Attachment 12: Annual revenue requirement

Regulatory proposal for the ACT electricity distribution network 2019–24
January 2018

evoenergy

Table of contents

List of tables

List of figures

Key points

Evoenergy's proposed annual revenue requirement is comprised of each of the building blocks specified in the National Electricity Rules (Rules) and is calculated using the Australian Energy Regulator's (AER's) post-tax revenue model. The proposed total revenue requirement for the 2019–24 regulatory period is 12 per cent higher than the total allowed revenue requirement in the AER's decision for the 2014–19 regulatory period. The key drivers of this difference are higher operating expenses as a result of new vegetation management obligations and forecast output and real price growth over the 2019–24 regulatory period and higher depreciation expenses as a result of higher capital expenditure (capex) on short-lived assets.

Evoenergy has smoothed the annual revenue requirements for each year of the regulatory control period to minimise the variation between the smoothed and unsmoothed revenue in the last year of the regulatory control period and to minimise year-on-year variations in smoothed revenues. The X-factors and smoothed revenue requirement are presented in the table below for distribution and transmission.

Smoothed revenue and X-factors

$ million nominal	2019/20	2020/21	2021/22	2022/23	2023/24
Smoothed revenue: distribution	143.78	151.92	160.52	169.61	179.21
X-factors: distribution	-3.08%	-3.08%	-3.08%	-3.08%	-3.08%
Smoothed revenue: transmission	26.30	27.75	29.27	30.88	32.57
X-factors: transmission	-2.92%	-2.92%	-2.92%	-2.92%	-2.92%

The indicative bill impact of the proposed smoothed revenue and X-factors is minimal, increasing the estimated retail bill of an average customer in the ACT by less than one per cent annually in real terms.

12.1. Introduction

This attachment sets out Evoenergy's proposed annual revenue requirement for each year of the regulatory control period for distribution and transmission. Evoenergy has smoothed the annual revenue requirements for each year of the regulatory control period to minimise the variation between smoothed and unsmoothed revenue in the last regulatory year of the regulatory control period, as required under the National Electricity Rules (Rules). In addition, to assist in reducing price volatility for consumers, Evoenergy has sought to minimise year-on-year variations in smoothed revenues.

This attachment first discusses the requirements of the Rules in determining the annual revenue requirement before discussing each of the building blocks that make up the

revenue requirement and the proposed approach to smoothing and resultant X-factors. The indicative bill impacts on ACT customers are also presented.

12.2. National Electricity Rules

Clause 6.4.3(a) of the Rules requires that the annual revenue requirement for a distribution network service provider for each regulatory year of a regulatory control period must be determined using a building block approach, under which the building blocks are:

- indexation of the regulatory asset base;
- a return on capital for that year;
- the depreciation for that year;
- the estimated cost of corporate income tax of the distribution network service provider for that year;
- the revenue increments or decrements (if any) for that year arising from the application of any incentive schemes;
- the other revenue increments or decrements (if any) for that year arising from the application of a control mechanism in the previous regulatory control period;
- the revenue decrements (if any) for that year arising from the use of assets that provide Standard Control Services to provide certain other services; and
- the forecast operating expenditure (opex) for that year.

Details of how each of the building blocks are to be calculated are set out in clause 6.4.3(b) and Evoenergy has determined the value of each of the building blocks in accordance with these rules.

12.3. Annual revenue requirement

The approach to calculating each of the building blocks that comprise Evoenergy's annual revenue requirement is set out in the following attachments.

- Indexation of the regulatory asset base: Attachment 7.
- Return on capital: Attachment 5, Attachment 7 and Attachment 8.
- Depreciation: Attachment 7.
- Corporate income tax: Attachment 9.
- Revenue increments or decrements arising from incentive schemes: Attachment 10.
- Revenue increments or decrements arising from the application of a control mechanism in the previous regulatory control period: given the AER has not yet remade its 2015 determination for Evoenergy, there are no revenue increments or decrements to carry forward to the 2019–24 regulatory control period in relation to clause 6.4.3(a)(6).

- Revenue decrements arising from the use of assets that provide Standard Control Services: given that Evoenergy's shared revenue does not exceed the materiality threshold set out in the AER's shared asset guidelines[1] there are no revenue decrements in relation to clause 6.4.2(a)(6)(A).
- Opex: Attachment 6.

Within the post-tax revenue model (PTRM), the AER combines the indexation of the regulatory asset base (RAB) and depreciation into a single category referred to as 'regulatory depreciation'. The negative indexation adjustment is made to avoid double-counting inflation due to the application of a nominal rate of return to an indexed RAB. The AER deducts the indexation amount from depreciation to arrive at a value for regulatory depreciation. In addition, the PTRM aggregates all revenue increments or decrements into a single category referred to as 'revenue adjustments'.

The values for each of the building blocks is presented in Table 12.1 for distribution and Table 12.2 for transmission.

Table 12.1 Distribution building blocks

$ million nominal	2019/20	2020/21	2021/22	2022/23	2023/24
Return on capital	50.80	52.34	54.14	55.86	57.29
Return of capital (regulatory depreciation)	35.06	38.06	41.25	45.43	48.86
Operating expenditure	52.89	55.30	57.92	60.57	63.20
Revenue adjustments	0.66	0.32	0.33	0.34	0.35
Net tax allowance	5.97	6.33	6.66	7.18	7.42
Annual revenue requirement (unsmoothed)	145.38	152.36	160.30	169.38	177.12

Table 12.2 Transmission building blocks

$ million nominal	2019/20	2020/21	2021/22	2022/23	2023/24
Return on capital	11.19	11.18	10.97	11.45	11.29
Return of capital (regulatory depreciation)	6.40	7.05	7.75	8.62	9.39
Operating expenditure	8.37	8.76	9.18	9.62	10.05
Revenue adjustments	0.07	0.00	0.00	0.00	0.00
Net tax allowance	0.92	0.97	1.03	1.13	1.19
Annual revenue requirement (unsmoothed)	26.95	27.97	28.93	30.83	31.91

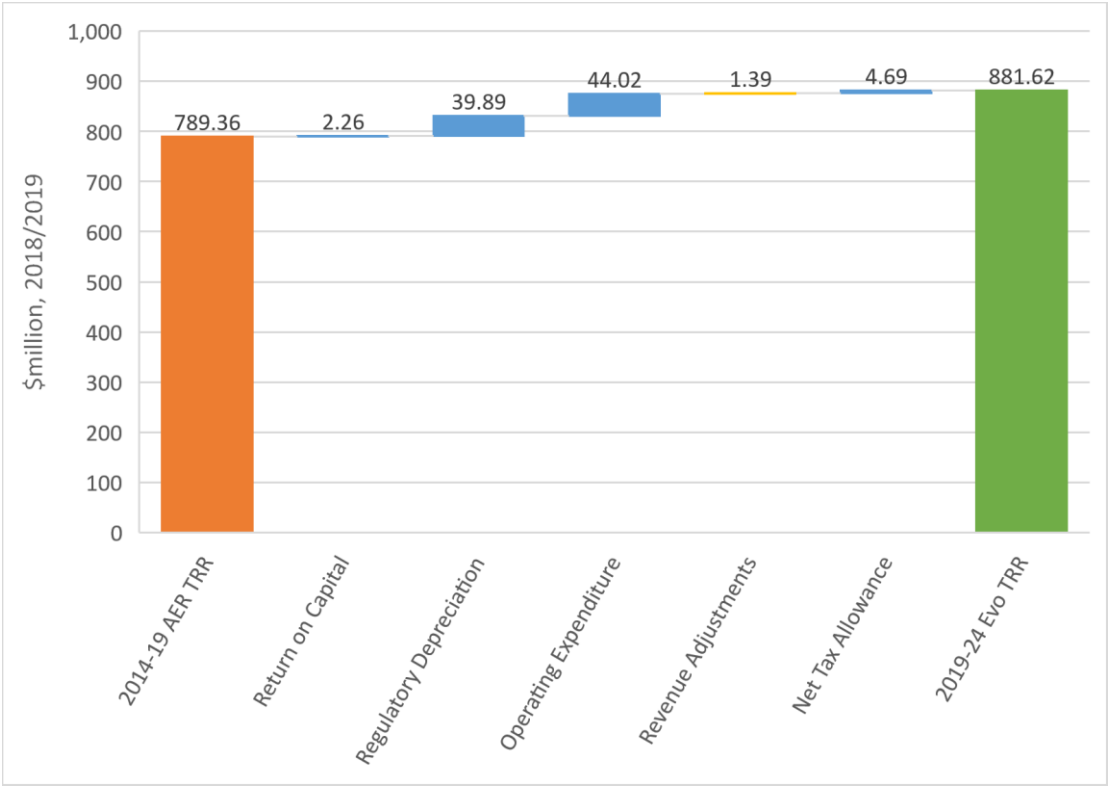
[1] AER 2013: 12.

The proposed total revenue requirement (distribution and transmission) for the 2019–24 regulatory period is 12 per cent higher than the allowed total revenue requirement in the AER's 2015 Final Decision ($2018/19), although it is important to note that the AER is yet to remake this decision in accordance with the Federal Court orders. The key factors driving the increase in the total revenue requirement are:

- the increase in operating expenditure driven largely by the costs associated with meeting the increased vegetation management obligations and growth in output and real prices over the 2019–24 regulatory period (see Attachment 6);
- the increase in depreciation expenses as a result of higher capex on short-lived assets (see Attachment 5); and
- to a lesser extent, an increase in the net tax allowance and rate of return (see Attachment 8).

The contribution of each of these factors to the change in the total revenue requirement between the AER's final decision for the 2014–19 regulatory period and the proposed revenue requirement for the 2019–24 regulatory period is shown in Figure 12.1.

Figure 12.1 Comparison of total revenue requirement 2014–19 to 2019–24



12.4. Smoothed annual revenue requirement

The annual revenue requirements are smoothed over the 2019–24 regulatory period using the X-factors. The Rules state that a building block determination is to include the

X-factor for each control mechanism for each regulatory year of the regulatory control period (clause 6.5.9(a)). The X-factor:

- must be set by the AER with regard to the Distribution Network Service Provider's (DNSPs) total revenue requirement for the regulatory control period; and
- must be such as to minimise, as far as reasonably possible, variance between expected revenue for the last regulatory year of the regulatory control period and the annual revenue requirement for that last regulatory year; and
- must conform with whichever of the following requirements is applicable:
  - if the control mechanism relates generally to Standard Control Services – the X-factor must be designed to equalise (in terms of net present value) the revenue to be earned by the DNSP from the provision of Standard Control Services over the regulatory control period with the provider's total revenue requirement for the regulatory control period;
  - if there are separate control mechanisms for different Standard Control Services – the X-factor for each control mechanism must be designed to equalise (in terms of net present value) the revenue to be earned by the DNSP from the provision of Standard Control Services to which the control mechanism relates over the regulatory control period with the portion of the provider's total revenue requirement for the regulatory control period attributable to those services.[2]

The Rules (clause 6.5.9(c)) also state there may be different X-factors:

- for different regulatory years of the regulatory control period; and
- if there are two or more control mechanisms, for each control mechanism.

In considering the requirement of the Rules (clause 6.5.9(b)(2)) to minimise variation between the expected revenue and the annual revenue requirement for the last year of the regulatory control period, the AER considers a divergence of up to three per cent to be reasonable if this can promote smoother price changes over the regulatory period.[3]

Evoenergy has set the X-factors to be equal in each year. This approach is consistent with limiting the difference between smoothed and unsmoothed revenue in the last year to no more than three per cent while also minimising the year-on-year variability across the other years of the regulatory control period. This profile of smoothing results in the smoothed revenues and X-factors presented in Table 12.3.

Table 12.3 Smoothed revenue and X-factors

$million nominal	2019/20	2020/21	2021/22	2022/23	2023/24
Smoothed revenue: distribution	143.78	151.92	160.52	169.61	179.21
X-factors: distribution	-3.08%	-3.08%	-3.08%	-3.08%	-3.08%
Smoothed revenue: transmission	26.30	27.75	29.27	30.88	32.57
X-factors: transmission	-2.92%	-2.92%	-2.92%	-2.92%	-2.92%

[2] NER (clause 6.5.9).

[3] See, for example, AER 2015: 28 (footnote 20) and AER 2016: 1–9.

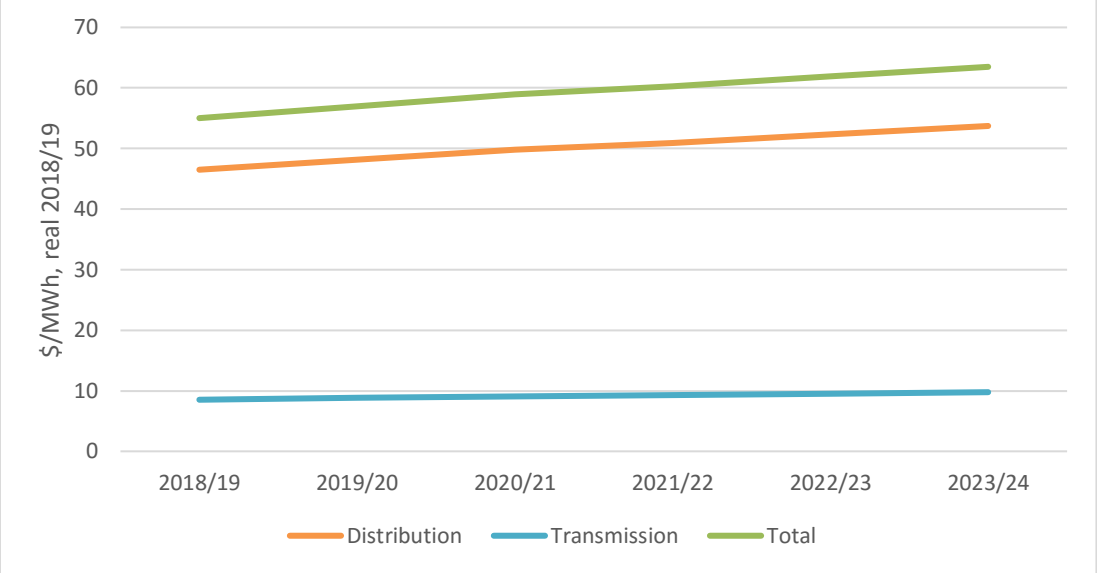
The X-factors for the 2019–24 regulatory control period are dependent on the allowed revenue for the last year of the current regulatory period, 2018/19. Given the AER has not yet remade its decision for the current regulatory period, Evoenergy has used a placeholder based on an undertaking for 2018/19 consistent with the approach used for Evoenergy's 2017/18 undertaking, which was approved by the AER. Evoenergy recognises that this will be updated following the AER's remade decision or, if the decision is not remade in time for 2018/19 pricing, the approval of an undertaking for 2018/19.

12.5. Expected bill impacts

Evoenergy's proposed distribution and transmission annual revenue requirement and X-factors will have an impact on the electricity bills of ACT customers. To provide an indication of the expected impact, Evoenergy has adopted the same approach as the AER's reset Regulatory Information Notice.

This approach involves first dividing the proposed smoothed annual revenue requirement by forecast energy throughput to arrive at an indicative price path. Figure 12.2 shows the indicative real price path for Evoenergy's distribution, transmission and total (distribution plus transmission) charges over the 2019–24 regulatory period.

Figure 12.2 Indicative real price path



The expected bill impact is then estimated by adjusting the distribution and transmission components of the bill, while holding all other elements of the bill constant in real terms. In reality, it is likely that other elements of the bill will also vary over the 2019–24 regulatory period and will impact final prices. However, this analysis is focused on isolating the impact of the proposed distribution and transmission elements of the bill.

Evoenergy has adopted the average usage categories for residential and non-residential customers from the Independent Competition and Regulatory Commission's final report

on retail electricity prices from 1 July 2017.[4] Evoenergy has applied standard ActewAGL pricing for 2017/18 to these average usage volumes to arrive at a starting point for calculating bill impacts in future years. Each year, the distribution and transmission component of the bill is replaced with the value from the PTRM (converted into a charge per megawatt hour (MWh) as presented in Figure 12.2.

It is important to note that this analysis does not attempt to estimate all components of the network use of system charge. It is limited to estimating the bill impacts associated with Evoenergy's distribution and transmission (dual function asset) charges.

As shown in Table 12.4, the estimated real bill impacts associated with Evoenergy's regulatory proposal are minimal, increasing the bill of an average residential and non-residential customer by less than one per cent a year over the 2019–24 regulatory period.

The X-factors contained in Evoenergy's regulatory proposal translate into a small estimated real bill impact as a result of an increase in forecast energy throughput over the regulatory period, which reduces the charge per MWh, and because Evoenergy's distribution and transmission (dual function asset) charges account for a relatively small proportion of the average ACT customer bill.

Table 12.4 Estimated real indicative bill impacts associated with Evoenergy's regulatory proposal

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Average residential annual electricity bill, $ (2018/19)[1]	1,935	1,954	1,973	1,985	2,000	2,016
Annual change, $ (2018/19)[2]		18	19	12	16	15
Annual change, %		0.94	0.98	0.62	0.79	0.76
Average non-residential annual electricity bill, $ (2018/19)[3]	6,703	6,766	6,832	6,874	6,928	6,981
Annual change, $ (2018/19)[2]		63	66	42	54	53
Annual change, %		0.94	0.98	0.62	0.79	0.76

1. Calculated for 2017/18 by taking the average residential customer usage assumption of 8,000 kWh/year from ICRC 2017 and applying the ACT Standing Home Electricity Plan for 1 July 2017 to 30 June 2018. The result is increased by the 2018/19 level of forecast inflation consistent with that used in the RFM to convert to 2018/19 dollars. Each year, the bill is increased by the annual change in Evoenergy's distribution and transmission component of the bill.

2. The distribution and transmission (dual function asset) component of the bill for 2017/18 is calculated using information in Evoenergy's 2017/18 pricing proposal and ICRC 2017. This is applied to the total retail bill amount for 2017/18 to determine the dollar value of the 2017/18 bill that represents Evoenergy's distribution and transmission costs. Evoenergy's distribution and transmission costs are increased each year by the percentage change in the real price path as presented in Figure 12.2.

3. Calculated for 2017/18 by taking the average non-residential customer usage assumption of 25,000 kWh/year from ICRC 2017 and applying the ACT Standing Business Electricity Plan for 1 July 2017 to 30 June 2018 (the usage rate for the first 330kWh per day is used). The result is increased by the 2018/19 level of forecast inflation consistent with that used in the RFM to convert to 2018/19 dollars. Each year, the bill is increased by the annual change in Evoenergy's distribution and transmission component of the bill.

[4] ICRC 2017: 57.

Shortened forms

Term	Meaning
AER	Australian Energy Regulator
capex	capital expenditure
DNSP	Distribution Network Service Provider
ICRC	Independent Competition and Regulatory Commission
kWh	kilowatt hour
MWh	megawatt hour
opex	operating expenditure
PTRM	post-tax revenue model
RAB	regulatory asset base
RFM	roll-forward model
Rules	National Electricity Rules

References

Author	Title	Date
AER	Better Regulation: Shared Asset Guideline	2013
AER	Amendment electricity distribution network service providers post-tax revenue model handbook	2015
AER	Attachment 1 – Annual revenue requirement | TasNetworks distribution draft determination	2016
ICRC	Final Report on Standing Offer Prices for the Supply of Electricity to Small Customers from 1 July 2017	2017