FINAL DECISION
Energex determination 2015−16 to 2019−20

Attachment 5 − Regulatory depreciation

October 2015

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's final decision on Energex's 2015–20 distribution determination. It should be read with all other parts of the final decision.

The final decision includes the following documents:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Value of imputation credits

Attachment 5 – Regulatory depreciation

Attachment 6 – Capital expenditure

Attachment 7 – Operating expenditure

Attachment 8 – Corporate income tax

Attachment 9 – Efficiency benefit sharing scheme

Attachment 10 – Capital expenditure sharing scheme

Attachment 11 – Service target performance incentive scheme

Attachment 12 – Demand management incentive scheme

Attachment 13 – Classification of services

Attachment 14 – Control mechanism

Attachment 15 – Pass through events

Attachment 16 – Alternative control services

Attachment 17 – Negotiated services framework and criteria

Attachment 18 – Connection policy

Contents

Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CESS	capital expenditure sharing scheme
CPI	consumer price index
DRP	debt risk premium
DMIA	demand management innovation allowance
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
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
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
WACC	weighted average cost of capital
WARL	weighted average remaining life

5 Regulatory depreciation

Depreciation is the allowance provided so capital investors recover their investment over the economic life of the asset (return of capital). In deciding whether to approve the depreciation schedules submitted by Energex, we make determinations on the indexation of the regulatory asset base (RAB) and depreciation building blocks for Energex's 2015–20 regulatory control period.[1] The regulatory depreciation allowance is the net total of the straight-line depreciation (negative) and the indexation (positive) of the RAB.

This attachment sets out our final decision on Energex's regulatory depreciation allowance. It also presents our final decision on the revised proposed depreciation schedules, including the revised proposed standard asset lives and remaining asset lives to be used for forecasting the depreciation allowance.

5.1 Final decision

We do not accept Energex's revised proposed regulatory depreciation allowance of $479.9 million ($ nominal) for the 2015–20 regulatory control period.[2] Instead, we determine a regulatory depreciation allowance of $476.1 million ($ nominal). This amount represents a decrease of $3.8 million (or 0.8 per cent) on Energex's revised proposed amount.

Our final decision on Energex's regulatory depreciation allowance reflects our determinations on other components of Energex's revised proposal which affect the forecast regulatory depreciation allowance—for example, the opening RAB at 1 July 2015 (attachment 2) and forecast capex (attachment 6).[3]

Table 5.1 sets out our final decision on the annual regulatory depreciation allowance for Energex's 2015–20 regulatory control period.

Table 5.1 AER's final decision on Energex's depreciation allowance for the 2015–20 regulatory control period ($ million, nominal)

	2015–16	2016–17	2017–18	2018–19	2019–20	Total
Straight-line depreciation	351.2	376.5	402.0	420.4	446.2	1996.4
Less: inflation indexation on opening RAB	279.3	292.0	304.7	316.3	328.0	1520.3
Regulatory depreciation	**71.9**	**84.6**	**97.3**	**104.1**	**118.2**	**476.1**

Source: AER analysis.

1 NER, cls. 6.12.1 and 6.4.3.

2 Energex, *Revised regulatory proposal*, July 2015, p. 71.

3 NER, cl. 6.5.5(a)(1). Our final decision approves a lower forecast capex allowance compared to Energex's revised proposal. This means lower regulatory depreciation for the assets forecast to be added to the RAB over the 2015–20 regulatory control period, all things being equal.

5.2 Energex's revised proposal

Energex's revised proposal for the 2015–20 regulatory control period forecasts a total regulatory depreciation allowance of $479.9 million ($ nominal). Energex's methodology for determining its regulatory depreciation allowance is unchanged from its initial proposal. We accepted the approach in our preliminary decision. To calculate the depreciation allowance, Energex's revised proposal used:[4]

- the straight-line depreciation method employed in our post-tax revenue model (PTRM)
- the preliminary decision closing RAB value at 30 June 2015 derived from our roll forward model (RFM)
- the preliminary decision remaining asset lives at 1 July 2015 for depreciating existing assets in the closing RAB as at 30 June 2015
- its revised proposed forecast capex for the 2015–20 regulatory control period
- the standard asset lives accepted in the preliminary decision for depreciating new assets associated with forecast capex for the 2015–20 regulatory control period.

Further, Energex noted that there will be circumstances where it would be appropriate for a service provider to propose front loaded (accelerated) depreciation for particular asset classes in the face of increasing uncertainty surrounding future network design.[5]

Table 5.2 sets out Energex's revised proposed depreciation allowance for the 2015–20 regulatory control period.

Table 5.2 Energex's revised proposed depreciation allowance for the 2015–20 regulatory control period ($ million, nominal)

	2015–16	2016–17	2017–18	2018–19	2019–20	Total
Straight-line depreciation	354.4	380.1	407.4	427.7	451.1	2020.8
Less: inflation indexation on opening RAB	283.3	296.1	309.0	320.6	331.7	1540.8
Regulatory depreciation	**71.1**	**83.9**	**98.4**	**107.1**	**119.4**	**479.9**

Source: Energex, *Revised regulatory proposal*, July 2015, Attachment 2.

5.3 AER's assessment approach

We have not changed our assessment approach for the regulatory depreciation allowance from our preliminary decision. Section 5.3 of our preliminary decision details that approach.[6]

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4 Energex, *Revised regulatory proposal*, July 2015, Attachment 2.

5 Energex, *Revised regulatory proposal*, July 2015, p. 72.

6 AER, *Preliminary decision – Energex determination 2015–16 to 2019–20, Attachment 5 – Regulatory depreciation*, April 2015, pp. 8–10.

5.4 Reasons for final decision

We determine a regulatory depreciation allowance of $476.1 million ($ nominal) for Energex for the 2015–20 regulatory control period. In determining this allowance we accept Energex's revised proposed standard asset lives. However, we reduced Energex's revised proposed regulatory depreciation allowance by $3.8 million (or 0.8 per cent). This amendment reflects our:

- updates to the remaining asset lives (section 5.4.2)
- determinations regarding other components of Energex's revised proposal—for example, the opening RAB at 1 July 2015 (attachment 2) and forecast capex (attachment 6)[7]—affecting the forecast regulatory depreciation allowance.

The Energy Users Association of Australia submitted that asset lives should reflect the actual lives of the respective classes of assets that have been managed through good industry practice. It did not support the signalling by Energex in its revised proposal for front loading depreciation of certain asset classes.[8] We note that Energex has not proposed accelerated depreciation of assets for the 2015–20 regulatory control period.

5.4.1 Standard asset lives

Consistent with our preliminary decision, we accept Energex's proposed standard asset lives for its existing asset classes. This is because they are consistent with our approved standard asset lives for the 2010–15 regulatory control period.[9]

In the preliminary decision, we also accepted Energex's proposed standard asset life for the new 'Load control & network metering devices' asset class. This asset class replaces the previous 'Metering' asset class. We reviewed Energex's supporting material and accepted that 15 years is an appropriate standard asset life for the new 'Load control & network metering' assets due to the electronic nature of the assets.[10]

We received one submission from the CCP stating that the standard asset lives for Energex differed from the actual lives, and from the standard asset lives for equivalent assets used by other distributors.[11] It submitted that these variations have major implications for depreciation and allowed distributors to choose asset lives that optimise their returns for each revenue reset.

We note that the asset lives referenced by the CCP are from disaggregated categories used to model replacement capital expenditure (repex), rather than the higher-level

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7 Our final decision approves a lower forecast capex allowance compared to Energex's revised proposal. This means lower regulatory depreciation for the assets forecast to be added to the RAB over the 2015–20 regulatory control period, all things being equal.

8 Energy Users Association of Australia, *Submission to AER draft determination and Energex's revised revenue proposal 2015 to 2020*, July 2015, p. 11

9 AER, *Preliminary decision – Energex determination 2015–16 to 2019–20, Attachment 5 – Regulatory depreciation*, April 2015, p. 11.

10 AER, *Preliminary decision – Energex determination 2015–16 to 2019–20, Attachment 5 – Regulatory depreciation*, April 2015, p. 11.

11 CCP2 (Hugh Grant), *Submission on the AER's Preliminary Determinations for the Queensland Distributors*, September 2015, pp. 32–33.

categories used when calculating the regulatory depreciation allowance.[12] Although individual distributors may have higher or lower standard asset lives for specific repex asset categories, there is less variation in the standard asset lives of the aggregated categories.[13] We consider that the standard asset lives approved for Energex to calculate the regulatory depreciation allowance are comparable to the equivalent categories used in other regulatory determinations.[14]

Table 5.3 sets out our final decision on Energex's standard asset lives for the 2015–20 regulatory control period. We are satisfied the standard asset lives reflect the nature of the assets over the economic lives of the asset classes.[15]

5.4.2 Remaining asset lives

Consistent with our preliminary decision, we accept Energex's proposed weighted average method to calculate remaining asset lives at 1 July 2015.

In the preliminary decision, we accepted Energy's proposed weighted average method for calculating the remaining asset lives at 1 July 2015. The proposed method is consistent with our preferred approach. We noted that the remaining asset lives would be recalculated for the final decision because of updates to Energex's 2014–15 capex in the RAB roll forward. The 2014–15 capex values are inputs used to calculate the weighted average remaining asset lives.[16] Based on the revisions for 2014–15 capex in the RAB roll forward as discussed in attachment 2, we have updated Energex's remaining asset lives at 1 July 2015 for this final decision.

In the preliminary decision, we also accepted Energex's reallocation of the residual value of the old 'Metering' asset class to be replaced by a new 'Load control & network metering devices' asset class. However, we revised the remaining asset life for past assets allocated to this asset class. Similarly, we revised the remaining asset life of the 'Low voltage services' asset class to account for the effect of the proposed shifting of assets to the old 'Metering' asset class.[17] Energex's revised proposal PTRM adopted our preliminary decision approach to determining the remaining asset lives for these two asset classes.[18]

Table 5.3 sets out our final decision on Energex's remaining asset lives for the 2015–20 regulatory control period.

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12 The different levels of disaggregation/aggregation are each appropriate for the relevant purpose.

13 In general, each distributor has some repex asset classes with below average standard asset lives, and some with above average asset lives. When these repex asset classes are aggregated into the higher level asset classes used in the RFM and PTRM, the two offset each other. Further, we must allow for some variation in standard asset lives even for disaggregated categories reflecting the specific nature of each distributor's network.

14 This includes the April 2015 final determinations for the NSW electricity distributors, as well as the Victorian preliminary distribution determinations made contemporaneously with this final decision. See also AER, *Preliminary decision Energex - Attachment 5 - Regulatory depreciation*, April 2015, p. 9.

15 NER, cl 6.5.5(b)(1).

16 AER, *Preliminary decision – Energex determination 2015–16 to 2019–20, Attachment 5*, April 2015, p. 11.

17 AER, *Preliminary decision – Energex determination 2015–16 to 2019–20, Attachment 5*, April 2015, p. 12.

18 Energex, *Revised regulatory proposal*, July 2015, Attachment 2; Energex, *Revised regulatory proposal*, July 2015, p. 70.

Table 5.3 AER's final decision on Energex's standard and remaining asset lives at 1 July 2015 (years)

Asset class	Standard asset life	Remaining asset life at 1 July 2015
OH Sub-transmission lines	50.5	37.5
UG Sub-transmission cables	45.0	32.8
OH Distribution lines	45.0	32.0
UG Distribution cables	60.0	46.9
Distribution equipment	35.0	29.3
Substation bays	45.0	30.1
Substation establishment	57.6	35.1
Distribution substation switchgear	45.0	38.9
Zone transformers	50.0	40.7
Distribution transformers	40.6	28.6
Low voltage services	35.0	28.6
Load control & network metering devices	15.0	12.4
Communications - pilot wires	29.3	23.4
Street lighting	20.0	5.8
Systems buildings	60.0	56.6
Systems easements	n/a	n/a
System land	n/a	n/a
Communications	7.0	1.0[a]
Control centre - SCADA	12.0	4.6
IT systems	5.0	2.8
Office equipment & furniture	7.0	2.9
Motor vehicles	9.0	6.0
Plant & equipment	6.8	5.1
Research & development	5.0	1.0[a]
Buildings	40.0	34.1
Easements	n/a	n/a
Land	n/a	n/a
Equity raising costs	46.1	42.1

Source: AER analysis.

n/a: not applicable.

(a) Under the weighted average method, the remaining asset life is calculated as 'n/a'. However, the RAB roll forward produces a small residual value (negative) at 30 June 2015 and so assigning a remaining asset life of 1 year to fully depreciate (by way of writing off) the residual value is appropriate in this case. Applying 'n/a' means the residual value remains in the RAB and does not depreciate.