



# **DRAFT DECISION**

## **Energex**

### **Distribution Determination**

#### **2020 to 2025**

### **Attachment 2**

#### **Regulatory asset base**

October 2019

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AER reference: 62727

## 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

Attachment 13 – Control mechanisms

Attachment 14 – Pass through events

Attachment 15 – Alternative control services

Attachment 16 – Negotiated services framework and criteria

Attachment 17 – Connection policy

Attachment 18 – Tariff structure statement

# Contents

<b>Note</b> .....	<b>2-2</b>
<b>Contents</b> .....	<b>2-3</b>
<b>Shortened forms</b> .....	<b>2-4</b>
<b>2 Regulatory asset base</b> .....	<b>2-5</b>
<b>2.1 Draft decision</b> .....	<b>2-5</b>
<b>2.2 Energex's proposal</b> .....	<b>2-7</b>
<b>2.3 Assessment approach</b> .....	<b>2-9</b>
2.3.1 Interrelationships.....	2-11
<b>2.4 Reasons for draft decision</b> .....	<b>2-14</b>
2.4.1 Opening RAB as at 1 July 2020 .....	2-14
2.4.2 Legacy ICT assets .....	2-17
2.4.3 Forecast closing RAB as at 30 June 2025.....	2-18
2.4.4 Application of depreciation approach in RAB roll forward for next reset.....	2-20

## Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
capex	capital expenditure
CCP14	Consumer Challenge Panel, sub-panel 14
CESS	capital expenditure sharing scheme
CPI	consumer price index
distributor	distribution network service provider
ECA	Energy Consumers Australia
NER or the rules	national electricity rules
NSP	network service provider
opex	operating expenditure
PTRM	post-tax revenue model
RAB	regulatory asset base
RFM	roll forward model
RIN	regulatory information notice
QCOSS	Queensland Council of Social Service
WACC	weighted average cost of capital

## 2 Regulatory asset base

As part of our distribution determination, we make a decision on Energex's opening regulatory asset base (RAB) as at 1 July 2020.<sup>1</sup> The RAB is the value of those assets that are used by Energex to provide standard control services. We use the RAB at the start of each regulatory year to determine the return of capital (regulatory depreciation) and return on capital building block allowances.

This attachment presents our draft decision on the opening RAB value as at 1 July 2020 for Energex and roll forward of the forecast RAB over the 2020–25 regulatory control period. It also presents our draft decision on whether depreciation for establishing the RAB as at the commencement of the 2025–30 regulatory control period is to be based on actual or forecast capital expenditure.<sup>2</sup>

### 2.1 Draft decision

We determine an opening RAB value of \$12887.4 million (\$ nominal) as at 1 July 2020 for Energex. This value is \$29.3 million (or 0.2 per cent) lower than Energex's proposed opening RAB of \$12916.6 million (\$ nominal) as at 1 July 2020.<sup>3</sup> While we largely accept the proposed methodology for calculating the opening RAB, we made the following revisions to Energex's proposed inputs to the roll forward model (RFM):

- Used March to March quarter actual consumer price index (CPI) input for 2014–15 consistent with that used for annual pricing purposes
- Corrected the adjustments for movements in capitalised provisions over the 2015–20 regulatory control period
- Updated inputs as newer information has become available since Energex submitted its proposal. These updates include:
  - actual CPI input for 2018–19 and updated inflation estimate for 2019–20
  - weighted average cost of capital (WACC) input for 2019–20 following the return on debt update for that year in the 2015–20 post-tax revenue model (PTRM)
  - forecast straight-line depreciation for 2019–20 following the return on debt update for that year in the 2015–20 PTRM.
- Adjusted the value of legacy ICT assets as at 1 July 2020.<sup>4</sup>

To determine the opening RAB as at 1 July 2020, we have rolled forward the RAB over the 2015–20 regulatory control period to determine a closing RAB value at 30 June

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<sup>1</sup> NER, cl. 6.12.1(6).

<sup>2</sup> NER, cl. 6.12.1(18).

<sup>3</sup> Energex, *8.007 RFM - SCS PUBLIC*, 31 January 2019.

<sup>4</sup> Discussed in section 2.4.2.

2020 in accordance with our RFM.<sup>5</sup> This roll forward includes an adjustment at the end of the 2015–20 regulatory control period to account for the difference between actual 2014–15 capex and the estimate approved in the 2015–20 determination.<sup>6</sup>

Having established Energex's closing RAB value as at 30 June 2020, we determine the residual value of its legacy ICT assets to be included in the opening RAB value as at 1 July 2020.<sup>7</sup> Our draft decision is to reduce the proposed opening asset value for the 'Legacy ICT' asset class to \$124.8 million from \$146.7 million as at 1 July 2020.

Table 2.1 sets out the roll forward of Energex's RAB over the 2015–20 regulatory control period.

**Table 2.1 AER's draft decision on Energex's RAB for the 2015–20 regulatory control period (\$ million, nominal)**

	2015–16	2016–17	2017–18	2018–19 <sup>a</sup>	2019–20 <sup>b</sup>
Opening RAB	11172.5	11544.5	11865.4	12195.0	12476.6
Capital expenditure <sup>c</sup>	530.6	519.8	493.4	469.9	464.1
Inflation indexation on opening RAB <sup>d</sup>	188.7	170.4	226.5	217.6	249.5
Less: straight-line depreciation <sup>e</sup>	347.2	369.3	390.4	405.8	427.7
Interim closing RAB	11544.5	11865.4	12195.0	12476.6	12762.6
Difference between estimated and actual capex in 2014–15					0.0
Return on difference for 2014–15 capex					0.0
Closing RAB as at 30 June 2020					12762.6
Roll-in of legacy ICT assets <sup>e</sup>					124.8
<b>Opening RAB as at 1 July 2020</b>					<b>12887.4</b>

Source: AER analysis.

- (a) Based on estimated capex. We will update the RAB roll forward for actual capex in the final decision.
- (b) Based on estimated capex provided by Energex. We expect to update the RAB roll forward with a revised capex estimate in the final decision, and true-up the RAB for actual capex at the next reset.
- (c) Net of disposals and capital contributions, and adjusted for actual CPI and half-year WACC.
- (d) We will update the RAB roll forward for actual CPI for 2019–20 in the final decision.
- (e) Adjusted for actual CPI. Based on forecast capex.

<sup>5</sup> AER, *Electricity distribution network service providers: Roll forward model (version 2)*, 15 December 2016.

<sup>6</sup> The end of period adjustment will be positive (negative) if actual capex is higher (lower) than the estimate approved at the 2015–20 determination.

<sup>7</sup> These asset were previously owned by a third party entity SPARQ but used to provide ICT services for Energex and Ergon Energy in the 2015–20 regulatory control period. With the merger of the two entities to Energy Queensland, Energex proposed to roll the residual value of these assets into the RAB.

We determine a forecast closing RAB value as at 30 June 2025 of \$14079.2 million (\$ nominal) for Energex. This is \$234.9 million lower than Energex's proposed closing RAB value of \$14314.0 million (\$ nominal).<sup>8</sup> Our draft decision on the forecast closing RAB value reflects the updated opening RAB as at 1 July 2020, and our draft decisions on the expected inflation rate (attachment 3), forecast depreciation (attachment 4) and forecast capex (attachment 5).<sup>9</sup>

Table 2.2 sets out our draft decision on the forecast RAB values for Energex over the 2020–25 regulatory control period.

**Table 2.2 AER's draft decision on Energex's RAB for the 2020–25 regulatory control period (\$ million, nominal)**

	2020–21	2021–22	2022–23	2023–24	2024–25
Opening RAB	12887.4	13147.5	13403.4	13645.0	13874.3
Capital expenditure <sup>a</sup>	396.6	380.2	386.0	394.1	391.1
Inflation indexation on opening RAB	315.7	322.1	328.4	334.3	339.9
Less: straight-line depreciation	452.2	446.4	472.8	499.1	526.1
<b>Closing RAB</b>	<b>13147.5</b>	<b>13403.4</b>	<b>13645.0</b>	<b>13874.3</b>	<b>14079.2</b>

Source: AER analysis.

(a) Net of forecast disposals and capital contributions. In accordance with the timing assumptions of the PTRM, the capex includes a half-year WACC allowance to compensate for the six month period before capex is added to the RAB for revenue modelling.

We accept Energex's proposal that the forecast depreciation approach is to be used to establish the opening RAB at the commencement of the 2025–30 regulatory control period.<sup>10</sup> We consider this approach is consistent with our *Framework and approach* paper.<sup>11</sup> It is also consistent with the capital expenditure incentive objective in that it will provide sufficient incentives for Energex to achieve capex efficiency gains over the 2020–25 regulatory control period.

## 2.2 Energex's proposal

Energex used our RFM to establish an opening RAB as at 1 July 2020 and our PTRM to roll forward the RAB over the 2020–25 regulatory control period.

<sup>8</sup> Energex, *8.003 PTRM - SCS PUBLIC*, 31 January 2019.

<sup>9</sup> Capex enters the RAB net of forecast disposals. It includes equity raising costs (where relevant) and the half-year WACC to account for the timing assumptions in the PTRM. Therefore, our draft decision on the forecast RAB also reflects our amendments to the rate of return for the 2020–25 regulatory control period (attachment 3).

<sup>10</sup> NER, cl. 6.12.1(18). Energex, *1.003 2020-25 Regulatory Proposal*, January 2019, p. 108.

<sup>11</sup> AER, *Final framework and approach for Energex and Ergon Energy – Regulatory control period commencing 1 July 2020*, July 2018, p. 12.



Energex proposed an opening RAB value as at 1 July 2015 of \$11172.5 million (\$ nominal). Rolling forward this RAB and using depreciation based on forecast capex approved for the 2015–20 regulatory control period, Energex proposed a closing RAB as at 30 June 2020 of \$12770.0 million (\$ nominal). It then proposed to roll in \$146.7 million (\$ nominal) of legacy ICT assets to calculate the opening RAB as at 1 July 2020. The legacy ICT assets relate to services previously provided by SPARQ but these functions will be performed by Energex going forward.

Table 2.3 sets out Energex's proposed roll forward of its RAB during the 2015–20 regulatory control period.<sup>12</sup>

**Table 2.3 Energex's proposed RAB for the 2015–20 regulatory control period (\$ million, nominal)**

	2015-16	2016-17	2017-18	2018-19 <sup>a</sup>	2019-20 <sup>a</sup>
Opening RAB	11172.5	11541.3	11853.7	12176.9	12452.4
Capital expenditure <sup>b</sup>	528.7	512.8	488.7	469.8	464.7
Inflation indexation on opening RAB	188.7	170.4	226.3	213.1	280.2
Less: straight-line depreciation <sup>c</sup>	348.6	370.7	391.9	407.4	429.2
Interim closing RAB	11541.3	11853.7	12176.9	12452.4	12768.1
Difference between estimated and actual capex in 2014–15					1.4
Return on difference for 2014–15 capex					0.4
Closing RAB as at 30 June 2019					12770.0
Roll-in of legacy ICT assets					146.7
<b>Opening RAB as at 1 July 2020</b>					<b>12916.6</b>

Source: Energex, *8.007 RFM - SCS*, 31 January 2019.

(a) Based on estimated capex.

(b) Net of disposals and capital contributions, and adjusted for CPI and half-year WACC.

(c) Adjusted for actual CPI. Based on forecast capex.

Energex proposed a forecast closing RAB as at 30 June 2025 of \$14314.0 million (\$ nominal). This value reflects its proposed opening RAB, forecast capex, expected inflation, and depreciation (based on forecast capex) over the 2020–25 regulatory control period. Its projected RAB over the 2020–25 regulatory control period is shown in Table 2.4.

<sup>12</sup> Energex, *8.007 RFM - SCS*, January 2019.

**Table 2.4 Energex's proposed RAB for the 2020–25 regulatory control period (\$ million, nominal)**

	2020–21	2021–22	2022–23	2023–24	2024–25
Opening RAB	12916.6	13206.7	13501.6	13795.3	14070.9
Capital expenditure <sup>a</sup>	430.1	426.2	446.9	452.6	445.6
Inflation indexation on opening RAB	312.6	319.6	326.7	333.8	340.5
Less: straight-line depreciation	452.6	451.0	479.9	510.9	542.9
<b>Closing RAB</b>	<b>13206.7</b>	<b>13501.6</b>	<b>13795.3</b>	<b>14070.9</b>	<b>14314.0</b>

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

(a) Net of forecast disposals and capital contributions. In accordance with the timing assumptions of the PTRM, the capex includes a half-year WACC allowance to compensate for the six month period before capex is added to the RAB for revenue modelling.

Energex proposed to apply a forecast depreciation approach to establish the RAB at the commencement of the 2025–30 regulatory control period, consistent with the approach set out in our *Framework and approach paper*.<sup>13</sup>

## 2.3 Assessment approach

We roll forward Energex's RAB over the 2015–20 regulatory control period to establish the opening RAB at 1 July 2020. This value can be adjusted for any differences in estimated and actual capex.<sup>14</sup> It may also be adjusted to reflect any changes in the use of the assets, with only assets used to provide standard control services to be included in the RAB.<sup>15</sup>

To determine the opening RAB, we developed an asset base RFM that a DNSP must use in preparing its regulatory proposal.<sup>16</sup> We used the RFM to roll forward Energex's RAB from the beginning of the final year of the 2010–15 regulatory control period,<sup>17</sup> through the 2015–20 regulatory control period, to the beginning of the 2020–25 regulatory control period.

<sup>13</sup> Energex, *1.003 2020–25 Regulatory proposal*, January 2019, p. 34.

<sup>14</sup> NER, cl. S6.2.1(e)(3).

<sup>15</sup> NER, cl. S6.2.1(e)(7).

<sup>16</sup> NER, cll. 6.5.1(b), 6.5.1(e), S6.1.3(7); AER, *Electricity distribution network service providers: Roll forward model (version 2)*, 15 December 2016.

<sup>17</sup> NER, cl. S6.2.1(e)(3). The roll forward commences in the final year of the 2010–15 regulatory control period to allow us to adjust for the difference between actual 2014–15 capex and the estimated 2014–15 capex used in our 2015 distribution determination. The end of period adjustment related to 2014–15 capex will be positive (negative) if actual capex is higher (lower) than the estimate approved at the 2015–20 determination.

The roll forward for each year of the above period occurs by:

- Adding actual inflation (indexation adjustment) to the opening RAB for the relevant year. This adjustment is consistent with the inflation factor used in the control mechanism.<sup>18</sup>
- Adding actual or estimated capex to the RAB for the relevant year.<sup>19</sup> We review a DNSP's past capex and may exclude past capex from being rolled into the RAB where total capex exceeds the regulatory allowance.<sup>20</sup> The details of our assessment approach for capex overspending are set out in the Capital expenditure incentive guideline.<sup>21</sup> We note that under the transitional rules, our review of past capex does not apply to Energex prior to 1 July 2014.<sup>22</sup> Also, the review of past capex does not include the last two years of the 2015–20 regulatory control period—these will instead be reviewed at the next reset.<sup>23</sup> We check actual capex amounts against audited annual reporting RIN data and generally accept the capex reported in those RINs in rolling forward the RAB.<sup>24</sup> However, there may be instances where adjustments are required to the annual reporting RIN data.<sup>25</sup>
- Subtracting depreciation from the RAB for the relevant year, calculated in accordance with the relevant distribution determination for the previous regulatory control period.<sup>26</sup> Depreciation based on forecast or actual capex can be used to roll forward the RAB.<sup>27</sup> For this draft decision, we use depreciation based on forecast capex for rolling forward Energex's RAB over the 2015–20 regulatory control period.<sup>28</sup> Depreciation based on forecast capex will also be used to roll forward the RAB over the 2020–25 regulatory control period at the next reset.<sup>29</sup>
- Subtracting any gross proceeds for asset disposals for the relevant year, by way of netting from capex to be added to the RAB.<sup>30</sup> We check these amounts against audited annual reporting RIN data.

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<sup>18</sup> NER, cl. 6.5.1(e)(3).

<sup>19</sup> NER, cl. S6.2.1(e)(4).

<sup>20</sup> NER, cl. S6.2.2A. Under the NER, cl. S6.2.2A(b), the exclusion of inefficient capex could only come from three areas: overspend in capex, margin paid to third party and capitalisation of opex as defined in cl. S6.2.2A (c), (d) and (e) of the NER.

<sup>21</sup> AER, *Capital expenditure incentive guideline*, November 2013, pp. 12–20.

<sup>22</sup> NER, cll. 11.60.5(a) and 11.62.

<sup>23</sup> NER, cl. S6.2.2A(a1). The two year lag ensures that actual capex (instead of estimated capex) is available when the review of past capex commences.

<sup>24</sup> We will update any estimated capex with actual capex at the time of the next reset.

<sup>25</sup> For example, we make adjustment for movements in capitalised provisions if the actual capex amounts reported in the RIN include capitalised provisions.

<sup>26</sup> NER, cl. S6.2.1(e)(5).

<sup>27</sup> NER, cl. 6.12.1(18).

<sup>28</sup> The use of forecast depreciation is consistent with the depreciation approach established in the 2015–20 distribution determination for Energex. See AER, *Energex distribution determination preliminary Decision 2015–20 Attachment 2 – Regulatory asset base*, p.18.

<sup>29</sup> Refer to section 2.4.4 for the reasons.

<sup>30</sup> NER, cl. S6.2.1(e)(6).

These annual adjustments give the closing RAB for any particular year, which then becomes the opening RAB for the following year. Through this process the RFM rolls forward the RAB to the end of the 2015–20 regulatory control period. The PTRM used to calculate the annual revenue requirement for the 2020–25 regulatory control period generally adopts the same RAB roll forward approach as the RFM, although the annual adjustments to the RAB are based on forecasts, rather than actual amounts.<sup>31</sup>

The opening RAB for the 2025–30 regulatory control period can be determined using depreciation based either on forecast or actual capex incurred during the 2020–25 regulatory control period.<sup>32</sup> To roll forward the RAB using depreciation based on forecast capex, we would use the forecast depreciation contained in the PTRM for the 2020–25 regulatory control period, adjusted for actual inflation. If the approach to roll forward the RAB using depreciation based on actual capex was adopted, we would recalculate the depreciation based on actual capex incurred during the 2020–25 regulatory control period.

Our decision on whether to use actual or forecast depreciation must be consistent with the capex incentive objective.<sup>33</sup> We have regard to:<sup>34</sup>

- the incentives the service provider has to undertake efficient capex
- substitution possibilities between assets with different lives and the relative benefits of each
- the extent of overspending and inefficient overspending relative to the allowed forecast
- the capex incentive guideline
- the capital expenditure factors.

### 2.3.1 Interrelationships

The RAB is an input into the determination of the return on capital and depreciation (return of capital) building block allowances.<sup>35</sup> Factors that influence the RAB will therefore flow through to these building block components and the annual revenue requirement. Other things being equal, a higher RAB increases both the return on capital and depreciation allowances.

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<sup>31</sup> NER, cl. S6.2.3.

<sup>32</sup> NER, cl. S6.2.2B.

<sup>33</sup> AER, *Final framework and approach for Energex and Ergon Energy – Regulatory control period commencing 1 July 2020*, July 2018, p. 12.

<sup>34</sup> NER, cl. S6.2.2B(b) and (c)

<sup>35</sup> The size of the RAB also impacts the benchmark debt raising cost allowance. However, this amount is usually relatively small and therefore not a significant determinant of revenues overall.

The RAB is determined by various factors, including:

- the opening RAB (meaning the value of existing assets at the beginning of the regulatory control period)
- net capex<sup>36</sup>
- depreciation
- indexation adjustment – so the RAB is presented in nominal terms, consistent with the rate of return.

The opening RAB depends on the value of existing assets and will depend on actual net capex, actual inflation outcomes and depreciation in the past.

The RAB when projected to the end of the regulatory control period increases due to both forecast new capex and the indexation adjustment. The size of the indexation adjustment depends on expected inflation (which also affects the nominal rate of return or WACC) and the size of the RAB at the start of each year.

Depreciation reduces the RAB. The depreciation allowance depends on the size of the opening RAB, the forecast net capex and depreciation schedules applied to the assets. By convention, the indexation adjustment is also offset against depreciation to prevent double counting of inflation in the RAB and WACC, which are both presented in nominal terms. This reduces the depreciation building block that feeds into the annual revenue requirement.

We maintain the RAB in real terms by indexing for inflation.<sup>37</sup> A nominal rate of return (WACC) is multiplied by the opening RAB to produce the return on capital building block.<sup>38</sup> To prevent the double counting of inflation through the nominal WACC and indexed RAB,<sup>39</sup> the regulatory depreciation building block has an offsetting reduction for indexation of the RAB.<sup>40</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. If the RAB was un-indexed, there would be no need for an offsetting adjustment to the depreciation calculation of total revenue. This alternative approach provides for overall revenues being higher early in the asset's life (as a result of more depreciation being returned to the distributor) and lower in the

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<sup>36</sup> Net capex is gross capex less disposals and capital contributions. The rate of return or WACC also influences the size of the capex. This is because the capex is not depreciated in the year it is first incurred, but added to the RAB at the end of the year. Instead, the capex amount is escalated by half-year WACC to arrive at an end of year value. It then begins depreciating the following year.

<sup>37</sup> NER, cl. 6.3.2(a)(2), 6.5.1(e)(3).

<sup>38</sup> NER, cl. 6.5.2(a), 6.5.2(d)(2).

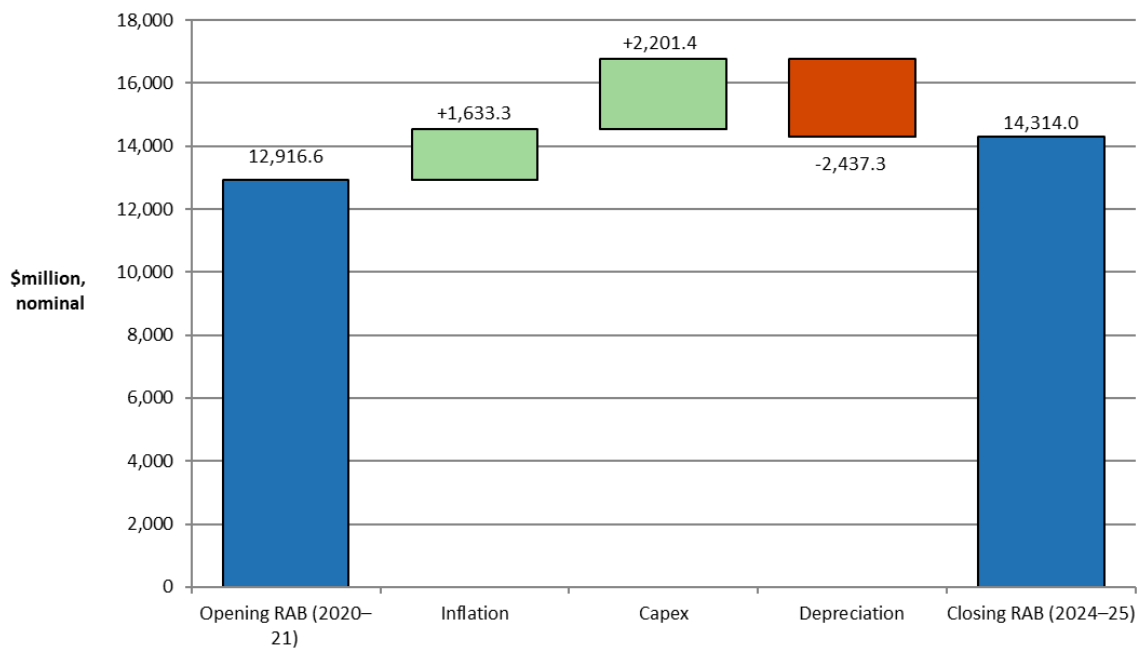
<sup>39</sup> NER, cl. 6.4.3(b)(1)(ii).

<sup>40</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. Please also refer to section 4.3.1 of attachment 4 of this draft decision for further explanation of the offsetting adjustment to the depreciation.

future—producing a steeper downward sloping profile of total revenue.<sup>41</sup> The implications of an un-indexed RAB are discussed further in attachment 4.

Figure 2.1 shows the key drivers of the changes in the RAB over the 2020–25 regulatory control period as proposed by Energex. Overall, the closing RAB at the end of the 2020–25 regulatory control period would be 10.8 per cent higher for than the opening RAB at the start of that period based on the proposal, in nominal terms. The proposed forecast net capex increases the RAB by about 17.0 per cent. Expected inflation increases it by about 12.6 per cent. On the other hand, forecast depreciation reduces the RAB by about 18.9 per cent.

**Figure 2.1 Key drivers of changes in the RAB proposed by Energex (\$ million, nominal)**



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

Energex, *1.003 2020–25 Regulatory proposal, Figure 21*, 31 January 2019, p. 57.

Note: Capex is net of forecast disposals and capital contributions. It is inclusive of the half-year WACC to account for the timing assumptions in the PTRM.

We have largely accepted Energex's depreciation proposal, subject to some input updates and minor modelling corrections, as it satisfies the requirements of the NER in terms of assigned asset lives. This is discussed in attachment 4. The depreciation

<sup>41</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.

amount largely depends on the opening RAB, which in turn depends on capex in the past.<sup>42</sup> Depreciation associated with forecast capex is a relatively smaller amount.

However, we do have concerns with the size of the forecast capex, the largest driver of the increase in the RAB over the 2020–25 regulatory control period, proposed by Energex. A number of stakeholder submissions also raised concerns with the potential size of the RAB proposed by Energex.<sup>43</sup> In this draft decision, we have reduced Energex's proposed forecast capex by \$226.4 million (\$2019–20), or 11.2 per cent over the 2020–25 regulatory control period.<sup>44</sup> Our review of Energex's forecast capex is set out in attachment 5 of this draft decision.

A ten per cent increase in the opening RAB at 1 July 2020 causes revenues to increase by about 3.1 per cent. However, the impact on revenues of the annual change in RAB depends on the source of the RAB change, as some drivers affect more than one building block cost.<sup>45</sup>

## 2.4 Reasons for draft decision

We determine an opening RAB value for Energex of \$12887.4 million (\$ nominal) as at 1 July 2020, a reduction of \$29.3 million (\$ nominal) or 0.2 per cent from the proposed value. We forecast closing RAB value of \$14079.2 million by 30 June 2025. This represents a decrease of \$234.9 million or 1.6 per cent compared to Energex's proposal. The reasons for our decision are discussed below.

### 2.4.1 Opening RAB as at 1 July 2020

We determine an opening RAB value of \$12887.4 million as at 1 July 2020 for Energex. This value is \$29.3 million (or 0.2 per cent) lower than Energex's proposed opening RAB of \$12916.7 million (\$ nominal) as at 1 July 2020.<sup>46</sup>

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<sup>42</sup> At the time of this draft decision, the roll forward of Energex's RAB includes estimated capex values for 2018–19 and 2019–20. We will update the 2018–19 estimated capex with actuals in the final decision. We may also update the 2019–20 estimated capex with a revised estimate in the final decision.

<sup>43</sup> National seniors, *Response to AER Issues Paper: Qld electricity distribution determinations, Energex and Ergon Energy, 2020 to 2025*, 31 May 2019, p. 4;  
Origin Energy, *Response to QLD REGULATORY PROPOSAL 2020-25*, 31 May 2019, p. 1;  
Queensland Council of Social Service (QCOSS), *Qld Electricity distribution determinations – Energex and Ergon 2020 to 25*, 31 May 2019, p. 17;  
Energy Consumers Australia, *AER Issues Paper: QLD electricity distribution determinations Energex and Ergon Energy 2020 to 2025 Submission*, 5 June 2019, pp. 12–13.

<sup>44</sup> This amount is net of asset disposals and excludes half-year WACC adjustment.

<sup>45</sup> If capex causes the RAB increase, return on capital, depreciation, and debt raising costs all increase too. If a reduction in depreciation causes the RAB increase, revenue could increase or decrease. In this case, the higher return on capital is offset (perhaps more than offset) by the reduction in depreciation allowance. Inflation naturally increases the RAB in nominal terms.

<sup>46</sup> Energex, *1.003 2020–25 Regulatory Proposal*, 31 January 2019, p. 91, table 34.

To determine the opening RAB for Energex as at 1 July 2020 we have rolled forward the RAB over the 2015–20 regulatory control period to determine a closing RAB value as at 30 June 2020. In doing so, we reviewed the key inputs of Energex's proposed RFM, such as actual inflation, rate of return, gross capex values, capital contribution values, forecast depreciation amounts and asset lives. We found most of these inputs were correct and reconcile with relevant data sources such as ABS data, regulatory accounts and the 2015–20 decision models.<sup>47</sup> However, we have identified some of the proposed inputs required corrections and updates. Therefore, we have made the following amendments to Energex's proposed RFM inputs:

- Recalculated the 2014–15 CPI from December to December quarter to March to March quarter, consistent with the CPI used for annual pricing purposes. This amendment had a moderate impact on the closing RAB value as at 30 June 2020. Energex supported this amendment in its response to our information request.<sup>48</sup>
- Corrected the adjustments for movements in capitalised provisions over the 2015–20 regulatory control period. This amendment increase the closing RAB value as at 30 June 2020 by around \$13.0 million. Energex supported this amendment in its response to our information request.<sup>49</sup>
- Updated the inflation input for 2018–19 using the actual December 2018 CPI published by the ABS. This amendment had a moderate impact on the closing RAB value as at 30 June 2020. Energex supported this amendment in its response to our information request.<sup>50</sup>
- Updated the December to December inflation estimate for 2019–20.<sup>51</sup> This amendment had a minor impact on the closing RAB value as at 30 June 2020. Energex supported this amendment in its response to our information request.<sup>52</sup>
- Updated the 2019–20 nominal vanilla WACC input following the return on debt update for that year in the 2015–20 PTRM. This amendment had a minor impact on the closing RAB value as at 30 June 2020. Energex supported this amendment in its response to our information request.<sup>53</sup>

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<sup>47</sup> At the time of this draft decision, the roll forward of Energex's RAB includes estimated capex values for 2018–19 and 2019–20. We will update the 2018–19 estimated capex with actuals in the final decision. We may also update the 2019–20 estimated capex with a revised estimate in the final decision.

<sup>48</sup> Energex, *Information request 028*, 17 May 2019.

<sup>49</sup> Energex, *Information request 028*, 17 May 2019.

<sup>50</sup> Energex, *Information request 028*, 17 May 2019.

<sup>51</sup> In our final decision, we will update the estimate for 2019–20 expected inflation with actual CPI.

<sup>52</sup> Energex, *Information request 028*, 17 May 2019.

<sup>53</sup> A key input for the calculation of the nominal vanilla WACC is the rate of return on debt. The return on debt approach for Energex's 2015–20 distribution determination involves annual updates to this parameter. The 2019–20 return of debt update is the latest update for the 2015–20 regulatory control period. This update was finalised after the submission of Energex's regulatory proposal.

Energex, *Information request 028*, 17 May 2019.



- Updated the forecast straight-line depreciation for 2019–20 following the return on debt update for that year in the 2015–20 PTRM. This amendment had a minor impact on the closing RAB value as at 30 June 2020.
- Removed the 'Communications', 'Research and Development' and 'Easements' asset classes because they have an immaterial opening RAB value and no new capex allocated to them for the 2015–20 and 2020–25 regulatory control periods. Energex supported this amendment in its response to our information request.<sup>54</sup>

Further, we adjusted the value of Energex's legacy ICT assets as at 1 July 2020 to be included in its opening RAB. This is discussed in section 2.4.2.

We also consider the extent to which our roll forward of the RAB to 1 July 2020 contributes to the achievement of the capital expenditure incentive objective.<sup>55</sup> We note that under the transitional rules, in making this distribution determination, the review of past capex does not apply to Energex prior to 1 July 2014.<sup>56</sup> Given this, the review period for this distribution determination is limited to 2014–15, 2015–16, 2016–17 and 2017–18 capex.<sup>57</sup>

Energex's actual capex incurred for 2014–15 to 2017–18 are below the forecast allowance set at the previous distribution determinations. Therefore, the overspending requirement for an efficiency review of past capex is not satisfied.<sup>58</sup> For the reasons discussed in attachment 5, we consider the capex incurred in those years is consistent with the capital expenditure criteria and can therefore be included in the RAB.<sup>59</sup>

For the purposes of this draft decision, we have included Energex's estimated capex for 2018–19 and 2019–20 in the RAB roll forward to 1 July 2020. At the next reset, the 2018–19 and 2019–20 capex will form part of the review period for whether past capex should be excluded for inefficiency reasons.<sup>60</sup> Our RAB roll forward applies the incentive framework approved in the previous distribution determination, which included the use of a forecast depreciation approach in combination with the application of the capital expenditure sharing scheme (CESS).<sup>61</sup> As such, we consider that the 2015–20 RAB roll forward contributes to an opening RAB (as at 1 July 2020) that includes capex that reflects prudent and efficient costs, in accordance with the capital expenditure criteria.<sup>62</sup>

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<sup>54</sup> Energex, *Information request 028*, 17 May 2019.

<sup>55</sup> NER, cl. 6.12.2(b).

<sup>56</sup> NER, cl. 11. 60.5(a) and (b).

<sup>57</sup> NER, cl. S6.2.2A(a1).

<sup>58</sup> NER, cl. S6.2.2A(c).

<sup>59</sup> Please see appendix D of attachment 5 of this draft decision.

<sup>60</sup> Here, 'inefficiency' of past capex refers to three specific assessments (labelled the overspending, margin and capitalisation requirements) detailed in NER, cl. S6.2.2A. The details of our ex post assessment approach for capex are set out in AER, *Capital expenditure incentive guideline*, November 2013, pp. 12–20.

<sup>61</sup> AER, *Energex distribution determination Preliminary Decision 2015–16 to 2018–19 Attachment 2 – Regulatory asset base*, April 2015, p. 7.

<sup>62</sup> NER, cll. 6.4A(a), 65.7(a), 6.5.7(c) and 6.12.2(b).

## 2.4.2 Legacy ICT assets

We determine a value of \$124.8 million (\$ nominal) associated with Energex's legacy ICT assets should be included in the opening RAB as at 1 July 2020. This is \$21.9 million lower than Energex's proposed amount of \$146.7 million (\$ nominal).<sup>63</sup>

The legacy ICT assets were previously owned by a third party entity SPARQ (which was part of Energy Queensland) but used to provide ICT services for Energex and Ergon Energy in the 2015–20 regulatory control period. With the merger of the two entities to Energy Queensland in 2017, these functions will be performed by Energex going forward.<sup>64</sup> Customers paid asset usage charges as part of the opex allowance during the 2015–20 regulatory control period for these services.<sup>65</sup> This opex charge will be removed going forward and instead Energex will recover the associated costs through the return on and of capital for these assets from 1 July 2020.

In principle, we accept Energex's proposed approach. However, we are concerned whether Energex proposed the correct amount of assets to be rolled into the RAB (including the efficiency of capex of these programs as they wind down). Customer submissions also expressed concerns that they should not be effectively double charged through the asset usage charges and by having the assets included in the RAB going forward.<sup>66</sup>

To avoid double counting, we consider that only the value of ICT assets that are not already covered by the asset service charge, and are only used for providing standard control services should be included in the RAB from 1 July 2020.

Through our engagement with Energex from a series of information requests, we are satisfied that the ICT assets transferred to Energex from SPARQ which are covered by the asset service charge will be fully depreciated by the end of the 2015–20 regulatory control period. Therefore, none of these assets will be included in the RAB going forward.<sup>67</sup>

At issue is the amount of ICT capex in the final two years of the 2015–20 regulatory control period. These expenditures relate to ICT programs that are winding down, but must be completed. In its response to our information request, Energex confirmed that the assets associated with the 2018–19 and 2019–20 capex will not be commissioned in the current 2015–20 regulatory control period. Therefore, no depreciation charge for

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<sup>63</sup> Energex, *8.003 PTRM - SCS PUBLIC*, 31 January 2019.

<sup>64</sup> The changes were prompted by restructuring in the ownership structures of Energex, Ergon Energy and SPARQ, as the Queensland government sought to merge certain functions through the formation of Energy Queensland in 2017.

<sup>65</sup> AER, *Energex distribution determination final Decision 2015–16 to 2019–20 Attachment 2 – Regulatory asset base*, October 2015, p. 6.

<sup>66</sup> CCP14, *Submission on Energex's Regulatory Proposal 2020-25*, 31 May 2019, p. 11; Queensland Council of Social Service (QCOSS), *Qld electricity determination – Energex and Ergon 2020 to 2025*, 31 May 2019, p. 8.

<sup>67</sup> Energex, *Information request 013 follow up*, 11 July 2019.

these capex has been included in the asset management fee (either directly, or indirectly through forecast depreciation at the 2015 distribution determination).<sup>68</sup> For this reason, we accept that no depreciation is to be applied to the ICT capex for these two years in calculating the opening value for these assets as at 1 July 2020.<sup>69</sup>

Energex noted that at the time of the proposal the relevant capex amounts for 2018–19 and 2019–20 were estimates. We asked Energex to provide the actual capex for 2018–19 after the data became available. Energex advised that progress on completing some ICT programs had been delayed. Accordingly, the capex amounts in the proposal had shifted to later years.<sup>70</sup> Based on information provided by Energex and our assessment, we consider that adopting a revised estimate of \$79.1 million as at 1 July 2019 for these assets is appropriate for this draft decision.<sup>71</sup> We expect this figure to be updated in the final decision based on the actual 2018–19 capex to be provided in Energex's revised proposal.<sup>72</sup>

For 2019–20, Energex provided a revised capex estimate of \$74.0 million.<sup>73</sup> We accept the revised capex forecast and note that any difference between this estimate and actual capex will be corrected for at the next reset through the RFM.

### 2.4.3 Forecast closing RAB as at 30 June 2025

We forecast a closing RAB value of \$14079.2 million (\$ nominal) by 30 June 2025 for Energex, which represents a reduction of \$234.9 million (1.6 per cent) compared to Energex's proposed amount of \$14314.0 million (\$ nominal). In real terms, we forecast the value of the RAB will decline by \$413.0 million (\$2019–20) or 3.2 per cent over the 2020–25 regulatory control period. This reduction reflects our draft decision on the inputs for determining the forecast RAB in the PTRM.

The submissions from a number of stakeholders on Energex's proposal raised concerns regarding the increase to the size of Energex's RAB over the 2020–25 regulatory control period.<sup>74</sup> Our draft decision projects the RAB to decrease by 3.2 per

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<sup>68</sup> Energex, *Information request 013 follow up*, 11 July 2019.

<sup>69</sup> For unregulated assets entering the RAB, our standard approach is that the assets is to be included at a depreciated value. However, we have treated the relevant ICT assets here differently because the expenditures is incurred in the current regulatory period for assets to be commissioned for providing regulated standard control services.

<sup>70</sup> AER, *Information request 013 follow up*, 4 July 2019.

<sup>71</sup> This balance will be used in the RFM for reconciliation purposes at the next reset for Energex.

<sup>72</sup> Energex, *Information request 013 follow up*, 11 July 2019.

<sup>73</sup> Energex, *Information request 013 follow up*, 11 July 2019.

<sup>74</sup> National seniors, *Response to AER Issues Paper: Qld electricity distribution determinations, Energex and Ergon Energy, 2020 to 2025*, 31 May 2019, p. 4;

Origin Energy, *Response to QLD REGULATORY PROPOSAL 2020-25*, 31 May 2019, p. 1;

Queensland Council of Social Service (QCOSS), *Qld electricity distribution determinations – Energex and Ergon 2020 to 2025*, 31 May 2019, p. 17.

Energy Consumers Australia, *AER Issues Paper: QLD electricity distribution determinations Energex and Ergon Energy 2020 to 2025 Submission*, 5 June 2019, pp. 12–13.

cent in real terms over the 2020–25 regulatory control period.<sup>75</sup> This compares to the historical increase of 16.2 per cent for the 2010–15 regulatory control period, and the estimated increase of 5.7 per cent over the current 2015–20 period. Such movements in the RAB were driven largely by the higher capex spend in previous periods. The other drivers of the change in the size of the RAB depends on our assessment of its various components including expected inflation (attachment 3), forecast depreciation (attachment 4) and forecast capex (attachment 5). Inflation and capex increase the RAB, while depreciation and disposals reduce it.

To determine the forecast RAB value for Energex, we amended the following PTRM inputs:

- We reduced Energex's proposed opening RAB value by \$29.3 million (\$ nominal) as at 1 July 2020 (section 2.4.1).
- We reduced Energex's proposed forecast capex for the 2020–25 regulatory control period by \$253.5 million (\$ nominal) or 11.5 per cent (attachment 5).<sup>76</sup>
- We reduced Energex's proposed forecast straight-line depreciation for the 2020–25 regulatory control period by \$40.8 million (\$ nominal) or 1.7 per cent (attachment 4).
- We updated Energex's proposed expected inflation rate of 2.42 per cent per annum for the 2020–25 regulatory control period to 2.45 per cent per annum (attachment 3). This resulted in an increase to the indexation of the RAB component for the 2020–25 regulatory control period by \$21.2 million (\$ nominal) or 1.3 per cent.<sup>77</sup>

Figure 2.2 shows the key drivers of the change in Energex's RAB over the 2020–25 regulatory control period for this draft decision. Overall the closing RAB at the end of the 2020–25 regulatory control period is forecast to be 9.2 per cent higher than the opening RAB at the start of that period in nominal terms. The approved forecast net capex and expected inflation increase the RAB by about 12.7 per cent and 15.1 per cent respectively. Forecast depreciation, on the other hand, reduces the RAB by about 18.6 per cent.

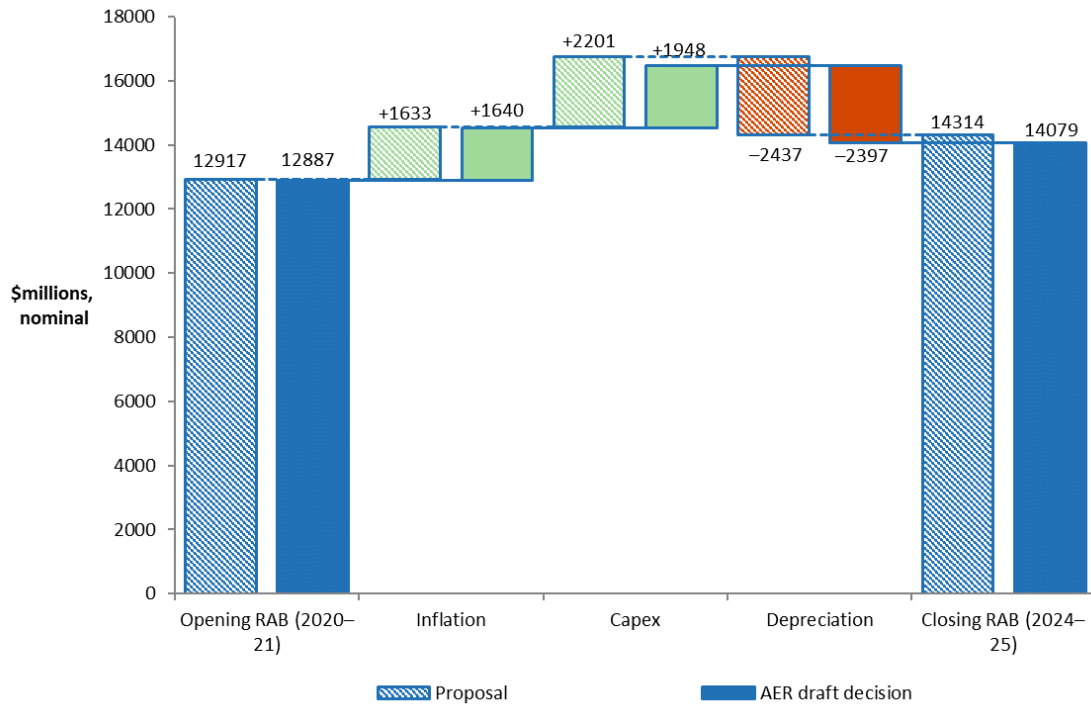
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<sup>75</sup> Real RAB change is calculated in \$ 2019–20.

<sup>76</sup> Capex net of disposals and customer contributions, and inclusive of half-year WACC adjustment.

<sup>77</sup> The calculated decrease to the RAB indexation component amount due to updating for expected inflation is based on input data provided in Energex's proposal PTRM.

**Figure 2.2 Key drivers of changes in the RAB – Energex's proposal compared with AER's draft decision (\$ million, nominal)**



Source: AER analysis.

Note: Capex is net of forecast disposals and capital contributions. It is inclusive of the half-year WACC to account for the timing assumptions in the PTRM.

#### 2.4.4 Application of depreciation approach in RAB roll forward for next reset

We accept Energex's proposal on the depreciation approach to be applied to establish its RAB at the commencement of the 2025–30 regulatory control period. We determine that the depreciation approach will be based on the depreciation schedules (straight-line) using forecast capex at the asset class level approved for the 2020–25 regulatory control period.<sup>78</sup>

Energex proposed to use the forecast depreciation approach to roll forward its RAB for the commencement of the 2025–30 regulatory control period,<sup>79</sup> consistent with our position in the Framework and approach.<sup>80</sup>

<sup>78</sup> NER, cl. 6.12.1(18) and S6.2.2B.

<sup>79</sup> Energex, *1.003 2020-25 Regulatory Proposal*, January 2019, p.108.

<sup>80</sup> AER, *Final framework and approach for Energex and Ergon Energy for regulatory control period commencing 1 July 2020*, July 2018, p. 12.

We stated in the Framework and approach that depreciation used to roll forward the RAB in the next distribution determination could be based on either:<sup>81</sup>

- Actual capex incurred during the regulatory control period (actual depreciation). We roll forward the RAB based on actual capex less the depreciation on the actual capex incurred by the distributor, or
- The capex allowance forecast at the start of the regulatory control period (forecast depreciation). We roll forward the RAB based on actual capex less the depreciation on the forecast capex approved for the regulatory control period.

We have used forecast depreciation for this draft decision when rolling forward the opening RAB at the commencement of the 2020–25 regulatory control period (section 2.4.1). The use of forecast depreciation to establish the opening RAB for the commencement of the 2025–30 regulatory control period at the next reset therefore maintains the current approach.

As discussed in attachment 9, Energex is currently subject to the CESS for the 2015–20 regulatory control period, although Energex noted that it will not claim the CESS benefits if the AER accepts its regulatory proposal. Notwithstanding, we will continue to apply the CESS to Energex over the 2020–25 regulatory control period. We consider that the CESS will provide sufficient incentives for Energex to achieve capex efficiency gains over that period. We are satisfied that the use of a forecast depreciation approach in combination with the application of the CESS and our other ex post capex measures are sufficient to achieve the capex incentive objective.<sup>82</sup>

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<sup>81</sup> AER, *Final framework and approach for Energex and Ergon Energy for regulatory control period commencing 1 July 2020*, July 2018, pp. 12, 79.

<sup>82</sup> Our ex post capex measures are set out in the capex incentives guideline, AER, *Capital expenditure incentive guideline for electricity network service providers*, November 2013, pp. 13–19, 20–21. The guideline also sets out how all our capex incentive measures are consistent with the capex incentive objective.