

# Chapter 4

## Regulatory building blocks

4.1 As noted in Chapter 3, the maximum allowed revenue that network service providers can recover from their customers is determined by the Australian Energy Regulator (AER) with reference to four building blocks. These building blocks—operating expenditure, return on capital, return of capital and tax—are estimates of the various costs a network business needs to incur while efficiently providing network services to customers over the regulatory control period (RCP).

4.2 Although other building blocks are noted, this chapter largely focuses on the return on capital, which has been a key driver of increasing network costs. The return on capital is calculated by reference to the regulatory asset base (RAB) and the weighted average cost of capital (WACC). These inputs to the regulatory calculation have a significant effect on the amount of revenue network companies are allowed to recover from their customers: one submitter stated that the RAB is the 'single biggest driver of revenue for a transmission business'.<sup>1</sup>

4.3 Many of the submissions received by the committee expressed concern that the RABs are inflated by inefficient investments and have been calculated using a flawed methodology. Further, submissions expressed concern about how the allowed rate of return is determined. In particular, it was argued that the National Electricity Rules (NER) and the approach taken by the AER provide incentives for overspending and allow returns on capital that do not reflect the low-risk nature of network businesses and the actual costs they face.

### Calculation of the regulatory asset base

4.4 The electricity regulatory framework provides for the recovery of past network investments over the duration of their economic lives. This is reflected by the RAB—the regulatory valuation of a network service provider's assets and a key input for the return on capital building block.

4.5 The initial RABs for each network service provider are specified in the NER.<sup>2</sup> These bases are rolled forward to the beginning of the next RCP using a model determined by the AER. However, the NER provide that the RAB must be adjusted for inflation between RCPs.<sup>3</sup>

---

1 Big Picture Tasmania, *Submission 4*, p. 4.

2 For example, the RABs for distribution network service providers are outlined in schedule 6.2 of the NER.

3 National Electricity Rules, rules 6.5.1 and 6A.6.1.

4.6 Many submissions received by the committee expressed concern about network businesses' RABs. These submissions follow the established concern about the 'gold plating' of electricity networks; that is, the regulatory framework provides incentives for network service providers to undertake inefficient investments to maximise their RABs. For example, the Energy Users Association of Australia (EUAA) argued that 'study after study' has demonstrated that the RABs 'are grossly inflated due to unnecessary and inefficient investments'.<sup>4</sup> A representative of the EUAA told the committee that networks service providers:

...are building 30- and 40-year assets that...are bad investment decisions that our children and grandchildren will be paying for.<sup>5</sup>

4.7 Submitters claimed that past decisions have led to a high RAB value being locked in, guaranteeing high prices in the future regardless of other rule changes or efforts to expose network businesses to the risk of their spending decisions.<sup>6</sup> The long-lasting consequences of the inclusion of an investment in a network service provider's RAB was also identified by the Productivity Commission (PC) in its 2013 report on electricity network regulation:

Some network businesses may have benefited from being able to exceed regulatory allowances for capital expenditure in the previous regulatory period. Not only has this expenditure been rolled into the subsequent regulated asset base, but it has also influenced the regulator's decisions about what is reasonable expenditure in future periods. It is possible that some of this overspend could have reasonably been reduced or deferred.<sup>7</sup>

4.8 The PC's conclusion was supported by evidence given by the chief executive officer of Energex, who acknowledged that despite proposed reductions in capital and operating expenditure for the next regulatory period, Energex's RAB will continue to increase:

The reality is that our RAB...is continuing to grow through the period because of the investments that we have had in the previous period. And because of the way regulatory depreciation works, that RAB will continue to grow. So what you are seeing is an outcome of the regulatory construct where the [RAB], due to investments that we made in the previous period, will continue to grow for some period of time. And given that the majority

---

4 Energy Users Association of Australia (EUAA), *Submission 17*, p. 7 (footnotes and emphasis omitted).

5 Mr Mark Grenning, Board Director, EUAA, *Proof Committee Hansard*, 18 February 2015, p. 17.

6 Australian Aluminium Council, *Submission 27*, p. 5; EUAA, *Submission 17*, p. 3.

7 Productivity Commission, *Electricity networks regulatory frameworks*, vol. 1, April 2013, p. 227.

---

of our revenue comes from RAB multiplied by WACC, that is what is driving up the revenue requirements.<sup>8</sup>

4.9 Data on RABs for various network businesses were provided to the committee. EnergyAustralia stated that the RABs for New South Wales have doubled since 2000, with the result being an increase in network charges of 130 per cent since 2007–08.<sup>9</sup> Big Picture Tasmania told the committee that the Tasmanian asset base has increased from approximately \$0.8 billion in 2005 (in 2013 dollars) to \$1.5 billion in 2013. Further, Big Picture Tasmania claimed that during the last regulatory period Transend<sup>10</sup> had approximately \$600 million in capital expenditure at a time when demand and peak demand was declining.<sup>11</sup>

### *Methodology for valuing assets*

4.10 Some submitters questioned the methodology used for determining the RAB of a network business. These submitters discussed three models for valuing business assets: 'asset optimisation', depreciated optimized replacement cost (DORC) and depreciated actual cost.

4.11 The EUAA and Major Energy Users explained that, prior to 2006, an asset optimisation model was used for electricity network assets. Under this model, the value of a network service provider's RAB was 'optimised' to reflect 'the minimum value of assets needed to deliver the required services'. That is, the asset base was optimised to reflect the value of assets that were the minimum needed to provide the service, rather than actual capital expenditure automatically being included. The value of any investments that resulted in excess capacity were excluded from the RAB until the additional network capacity was needed.

4.12 Changes were introduced in 2006 (for transmission networks) and 2007 (for distribution networks) to provide incentives for investment.<sup>12</sup> The EUAA advised that asset values are now determined using the DORC valuation method. In the EUAA's view, the DORC method 'significantly overstates the value of the assets'. Further, the NER require the asset values to be adjusted each year in line with the consumer price index (CPI), an approach that the EUAA advised is 'unique to Australia'.<sup>13</sup> The EUAA noted that businesses operating in competitive sectors

---

8 Mr Terence Effenev, Chief Executive Officer, Energex, *Proof Committee Hansard*, 16 February 2015, p. 5.

9 EnergyAustralia, *Submission 23*, p. 4.

10 Transend was a transmission network service provider in Tasmania. On 1 July 2014, the Tasmanian Government merged Transend's electricity transmission business with Aurora's electricity distribution business to form TasNetworks. TasNetworks, [www.tasnetworks.com.au/about-us/corporate-profile/about-tasnetworks](http://www.tasnetworks.com.au/about-us/corporate-profile/about-tasnetworks) (accessed 31 March 2015).

11 Big Picture Tasmania, *Submission 4*, p. 4.

12 EUAA, *Submission 17*, p. 8; Major Energy Users, *Submission 7*, pp. 3–4.

13 EUAA, *Submission 17*, p. 8.

'predominantly use the depreciated actual cost valuation approach, which results in significantly lower asset valuations'.<sup>14</sup>

4.13 Major Energy Users concluded that the change to DORC has given network service providers 'carte blanche to over-invest with impunity', with the building block approach to determining allowed revenue resulting in a network provider's profit being 'related entirely to the value of the assets it provides'. According to Major Energy Users, a network service provider has an incentive 'to overinvest if it can and to replace existing assets with new assets as this increases the asset base'. To put it another way, 'the larger the asset base, the greater the profit [a network service provider] receives'.<sup>15</sup> In this regard, the automatic inclusion of any investment made by a network business was seen as particularly questionable.<sup>16</sup>

4.14 Professor David Johnstone, a professor of finance at the University of Sydney, described DORC as a formula that allows 'infrastructure owners to charge users as if they had to rebuild it all, even its most perfectly functional parts—at today's supposed prices'.<sup>17</sup> He described the formula as 'nonsense' that was 'clearly set up in the interests of the asset owners...both private and public'.<sup>18</sup> The following example was provided to demonstrate how assets can be valued under the DORC method:

Suppose the asset owner has an asset that cost \$100 years ago, and would cost \$1000 to build today (at a guess, and with some discretion on the part of the consultant valuer producing this estimate). Suppose also that the asset is currently 'depreciated' by 20% in terms of its existing life span, and is expected to depreciate by another 2% this year (at a guess). Lastly, suppose that the WACC return regulated in the access arrangements to owners (from users) is 10%. The regulated asset base (RAB), also known as the depreciated replacement cost (DORC) is therefore 80% [of] \$1000 = \$800.

The tariff payable on this asset this year is then:

$\$800 \times 10\% = \$80$  paid as 'interest' or 'return' on depreciated assets

plus

$\$800 \times 2\% = \$16$  paid as compensation for this year's depreciation on assets

Total \$96.

So the owner gets 12% of an imaginary cost base of \$800, an amount that was never actually paid (the owner actually paid \$100 years earlier).<sup>19</sup>

---

14 EUAA, *Submission 17*, p. 8.

15 Major Energy Users, *Submission 7*, pp. 3–4.

16 See Central Irrigation Trust, *Submission 1*, p. 4; Big Picture Tasmania, *Submission 4*, p. 4.

17 Professor David Johnstone, *Submission 10*, pp. 3–4.

18 Professor David Johnstone, *Proof Committee Hansard*, 17 February 2015, p. 42.

19 Professor David Johnstone, *Submission 10*, pp. 1–2.

4.15 Professor Johnstone's evidence indicated that the origins of the current problems can be traced back to when the assets were valued in the 1990s and early 2000s. He stated that the result was 'basically, a made-up number, rather than anything necessarily related to money that had been spent building those assets, which, in many cases, were very old'. He explained:

...what happened in the energy industry was valuers came in and were told to value these assets at what they would cost today. The valuers thought, 'Strewth, how would you do this today? It is going to cost a fortune.' So they start writing down telephone numbers and then get paid accordingly for those valuations. That was the kind of cosy nexus that occurred between that valuers and asset owners—some of whom were government obviously.<sup>20</sup>

4.16 In his submission, Professor Johnstone wrote there are 'many bits of convoluted economic rhetoric that have been put forward for this obviously generous set up'. Professor Johnstone focused on the 'new entrant' rationale, which suggests that asset owners should be permitted to charge up to the point where the owner risks a new entrant replicating or bypassing its assets. Professor Johnstone described this concept as 'one of many superficially plausible economic theory arguments that any vested interest could mount to suit its case', or more simply, that its application to network businesses was 'leg pulling by whoever invented the idea'. Professor Johnstone explained:

Neither the economic rationale nor the political acceptability of large scale duplication of natural monopoly assets will ever exist. The new owner would have to pay current asset replacement cost, whereas the existing owner could compete against them without paying another cent.

Ultimately this means that existing owners of assets that would cost let's say \$500 to replicate today (if those assets could be built given the need for easements etc.) can charge customers as if those same assets would cost \$1000 (i.e. 'double DORC') or an even greater multiple of true current replacement cost. They can charge this much because there is no realistic threat of a new entrant. So the sky is the limit in relation to any actual true threat of major infrastructure duplication or bypass. (Think of those massive electricity stanchions that we see running across country, is any competitor going to build an identical network running hundreds of miles right next to it?).<sup>21</sup>

4.17 Professor Johnstone highlighted the valuation of easements under the DORC method as being 'the most absurd application of this idea':

Governments decades earlier (at little cost in today's terms, and long 'paid for') and yet they appear in the tariff asset base (DORC) as if they must be re-acquired today. Not only that, they are valued widely at the per foot replacement cost of the land involved, which is not only a conceptual

---

20 Professor David Johnstone, *Proof Committee Hansard*, 17 February 2015, p. 42.

21 Professor David Johnstone, *Submission 10*, p. 2.

nonsense, it is an open invitation to inflate the asset base (DORC) by introducing factors and market conditions entirely unrelated to the asset owners cost of delivering energy.<sup>22</sup>

4.18 Similarly, Mr Ray Mostogl of Bell Bay Aluminium questioned the rationale behind valuing land under power lines in a way that results in the value of that land increasing 'at about five per cent year on year because it is being judged as something that a foreign investor would be happy to purchase'.<sup>23</sup>

4.19 Although a number of problems with the DORC model were put forward, the indexation of assets was a specific area of concern. Mr Michael Murray from Cotton Australia told the committee he was 'just astounded' by the way a network service provider's RAB is calculated. Mr Murray stated:

Why do consumers need to pay for the full asset base that has a utilisation of under 40 per cent and continues to decline? Why should consumers pay for assets that were justified and constructed based on spurious peak demand forecasts that have never materialised? Why does the asset base get revalued in line with inflation each year? This means that many assets still retain a considerable value even at the end of their life and are then subject to full replacement of costs.<sup>24</sup>

4.20 Mr Murray went on to comment that this was not the usual commercial practice:

It certainly does not happen in the real world that you can depreciate an asset and then automatically adjust it back up for inflation and end up with something that potentially is worth more than what you started with 40 years and then replace it with something at the new cost.<sup>25</sup>

4.21 Most submitters, other than network companies or their industry association, argued that a fundamental problem with the RAB calculation is that it is removed from commercial realities. Mr Mostogl suggested that the asset base reflects how much is being invested in it, rather than being a true indicator of actual performance.<sup>26</sup> Big Picture Tasmania claimed that if a private enterprise delivered outcomes of increased investment and declining reliability, as it suggested was the case with Tasmanian networks, the board of directors and chief executive officer would 'most likely...face hostile shareholders and possible legal action'.<sup>27</sup> The Australian Aluminium Council provided the following similar observation:

---

22 Professor David Johnstone, *Submission 10*, pp. 3–4.

23 Mr Ray Mostogl, General Manager, Bell Bay Aluminium, *Proof Committee Hansard*, 17 February 2015, p. 35.

24 Mr Michael Murray, Policy Manager, Cotton Australia, *Proof Committee Hansard*, 17 February 2015, p. 20.

25 Mr Michael Murray, Cotton Australia, *Proof Committee Hansard*, 17 February 2015, p. 25.

26 Mr Ray Mostogl, Bell Bay Aluminium, *Proof Committee Hansard*, 17 February 2015, p. 37.

27 Big Picture Tasmania, *Submission 4*, p. 4.

A 'normal' business within a 'normal' industry is subject to a range of commercial disciplines that would see it financially damaged if it overestimated demand, invested more capital than necessary, over-valued its assets, or assumed its borrowing costs were higher than necessary. Furthermore, it is the subsequent reality and ever-changing circumstances that will determine the actual returns for a normal business, not the estimates prior to the investment program.

These commercial disciplines are not only largely absent for network businesses but there is potential reward—or protection at a minimum—for differences between estimates and reality on key parameters such as future demand, capital costs and costs of borrowing. Network business returns are largely dictated and locked-in by the proposed investment program and regulator's decision – they are shielded if reality differs from the prediction or if circumstances change.<sup>28</sup>

4.22 Professor Johnstone argued that asset valuation rules favouring asset owners 'would not have occurred in countries with larger more influential manufacturing sectors'.<sup>29</sup> He observed that:

At a philosophical level, the tariff regulation regime could have been biased in energy users' direction rather than in the asset owners' direction. The thinking could have been that pre-existing infrastructure was a 'sunk cost' (i.e. it's there already, whatever we do today) so let's just charge users whatever is necessary to operate it.<sup>30</sup>

### ***Assessment of investments and asset write-downs***

4.23 If it is accepted that the RABs of network businesses are significantly over-valued, as was claimed in many submissions, the question that follows is what can be done about it? For many, the solution is to write-down the value of inefficient assets. This could be facilitated by excluding the assets from the network provider's RAB until the asset was no longer underutilised. For example, Canegrowers Isis presented the following statement in support of asset write-downs:

[Distribution network service providers] have over invested in the network to maximise their revenue based on false and over inflated demand forecasts. Therefore, the network assets must be written down substantially prior to the next regulatory reset.

One way of keeping electricity prices under control is to write-down the network asset values. A one-third network asset write-down would have a significant and positive impact on electricity prices for all customers.<sup>31</sup>

---

28 Australian Aluminium Council, *Submission 27*, p. 2.

29 Professor David Johnstone, *Submission 10*, p. 1.

30 Professor David Johnstone, *Submission 10*, pp. 3–4.

31 Canegrowers Isis, *Submission 39*, p. 1.

4.24 Submitters suggested that the first step should be a review of the asset base to identify assets that are underutilised.<sup>32</sup> For example, Mr Michael Murray of Cotton Australia, stated:

...there just needs to be a hard look at a lot of the capital expenditure that was based on very overoptimistic peak demand forecasts. I believe that is the case in Canada; if it is proven that the expenditure was not justified it gets taken off the books and maybe sometime in the future you say, 'Okay, that peak demand has finally arrived', or maybe you add it back onto the books then. I think those sorts of things would be the starting points. Whether you then have a much more severe approach and enforce some major write-downs and provide some sort of compensation or whatever, I think that is an area for debate.<sup>33</sup>

4.25 Bell Bay Aluminium called for more rigorous processes for assessing the efficiency of investments. Bell Bay highlighted how ex-post reviews of investments occur in its sector:

In private enterprise, at the end of a capital project, particularly for significant investments, we would typically bring in an independent person to assess the value that the organisation got for that project. They would look at what was installed, what was spent, what should have been spent and whether it delivered the value that was identified up-front. We have asked for evidence of this from the transmission providers; I would like to think they do something internally, but we have never been able to uncover that. So just holding people to account for spending money that the public have to pay for is certainly an area of improvement.<sup>34</sup>

4.26 While the EUAA noted that recent rule changes have given the AER 'marginally more power to scrutinise future gold plating', it argued that a 'major omission' in the new rules was that the AER still does not have the ability to address past gold plating.<sup>35</sup> The AER confirmed that under the current framework, it is unable to exclude assets from the RAB. The AER's chief executive officer noted that providing for the AER to do this would:

...require quite a significant policy change through the rules and possibly through the law. In essence it is a policy for decision for governments around whether they want to make that change.<sup>36</sup>

---

32 Ms Stefanie Schulte, Policy Manager, New South Wales Irrigators' Council (NSWIC), *Proof Committee Hansard*, 17 February 2015, p. 26.

33 Mr Michael Murray, Cotton Australia, *Proof Committee Hansard*, 17 February 2015, p. 25.

34 Mr Ray Mostogl, Bell Bay Aluminium, *Proof Committee Hansard*, 17 February 2015, p. 36.

35 EUAA, *Submission 17*, p. 7 (footnotes and emphasis omitted). Since 2014, the AER is able to review the efficiency of capital expenditure over a regulatory control period that exceeds the efficient amount estimated by the AER. The AER may disallow capital overspending it considers was inefficient.

36 Ms Michelle Groves, Chief Executive Officer, Australian Energy Regulator (AER), *Proof Committee Hansard*, 18 February 2015, p. 4.



4.27 In support of asset re-valuation, the New South Wales Irrigators' Council pointed to the National Gas Rules, which it suggested provides a precedent for reviews of asset bases to take place. Specifically, it drew the committee's attention to sub-rule 81(1), which states:

A full access arrangement may include...a mechanism to ensure that assets that cease to contribute in any way to the delivery of pipeline services...are removed from the capital base.<sup>37</sup>

4.28 Precedents can also be found in other jurisdictions. The AER's equivalent in Western Australia, the Economic Regulation Authority (ERA), advised that under the Electricity Networks Access Code the ERA can review existing and proposed expenditure for efficiency, not just spending over the forecast. The ERA is of the view that this power is 'a particularly effective aspect of the Code'. It is also evident that this provision of the Code is utilised; the ERA provided the following example of an ERA decision to exclude expenditure from a network service provider's RAB:

In addition to reducing forecast expenditure proposed by Western Power, the ERA excluded more than \$200 million of capital expenditure already incurred by Western Power from its RAB in the second access arrangement review of Western Power. This related to expenditure undertaken between 2007 and 2009, which the ERA determined did not meet the efficiency requirements of the Code.<sup>38</sup>

#### *Potential adverse consequences from asset write-downs*

4.29 While submissions from large electricity users generally supported some form of re-valuation of asset bases, the committee also received warnings about the consequences of writing-down the value of assets. The Department of Industry observed that write-downs that have been part of approved capital expenditure would result in costs that need to be borne, either by taxpayers if the business is government-owned, or by shareholders if it is a private company. The department claimed this would introduce a new risk to network businesses, placing upward pressure on the cost of capital. As a result, asset write-down proposals 'may be inconsistent with the goal of minimising costs for consumers in the long run'.<sup>39</sup>

4.30 The department's comments were echoed and reinforced by the Energy Networks Association (ENA) and the Energy Supply Association of Australia (ESAA). The ENA argued that the mechanism of a 'predictably updated' RAB 'provides the critical foundation for low cost financing of new and ongoing network investments'. The ESAA described the key benefit of a rule-based system as being 'the certainty that it gives investors'. The ESAA went on to state:

---

37 National Gas Rules, rule 81(1); cited by Ms Stefanie Schulte, NSWIC, *Proof Committee Hansard*, 17 February 2015, p. 26.

38 Economic Regulation Authority (WA), *Submission 30*, pp. 3–4.

39 Department of Industry, *Submission 34*, p. 14.

If you undermine that certainty by going back and saying, 'Well, the rules were applied but we didn't like the outcome, so we're going to put a red pen through your asset base,' that causes a real impact on the cost of finance for those companies, particularly in the case of the privately owned networks that rely on financial markets to underwrite their investments and to keep operating and maintaining the system on behalf consumers.<sup>40</sup>

4.31 The ENA argued that network charges would increase as a result of the higher rates of return investors would require to account for the risk of future network write-downs. Further, according to the ENA, asset write-downs would:

- 'tend to reverse existing downward pressures on the cost of capital and prices';
- not lead to lower tariffs for consumers;
- likely worsen the risk of any death spiral by increasing financing and network costs; and
- even if the future cost of capital increased by a small amount as a result of the risk of write-downs, this would 'completely offset' any notional savings associated with the write down.<sup>41</sup>

4.32 The ENA cited analysis it undertook in 2014 that suggested consumers would face overall increases in network charges if current regulatory commitments to provide for recovery of past investments were removed. The ENA advised:

This analysis found that under the scenarios modelled, households across individual Australian states would experience increases of up to about 7 per cent in the prices paid for network services. Australian consumers could pay the equivalent of over \$320 million in increased network charges each year leading to unnecessary increases in average electricity bills of up to 2.4 per cent.<sup>42</sup>

4.33 The ENA suggested its analysis was 'likely to be a highly conservative lower bound estimate, because it completely excludes consideration of the costs to finance new capital investment in the future'. However, if this factor was included, the ENA indicated that the expected outcomes for consumers would worsen:

As an illustrative example, assuming an average capital expenditure of around \$7.0 billion undertaken each year on Australian networks, network charges would have to recover an additional \$345 to \$915 million over the next five years to recover the associated increased financing costs arising from the implementation of any regulatory asset writedowns.<sup>43</sup>

---

40 Mr Kieran Donoghue, General Manager Policy, Energy Supply Association of Australia (ESAA), *Proof Committee Hansard*, 18 February 2015, p. 26.

41 Energy Networks Association (ENA), *Submission 31*, p. 4.

42 ENA, *Submission 31*, pp. 4–5.

43 ENA, *Submission 31*, p. 5.

---

4.34 The ESAA also questioned what the basis would be for writing down the assets of businesses that 'are charging prices that are broadly similar, in real terms, to what they were charging 20 years ago'.<sup>44</sup>

4.35 Several other submitters did not accept the arguments put forward by the energy industry associations. Their counter-arguments focused on sovereign risk and standard commercial practice.

4.36 On sovereign risk, Mr Oliver Derum from the Public Interest Advocacy Centre disagreed with the argument that asset write-downs would significantly increase the costs of borrowing for network companies because of sovereign risk. He countered that if the business had fewer stranded assets because of the asset write-down it 'becomes a lower risk investment proposition'.<sup>45</sup>

4.37 The EUAA added that all businesses face the risk of a government changing a policy that could affect them:

On that basis, if you think it is a sovereign risk issue and you think they should be compensated, then the question I ask is: how many businesses in Australia could maintain a sovereign risk argument where something the government has done has changed the value of their business? On that basis, the government budget would be dominated by compensating people. I do not think it is a reasonable argument to say that, just because the rules change or things change, I should be compensated for that.<sup>46</sup>

4.38 How assets are treated by firms operating in markets that are not subject to economic regulation was also considered. The Public Interest Advocacy Centre noted that 'the entire regulatory system is, in theory, set up to mimic the structures and determinations of the competitive market'. The Centre observed that one aspect of commercial behaviour in those markets is that businesses write down assets 'when circumstances change or when poor business decisions have been made'. The Centre remarked 'we are seeing it in the resources sector almost daily...at the moment'.<sup>47</sup>

4.39 Although he considered it would be 'problematic' to revalue privately-owned assets, Mr Bruce Mountain noted that under the regulatory formulation, the businesses are compensated to bear market risk and that market risk is set with reference to a market of firms that actually compete. Mr Mountain also noted the write-downs in the resources sector, which is 'the market that the cost of capital is referenced to'. He concluded that network companies:

---

44 Mr Kieran Donoghue, General Manager Policy, ESAA, *Proof Committee Hansard*, 18 February 2015, p. 26.

45 Mr Oliver Derum, Senior Policy Officer, Energy and Water Consumers' Advocacy Program, Public Interest Advocacy Centre, *Proof Committee Hansard*, 17 February 2015, p. 17.

46 Mr Mark Grenning, EUAA, *Proof Committee Hansard*, 18 February 2015, p. 18.

47 Mr Oliver Derum, Public Interest Advocacy Centre, *Proof Committee Hansard*, 17 February 2015, p. 17.

...cannot have it both ways. You either take a lower regulatory return and have greater certainty of your asset valuation or you have the superior returns and have with that the risks that market participants are exposed to.<sup>48</sup>

4.40 Finally, the EUAA suggested that arguments mounted by the network services providers in opposition to asset write-downs reflected efforts to delay the inevitable:

In a sense, they are trying to achieve something that technology may not enable them to achieve in the future. They are wanting to get a return on a bad investment decision and a return over 40 years, and I suspect that technology is going to be such, with the way battery technology is developing, that, no matter what the rules say in 10 years' time, they will be relevant. Batteries will enable people to disconnect from a grid that is charging them an enormous amount of money to connect to the grid.<sup>49</sup>

### **Weighted average cost of capital**

4.41 This chapter has so far considered the RAB, which is one of two inputs to the return on capital building block. The second input is the allowed rate of return.

4.42 Paragraphs 6.5.2(d) and 6A.6.2(d) of the NER require that the allowed rate of return determined by the AER for a regulatory year of the RCP must be a weighted average of the return on equity for the RCP in which that regulatory year occurs and the return on debt for that regulatory year. The rate of return must also be determined on a 'nominal vanilla'<sup>50</sup> WACC basis. Paragraph 6.5.2(e) prescribes that in reaching its determination of the allowed rate of return, the AER must have regard to:

- relevant estimation methods, financial models, market data and other evidence;
- the desirability of using an approach that leads to the consistent application of any estimates of financial parameters that are relevant to the estimates of, and that are common to, the return on equity and the return on debt; and
- any interrelationships between estimates of financial parameters that are relevant to the estimates of the return on equity and the return on debt.

---

48 Mr Bruce Mountain, *Proof Committee Hansard*, 18 February 2015, p. 63.

49 Mr Mark Grenning, EUAA, *Proof Committee Hansard*, 18 February 2015, p. 18.

50 A vanilla WACC is the simplest form of WACC. A nominal vanilla WACC excludes all tax-related matters, combining a post-tax return on equity and pre-tax return on debt, for consistency with other building blocks. See AER, *Draft decision: ActewAGL distribution determination 2015–16 to 2018–19*, Overview, November 2014, [www.aer.gov.au/sites/default/files/AER%20draft%20decision%20ActewAGL%20distribution%20determination%20-%20Overview%20-%20November%202014.pdf](http://www.aer.gov.au/sites/default/files/AER%20draft%20decision%20ActewAGL%20distribution%20determination%20-%20Overview%20-%20November%202014.pdf) (accessed 30 March 2015), p. 39.

4.43 The NER also provide that the allowed rate of return is to be determined such that it achieves an 'allowed rate of return objective'. The allowed rate of return objective provides that the rate of return is to be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the network service provider in respect of the services covered by the NER.<sup>51</sup> The AER explained that the use of benchmarking, rather than actual costs, in calculating the rate of return provides incentives for network businesses 'to finance their business as efficiently as possible'.<sup>52</sup>

4.44 The following paragraphs outline overall views that stakeholders had about how the WACC is determined before considering the individual components that affect the WACC, namely the return on equity, return on debt and gearing.

### *Overall comments*

4.45 Energy networks and the industry organisations representing these businesses emphasised that although a WACC calculation is provided to the AER as part of the regulatory proposal, the AER has no obligation to accept this figure and may substitute its own. Further, if a network company departs from the AER's *Rate of return guideline* when providing its proposed WACC figure, the company is required to set out the reasons for doing so.<sup>53</sup>

4.46 The ENA advised that 'there have been no instances of an electricity network having its proposed WACC estimate simply accepted by the regulator'.<sup>54</sup> Evidence from the ESAA suggested this trend has continued, as in the draft revenue determinations issued since the 2012 rule changes the AER has substituted the network service providers' proposed WACC figures with its own.<sup>55</sup>

4.47 Various submitters criticised the WACCs the regulator has determined and the overall approach it has taken. For example, in relation to SA Power Networks (SAPN) and the effect of the global financial crisis, Mr Bruce Mountain claimed that the AER 'got the allowed cost of capital badly wrong', giving SAPN a 'significant win'. Mr Mountain stated:

The information on borrowing by network utilities, certainly here in Australia and internationally during the peak of the [global financial crisis], is they continued to attract capital at much the same rates they had in the past, because they are very low-risk utilities.<sup>56</sup>

---

51 National Electricity Rules, rules 6.5.2(b), (c); 6A.6.2(b), (c).

52 AER, *Draft decision: ActewAGL distribution determination 2015–16 to 2018–19*, Overview, November 2014, p. 81.

53 ESAA, *Submission 25*, p. 2.

54 ENA, *Submission 31*, p. 6.

55 ESAA, *Submission 25*, p. 2.

56 Mr Bruce Mountain, *Proof Committee Hansard*, 18 February 2015, p. 68.

4.48 The consequences for electricity prices and network profitability when the allowed rate of return is applied to an inflated RAB were also noted. Mr Mountain remarked that when an excessive WACC is multiplied by a reasonably significant RAB, 'that translates into lots of money'.<sup>57</sup> Professor David Johnstone also highlighted how both a high WACC and an inflated RAB together intensify the negative outcomes provided by the regulatory system. He gave the following reasoning:

Gold plating will naturally occur when the owner is allowed an overly generous % return on its new investment, especially if there is potential for revaluing/reconfiguring its notional asset base (DORC) in the future (remember this regulatory asset base becomes just a number written on a piece of paper, and is therefore open for possible renegotiation in the future). Every extra 1% added to the WACC (return) is extra profit, just like when a bank borrows at 4% and lends at 7% instead of 6%.

The short term return to owners from spending big money now on its asset base goes straight to the annual bottom line and to the management's salaries and bonuses. The incentives are obvious, especially since the dollars earned by owners come down to a multiple of the paper asset base (DORC) times the generous regulated interest rate (WACC).<sup>58</sup>

4.49 One of the fundamental issues identified by submitters is the assessment of risk made by the AER in its *Rate of return guideline*. It was argued that network businesses are low-risk, as the demand for their services is high and the businesses are not subject to competitive forces (reducing the need to spend money to attract customers). Consequently, various submitters concluded that the return on capital should reflect the low-risk investment environment in which the network businesses operate.<sup>59</sup> The Public Interest Advocacy Centre argued that the AER's guideline does not account for the 'reality of financing low-risk businesses such as regulated monopolies with guaranteed revenues'. The Centre suggested:

...the Rate of Return Guideline leads the AER to build conservative assumptions about constituent components upon one another. This leads to a final WACC that is higher than what is likely to be the actual cost faced by the networks. This was certainly the conclusion of the AER Consumer Challenge Panel (the so called group of 'critical friends' who provide the AER with expert analysis of regulatory proposals and advice on matters) in a recent paper on the issue.<sup>60</sup>

---

57 Mr Bruce Mountain, *Proof Committee Hansard*, 18 February 2015, p. 68.

58 Professor David Johnstone, *Submission 10*, p. 2.

59 Central Irrigation Trust, *Submission 1*, p. 3; Mr Bruce Robertson, *Submission 16*, p. 7; EUAA, *Submission 17*, p. 3;

60 Public Interest Advocacy Centre, *Submission 18*, p. 15.

4.50 Cotton Australia also expressed its view that the risk associated with network companies is not being adequately accounted for in the WACC calculation process. A representative of Cotton Australia provided the following comments on this matter:

If you or I want to go to the bank today for a commercial venture we can borrow money at about 5½ per cent. I do not know about you, but I suspect that I am more of a risk than Ergon or Essential in running something like that. When you consider that they are a monopoly, they hold the ultimate sanction, if you do not pay they cut you off—there are plenty of ways to encourage payment. If you look at the last determination, the WACC was set at over nine per cent on the basis that the global prices global financial crisis was going to push interest rates well up. But we are seeing the exact opposite effect, with interest rates at 2½ per cent today. So you would think there is a whole lot more room to realign that WACC far lower than the 7½ per cent that the AER is proposing. I just think it is a slap in the face in the whole process that Essential, with their renewed proposal, could actually ask for even a higher WACC than what their previous proposal was. It just shows that they have no interest at all in cutting costs.<sup>61</sup>

4.51 Despite lower WACCs being proposed in the latest draft determinations, in the absence of fundamental change to how the allowed rate of return is calculated submitters questioned the sustainability of such outcomes in the future. For example, Canegrowers Isis noted that low interest rates had resulted in a 'small correction', however, it considered this would not last when interest rates start to increase.<sup>62</sup> Similarly, Mr Bruce Mountain suggested that the main reason for upcoming revenue allowances being lower was a reduction in the risk-free rate of finance, which the AER does not determine. Mr Mountain argued that in the AER's draft determinations for the New South Wales distribution network service providers, once the change in the risk-free rate has been accounted for the cost of capital is 'only a little changed from the AER's last decision', and still substantially above the levels decided in the past by the state regulator.<sup>63</sup>

4.52 Highlighting the inexact science that is economic regulation, the committee also received evidence regarding the different outcomes that can result, at least in the short- to medium-term, when different regulators consider the same principles. For example, the Western Australian regulator, the ERA, advised that it refers to a five-year period when considering the prevailing conditions for capital, a period that aligns with the duration of the regulatory period. However, the AER uses a ten-year period as, according to the ERA, the AER considers 'that this better approximates the return required by investors in, what are, long lived infrastructure assets'. The ERA explained that it expects the AER's ten-year term is 'likely to be closer to long run average rates of return', whereas the five-year terms selected by the ERA has given greater regard to current conditions, where prevailing rates of return for equity and

---

61 Mr Michael Murray, Cotton Australia, *Proof Committee Hansard*, 17 February 2015, p. 27.

62 Canegrowers Isis, *Submission 39*, p. 2.

63 Mr Bruce Mountain, *Submission 19*, p. 16.

debt 'tend to be below their long run averages', driven by historically low interest rates and low risk perceptions. The ERA noted that the current differences between the two regulators in this regard 'reflect a different interpretation of...the requirement for a rate of return which reflects 'prevailing conditions''.<sup>64</sup>

### *Return on equity*

4.53 When considering the WACC, the AER seeks to determine an expected return on equity that would 'provide compensation to a service provider for the equity financing cost which is commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk'.<sup>65</sup> The AER has outlined how it calculates the return on equity in its *Rate of return guideline*. The calculation involves the multiplication of the firm-specific equity beta (an estimate of the risk of equity; that is, the 'riskiness' of a firm's returns compared with that of the market)<sup>66</sup> by an estimate of market risk premium; this result is then added to a risk-free rate proxy. These inputs are determined as follows:

- Equity beta—after 'empirical analysis using a set of Australian energy utility firms the AER considers reasonably comparable to the benchmark efficient entity', the AER has determined that the equity beta is in the range of 0.4 to 0.7. Further information has led the AER to estimate an equity beta of 0.7, which it has applied to its recent draft determinations.<sup>67</sup>
- Market risk premium—the range and point estimate for market risk premium is based on theoretical and empirical evidence available to the AER and the AER's judgement.<sup>68</sup>
- Risk-free rate—the AER uses the ten-year yield on Commonwealth Government Securities.<sup>69</sup>

---

64 Economic Regulation Authority (Western Australia), *Submission 30*, p. 8.

65 AER, *Better regulation: Rate of return guideline*, December 2013, [www.aer.gov.au/sites/default/files/AER%20Rate%20of%20return%20guideline%20-%20December%202013.pdf](http://www.aer.gov.au/sites/default/files/AER%20Rate%20of%20return%20guideline%20-%20December%202013.pdf) (accessed 30 March 2015), p. 11.

66 AER, *Better Regulation: Equity beta issues paper*, October 2013, [www.aer.gov.au/sites/default/files/AER%20-%20equity%20beta%20issues%20paper%20-%20rate%20of%20return%20guideline%20-%20October%202013.PDF](http://www.aer.gov.au/sites/default/files/AER%20-%20equity%20beta%20issues%20paper%20-%20rate%20of%20return%20guideline%20-%20October%202013.PDF) (accessed 13 March 2015), p. 8.

67 The AER noted that some companies have an equity beta of 1 in previous and current determinations as a result of transitional arrangements put in place when the company came under the national framework. At present, only the NSW distribution companies still have an equity beta of 1. See Ms Michelle Groves, AER, *Proof Committee Hansard*, 18 February 2015, p. 13.

68 AER, *Better regulation: Rate of return guideline*, p. 16.

69 AER, *Better regulation: Rate of return guideline*, p. 15.



4.54 Submitters argued that, as the NER allow several approaches to assess the cost of equity, network businesses have the opportunity to seek an outcome that results in the highest cost.<sup>70</sup> Further, Major Energy Users told the committee that despite the AER guideline, most network businesses do not follow it and instead seek higher values for their cost of equity. Major Energy Users argued:

To assess the reasonableness for the return on equity, comparisons should be made between what was allowed by the AER at a reset with what the [network service provider] actually achieved and between what was allowed and with what the general market achieved at the same time. These comparisons will give a better view as to the what the AER should allow at a reset but these benchmarking comparisons are not carried out to demonstrate the effectiveness of the NER and the AER guidelines in providing outcomes that are equitable.<sup>71</sup>

4.55 The AER's decision to use an equity beta of 0.7 was criticised. By selecting an equity beta at the highest end of the range of 0.4 to 0.7, the EUAA considered that the AER has inappropriately applied its discretion.<sup>72</sup>

4.56 Other energy users objected to specific regulatory proposals lodged by network businesses. For example, Cotton Australia claimed that Essential Energy's proposed WACC of 8.83 per cent and its equity beta of 0.82 was 'unjustified', particularly as it was outside of the AER's range.<sup>73</sup> The New South Wales Irrigators' Council argued that Essential Energy faced a similar level of risk as the NSW State Water Corporation, which it advised has an equity beta of 0.7 and a WACC of 6.72 per cent.<sup>74</sup>

### ***Return on debt***

4.57 The AER estimates the allowed return on debt for a network service provider based on the efficient financing costs of a benchmark efficient entity with a similar degree of risk. According to its *Rate of return guideline*, to do this the AER uses a trailing average portfolio approach over ten years<sup>75</sup> and a credit rating of BBB+ from Standard and Poor's (or the equivalent rating from other recognised rating agencies).<sup>76</sup>

---

70 Big Picture Tasmania, *Submission 4*, p. 6 and Major Energy Users, *Submission 7*, p. 5.

71 Major Energy Users, *Submission 7*, p. 5.

72 EUAA, *Submission 17*, p. 3.

73 Cotton Australia, *Submission 3*, p. 3.

74 NSWIC, *Submission 5*, p. 5.

75 This approach considers the average interest rate that a network business would face if it raised debt annually in ten equal parcels. The trailing average portfolio approach means that the return on debt is updated annually based on an assumption that one-tenth of the debt of a network business is re-financed each year. AER, *Draft decision: ActewAGL distribution determination 2015–16 to 2018–19*, Overview, November 2014, pp. 81–82.

76 AER, *Better regulation: Rate of return guideline*, pp. 19, 21.

This approach, the clauses of the NER that informed it, and decisions recently made by the AER on regulatory proposals were questioned by submitters.

4.58 The New South Wales Irrigators' Council objected to the use of a ten-year trailing average, as it considered companies would simply 'benefit from the volatility in financial markets during the global financial crisis'.<sup>77</sup> However, the ENA contended that the approach 'has the advantage of more closely matching costs over time, and the actual efficient debt management practices of infrastructure providers'. Further, the ENA argued that the annual adjustment that the trailing average allows protects consumers from 'undue volatility' in network charges between regulatory periods.<sup>78</sup>

4.59 Another issue was the use of credit ratings. The Agriculture Industries Electricity Taskforce stated that network companies claim their borrowing costs are determined by the credit rating for their debt. However, the Taskforce contended that 'the evidence from the actual yields on network bonds and the price paid for bank debt shows that network businesses' actual borrowing costs are much lower than implied by their credit ratings'. The Agriculture Industries Electricity Taskforce explained that this is because lenders recognise the network businesses are monopolies with actual credit risks that are lower than those signified by their credit rating, and as a result network companies can secure credit at lower rates.<sup>79</sup>

4.60 In a more fundamental objection to the approach, several submitters argued that the company's actual cost of debt should be used instead of the cost of debt estimated for a benchmark company. For example, Major Energy Users argued that 'the cost of debt is no different to any other cost that a firm incurs'. Major Energy Users asserted that the approach set out in the guidelines and under the NER, and the incentives they provide, are flawed. It stated:

The AER guideline developed from the NER provides a cost of debt allowance which is based on the highest cost source of debt and the AER considers this provides an incentive to the [network service provider (NSP)] to minimise its cost of debt. What is intriguing about providing an incentive for the NSP to minimise its cost of debt is that there is no mechanism for the lower cost to be passed onto consumers. The AER guideline also makes some assumptions that result in higher levels for the cost of debt than are actually incurred by NSPs. Overall, the effect of the NER and the AER guideline provides an outcome where consumers pay considerably more for the debt than the NSPs do, giving the NSPs significant unearned revenue.<sup>80</sup>

---

77 NSWIC, *Submission 5*, p. 5.

78 ENA, *Submission 31*, pp. 7–8.

79 Agriculture Industries Electricity Taskforce, *Submission 21*, p. 7.

80 Major Energy Users, *Submission 7*, p. 6.

4.61 While it acknowledged the argument that the use of actual debt costs may not provide incentives for the network business to try to minimise the cost of its debt, Major Energy Users countered that the regulatory treatment applied to other expenditure, such as operating expenditure, could be used.<sup>81</sup>

4.62 The ENA rejected calls for actual borrowing costs to be taken into account. It claimed that the use of actual borrowing costs 'would be an inappropriate way to set cost of debt allowances and would result in poor outcomes for consumers generally'. The ENA advised the committee that such a change may result in consumers being exposed to the cost of inefficient financing decisions. According to the ENA, inefficient decisions may result because the firm would recoup its incurred cost, rather than being provided with incentives to have efficient financing costs. Also, the ENA noted that network charges may vary across service areas based on individual firm financing decisions. The ENA added that regulators in the United Kingdom and New Zealand apply benchmark cost of debt allowances that are 'conceptually similar' to the methodology used by the AER.<sup>82</sup>

### ***Gearing***

4.63 Some submitters commented on the benchmark gearing ratio, which is the ratio between debt and equity, that the AER uses in the WACC calculation. The AER assumes that a benchmark efficient entity has a gearing ratio of 0.6; that is 60 per cent of its funds are raised from debt, and 40 per cent are raised from investors.<sup>83</sup> Big Picture Tasmania argued that the AER's approach reflects 'a lower gearing than is seen by the performance of the network businesses', with the result being that consumers pay 'a premium for the WACC as debt is sourced at a lower cost than providing equity as it has a lower risk profile'.<sup>84</sup> Major Energy Users also made this point, although it noted that higher gearing can increase the risk to lenders and therefore the cost of debt.<sup>85</sup>

### **Taxation**

4.64 The other component of the building block model considered in this chapter is taxation. Under the NER, network companies are allowed to recover the costs associated with corporate income tax. The AER is, therefore, required to make a decision on the estimated corporate income tax payable for a network service provider.

---

81 Major Energy Users, *Submission 7*, pp. 5–6.

82 ENA, *Submission 31*, p. 8.

83 AER, *Better regulation: Rate of return guideline*, p. 9.

84 Big Picture Tasmania, *Submission 4*, p. 7.

85 Major Energy Users, *Submission 7*, pp. 5, 6.

4.65 The NER provide the following formula for calculating the estimated cost of corporate income tax:

$$ETC_t = (ETI_t \times r_t) (1 - \gamma)$$

where

$ETC_t$  is each regulatory year

$ETI_t$  is an estimate of the taxable income for that regulatory year that would be earned by a benchmark efficient entity determined in accordance with the post-tax revenue model

$r_t$  is the expected statutory income tax rate for that regulatory year as determined by the AER

$\gamma$  is the value of imputation credits.<sup>86</sup>

4.66 The assumptions about tax were questioned given that private companies engage in tax minimisation strategies. Although he recognised that the regulatory system should include an allowance for taxation so that the company is suitably compensated for all its costs, Mr Mountain argued that the model applied is 'simply a very standard tax calculation'. As a result, Mr Mountain argued that AER has not had regard to tax minimisation strategies that have been used. To demonstrate his point, Mr Mountain referred to the tax figures published by one network service provider:

In the case of South Australia, they were allowed \$414 million in the regulatory period just ended, and in the first three published accounts for which I have data I found they had a credit of \$4.2 million. There is a sizeable difference. It is a regulatory design issue and it is an absolute core issue, as far as I am concerned: why are we imagining a benchmark regime which does not look at the actuals?<sup>87</sup>

4.67 Mr Mountain contended that the tax allowance, along with other benchmarks, should be more closely aligned with actual outcomes. He told the committee:

Looking at the actuals is not inconsistent with the benchmark. We do that in setting up tax allowances. We do not set up tax allowances based on a hypothetical motor vehicle company. We look at the actuals for the business, and there is our allowance. Why do we not do that with far more of our regulatory parameters and look at what has happened in the past, be clear on it and think about that in setting the allowances for the future. I think dealing with that is likely to mean a more reasonable and sustainable profitability for the network businesses and one that is more in the long-term interests of consumers.<sup>88</sup>

---

86 National Electricity Rules, rule 6.5.3.

87 Mr Bruce Mountain, *Proof Committee Hansard*, 18 February 2015, p. 68.

88 Mr Bruce Mountain, *Proof Committee Hansard*, 18 February 2015, p. 68.

---

4.68 Concerns about the tax arrangements of electricity network businesses have also been recently reported in the media.<sup>89</sup>

### **Committee view**

4.69 Despite numerous reviews, recent rule changes and positive signs from the AER as a result of its recent draft determinations, the committee considers that fundamental problems with the regulatory framework for electricity network businesses remain. The principal flaw is that the framework protects network service providers from certain risks that businesses in competitive markets face. In particular, network businesses do not bear the risk of inefficient investments and do not face risks associated with changing demand in a timely manner.

4.70 The committee is concerned that the asset bases used in the calculation of the return on capital are inflated by unnecessary and underutilised investments. Regardless of other changes to the regulatory framework, consumers will continue to pay higher bills than necessary as long as the RABs are not reviewed.

4.71 Following a recent rule change, the AER may preclude inefficiently incurred capital expenditure from being included in the regulatory asset base, but only in circumstances where the actual capital expenditure exceeds the capital expenditure allowance. The committee considers the AER requires the discretion to review the efficiency of all future investments and the need for their inclusion in the RAB. However, to avoid sovereign risk concerns, the AER's power to review assets should continue to apply only on a prospective basis.

4.72 While the committee is reluctant to recommend further reviews, this is a complex issue that requires careful consideration. An expert review charged with considering these issues would be an appropriate starting point for change in this area.

4.73 The committee was also made aware of problems with how the rate of return is determined and other aspects of the benchmarking process informed stakeholders found concerning. The committee considers that following the AER's latest round of determinations (including any appeals), a performance assessment of the benchmarking process should be undertaken. In addition to considering the assumptions and outcomes related to the WACC calculation, the methodology for estimating the cost of corporate income tax should be closely scrutinised. Although incentives for companies to minimise their other costs, such as debt costs, may be beneficial, it is not clear that companies should be provided with incentives to minimise their tax while receiving guaranteed levels of revenue from taxpaying consumers. The committee is concerned that the current arrangements simply reward companies for minimising their tax obligations.

---

89 See Andrew White, 'Power firms in \$1.1bn tax stoush', *The Australian*, 17 March 2015, p. 19; Michael West, 'Tax strategies may distort power sales', *The Age*, 23 March 2015, p. 25.

4.74 Finally, the committee considers it is important that the AER has greater flexibility in relation to the RCP. While the committee agrees that there are benefits for consumers in network service providers having a degree of certainty about their revenue, and a five-year RCP appears appropriate for this in most cases, there will be occasions when a different approach should be considered. The experience of the global financial crisis is instructive in this regard. If a new RCP is scheduled to commence during a period of turmoil in the financial markets, a decision determined in this environment and locked in for five years may not be an outcome that is in the best interests of consumers.

### **Recommendation 1**

**4.75 The committee recommends that the Council of Australian Governments (COAG) Energy Council commission an independent expert review of options for excluding future imprudent capital expenditure and surplus network assets from a network service provider's regulatory asset base (RAB). This review should consider the provisions of the Western Australian Electricity Networks Access Code and its decision-making criteria.**

**4.76 The review should have the freedom to suggest any necessary changes to intergovernmental agreements, the National Electricity Law or the National Electricity Rules.**

### **Recommendation 2**

**4.77 The committee recommends that, following the outcomes of the current round of network pricing decisions, the COAG Energy Council commission an independent expert review of the efficacy of recent changes to the National Electricity Rules and the benchmarking process in promoting the long-term interests of consumers. This assessment should focus on the appropriateness of current methodologies for calculating the weighted average cost of capital (WACC) and the manner in which the estimated cost of corporate income tax is calculated.**

### **Recommendation 3**

**4.78 The committee recommends that the National Electricity Rules be amended to provide that the Australian Energy Regulator may set a regulatory control period that is less than five regulatory years.**