c).

<sup>29</sup> NER, cll. 6.5.6(d) and 6.12.1(4)(ii).

<sup>30</sup> NEL, s.16(1)(c).

**Figure 6.3 Our opex assessment approach**



**1. Review business' proposal**



We review the business' proposal and identify the key drivers.

**2. Develop alternative estimate**

**Base**

We use the business' opex in a recent year as a starting point (revealed opex). We assess the revealed opex (e.g. through benchmarking) to test whether it is efficient. If we find it to be efficient, we accept it. If we find it to be materially inefficient, we may make an efficiency adjustment.

**Trend**

We trend base opex forward by applying our forecast 'rate of change' to account for growth in input prices, output and productivity.

**Step**

We add or subtract any step changes for costs not compensated by base opex and the rate of change (e.g. costs associated with regulatory obligation changes or capex/opex substitutions).

**Other**

We include a 'category specific forecast' for any opex component that we consider necessary to be forecast separately.

**3. Assess proposed opex**



We contrast our alternative estimate with the business' opex proposal. We identify all drivers of differences between our alternative estimate and the business' opex forecast. We consider each driver of difference between the two estimates and go back and adjust our alternative estimate if we consider it necessary.

**4. Accept or reject forecast**



We use our alternative estimate to test whether we are satisfied the business' opex forecast reasonably reflects the opex criteria. We accept the proposal if we are satisfied.



If we are not satisfied the business' opex forecast reasonably reflects the opex criteria we substitute it with our alternative estimate.

**6.3.1 Interrelationships**

In assessing TasNetworks' total forecast opex we took into account other components of its proposal, including:

- the efficiency benefit sharing scheme (EBSS) carryover—the level of opex used as the starting point to forecast opex (the final year of the current period) should be the same as the level of opex used to forecast the EBSS carryover. This consistency ensures that the business is rewarded (or penalised) for any efficiency gains (or losses) it makes in the final year the same as it would for gains or losses made in other years

- the operation of the EBSS in the 2017–19 regulatory control period, which provided TasNetworks an incentive to reduce opex in the base year
- the impact of cost drivers that affect both forecast opex and forecast capex. For instance, forecast labour price growth affects forecast capex and our forecast price growth used to estimate the rate of change in opex
- the approach to assessing the rate of return, to ensure there is consistency between our determination of debt raising costs and the rate of return building block
- concerns of electricity consumers identified in the course of TasNetworks' engagement with consumers.

## 6.4 Reasons for draft decision

Our draft decision is to accept TasNetworks' total opex forecast of \$410.5 million (\$2018–19).<sup>31</sup> We are satisfied this forecast reasonably reflects the opex criteria.<sup>32</sup>

We have developed an alternative estimate of total opex, as set out in section 6.3, and compared it to TasNetworks' proposal. Our estimate of \$414.0 million (\$2018–19) is not significantly different from TasNetworks' opex forecast.

This section outlines the key inputs and assumptions we made in developing our alternative estimate of efficient costs over the 2019–24 regulatory control period.

Table 6.3 illustrates the differences between our alternative estimate of forecast opex and TasNetworks' proposal. While the components of our estimate are different from TasNetworks', the differences largely offset each other. The key difference between us and TasNetworks is that we have not included an efficiency adjustment or any of the proposed step changes.

**Table 6.3 Our alternative estimate of 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
Output growth	4.1	3.8	-0.2
Price growth	2.2	1.5	-0.7
Productivity growth	-	-	-

<sup>31</sup> Including debt raising costs.

<sup>32</sup> NER, cl. 6.5.6(c).

	TasNetworks	Our alternative estimate	Difference
Step changes	13.0	–	–13.0
Category specific forecasts	2.8	2.7	–0.1
Debt raising costs	4.5	4.4	–0.1
<b>Total opex</b>	<b>410.5</b>	<b>414.0</b>	<b>3.5</b>

Source: TasNetworks, *Distribution Operating Expenditure Model*, 31 January 2018; AER analysis.

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

Full details of our alternative estimate are set out in our opex model, which is available on our website.<sup>33</sup>

### 6.4.1 Base opex

We have relied on TasNetworks' estimated opex in 2017–18 to forecast its opex over the 2019–24 regulatory control period, as proposed by TasNetworks.<sup>34</sup> This is because we consider 2017–18 to be an appropriate base year, and our benchmarking results indicate that TasNetwork is operating relatively efficiently, enabling us to rely on its revealed costs in 2017–18 to set base opex.

TasNetworks submitted that 2017–18 is the most suitable base year because the level of opex will be more reflective of ongoing requirements than other recent years.<sup>35</sup> This follows higher expenditure in 2016–17, which TasNetworks states was necessary to address emerging risks on its distribution network, such as the bushfire risks posed by vegetation, and better understanding of these risks, as well as high emergency response needs, reflecting challenging years for natural and weather events in 2015–16 and 2016–17.<sup>36</sup> TasNetworks notes that while it believes that opex can return to lower levels, it will take time to do so without compromising network safety and performance.<sup>37</sup>

Use of 2017–18 as a base year for opex, and the increase in vegetation management costs was a focus of submissions from CCP 13, an anonymous party, and TSBC.<sup>38</sup>

<sup>33</sup> AER, *TasNetworks distribution determination 2019–20 to 2023–24*, Draft decision, Opex model, September 2018.

<sup>34</sup> Our estimate of base opex differs to TasNetworks' proposed \$410.7 million (\$2018–19) due to updated CPI figures. We will update TasNetworks' base year expenditure with actual 2017–18 opex for the final decision.

<sup>35</sup> TasNetworks, *Transmission and distribution regulatory proposal*, 31 January 2018, pp. 149 and 151.

<sup>36</sup> TasNetworks, *Transmission and distribution regulatory proposal*, 31 January 2018, p. 149.

<sup>37</sup> TasNetworks, *Transmission and distribution regulatory proposal*, 31 January 2018, p. 149.

<sup>38</sup> Consumer Challenge Panel subpanel 13, *Issues Paper – TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, pp. 51–60, Anonymous, *Submission on TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, p. 2, Tasmanian Small Business Council, *TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, p. 9.

While we recognise that base year opex is higher than in 2014–15 and 2015–16, TasNetworks' estimate of its 2017–18 opex is considerably (17.0 per cent) lower than opex in 2016–17.

As shown in Figure 6.1, we note that TasNetworks underspent against our approved forecast in 2014–15 and 2015–16, but overspent significantly in 2016–17 and on the basis of estimated opex, appears likely to do so in the current 2-year regulatory of 2017–18 and 2018–19 (for which it will incur an EBSS penalty).

However, we note that TasNetworks' opex allowance for the 2017–19 regulatory control period was set on the basis of TasNetworks' proposal (we accepted its proposed opex). Our alternative estimate,<sup>39</sup> indicating what we considered to be an efficient opex forecast, was significantly higher than the proposed opex for that period. In its 2017–19 proposal, TasNetworks had incorporated strong productivity growth. The recent overspend may therefore be more indicative of an ambitious opex allowance (its own forecast), rather than inefficiency<sup>40</sup> as CCP 13 submitted.<sup>41</sup>

Given we consider revealed expenditure to be not materially inefficient (see below), and we are not making an efficiency adjustment, the choice of base year has little impact on the net revenue allowance. This is because any increase in opex is counteracted by a decrease in the EBSS carryover. These two effects cancel each other out from a net revenue allowance perspective.

Our benchmarking results indicate TasNetworks is operating relatively efficiently when compared to other distributors in the NEM.<sup>42</sup> Figure 6.4 illustrates that for the 2006–16 period,<sup>43</sup> TasNetworks ranks relatively highly (fifth of 13) across our four main economic benchmarking models.<sup>44</sup> We consider this performance is not suggestive of material inefficiency, noting that the comparison point we use is not the frontier performer (in order to mitigate the risk of data imperfection or - modelling limitations in - our benchmarking).

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<sup>39</sup> Our alternative estimate of forecast total opex developed for our draft decision was \$17.5 million (\$2016–17) (or 14.2 per cent) higher than TasNetworks' proposal. AER, *TasNetworks distribution determination 2017–18 to 2018–19*, Draft decision, Attachment 7, September 2016, p. 6.

<sup>40</sup> See TasNetworks, *Tasmanian distribution revised regulatory proposal, Regulatory control period 1 July 2017 to 30 June 2019*, December 2016, p. 14: Our revised forecast is \$9.3 million (or 7 per cent) lower than the AER's alternative estimate. The AER's estimate reflects the "benchmark operating expenditure that would be incurred by an efficient provider over the forecast period". On this basis, we regard our revised operating expenditure forecast as an appropriately challenging target for our business.'

<sup>41</sup> Consumer Challenge Panel subpanel 13, *Issues Paper – TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, p. 50.

<sup>42</sup> AER, *Annual benchmarking report, Electricity distribution network service providers*, November 2017.

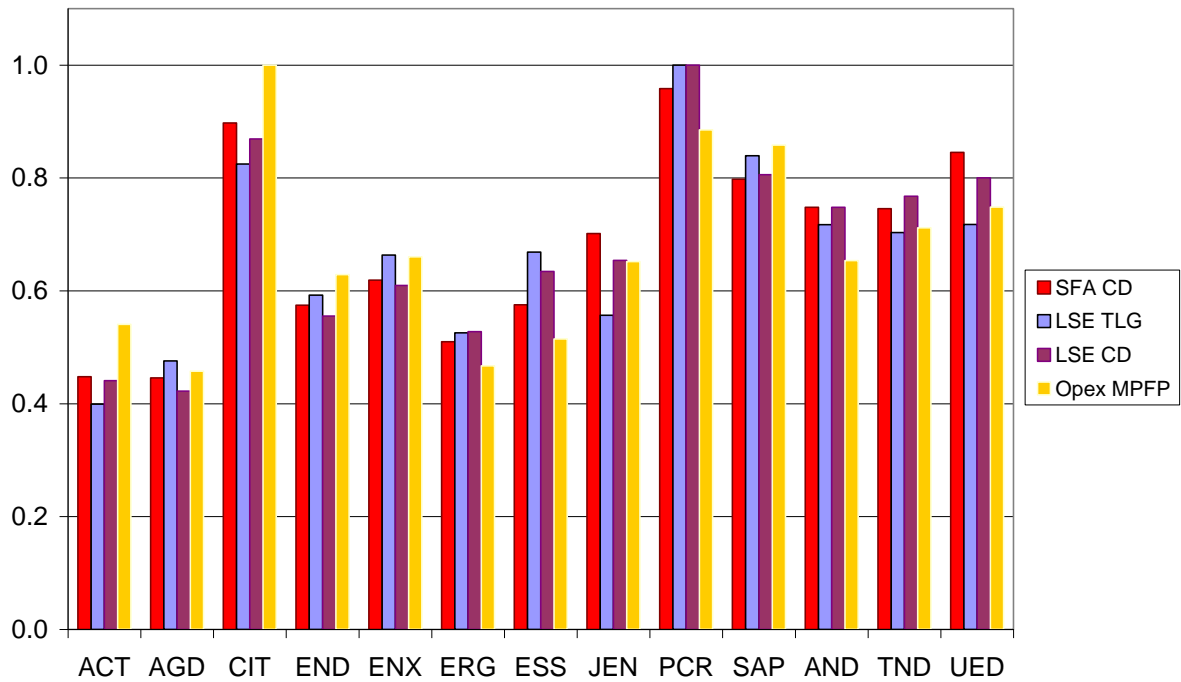
<sup>43</sup> We assess efficiency on the basis of the period-average, rather than looking at the efficiency of a single year (such as the base year). This recognises that opex is generally recurrent, but with some degree of year-to-year volatility. In any event, estimated opex in 2017-18 is broadly in line with average opex over the 2006-16 period. Under our framework, any spikes in base year opex would also be reflected in reduction of the EBSS carryover, illustrating there is no incentive to inflate base year opex with an EBSS in place.

<sup>44</sup> AER, *Annual benchmarking report, Electricity distribution network service providers*, November 2017, p. 39.



Illustrating this, under the Cobb-Douglas Stochastic Frontier Analysis (SFACD) econometric model, which has in past decisions been a preferred benchmarking model, TasNetworks has a score of 0.75.<sup>45</sup> This is the lowest score in the upper quartile of possible efficiency scores, which in past decisions we considered represented the appropriate benchmark comparison point under a relatively conservative approach.<sup>46</sup>

**Figure 6.4 Distributors' average opex cost efficiency scores, 2006–2016**



Source: AER, 2017 Annual Benchmarking Report, p. 39.

CCP 13 submitted that its principal concern with our benchmarking approach, as implemented in previous decisions, is that our chosen benchmark comparison point is too low and not representative of an efficient firm. It considered that we should, rather, benchmark distributors against the frontier firm.<sup>47</sup> We do not agree with CCP 13 on these points. As noted above, we consider there is merit in adopting a more conservative approach than simply using the frontier firm's score as the benchmark

<sup>45</sup> Economic Insights, *Economic Benchmarking Results for the Australian Energy Regulator's 2017 DNSP Benchmarking Report*, 31 October 2017, p. 21.

TasNetworks' efficiency score ranking we are basing this on excludes consideration of the impact of operating environment factors (OEFs) for TasNetworks (and all distributors). We do not consider OEFs as we have found TasNetworks to be relatively efficient on its raw score.

<sup>46</sup> Our benchmarking methodology and approach is explained in AER, *Annual Benchmarking Report—Electricity distribution network service providers*, November 2017.

<sup>47</sup> 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, pp. 53–56

comparison point. This mitigates the risk of data imperfection or potential error in estimating the frontier performer that is inherent in any economic benchmarking exercise.

Our stated preference for revealed cost also applies.<sup>48</sup> TasNetworks has been operating with an ex ante allowance and an EBSS and had the incentive to reduce costs over the 2017–19 regulatory control period.

## 6.4.2 Rate of change

Having determined an efficient starting point, or base opex, we trend it forward to account for the forecast growth in prices, output and productivity. We refer to this as the rate of change.<sup>49</sup>

We are conducting an industry-wide review of our approach to forecasting productivity growth. This is a result of our observations that opex multilateral partial factor productivity has grown over three per cent each year (since 2012) across the distribution industry. This is consistent with our expectations that distributors would make positive productivity growth in the medium to long term (productivity growth had been negative over the period 2006–12).

Further, CCP 10 and 13 have submitted that meeting the National Energy Objective (NEO) means that network businesses need to be looking for positive productivity improvements each year, and recommended we reconsider our zero productivity growth forecast.<sup>50</sup>

Our review may change our approach to forecasting productivity going forward. As part of this review, we will consult with all distributors and any other interested stakeholders. Stakeholders will be given multiple opportunities to engage in the review and provide us their views. Our final decision for TasNetworks will take the outcome of this review into consideration.

For the purpose of the draft decision, we have largely applied our standard approach to forecasting the rate of change. Specifically we have:

- Used a weighted average of forecast labour price growth and non-labour price growth to determine price growth
- Used output weights derived from the results of the four benchmarking models we presented in our *2017 Annual Benchmarking Report*. This is a refinement of our previous approach, which used the weights from a single econometric model.
- Applied a zero productivity growth forecast.

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<sup>48</sup> AER, *Expenditure forecast assessment guideline for electricity distribution*, November 2013, p. 22.

<sup>49</sup> AER, *Expenditure forecast assessment guideline for electricity distribution*, November 2013, pp. 22–24.

<sup>50</sup> Consumer Challenge Panel subpanel 10, *Response to Evoenergy regulatory proposal 2019–24 and AER issues paper*, 16 May 2018, p. 15; 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, pp. 60–61.

We have forecast an average annual rate of change of 0.53 per cent, compared to TasNetworks forecast of 0.61 per cent. The reasons for our forecast, and the difference compared to TasNetworks' forecast, are set out below.

#### 6.4.2.1 Forecast price growth

We have forecast real average annual price growth of 0.18 per cent in developing our alternative opex forecast. This increased our estimate of total opex by \$1.5 million (\$2018–19). It compares to TasNetworks' proposed average annual price growth of 0.24 per cent.

Our price growth forecast is a weighted average of forecast labour price growth and non-labour price growth:

- To forecast labour price growth, we have used the average growth in the wage price index (WPI) for the Tasmanian utilities industry forecast by Deloitte Access Economics (DAE) and TasNetworks' consultant, Jacobs.<sup>51</sup> In contrast, TasNetworks only applied the forecast by Jacobs.
- To forecast non-labour price growth, both we and TasNetworks have applied the forecast growth in CPI.<sup>52</sup>
- We have applied updated weights consistent with our *2017 Annual Benchmarking Report* to account for the proportion of opex that is labour and the proportion that is non-labour (59.7:40.3).<sup>53</sup> In contrast, TasNetworks applied the benchmark mix of labour and non-labour inputs, which we used in our *2016 Annual benchmarking report* (62:38).<sup>54</sup>

CCP 13 submitted that Jacobs' analysis for external labour trends focused on data on average weekly ordinary time earnings (AWOTE) for workers in the utilities sector and did not provide a breakdown of utilities AWOTE for Tasmania.<sup>55</sup> We do not directly use AWOTE as a measure of labour price growth. However, we are aware that independent consultants may rely on a combination of wage growth factors, including AWOTE to impute estimated values for utilities WPI in some jurisdictions. This is particularly the case for Tasmania as the Australian Bureau of Statistics (ABS) does not publish utilities WPI for this state.<sup>56</sup> Further, we understand that to forecast WPI

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<sup>51</sup> Deloitte Access Economics, *Labour Price Growth Forecasts*, 19 July 2018, p. 50; Jacobs, *Labour costs escalation report*, 25 October 2017, p. 13.

<sup>52</sup> TasNetworks, *Transmission and distribution regulatory proposal*, 31 January 2018, p. 154.

<sup>53</sup> We applied Economic Insights' benchmark opex price weightings for labour and non-labour as reflected in our *2017 Annual benchmarking report*. For more detail, see: Economic Insights, *Economic benchmarking results for the Australian Energy Regulator's 2017 DNSP benchmarking report*, 31 October 2017, p. 2.

<sup>54</sup> TasNetworks, *Transmission and distribution regulatory proposal*, Opex model, 31 January 2018.

<sup>55</sup> 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. 62.

<sup>56</sup> Deloitte Access Economics, *Labour Price Growth Forecasts*, 19 July 2018, p. 72.

growth for TasNetworks Jacobs identified a number of factors, including AWOTE, which it considers drive changes in labour costs, and it sought to assign a weight to each factor through its regression analysis.<sup>57</sup>

CCP 13 also submitted that Jacobs appeared to have misunderstood our approach to estimating efficient opex by stating we accepted the annual wage increases in an enterprise agreement (EA) in our determination for Powerlink.<sup>58</sup> CCP 13 encouraged us to review the past performance of Jacobs when determining the appropriateness of TasNetworks' labour price forecasts.<sup>59</sup>

We agree with CPP 13 that Jacobs misunderstood our position on EAs. We accepted Powerlink's total forecast opex because it was not significantly different from our alternative estimate of total forecast opex. This should not be interpreted as an endorsement of the approach used to derive individual aspects of Powerlink's total opex forecast. In developing our alternative estimate we used the average of WPI forecast from two independent consultants to forecast labour price growth.<sup>60</sup> We did not use the wage increases in Powerlink's EA. Our most recent decision for CitiPower outlines why we do not use the wage increases in a distributor's EA to forecast labour price growth.<sup>61</sup>

In respect of CCP 13's suggestion for us to review the past performance of Jacobs' labour price forecasts, it is also unclear whether Jacobs continues to use the approach previously adopted by Sinclair Knight Mertz (SKM), which merged with Jacobs in 2013, and thus whether that forecasting performance remains relevant. Regardless, we are satisfied that it is reasonable to incorporate Jacobs' labour price growth forecasts in our own forecast since they are not materially different from DAE's forecasts.

#### 6.4.2.2 Forecast output growth

We have included forecast average annual output growth of 0.34 per cent in our alternative opex estimate based on our standard approach. This increased our alternative estimate by \$3.8 million (\$2018–19). Our output growth forecast is an average of the output growth rates forecast using the specification and weights from the four models presented in our 2017 *Annual Benchmarking Report*. These models are:<sup>62</sup>

- opex multilateral partial factor productivity (MPFP)

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<sup>57</sup> These drivers include CPI, WPI, AWOTE, Labour Productivity Index (LPI) and Producer Price Index (PPI). For more details, see: *Jacobs, Labour costs escalation report*, 25 October 2017, p. 11.

<sup>58</sup> Consumer Challenge Panel subpanel 13, *Issues Paper – TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, p. 63; *Jacobs, Labour Cost Escalation Report 2019–2024*, 25 October 2017, p. 12.

<sup>59</sup> Consumer Challenge Panel subpanel 13, *Issues Paper – TasNetworks electricity network revenue proposal 2019–24*, 16 May 2018, p. 63.

<sup>60</sup> AER, *Powerlink transmission determination 2017–18 to 2021–22*, Draft decision, Attachment 7, September 2016, p. 17.

<sup>61</sup> AER, *CitiPower distribution determination 2016 to 2020*, Final decision, Attachment 7, May 2016, pp. 54–80.

<sup>62</sup> Economic Insights, *Economic benchmarking results for the Australian Energy Regulator's 2017 DNSP benchmarking report*, 31 October 2017, pp. 15–20.

- Cobb Douglas stochastic frontier analysis (SFACD)
- Cobb Douglas least squares estimation (LSECD)
- Translog least squares estimation (LSETLG).

Table 6.4 shows the output specification and weights from each model as reflected in the 2017 *Annual Benchmarking Report*. We have forecast our year on year output growth by:

- Calculating four model specific output growth rates, each as a weighted average growth in specified outputs. For example, the output growth rate based on the MPFP model is a weighted average of growth in customer numbers, circuit length, ratcheted maximum demand and energy throughput; and that based on SFACD model is a weighted average of growth in customer numbers, circuit length and ratcheted maximum demand. We have used TasNetworks' forecasts of customer numbers.<sup>63</sup> However, we updated its forecasts of circuit length to reflect the reset RIN,<sup>64</sup> and ratcheted maximum demand to reflect peak actual raw demand.<sup>65</sup>
- Calculating the average of four model specific output growth rates.

**Table 6.4 Outputs specification and weights derived from economic benchmarking models, per cent**

Output	MPFP	SFACD	LSECD	LSETLG
Customer numbers	45.8	77.1	69.7	59.8
Circuit length	23.8	9.7	11.2	11.2
Ratcheted maximum demand	17.6	13.1	19.1	28.9
Energy throughput	12.8	–	–	–

Source: AER analysis; Economic Insights, *Economic benchmarking results for the Australian Energy Regulator's 2017 DNSP Benchmarking Report*

This is a refinement of our previous approach, which only used the output weights from a single econometric model (the SFACD model). TasNetworks adopted our previous approach.<sup>66</sup>

CCP 10 recently raised concerns about the weight applied to customer numbers under our previous approach. In its submission on Evoenergy's proposal, CCP 10 stated that trend customer growth accounts for a significant part of Evoenergy's output growth. It

<sup>63</sup> TasNetworks, *Distribution Operating Expenditure Model*, 31 January 2018.

<sup>64</sup> TasNetworks, *Transmission and distribution regulatory proposal - TN - Reset RIN Final Template 1 - Regulatory Determination Distribution*, 31 January 2018.

<sup>65</sup> This resulted in zero growth in ratcheted maximum demand, consistent with TasNetworks' proposal. Peak raw demand occurred in 2008.

<sup>66</sup> TasNetworks, *Distribution Operating Expenditure Model*, 31 January 2018.

noted that this outcome flows from our underlying econometric model. CCP 10 encouraged us to test whether our output growth rates are reasonable, and whether too much weight has been allocated to customer numbers when we forecast output growth.<sup>67</sup>

We have reviewed the output weights derived from the four model presented in our annual benchmarking reports over the period 2014–17. Our review shows that the weight of customer numbers derived from SFACD model is relatively high and it has increased over time. The customer numbers weight does not increase as much in the other econometric models (LSECD and LSETLG).<sup>68</sup>

Our refined approach, which uses an average of the output weights from the four models, helps to address concerns raised by the Australian Competition Tribunal (the Tribunal) in its merits review of our 2015 decision for NSW electricity determinations. The Tribunal raised concerns about our reliance on a single model and in remitting the NSW decisions directed us to use a broader range of modelling and benchmarking.<sup>69</sup>

We are currently updating our economic benchmarking analysis to incorporate data for 2016–17. We will publish this analysis in our 2018 *Annual Benchmarking Report* in late November 2018. In our final decision, we will update our forecast output growth to reflect the 2018 economic benchmarking results.

Full details of our refined approach to forecast output growth are set out in our opex model, which is available on our website.

#### 6.4.2.3 Forecast productivity growth

For this draft decision, we have not included any forecast productivity growth. This is consistent with TasNetworks' proposal and our standard approach to forecasting productivity, which results in a zero productivity growth forecast.<sup>70</sup>

In response to TasNetworks' proposal, CCP 13 recommended we reconsider our zero productivity growth forecast.<sup>71</sup>

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<sup>67</sup> Consumer challenge Panel (subpanel 10), *Response to Evoenergy regulatory proposal 2019–24 and AER issues paper*, 16 May 2018, p. 10.

<sup>68</sup> We note that the weights from the MPFP model have remained constant over time. The MPFP model is a functional output index number model. It is the standard practice with such models to estimate the output cost shares initially (using cost functions based on the data available) and to then leave these shares constant for an extended period. This allows changes in the MPFP scores to reflect changes in performance (and possibly exogenous factors) only. Our 2018 *Annual benchmarking report* will update outputs weights for the MPFP model.

<sup>69</sup> Applications by Public Interest Advocacy Centre Ltd and Essential Energy [2016] ACompT 3, direction 1(a). The Tribunal's decision was upheld by the Full Federal Court. For more details, see: Australian Energy Regulator v Australian Competition Tribunal (No 2) [2017] FCAFC 79, [285].

<sup>70</sup> TasNetworks, *Distribution Operating Expenditure Model*, January 2018.

<sup>71</sup> 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. 61.

There will be an opportunity to consider this matter further as a part of industry-wide productivity growth consultation process outlined above.

### 6.4.3 Step changes

In developing our alternative estimate, we typically include step changes for cost drivers such as new regulatory obligations or efficient capex/opex trade-offs. As we explain in the Guideline, we will include a step change if efficient base opex and the rate of change in opex of an efficient service provider do not already include the proposed cost.<sup>72</sup>

TasNetworks proposed four step changes totalling \$13.0 million (\$ 2018–19) or 3.2 per cent of its proposed total opex forecast.<sup>73</sup> These are shown in table 6.5 below.

**Table 6.5: Proposed step changes**

Step change	Proposed amount (total over 5 years (\$million, 2018–19)	Percentage of all proposed step changes	Percentage of proposed total opex
Damage to assets	0.9	7	0.2
Ring fencing costs	6.1	47	1.5
Compliance voltage issues	5.0	38	1.2
Capex/opex trade-off (DMIS)	1.0	8	0.2

Source: TasNetworks, *Distribution Operating Expenditure Model*, 31 January 2018; AER analysis.

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

We have not included any of the step changes TasNetworks proposed in our alternative estimate. TasNetworks' proposed total opex is lower than our alternative estimate of total opex even when we do not include these step changes in our alternative estimate. Consequently we have not formed, and did not need to form, a view on whether these step changes are required since it would not affect our decision to accept TasNetworks' total opex forecast. Accordingly, we did not seek further information and evidence from TasNetworks to further substantiate the qualitative and quantitative elements of its proposed step changes.

### 6.4.4 Category specific forecasts

We have included four expenditure items in developing our alternative estimate of forecast total opex which are not forecast using the base-step-trend approach. These are debt raising costs, GSL payments, an electrical safety inspection (ESI) levy and a NEM levy.

<sup>72</sup> AER, *Expenditure forecast assessment guideline for electricity distribution*, November 2013, p. 24.

<sup>73</sup> TasNetworks, *Transmission and distribution regulatory proposal*, January 2018, pp. 152–153.

#### 6.4.4.1 Debt raising costs

We have included debt raising cost of \$4.4 million (\$2018–19) in our alternative opex forecast.

Debt raising costs are transaction costs incurred each time a business raises or refinances debt. Our preferred approach is to forecast debt raising costs using a benchmarking approach rather than a service provider's actual costs in a single year. This provides for consistency with the forecast of the cost of debt in the rate of return building block. We discuss this in attachment 3 of this determination.

#### 6.4.4.2 GSL payments

Following past practice, for our alternative estimate we have forecast GSL payments as the average of GSL payments made by TasNetworks over the most recent five years for which we have data.<sup>74</sup> This is consistent with the approach adopted by TasNetworks in its proposal. We note the GSL revenue and incentives provided under this approach is almost identical to adopting a single year revealed cost approach and applying the EBSS. We have adopted the historical averaging approach to maintain consistency with how GSL payments have been forecast for previous regulatory control periods.

#### 6.4.4.3 ESI and NEM levy

TasNetworks pays an ESI levy and a NEM levy to the Tasmanian government. Following past practice, for our alternative estimate we have estimated these based on actual payments of these levies that in the base year. This is consistent with the approach adopted by TasNetworks in its proposal.

During the regulatory control period, both payments are subject to an annual true up as part of our revenue control mechanism.<sup>75</sup> We calculate the true up as the difference between the forecast allowance and the actual costs TasNetworks incurs. Where the amount TasNetworks incurs is lower than the allowance, we make a negative revenue adjustment.

Table 6.6 sets out our allowance for the levies for our alternative estimate of opex.

**Table 6.6: Electrical safety levy and NEM levy (\$million, 2018–19)**

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Electrical safety levy	4.00	4.00	4.00	4.00	4.00	20.0
NEM levy	0.62	0.62	0.62	0.62	0.62	3.1

Source: AER analysis

<sup>74</sup> The five years are 2012–13 to 2016–17. We will update this in the final decision.

<sup>75</sup> This is described further in attachment 13 of this determination.



## 6.4.5 Assessment of opex factors under NER

In deciding whether or not we are satisfied the service provider's forecast reasonably reflects the 'opex criteria' under the NER, we have regard to the 'opex factors'.<sup>76</sup>

We attach different weight to different factors when making our decision to best achieve the NEO. This approach has been summarised by the AEMC as follows:<sup>77</sup>

As mandatory considerations, the AER has an obligation to take the capex and opex factors into account, but this does not mean that every factor will be relevant to every aspect of every regulatory determination the AER makes. The AER may decide that certain factors are not relevant in certain cases once it has considered them.

Table 6.7 summarises how we have taken the opex factors into account in making our draft decision.

**Table 6.7: Our consideration of the opex factors**

Opex factor	Consideration
The most recent annual benchmarking report that has been published under rule 6.27 and the benchmark opex that would be incurred by an efficient distribution network service provider over the relevant regulatory control period.	<p>There are two elements to this factor. First, we must have regard to our most recent annual benchmarking report. Second, we must have regard to the benchmark opex that would be incurred by an efficient service provider over the period. The annual benchmarking report is intended to provide an annual snapshot of the relative efficiency of each service provider.</p> <p>The second element, that is, the benchmark opex that would be incurred by an efficient provider during the forecast period, necessarily provides a different focus. This is because this second element requires us to construct the benchmark opex that would be incurred by a hypothetically efficient provider for that particular network over the relevant period.</p> <p>We have estimated an alternative opex estimate and have compared it with TasNetworks' proposal over the relevant regulatory control period. In doing this we relied on the information set out in our most recent benchmarking report.</p>
The actual and expected opex of the Distribution Network Service Provider during any proceeding regulatory control periods.	To assess TasNetworks' opex forecast and develop our alternative estimate, we have used TasNetworks' estimated actual opex in 2017–18 as the starting point. We have examined TasNetworks' historical actual opex and compared it with that of other distribution network services providers.
The extent to which the opex forecast includes expenditure to address the concerns of electricity consumers as identified by the Distribution	We understand the intention of this particular factor is to require us to have regard to the extent to which service providers have engaged with consumers in preparing their proposals, such that they factor in the

<sup>76</sup> NER, cl. 6.5.6(e).

<sup>77</sup> AEMC, *National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012*, Final Rule Determination, 29 November 2012, p. 115.

Network Service Provider in the course of its engagement with electricity consumers.

needs of consumers.

Based on the information provided by TasNetworks in its proposal and CCP 13's advice, we consider TasNetworks consulted extensively in developing its proposal commencing in May 2016. This consultation included the publication of a *Directions and priorities paper* which set out its preliminary proposal.<sup>78</sup>

The relative prices of capital and operating inputs

We adopted price growth forecasts that account for the relative prices of opex and capex inputs. We generally consider capex/opex trade-offs in considering proposed step changes. One reason we will include a step change in our alternative opex forecast is if the service provider proposes a capex/opex trade-off. We consider the relative expense of capex and opex solutions in considering such a trade-off. While TasNetworks proposed one step change as capex/opex trade-offs<sup>79</sup> we have not directly assessed this as TasNetworks proposed total opex is lower than our alternative estimate of total opex even when we do not include these step changes in our alternative estimate.

The substitution possibilities between operating and capital expenditure.

Some of our assessment techniques examine opex in isolation—either at the total level or by category. Other techniques consider service providers' overall efficiency, including their capital efficiency. We have relied on several metrics when assessing efficiency to ensure we appropriately capture capex and opex substitutability.

In developing our benchmarking models we have had regard to the relationship between capital, opex and outputs.

Whether the opex forecast is consistent with any incentive scheme or schemes that apply to the Distribution Network Service Provider under clauses 6.5.8 or 6.6.2 to 6.6.4.

The incentive scheme that applied to TasNetworks' opex in the 2017–19 regulatory control period, the EBSS, was intended to work in conjunction with a revealed cost forecasting approach.

We have applied our approved base opex consistently in implementing the EBSS and forecasting TasNetworks' opex for the 2019–24 regulatory control period.

The extent the opex forecast is referable to arrangements with a person other than the Distribution Network Service Provider that, in the opinion of the AER, do not reflect arm's length terms.

Some of our techniques assess the total expenditure efficiency of service providers and some assess the total opex efficiency. Given this, we are not necessarily concerned whether arrangements do or do not reflect arm's length terms. A service provider which uses related party providers could be efficient or it could be inefficient. Likewise, for a service provider that does not use related party providers. If a service provider is inefficient, we adjust its total forecast opex proposal, regardless of its arrangements with related providers.

Whether the opex forecast includes an amount relating to a project that should more appropriately be included as a contingent project under clause 6.6A.1(b).

This factor is generally only relevant in the context of assessing proposed step changes (which may be explicit projects or programs). TasNetworks did not propose any opex step changes that would be more appropriately included as a contingent project.

The extent the Distribution Network Service Provider has considered, and made provision for, efficient and prudent non-network alternatives.

TasNetworks stated it accepts the AER's framework and approach position to the demand management incentive scheme and demand management innovation allowance.<sup>80</sup>

Any relevant final project assessment report (as defined in clause 5.10.2) published under clause 5.17.4(o), (p) or (s)

In having regard to this factor, we identify any RIT-D project submitted by the business and ensure the conclusions are appropriately addressed in the total forecast opex. TasNetworks did not submit any RIT-D project

<sup>78</sup> TasNetworks, *Direction and Priorities Consultation Paper, Transmission and Distribution Determination 2019–24*, August 2017.

<sup>79</sup> TasNetworks, *Transmission and distribution regulatory proposal*, January 2018, p. 153.

<sup>80</sup> TasNetworks, *Transmission and distribution regulatory proposal*, January 2018, p. 176.

for its distribution network.

Any other factor the AER considers relevant and which the AER has notified the Distribution Network Service Provider in writing, prior to the submission of its revised regulatory proposal under clause 6.10.3, is an operating expenditure factor.

We did not identify and notify TasNetworks of any other opex factor.

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Source: AER analysis.