New Reg: Towards Consumer-Centric Energy Network Regulation

AusNet Trial – AER Staff Guidance Note 6: Revenue Path Profile 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.

Once the AER decides on the level of allowed revenues that is appropriate to cover AusNet's efficient costs for each year of the five year regulatory period, there is some flexibility over the profile with which that revenue is recovered (**the revenue path profile**).[1] A different profile of annual revenues during the regulatory period will be one of a number of factors affecting the annual price changes that AusNet's customers will face.[2]

Because revenue paths are reset every five years, there are potentially greater step changes in revenue, up or down, at the beginning and end of each regulatory period. This means that greater step changes in revenues (and network prices, if there is no offsetting increase in demand) are also more likely at those times, although the extent of the changes can differ for different customer groups (e.g. residential, commercial and industrial). Also, different customer groups might prefer different pricing profiles. For example, it may be that certain customers might prefer lower charges at the beginning of a regulatory period, followed by progressive increases in subsequent years. Other customers might prefer a flatter or smoother profile.

What is AusNet proposing for the revenue path profile?

AusNet would not generally be expected to have strong preferences about the revenue path profile, because the revenue path is set to recover AusNet's efficient costs over the regulatory period (in present value terms), regardless of that profile.[3] Therefore, AusNet is open to the Forum exploring whether the revenue profile is an issue that matters to all or some customers, and if so, what form of price path - a flatter price path, or lower prices up front - is valued more. The Forum and AusNet can negotiate and agree on the revenue profile to be included in AusNet's revenue proposal submitted to the AER.[4]

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1 'Efficient costs' include a provision for AusNet to recover its return on capital, depreciation, operating expenditure, and tax costs.

2 Changes in demand, volumes, customer numbers, and the allocation of revenue across different customer classes also significantly impact the prices specific customers face.

3 An exception might occur if the profile involved such significant one-off reductions in revenue that AusNet's cash flows were detrimentally impacted.

4 The revenue profile forms part of the revenue proposal (NER, clause S6.1.3(6)(i)).

What are the boundaries of negotiation for the revenue path profile?

AER's standard approach to revenue path 'smoothing' under the NER

The National Electricity Law (NEL) and the National Electricity Rules (NER) govern the regulatory framework for the AER's assessment of a distribution network business's revenue proposal. In negotiating the revenue path profile, it is useful for the Forum to be aware of the limited flexibility the AER has in setting the revenue path profile in accordance with the NER.

Under the NER, the AER may set a different revenue profile over the regulatory period from the profile arising from the 'annual revenue requirements' determined by the AER for each year of the period. The annual revenue requirement is the 'unsmoothed' amount of revenue the AER determines is appropriate to cover a distribution network service provider's (DNSP's) annual efficient costs.[5] The primary intention of smoothing is to 'iron out' to some degree the fluctuations in the underlying unsmoothed costs, not to achieve a particular revenue profile. That is, the underlying unsmoothed costs largely determine what general revenue profile emerges even after smoothing is applied.

The NER requires that the 'smoothed' profile of the revenue path over the regulatory period—i.e., the change in revenue from one year to the next—must be set to minimise, as far as reasonably possible, the difference between the expected revenue for the final year of the regulatory period, and the annual revenue requirement for that final year.[6] The change in revenue from one year to the next does not need to be the same.[7]

The reason for this rule is to try to mitigate the risk of a significant step change in revenues (and prices) from one regulatory period to the next. A step change at that time will be more likely if the revenue in the final year differs significantly from the efficient costs in that year.

In practice, the AER has generally implemented this rule by ensuring that the difference between the expected revenue and the annual revenue requirement in the final year is no greater than +/- 3%.[8]

Practical limits to smoothing the revenue path

It is useful for the Forum to be aware that relaxing or tightening this final year constraint has implications on the profile across all years. It is not the case, for example, that increasing revenues by 1% more in the final year (for example, by allowing the constraint to increase to +4%) could be used to achieve a 1% reduction in revenues in year one. The change in year one is likely to be significantly less.[9]

This end of period constraint, in combination with the underlying profile of unsmoothed revenues and net present value (NPV) neutrality requirements, limits the degree to which changes in revenue profile can be made through smoothing. For example, if costs show a strong upward trend, it would be virtually impossible to change the profile to be downward sloping, as the costs at the end of the period would be significantly greater than current revenues.[10] The best that may be achieved is some flattening of the upward slope, although that is still likely to require a significant increase in prices (step change) in the first year.[11] This is shown in Figure 1 below.

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5 The total revenue to be earned by the distributor under the 'smoothed' revenue profile must equal the total revenue to be earned from the annual revenue requirements, in net present value terms (NER, clause 6.5.9(b)(3)).

6 NER, clause 6.5.9(b)(2).

7 NER, clause 6.5.9(c)(1).

8 For example: AER, *Final decision, AusNet Services transmission determination 2017-2022, Attachment 1 – maximum allowed revenue*, April 2017, footnote 5.

9 This outcome is reinforced in this example by the time value of money.

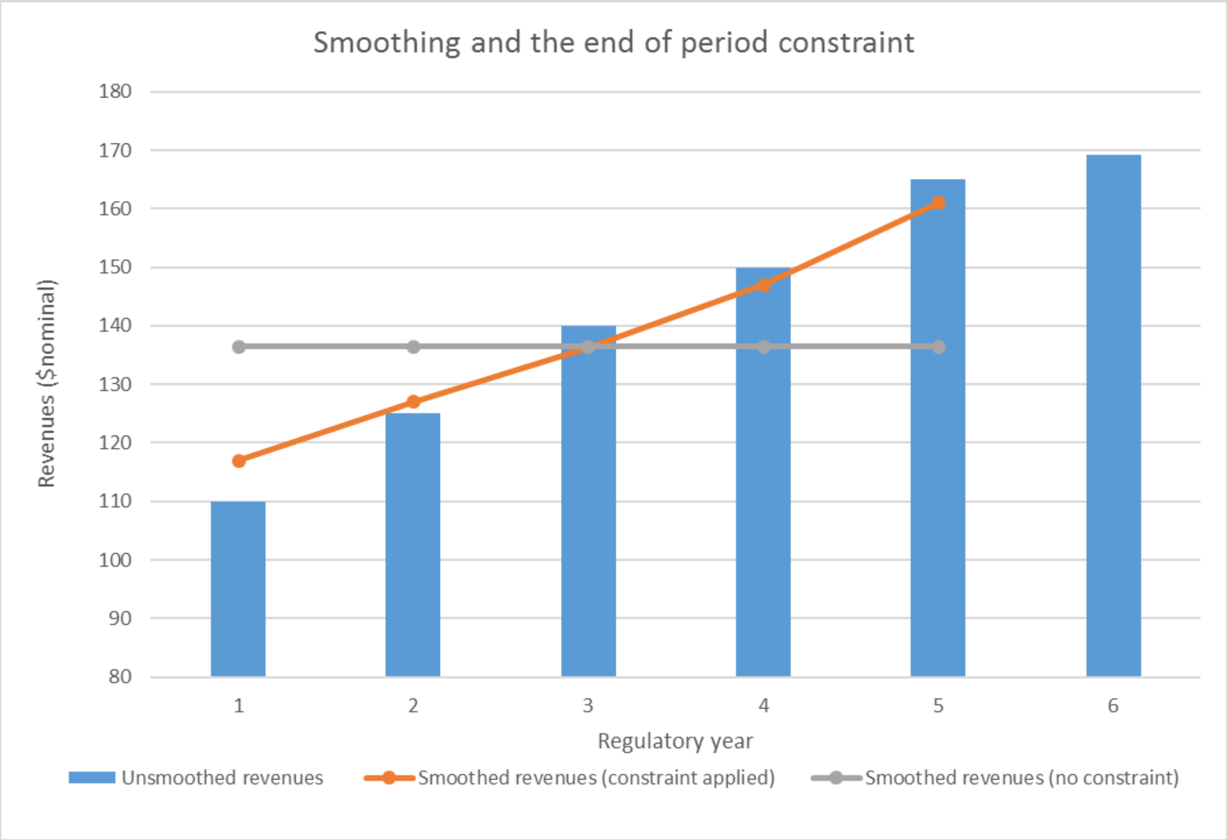
10 A downward slope could be achieved in this case by accepting a very large increase in revenues in year one that covers a significant proportion of the future cost increases in that first year and the early part of the regulatory period. The end of period constraint would also have to be relaxed, or smoothing would not be NPV neutral.

11 Without the step change in year one, prices need to follow the profile of the underlying costs upward (in the example in Figure 1) to maintain NPV neutrality over the entire regulatory control period.

The figure below presents an illustrative example of revenue path profile smoothing, both with and without the end of period constraint applied. Both profiles of smoothed revenues are equivalent in NPV terms to the unsmoothed revenues. The example shows that, without a constraint, a perfectly flat revenue path profile can be obtained. However, this would mean revenues are 24.0% higher than unsmoothed revenues in year 1 and 17.3% lower than unsmoothed revenues in year 5. In this case, it is likely customers will experience a significant price step in year 1, followed by flat prices in years 2-5. They are then likely to experience another significant step change (19.8%)[12] at the start of the following period (in year 6).

Smoothing with the end of period constraint applied would avoid such a large step change at the start of the following period. It means revenues are 5.2% higher than unsmoothed revenues in year 1, but then rise marginally slower compared to the unsmoothed revenues. In year 5 there is minimal difference (2.5%) between the smoothed and unsmoothed revenues because of the constraint being applied. The increase in revenues would only be 5.0% in year 6 under this approach.

Figure 1: Revenue path smoothing with and without the end of period constraint



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

AusNet is proposing that the Forum explore customer preferences concerning the profile of price changes over the regulatory period, and for those preferences to help the Forum form a view on an appropriate revenue profile. However, because the revenue profile is set at an aggregate level, it will be unlikely to reflect the preferences of *all* customers.

In addition to submitting a revenue proposal to the AER before the beginning of each regulatory period, DNSPs (including AusNet) must submit annual pricing proposals to the

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12 The example assumes year 6 unsmoothed revenues are 2.5% higher than year 5 unsmoothed revenues in nominal dollar terms.

AER. Pricing proposals set out a DNSP's proposed charges for each 'tariff class', which comprises a particular group of consumers, typically with similar electricity consumption characteristics. The NER sets 'side constraints' on the annual price changes for each tariff class. Those constraints require that annual prices within the regulatory period may not change by more than the greater of 2% above the change in revenues permitted by the aggregate 'smoothed' revenue path profile or CPI plus 2%.[13]

The Forum will be negotiating and agreeing the aggregate revenue path profile for AusNet to include in its revenue proposal, and not the annual pricing proposals. However, the information the Forum obtains about the preferences of different groups of customers is likely to be relevant to AusNet's annual pricing proposals as well.

What might the Forum potentially focus on?

Customer research undertaken by AusNet, and influenced by the Forum, should provide some insights into the preferences different customers or groups of customers have for different pricing profiles. That research can be used by the Forum to form a view on what revenue path profile is most likely to reflect those preferences at an aggregate level.

[13] NER, clause 6.18.6.