

## New Reg: Towards Consumer-Centric Energy Network Regulation

### AusNet Trial – AER Staff Guidance Note 4: Opex - 29 August 2018

To facilitate the process of negotiation between AusNet Services (AusNet) and its Customer Forum (Forum), AER staff will prepare guidance notes that set out the boundaries of the National Electricity Rules (NER) and the AER's guidelines for the topics in scope of the negotiation.

AER staffs' view on which topics should be in scope is set out in the second guidance note. This view recognised that the Forum has a limited time to familiarise itself with the issues, direct relevant customer research, and prepare itself for negotiations.

While AER staff will not be preparing guidance notes for those topics that are out of scope, the Forum may still consider and discuss other topics with AusNet's customers. We encourage such discussions and would be interested in customer preferences regarding those topics.

#### Overview

**Operating expenditure** (opex) refers to the operating, maintenance and other non-capital expenses incurred in the provision of network services. How AusNet spends its opex can impact the quality, safety and reliability of AusNet's services and network. For example, opex includes expenditure on maintenance which can affect the reliability of AusNet's network.

#### What is AusNet proposing?

AusNet considers the Forum's role would involve a high level assessment of the whether AusNet's opex forecast is reasonable, taking into account regulatory obligations, as well as a consideration of customer preferences, in addition to the appropriateness of individual inputs to the AER's base, step and trend approach.<sup>1</sup>

In particular, AusNet intends seeking the Forum's view on:

1. the extent to which base year expenditure is appropriately targeted to deliver customers good value across a range of customer experience dimensions (that is, whether AusNet is spending its opex on things that customers want)
2. whether there are other areas AusNet should increase or decrease opex to deliver a different mix of customer outcomes.<sup>2</sup>

#### What are the boundaries of negotiation?

The National Electricity Law (NEL) and the NER set out the regulatory framework for the AER's assessment of a distribution network service provider's (DNSP's) revenue proposal. As the AER cannot accept negotiated outcomes that are inconsistent with the NEL and NER, it is important the Forum is aware of the way the AER assesses opex as required by the NER.

It would also be useful for the Forum to be aware of the standard approaches we take to assessing opex once we have received a DNSP's revenue proposal (again, consistent with the NER). That said, we may have some flexibility under the NER to take a different

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<sup>1</sup> Questions AusNet Services Proposes to Ask the Forum on In-Scope Issues, June 2018, p. 4.

<sup>2</sup> Questions AusNet Services Proposes to Ask the Forum on In-Scope Issues, June 2018, p. 4.

approach, provided the reasons for doing so are persuasive and meet the NER/NEL objectives.

### *National electricity objective*

The NEL requires the AER to perform its economic regulatory functions in a manner that will, or is likely to, contribute to achieving the national electricity objective (NEO).<sup>3</sup> The NEO is:<sup>4</sup>

... 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.

The NEO is fundamentally an efficiency objective, where 'efficiency' is delivering electricity services to the level demanded by consumers in the long run at the lowest cost.<sup>5</sup>

### *NER requirements for opex assessment*

When the AER makes a distribution determination, we must decide whether or not we are satisfied that the total opex proposed by a DNSP reflects the relevant 'expenditure criteria' set out in the NER. These criteria are:<sup>6</sup>

- the efficient costs of achieving the 'expenditure objectives' in the NER<sup>7</sup>
- the cost that a prudent operator would require to achieve the expenditure objectives
- a realistic expectation of the demand forecast and cost inputs required to achieve the expenditure objectives.

We consider that the notion of efficient costs complements the costs that a prudent operator would require to achieve the expenditure objectives. 'Prudent' expenditure is expenditure that reflects the best course of action, considering available alternatives. 'Efficient' expenditure results in the lowest cost to consumers over the long term. So prudent and efficient expenditure reflects the lowest long term cost to consumers for the most appropriate investment or activity required to achieve the expenditure objectives.<sup>8</sup>

When considering whether the DNSP's forecasts reasonably reflect the expenditure criteria, we must have regard to a number of opex factors, including the extent to which the forecasts **include expenditure to address the concerns of electricity consumers**, as identified by the DNSP through its engagement with those consumers.<sup>9</sup>

If we are satisfied the forecasts meet the expenditure criteria, we must accept them. If we are not satisfied, then we must estimate forecasts that we are satisfied reasonably reflect the criteria.<sup>10</sup>

For DNSPs to demonstrate that their expenditure is efficient and prudent, we would generally expect the proposal to demonstrate the overall forecast expenditure, in this case opex, will result in the lowest sustainable cost (in present value terms) to maintain, or meet the legal obligations of the DNSP in respect of, quality, reliability, security and safety.<sup>11</sup>

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<sup>3</sup> NEL, section 16(1)(a).

<sup>4</sup> NEL, section 7.

<sup>5</sup> AER, [Explanatory Statement, Expenditure Forecast Assessment Guideline](#), November 2013, p 17.

<sup>6</sup> NER, clause 6.5.6(c)(1), in respect of opex.

<sup>7</sup> The expenditure objectives in the NER comprise capex and opex objectives. The capex objectives (NER, clause 6.5.6(a)) effectively require a DNSP's revenue proposal to include the total forecast opex for the forthcoming regulatory period that the DNSP considers is required to meet or manage expected demand, or maintain quality, reliability, security, and safety, consistent with any relevant regulatory obligations. The capex objectives (NER, clause 6.5.7(a)) set out equivalent provisions for capex.

<sup>8</sup> AER, [Expenditure Forecast Assessment Guideline for Electricity Distribution](#), November 2013, pp 8-9.

<sup>9</sup> NER, clause 6.5.6(e)(5A), in respect of opex.

<sup>10</sup> NER, clauses 6.5.6(c)-(d) and 6.12.1(4), in respect of opex.

<sup>11</sup> AER, [Expenditure Forecast Assessment Guideline for Electricity Distribution](#), November 2013, p 17.

However, what consumers want and are prepared to pay for, whether in terms of reliability or some other element, may assist in showing proposed expenditure is consistent with the NEO's overall efficiency objective. The Australian Energy Market Commission (AEMC) has observed that the more confident the AER can be that consumer concerns have been taken into account, the more likely the AER can be satisfied that a proposal reflects efficient costs.<sup>12</sup>

If there is robust evidence demonstrating that consumers value a more expensive option for achieving the expenditure objectives, and are prepared to pay for that, it might be that a prudent and efficient operator would choose that option.<sup>13</sup> In determining what weight to give to evidence obtained through a DNSP's consumer engagement, such as a consumer willingness to pay study, the AER would likely consider:

- how that evidence was collected,
- how relevant and up-to-date it is,
- and whether it is likely to reliably reflect the views of the DNSP's customer base over the long term.

If a higher cost option to meet the expenditure objectives is robustly supported by the evidence the Forum has assessed, then the AER would still seek to confirm that the associated forecast expenditure reflects the lowest sustainable cost to consumers for that preferred option.

The AER would also want to confirm that any forecast expenditure in the revenue proposal would not be recovered under the service target performance incentive scheme (STPIS), or offset by future cost savings, because to allow that expenditure would be 'double counting'. STPIS rewards expenditure incurred during the regulatory period that delivers reliability of supply improvements which users value, based on the 'value of consumer reliability' (VCR). However, STPIS only covers a limited set of service quality metrics which predominantly relate to reliability. There could be ways a DNSP could improve the quality of network services that would not be measured and rewarded by the STPIS.

#### *AER's standard approach for assessing opex*

Our expenditure forecast assessment guideline sets out our approach to assessing opex.<sup>14</sup> In assessing a DNSP's opex proposal, we develop an estimate of total opex and compare our forecast to a DNSP's opex proposal. We take into account the reasons for the difference between our alternative estimate and the business's proposal, and the materiality of any difference. If, having considered all the reasons for any difference, we remain satisfied our alternative estimate reflects the opex criteria, we reject the proposed opex and substitute it with our own estimate.

Figure 1 sets out this approach and how we develop our estimate of opex.

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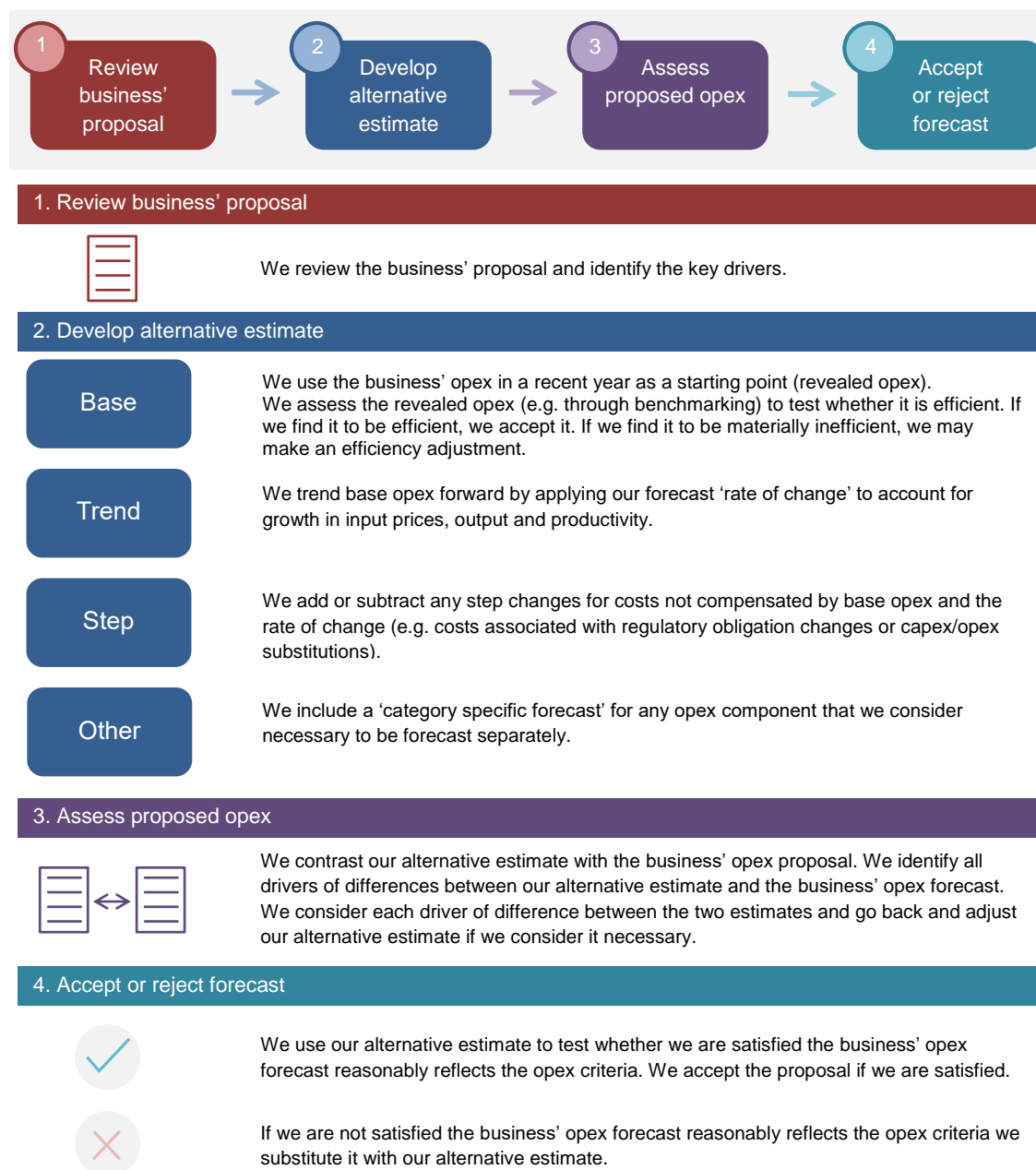
<sup>12</sup> For example: AEMC, [Rule Determination, National Electricity Amendment \(Economic Regulation of Network Service Providers\) Rule 2012](#), 29 November 2012, p 101.

<sup>13</sup> For example: AEMC, [Rule Determination, National Electricity Amendment \(Economic Regulation of Network Service Providers\) Rule 2012](#), 29 November 2012, p 115.

<sup>14</sup> AER, *Expenditure forecast assessment guideline for electricity transmission*, November 2013, pp. 22–24.

We developed this guideline through an extensive consultation process. We have consistently applied the guideline opex forecasting approach in our determinations since the publication of the guideline. AusNet services is also proposing to use the revealed cost base-step-trend opex forecasting approach.

**Figure 1 Opex assessment approach**



AER, *Draft decision - AusNet Services gas access arrangement 2018–22 Attachment 7 – Operating expenditure*, 2017, p. 7-11.

Below is an outline of steps we take to derive our alternative estimate of opex.

**Is the base year materially inefficient?**

If actual expenditure in the base year reasonably reflects efficient and prudent costs, we will set base opex equal to actual expenditure (revealed cost).<sup>15</sup> We use a number of techniques including economic benchmarking and cost category benchmarking to identify whether there is material inefficiency in the chosen base year. If we find there is material inefficiency, we determine and substitute our own estimate of efficient base opex.

We consider the results of our benchmarking in the context of a DNSP's operating environment.

<sup>15</sup> AER, *Expenditure forecast assessment guideline for electricity transmission*, November 2013, p. 22.

### **If not materially inefficient, we use the DNSPs revealed costs to forecast opex**

Our opex forecast is generally based on actual expenditure in a base year. To ensure the NSP retains efficiency gains or losses, as intended under our EBSS we do not adjust the base, other than to:

1. remove any cost categories that will not be forecast using the revealed cost approach (such as Guaranteed Service Levels or debt raising costs); or
2. make an efficiency adjustment to remove materially inefficient opex.

### **Trending forward the base year**

Once the base year level of opex has been determined, we then trend this starting point of opex forward to develop a forecast of future opex costs. To trend the base opex forward we apply a 'rate of change' which accounts for the growth in input prices, outputs and productivity.<sup>16</sup>

- Input prices: We forecast input price growth using a composition of labour and non-labour price changes forecasts. Labour costs represent a significant proportion of a distribution business' costs.<sup>17</sup>
- Outputs: The outputs we have used in our recent determinations align with those in our economic benchmarking models: customer numbers, circuit line length, and maximum demand. We weight the forecast output growth to account for the proportion of opex that is attributable to each of the three measures.<sup>18</sup>
- Productivity: Our forecast of productivity growth represents our best estimate of the shift in the industry 'efficiency frontier'.<sup>19</sup> We forecast our change in productivity measure based on our expectations of the productivity an efficient service provider in the distribution industry can achieve. To reach our best estimate of forecast productivity we consider the historical change in productivity from our economic benchmarking analysis<sup>20</sup> and whether this reflects a reasonable expectation of the benchmark productivity that can be achieved for the forecast period.

### **Step changes**

After this we add or subtract 'step changes' for costs not covered by base opex and the rate of change. The addition of step changes accounts for any other prudent and efficient costs not captured in base opex or the rate of change.

Step changes represent the costs of a change to services. Step changes have previously covered the costs associated with changes in regulatory obligations or capex/opex substitutions.<sup>21</sup>

The AER's expenditure guideline provides guidance on step changes:<sup>22</sup>

- Step changes should not double count the costs of increased volume or scale compensated through the output measure in the rate of change. For example, we

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<sup>16</sup> The EBSS requires an estimate of actual opex for the final year to allow a DNSP to retain incremental efficiency gains made after the base year through the EBSS carryover. Further detail is provided on pp. 22–23 of our Expenditure Forecast Assessment Guideline, available [here](#).

<sup>17</sup> AER, *Expenditure forecast assessment guideline, Explanatory statement*, November 2013, p. 49.

<sup>18</sup> The weightings we applied to each measure of network output are the same as those we used in our benchmarking analysis. Economic Insights discussed the process for selecting the output specification in its economic benchmarking assessment of opex for the NSW and ACT electricity distributors; Economic Insights, *Economic Benchmarking Assessment of Operating Expenditure for NSW and ACT Electricity DNSPs*, 17 November 2014, pp. 9–10.

<sup>19</sup> AER, *Expenditure forecast assessment guideline for electricity transmission*, November 2013, p. 24.

<sup>20</sup> Economic Insights, *Economic benchmarking assessment of operating expenditure for NSW and ACT electricity DNSPs*, 20 October 2014, p. 38.

<sup>21</sup> AER, *Expenditure forecast assessment guideline for electricity transmission*, November 2013, pp. 10–11.

<sup>22</sup> AER, *Expenditure forecast assessment guideline for electricity transmission*, November 2013, p. 24.

would not accept a step change for the additional opex costs associated with new assets required to serve forecast demand growth because energy demand is included in our output growth measure.

- Step changes should not double count the costs of discretionary changes in inputs. Efficient discretionary changes in inputs (not required to increase output) should normally have a net negative impact on expenditure.<sup>23</sup> For example, we would not accept a step change in vegetation management to cut trees further back in order to move from a two year to a three year vegetation clearance cycle.
- If it is efficient to substitute capex with opex, a step change may be included for these costs (capex/opex trade-offs).

### **Category specific forecasts**

Finally, we include category specific forecasts for any opex components that we did not forecast using the revealed cost approach. Category specific forecasts include GSL payments and debt raising costs.

### **What other factors might be useful for the Forum to consider?**

The AER will be releasing draft decisions on the opex for the DNSPs in Tasmania and the Northern Territory in September. The AER also expects to publish draft decisions on the NSW and ACT DNSPs in October. The AER will publish these decisions on its website, [here](#).

The AER's approach to developing its alternative estimate of opex can change over time as it refines and improves this approach. AusNet and the Forum should review the AER's most recent decisions to see if any changes to the AER's approach has recently changed.

### **What might the Forum potentially focus on?**

While the Forum may have views on the composition of opex, it is important to note that AusNet is largely free to spend their allowance how they choose. The Forum may wish to consider how AusNet could commit to implementing its views.

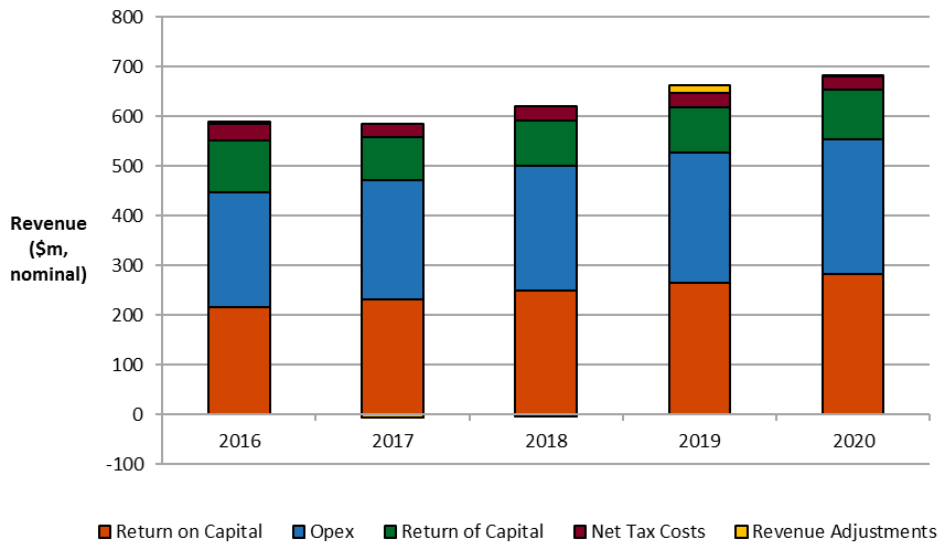
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<sup>23</sup> AER, *Expenditure forecast assessment guideline for electricity transmission*, November 2013, p. 24.

## Appendix A: Background on AusNet's operating expenditure

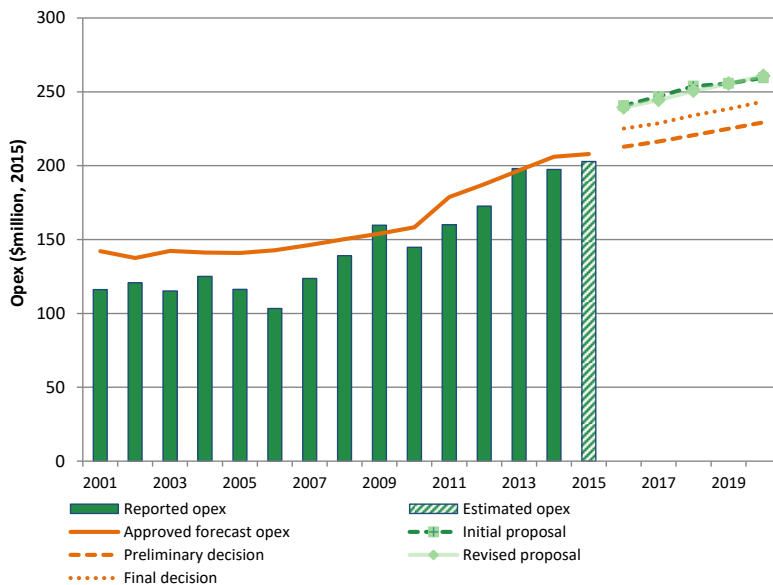
Opex was the largest of the building blocks that we used to determine AusNet's current maximum revenues and prices.<sup>24</sup> In our last determination, opex accounted for 40 per cent of AusNet's total standard control services revenue allowance.<sup>25</sup> Figure 2 shows the different building block components of the AER's final decision on AusNet's total standard control services revenues. Figure 3 shows the AER's decision on opex relative to AusNet's previous and forecast opex.

**Figure 2 AER's final decision on building blocks of total revenue (\$ million, nominal)**



Ref: AER, Final decision AusNet Services, Post tax revenue model, May 2016.

**Figure 3 AER decision compared to AusNet Services' past and proposed opex (\$ million, 2015)**



Ref: AER, Final decision, AusNet Services distribution determination 2016 to 2020, Overview, May 2016, p.11.

<sup>24</sup> Ref: AER, Final decision, AusNet Services distribution determination 2016 to 2020, Overview, May 2016, p. 16.

<sup>25</sup> Ref: AER, Final decision, AusNet Services distribution determination 2016 to 2020, Overview, May 2016, p. 16.