



# **DRAFT DECISION**

## **Energex**

### **Distribution Determination**

#### **2020 to 2025**

### **Attachment 4**

#### **Regulatory depreciation**

October 2019

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## Note

This attachment forms part of the AER's draft decision on the distribution determination that will apply to Energex for the 2020–25 regulatory control period. 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

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## Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
capex	capital expenditure
CPI	consumer price index
distributor	distribution network service provider
NER or the rules	national electricity rules
opex	operating expenditure
PTRM	post-tax revenue model
QCoSS	Queensland Council of Social Service
RAB	regulatory asset base
RFM	roll forward model
WACC	weighted average cost of capital

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## 4 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 2020–25 regulatory control period.<sup>1</sup> The regulatory depreciation allowance is the net total of the straight-line depreciation less the indexation of the RAB.

This attachment sets out our draft decision on Energex's regulatory depreciation allowance. It also presents our draft decision on the proposed depreciation schedules, including an assessment of the proposed asset lives used for forecasting depreciation.

### 4.1 Draft decision

We determine a regulatory depreciation allowance of \$756.2 million (\$ nominal) for Energex for the 2020–25 regulatory control period. Energex proposed a regulatory depreciation allowance of \$804.0 million (\$ nominal).<sup>2</sup> Our decision represents a decrease of \$47.9 million or 6.0 per cent on the proposed amount.

For our draft decision on Energex's regulatory depreciation:

- We accept Energex's proposed existing asset classes, its straight-line depreciation method, and the standard asset lives (with the exception of the 'Equity raising costs' asset class) used to calculate the regulatory depreciation allowance subject to some changes arising from our review of the regulatory tax approach.
- We accept Energex's proposed year-by-year tracking approach to implement straight-line depreciation of existing assets. However, we identified and corrected a few minor errors in Energex's application of the year-by-year tracking approach in its depreciation model.
- We made determinations on other components of Energex's proposal which affect the forecast regulatory depreciation allowance—for example, the opening RAB at 1 July 2020 due mainly to the removal of redundant asset classes and inclusion of a lower amount of legacy ICT assets (attachment 2), expected inflation (attachment 3), and forecast capex (attachment 5) including its effect on the projected RAB over the 2020–25 regulatory control period.<sup>3</sup>

Table 4.1 sets out our draft decision on the annual regulatory depreciation allowance for Energex's 2020–25 regulatory control period.

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<sup>1</sup> NER, cl. 6.12.1, 6.4.3.

<sup>2</sup> Energex, *8.003 PTRM* - SCS, 31 January 2019.

<sup>3</sup> Capex enters the RAB net of forecast disposals and capital contributions. It includes equity raising costs (where relevant) and the half-year WACC to account for the timing assumptions in the PTRM. Our draft decision on the RAB (attachment 2) also reflects our updates to the WACC for the 2020–25 regulatory control period.

**Table 4.1 AER's draft decision on Energex's depreciation allowance for the 2020–25 regulatory control period (\$ million, nominal)**

	2020–21	2021–22	2022–23	2023–24	2024–25	Total
Straight-line depreciation	452.2	446.4	472.8	499.1	526.1	2396.6
Less: inflation indexation on opening RAB	315.7	322.1	328.4	334.3	339.9	1640.4
<b>Regulatory depreciation</b>	<b>136.5</b>	<b>124.3</b>	<b>144.4</b>	<b>164.8</b>	<b>186.2</b>	<b>756.2</b>

Source: AER analysis.

## 4.2 Energex's proposal

For the 2020–25 regulatory control period, Energex proposed a total forecast regulatory depreciation allowance of \$804.0 million (\$ nominal). To calculate the depreciation allowance, Energex proposed to use:<sup>4</sup>

- the straight-line depreciation method employed in the AER's post-tax revenue model (PTRM)
- the closing RAB value at 30 June 2020 derived from the AER's roll forward model (RFM)
- proposed forecast capex for the 2020–25 regulatory control period
- an expected inflation rate of 2.42 per cent per annum for the 2020–25 regulatory control period
- the year-by-year tracking depreciation model, which implements the straight-line method to calculate the forecast depreciation (over the 2020–25 regulatory control period) of the opening RAB at 1 July 2020
- the asset classes and standard asset lives for depreciating new assets associated with forecast capex for the 2020–25 regulatory control period, which are consistent with those approved in the 2015–20 distribution determination. In addition, Energex proposed a new asset class—'Legacy ICT'—with a standard asset life of 10 years.

Table 4.2 sets out Energex's proposed depreciation allowance for the 2020–25 regulatory control period.

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<sup>4</sup> Energex, 8.003 PTRM - SCS, 31 January 2019; Energex, 8.007 RFM - SCS, 31 January 2019.

**Table 4.2 Energex's proposed depreciation allowance for the 2020–25 regulatory control period (\$ million, nominal)**

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Straight-line depreciation	452.6	451.0	479.9	510.9	542.9	2437.3
Less: inflation indexation on opening RAB	312.6	319.6	326.7	333.8	340.5	1633.3
<b>Regulatory depreciation</b>	<b>140.0</b>	<b>131.4</b>	<b>153.2</b>	<b>177.0</b>	<b>202.4</b>	<b>804.0</b>

Source: Energex, 8.003 PTRM - SCS, 31 January 2019.

### 4.3 Assessment approach

We determine the regulatory depreciation allowance using the PTRM as a part of a service provider's annual revenue requirement.<sup>5</sup> Where the year-by-year tracking approach has been adopted, a separate depreciation model is also used for existing assets and feeds into the PTRM. The calculation of depreciation in each year is governed by the value of assets included in the RAB at the beginning of the regulatory year, and by the depreciation schedules.<sup>6</sup>

Our standard approach to calculating depreciation is to employ the straight-line method set out in the PTRM. We consider the straight-line method satisfies the NER requirements in clause 6.5.5(b) as it provides an expenditure profile that reflects the nature of assets over their economic life.<sup>7</sup>

The Queensland Council of Social Service (QCoSS) noted the outcomes of the AER's recent tax review and was concerned if the diminishing value method of depreciation would be used going forward for regulatory depreciation purposes.<sup>8</sup> That is not the case. The diminishing value method of depreciation is only applied for tax purposes in respect of the tax asset base. The RAB will continue to be depreciated using the straight-line method.

Once the method is set, regulatory practice has been to assign a standard asset life to each category of assets that represents the economic or technical life of the asset or asset class. We must consider whether the proposed depreciation schedules conform to the following key requirements:

- the schedules depreciate using a profile that reflects the nature of the assets or category of assets over the economic life of that asset or category of assets<sup>9</sup>

<sup>5</sup> NER, cl. 6.4.3(a)(3) and (b)(3).

<sup>6</sup> NER, cl. 6.5.5(a).

<sup>7</sup> NER, cl. 6.5.5(b)(1).

<sup>8</sup> QCoSS, *QLD electricity distribution determinations – Energex and Ergon 2020 to 2025*, 31 May 2019, pp. 20–21.

<sup>9</sup> NER, cl. 6.5.5(b)(1).



- the sum of the real value of the depreciation that is attributable to any asset or category of assets must be equivalent to the value at which that asset or category of assets was first included in the RAB for the relevant distribution system.<sup>10</sup>

If a service provider's building block proposal does not comply with the above requirements, then we must determine the depreciation schedules for the purpose of calculating the depreciation for each regulatory year.<sup>11</sup>

The regulatory depreciation allowance is an output of the PTRM. We therefore assessed Energex's proposed regulatory depreciation allowance by analysing the proposed inputs to the PTRM for calculating that allowance. The key inputs include:

- the opening RAB at 1 July 2020
- the forecast net capex in the 2020–25 regulatory control period<sup>12</sup>
- the expected inflation rate for the above period
- the standard asset life for each asset class—used for calculating the depreciation of new assets associated with forecast net capex in the above period
- the depreciation associated with the opening RAB as at 1 July 2020—calculated in a separate year-by-year tracking depreciation model.

Our draft decision on Energex's regulatory depreciation allowance reflects our determinations on the opening RAB at 1 July 2020, expected inflation and forecast capex (the first three building block components in the above list).<sup>13</sup> Our determinations on these components of the service provider's proposal are discussed in attachments 2, 3 and 5 respectively.

In this attachment, we assess Energex's proposed standard asset lives against:

- the approved standard asset lives in the distribution determination for the 2015–20 regulatory control period
- the standard asset lives of comparable asset classes approved in our recent distribution determinations for other service providers.

Our standard approach for depreciating a service provider's existing assets in the PTRM uses the remaining asset lives at the start of a regulatory control period as determined in the RFM. However, Energex has proposed an alternative approach where (in addition to grouping assets by type via asset classes) it tracks the asset classes on a year-by-year basis to implement straight-line depreciation—known as the

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<sup>10</sup> NER, cl. 6.5.5(b)(2).

<sup>11</sup> NER, cl. 6.5.5(a)(2)(ii).

<sup>12</sup> Capex enters the RAB net of forecast disposals and capital contributions. It includes equity raising costs (where relevant) and the half-year WACC to account for the timing assumptions in the PTRM. Our draft decision on the RAB (attachment 2) also reflects our updates to the WACC for the 2020–25 regulatory control period.

<sup>13</sup> Our final decision will update the opening RAB as at 1 July 2020 for revised estimates of actual capex and inflation.

year-by-year tracking approach. We have therefore assessed whether this change of approach would meet the depreciation provisions of the NER, as discussed in section 4.4.1.

### 4.3.1 Interrelationships

The regulatory depreciation allowance is a building block component of the annual revenue requirement.<sup>14</sup> Higher (or quicker) depreciation leads to higher revenues over the regulatory control period. It also causes the RAB to reduce more quickly (excluding the impact of further capex). This reduces the return on capital allowance, although this impact is usually smaller than the increased depreciation allowance in the short to medium term.<sup>15</sup>

Ultimately, however, a service provider can only recover the capex that it incurred on assets once. The depreciation allowance reflects how quickly the RAB is being recovered, and it is based on the remaining and standard asset lives used in the depreciation calculation. It also depends on the level of the opening RAB and the forecast capex, with any increase in these factors also increasing the depreciation allowance.

The RAB has to be maintained in real terms, meaning the RAB must be indexed for expected inflation.<sup>16</sup> The return on capital building block has to be calculated using a nominal rate of return (WACC) applied to the opening RAB.<sup>17</sup> As noted in attachment 1, the total annual revenue requirement is calculated by adding up the return on capital, depreciation, opex, tax and revenue adjustments building blocks. Because inflation on the RAB is accounted for in both the return on capital—based on a nominal rate—and the depreciation calculations—based on an indexed RAB—an adjustment must be made to the revenue requirement to prevent compensating twice for inflation.

To avoid this double compensation, we make an adjustment by subtracting the annual indexation gain on the RAB from the calculation of total revenue.<sup>18</sup> Our standard approach is to subtract the indexation of the opening RAB—the opening RAB multiplied by the expected inflation for the year—from the RAB depreciation. The net result of this calculation is referred to as regulatory depreciation.<sup>19</sup> Regulatory depreciation is the amount used in the building block calculation of total revenue to

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<sup>14</sup> The PTRM distinguishes between straight-line depreciation and regulatory depreciation, the difference being that regulatory depreciation is the straight-line depreciation minus the indexation adjustment.

<sup>15</sup> This is generally the case because the reduction in the RAB amount feeds into the higher depreciation building block, whereas the reduced return on capital building block is proportionate to the lower RAB multiplied by the WACC.

<sup>16</sup> NER, cl. 6.5.1(e)(3).

<sup>17</sup> AER, *Rate of return instrument*, cl. 1, cl. 3(a), cl. 36(c), December 2018.

<sup>18</sup> NER, cl. 6.4.3(b)(1)(ii).

<sup>19</sup> If the asset lives are extremely long, such that the RAB depreciation rate is lower than the inflation rate, then negative regulatory depreciation can emerge. The indexation adjustment is greater than the RAB depreciation in such circumstances.

ensure that the revenue equation is consistent with the use of a RAB, which is indexed for inflation annually.

This approach produces the same total revenue requirement and RAB as if a real rate of return had been used in combination with an indexed RAB. Under an alternative approach where a nominal rate of return was used in combination with an un-indexed (historical cost) RAB, no adjustment to the depreciation calculation of total revenue would be required. This alternative approach produces a different time path of total revenue compared to our standard approach. In particular, overall revenues would be higher early in the asset's life (as a result of more depreciation being returned to the service provider) and lower in the future—producing a steeper downward sloping profile of total revenue.<sup>20</sup> Under both approaches, the total revenues being recovered are in present value neutral terms—that is, returning the initial cost of the RAB.

Figure 4.1 shows the recovery of revenue under both approaches using a simplified example.<sup>21</sup> Indexation of the RAB and the offsetting adjustment made to depreciation results in smoother revenue recovery profile over the life of an asset than if the RAB was un-indexed.

Figure 2.1 (in attachment 2) shows the relative size of the inflation and straight-line depreciation and their impact on the RAB based on Energex's proposal. A 10 per cent increase in the straight-line depreciation causes revenues to increase by about 4.0 per cent.<sup>22</sup>

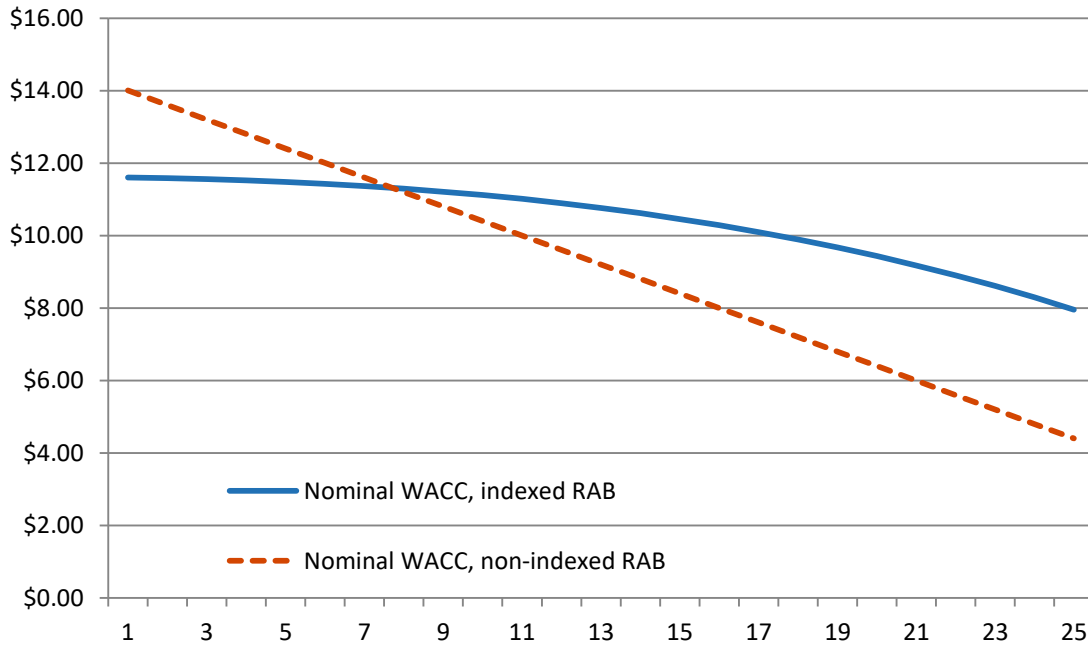
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<sup>20</sup> A change of approach from an indexed RAB to an un-indexed RAB would result in an initial step change increase in revenues to preserve NPV neutrality.

<sup>21</sup> The example is based on the initial cost of an asset of \$100, a standard economic life of 25 years, a real WACC of 7.32 per cent, expected inflation of 2.5 per cent and nominal WACC of 10 per cent. Other building block components such as opex, tax and capex are ignored for simplicity as they would affect both approaches equally.

<sup>22</sup> We have analysed the sensitivity of straight-line depreciation relative to total revenue based on input data provided in Energex's proposal PTRM.

**Figure 4.1 Revenue path example – indexed vs un-indexed RAB (\$ nominal)**



Source: AER analysis.

## 4.4 Reasons for draft decision

We accept Energex's proposed straight-line depreciation method for calculating the regulatory depreciation allowance as set out in the PTRM and the year-by-year tracking approach to implement this method. We also accept the proposed asset classes and standard asset lives (with the exception of the 'Equity raising costs' asset class) subject to some changes arising from the tax review (attachment 7).

However, we reduced Energex's proposed forecast regulatory depreciation allowance by \$47.9 million (or 6.0 per cent) to \$756.2 million (\$ nominal). This amendment reflects our corrections to the depreciation tracking model proposed by Energex (section 4.4.1). It also reflects our determinations regarding other components of Energex's regulatory proposal that affect the forecast regulatory depreciation allowance—the opening RAB at 1 July 2020 due mainly to the removal of the 'Communications', 'Research & development' and 'Easements' asset classes and inclusion of a lower amount of legacy ICT assets (attachment 2), expected inflation over the 2020–25 regulatory control period (attachment 3) and forecast capital expenditure (attachment 5) including its effect on the projected RAB over the 2020–25 regulatory control period.<sup>23</sup>

<sup>23</sup> Capex enters the RAB net of forecast disposals and capital contributions. It includes equity raising costs (where relevant) and the half-year WACC to account for the timing assumptions in the PTRM. Our draft decision on the RAB (attachment 2) also reflects our updates to the WACC for the 2020–25 regulatory control period.

Our assessment of Energex's proposed year-by-year tracking depreciation approach and its proposed standard asset lives are discussed in turn in the following subsections.

#### 4.4.1 Year-by-year tracking approach

Energex has proposed a change in approach to implementing the straight-line method for the calculation of its forecast regulatory depreciation allowance. It proposes to change from our preferred weighted average remaining life (WARL) approach (approved for the 2015–20 regulatory control period) to a year-by-year tracking approach going forward. We accept this approach. Other things being equal, this approach results in a short to medium term increase in revenue (0.9 per cent over the 2020–25 regulatory control period).<sup>24</sup> We note that year-by-year tracking improves the matching of depreciation with the assets' underlying economic lives and is currently used by TasNetworks, SA Power Networks, the Victorian electricity distributors and other transmission network service providers. The NER requires the depreciation schedule to reflect the nature of the assets and their economic life.<sup>25</sup>

We accept that Energex's proposed year-by-year tracking approach meets the requirements of the NER in that it will result in depreciation schedules that:

- reflect the nature of the assets and their economic life<sup>26</sup>
- ensure that total depreciation (in real terms) equals the initial value of the assets<sup>27</sup>
- allows the economic lives of existing assets to be consistent with those determined on a prospective basis in our 2020–25 distribution determination.<sup>28</sup>

Origin Energy supported the proposed year-by-year tracking approach for regulatory depreciation, if it provides a more accurate method for determining depreciation and reduces the rate of growth in the RAB.<sup>29</sup> We note the year-by-year tracking approach does not by itself materially reduce the rate of growth in the RAB, which depends on the amount of new capex. In Energex's case, applying year-by-year tracking results in a 0.4 per cent lower RAB at the end of the 2020–25 regulatory control period relative to the WARL approach.

Energex prepared a separate depreciation model to implement year-by-year tracking.<sup>30</sup> We are satisfied that beginning the year-by-year tracking of depreciation from 2014–15 does not result in an under or over-recovery in depreciation. The RAB roll forward to 30 June 2020 will apply the forecast depreciation determined at the last determination.

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<sup>24</sup> This relates to the profile of the return of capital over the life of the assets. It does not provide more returns overall in present value terms.

<sup>25</sup> NER, cl. 6.5.5(b)(1).

<sup>26</sup> NER, cl. 6.5.5(b)(1).

<sup>27</sup> NER, cl. 6.5.5(b)(2).

<sup>28</sup> NER, cl. 6.5.5(b)(3).

<sup>29</sup> Origin Energy, *RE: QLD REGULATORY PROPOSAL 2020-25*, 31 May 2019, p. 2.

<sup>30</sup> Energex, *8.005 RAB Depreciation Model*, 31 January 2019.

This amount will be allocated to the relevant years under the year-by-year tracking approach.

We have reviewed Energex's year-by-year tracking depreciation model and updated it with the latest CPI value for 2018–19 and WACC value for 2019–20 in the depreciation model, which were not available at the time of the proposal. Further, we have updated the CPI estimate for 2019–20.<sup>31</sup>

We also corrected some minor errors in the depreciation model, which Energex agreed with.<sup>32</sup> In particular, we have made the following adjustments:

- 2014–15 CPI – we replaced an incorrect value used by Energex
- use of actual depreciation profile instead of forecast depreciation – we consider future depreciation from the year-by-year tracking approach should reflect an actual depreciation profile rather than the forecast depreciation profile employed in the RFM. The value of the assets is still rolled forward in the RFM using forecast depreciation for the first few years of its life,<sup>33</sup> but adjustments are made in the depreciation model to make the recovery of this amount based on an actual depreciation profile going forward. There is no net impact to revenues in NPV terms of this change, with the profile of recovery changed only marginally. All businesses currently adopting the year-by-year tracking approach have adopted an actual depreciation profile as well.
- use of nominal vanilla WACC instead of real vanilla WACC – in order to compensate for the six-month period before capex is added to the RAB for revenue modelling, the half-year nominal vanilla WACC (which is the real vanilla WACC adjusted for inflation) should be applied to the actual net capex for the 2015–20 regulatory control period. This is consistent with the RFM where the half-year nominal vanilla WACC is applied to net capex in the RAB roll forward process.

Overall, the materiality of these errors is not significant. Correcting the 2014–15 CPI resulted in no material change to nominal straight-line depreciation, use of actual depreciation profile resulted in a 0.1 per cent increase to nominal straight-line depreciation, and the use of the nominal vanilla WACC also did not result in a material difference.

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<sup>31</sup> Our final decision will update for actual 2019–20 CPI, which will be available at that time.

<sup>32</sup> Energex, *Information request 028 – RFM and depreciation model input issue*, 17 May 2019.

<sup>33</sup> For example, the AER may have approved \$100 of capex on vehicles for 2017–18, with forecast depreciation of \$10 per annum (assuming a 10 year standard asset life). However, actual capex in 2017–18 proves to be \$110. In this case the value of the 2017–18 capex is rolled forward to 2019–20 (the end of the period) using forecast depreciation. This gives an undepreciated value for 2017–18 capex of \$90 (\$110 – 2 years × \$10) at the end of 2019–20. However, depreciation in the next period from 2019–20 onwards will be \$11 each year, not the forecast \$10 of the previous period.

## 4.4.2 Standard asset lives

We accept Energex's proposed standard asset lives, with the exception of the standard asset life for the 'Equity raising costs' asset class. We have calculated the standard asset life of equity raising costs by taking the weighted average of the standard asset lives of total forecast capex for each asset class over the 2020–25 regulatory control period. Energex's proposal did not forecast any benchmark equity raising costs for the 2020–25 regulatory control period, based on the method employed in the PTRM. Consistent with this, for the draft decision PTRM we estimate zero equity raising costs, although this will need to be reviewed for our final decision. We also made some changes to asset classes arising from the tax review (attachment 7).

Energex proposed the same standard asset lives for its existing asset classes in respect of the forecast capex to be incurred in the 2020–25 regulatory control period. These asset lives are consistent with those approved for the 2015–20 regulatory control period and are largely comparable with the standard asset lives approved in our recent determinations for other distributors.<sup>34</sup> Accordingly, we accept these proposed standard asset lives.

The standard asset life for the 'Equity raising costs' asset class needs to be reviewed each regulatory control period. We consider the standard asset life for this asset class should reflect the lives of the mix of assets making up the approved forecast net capex, because the equity raising cost benchmark is associated with that forecast.<sup>35</sup> However, no equity raising cost have been determined in our draft decision modelling. This is because Energex does not satisfy the requirements to incur benchmark equity raising costs associated with the approved forecast capex. There is no impact from this draft decision, since Energex's proposal also did not forecast any equity raising costs.

Attachment 2 discussed certain legacy ICT assets that Energex proposed to include in the RAB as a new asset class. Energex proposed a standard asset life of 10 years for the 'Legacy ICT' asset class for regulatory depreciation purposes. The assets have a technical asset life of roughly 5 years. However, Energex proposed a 10 year life for these assets to reduce the price impacts to customers, noting that customers also agreed to this proposed life.<sup>36</sup> Although it is not our usual practice to extend depreciation profiles beyond an asset's expected economic life, we accept the proposed asset life in these circumstances, largely due to the support of customers.

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<sup>34</sup> AER, *Final decision: TasNetworks distribution determination 2019 to 2024, attachment 4*, April 2019, pp. 9–10; AER, *Final decision: Evoenergy distribution determination 2019 to 2024, attachment 4*, April 2019, p. 9; AER, *Final decision: Essential Energy distribution determination 2019 to 2024, attachment 4*, April 2019, p. 8; AER, *Final decision: Ausgrid distribution determination 2019 to 2024, attachment 4*, April 2019, p. 9; AER, *Final decision: Endeavour Energy distribution determination 2019 to 2024, attachment 4*, April 2019, p. 10; AER, *Final decision: Power and Water Corporation distribution determination 2019 to 2024, attachment 4*, April 2019, pp. 8–9.

<sup>35</sup> For this reason, we used forecast net capex as the weights to establish the weighted average standard asset life for amortising equity raising costs.

<sup>36</sup> Energex, *EGX ERG 8.001 Integration of Legacy ICT Assets*, 31 January 2019, p. 1.

QCoSS submitted that the legacy ICT assets should be aligned with the underlying network assets that they contribute to and depreciated in line with those asset lives.<sup>37</sup> We note this submission. However, we consider these assets to be similar in characteristics to standard IT assets, and therefore would usually be depreciated over a shorter period than 10 years. As noted above, we have accepted the 10 year asset life to smooth the price impact for customers, which also appears to address the more general concern of QCoSS.<sup>38</sup>

In order to implement the changes arising from the tax review, we have reallocated certain amounts of Energex's forecast capex related to buildings and IT assets for the 2020–25 regulatory control period into two new asset classes. Discussed further in attachment 7, the tax review acknowledged different methods of calculation of tax depreciation for different asset classes, which resulted in the addition of these asset classes to the PTRM and a reallocation of forecast capex to these asset classes.

However, these changes do not impact the regulatory depreciation allowance because we assign the same standard asset lives as the classes for which the forecast capex were originally allocated.

The two new asset classes are:

- 'Buildings - capital works' – where the forecast capex was originally allocated to the 'Buildings' asset class
- 'In-house software' – where the forecast capex was originally allocated to the 'IT systems' asset class.

For each asset class we have assigned a standard asset life that is consistent with the asset class from which the forecast capex were reallocated. Therefore, for the 'Buildings - capital works' asset class we have assigned a standard asset life of 40 years that is consistent with the 'Buildings' asset class. Similarly, we have assigned a standard asset life of 5 years to the 'In-house software' asset class that is consistent with the 'IT systems' asset class. Energex did not raise any concerns with this approach.<sup>39</sup>

Table 4.3 sets out our draft decision on Energex's standard asset lives for the 2020–25 regulatory control period. We are satisfied the approved standard asset lives would lead to a depreciation schedule that reflects the nature of the assets over the economic lives of the asset classes. Further, the sum of the real value of the depreciation attributable to the assets is equivalent to the value at which the assets were first included in the RAB for Energex.<sup>40</sup>

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<sup>37</sup> QCoSS, *QLD electricity distribution determinations – Energex and Ergon 2020 to 2025*, 31 May 2019, p. 20.

<sup>38</sup> QCoSS, *QLD electricity distribution determinations – Energex and Ergon 2020 to 2025*, 31 May 2019, p. 5.

<sup>39</sup> Energex, *Information request 007 - Corporate income tax*, 22 March 2019.

<sup>40</sup> NER, cl. 6.5.5(b)(1)–(2).



**Table 4.3 AER’s draft decision on Energex's standard asset lives for the 2020–25 regulatory control period (years)**

Asset class	Standard asset life
OH sub-transmission lines	50.5
UG sub-transmission cables	45.0
OH distribution lines	45.0
UG distribution cables	60.0
Distribution equipment	35.0
Substation bays	45.0
Substation establishment	57.6
Distribution substation switchgear	45.0
Zone transformers	50.0
Distribution transformers	40.6
Low voltage services	35.0
Load control & network metering devices <sup>a</sup>	15.0
Communications - pilot wires	29.3
Street lighting (residual rate 2 assets)	n/a
Systems buildings	60.0
Systems easements	n/a
System land	n/a
Control centre - SCADA	12.0
IT systems	5.0
Office equipment & furniture	7.0
Motor vehicles	9.0
Plant & equipment	6.8
Buildings	40.0
Land	n/a
Legacy ICT	n/a
Buildings - capital works <sup>b</sup>	40.0
In-house software <sup>b</sup>	5.0
Equity raising costs <sup>c</sup>	n/a

Source: AER analysis

- (a) This asset class was renamed 'Load control & network metering devices' in the 2015–20 distribution determination to better reflect the assets that make up this asset class. Energex referred to it as 'Metering' asset class in its proposal.
  - (b) New asset classes were created for the PTRM version 4 in order to separate components of buildings and IT related assets that must be depreciated using the straight-line method for tax purposes. Refer to attachment 7 (corporate income tax) for more detail.
  - (c) For this draft decision, the forecast capex determined for Energex does not meet a level to trigger any benchmark equity raising costs.
- n/a: not applicable. We have not assigned a standard asset life to some asset classes because the assets allocated to those asset classes are not subject to depreciation or not have any future assets being allocated to them.