Issues paper

Review of the rate of return guidelines

October 2017

AUSTRALIAN ENERGY REGULATOR

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Request for submissions

The Australian Energy Regulator (AER) invites interested parties to make submissions on this issues paper by **12 December 2017**.

We prefer that all submissions are in Microsoft Word or another text readable document format. Submissions on our issues paper should be sent to: rateofreturn@aer.gov.au.

Alternatively, submissions can be sent to:

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We prefer that all submissions be publicly available to facilitate an informed and transparent consultative process. Submissions will be treated as public documents unless otherwise requested. Parties wishing to submit confidential information should:

- clearly identify the information that is the subject of the confidentiality claim
- provide a non-confidential version of the submission in a form suitable for publication.

We will place all non-confidential submissions on our website. For further information regarding our use and disclosure of information provided to us, see the ACCC/AER Information Policy (October 2008), which is available on our website.

Please direct enquires about this paper, or about lodging submissions to rateofreturn@aer.gov.au or to Matt Simpson on (03) 9290 1969.

Shortened forms

Shortened form	Extended form
ABS	Australian Bureau of Statistics
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
ATO	Australian Tax Office
CCP	Consumer Challenge Panel
COAG	the Council of Australian Governments
DGM	dividend growth model
energy networks	electricity and gas network service providers
the Guideline	the allowed rate of return guideline
MRP	market risk premium
NEL	national electricity law
NEO	national electricity objective
NER	national electricity rules
NGL	national gas law
NGO	national gas objective
NGR	national gas rules
RAB	regulated asset base
RBA	the Reserve Bank of Australia
regulatory period	an access arrangement period for gas network service providers and/or a regulatory control period for electricity network service providers
the rules	collectively, the NER and NGR
Tribunal	Australian Competition Tribunal

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1 Introduction

The Rate of Return Guideline (Guideline) outlines our approach to setting the allowed rate of return for regulated gas and electricity network services. We are currently reviewing the Guideline.

This issues paper requests views on the extent to which our current approach to setting the allowed rate of return remains appropriate. It follows a consultation paper we published in July 2017, which sought views on how we could best run the rate of return guideline (Guideline) review process, and a pre-issues paper public forum we held on 18 September 2017.

This issues paper aims to assist stakeholders in providing input to assist us in reviewing the Guideline. The paper provides background on the Guideline review process, outlines our current approach to setting the allowed rate of return, and describes the elements of our approach we are proposing to review in the following order:

- Overall rate of return
- Return on debt
- Return on equity
- Value of imputation tax credits
- Other components

Throughout the remainder of this paper we set out the issues that we have initially identified as a priority for the Guideline review. We have taken the approach of identifying key issues for the review, rather than a 'blank slate' approach of reviewing every aspect of the rate of return. We consider that a targeted approach to the review will allow for a more efficient review process, including more effective consultation and stakeholder engagement on significant matters. A targeted approach to the review can acknowledge the significant analysis that was the basis of our current approach to the rate of return, while more effectively addressing matters that require further consideration.

Industry and consumer advocates broadly supported this incremental approach at the public forum we held on 18 September 2017.[1] Our view is the allowed rates of return we have set when applying the current Guideline have achieved the national electricity and gas objectives, as well as the allowed rate of return objective. We also consider our approach to determining the value of imputation credits has been consistent with the National Electricity Rules and National Gas Rules (the rules) and with achieving the national electricity and gas objectives. However, there are a number of areas of our approach that warrant review to ensure that the Guideline will continue to achieve the legislative objectives into the future.

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[1] AER, *AER rate of return public forum: Discussion summary*, September 2017, p. 3.

Our approach under the current Guideline was developed through an extensive consultation process. It is based on thorough analysis of all aspects of the rate of return and a widespread review of the relevant material that could inform an estimate of the rate of return. Our approach under the current Guideline has also been fully examined during our determination processes over the past three years and through a number of appeals to the Australian Competition Tribunal (Tribunal) and Full Federal Court.

Given this history, we consider this review should seek to build on the current Guideline rather than start afresh. There are a number of aspects of the current approach that are reliant on market data and empirical analysis, and this material would clearly need to be updated. However, there are a number of aspects of the current approach that are driven by finance theory and available academic literature. We not aware of any significant new developments in this area that might warrant us taking a new approach. While we remain open to considering any new evidence submitted to us, we have assigned these areas a lower priority for review than those outlined below.

These are the considerations that have informed our initial views on the issues that should be a priority for the Guideline review. While we explain these throughout this issues paper, our initial view is that the higher priorities areas for examination during the Guideline review include:[2]

- Examining the outcomes under the current Guideline to test whether they have been consistent with achieving the NEO and NGO.
- Refine processes for proposing and determining averaging periods to increase certainty and procedural efficiency.
- Reviewing which third party data series, or combination thereof, we use to estimate the expected cost of debt. We currently use two out of four available third party data series. It may be preferable to change the combination we use, but first we must review the merits and limitations of the different third party debt data series.
- Interpolation and extrapolation methods for estimating the return on debt and contingencies for the annual updating of the return on debt. The need to review these depends on whether we change the data series we use to estimate the return on debt.
- Consider implications of litigation outcomes on the approach to estimating debt—that is, whether we should continue a full transition to a 10 year trailing average portfolio approach.
- Update empirical analysis for the benchmark gearing, credit rating, imputation credit distribution rate, imputation utilisation rate, equity beta and MRP as it is prudent for us to use empirical evidence that is up-to-date.

[2] These areas are not listed in order of priority.

- Consider the level of prescription for the return on equity, as there may be benefits in fixing the equity risk premium for a period.
- Considering the weighting of information used to estimate the equity beta and the MRP.

It is worth noting that, while we have provided our initial views on the priority issues, we are open to assessing other issues. We will assess the merits of all issues stakeholders identify as important.

Throughout this issues paper, we pose questions targeting specific input we would like to receive. For convenience, we have also listed these questions below. In addition to these targeted questions, we invite comments on any aspects of the Guideline review that stakeholders consider important. Where you answer a question we would ask you, where possible, to explain why you hold your view.

1. In your view, to what extent has the current approach to setting the allowed rate of return achieved the National Electricity Objective (NEO) and National Gas Objective (NGO), the Allowed Rate of Return Objective (ARORO), and the related revenue and pricing principles (RPPs)?
2. Should information on profitability, asset sales, financeability and any other financial information be used when assessing outcomes against the NEO and NGO, ARORO, and the related RPPs? If so, how?
3. Is the current approach to setting the benchmark term and level of gearing appropriate?
4. Should the conditions and process for setting averaging periods be refined?
5. To what extent are changes required to the current approach of transitioning from an on-the-day rate to a trailing average?
6. Is it appropriate for us to review the return on debt implementation approach by performing a review of the four third party debt data series currently available to us? Please also explain if you think there is further valuing in broadening this scope of debt implementation issues and why you hold this view?
7. Would a more prescriptive approach to setting the equity risk premium be appropriate? If the Guideline has a more prescriptive approach to estimating equity risk premium, what set of conditions for reopening the Guideline would best achieve the national gas and electricity objectives and the allowed rate of return objective?
8. Is the theory underlying the Black CAPM still appropriate for informing an equity beta point estimate? In its place, should alternative information to guide the selection of an equity beta point estimate?
9. What is the appropriate role of dividend growth models (DGMs) in setting the allowed return on equity?
10. Is it appropriate to limit the review of the valuation of imputation credits to updating the empirical analysis? Are there any particular issues we should take into account when updating empirical analysis?

11. Should expected inflation and its interaction with the allowed rate of return be a priority under the Guideline review?

2 Background

The Australian Energy Regulator (AER) regulates energy markets and networks under national energy market legislation and rules. Our network regulatory functions relate to energy networks in all Australian states and territories, except Western Australia. They include setting the amount of revenue that monopoly network businesses can recover from customers for using networks (electricity poles and wires and gas pipelines) that transport energy.

Significant investment is required to build a gas or electricity network. The allowed rate of return is a forecast of the cost of funds a network business requires to attract investment in the network.

We estimate the rate of return by combining the returns of the two sources of funds for investments—equity and debt. The return on equity is the return shareholders of the business will require for them to continue to invest. The return on debt is the interest rate the network business pays when it borrows money to invest.

The current Guideline was published in December 2013 and it sets out our approach for estimating the rate of return, including the components of the return on debt, return on equity and the value of imputation credits (gamma). Estimation of the rate of return is complex and the rate of return is a significant driver of regulated revenue for energy networks.

A good estimate of the rate of return is necessary to promote efficient prices in the long term interests of consumers. If the rate of return is set too low, the network business may not be able to attract sufficient funds to be able to make the required investments in the network and reliability may decline. Alternatively, if the rate of return of return is set too high, the network business may seek to spend too much and consumers will pay inefficiently high prices.

While the Guideline is currently not binding on how we make rate of return decisions, it should provide a high degree of certainty and transparency for stakeholders. However, we note that the CoAG Energy Council has signalled its intention to introduce legislation to make the Guideline binding on both the energy networks we regulate and us.[3]

2.1 About the Guideline review

Under the national gas and electricity rules, we must review the Guideline within five years of its first publication.[4] As such, we will complete the Guideline review by 17 December 2018.

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[3] COAG Energy Council, *Meeting communique*, 14 July 2017, p. 2.

[4] NER clauses 6.5.2(p)(1) and 6A.6.2(p)(1); NGR clause 87(16)(a).

This issues paper is an important part of the Guideline review. It follows a consultation paper we published in July 2017, which sought views on how we can make our Guideline review process more accessible, transparent and collaborative. We will publish a separate positions paper that considers submissions on the consultation paper shortly.

Having considered the Rules, feedback on our consultation paper and feedback from our pre-issues paper forum, we have developed the Guideline review process set out in table 1. Details on these further considerations are set out in our consultation paper.[5]

Table 1 Indicative timeline for the Guideline review process

Date	Milestone
July 2017	Review process consultation paper
October 2017	Issues paper
November 2017 – December 2017	Submissions on issues paper
February 2018 – March 2017	Concurrent evidence sessions
May 2018	Publish draft Guideline
June–August 2018 (approximately 10 weeks)	Independent panel process
August 2018	Submissions on draft Guideline
17 December 2018[6]	Publish final Guideline

Table 2 outlines how the Guideline will apply to our ongoing and upcoming regulatory determinations, based on the current legislative framework (including relevant transitional provisions). However, we note that there may be changes to relevant legislation and rules that will affect the timings in table 2 (see section 2.2).

Table 2 Current application of the Guideline to regulatory determinations

Applicable Guideline	Regulatory determinations
2013 Guideline	• AusNet Services, AGN, MultiNet, APAVTS 2018-22 access arrangements • ElectraNet, Murraylink, TransGrid 2018-23 transmission determinations • Ausgrid, Endeavour Energy, Essential Energy, ActewAGL, NT Power and Water 2019-24 distribution determinations • TasNetworks 2019-24 transmission determination
If a potential rule change is made, the 2013 Guideline.[7] If not, the 2018 Guideline will only	TasNetworks 2019-24 distribution determinations

5 AER, *Consultation paper: Process for reviewing the rate of return guidelines*, July 2017, pp. 6–7.

6 This is five years from publication of the current guidelines (17 December 2013).

apply to the final decision.	
2013 Guideline applies to initial access arrangement proposal, but the 2018 Guideline applies thereafter	Central Ranges Pipeline 2019-24 access arrangement
2018 Guideline	• Directlink 2020-25 transmission determination • SA Power Networks, Energex, Ergon Energy 2020-25 distribution determinations • Jemena Gas Networks 2020-25 access arrangement • AusNet Services, CitiPower, Jemena Electricity Networks, Powercor, United Energy 2021-25 distribution determinations

Source: NER, clauses 6.5.2(p)(1), 6A.6.2(p)(1), and Part ZZU; NGR, sub-rule 87(16)(a).
See also *AEMC National Electricity Amendment (Rate of Return Guidelines Review) Rule 2016 No. 9*, and *AEMC National Gas Amendment (Rate of Return Guidelines Review) Rule 2016 No. 2* (Commenced 20 October 2016).

2.2 Framework changes

The COAG Energy Council Senior Committee of Officials (SCO) recently published a bulletin clarifying its expectation that this Guideline review process will ultimately serve as the basis for a binding rate of return instrument.[8]

This will necessarily require some changes to the current rules frameworks for estimating the allowed rate of return, as those frameworks currently set out provisions for development and application of a non-binding Guideline. The timing of this process is uncertain, but we will proceed on the basis that the policy intent is to arrive at a binding rate of return instrument. Despite the uncertain timing, we note that the SCO bulletin expresses the intention that:

> Under the proposed transitional arrangements, and subject to passage of the relevant Bills, the current guideline development process, including consultation processes, will be taken to satisfy the process requirements for the first binding guideline.

We will continue to refer to the most up-to-date information about the framework that is publicly available as we proceed with the process.

Most important at this stage is that stakeholders approach their submissions having regard to an instrument that may be made binding and that will apply to our subsequent regulatory determinations.

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7 TasNetworks submitted a rule change request to the AEMC requesting that the 2013 Guideline apply to the entirety of its distribution process in TasNetworks, *Request for rule change submission*, 9 June 2017. Otherwise, the 2018 Guideline applies to final decision (April 2019), but not to other stages of its determination process.

8 Council of Australian Governments Energy Council Senior Committee of Officials, Bulletin: Binding Rate of Return Guideline, 4 October 2017.

3 Allowed rate of return

The regulatory framework provides energy networks with an allowance to cover the costs they are expected to incur when financing capital investments in their networks. This allowance is called the 'allowed rate of return'.

We set the rate of return based on a benchmark, rather than the actual costs of individual businesses. Hence, network businesses have incentives to finance their business as efficiently as possible.

In practice, we estimate the allowed rate of return by weighting the estimated required returns on debt and equity to derive a nominal 'vanilla' (after tax) weighted average cost of capital (WACC).[9]

This section discusses aspects of our approach that are relevant to the estimation of the required return on both equity and debt capital. It describes what aspects we consider to be a priority, as well as why we formed this view. We also provide further details on the following:

- The objective the allowed rate of return should achieve.
- How to determine whether our current approach to setting the allowed rate of return is achieving its objectives.
- The benchmark term and what proportion of the capital an efficient firm would hold as debt versus equity (that is, its debt to equity gearing ratio).
- How we should set 'averaging' periods for debt and equity. Averaging periods are the periods over which we observe market data to estimate the required returns on debt and equity capital.

3.1 The objectives of the allowed rate of return

Under the current rules, we set the allowed rate of return to achieve the national gas and electricity objectives and the allowed rate of return objective.[10] In setting the allowed rate of return, we must also have regard to the revenue and pricing principles.

The national gas and electricity objectives require promoting efficient investment in, and efficient operation and use of, energy network services for the long-term interests of energy consumers.[11] The national gas and electricity objectives govern every aspect of our regulatory determinations and have primacy, including over the allowed rate of return objective.

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9 NER clauses 6.5.2(d) and 6A.6.2(d); NGR clause 87(4).

10 NER clauses 6.5.2(b) and 6A.6.2(b); NGR clause 87(2).

11 The National Electricity Objective is in section 7 of the National Electricity Law and the National Gas Objective is in section 23 of the National Gas Law.

The allowed rate of return objective is a rate of return commensurate with efficient financing costs and the risks involved in providing energy network services.

In its submission to the consultation paper, Energy Networks Australia (ENA) suggested the Guideline review should have sufficient flexibility given revisions to relevant rules might affect the nature of our task in reviewing the Guideline.[12] We agree with this and consider that having a clear vision of what the Guideline and the allowed rate of return should achieve will support this flexibility.

Our view is that the guideline should set out a method for determining an allowed rate of return that achieves both the national gas and electricity objectives and the allowed rate of return objective, noting the primacy of the national gas and electricity objectives. Though the rules may be amended to give effect to a binding Guideline, we consider it less likely that the national gas and electricity objectives will be amended. Therefore, the guideline should set out how to determine a rate of return that promotes the efficient investment in and use of energy network services for the long-term interests of energy consumers. We consider that this will be a robust objective that is likely to remain appropriate even if the allowed rate of return objective is amended or removed from the rules. We also consider this rate of return would contribute to achieving the revenue and pricing principles.

3.2 Outcomes of the current approach

Stakeholders at the pre-issues paper forum generally agreed that it would be appropriate to use our current approach to setting the allowed rate of return as a starting point for the Guideline review, rather than adopting a 'blank slate' approach. However, some consumer representatives also raised the question of: 'if you're planning to use the current approach as a starting point, how do you know if your current approach is working'?

This is an important question, yet it is difficult to come to a definitive answer. The allowed rate of return should reflect the returns required by investors, but these future required returns cannot be directly observed or measured and instead can only be estimated. That said, there are a number of indicators that may be informative of the extent to which investor requirements are being met by the allowed rate of return.

Based on the available evidence we consider our current approach is an appropriate starting point and it has been achieving the national electricity and gas objectives, allowed rate of return objective, and the revenue and pricing principles. For instance, we have previously observed that:

[12] ENA, *Process for reviewing the rate of return guidelines: Response to AER Consultation Paper*, 28 August 2017, p. 3.

- There is no evidence to suggest that the energy networks we regulate have not been able to raise capital on reasonable terms to undertake extensive investment programs.[13]
- Broker reports suggest that our recent determinations have not removed the ability for listed networks to maintain payment of dividends.[14]
- The equity risk premiums we provide are consistent with the ranges used in broker reports, valuation reports, other regulators' decisions, and the Wright approach.[15]

In previous consultations, various stakeholders have submitted information on profitability, asset sales and financeability as potential tests of whether the allowed rate of return is achieving the national gas and electricity objectives and the allowed rate of return objective. We considered these submissions, but found it difficult to draw firm conclusions from this information. For instance:[16]

- Financeability refers to whether a business has sufficient cash flow to continue to finance its operations, service its debts, and maintain its credit rating. Issues of financeability may raise concerns with our benchmarks used in determining the allowed rate of return, such as the gearing ratio and credit rating. However, issues of financeability may also be driven by rigidity in standard credit metrics. That is, standard credit metric benchmarks may be set based on long-run average market conditions, while current market conditions may involve interest rates different from historical average rates. In addition, financeability analysis typically employs a range of assumptions and qualitative judgements which limits its usefulness.
- Regulated asset base (RAB) multiples from asset sales may indicate the appropriateness of the allowed rate of return. However, they may also be indicative of other elements of the firm's cash flows. Further, sales that have already occurred may not reflect changes to the overall rate of return that are occurring at present. Ultimately, transaction multiples do not provide a definitive answer to the specific return investors require. However, if RAB multiples significantly and persistently differ from one, it may be informative of the

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[13] See, for example, DUET, *Successful completion of DUET's $200 million placement offer*, 1 April 2016; DUET, *DUET completes $1.67 billion placement and entitlement offer*, 13 August 2015; DUET, *DUET completes $396.7 million entitlement offer*, December 2014; SP AusNet, *SP AusNet completes A$434 million Entitlement Offer*, 15 June 2012. ASX & SGX-ST release, *AusNet Services successfully prices HKD 1.2bn offer*, 9 December 2016; ASX & SGX-ST release, *AusNet Services successfully prices NOK 1bn offer*, 10 January 2017; ASX & SGX-ST release, *AusNet Services successfully prices USD 80m offer*, 19 January 2017.

[14] AER, *Draft decision Murraylink transmission determination 2018 to 2023: Attachment 3 – Rate of return*, September 2017, p. 91.

[15] AER, *Draft decision Murraylink transmission determination 2018 to 2023: Attachment 3 – Rate of return*, September 2017, p. 90.

[16] For more information, see AER, *Final decision SA Power Network s determination 2015–16 to 2019–20: Attachment 3 – Rate of return*, October 2015, pp. 104–6.

reasonableness of our overall rate of return estimates over time and in context of the overall building block allowances.

- It is possible to use financial statements to compare free cash flows to equity with the estimated cash flows to equity under the rate of return building block. However, differences in estimated regulatory return on equity allowances and the return to equity holders from financial statements could be due to a range of factors. For example, financial statements might include cash flows from unregulated activities and/or outperformance of regulatory benchmarks.

Question 1

In your view, to what extent has the current approach to setting the allowed rate of return achieved the National Electricity Objective (NEO) and National Gas Objective (NGO), the Allowed Rate of Return Objective (ARORO), and the related revenue and pricing principles (RPPs)?

Question 2

Should information on profitability, asset sales, financeability and any other financial information be used when assessing outcomes against the NEO and NGO, ARORO, and the related RPPs? If so, how?

3.3 Nominal vanilla WACC

The National Gas and Electricity Rules provide that, subject to achieving the allowed rate of return objective, the allowed rate of return must be determined as:

- a weighted average of the return on debt and return on equity (a weighted average cost of capital, or WACC).
- on a nominal vanilla basis (a vanilla WACC refers to the treatment of imputation credits, see section 6).

We consider that a nominal vanilla WACC will continue to achieve the national gas and electricity objectives and the allowed rate of return objective.

3.4 Benchmark gearing and term

Our current position is that an efficient provider of energy network services would use debt to finance 60 per cent of its capital, and would finance the remaining 40 per cent with equity.

Our current position is based on benchmarking the actual gearing levels of businesses with a similar degree of risk to regulated Australian energy networks. We consider this benchmarking approach remains appropriate and, subject to compelling arguments to

the contrary, we do not intend to conduct an extensive review into our approach to setting the benchmark level of gearing. However, we may re-consider the types of gearing measures that should be benchmarked – for example, whether market or book values should be used. We also propose to update our empirical estimates of the benchmark gearing level.

Another current position is that an efficient provider of energy network services would issue debt with a 10 year term to maturity. We also consider a 10 year term is appropriate for estimating the return on equity, and use Australian Government Securities with a 10 year term to proxy the risk free rate component of the allowed return on equity. Our current position of a 10 year term reflects the long term nature of cash flows in equity investments generally, as well as the long lived nature of the assets in energy network businesses. Further detail on the matters that we considered when coming to our current position on investment term can be found in our current Guideline.[17]

We do not intend to conduct an extensive review into our approach to setting the benchmark term. We instead propose to update the empirical elements of our current consideration of the benchmark term.

Question 3

> *Is the current approach to setting the benchmark term and level of gearing appropriate?*

3.5 Prescription in setting averaging periods

We observe market data when setting various components of the allowed rate of return. We average observed market data over multiple market trading days to reduce the risk of an unrepresentative market event influencing the data. We call the periods over which we observe the data, 'averaging periods'.

The key averaging periods for observing market estimates relate to:

- Commonwealth Government Security (CGS) yields for setting the risk free rate used in the allowed return on equity.
- Third party debt data series' estimated Australian corporate bond yields for setting the allowed return on debt. Currently, we observe these from the Bloomberg Valuation curve and the Reserve Bank of Australia's (RBA's) F3 statistical table.

We allow energy networks to propose their own averaging periods for observing this market data, with prescribed conditions limiting the periods they can select. For instance, we require averaging periods for observing CGS be:

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[17] See: AER, Rate of return guideline explanatory statement, December 2013, pp 135-147; AER, Draft rate of return guideline explanatory statement, August 2013, pp. 105-107, 181-184.

- 20 consecutive business days in length;
- as close as practicably possible to the commencement of the regulatory period; and
- nominated in advance of any of its dates taking place.

Also, we require averaging periods for observing the debt data series for any regulatory year:

- be between 10 or more consecutive business days, up to a maximum of 12 months.
- be specified prior to the commencement of the regulatory period;
- have all its dates take place in the future at the time it is nominated;
- be as close as practical to the commencement of that regulatory year;
- not overlap with any different regulatory years' debt averaging periods for that energy network;
- be used to update the nominal return on debt for that regulatory year;
- be confidential.

While we consider this approach reasonable, we have also observed that energy networks often contest the process of selecting averaging periods. It is our view that what should be a straightforward, mechanistic process often becomes a material administrative burden for us and regulated businesses. For this reason, we value exploring how we can develop sets of conditions that are clearer and more prescriptive than those set out above.

Question 4

Should the conditions and process for setting averaging periods be refined?

4 Return on debt

We provide energy networks with an allowed return on debt to cover the efficient borrowing costs they are expected to incur funding capital investments in their network. We set the allowed return on debt by observing market data on the cost of debt.

4.1 Current return on debt approach

For most of the regulated energy networks, we are currently within a transitional period between two different approaches to setting the allowed return on debt. This is where:

- The previous approach was an 'on-the-day' approach. We calculated the allowed return on debt by observing market data at the start of a new regulatory control or access arrangement period (regulatory period). This allowed return on debt reflected prevailing market conditions at the start of each regulatory period. We applied one allowed return on debt for the duration of the regulatory period, until we reset this value for the next regulatory period.
- We are transitioning towards a trailing average portfolio approach (trailing average). Under the trailing average approach we calculate the allowed return on debt as a 10 year historical average. This approach reflects the average cost of debt for a benchmark efficient entity if it raised debt for one-tenth of their total assets annually. That is, each year, one tenth of an energy network's debt portfolio is assumed to mature and be replaced by new debt issued in that year. The trailing average reduces the amount the return on debt allowance will vary over time, resulting in less price variation for electricity consumers.

In our recent regulatory determinations we considered that either an on-the-day approach or an approach that transitions from an on-the-day rate to a trailing average consistently applied will contribute to achieving the national electricity and gas objectives and the allowed rate of return objective. However, it is important to have a revenue-neutral transition when moving from one regulatory approach to another. This protects both regulated energy networks and energy consumers from experiencing financial losses or gains that might arise from a change in regulatory approach. We consider that an approach that contributes to such financial gains and losses (for example, by changing approaches and not including a revenue-neutral transition) would not promote the national gas and electricity objectives or the allowed rate of return objective.

Under our current approach, in transitioning from an 'on-the-day' return on debt to a trailing average return on debt, in the first year of the transitional period we set the allowed return on debt as under the on-the-day approach. In each following year of the transition, we treat 10 per cent of the first year debt as if it were reissued at the prevailing market rate for that year. At the end of the transitional period, the energy network would have an allowed return on debt that reflects a 10 year average to be updated annually as a trailing average.

4.2 Current debt implementation

We currently take the view that an appropriate proxy for an efficient entity's return on debt would be third party data series' published yields for BBB+ corporate bonds with a 10 year term to maturity. This position comprises the following components:

- Term: We consider an efficient entity would raise debt with a 10 year term to maturity. The long debt tenor is consistent with the typically long-lived assets of energy networks. A 10 year term is similar to the industry average term at issuance of debt.
- Credit rating: We consider an efficient entity would have a BBB+ credit rating. This is consistent with the median credit rating for the industry.
- Third party data series: We estimate the return on debt from third party data series. We are aware of four third party data series we could potentially use — published by the RBA, Bloomberg, Thomson Reuters and Standard & Poor's. We have carefully assessed the former two series and consider they have similar merits. Through this Guideline review process we will consult on a comparative assessment of the Thomson Reuters and Standard & Poor's curves. In our most recent decisions we have taken a simple average of:
    - The RBA's data series, which provides data on 10 year non-financial corporate BBB-rated bonds;[18] and
    - A yield curve published by Bloomberg under its Bloomberg Valuation Service (BVAL). This provides a 10 year yield from the Australian corporate BBB-rated bonds.[19]
- Our current approach involves some adjustments to the RBA and BVAL data to arrive at a return on debt proxy that more closely resembles the benchmark term:
    - We extrapolate the RBA data series from a 'target' 10 year term (which is commonly less than 10 years), to an 'effective' 10 year term.[20] To make this adjustment, we first interpolate the monthly data points to produce daily estimates. We then convert these estimates from a semi-annual to an effective annual rate.[21]
    - We adjust the BVAL yield curve, to convert these estimates from a semi-annual to an effective annual rate.[22]

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18 From RBA, Statistical Table F3: http://www.rba.gov.au/statistics/tables/index.html#interest-rates.

19 The BVAL data series is available through a licence service from Bloomberg under the code 'BVCSAB10 index'. Both the RBA and BVAL data series reflect a broad BBB credit rating, which is lower than a benchmark efficient entity's BBB+ credit rating. A lower credit rating should produce higher return on debt estimates.

20 See ACCC Regulatory Economic Unit, *Return on debt estimation: A review of the alternative third party data series*, August 2014, pages 34–40.

21 This follows an extrapolation method recommended in Lally, *Implementation issues for the cost of debt*, 20 November 2014, pp. 38–44.

22 As of 14 April 2015, Bloomberg has been publishing a 10 year yield estimate. Prior to this, we had extrapolated a seven year BVAL yield curve.

4.3 Proposed debt issues for review

We consider that our current approach to estimating the return on debt contributes to achieving the national gas and electricity objectives and the allowed rate of return objective, and that the current approach is likely to remain appropriate. Beyond the estimation approach, we consider there are implementation issues that should be reviewed. We propose reviewing which debt data series (or combination of series) would best reflect the cost of debt for a benchmark efficient entity, and updating empirical analysis of the key input parameters (benchmark credit rating and benchmark term).

4.3.1 Reviewing our return on debt approach

We are currently within a transitional period between two different approaches to setting the allowed return on debt —that is, a transition from an 'on-the-day' approach to a 'trailing average' approach. Based on the information currently before us, we do not consider changing this approach will better contribute to the achievement of the national gas and electricity objectives or the allowed rate of return objective.

We have recognised that the trailing average approach, paired with an appropriate transition, may have some benefits. These potential benefits mainly relate to smoother prices and a potentially reduced mismatch between the actual debt cost outcomes (or cash outflows) for providers of energy network services and the allowed return on debt.[23] Against this, the on-the-day approach consistently measures the opportunity cost of capital. In our explanatory statement to the current Guideline, we observed that the majority of stakeholders, including consumer groups, supported moving to a trailing average approach.[24]

We have also recognised that without a revenue-neutral transition, the wealth transfer away from consumers will be a substantial unintended cost to consumers of the regulatory change to a trailing average in current market conditions.[25] As such, our current determinations have included a 10-year transition to the trailing average return on debt.

Question 5

To what extent are changes required to our current approach of transitioning from an on-the-day rate to a trailing average?

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23 See AER, *Draft decision: AusNet Services gas access arrangement 2018 to 2022, Attachment 3 — Rate of return*, July 2017, p. 342.

24 We list these supportive submissions in AER, *Better Regulation: Explanatory statement rate of return guideline*, December 2017, p. 110.

25 AER, *Draft decision: AusNet Services gas access arrangement 2018 to 2022, Attachment 3 — Rate of return*, July 2017, p. 335. This observation is also supported in Partington, G., Satchell, S., *Report to the AER: Issues in relation to the cost of debt*, 9 April 2017, p.27.

4.3.2 Reviewing return on debt implementation issues

We consider that it remains appropriate to implement the trailing average return on debt approach through benchmarking against observed yields on corporate bonds. However, we would like to review the merits of different third party sources of corporate bond data.

We last ran an extensive review of third party debt data series when only two were available—the RBA's series and the BVAL curve.[26] We formed the view that both series had similar benefits and limitations, which meant that a simple average would likely produce an estimator with a lower mean squared error than using either curve in isolation.[27]

Since then, debt data series published by Thomson Reuters and Standard & Poor's have become available. We intend to investigate the merits and limitations of all four debt data series, both in isolation and in various combinations. We will perform a conceptual assessment, based on how these series are constructed. We also plan to perform an empirical assessment, based on how well these series reflect energy network's actual debt costs, using confidential data.

Section 4.2 noted a number of adjustments that we currently perform on the RBA and BVAL data series. These adjustments involve interpolation and extrapolation methods for estimating a return on debt consistent with the benchmark term. If our review finds that a different combination of third party data series would best achieve the national electricity and gas objectives and the rate of return objective, then we may consequently need to revise these interpolation and extrapolation methods to suit the chosen data series.

The trailing average return on debt requires the return on debt to be updated annually. This in turn requires our determinations to include contingencies that set out how to estimate the return on debt in case of particular future events, such as one data series no longer being available. Similarly, our current set of contingencies may need to be revised to suit the chosen data series.

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[26] See Lally, *Implementation issues for the cost of debt*, November 2014; ACCC Regulatory Economic Unit, *Return on debt implementation, a review of the alternative third party data series—Report for the AER*, August 2014; AER, *Return on debt: Choice of third part data service provider issues paper*, April 2014.

[27] See for example AER, *Final decision: Essential Energy distribution determination 2015–16 to 2018–19, Attachment 3 — Rate of return*, April 2015, p. 202; M. Lally, *Implementation issues for the cost of debt*, November 2014, pp. 3, 5.

Question 6

Is it appropriate for us to review the return on debt implementation approach by performing a review of the four third party debt data series currently available to us? Please also explain if you think there is further valuing in broadening this scope of debt implementation issues and why you hold this view?

5 Return on equity

We provide energy networks with an allowed return on equity to cover the return shareholders would require to continue to invest in an efficient provider of energy network services.

5.1 Current foundation model approach

We currently estimate an allowed return on equity by applying a 'foundation model approach'. This involves identifying and determining the role of a range of relevant estimation methods, models, and information to inform our return on equity estimate.

As discussed in section 5.2, we use some of this information to derive a range and point estimate using the Sharpe–Lintner capital asset pricing model (SLCAPM) as our foundation model.

After applying the SLCAPM, we then consider a broad range of information to determine a point estimate for the allowed return on equity. This includes considering:

- A particular application of the SLCAPM using historical data (known as the 'Wright approach') as a cross-check on the overall return on equity.
- Takeover and valuation reports as a cross-check on the overall return on equity.
- Brokers' return on equity estimates as a cross-check on the overall return on equity. These also provide information on the direction the return on equity should be moving in over time.
- Other regulators' return on equity estimates to get a sense of the direction the return on equity should be moving in over time.
- The return on debt as a sense-check —that is, we consider it sensible for the return on equity to be higher than the return on debt.

5.2 Current application of the foundation model

We currently use the SLCAM as our foundation model for estimating the allowed return on equity. Equation 1 sets out the SLCAPM.

Equation 1: Sharpe–Lintner capital asset pricing model

$$r_i = r_f + \beta_i(r_m - r_f)$$

Where:

- r_i is the return investors require to hold security i.
- r_f is the return investors require to hold a risk-free security (known as the 'risk free rate')
- β_i is the standardised correlation between the price of security i and the market portfolio (known as the 'equity beta' for security i)

- r_m is the return investors require to hold the market portfolio – that is, all the securities on the market
- $(r_m - r_f)$ collectively, is known as the market risk premium (MRP)
- $\beta_i(r_m - r_f)$ collectively, is known as the 'equity risk premium'

Under our current foundation model approach, we apply equation 1 where security i represents an efficient entity with a similar degree of risk as that involved in providing energy network services. In applying equation 1 to estimate the allowed return on equity at each reset, we calculate three variables:

- The risk free rate. We average the yield of the Commonwealth Government Securities with a 10 year term to maturity over 20 business days near the start of the energy network provider's regulatory period.
- The equity beta. We base our equity beta range on empirical estimates of the standardised correlation between the value of the market portfolio and a set of firms that approximate the risks involved in providing energy network services. These proxy firms are all Australian energy utility firms—we do not base our empirical range on any networks overseas. This has currently produced a range of 0.4 to 0.7.[28] We currently select a point estimate of 0.7, recognising the uncertainty inherent in estimating unobservable parameters, and after consideration of beta estimates for overseas energy networks and the theory underpinning the Black CAPM.
- The MRP, which we estimate using a wide range of evidence, including:
    - Primarily, historical realised market returns. We consider a series of arithmetic and geometric averages of the realised market returns over varying time frames. This informs our estimate of a forward looking MRP.
    - Two dividend growth model (DGM) constructions — both a two and three stage constructions. These provide directional information on the MRP point estimate in relation to the historical estimates. For example, in the current round of decisions, dividend growth model estimates were above those that realised historical returns indicated. As such, we applied an MRP point estimate above the range that historical data indicated.
    - Several conditioning variables, including movements in dividend yields and the volatility index. This provides us with some limited directional information.
    - Surveys and other regulators' MRP estimates as a cross check to make sure our estimates are not out of line.

[28] Empirical estimates are largely based on an extension of work from Henry, O., *Estimating β: An update*, April 2014.

5.3 Proposed equity components for review

We consider many aspects of our return on equity approach remain appropriate. For instance:

- The SLCAPM as the foundation model for estimating the return on equity. Alternative models for estimating return on equity were thoroughly explored in our previous guideline development process and in subsequent determinations.
- Our current proxy to estimate the risk free rate.
- Our method for empirically estimating the equity beta range, including how we select our set of proxy firms and the reliance we place on this information.

We will consider all material relevant to estimating the equity beta and market risk premium, and evaluate the current weighting of relevant material going forward. Whilst this is important to the process, most of the information and academic knowledge around this material changes slower than the empirical data and as such our current approach is likely to reflect most of that information.

However, we see value in exploring the merits of changing our approach to setting the MRP and equity beta (collectively, 'the equity risk premium') in a few particular areas:

- the level of prescription provided in the guideline on the estimation of the equity risk premium.
- how we select our equity beta point estimate. In particular, revisiting how we use the theory behind Black CAPM to inform selecting a point estimate from the top of the range of empirical estimates.
- a review of the DGM we use to inform the MRP, considering whether we should have less regard to this information, and greater regard to conditioning variables to inform the MRP.

In addition to our approach to estimating the return on equity, we would also update our empirical analysis required in the implementation of the approach. As is prudent and proper, all analysis and evidence used in estimating the equity beta and market risk premium should be as up to date as possible.

5.3.1 Considering a stable equity risk premium

We are considering the merits of setting the value of the equity risk premium in the Guideline. If the Guideline is made binding, this value will be binding on all of our determinations made before the Guideline is subsequently reviewed. Under this approach, we may prescribe:

- An equity risk premium in the Guideline, which we would review each time we review the Guideline.
- A set of conditions, based on a number of information sources, that would lead us to re-open the estimation of the equity risk premium. This may involve a review of the Guideline for the purposes of the equity risk premium, earlier than the regularly schedule reviews of the Guideline. For example, our set of conditions that may

trigger an early review of the Guideline and the equity risk premium could include one of the following events occurring:

- A certain number, maybe all, of the conditioning variables[29] that we currently use to inform our estimate of market risk premium falling outside of a pre-determined variance from their mean values.
- Dividend growth model estimates of the market risk premium diverging from estimates of historical excess returns by a specified amount.
- Significant divergences between other regulator estimates of equity risk premium and our own.

Question 7

Would a more prescriptive approach to setting the equity risk premium be appropriate? If the Guideline has a more prescriptive approach to estimating equity risk premium, what set of conditions for reopening the Guideline would best achieve the national gas and electricity objectives and the allowed rate of return objective?

5.3.2 Reviewing the equity beta point estimate

We consider that our current approach to estimating equity beta by assessing empirical estimates of Australian energy network businesses remains an appropriate approach to estimating the equity beta range. However, we see value in revisiting how we use the theory behind the Black CAPM to inform our selection of a point estimate at the top of the empirical range.

The explanatory statement to our current Guideline states that:[30]

> Theoretical principles underpinning the Black CAPM suggest the standard Sharpe–Lintner CAPM may underestimate the return on equity for firms with equity betas below 1.0. Although it is difficult to ascertain the magnitude (or materiality) of this effect, selecting a point estimate at the higher end of the range is an appropriate approach to allow for the theoretical differences between the Sharpe–Lintner CAPM and the Black CAPM.

More recently we have noted limitations with the Black CAPM, have found that it may provide some (albeit limited) insights, and considered that its underlying theory does not warrant a specific uplift or adjustment to the equity beta point estimate.[31] Moreover, McKenzie and Partington have advised that the theory underpinning the Black CAPM

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29 For details on these conditioning variables, see: AER, Rate of Return Guideline, Explanatory Statement – Appendices, December 2013, pp. 93-100.

30 AER, *Better regulation: Explanatory statement rate of return guideline*, December 2013, p. 86.

31 AER, *Draft decision: AusNet Services gas access arrangement 2018 to 2022, Attachment 3 — Rate of return*, July 2017, pp. 67, 75.

does not necessarily support an uplift to beta. They advised, 'the theory of the Black CAPM may have a role to play in choosing the equity beta, although exactly how is still not clear to us'.[32]

Question 8

> *Is the theory underlying the Black CAPM still appropriate for informing an equity beta point estimate? In its place, should alternative information to guide the selection of an equity beta point estimate?*

5.3.3 Reconsidering role of DGMs

We currently use two DGM constructions to inform our MRP —both a two- and three-stage construction. These provide directional information on the MRP point estimate in relation to the historical estimates.

Energy networks have previously requested we give greater reliance on estimates from DGMs when informing the MRP, or to use DGMs to estimate the allowed return on equity directly. However, in recent determinations we have considered that there are a number of limitations to dividend growth models, and consequently placed only limited reliance on them.

In our Guideline review we intend to evaluate how we use DGMs by reconsidering:

- Our current DGM constructions and input assumptions. This could include reconsidering whether we should use another version of the DGM in parallel with, or as a replacement for, our current constructions.
- Whether the issues we have previously identified with the DGM should see its influence over the MRP relegated in importance to a cross-check or some other role. For instance, we might consider DGMs in parallel with the existing conditioning variables as an indicator of market pressures.

Question 9

> *What is the appropriate role of dividend growth models (DGMs) in setting the allowed return on equity?*

[32] McKenzie and Partington, *Report to the AER part A: Return on equity*, October 2014, p. 24.

6 Imputation credits

Under the Australian imputation tax system, investors receive imputation credits for tax paid at the company level. For eligible shareholders, imputation credits offset their Australian income tax liabilities. We factor the value of imputation credits (known as gamma or 'γ') into regulation to recognise that imputation credits benefit equity holders, in addition to any dividends or capital gains they receive.

The rules provide for a post-tax WACC framework with a rate of return that is after company tax but before personal tax. Under this framework, gamma is not a WACC parameter. [33] Instead, we adjust the corporate income tax allowance for the value of imputation credits to investors by applying:

$$Tax\ allowance = taxable\ income \times tax\ rate(1-\gamma)$$

This is where gamma has a range of possible values between zero (meaning no value) and one (meaning full value). A higher value of gamma reduces an energy network's tax allowance.

6.1 Current approach to estimating imputation credits

Since 2015, our estimated value of imputation credits has been 0.4, from within the range 0.3 to 0.5. It is worth noting that this is a departure from the value of 0.5 set out in our current Guideline, which we made after re-examining the relevant evidence and estimates.

Our approach to estimating the value of imputation credits entails:

- Adopting a conceptual approach consistent with the Officer framework.[34] This approach considers the value of imputation credits is a post-tax value before the impact of personal taxes and transaction costs.[35] As such, we view the value of imputation credits as the proportion of company tax returned to investors through the utilisation of imputation credits.[36] We consider this conceptual approach allows

[33] This differs from a pre-tax WACC framework, where gamma is a WACC parameter. Tax credits provide value to investors by offsetting income tax liabilities. Considering this value, eligible investors would accept an investment with a lower rate of return than if there were no imputation tax credits. While gamma is not a WACC parameter under the current rules framework, the rules require a guideline that address both WACC and the value of imputation credits (gamma).

[34] The Officer framework is set out in R. Officer, 'The cost of capital of a company under an imputation system', *Accounting and finance*, vol. 34(1), May 1994.

[35] Post-tax refers to after company tax and before personal tax.

[36] This means one dollar of claimed imputation credits has a post (company) tax value of one dollar to investors before personal taxes and personal transaction costs.

us to estimate the value of imputation credits consistently with the allowed rate of return and allowed revenues under the post-tax framework in the rules.[37]

- Having regard to evidence from all equity, as well as a sub-set of this (only listed equity). There is no consensus on which approach better estimates the value of imputation credits and we consider that both these estimation approaches are reasonably consistent with a benchmark efficient entity given the difficulties associated with choosing a representative dataset.
- Applying the widely accepted approach of estimating the value of imputation credits to investors as the product of the 'distribution rate' and 'utilisation rate'.[38]

6.1.1 The distribution rate

The 'distribution rate' (or payout ratio), which represents the proportion of imputation credits generated by a benchmark efficient entity that is distributed to investors. In estimating the distribution rate, we:

- Mainly rely on the widely accepted 'cumulative payout ratio approach. This approach uses Australian Tax Office (ATO) data on the accounts used by companies to track their stocks of imputation credits ('franking account balances'). Estimates of the cumulative payout ratio of 0.75 for listed equity and 0.7 for all equity were adopted in our recent decisions.[39]
- Have some regard to Lally's estimate of 0.83 for listed equity from financial reports of the 20 largest ASX-listed firms, which he considers the most reliable data.[40]

6.1.2 The utilisation rate

The 'utilisation rate' (or theta), which is the value to investors of utilising imputation credits per dollar of imputation credits distributed. The utilisation rate is the weighted average, by wealth and risk aversion, of the utilisation rates of individual investors—where investors that are eligible to utilise importation credits have a utilisation rate of 1, and 0 otherwise. In estimating the utilisation rate, we have:

- Significant reliance upon the equity ownership approach, which estimates the utilisation weight using the value-weighted proportion of domestic investors in the Australian equity market. This reflects that generally domestic investors are eligible

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[37] In finance, the consistency principle requires that the definition of the cash flows in the numerator of a net present value (NPV) calculation must match the definition of the discount rate (or rate of return / cost of capital) in the denominator of the calculation (see Peirson, Brown, Easton, Howard, Pinder, *Business Finance*, McGraw-Hill, Ed. 10, 2009, p. 427). By maintaining this consistency principle, we provide a benchmark efficient entity with an ex ante total return (inclusive of the value of imputation credits) commensurate with the efficient financing costs of a benchmark efficient entity.

[38] This approach is referred to as the 'Monkhouse formula' as set out in P. Monkhouse, 'The Valuation of Projects Under the Dividend Imputation Tax System', *Accounting and finance*, 1996, vol. 36(2), pp. 185–212.

[39] We note that the data currently gives the cumulative payout ratio for all equity is 0.67 instead of 0.7 from our earlier estimation. However, given the volatility in the data series, we consider the continued use of 0.7 (versus 0.67) has no material effect on our final estimate of 0.4 and is consistent with energy networks' proposals.

[40] M. Lally, *Gamma and the ACT Decision*, May 2016, p. 6.

to utilise imputation credits and foreign investors are not. We use data from the National Accounts of the Australian Bureau of Statistics (ABS) to estimate the domestic ownership share. This currently estimates a utilisation rate of 0.56–0.68 considering all, or 0.38–0.55 considering only listed equity.

- Some reliance ATO statistics, where we estimate the utilisation rate as the proportion of distributed credits that investors redeem to reduce their tax liabilities (also called the 'redemption rate'). We rely on this less than the equity ownership approach as there are potential issues with these statistics. We also place greater reliance upon estimates derived from post-2004 data, as this data is of higher quality.[41] We also place greater reliance upon estimates that are consistent with our estimates of the distribution rate using cumulative distribution rate data.[42] This data currently supports a utilisation rate of approximately 0.5.
- Less reliance upon implied market value studies, which infer the value of distributed imputation credits from market prices. While these studies employ various techniques, dividend drop off studies are common. These studies compare the price of a security with and without the entitlement to a dividend. We have less reliance on these studies because they are inconsistent with our conceptual approach, where the value of imputation credits is post (company) tax value and before the impact of personal taxes and personal costs. Our limited reliance also reflects that there are many limitations with using dividend drop off studies to estimate the utilisation rate. In the recent decisions, we have some regard to the SFG dividend drop off study, which estimates a utilisation rate of 0.35.

6.2 Proposed imputation credit issues for review

As part of the Guideline review, we propose updating our empirical analysis to inform an estimate of the value of imputation credits (or 'gamma'). However, we see little value in an extensive review of our approach to setting this parameter.

While the estimated value of imputation credits has been contentious over the past few years, we consider that this contention has settled. The contention concerned the interpretation of 'value' in the statutory context. We took the value of imputation credits as a post-tax value before the impact of personal taxes and transaction costs.[43] This meant we viewed this value as the proportion of company tax returned to investors through the utilisation of imputation credits. In contrast, many of the energy networks interpreted 'value' as the market value of imputation credits to investors, as estimated by implied market value studies. The Full Federal Court recently heard this matter and handed down its decision finding that:

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41 N. Hathaway, *Imputation credit redemption ATO data 1988–2011: Where have all the credits gone?*, September 2013, para. 32.

42 However, this consistency principle does not preclude combining a utilisation rate estimated based on this principle with a higher estimate of the distribution rate for a benchmark efficient entity based on Lally, *Gamma and the ACT decision*, May 2016, pp. 5, 25.

43 Post-tax refers to after company tax and before personal tax.

- It was not an error of construction for us to focus on utilisation rather than on implied market value.[44]
- The rules require consistency in the way the relevant building blocks interact, that is, on a post-company tax and pre-personal tax and personal costs basis.[45]
- It was an error of the Tribunal to conclude that the value of imputation credits is (only) the value claimed or utilised as demonstrated by the behaviour of the shareholder recipients of the imputation credits.[46]

In light of the Full Federal Court's decision, we have considered in recent determinations that a value of imputation credits of 0.4 under our current construction is a reasonable estimate, although Lally considers 0.4 might be too low and recommending a value of at least 0.5.[47] We propose to update our empirical analysis for data from ATO and ABS in estimating distribution rate and utilisation rate as part of the Guideline review.

Question 10

Is it appropriate to limit the review of the valuation of imputation credits to updating the empirical analysis? Are there any particular issues we should take into account when updating empirical analysis?

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44 Federal Court of Australia, *Australian Energy Regulator v Australian Competition Tribunal (No 2) [2017] FCAFC 79*, May 2017, p. 216.

45 Federal Court of Australia, *Australian Energy Regulator v Australian Competition Tribunal (No 2) [2017] FCAFC 79*, May 2017, p. 216.

46 Federal Court of Australia, *Australian Energy Regulator v Australian Competition Tribunal (No 2) [2017] FCAFC 79*, May 2017, p. 216.

47 M. Lally, *Issues in the estimation of gamma*, April 2017, p. 29.

7 Other factors related to the rate of return

While not technically components of the allowed rate of return, we have typically estimated the following inputs required for estimating the overall revenue of the service provider alongside the rate of return:

- Expected inflation/interaction between the allowed rate of return and inflation; and
- Debt and equity raising costs.

We currently provide an allowance for the transaction costs associated with raising debt and equity in the opex and capex building blocks, respectively. As such, debt and equity raising costs do not technically form part of the allowed rate of return, and would therefore fall outside the Guideline's scope. For this reason, we do not propose to include a review of debt and equity raising costs as part of our review of the rate of return guideline, but may review these issues under a separate process.

On inflation, we initiated an industry-wide consultation in April 2017 to review our method for estimating expected inflation and other inflation-related issues. We currently intend to finalise our inflation review, including any subsequent amendments to the post-tax revenue model and roll forward model in December 2017.[48] Our estimation of expected inflation and the treatment of inflation in our revenue, asset base, and pricing models will be addressed in this inflation review. As such, we do not consider these issues to be a high priority for the Guideline review.

Moreover, we do not consider our inflation review will lead us to explore the interaction between inflation and the allowed rate of return further as part of the Guideline review. During the inflation review, some stakeholders have supported moving away from the current regulatory framework that targets an initial real rate of return.[49] However, our preliminary position in the inflation review is to maintain the current framework.[50] Based on this preliminary position, our framework for compensating regulated networks for inflation risk will not change. To the extent energy networks are exposed to some inflation risk under this framework, our current approach to setting the allowed rate of return should already reflect this level of risk through the use of benchmark equity beta, credit rating, and gearing parameters.[51]

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48 For more information on our inflation review, including an up-to-date project timeline, see https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/review-of-expected-inflation-2017.

49 Ausgrid and APA support targeting an initial nominal rate of return, and Spark Infrastructure support targeting an initial real return on equity and an initial nominal return on debt.

50 We discuss differing perspectives and our views in AER, *Regulatory treatment of inflation: Preliminary position*, October 2017, pp. 63–76.

51 Sapere support this position in *Efficient allocation and compensation for inflation risk, Report prepared for the Australian Energy Regulator*, 25 September 2017, pp. 27–31.

Question 11

Should expected inflation and its interaction with the allowed rate of return be a priority under the Guideline review?