FINAL POSITION PAPER

Profitability measures for electricity and gas network businesses

Measures and technical issues

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AUSTRALIAN ENERGY REGULATOR

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Shortened Form

Shortened Form	Extended Form
ACCC	Australian Competition and Consumer Commission
AER	Australian Energy Regulator
Benchmark gearing ratio	The benchmark ratio of the value of debt to total capital (currently 60 per cent) set in the rate of return instrument.
CCP	Consumer Challenge Panel
core regulated services	Standard Control Services for electricity distribution service providers; Prescribed Transmission Services for electricity transmission service providers; Haulage Reference Services for gas service providers; and Reference Services for transmission pipeline service providers.
EBIT	Earnings before interest and tax
ECA	Energy Consumers Australia
ENA	Energy Networks Australia
Gearing	The ratio of the value of debt to total capital.
Income statement	Statement of profit or loss and other comprehensive income of the service provider. Also known as the statement of financial performance.
MEU	Major Energy Users
NEL	National Electricity Law
NEO	National Electricity Objective
NER	National Electricity Rules

Network Service Provider	In the electricity sector the network service provider is the regulated network service provider (as defined under the NEL). For the gas sector, the network service provider is the scheme pipeline service provider (as defined in the NGL).
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
NPAT	Net profit after tax
RAB	Regulatory Asset Base (is the closing asset base for core regulated services for a regulatory year based on regulatory rules).
Regulatory accounting information	Financial information that has been prepared in accordance with regulatory rules. Regulatory accounting information is to be prepared for the Service Provider and the core regulated services of the Service Provider.
RII	Regulatory Information Instrument
RIN	Regulatory Information Notice
RIO	Regulatory Information Order
RoA	Return on Assets
RoE	Return on Equity
RoRE	Return on Regulated Equity
SAPN et al.	Joint submission from SAPN, CitiPower, Powercor, Australian Gas Infrastructure Group, United Energy
Statutory accounting information	Financial information that has been prepared in accordance with the Corporations Act, including relevant accounting standards. Statutory accounting information is to be prepared for the Service Provider.
WACC	Weighted Average Cost of Capital

Contents

About Us

We, the Australian Energy Regulator (AER), work to make all Australian energy consumers better off, now and in the future. We are the independent regulator of energy network service providers (NSPs) in all jurisdictions in Australia except for Western Australia. We set the revenue requirements these NSPs can recover from customers using their networks.

The National Electricity Law and Rules (NEL and NER) and the National Gas Law and Rules (NGL and NGR) provide the regulatory framework which govern the NSPs. Our role is guided by the National Electricity and Gas Objectives (NEO and NGO).

NEO:[1]

> …to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:
>
> (a) price, quality, safety, reliability and security of supply of electricity; and
>
> (b) the reliability, safety and security of the national electricity system.

NGO:[2]

> …to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.

The decisions we make and the actions we take affect a wide range of individuals, businesses and organisations. Effective and meaningful engagement with stakeholders across all our functions is essential to fulfilling our role, and it provides stakeholders with an opportunity to inform and influence what we do. Engaging with those affected by our work helps us make better decisions, provides greater transparency and predictability, and builds trust and confidence in the regulatory regime. This is reflected in our Stakeholder Engagement Framework and in the consultation process we have followed in this review.[3]

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1 NEL, s. 7.
2 NGL, s. 23.
3 AER, *Revised stakeholder engagement framework*, September 2017.

1 Overview of this attachment

This document is an attachment to our final position paper of our profitability measures review. It includes further details relevant to our approach set out in the final position paper in our profitability measures review. Specifically, it sets out:

- Our analysis of the four measures on which we will report, being:
    - Return on assets
    - EBIT per customer
    - Return on regulated equity
    - RAB multiples
- Technical appendices on:
    - Indexation and depreciation in network profitability reporting
    - New data requirement−actual tax expense
    - New data requirement−actual interest expense
- Our detailed summary of submissions.

2 Return on assets

2.1 Our position

We will include return on assets in the suite of profitability measure on which we will report.[4]

The return on assets (RoA) measure satisfies a key objective of our review which is to report on measures that allow comparison of NSPs' expected returns relative to their actual returns. The calculation method, which uses the NSPs' regulatory asset bases (RAB), allows RoA outcomes to be compared to the pre-tax weighted average cost of capital (WACC) we set in the NSPs' determinations.

Compared to the return on regulatory equity measure, RoA shows a less comprehensive picture of network profitability. This is because it does not capture differences between the NSPs actual tax and interest expenses against our allowance. However:

- the RoA captures the NSPs' performance against several key revenue drivers, and
- the data required to calculate the RoA measure is readily available and comparatively straightforward to interpret. It therefore complements the RoRE measure which is more comprehensive, but will require new and more complex data.

Fit against our criteria

The RoA measure fits with our criteria for selection of measures because:[5]

- it is based on clear concepts and is able to be calculated consistently over time
- it is a well-accepted, commonly used and easily understood profitability measure which reflects the NSPs' operational performance
- it is suited to capital intensive businesses and can be applied across similar industries, and
- using the NSPs' earnings before interest and tax (EBIT) and RAB's to calculate the measure means it is unaffected by corporate ownership structures, minimising the need for adjustments and/or assumptions to reported data.

2.2 How we will calculate it

RoA will be calculated using the following formula:

$$Return\ on\ Assets = \frac{EBIT}{RAB}$$

Where:

4 In our draft position paper, we referred to the return on assets measure calculated on a regulatory accounting basis as regulatory (EBIT). For our final position paper, we refer to the same measure as simply return on assets or RoA. Where we are referring to return on assets based on a statutory accounting basis it will be identified as return on assets (statutory).

5 AER, *Draft position: Profitability measures for electricity and gas network businesses*, April 2018, p. 17.

- EBIT is regulatory earnings before interest and tax (i.e. revenue less expenditure and depreciation)
- RAB is the opening asset base.[6]

In September 2018, we published the first round of RoA ratios for the electricity NSPs given the availability of data and our consultation with the working group and NSPs. The most recent round of ratios were published as part of the 2019 electricity transmission and distribution electricity NSP performance data reports.[7] We will report RoA ratios for all electricity and gas NSPs we regulate in 2020.

To assist stakeholders in interpreting the RoA ratios, we will publish explanatory material when we report the measures.

2.3 Our recommended comparators for the measure

In our view, the RoA measure is most usefully compared to:

- Pre-tax real/nominal WACC allowed in NSPs' regulatory decisions.[8]
- Regulatory returns of other NSPs.
- Regulatory returns of Australian and international regulated businesses where the RAB is valued on a reasonably consistent basis to that of the NSP.

2.4 Draft position

Our draft position included RoA in the suite of measures on which we would report.[9]

The majority of submissions supported the reporting of a RoA measure.[10] However, some stakeholders queried particular inputs for calculating the measure and the extent the measure could be used as a comparator with businesses other than NSPs.[11] In response, we agreed that particular inputs, such as the treatment of inflation, would need consideration and explanation when calculating, reporting and comparing the RoA ratios.[12]

We also acknowledged there was no single measure that could fully achieve our objectives for reporting the NSPs profitability.[13] On balance, while the RoA (like all the measures) has it

6 Where the measure is calculated using nominal straight-line depreciation, this should be the opening asset base adjusted for inflation so it is in common annual dollar terms with other cash-flows.

7 Since 2018, the AER has published network performance data for the electricity transmission and gas NSPs. The transmission network performance data 2006-2018 report was published in July 2019 and the distribution network performance data 2006-2018 report was published in August 2019. Available on the AER website.

8 The relevant comparator will depend on whether the measure includes or excludes the effects of indexation (i.e. is generated based on regulatory depreciation or nominal straight-line depreciation). We discuss this further in section 2.6.2, and more generally in section 5.1.

9 AER, *Draft position: Profitability measures for electricity and gas network businesses*, April 2018, pp. 17–20.

10 AER, *Draft position: Profitability measures for electricity and gas network businesses*, April 2018, pp. 17–18.

11 AER, *Draft position: Profitability measures for electricity and gas network businesses*, April 2018, pp. 17–18.

12 AER, *Draft position: Profitability measures for electricity and gas network businesses*, April 2018, pp. 18–19.

13 AER, *Draft position: Profitability measures for electricity and gas network businesses*, April 2018, pp. 18.–19.

strengths and limitations, its simplicity made it a useful tool in profit analysis. As a result, we saw benefits in including it in the suite of measures to be reported on.

2.5 Consultation on the measure

To further our draft position views, we sought submissions from stakeholders and engaged with the working group. The following is a summary of this consultation process.

2.5.1 Submissions on our draft position

There were relatively few submissions in response to our draft position paper which commented on the RoA measure. This may be due to the majority of stakeholders having already expressed their support for reporting a RoA measure, and our having commenced initial reporting on that measure. Of the submissions that did put forward views, most noted their support of including RoA in the suite of measures we intend to report.[14]

Submissions from NSPs and industry representatives noted it important to detail the aspects of determining the RoA ratios that support comparison against the pre-tax WACC.[15] These stakeholders also proposed including the RoA calculation in the NSPs' post tax revenue models (PTRM) as it is reliant on PTRM inputs.

Further detail on the submissions on our draft position paper are set out in our summary of submissions, in section 9.

2.5.2 Summary of input from working group

We presented preliminary views on RoA for discussion at the working group meeting on 27 August 2018. We noted we would publish RoA ratios for electricity NSPs following the working group discussion. We also discussed:

- issues with the data sources (e.g. the NSPs were applying different types of depreciation in their annual reporting — either statutory, regulatory or straight-line), and
- whether the RoA ratios be inclusive of incentive scheme penalties and rewards.

The working group supported publication of RoA ratios and put forward the following views:

- Although timing differences arising from transmission use of system and jurisdiction scheme receipts and payments can contribute to volatility in the RoA outcomes, these components should be included in the EBIT calculation.
- RoA ratios should be reported both inclusive and exclusive of incentive scheme impacts. Stakeholders can then make their own comparisons of the RoA values.

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14 See for example: Agriculture Industries Energy Taskforce, *Submission to AER position paper on profitability measures for network businesses*, 30 May 2018, Attachment 1; APA Group*, Profitability measures for electricity and gas network businesses: submission to AER draft position paper*, 30 May 2018, p. 1; Consumer Challenge Panel (Eric Groom), *Submission to the AER on its profitability measures position paper*, 30 May 2018, p.10.

15 Energy Networks Australia, *Profitability measures for electricity and gas network businesses: Response to AER draft position paper*, 31 May 2018, p. 8. SAPN et al, *AER draft position paper: Profitability measures for electricity and gas network businesses*, 31 May 2018, pp. 3–4.

Where volatility issues are not readily resolved and impact interpretation of the measure, the working group provided feedback on updates to the explanatory material we have published alongside our interim publications of the RoA measure.

2.6 Reasons for final position

In this section, we set out our reasons on the key issues specific to this measure that we addressed to come to our final position. These include:

- Approach to calculate and report the RoA ratios
- Treatment of indexation and depreciation in the calculation of EBIT
- Keeping RoA calculations separate to the PTRM.

2.6.1 Approach to calculate and report the RoA ratios

As noted, we have already begun reporting RoAs ratios for the electricity NSPs. Our publication of the ratios and accompanying explanatory note has taken into consideration stakeholders' views and our engagement with the NSPs and the working group.

Since the draft position, we have:

- reported RoA as part of our 2018–19 network performance report data—using nominal straight-line depreciation and closing RAB values, and
- amended our calculation method to use opening RAB rather than closing RAB values. The return on capital allowance for a regulatory year is calculated by multiplying the rate of return by the opening RAB. To allow a clear comparison of actual against expected returns it is necessary to use the opening RAB as the basis for comparison.

2.6.2 Treatment of indexation and depreciation in the calculation of EBIT

We will publish our reporting on the NSPs' EBITs to allow stakeholders to view returns inclusive or exclusive of the effects of the annual RAB indexation for the RoA, EBIT per customer and RoRE measures. In practice, this will mean the NSPs' EBITs will be calculated using either regulatory depreciation (EBIT includes annual RAB indexation) or nominal straight-line depreciation (EBIT excludes annual RAB indexation). This effects all of the RoA, EBIT per customer and RoRE measures.

In our view, presenting both options enables stakeholders to make the most comprehensive and informative comparisons of allowed against actual returns, and allows our analysis of NSP profitability to capture:

- the current compensation model of the building block regulatory framework, which generates for NSPs a target real rate of return plus actual inflation outcomes, and
- the three types of annual compensation generated in the building block revenue model, being:
    - cash-flows, recovered through the revenue allowance

- imputation credit cash-flows arising from any company tax that the entity pays and distributed to equity holders
- annual inflation (indexation) of the RAB, to be recovered through future cash-flows.

The type of depreciation applied (ie in inclusion or exclusion of annual RAB indexation) will also determine the relevant WACC values against which the RoA ratios should be compared. When regulatory depreciation is applied the comparator should be the nominal pre-tax WACC and when straight-line depreciation is applied the comparator should be the real pre-tax WACC.

Further detail on the application of indexation and depreciation is set out in section 5.1.

2.6.3 Keeping RoA calculations separate to the PTRM

We will not add the RoA calculation to the PTRM as proposed by a number of stakeholders. Although the RoA uses inputs and comparators from the PTRM, the PTRM serves the specific purpose of calculating NSPs' forecast revenue requirements. It brings together our various forecast building block inputs and converts this into an ultimate revenue allowance. It currently includes a series of checks to test the internal consistency of cash-flows and returns, but does so strictly on a forecast basis. We are not persuaded that it would be useful to include one of the suite of profitability measures, which are backward-looking, in a forward-looking revenue model.

In contrast, we view the suite of profitability measures as an additional data set to be added to our annual network performance reporting. In this context, the measures both summarise and are informed by factors in the existing network performance reporting dataset, such as out-turn expenditure performance and changes in the RAB. We consider this is the most relevant setting for annual presentation of the RoA.

3 EBIT per customer

3.1 Our position

We will include EBIT per customer in the suite of profitability measures on which we will report. In our view, it has a distinct and useful role in combination with the other measures.

In particular, it is the only measure we will report on which has a denominator not directly dependent on the NSPs' regulatory asset bases (RABs). It therefore shows a different perspective on a level of profitability (EBIT) compared against an alternative driver of costs.

In combination with the Return on Assets measure, which is also based on EBIT, it will allow us to report complementary and contrasting perspectives on NSPs' profitability over time.

Fit against our criteria

The EBIT per customer measure fits with our criteria for selection of measures because:

- it is based on clear concepts and able to be calculated consistently over time
- it is relatively simple to calculate minimising the need for adjustments and/or assumptions and relies on data that is largely already available, and
- when considered for an individual NSP over time, the measure will illustrate the interaction of profitability and network customer profiles, and the overall impact of profitability changes on the full customer base considered on average.

3.2 How we will calculate it

EBIT per customer will be calculated using the following formula:

$$EBIT\ per\ customer = \frac{EBIT}{Total\ customers}$$

Where:

- EBIT is regulatory earnings before interest and tax (i.e. revenue less expenditure and depreciation)
- Total customers are the total reported customer numbers connected to an NSP's network in a given year, or in the case of transmission networks, connected to downstream networks within the TNSP's region.[16]

We will report EBIT per customer across all sectors where we can determine meaningful values for end customers. At this time, this will include:

- electricity distribution and transmission NSPs, and

[16] Currently, there appears to be some variation between whether service providers report customer numbers as average numbers over the year, or as end-year numbers. Initially we will report the measure on the basis in which they are provided to us. Customer numbers typically do not vary significantly from year to year, so we would expect this is unlikely to materially impact interpretation of the numbers.

- gas distribution NSPs subject to full regulation.

To assist stakeholders in interpreting the EBIT per customer outcomes, we will publish explanatory material when we report the measures.

3.3 Our recommended comparators for the measure

In our view, the EBIT per customer measure is most usefully compared as a time-series against previous EBIT per customer results for the NSP. We discuss the reasons for this view in more detail in section 3.6.2.

3.4 Draft position

Our draft position included EBIT per customer in the suite of measures on which we will report. We concluded that it is a simple alternative approach to reporting on EBIT and may enable NSPs of different size to be compared on similar terms. Also, unlike the other profitability measures, it does not rely on asset or equity values, so highlights different aspects of the NSPs' returns.

We also noted EBIT per customer would be reported for distribution NSPs, but not for transmission NSPs.[17] We considered EBIT per customer is more suited to NSPs that have a large number of customers or connections. As transmission networks service a relatively small number of directly connected customers the measure is less meaningful for these NSPs.

3.5 Consultation on the measure

To further our draft position views, we sought submissions from stakeholders and engaged with the working group. The following provides a summary of this consultation process.

3.5.1 Submissions on our draft position

Submissions on EBIT per customer were predominantly from NSPs and industry representatives. These stakeholders raised concerns that consumers may misinterpret the measure or erroneously compare the EBIT per customer outcomes to an average residential customer bill, believing it to represent actual profit per residential customer.[18]

In addition, a number of stakeholders queried whether using EBIT per customer would be suitable for comparing profitability between NSPs. Stakeholders views was it does not account for the following factors which can create differences in outcomes across NSPs:

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17 AER, *Draft position: Profitability measures for electricity and gas network businesses*, April 2018, p. 23.

18 AusNet, *Profitability Measures for Regulated Network Businesses – Draft position paper*, 30 May 2018, p. 2; Energex and Ergon Energy, *Profitability measures for regulated gas and electricity network businesses - Joint response to the Australian Energy Regulator's Draft Positions Paper*, 30 May 2018, p. 9; Energy Networks Australia, *Profitability measures for electricity and gas network businesses – Response to AER Draft Position Paper*, 31 May 2018, p. 9; Jemena, *Response to draft position paper on profitability measures for electricity and gas network businesses*, 30 May 2018, p. 2; SAPN et al, *AER draft positions paper: Profitability measures for electricity and gas network businesses*, 31 May 2018, p. 4.

- network size or geography
- the NSPs' mix of customer types (small and large)
- industry characteristics, or
- legislative requirements specific to the individual service provider.[19]

Further detail on the submissions on our draft position paper are set out in our summary of submissions, in section 9.

3.5.2 Summary of input from working group

We presented preliminary views on EBIT per customer for discussion at the working group meetings on 26 June 2019 and 8 August 2019. We noted our intention to include EBIT per customer in the suite of measures we would report on and presented the following views for discussion:

- we consider calculating the measure using customer numbers is conceptually easier to understand than based on connections
- we would use a simple calculation method of EBIT divided by total customer numbers unless using a more complex method using a breakdown of customer numbers by customer type would provide a more meaningful measure, and
- to continue with the draft position approach of reporting the measure for distribution NSPs only.

The working group generally supported reporting EBIT per customer if explanatory material is provided when reporting the measure to guide interpreting the outcomes. Specifically, as the NSPs have different characteristics, the working group agreed that the measure is better suited as a comparator of an individual NSP's performance over time rather than as a comparator of returns across NSPs.

To calculate the measure, the working group supported using customer numbers rather than connections. Also, that a simple calculation method (using total customer numbers) be preferred over a more complex method using customer types, as allocating shared costs across customer types with any degree of accuracy would be challenging for the NSPs.

At the 8 August 2019 meeting, we presented an approach to calculate EBIT per customer for electricity transmission NSPs in response to the working groups' view that it be explored. Our approach was to attribute distribution customer numbers within the same region to the transmission NSP. The working group supported this approach and the reporting of EBIT per customer for electricity transmission NSPs. However, it was generally accepted this approach could not be applied for gas transmission pipelines as the data is not available to determine the customer numbers with any degree of accuracy.

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19 AusNet, *Profitability measures for Regulated Network Businesses – Draft position paper*, 30 May 2018, p. 2; Energex and Ergon Energy, *Profitability measures for regulated gas and electricity network businesses - Joint response to the Australian Energy Regulator's Draft Positions Paper*, 30 May 2018, p. 9; Jemena, *Response to draft position paper on profitability measures for electricity and gas network businesses*, 30 May 2018, p. 2; SAPN et al, *AER draft positions paper: Profitability measures for electricity and gas network businesses*, 31 May 2018, p. 4.

3.6 Reasons for final position

In this section, we set out our reasons on the key aspects and issues specific to this measure that we addressed to come to our final position. These include:

- How we will determine customer numbers
- Time-series analysis of the measure.

As EBIT per customer uses the same the EBIT used in the calculation of RoA, all common issues relating to EBIT are addressed in our discussion of RoA in section 2.

3.6.1 How we will determine customer numbers

We will determine the customer numbers for the different NSPs as set out in Table 3.1. These customer numbers represent the total customers served by a NSP.

Table 3.1 Approach to determine the NSPs customer numbers

Sector	Determination of customer numbers
Electricity distribution NSPs	We will source customer numbers from the operational data sheet in the NSPs economic benchmarking regulatory information notices (RIN) (table 3.4.2.1) submitted annually to the AER.
Electricity transmission NSPs	We will calculate the customer numbers as the sum of direct-connect customers and the distribution customers located in the same region as the transmission NSP. Direct-connect customers (connection points) will be sourced from the NSPs economic benchmarking RIN (table 3.4.2) submitted annually to the AER. Distribution customers will be the same as those sourced above.
Gas distribution NSPs	Customer numbers will soon be reported regularly to the AER in annual reporting RINs which we will use for the purposes of reporting this measure.
Gas transmission NSPs	Unable to source meaningful customer numbers for the purposes of this reporting.

In our view, it is possible to derive meaningful customer numbers for the purposes of this reporting for:

- electricity distribution and transmission NSPs, and
- gas distribution NSPs subject to full regulation.

Electricity distribution NSP customers (customers connected to and serviced by the electricity distribution networks) are readily identifiable and reported regularly to the AER. Similarly, for gas distribution NSPs subject to full regulation, customer numbers are readily identifiable and will soon be reported regularly to the AER in annual reporting RINs.

Electricity transmission networks ultimately serve a relatively small number of direct-connect customers alongside a larger number of customers of distribution networks. Customers of distribution networks make up the numerical majority of users of transmission assets, but they are not included in transmission customer numbers reported to the AER because their customer relationship is with distribution network. In our view, it will result in a more meaningful measure if we include those distribution customers that ultimately make use of transmission assets. For simplicity, we will determine these numbers as the total of distribution customers within the same NEM region as the relevant transmission network.

We recognise that, in practice, users benefit from and pay some of the network costs for TNSPs located in interconnected NEM regions. Attempting to capture these interactions would be complex, and in our view, the level of complexity would not materially improve the usefulness of the measure.

For gas transmission pipelines we have been unable to derive meaningful customer numbers. Under the gas sector regulatory framework, different pipelines are subject to different tiers of regulation and subsequently different information disclosure requirements. As a result, non-scheme pipelines granted an exemption from the information disclosure and arbitration framework are not required to publish customer numbers.[20] This limits our ability to meaningfully attribute distribution network customers to the transmission NSPs, using our approach for electricity transmission NSPs.

3.6.2 Time-series analysis of the measure

We recommend that EBIT per customer outcomes for a particular NSP are best compared to the historical results for that same NSP. In our view, this comparison will:

- capture a distinct and complementary perspective on profitability compared to the RoA measure for that same NSP as EBIT per customer is not directly dependent on the RAB, and
- highlight the proportional impact of changes in profitability over time at the customer level (in time-series) and assist in understanding the drivers of variations in the measure outcomes.

It is also possible to use the EBIT per customer outcomes to compare NSPs against each other at a fixed point in time (in cross-sectional comparisons). In our view, this is a less informative and more complex use of this measure. There are differences between the NSPs which make this comparison challenging, because:

- Although the measure treats each customer's contribution as equal, different customer types contribute differently to NSPs' revenues and costs, and their networks have different customer compositions. This has an impact on how to interpret the measure across NSPs. While it does not prevent useful comparisons, it makes them more difficult. We will consider what additional data (such as customer numbers by customer type) can be provided when we report this measure to illustrate these effects or improve these potential comparisons.

20 NGR, r. 585.

- Different network characteristics, such as customer density, result in differences between NSPs which are not necessarily driven by outperformance or underperformance against the regime. We will consider what additional information can be provided alongside this measure to assist with better interpretation of results.

4 Return on regulated equity

4.1 Our Position

We will include the return on regulated equity in the suite of profitability measures on which we will report.

Reporting on return on regulated equity (RoRE) illustrates the final returns available to equity holders. This allows the most comprehensive comparison of the NSPs' actual returns against expected returns. Unlike the other accounting profitability measures (RoA and EBIT per customer), it is a ratio based on net profit after tax (NPAT) rather than EBIT. This means that the measure will also capture returns arising as a result of differences between:

- actual tax expense and the NSP's forecast tax allowance, and
- actual interest expense and the NSP's forecast return on debt allowance.

We have not previously collected this data from NSPs in a consistent and comparable form. For some NSPs, actual tax and/or interest expenses are incurred at ownership-group level. For our purposes, we require an allocation within the corporate group to identify the expense incurred by the NSP in providing core regulated services.

In some cases, these allocations may be complex and challenging for stakeholders to interpret. We have developed our information requirements for the measure to mitigate some of this complexity. Further, the combination of the RoRE with the relatively simpler RoA measure should, in combination, highlight different perspectives on profitability which balance our reliance on these new and complex allocations with a simpler but less comprehensive perspective.

Fit against our criteria

The RoRE measure fits with our criteria for selection of measures because:

- it provides stakeholders with a widely accepted and commonly used measure of the actual/ultimate returns to network businesses shareholder/owners
- it is based on clear concepts and able to be calculated consistently over time
- the measure is suited to the characteristics of the industry (e.g. capital intensive, long lived assets, regulated revenue and returns, etc.), and
- it can be compared to other regulated and non-regulated industries which have similar levels of capital intensity and risk.

4.2 How we will calculate it

RoRE will be calculated using the following formula:

$$Return\ on\ regulated\ equity\ (RoRE) = \frac{Regulatory\ NPAT}{Regulated\ Equity}$$

Where:

- Regulatory NPAT will be sourced from the NSPs' income statements using data related to the NSPs' core regulated services.[21]
- Regulated Equity is determined by applying the benchmark or actual gearing ratio to the NSPs' RABs related to their core regulated services.

4.3 Our recommended comparators for the measure

In our view, the RoRE measure is most usefully compared to:

- Post-tax real/nominal return on equity allowed in a NSP's regulatory determination.[22]
- Regulatory returns of other NSPs.
- Regulatory returns of Australian and international regulated businesses where the RAB is valued on a reasonably consistent basis, and the debt to equity mix is similar to the service providers.

4.4 Draft Position

Our draft position included RoRE in the suite of measures to be reported following our consideration of submissions that encouraged the reporting of measures which had a regulatory benchmark.[23]

We agreed there was value in reporting profitability measures that assess the actual returns of the NSPs.[24] The comparison of the actual returns to those forecast in a determination is one of the objectives of the profitability review. We noted the RoRE can be compared to the real return of equity in a NSP's determination to analyse the drivers of differences between actual and expected returns.

4.5 Consultation on the measure

To further our draft position views, we sought submissions from stakeholders, sought and engaged with our working group.

Much of this engagement was focussed specifically on the approaches for collecting information on actual tax and actual interest expense. We have discussed that consultation in sections 7 and 8, as well as in our summary of submissions in section 9.

4.5.1 Submissions on our draft position

Submissions did not oppose our draft position to report on RoRE. However, some submissions commented on the difficulties involved in doing so, especially with respect to:

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21 For the purposes of our reporting, core regulated services are: for electricity distribution NSPs—standard control services; for electricity transmission NSP's—prescribed transmission services; for gas distribution NSP's—haulage reference services; and for gas transmission NSP's—reference services.

22 The relevant comparator will depend on whether the measure includes or excludes the effects of indexation (i.e. is generated based on regulatory depreciation or nominal straight-line depreciation). We discuss this further in section 2.6.2, and more generally in section 5.1.

23 AER, *Draft position: Profitability measures for electricity and gas network businesses*, April 2018, pp. 21–22.

24 AER, *Draft position: Profitability measures for electricity and gas network businesses*, April 2018, p. 21.

- views on actual versus allowed tax outcomes in the past
- differing ownership structures of the regulated entities, and
- the approach for allocating tax and interest expenses to determine the net profit after tax.

A number of submissions noted that without clear guidance for making these allocations they could be made on an arbitrary basis and/or not be comparable between NSPs.[25]

4.5.2 Summary of input from working group

We presented to the working group preliminary views on issues relating to the RoRE at two meetings:

- At the 13 September meeting, we presented preliminary views on our overall approach to calculating the RoRE, our approaches for collecting actual tax and interest expense, and our preliminary views about the treatment of imputation credits in profitability reporting
- At the 15 October meeting, we presented an example of the RoRE measure calculated with and without the impacts of annual RAB indexation, and discussed further the applicable tax rates for NTER entities.

Generally the working group supported our overall approach for calculation and reporting of the RoRE measure. Most of the working group's input related specifically to reporting of actual tax expense and actual interest expense. We discuss the working group's feedback in more detail in sections 7 and 8.

4.6 Reasons for final position

In this section, we set out our reasons on the key aspects and issues specific to this measure that we addressed to come to our final position.

We note the RoRE measure is calculated using net profit after tax (NPAT), which follows on from the earnings before interest and tax (EBIT) used in the calculation of RoA and EBIT per customer measures. All common issues relating to EBIT are addressed in our discussion of the RoA measure in section 2.

4.6.1 Calculation of Regulatory NPAT

Our calculation of Regulatory NPAT will follow on from the calculation of earnings before interest and tax (EBIT) that we use to calculate RoA and EBIT per customer.

Having regard to advice from PwC, and input from stakeholders, we will:

1. Commence with regulatory EBIT, as used in the RoA and EBIT per customer measures

[25] APA Group, *Profitability measures for regulated gas and electricity networks*, December 2017, p. 9; SAPN et al, *Discussion paper: Profitability measures for regulated network businesses*, 8 December 2017, p. 3; Energy Networks Australia, *Response to the AER's discussion paper on profitability measures for regulated gas and electricity network business*, 8 December 2017, p. 3.

2. Subtract actual interest expense
3. Subtract the actual tax expense, which is determined by multiplying:

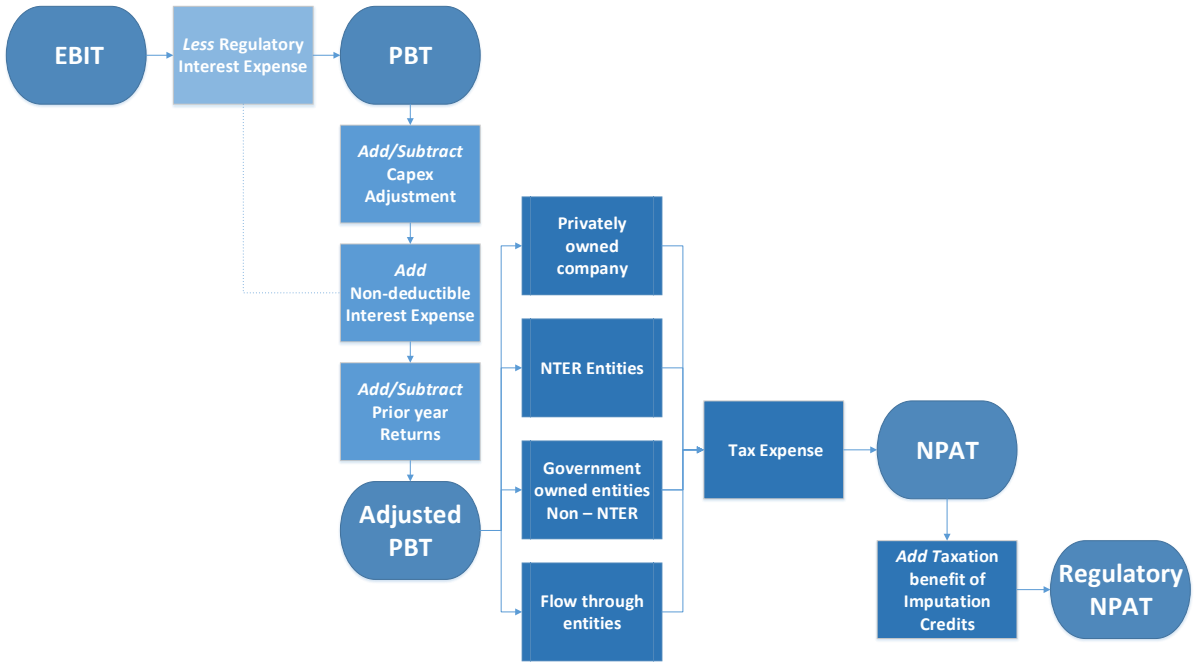
   (a) Actual profit before tax (PBT), which is EBIT less interest expense less a series of adjustments for:

   - permanent differences arising from capital expenditure—because the RAB is indexed but assets for tax purposes are not, we will add back annual depreciation used to calculate EBIT (regulatory or nominal straight-line, depending on presentation) and subtract tax depreciation used in the calculation of our tax asset base (TAB)
   - permanent differences arising from interest—some amount of interest expense may not be eligible for use in reducing taxable revenue
   - permanent differences arising from past-year returns—such as the outcomes of tax disputes

   (b) Multiply the actual profit before tax by the applicable tax rate for the NSP
4. Add back the relevant value to equity-holders arising from the value of imputation credits.

This calculation gives us regulatory NPAT. This process is summarised below in Figure 4.1.

Figure 4.1 Calculation of Regulatory NPAT



Source: AER analysis

The remainder of this section sets out our analysis of the key issues specific to the calculation of RoRE and general to the development of tax and interest data that emerged during the development of our position. These are:

- Top-down or bottom-up determination of group-level expenses

- Accounting for returns to investors arising through imputation credits
- Accounting for actual gearing.

We discuss the specific approaches to be used in allocating actual tax and interest expense in sections 7 and 8.

4.6.2 'Top-down' or 'bottom up' determination of group-level expenses

Our profitability reporting will be focussed on outcomes for individual NSPs, for comparison against our expected returns in regulatory determinations. However, many individual networks are part of broader ownership groups with interests in multiple regulated networks.

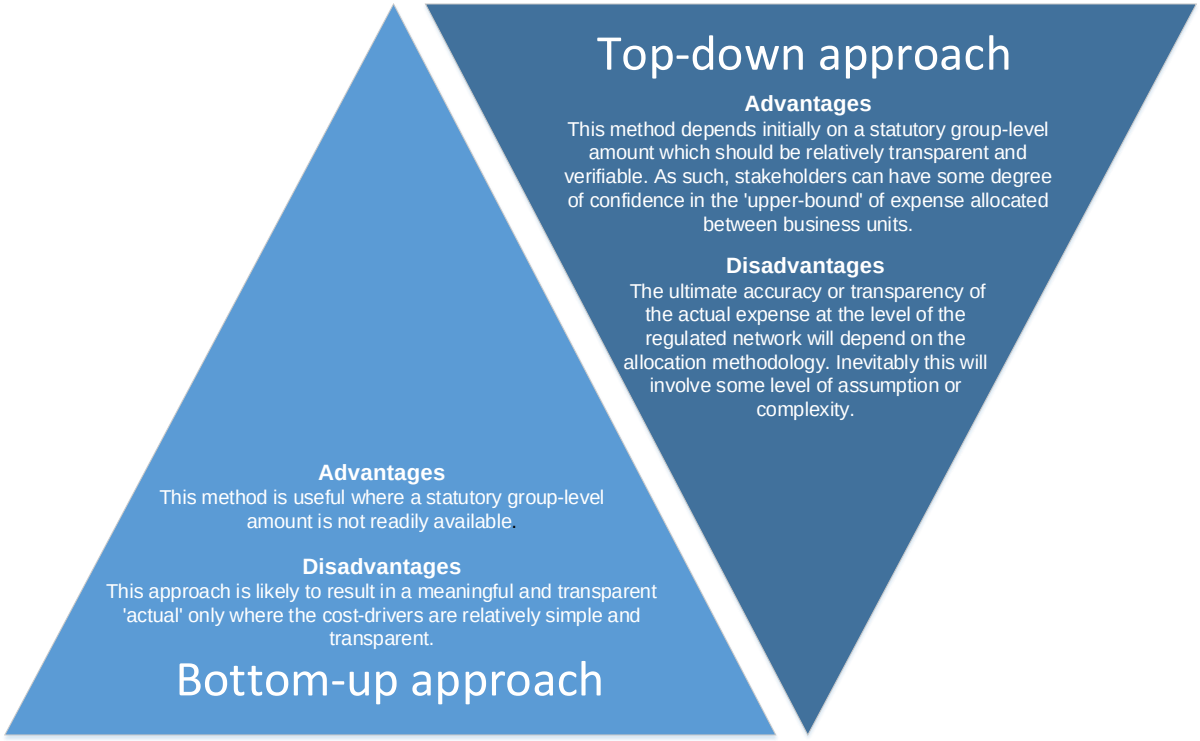
In general, tax and interest expenses at the level of the regulated network are necessary for the calculation of NPAT. They are often incurred at ownership group level or, in the case of tax for flow-through entities, at the level of individual investors. As such, a key methodological question for our reporting of this measure is the means by which networks should allocate group-wide expenses to individual networks within those groups.

In our view, there are two ways to do this:

- Top-down— start with an overall statutory dollar value for an expense across the ownership group and develop a methodology to allocate these amongst individual business units in the group
- Bottom-up— determine a direct estimate of actual expenses for regulated by reference to the drivers of those costs.

The advantages and disadvantages of these two approaches are set out in Figure 4.2

Figure 4.2 Advantages and disadvantages of top-down or bottom-up approaches for group-wide expenses



Source: AER analysis

Having regard to input from stakeholders and advice from PwC, we will adopt the following approaches.

Table 4.1 Our approach for group-wide expenses

Expense	Method	Reasons
Actual tax expense	Bottom-up	Flow-through ownership structures do not pay any tax at the level of the NSP as the tax obligation passes through the partnership or trust to the ultimate tax paying entity, who pays tax at their applicable statutory tax rate. As identified in our tax review, this is the relevant level of tax for consideration as 'actuals'. So, in order to undertake a top-down approach, we would need the individual tax expenses across all owners of a NSP and individual allocations of the expense for each owner. In contrast, we consider tax expense is relatively well suited to a bottom-up approach. It requires EBIT to be adjusted only for relevant differences for tax purposes, on which PwC has given us advice, and to multiply this by an applicable tax rate which is straightforwardly predictable for many NSPs based on ownership structure.
Actual interest expense	Top-down	Unlike tax, our expectation is that ownership groups including those with complex holding trust structures would still be able to identify a verifiable statutory interest expense at the ownership group level. In addition, we consider there are relevant drivers (such as the book value

	of network assets compared to total assets) which could be used to meaningfully allocate general interest expense between business units.

Source: AER analysis

4.6.3 Accounting for returns arising from imputation credits

Our regulatory framework accounts for three different sources of returns to NSPs:

- Cash-flows, recovered through the revenue allowance.
- Annual inflation (Indexation) of the RAB, to be recovered through future cash-flows.
- Returns arising from imputation credits generated where the NSP pays company tax and and distributed to equity holders.

In order to enable a clear comparison of expected and allowed post-tax returns, it is necessary to account for the value of those imputation credits.

When setting building block revenue, we estimate the tax allowance building block having regard to other forecast revenue and expenses. The combination of the building blocks is designed to compensate NSPs for efficient expenditure, and to provide an ultimate return to equity holders sufficient to attract efficient investment. In doing so, the framework recognises that imputation credits are a value stream available to equity holders alongside dividends and capital gains (indexation of the asset base) which an investor can receive. We adjust the estimated cost of tax allowance for the value of imputation credits which reduces the allowed revenue. By making an adjustment to the tax allowance, we avoid double counting of the defined value of the imputation credits and forecast returns to equity.

Then, when reporting on actual returns, we will need to correspondingly recognise the implications of our approach for reporting on actual tax. Imputation credits are generated when entities pay income tax. So, where actual tax paid departs from the benchmark tax allowance, it is important that our method for capturing this value recognises that this has a corresponding effect on the generation of imputation credits and the ultimate returns to stakeholders.

Similarly, if NSPs' actual tax expense exceeds our allowance, we would expect owners of those entities holding other things constant to generate higher returns from imputation credits.

To make this impact transparent, we will estimate the RoRE in multiple stages using:

- Net profit after tax (NPAT)
- Add returns from imputation credits, constrained by the level of tax paid.
- Gives Regulatory net profit after tax (after imputation credits adjustment).

Consistent with its calculation in our revenue setting, we will determine this adjustment as:

$$Returns\ from\ imputation\ credits = Actual\ tax\ expense\ x\ value\ of\ imputation\ credits^{26}$$

This recognises that:

- we determine the value of imputation credits as a market-wide benchmark for the value to investors for each dollar of company tax paid, and
- multiplied by actual tax expense, this will capture any departures between the actual tax paid and our allowance—whether actual tax expense is higher or lower than allowed.

4.6.4 Accounting for actual gearing

As set out in section 4.2, we will calculate RoRE using the equity component of the actual RAB as the denominator. However, there are two ways to determine the implied equity value over which NPAT is divided:

- Using our benchmark gearing assumption which is currently 60 per cent debt: 40 per cent equity.
- Working out an estimate of actual gearing where the implied gearing is determined using the book value of debt−provided as supplementary information to the interest expense allocation−as a proportion of the RAB.

In our view, presenting both perspectives on RoRE will be important and informative.

In practice, NSPs may choose to raise debt at a higher or lower proportion than implied by our benchmark gearing level of 60 per cent. Where they do depart from the benchmark gearing level, this has implications for interpretation of the measure:

1. Holding other things constant, higher proportions of funding raised through debt will result in higher interest expense. In turn, this means we calculate a lower NPAT.
2. However, the higher proportion of funding raised through debt also means that returns are spread across a lower equity base as a proportion of total asset value.

So, if we do not account for the actual gearing implied by actual debt as a proportion of the RAB, we will only capture the first effect and not the second. In the case of higher-than-benchmark gearing, this will imply a disproportionately low RoRE. The opposite is true in the case of lower-than-benchmark gearing.

For this reason, we will present our reporting in a way which allows stakeholders to select between the measure calculated using the two different gearing (benchmark and actual) options. In our view, this has a number of benefits:

- The results based on actual gearing will allow for the best comparison between actual and expected returns.
- The results based on benchmark gearing will allow us to quantify (from the difference between these options) the impact on profitability of financing structure decisions.

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26 This will be the benchmark value of imputation credits parameter as used in the PTRM determined in a relevant regulatory determination for the relevant regulatory year.

5 RAB multiples

5.1 Our position

We will include RAB multiples in the suite of profitability measures on which we will report. Specifically, we will report two separate types of RAB multiples, being:

- Transaction multiples—RAB multiples arising from the transaction of a discrete component of an ownership group including regulated networks
- Trading multiples—RAB multiples generated using market value data on the enterprise value of publicly-listed entities.

RAB multiples play a distinct and important role in our suite of profitability measures:

- They are market-based, rather than accounting derivations
- They are forward looking rather than backward looking
- They sit somewhere between our normal classifications of 'regulatory' and 'statutory' measures.

In our view, RAB multiples complement the direct information on historical performance that we derive through the three other measures we will report, in particular:

- they may serve as a sense check of whether our profitability analysis is effectively capturing true profitability as perceived by investors, and
- they may give insights into whether investors perceive historical profitability outcomes as transient or ongoing.

Fit with our criteria

RAB multiples fit with our criteria for selection of measures because:

- they are based on clear concepts and likely able to be sourced or calculated consistently over time
- they are well-accepted measures of investor expectations about future returns and are widely used by market analysts in connection with regulated utilities
- they are publicly available and do not require further manipulation of data..

5.2 How we will calculate it

RAB multiples will be calculated and interpreted as follows:

$$RAB\ multiple = \frac{Enterprise\ value}{RAB}$$

Where:

- Enterprise value is the total market value of the entity—this may be a specific business unit such as an individual regulated NSP, or an entire ownership group in the case of trading multiples for publicly listed entities.
- RAB is the value of the regulated asset base for the relevant entity, as distinct from the book value of a company's assets.

Unlike the other measures that we will report on, reporting on RAB multiples will not rely on provision of data from the NSPs. Market analysts commonly estimate these multiples and include them in market research reports. We will source trading and transaction multiples published by market analysts and will, with permission, publish those multiples.

5.3 Our recommended comparators for the measure

In our view, RAB multiples are most usefully compared to:

- Their theoretical benchmark—subject to a series of conditions, we would expect RAB multiples to be 1. However, the factors which impact on achievement of this conditions are potentially material. In practice we expect some variation around this benchmark which does not necessarily imply outperformance or underperformance of the framework. We discuss this further in sections 5.6.2 and 5.6.3.
- Transactions/valuations of other NSPs.

Stakeholders have also recommended we give consideration to the potential to compare RAB multiples against transactions/valuations of other regulated business outside of the sector that have a similar level of risk and capital intensity. In our view there are material challenges in making this comparison, but we agree it is worth further consideration. We will continue to explore this potential comparison as our reporting progresses. We discuss this further in section 5.6.3

5.4 Draft position

Our draft position included RAB multiples in the suite of measures on which we will report[27] We observed that unlike other measures of profitability, RAB multiples provide insights on the NSPs expected returns / forecast profitability.

We acknowledged there are a range of factors, in addition to expected returns, that could influence RAB multiples. These include expectations of a buyers' ability to: achieve greater efficiency gains; increase demand/revenue; or, realise more efficient tax structure or high gearing levels. It was also noted that a high RAB multiple could be a reflection of the 'winner's curse', with the buyer over-paying as a result of the competitive bidding process.

While noting there are significant issues in decomposing RAB multiples, we agreed with consumer groups that there is benefit in collecting and reporting RAB multiples resulting from a sale/transaction or trading multiples (the latter calculated using enterprise value based on the share price, at a point in time).

27 AER, *Draft Position: Profitability measures for electricity and gas network businesses*, April 2018, pp. 23–25.

5.5 Consultation on the measure

To further our draft position views, we sought submissions from stakeholders and engaged with the working group. The following provides a summary of this consultation process.

5.5.1 Submissions on our draft position paper

Submissions on our draft position paper were generally supportive of the use of RAB multiples, but raised issues relating to:

- the appropriate comparators or benchmarks against which RAB multiples should be compared
- the range of factors which influence RAB multiples and whether it is possible to decompose RAB multiples into those factors, and
- the differences between RAB multiples and the other measures on which we propose to report−specifically that they are forward looking and, in the case of transaction multiples, are intermittent.

Further detail on the submissions on our draft position paper are set out in our summary of submissions, in section 9.

5.5.2 Summary of input from working group

We presented our preliminary views on RAB multiples at the working group meeting on 8 August 2019. We noted our intention to include RAB multiples in the suite of measures on which we would report. We also indicated a preliminary view that for our reporting purposes we would source RAB multiples from credible market analysts rather than calculating them ourselves.

The working group was supportive of reporting RAB multiples (with both transaction and trading multiples).

Some working group members supported the principle that measures should be sourced from market analysts. However, there was also concern from some members whether the assumptions that underpin these RAB multiples would be transparent.

Working group members also queried whether additional data would be available to isolate the effect of regulation in these outputs. Some members considered that this might enable comparisons against companies not subject to the building block regulatory framework.

The working group discussion input informed our views on the following:

- to report trading and transaction RAB multiples
- that RAB multiples will be considered amongst a suite of measures to serve as an overall 'health check' on the performance of network regulation, which limits the risk of circularity of RAB multiples influencing building block revenues, and
- the important factors to include in explanatory information to provide context with the RAB multiples.

5.6 Reasons for final position

In this section, we set out our reasons on the key aspects and issues specific to this measure that we addressed to come to our final position. These include:

- Use of RAB multiples published by market analysis
- The different factors which impact RAB multiples
- Reporting on transaction and trading multiples
- The appropriate comparator for RAB multiples
- Intermittency of RAB multiples.

5.6.1 Use of RAB multiples published by market analysts

We will report transaction and trading multiples determined and published by credible market analysts. For example, in the financial performance measures consultation paper during development of the AER's rate of return instrument, we previously published (with permission):[28]

- Transaction multiples sourced from Morgan Stanley
- Trading multiples sourced from the Royal Bank of Canada.

Transaction RAB multiples occur infrequently. When owners sell networks, they are high-profile market events and widely covered by market analysts. As such, we have generally been able to source and have regard to independently estimated transaction multiples.

We are also aware of several market analysts that routinely publish trading RAB multiple estimates for the listed entities. These are often published as annual estimates spanning several years.

For the purposes of updating our database for reporting, we will report on trading and transaction multiples calculated by credible market analysts and will attribute the estimate accordingly. If there is material divergence between estimates by different market analysts that we are aware of, we will present both numbers.

This approach has the advantage of simplicity and gives an independent perspective on investor expectations. However, there is likely to be some amount of variation in the approaches or assumptions that analysts adopt for estimating RAB multiples, and these will not necessarily be transparent without further consultation. As an example, market analysts have a range of options for sourcing RAB values, all of which could lead to differing outcomes:

- PTRM forecasts
- Updated annual RAB values from economic benchmarking RINs
- Self-reported RAB values from statutory reporting or presentations to market.

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28 AER, *Discussion paper: Financial performance measures*, February 2018, pp. 14–16.

This approach also depends on those market analysts continuing to publish and giving us permission for publication of the multiples. Noting this limitation, we have considered whether we should estimate and publish our own trading RAB multiples.

On balance, our view is that we should rely initially on third-party published trading multiples. While we will not always have complete visibility of how particular analysts determine their RAB multiples, we expect that well-regarded market analysts are in a position to estimate these series in a way that is credible and meaningful. If availability or transparency of the calculation underlying the multiples becomes problematic, we will revisit the option of developing our own RAB multiples based on market data.

5.6.2 Factors impacting RAB multiples

As identified in our draft position, we agree that:

- there are a range of factors which influence RAB multiples, and
- it may not be possible to decompose RAB multiples into these factors with precision.

These factors are discussed in the paper by Dr Biggar in the context of conditions under which RAB multiples should be equal to 1.[29]

We remain of the view that it may be possible to draw reasonable inferences about the materiality of various factors impacting RAB multiples. However, in general we do not expect this will be necessary. Within the suite of measures on which we will report, RAB multiples will provide a complementary, forward-looking insight into investor expectations. Other measures, in particular the RoRE, allow us to decompose drivers of actual returns with more precision. RAB multiples by comparison may give some insight into whether investors perceive those actual returns are likely to be transient or ongoing.

As such, we do not intend to decompose either transaction or trading multiples into specific drivers of value. Nonetheless, where analysis of RAB multiples over time shows evidence of sector-wide trends, this may serve as a trigger for deeper investigation of factors that might be driving these trends.

5.6.3 The benchmark for RAB multiples

In our view, it is most informative to compare RAB multiples as follows:

- All multiples against the theoretical expectation of an outcome of 1, considered broadly rather than precisely.
- Transaction multiples against the time-series of past transaction multiples for relevant entities.
- Trading multiples against the time-series of trading multiples for the same entities.

29 Biggar, *Understanding the role of RAB multiples in regulatory processes*, February 2018.

We recognise that in a well-functioning regulatory framework we would not necessarily expect RAB multiples to be precisely equal to 1. As described by Dr Biggar during development of the binding rate of return instrument:[30]

> Simple theory shows that, under a number of fairly tight conditions, the market value of a regulated firm should be equal to the level of its regulatory asset base. In other words, as long as these conditions hold, the RAB multiple (the ratio of the market value and the regulatory asset base) should be equal to one.

However:[31]

> …RAB multiples are affected by a range of factors. A RAB multiple may be well above one, even though the regulatory cost of capital is equal to the firm's true cost of capital, and even without any other systematic failures or defects in the regulatory framework. A high RAB multiple is not immediately cause for concern

Dr Biggar goes on to recommend that it is difficult to specify a precise 'normal' range against which RAB multiples should be compared and that:[32]

> In my view, due to each firm's ability to earn rewards for taking desirable actions, an EV/RAB ratio of slightly above one should be considered normal. This is consistent with the theoretical observation that the regulated firm must be left some "information rents" in an optimal regulatory contract. I therefore suggest that, as a starting point, an EV/RAB in the vicinity of 1.1 should be considered unobjectionable. In addition, due to uncertainties and complexities in the regulatory process, and in the process of estimating the EV and the RAB, I suggest an error margin of plus or minus twenty per cent on this figure could be considered a "normal range". I therefore suggest that an EV/RAB outside the range of 0.9-1.3 might give cause for further exploration and investigation.

Other possible comparators

During working group meetings, members identified a National Bureau of Economics Research paper on asset ratios which aimed to value the impact of intangible assets to determine a more effective threshold for a 'normal' multiple.[33] The paper uses US-based companies from a variety of industries, and focuses on the market-to-book ratio.

As general principles, we consider that:

- failure to properly account for the intangible assets on future returns might contribute to undervaluation where those intangible assets have potential to generate future efficiencies. However, under revenue regulation we expect that the relative impacts of intangible assets are likely to be lower due to:
    - the high proportion of tangible assets used in the provision of core regulated services
    - the use of recent performance or market conditions to set future revenue allowances, such that we would not expect material outperformance of the framework to yield benefits over an extended time-period, and

30 Biggar, *Understanding the role of RAB multiples in regulatory processes*, February 2018, p. 1.
31 Biggar, *Understanding the role of RAB multiples in regulatory processes*, February 2018, p. 1.
32 Biggar, *Understanding the role of RAB multiples in regulatory processes*, February 2018, p. 11.
33 Ewens, Peters, and Wang, *National Bureau of Economics Research (NBER) Working Paper Series—Acquisition Prices and the Measurement of Intangible Capital, (Working Paper 25960)*, June 2019.

- it is desirable, where possible, to expand the comparator set against which we can compare RAB multiples.

Our view at this stage is that these comparisons may also not be informative due to the material distinctions between regulatory accounting and statutory accounting. In particular:

- RAB multiples use the value of the RAB as the denominator, which should compensate investors for the present value of future cash-flows arising from ownership of the asset. Specifically, the RAB includes both:
    - the historical cost (after depreciation) of assets providing core regulated services, and
    - capitalised indexation, to compensate equity holders for the effects of inflation through future cash flows returned over the lives of the assets.
- In contrast, normal 'market to book' ratios do not include the effects of inflation in asset values. As a result, we would expect the same expectations of future cash flows applied to the same set of assets to result in a lower RAB multiple than the corresponding book-to-market value.

Nonetheless, we will consider whether there are clear and informative ways to expand our set of comparators against which RAB multiples can be considered.

5.6.4 Reporting on transaction and trading multiples

We propose to report trading and transaction multiples, as recommended in several submissions. In our view, these two related sources of information are complementary. For example:

- Where transaction multiples are infrequent, trading multiples can be generated on an ongoing basis.
- Where trading multiples relate to full ownership groups, transaction multiples typically relate to specific regulated assets such as a specific network or pipeline.
- It appears that trading multiples, based on the price of a marginal unit of equity, are less likely to be affected by some of the non-regulatory factors that might influence transaction multiples—for example ‘winner’s curse’ or control premia. To illustrate this point, we consider trading multiples are likely to include shareholders’ views of managements’ ability to deliver outperformance, whereas with acquisition multiples the purchaser would be assessing their own ability to deliver outperformance.

As noted in our draft position paper, we maintain a historical database of RAB multiples which we can update if and when transactions occur. For trading multiples, we propose to report where available for relevant listed entities.

5.6.5 Intermittency of RAB multiples

We agree that the infrequency of transaction multiples is a limitation on their standalone usefulness for reporting on profitability. We also recognise that neither transaction multiples nor trading multiples are available for all NSPs. However:

- we can supplement the periodic information on transaction multiples with ongoing information from trading multiples, and
- where they occur, transaction multiples may provide useful additional context in considering trends in the suite of profitability measures.

In terms of commentary to accompany the reporting of RAB multiples, we recognise that any interpretation of RAB multiple information must have regard to its potential sensitivity to specific circumstances of the NSP or ownership group. This is important, recognising that we are unlikely ever to have complete and recent RAB multiple coverage of the sector.

6 Indexation and depreciation in network profitability reporting

Our regulatory framework accounts for three different sources of returns to NSPs:

- Cash-flows, recovered through the revenue allowance.
- Imputation credit cash-flows arising from any company tax that the entity pays and distributed to equity holders.
- Annual inflation (indexation) of the RAB, to be recovered through future cash-flows over the economic lives of the assets.

We will report in a way that allows stakeholders to view outcomes both including and excluding returns arising from annual indexation of the RAB. This impacts calculation of and the relevant comparators for the following measures (the regulatory accounting measures):

- Return on assets
- EBIT per customer
- Return on regulated equity.

In practice, this means:

- to include (future) returns generated from annual inflation in the measures—we calculate the measure using regulatory depreciation, which is the net impact of nominal straight-line depreciation less annual inflation of the RAB, and
- to focus only on annual cash-flows—we calculate the measure only using nominal straight-line depreciation.

In our view, both approaches are informative. There are advantages and disadvantages to either presentation. In combination, they illustrate different parts of the compensation package under the building block regulatory framework. For that reason, we consider the choice primarily impacts:

- The simplicity of the comparison.
- Whether the effects of actual inflation outcomes are explicit, recognising that the framework is designed to target and deliver a real return to equity holders plus actual inflation outcomes.

We sought input on this issue from our working group. Broadly, the working group supported simplicity of comparison as a guiding consideration, but we recognise that the CCP submitted on our draft position paper that the most relevant comparison was of the real returns since this is what the framework is designed to target.[34]

Overall, our view is that it is preferable to present both variations of the measures. This allows us to capture the advantages of both approaches.

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34 AER, *Draft Position: Profitability measures for electricity and gas network businesses*, April 2018, pp. 17–18.

6.1 Treatment of RAB indexation in calculation of profit margins (EBIT and NPAT)

In 2017, we reviewed the regulatory treatment of inflation. In that review we considered, alongside other issues, whether the building block revenue framework is designed to target a real or nominal return to equity holders. We concluded the framework is designed to target and does deliver a real rate of return plus actual inflation outcomes.[35] To the extent the actual inflation differs from forecast inflation in our revenue determination, equity holders bear the risk of this variation, for which they are likely to be compensated through the rate of return.[36]

In our draft position paper we concluded that, with respect to treatment of indexation for calculation of EBIT (and therefore the RoA measure):

- the RoA measure could be compared against the real pre-tax WACC, or
- the sum of RoA and outturn inflation be compared against nominal pre-tax WACC.[37]

In our RoA data that we have published to date, we have published only the first presentation. However, this presentation does not explicitly capture returns delivered through annual indexation of the RAB and this adds a level of complexity to our reporting. This complexity becomes apparent in calculating RoRE, as it is the only measure where we deduct interest expense.

In particular, if we use nominal straight-line depreciation in the calculation of the RoRE, and seek to compare this against the real post-tax return on equity, it is necessary to:

- Add back indexation on the return on debt within the calculation of NPAT, since this is implicitly funded through cash-flows from raising debt.
- Add inflation into the equity component of the opening RAB in the denominator (regulatory return on equity) so the opening RAB is valued in consistent real dollar terms with the rest of the cash-flows. Without this adjustment, the denominator is valued in real dollars from year t-1.

These adjustments are relatively straightforward to calculate and only impact RoRE, however they do make presentation and interpretation of the analysis more complex. The alternative approach, as described in our draft position paper, would be to use actual regulatory depreciation. The impact on measured returns of this approach would be in effect:

- deduction of nominal straight-line depreciation (based on actual updated RAB) as an expense, and
- addition of indexation of the RAB based on actual inflation.

The measures calculated on the above approaches would require no further adjustments, and could then be compared against the allowed nominal post-tax return on equity.

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35 AER, *Final position: Regulatory treatment of inflation*, December 2017, p. 22.
36 AER, *Final position: Regulatory treatment of inflation*, December 2017, p. 22.
37 Both real and nominal pre-tax WACC are presented in the PTRM

6.2 Comparison of approaches

Table 6.1 Comparison of returns calculated using nominal straight-line depreciation or regulatory depreciation

	Nominal straight-line depreciation	Regulatory depreciation
EBIT and NPAT	Exclude future returns generated from annual indexation	Include future returns generated from annual indexation
Relevant comparator for RoA	Real pre-tax WACC	Nominal pre-tax WACC
Relevant comparator for RoRE	Real post-tax return on equity	Nominal post-tax return on equity
Advantages and disadvantages	This approach highlights the comparison of real rates of return, which the framework is designed to target. However, at the level of the return on regulated equity, this comparison requires a set of further adjustments which may be more difficult for stakeholders to understand.	This approach captures indexation as a part of the overall compensation structure and results in a relatively simpler presentation. However, it consolidates the respective impacts of: • Differences to nominal returns arising from differences between forecast and actual inflation • Differences to real returns arising from revenue or expenditure departing from allowances. Differentiation of these impacts is relatively straightforward computationally but would require further adjustments and analysis.

Source: AER analysis

6.3 Illustrative example

We can illustrate the calculation of the return on regulated equity under the two approaches with an example.

The revenue that service providers are allowed to recover is the sum of the building block revenue allowances. These capture the types of expenditure that a network should incur in providing its core regulated services, and compensates them for those expenses. The residual allowance, after deducting any incentive schemes, is the allowed return on equity.

So, if we assume that a hypothetical service provider actually recovers revenue and incurs costs exactly equal to the building block revenue allowance, by definition the actual return on

regulated equity generated should be exactly equal to the expected returns as set out in Table 6.2.

Table 6.2 Example RAB and rates of return

	Rates		Nominal $m
Opening RAB			12,000
Equity	40%	Proportion of Equity Funding	4,800
Debt (gearing)	60%	Proportion of Debt Funding	7,200
Post-tax nominal return on equity	**5.70%**	Allowed RoE	274
Pre-tax nominal return on debt	5.74%	Allowed RoD	413
Post-tax Real Return on Equity	**3.20%**		
Tax	30%	Tax payable	60
Less Value of Imputation Credits	58.50% of tax allowance	Value of Imputation Credits (gamma)	(35)

Source: AER analysis

From there, Table 6.3 sets out an illustrative rate of nominal straight-line depreciation, and how this interacts with inflation on the opening RAB to produce regulatory depreciation.

Table 6.3 Indexation and depreciation on opening RAB

	Rates		2018-19 ($m)
		Real Straight-line Depreciation	400
Inflation	2.42%	Nominal Straight-line Depreciation	410
		Inflation on opening	291

		RAB	
		Regulatory Depreciation	119

Source: AER analysis

Now, if we combine the capital base expenses with allowed rates of return and illustrative opex, we can determine the full annual revenue allowance. To demonstrate that actual returns should reconcile against expected returns in this scenario, we treat actual expenses as precisely equal to their equivalent allowances (Table 6.4).

Table 6.4 Building block revenue allowance

Building block revenue component	Allowed (2018-19 $m)	Actual expenses/revenue for reporting	Actual (2018-19 $m)
Return on Capital	687		
Return on equity	*274*		
Return on debt (interest)	*413*	Interest expense	(413)
Return of Capital (regulatory depreciation)	119	Regulatory depreciation	(119)
Nominal SL depreciation	*410*	*Nominal SL depreciation*	*(410)*
Indexation of RAB	*(291)*	*Indexation of RAB*	*291*
Operating Expenditure	450	Operating expense	(450)
Net Tax Allowance	25		
Tax payable	*60*	Tax expense	(60)
Value of imputation credits	*35*	Value of imputation credits	35
Annual Revenue Requirement (unsmoothed)	1250	Revenue from SCS	1250

Source: AER analysis

Then, drawing together these preceding steps, Table 6.5 sets out:

- the two variants of calculated of returns on regulated equity generated for this network; compared to
- the relevant allowed rates of return

Table 6.5 Calculation of RoRE under two depreciation approaches

	Using regulatory depreciation ($m, nominal)		Using nominal SL depreciation ($m, real)
Revenue	**1,250**	**Revenue**	**1,250**
Less Operating expenses	(450)	Less Operating expenses	(450)
Less Regulatory Depreciation	(119)	Less Nominal Straight-Line Depreciation	(410)
EBIT	**712**	**EBIT**	**421**
Less Interest expense	(413)	Less Interest expense	(413)
Less Tax expense	(60)	Less Tax expense	(60)
NPAT	**239**	**NPAT**	**(52)**
Divide by equity component of opening RAB	4,800	Divide by equity component of opening RAB	4,800
Interim RORE	**5.0%**	**Interim RORE**	**-1.1%**
Add value of imputation credits	35	Add value of imputation credits	35
		Add Indexation on opening RAB	291
		Less Indexation flowing to equity holders	(116)

Regulatory NPAT	**274**	**Regulatory NPAT**	**157**
		Divide by opening RAB inflated to common dollar terms	4,916
RoRE	**5.70%**	**RoRE**	**3.20%**

Source: AER analysis

In combination, this illustrates that:

- Using regulatory depreciation, the RoRE is equal to the post-tax nominal allowed RoE (Table 6.2)
- Using nominal straight-line depreciation, the RoRE is equal to the post-tax real allowed RoE (Table 6.2).

7 New data requirement- actual tax expense

To report RoRE, we require NSPs to provide data on their actual tax expense arising from the provision of core regulated services. We have not previously collected this data in a consistent form to allow this analysis.

In this section, we describe the approach by which NSPs should determine actual tax expense for our reporting purposes. To assist us in developing this approach we:

- sought expert advice from PwC on the allocation of actual tax and interest expense (PwC had previously advised us in the AER's tax review)
- published this advice and sought stakeholder submissions on it, and
- consulted with our working group on PwC's advice, the feedback provided in submissions and our preliminary staff views on the approach.

As outlined in section 4.6.1, we will determine an NSP's actual tax expense using a 'bottom up' approach. Under this approach:

$$Actual\ tax\ expense = Regulatory\ profit\ before\ tax\ x\ applicable\ tax\ rate$$

In this section, we set out the approach that will inform our information requests to the NSPs. It follows the two key stages in this bottom up approach, which are:

- Determination of actual profit before tax arising from core regulated services
- Applicable tax rates.

7.1 Determination of actual profit before tax arising from core regulated services

To report actual tax expenses, we will calculate actual profit before tax (PBT) as EBIT less interest expense less a series of further adjustments. These adjustments will account for differences between the PBT that would otherwise arise from our regulatory reporting (EBIT less interest expense) and the PBT as it would be required for tax purposes. This is necessary to determine a meaningful bottom-up estimate of actual tax expense arising from the provision of core regulated services. In its advice, PwC distinguished 'permanent' tax differences which will not resolve over time from 'temporary' differences, which primarily reflect the timing impacts of deferred tax assets or deferred tax liabilities. As recommended by PwC, we will only adjust for the permanent differences which are set out below.

Table 7.1 Adjustments to profit before tax

Adjustment	Reason for the adjustment
Permanent differences arising from capex	The RAB is indexed but assets for tax purposes are not. To address this difference we will add back annual depreciation used to calculate EBIT (regulatory or nominal straight-line, depending on presentation) and subtract tax depreciation used in the calculation

	of our tax asset base (TAB).
Permanent differences arising from interest	Some amount of interest expense may not be eligible for use in reducing taxable revenue.
Permanent differences arising from past-year returns	This includes positive or negative adjustments such as the outcomes of tax disputes, because these returns impact profitability in the year of reporting despite relating to previous years' tax returns.

Source: AER analysis

Where relevant, we will require NSPs to report these adjustments in their initial reporting for our profitability measures.

When these data requirements are ultimately incorporated in regulatory information instruments, we will add one or more line-items to our proposed income statement for the NSPs to report this information. We recognise that some line-items may be individually commercially sensitive. We will consider further how to report this information in a way which maximises transparency where possible while recognising commercial sensitivity where relevant.

The following section addresses the basis and approach for these adjustments.

Adjustment for permanent differences arising from capex

Depreciation is a relevant expense for tax purposes, by which capital expenses are amortised over time. However, for the purposes of determining tax expense, asset values and thus depreciation are accounted for on a historic-cost basis which does not include indexation of asset values over time. For this reason, PwC recommended that:[38]

> …[a]s RAB asset values are indexed, and actual tax fixed asset register[s] are not, a permanent difference is likely to arise between capex for regulatory and tax purposes equal to the tax effect of the additional RAB depreciation attributable to inflation which is not depreciable for income tax purposes.

For the calculation of EBIT we use actual nominal straight-line depreciation or actual regulatory depreciation, updated for the annual effects of actual inflation.[39] Both of these forms of depreciation are based on our RAB, which includes accumulated effects of indexation from previous years.[40]

On this basis, PwC recommended that:[41]

> …ideally, network business and the AER would be able to identify the impact of indexation on current year regulatory depreciation, or at least, apply a formula which

38 PwC, *Australian Energy Regulator: Profitability Measures Review – Advice on the allocation of interest and tax expense*, June 2019, p.15.

39 As discussed in section 5.1.

40 Nominal straight-line depreciation reflects the accumulated value of past years' indexation currently in the regulatory asset base. Regulatory depreciation is nominal-straight line depreciation net of the effects of RAB indexation in the current year.

41 PwC, *Australian Energy Regulator: Profitability Measures Review – Advice on the allocation of interest and tax expense*, June 2019, p.15.

provides a reasonable approximation of what this amount would be (e.g. nominal straight-line depreciation for regulatory purposes – (total RAB indexation x average depreciation rate applied across all RAB asset classes)).

We agree these adjustments are necessary, otherwise the estimate of tax expense would include the effects of non-depreciable (for tax purposes) indexation of the RAB.

In the course of consultation on PwC's advice, stakeholders identified in submissions an alternative approach to remove the effects of indexation from the depreciation we use to determine PBT. [42] Under this approach, we would need to:

- make an adjustment to the PBT to add the regulatory depreciation back to the EBIT, and
- substitute in its place (TAB) depreciation for the same year as the depreciation expense to determine the actual PBT based on which we determine actual tax expense.

In our view, this approach has a number of advantages:

- To the extent that the NSP's initial TABs (as at the commencement of AER or equivalent state-based regulator) were set on a historic cost basis, the TAB accounts for assets entirely based on historic costs, with no adjustments for indexation.
- The TAB includes the same capital expenditure additions as the RAB for each regulatory year. This should properly capture the TAB to be depreciated within the appropriate regulatory ring-fence.
- It is a simple and transparent method to calculate the deductible depreciation expenditure, and is the most accurate of the comparable methods.

We will make this adjustment as follows:

- Income statement: Profit before tax
- Add regulatory or nominal straight-line depreciation (RAB), depending on what bases EBIT has been calculated
- Subtract tax depreciation (TAB)
- Adjusted profit before tax.

Adjustment for permanent differences arising from interest expense

Consistent with PwC's advice, we will also make an adjustment to account for permanent differences arising from interest expense. This adjustment is designed to capture any interest expense that the NSP incurs and which would be captured in reporting of actual interest expense but which the Australian Tax Office (ATO) would treat as non-deductible for tax purposes.

In its advice, PwC identified examples of circumstances where a relevant assumption of this type might arise:[43]

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42 APGA, *Submission to the AER Discussion Paper: Profitability Measures (Review of PwC Advice)*, August 2019, pp 3-4.

43 PwC, *Australian Energy Regulator: Profitability Measures Review – Advice on the allocation of interest and tax expense*, June 2019, p. 17

- Any interest expense disallowed for deductibility under Australia's thin capitalisation regime, or is interest expenditure payable to an international related party which is non-deductible in accordance with Australia's transfer pricing regime.
- Where the hybrid mismatch rules apply to deny a debt deduction which gives rise to a hybrid outcome (e.g. interest is otherwise deductible in Australia, but not assessable on receipt in another jurisdiction.
- Where the accounting and tax classification of an instrument differs in its classification as debt or equity. The example provided in the PwC report includes a preference share which is partially accounted for as debt for reporting purpose (and therefore any returns would be recognised for reporting purposes as a financing/interest expense), but are classified as equity for income tax purposes (and therefore any returns would be considered a non-deductible dividend payment for income tax purposes).

The need for these adjustments may not be consistent between NSPs or for a single NSP over time. For this reason, we will require the NSPs to self-report these adjustments where necessary.

We will incorporate this adjustment into our calculation of NPAT as follows:

- Income statement: Profit before tax
- Add non-deductible interest expense
- Gives adjusted profit before tax.

Adjustment for permanent differences arising from prior year returns

The final adjustment will account for any permanent differences arising from prior year returns.

In particular, PwC provided advice in relation to the permanent differences arising where prior year income tax assessments for the NSP are amended following dispute with the ATO or a change in the law (such as a court judgement). PwC also noted that the adjustment should only apply where the income or expense in question is within the regulatory ring-fence and the adjustment is permanent in nature (e.g. the permanent denial of deductions).

We agree these adjustments are necessary, to appropriately capture the actual tax expense arising from the provision of core regulated services.

We will incorporate this adjustment into our calculation of NPAT as follows:

- Income statement: Profit before tax
- Add/subtract adjustments made to prior year income tax assessments
- Adjusted profit before tax.

As these adjustments would not necessarily arise as a matter of course, we will require the NSPs to self-report these adjustments where they do so. NSPs may claim confidentiality in accordance with the AER's Confidentiality Guideline, as if that Guideline applied to the information being provided.

7.2 Applicable tax rates

Having determined regulatory PBT, the remaining step in the bottom-up determination of actual tax expense is to multiply this by the applicable tax rate for the ownership group's holding structure to which the NSP belongs.

In our tax review, we maintained a common 30 per cent benchmark for determining tax allowances. We specifically did not adopt multiple or a second benchmark(s) for the purposes of calculating tax allowances as it would be a material departure from the current regulatory framework. This position was based on our consideration of the consequential impact that a second benchmark would have on the other parts of regulatory framework and the efficiency of incentives.[44]

Nonetheless, we recognised that for entities not taxed as Australian companies, this might contribute to differences between allowed tax and actual tax expense.

Table 7.2 sets out key excerpts from our tax review findings on the tax rate benchmarks.

Table 7.2 Tax review findings on tax rate benchmarks

Issue	Conclusion
NTER entities	NTER entities pay tax equivalent payments to the same shareholders (the relevant state or territory governments) who receive the dividends resulting from their profits. We must take these incentives into account when determining what tax management practices are relevant to a benchmark efficient entity. This ensures our tax allowance is consistent with the overall revenue recovery package we determine (including the rate of return on capital), which is also based on private sector ownership for competitive neutrality reasons.
State government owned entities not subject to the NTER regime	The payment was effectively a pre-payment of tax obligations by its new owners to ensure that… taxpayers were better off as a result of the transaction. This suggests that consumers are not currently paying tax costs, as these have not been incurred. Rather these tax costs have already been incurred by the new owners.[45]
Flow-through entities	Maintaining a single benchmark using a 30 per cent tax rate…will not close the tax difference for entities accessing these concessional tax rates. For these entities, the AER's forecast of tax costs

44 AER, *Final report: Review of the regulatory tax approach*, 17 December 2018, p. 54.
45 AER, *Final report: Review of the regulatory tax approach*, 17 December 2018, p. 53.

	is currently higher than the payments made to the ATO. This is a disadvantage of the current approach.[46]

Source: AER, *Final report: Review of the regulatory tax approach*, December 2018, p.54.

In response to PwC's advice, some stakeholders submitted that a 30 per cent tax rate apply for all NSPs as it is consistent with the approach we adopt for determining benchmark revenue.[47] However, a key objective of performance reporting is to capture and quantify the impacts of differences between allowed returns and actual returns. For that reason, we consider it essential that, where NSPs have actual effective tax rates which depart from 30 per cent, to capture this in our reporting. This does not imply that the benchmark approach is wrong, however it allows stakeholders to quantify the impact of adopting a consistent benchmark where in practice networks adopt different holding structures with different tax implications.

In the remainder of this section we set out further analysis on the applicable tax rates we will use for reporting on NSPs belonging to different holding structures. Specifically, we include further analysis of the tax rates that we will report for:

- Entities taxed as Australian companies
- NTER entities
- Government-owned entities not subject to the NTER
- Flow-through entities.

Entities taxed as Australian companies

We will report actual tax expense using a 30 per cent tax rate for entities taxed as Australian companies. For these entities, we would expect their actual tax expense arising from the provision of core regulated services to be equal to their actual PBT multiplied by the benchmark company tax rate. Our advice from PwC, submissions from stakeholders and discussions with our working group all supported this approach.

NTER entities

For entities under NTER, we will report our profitability measures on a basis that allows stakeholders to apply two alternative applicable tax rates:

- 30 per cent—this implies that NTER payments are equivalent to tax payments. Therefore, returns to equity holders should *exclude* these payments.

46 AER, *Final report: Review of the regulatory tax approach*, 17 December 2018, p. 19.

47 AGIG, *Allocation of Interest and Tax Expenses for the Return on Equity (Regulatory) Profitability Measures*, 22 August 2019, p.1; Ausgrid, *AER Profitability measures: return on equity and allocations of tax and interest expenses*, 22 August 2019, pp.3–5; ENA, *Allocations of tax and interest expenses - return on equity profitability measure: Response to AER discussion paper*, 22 August 2019, pp.5–7; TransGrid, *Discussion paper - Allocations of interest and tax expenses for the calculation of return on equity (regulatory) profitability measure*, 22 August 2019, pp.1–2.

- 0 per cent—this implies that NTER payments are returns to equity holders. Therefore, returns to equity should *include* these payments.

This will, holding other things constant, contribute to differences between:

- Tax allowances—which are estimated based on a common benchmark rate of 30 per cent, and
- Actual tax expense—which will reflect the particular ownership structure and tax circumstances of individual NSPs.

The NTER is an administrative arrangement under which relevant taxation laws are applied notionally to the NTER entities as if they were subject to those laws.

Each NTER entity is assessed annually as to its income tax equivalent liability and is required to pay instalments of the (expected) liability to the relevant Treasury or Revenue Office of the State or Territory.

For state government owners of NSPs assessed under the NTER, the NTER payment amount is determined with respect to tax law, including a 30 per cent tax rate as noted by PwC.[48]

In our view, NTER payments have some characteristics akin to a tax, and some akin to a return to equity holders. Table 7.3 summarises the arguments for the two interpretations of NTER payments.

Table 7.3 Treatment of NTER payments for performance reporting purposes

Reasons to treat NTER payments as tax expenses	Reasons to treat NTER payments as returns to equity holders
NTER payments are an obligation at the level of the NSP, assessed by the ATO and determined by reference to tax law including the 30 per cent tax rate	Our framework is designed to generate a return on equity sufficient to attract efficient equity investment. In this respect, it is the investor's opportunity cost of capital which is relevant, rather than the NSP's. We concluded in the tax review that NTER owners are "generally indifferent between tax or dividends."[49]
NTER entities are unable to influence the rate of payment by taking advantage of various taxation arrangements	While an NTER payment is not available for use by the network, this is typical of any other return to equity holders under which investors are ultimately responsible for determining whether available returns are distributed to investors via dividends or reinvested in the company.

48 ATO, *National Tax Equivalent Regime*, Part 1.

49 AER, *Final report: Review of the regulatory tax approach*, 17 December 2018, p. 35.

Source: AER analysis

In this respect, we recognise there is need for judgement to determine the applicable tax rates. In our view, this supports an approach under which we and stakeholders can readily calculate and compare measures under the two interpretations of NTER payments.

State government owned entities not subject to the NTER

For state government-owned entities under the NTER, we will also report RoRE on a basis that allows stakeholders to apply two alternative applicable tax rates:

- 30 per cent—this implies that the prepayment of NTER payments from a private consortium to a state government in a leasing transaction are equivalent to tax payments. Therefore, returns to equity holders should exclude these payments.
- 0 per cent— this implies that the prepayment of NTER payments from a private consortium to a state government in a leasing transaction are returns to the equity holders. Therefore, returns to equity should include these payments.

As with the interpretation of actual tax expense for NTER entities, the interpretation of these pre-payments are complex for profitability reporting purposes.

Ausgrid, Endeavour Energy and TransGrid submitted to the AER's tax review, that as part of the respective transactions, they paid the NSW Government a one-off NTER equivalent payment according to the portion of the NSP they leased.[50] For example, Ausgrid's submission states:[51]

> The NSW Government required a "retention value hurdle" be met as part of the transaction process, which ensured that the NSW public were better off as a result of the transaction than they would have been had the asset remained solely under government ownership.
>
> Prior to the transaction the NSW Government received both dividends and National Tax Equivalent Regime (NTER) payments from Ausgrid. The latter of these reflected the value of the tax paid by the business as a State-Owned Corporation. For the hurdle to be met, the transaction proceeds must have compensated the vendor for both those cashflows.
>
> We submit that the net present value of future tax obligations (foregone future NTER payments) associated with Ausgrid have been pre-paid by IFM Investors and AustralianSuper to the NSW State Government as part of the sale price.

As a consequence of remaining owned by the state government, these NSPs do not currently pay any tax.

Further, as discussed above, NTER equivalent payments have some characteristics more akin to returns to equity holders than to tax expense. To the extent that the leasing entity is thought of as the equity-holder in the entity, a prepayment of this sort might be thought of as a capital expense to be amortised over time. However, in ordinary circumstances, a

50 Ausgrid, *Submission to Discussion paper - Supplementary submission*, 11 December 2018, p.1; Endeavour Energy, *Submission to Discussion paper - Supplementary submission*, 11 December 2018, p.1; TransGrid, *Supplementary information on Tax Paid*, 2 November 2018, p.1.

51 Ausgrid, *AER Tax Discussion Paper supplementary submission*, December 2018.

privately-owned equity holder would be expected to pay annual tax, which these entities are not.

We have not yet reached a view about the definitively 'correct' way to interpret these tax payments for our reporting purposes. We consider there are reasons why the prepayment might be thought of both as a tax expense or as a return to ultimate equity holders. In addition, we recognise that further difficulties arise due to the long-term forecasts required for such a prepayment, and the likelihood of differences between the forecast and actual outcomes. In this context, we consider it preferable to report in a way that we and stakeholders can easily test the impact of different interpretations.

Flow through entities

We will require entities held in flow-through structures to self-assess a blended applicable tax rate taking into account the tax circumstances of the initial recipients of profits of the regulated business. This is consistent with PwC's advice and received support from our working group.

Flow through entities are NSPs held in a flow through vehicle (e.g. partnership or trust), where taxable profits relating to the NSP are distributed to investors. These NSPs do not incur a tax expense, but pass the tax obligation through the flow through vehicle to investors. We recognise, as per the AER's tax review and PwC's advice, the applicable tax rate for flow through entities is the first level up in the ownership structure at which tax is required to be paid.[52]

The tax is ultimately paid by the investor at their applicable statutory tax rate. In some cases, the ultimate owners of flow-through entities pay tax at concessional rates below 30 per cent.

In following this approach, we note that some NSPs may not have direct visibility of their owners' tax circumstances. Noting this challenge, PwC recommended that:[53]

> We would expect that network businesses can seek to identify the potential tax rate applicable to investor distributions on a best endeavours basis, or to the extent that specific tax rates cannot be confirmed, apply a reasonable estimate based on expected tax profile of the relevant investors.

Our view is that:

- the NSPs are better placed than other relevant stakeholders to determine the appropriate assumptions of the nature of the NSP as a security and the profile of its investors, and
- it should be more straightforward to determine relevant applicable tax-rates based ownership types than, for example, to require 'top-down' allocation of statutory tax amounts paid by those owners.

Consistent with its advice for the AER's tax review, PwC summarised the range of tax rates by investor types, including a range of concessionally taxed entities as set out in Table 7.4.

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52 PwC, *AER Tax Review - Expert Advice*, October 2018, page 25; AER, *Final report - Review of the regulatory tax approach*, December 2018, p. 11.

53 PwC, *Australian Energy Regulator: Profitability Measures Review – Advice on the allocation of interest and tax expense*, June 2018, p. 24.

Table 7.4 Investor tax profiles and tax rates – 30 June 2018 (by TAB value)

Investor Tax Profile	% of TAB	Expected tax rate
NTER entity	40.00%	30%
Australian company	29.98%	30%
Australian States or Territories (tax exempt, non-NTER)	11.10%	N/A
Australian managed investment fund	7.86%	15%-30%
Australian superannuation funds	3.79%	15%
Foreign Sovereign Wealth Funds	2.90%	0%-30%
Foreign pension funds	2.07%	15%-30%
Foreign companies	2.30%	30%

Source: PwC

We recognise NSPs may incur costs in determining the blended tax rate, especially in developing the initial allocation. However, we expect the ongoing assessment of the investor tax profile and tax rates would have a minimal impact except in the event of material changes to the NSP's ownership or structure.

Further, as with interest expense, we recognise that self-assessment in the absence of clear supporting information is likely to lack transparency. In our view, it is important to address this lack of transparency so that we and stakeholders can understand and have confidence in the methodology used to assess the rate. To assist in the development of the initial blended tax rate and provide transparency to stakeholders, we will:

- request the NSPs to provide the basis for the determination of the ownership composition, including assumptions about the investor tax profile, and
- alert stakeholders to an alternative reference point (19.5 per cent) that PwC has advised is an appropriate 'base case' assumption for flow-through entities in the presence of concessionally taxed owners.

The 'base case' flow-through assumption

In its advice, PwC recommended that:[54]

> For stapled structures, it is not expected that this blended rate would be higher than 19.5% (and may be significantly lower in some cases).

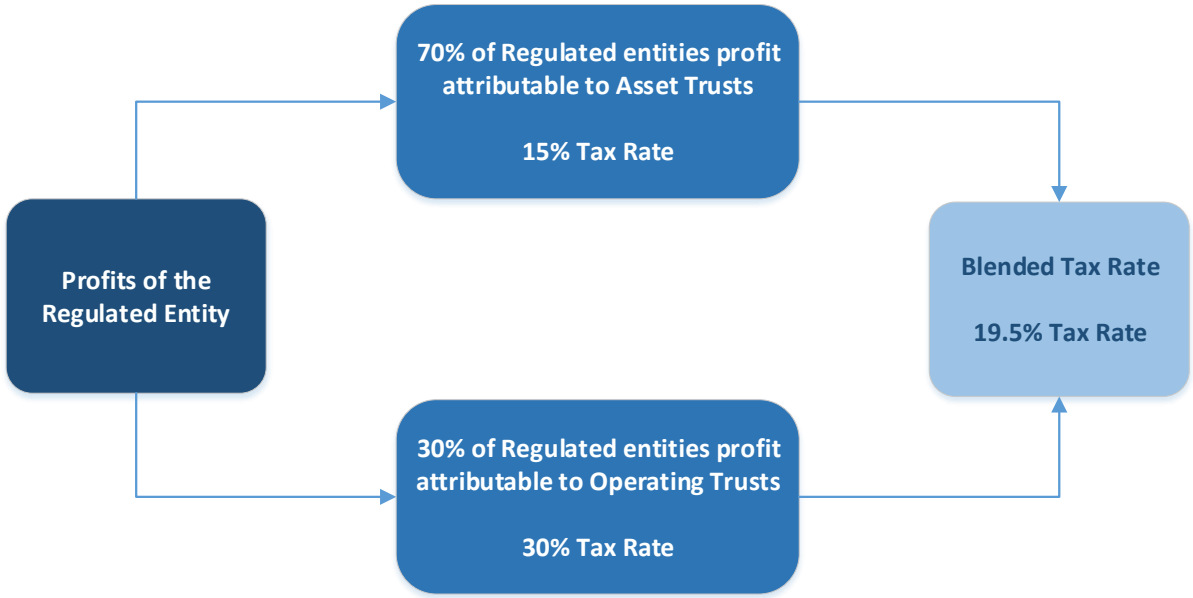
In our view, this serves as a reasonable reference point against which stakeholders can test the self-assessed blended tax rates developed by NSPs.

54 PwC, *AER Profitability Measures Review - Advice on the allocation of tax and interest expense report*, June 2019, p. 25.

Recognising the difficulties involved in self-assessment of a blended tax rate, we considered standard use of a 19.5 per cent tax rate for NSPs in a 'flow through' structure as an alternative option to the blended tax rate, noting the simplicity and transparency of this option. However following feedback from the working group, and the recommendation provided by PwC, we reached the view that self-assessment of blended tax rate may result in a more accurate of the actual tax rate of the NSP. Nonetheless, our view is that the base case assumption tax rate of 19.5 per cent can still be useful in providing NSPs with an appropriate reference point for their blended tax rate.

This 19.5 per cent is based on the base case assumption by PwC in respect of stapled securities, where there is a 70:30 split in respect of the profits attributable to Asset and Operating Trust. Due to a 15 per cent tax rate applicable to the Asset Trust (e.g. MIT (Managed Investment Trust) rate) and a 30 per cent tax rate applicable to the Operating Trust (e.g. Division 6C rate), this would achieve a blended tax rate of 19.5 per cent as provided in Figure 7.1. PwC derived this value based on their assessment of the general practice of the ATO in recent years to accept an allocation of value to the assets of the Asset Trust of no greater than 70 per cent of the total value of the regulated entity.[55]

Figure 7.1 Calculation of blended tax rate in base case assumption



Source: PwC advice, AER analysis.

55 PwC, *Australian Energy Regulator: Profitability Measures Review – Advice on the allocation of interest and tax expense, June 2019*, p. 25.

8 New data requirement- actual interest expense

To report the RoRE, we require NSPs to provide data on their actual interest expense arising from the provision of core regulated services. We have not previously collected this data in a consistent form to allow this analysis.

In this section, we describe the approach by which NSPs should determine actual interest expense for our purposes. To assist us in developing this approach we:

- sought expert advice from PwC on the allocation of actual tax and interest expense
- published this advice and sought stakeholder submissions on it, and
- consulted with our working group on PwC's advice, the feedback provided in submissions and our preliminary staff views on the approach.

As outlined in section 8, we will request networks self-assess actual interest expense using a 'top down' approach under which some proportion of total group interest expense is allocated to the provision of core regulated services.

In this section, we set out the approach that will inform our information requests to the NSPs. There are three key issues involved in doing so, being:

- Allocation of interest expense to core regulated services
- Self-assessment of interest expense
- Supplementary information requirements.

8.1 Allocation of interest expense to core regulatory services

Our approach for determining an NSP's interest expense is a top-down approach, where the interest expense from the ownership group or financing entity is allocated to the NSP. To achieve this, there may need to be allocations between:

- One or more regulated entities to which the financing entity or ownership relates; and
- unregulated entities.[56]

The objective for our reporting is to capture the actual interest expense arising from the provision of core regulated services. It is these services for which NSPs are compensated through the building block revenue framework. So, to enable a clear comparison of actual returns against expected returns, it is necessary to ensure that only interest expense arising from these services is included.

In its advice, PwC recommended that this allocation to the NSP would involve removal of the following factors to ascertain an interest expense incurred only for the provision of core regulated services:[57]

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56 The NSP will not need to distinguish or allocate interest between the various unregulated entities.

57 PwC, *Australian Energy Regulator: Profitability Measures Review – Advice on the allocation of interest and tax expense*,

- Merger and acquisition activity (e.g. privatisations), where the quantum of debt assumed by the NSP will based on the market value of the regulated assets at the time of acquisition (at an appropriate gearing ratio).
- Actual interest expense of the NSP reflecting the debt used to fund acquisition or construction of (both regulated and) unregulated assets.

We agree that these adjustments are necessary in order to determine an allocation of interest expense arising from the provision of core regulated services. In undertaking self-allocation of interest expense, we expect NSPs would address any such adjustments and explain the method by which they have done so as part of the supporting information.

Similarly, in their response to the draft position paper, Energex and Ergon Energy also submitted that they both hold a share of Queensland Government debt, which creates a high debt gearing than that of a regulated benchmark entity. Holding other things constant, this would lead to Energex and Ergon Energy allocating a higher interest expense than that provided in their regulated allowance for purposes other than the provision of core regulated services.

As discussed in the next section, we will require NSPs to develop a specific interest allocation approach taking into account their actual circumstances. To the extent that an individual NSP's circumstances result in it carrying debt unrelated to the provision of core regulatory services, we expect its allocation method will include some means to remove/exclude this unrelated debt.

8.2 Self-assessment of interest expense

We will require NSPs to self-assess interest expense arising from the provision of core regulated services based on the use of the debt funds. Specifically, we are seeking the interest expense arising from the provision of core regulated services.

Our view is that the benefit of improved accuracy of the output interest expense from allocation method 3, outweighs the issues of consistency between NSPs and transparency to stakeholders. We consider self-allocation of interest expense is most likely to achieve our objectives of a meaningful and accurate allocation, as the NSP is best position to make judgments about its use of funds, having regard to its individual circumstances.

In general, this approach received the strongest support of any of the identified allocation approache, including from PwC, stakeholder submissions and in consultation with our working group.

Self-assessment as recommended by PwC, will involve:[58]

- attributing the debt instruments of the corporate group used to fund the acquisition or construction of regulated assets to the respective regulated entity as specific debt, and

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June 2019, pp. 26−27.

58 PwC, *Australian Energy Regulator: Profitability Measures Review – Advice on the allocation of interest and tax expense*, 28 June 2019, p. 32.

- allocating the debt instruments of the corporate group which are not attributable to funding the acquisition or construction of specific asset across the regulated and non-regulated entities of the corporate group as general debt.

PwC recommended that any debt instruments of the corporate group which are used to fund the acquisition or construction of unregulated assets is not to be allocated to the NSP. For general debt, PwC's advice was that these debt instruments were to be allocated to the remaining regulated and non-regulated assets (i.e. after removing the assets of the corporate group to which specific debt has been attributed).

Simple example of interest allocation

EnergyPower is a NSP held within the corporate group EnergyCorp.

Due to its corporate structure, the investment activities of EnergyPower are funded by EnergyCorp. EnergyCorp also holds within its corporate structure WindPower, an unregulated entity which constructs wind turbines, whose investment activities are also funded by EnergyCorp.

Both EnergyPower and WindPower do not hold any debt at the individual entity level, nor do they incur any interest expense.

EnergyCorp's balance sheet has three debt instruments from which it incurs interest expense.

- The first debt instrument is a $300m medium term note owed to Aus Bank. This debt instrument is used by EnergyCorp to fund the operations of the entire corporate group.
- The second debt instrument is a $500m Bond which was issued to the market. This debt instrument is used by EnergyCorp to fund the capital expenditure investment into EnergyPower's network assets providing core regulated services.
- The third debt instrument is a $200m medium term note owed to Aus Bank. This debt instrument is used by EnergyCorp to fund the construction of wind turbines.

In allocating to EnergyPower based in the use of funds, the following allocation would be made:

- The $500m Bond would be classified as specific debt, with all interest expense incurred allocated to EnergyPower.
- The $300m medium term note would be considered to be general debt, with a portion of the interest expense allocated to EnergyPower by an appropriate allocator.
- The $200m medium term note relates to an unregulated entity. No interest expense incurred would be allocated to EnergyPower.

8.2.1 Potential interest allocation methods

In developing our final position, we considered a number of approaches for the allocation of general debt from ownership group to the provision of core regulated services. We have ultimately decided that self-assessment of interest expense is likely to result in the most accurate estimate of actual interest expense, having regard to the network's specific funding

arrangement. However, we expect that self-assessment of interest expense relating to general debt might involve the use of some of these simple 'general' interest allocators. Both McGrathNicol and PwC recommended that interest expense could be allocated in this way using a 'relevant driver'.

It will ultimately be NSPs responsibility to determine which if any of these approaches to use in its allocation. As discussed in section 8.3, we will require NSPs to provide sufficient supporting information such that we and stakeholders can understand and consider the allocation method. To guide that process, we set out below our preliminary views on some of the options we have considered, including:

- Allocation methods raised by PwC:
    - Regulatory EBIT / Total EBIT (PwC's allocation method 1)
    - RAB / statutory Non-Current Assets (excluding deferred tax assets or DTAs) (PwC's allocation method 2)
- Allocation methods raised in submissions:
    - ENA submission—Regulatory entity PPE / Statutory PPE then RAB / Total assets
    - APA and APGA submission—Actual RAB x benchmark gearing x AER cost of debt

Regulatory EBIT / Total EBIT (PwC's allocation method 1)

Under this approach, NSPs would allocate interest expense from ownership groups to business units based on the operating profit derived by that business unit.

In our view, this approach is simple and likely to be relatively transparent. However, to the extent that different business units have different levels of profitability, this allocator will tend to over-allocate interest to the more profitable segments of the business and under-allocate to the less profitable. This will not necessarily align with the proportion of profits arising from core regulated services. Both PwC and stakeholders more broadly identified this shortcoming of allocation method 1.

RAB / statutory Non-Current Assets (excluding deferred tax assets) (PwC's allocation method 2)

Under this approach, NSPs would allocate interest expense from ownership groups to business units based on the value of assets the NSP is required to finance through debt.

In our view, the use of asset values is a highly relevant indicator and has the potential to contribute to a meaningful allocation of actual interest expense to core regulated services. However, there are difficulties in implementing this approach due to differences between the way we account for RABs over time and statutory accounting rules regarding asset values.

In particular, PwC's advice and submissions on that advice highlighted potential issues arising from the impacts of RAB indexation and the revaluation of statutory assets. If NSPs were to rely on this allocation approach, we would expect they should address and explain how they have addressed the following issues.

Impact of annual indexation

Under the building block revenue framework, RAB values are indexed to capture the effects of annual inflation. Assets (under statutory accounting) are not.

As a result, the same asset accounted for in the RAB will typically be larger than accounted for under statutory accounting rules, where an asset is measured at its historical cost. This historical cost is based on consideration paid to acquire and/or construct the asset, and do not include an inflation adjustment.

Unless NSPs make an adjustment to remove the cumulative effects of indexation from the RAB used in this allocation, this will likely result in an over-allocation of interest expense to the provision of regulated services. If an NSP included only RAB assets held on its statutory balance sheet as non-current assets, this would result in an allocation factor of greater than 1—or imply an interest expense higher than the total statutory value for the ownership group.

PwC recommended that, if we were to rely on this approach but were unable to adjust for the impact of indexation, the allocator should be capped at 100 per cent of interest expense.[59] Ausgrid reiterated this risk of an allocator greater than one in its submission.[60] It submitted that this illogical outcome indicates that this allocator is not robust as a method to allocate interest expense. We agree that without making an adjustment to remove the cumulative effects of indexation from the RAB:

- this outcome (allocator exceeding 100 per cent) is plausible
- capping the allocator at 100 per cent would mitigate this issue, but would still not entirely address the underlying issue of over-allocation to the provision of core-regulated services, and
- an allocation developed on that basis would not be fit for purpose.

Impact of accounting revaluations

PwC also noted that statutory assets may be subject to accounting revaluations, and may therefore not give a true reflection of the actual value of the underlying assets at the time the relevant debt funding was sourced.[61] This situation involves an asset being revalued from its historical cost basis, to the price that would be received to sell the assets on an orderly transaction between market participants.

These subsequent fair value adjustment to the regulated assets could result in different statutory balances than noted for unregulated assets outside of the regulatory framework. This may result in an interest allocation to the regulated services which is not reflective of actual debt used to fund the core regulated services and not appropriate for the profitability measures review.

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59 PwC, *Australian Energy Regulator: Profitability Measures Review – Advice on the allocation of interest and tax expense*, 28 June 2019, p. 31.

60 Ausgrid, *AER profitability measures: return on equity and allocations of tax and interest expenses*, 22 August 2019, p. 6.

61 PwC, *Australian Energy Regulator: Profitability Measures Review – Advice on the allocation of interest and tax expense,* 28 June 2019, p. 31.

ENA submission—Regulatory entity property, plant and equipment / Statutory property, plant and equipment; then RAB / Total assets

The ENA submitted an alternative interest expense allocation method based on:[62]

$$\frac{\textbf{\textit{Regulated Entity's Statutory PPE}}}{\textbf{\textit{Total statutory PPE}}} \quad \textbf{\textit{then}} \quad \frac{\textbf{\textit{RAB}}}{\textbf{\textit{Regulated assets}}}$$

Property plant and equipment (PPE) is defined in the Australian accounting standard AASB116 as:[63]

> Property, plant and equipment are tangible items that:
>
> (a) are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and
>
> (b) are expected to be used during more than one period.

The ENA describes its recommended approach as follows:

> This method would first see the interest expense allocated across all businesses in a group based on their relative share of Statutory PP&E. From this, a total interest expense for the Regulated Business could then be determined. If necessary, this expense would then be split between the regulated business units based on their relative RAB proportions.[64]

In our view, this approach appears to have some advantages. In particular, the first ratio (NSP's statutory PP&E divided by total statutory PP&E) should allocate interest expense based on a relevant driver (tangible assets) from the ownership group to the NSP on a common historic cost basis. The use of PP&E excludes the impact of intangible assets. We expect this might be a relatively minor proportion of assets for the NSP, which in the case of regulated networks we would expect to be substantially made up of tangible assets. However, to the extent that ownership have capitalised intangible assets in other business units and these assets have contributed to interest expense, this approach would be likely to over-allocate interest expense to the NSP.

Further, to the extent that interest then needs to be allocated within the NSP to isolate the expense arising from provision of core regulated services, it will remain necessary to develop a consistent basis such that both asset bases (RAB and total regulated assets) are both either reported including or excluding the effects of inflation. If a NSP was to rely on this approach for the allocation of some proportion of general debt, we expect it would set out information on how it has undertaken this second step of the allocation.

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62 ENA, *Allocation of interest and tax expenses - return on equity profitability measure: Response to AER Discussion Paper*, 22 August 2019, pp. 7–8

63 Part 6, definitions, available at: https://www.aasb.gov.au/admin/file/content105/c9/AASB116_08-15_COMPoct15_01-18.pdf

64 ENA, *Allocation of tax and interest expenses – return on equity profitability measure: Response to AER discussion paper*, 22 August 2019, p.7.

APA and APGA submission—Actual RAB x benchmark gearing x AER cost of debt

APA Group and APGA proposed in submissions an approach to determine actual interest expense which would be calculated using values provided in the regulatory process. This would be done as follows:

$$\text{Regulated Entities RAB} * 60\% \text{ Gearing Ratio} * \text{AER Determined Cost of Debt}$$

In effect, this approach would capture only departures arising from differences between forecast and actual RAB values and would assume away any differences between actual and allowed interest expenses arising from differences in financing structure or interest rates actually achieved in debt markets. In our view, this would be inconsistent with the core objective of this reporting, which is to allow meaningful comparison of actual and expected returns. In our view, an allocation under which a material proportion of debt is determined on this basis would not be fit-for-purpose.

8.3 Supplementary information requirements

As a consequence of the different financing structures and circumstances between NSPs and ownership groups, we would expect some degree of variation in how these allocations are developed. Further, as noted in submissions, there are many factors specific to individual NSPs or the composition of ownership groups which might contribute to differences between actual and expected returns.

We recognise that self-assessment of interest expense, while potentially more accurate, is likely to be less transparent than a general allocator applied consistently to all NSPs. Differences in corporate structures and financing methods may result in bespoke approaches for each NSPs. This tailored specific allocation and complexity of this approach will reduce the transparency of the allocation to stakeholders. We also acknowledge that some information on debt-raising is commercially sensitive and may not be publishable. These information asymmetries may affect stakeholders' ability to understand and have confidence in the allocation of interest and the determination of the applicable tax expense.

To mitigate the impact of these information asymmetries, we will require that NSPs provide supporting information which assists stakeholders to understand the allocation approach and portfolio-level indicators which will assist stakeholders to understand the estimate. We will continue to refine our information requirements in our information requests as we receive allocations. At this stage, we expect that these should include but not be limited to that set out in Table 8.1.

Table 8.1 Supporting information requirements for the allocation of interest expense

Supporting information	Why it is informative
Overall description and explanation of the methodology	To allow stakeholders to identify and understand the methodologies used to allocating general or specific debt between the regulated and unregulated assets or units of the business.
Value of drawn debt allocated to core regulatory services	To allow stakeholders to assess the interest expense that has been allocated to the NSP, we will request NSPs to identify the value of drawn debt that has given rise to interest expense allocated to the provision of core regulated services. This should reflect the amount actually used for financing, after any premia or discount relative to the face value of debt raised. This is essential to interpret the 'true' return to equity holders. Holding other things constant, higher implied gearing will lead to higher interest expense. However, it also means that the true equity component on which returns are calculated is lower and, as a consequence, that true returns (profit divided by value of equity) to equity are higher. The converse is true of lower gearing. The book value of debt combined with the allocated interest expense should also allow us to determine the implied average rate on debt in the portfolio, which can be compared to the cost of debt determined using under our methodology set out in the rate of return instrument.
The portfolio weighted average term of debt instruments allocated to core regulated services	This is important because NSPs may have issued debt at shorter or longer terms than used in our benchmark to determine the cost of debt. For example, if NSPs issue shorter term debt, they may achieve lower rates on debt but need to refinance more often and may therefore face greater refinancing risk. The converse is true of longer term debt. A portfolio weighted-average term on debt will allow stakeholders to evaluate whether there is a risk-return trade-off that may contribute to any strategic decisions to depart from the benchmark.
The proportion of interest expense paid to related parties	This is necessary to identify to stakeholders the potential impact that within-company transfer pricing of debt might have on the allocated interest expense. In line with the purpose of our reporting, we expect NSPs to report the meaningful 'look-through' costs of debt after any internal pricing. In those circumstances, this proportion would be low. A

Source: AER analysis

In our view, the information provided above is necessary to allow meaningful and transparent analysis of the reporting which stakeholders can have confidence in. Without clear supporting information within a basis of preparation, this may contribute to allocations lacking in transparency and in turn making it difficult for stakeholders to have confidence in the allocations.

We also collect information on individual debt instruments to inform our analysis of the return on debt that we allow. This is a greater level of granularity than we require for our network performance reporting, for which we are interested in portfolio-level information that can be shared with stakeholders to assist with understanding the allocation methodology and how results should be interpreted.

9 Summary of submissions

In this section, we set out our detailed summary of submissions on the measures and technical issues discussed in this document. Where possible, we sought to discuss submissions with our profitability measures working group. We have also summarised the input from our working group in these tables.

9.1 Return on assets

Summary of issues	Stakeholder submissions	Working group discussions	Final Position
Impact of revenue timing issues on RoA (regulatory) volatility.[1]	**Endeavour Energy:** Identified that operational and environmental factors may impact the accuracy of annual profitability measures, such as year on year volume variation. This creates under or over recovery of revenues in a particular year distorting the timing of revenue collection.	EBIT calculation should be adjusted for costs recovered through pricing adjustments (e.g. transmission use of system revenue and jurisdictional schemes) despite timing differences contributing to volatility in RoA values.	We will address factors affecting volatility of RoA results in our analysis and explanatory material. This would include: • Timing issues between revenue and expenditures that may distort the comparison of RoA ratios with forecast pre-tax WACC. • Year-on-year outturn revenue recovery variation from the approved electricity NSPs' revenue caps that results in excess revenue being balanced out by lower revenue in later years (and vice versa). • The impact of one-off events such as NSW/ACT remittal process.
Recommendation the AER should update the PTRM to include the RoA calculation.[2]	**ENA, SAPN et al.:** PTRM should include a calculation of regulatory benchmark EBIT and NPAT, based on PTRM inputs.	This issue was not raised during working group discussions.	The PTRM is a tool to calculate forecast revenue. The addition of backward looking ratio calculations such as RoA or RoRE would provide no additional insight into drivers of profitability for consumers.
Reporting of measures inclusive or exclusive	**CCP:**	EBIT and resulting ratios such as RoA to be	We will report in a way which allows

of incentive scheme payments.[3]	Data be provided to quantify the impact of the incentive schemes on revenues and profitability measures. **ECA:** It important the cumulative effect of all aspects of AER determinations— allowed rate of return, allowed opex and capex, taxation allowance and incentive schemes—are assessed through profitability reporting.	calculated inclusive and exclusive of incentive scheme benefits and penalties.	stakeholders to view the RoA, EBIT per customer and RoRE measures both inclusive and exclusive of incentive scheme benefits or penalties.

Source:

1 Endeavour Energy, *AER draft positions paper - Profitability measures for electricity and gas network businesses*, 6 June 2018, p.2.

2 Energy Networks Australia, *Profitability measures for electricity and gas network businesses: Response to AER draft position paper*, 31 May 2018, p. 8; SAPN et al, *AER draft position paper: Profitability measures for electricity and gas network businesses*, 31 May 2018, pp. 3–4.

3 CCP18, *Submission to the AER on its Profitability measures positions paper*, May 2018, p.23; ECA, *Profitability measures draft positions paper*, 12 June 2018, p.3.

9.2 EBIT per customer

Summary of issues	Stakeholder submissions	Working group discussion	Final Position
The EBIT per customer measure does not provide additional information that is not already contained in EBIT and RoA.[1]	**ENA, SAPN et al.:** There is no useful information in EBIT per customer not already contained in EBIT. The AER makes no gains with the addition of EBIT per customer. The measure is misleading. Sufficient information about EBIT performance will already be captured in RoA measure. **Energex and Ergon Energy:** Concern with using EBIT per customer to compare or benchmark NSPs against each other.	Calculation method as a simple average is suited as a comparator of an individual NSP performance over time. A simple average of EBIT per customer (using total customer numbers) was preferred over a more complex calculation based on customer types. Customer numbers should be used rather than connections, as a single connection point may have multiple customers which can be confusing.	EBIT per customer shows a different perspective on NSPs' profitability against a different comparator. In particular, it is the only measure which does not use the RAB or a proportion of the RAB as the denominator. Changes in dynamics of customer base to be reflected in the measure over time. EBIT per customer will be used to track individual performance of NSPs over time to focus on network characteristics.

Network characteristics, customer profiles, or other operational factors create differences in outcomes across NSPs, which do not reflect underlying differences in NSP profitability.[2]	**AusNet, ENA, Energex and Ergon Energy, Jemena, SAPN et al.:** EBIT per customer is not comparable across NSPs as a result of different network characteristics, such as size, asset age, profiles of customer types, and geography. Disagreed EBIT per customer could be easily understood or meaningful due to the influence of differences in network characteristics.	Recognised individual NSP characteristics and the need to highlight the effect of NSP customer profiles, especially the effect of large customers on the measure. A more complex calculation based on customer types would be difficult to achieve with any degree of accuracy due to the difficulties of allocating shared costs across customer types.	Reporting EBIT per customer in the suite of measures will highlight some key network characteristics that drive differences in the magnitude of revenues and costs in the provision of core regulated services. This is the value in reporting this measure. However, it important that interpretation of the measure is done with these factors in mind. To assist stakeholders with this interpretation, we will consider which supporting information could most usefully be presented alongside the measure outcomes and data.
The measure may be misunderstood or misinterpreted, e.g. stakeholders may wrongly compare with retail bills.[3]	**ENA, Jemena, Energex and Ergon Energy:** Average EBIT per customer reflects profitability for both residential and business customers. It could be misunderstood by customers as average residential bill or shareholder profit per customer. The average residential customer is likely to interpret an average per customer metric as an average per residential customer. **ENA:** The average residential customer may have difficulties interpreting the difference in accounting between operating profit and the normal use of the term 'earnings'. **Jemena:** EBIT per customer does not capture high shared network costs to residential customers because of the differences between costs and volumes across different customer classes. **SAPN et al.:** Customers are unlikely to appreciate whether the reported earnings per customer are within a reasonable range. Earnings may be	Supported reporting of EBIT per customer with explanatory material. Explanatory material would need to be provided to explain the limitations of interpreting the outcomes. Specifically, as the NSPs have different characteristics, the EBIT per customer measure is best suited as a comparator of an individual NSP's performance over time rather than as a comparator against returns across NSPs.	We will publish explanatory material and caveats, alongside our reporting of measures, to guide interpretation of the measures, e.g. EBIT per customer should not be compared to individual or average retail bill.

	assumed to be profit earned by shareholders. The AER should include a note to state that EBIT per customer is prior to interest and tax expense to provide clarity to readers what is being measured and reported.		

Source:

1 ENA, *Profitability measures for electricity and gas network businesses: Response to AER draft position paper*, 31 May 2018, p.9; Energex and Ergon Energy, *Profitability measures for regulated gas and electricity network businesses - Joint response to the Australian Energy Regulator's draft positions paper*, 31 May 2018, p.8; SA Power Networks et al., *AER draft positions paper: Profitability measures for electricity and gas network businesses*, 31 May 2018, p.4.

2 AusNet Services, *Profitability measures for regulated network businesses – draft position paper*, 30 May 2018, p.2; ENA, *Profitability measures for electricity and gas network businesses – Response to AER Draft Position Paper*, 31 May 2018, p.9; Energex and Ergon Energy, *Profitability measures for regulated gas and electricity network businesses - Joint response to the Australian Energy Regulator's Draft Positions Paper*, 31 May 2018, p.8; Jemena, *Response to draft position paper on profitability measures for electricity and gas network businesses*, 30 May 2018, p.2; SAPN et al., *AER draft positions paper: Profitability measures for electricity and gas network businesses*, 31 May 2018, p.4.

3 ENA, *Profitability measures for electricity and gas network businesses – Response to AER Draft Position Paper*, 31 May 2018, p.9; Energex and Ergon Energy, *Profitability measures for regulated gas and electricity network businesses - Joint response to the Australian Energy Regulator's Draft Positions Paper*, 31 May 2018, p.9; Jemena, *Response to draft position paper on profitability measures for electricity and gas network businesses*, 30 May 2018, p.2; SAPN et al., *AER draft positions paper: Profitability measures for electricity and gas network businesses*, 31 May 2018, p.4.

9.3 Return on regulated equity

Summary of issues	Stakeholder submissions	Working group discussion	Final Position
Difficulties involved in reporting RoRE.[1]	**Jemena, Energex and Ergon Energy:** Approaches for allocating tax and interest expense to the regulated NSP level require clear guidance to avoid arbitrary allocations and lack of comparable outcomes between NSPs. Return on equity measures would need to account for the effect of different ownership structures, of each NSP, on tax and interest expenses. E.g. debt raised at the group level	Discussed the methodologies for allocating tax and interest as well as the level of necessary supporting information.	Our final position paper sets out detailed guidance on: • Expectations for how NSPs should determine/allocate actual tax expense and actual interest expense. • How we will account for gearing which departs from the regulatory benchmark • Supporting information where necessary so stakeholders can test and understand the

	and not the individual NSP. **Energex and Ergon Energy:** Do not oppose reflecting the interest and tax costs for regulatory services on a regulatory basis. The service provider is best positioned to devise the most appropriate methodology for apportioning costs amongst the consolidated group. **MEU:** Amount of tax NSPs pay is consistently less than the amount of tax assumed to be paid under the AER's building block framework. If the amount of interest paid by the NSPs is less than that assessed by the AER, this will distort the process of determining the gearing assumed to be typical for a NSP.		basis for the allocations.

Source:

1 Jemena, *Response to draft position paper on profitability measures for electricity and gas network businesses*, 30 May 2018, p.1; Energex and Ergon Energy, *Profitability measures for regulated gas and electricity network businesses - Joint response to the Australian Energy Regulator's Draft Positions Paper*, 31 May 2018, pp. 5–6.

9.4 New data requirement−Actual interest expense

Summary of issues	Stakeholder submissions	Working group discussion	Final Position
Recommended interest allocation approach.[1]	**CCP18:** Favoured a self-assessment allocation approach because of its greater accuracy. Preferred greater accuracy over simplicity. Simple approaches may leave open the prospect of future debate over the relevance of particular profitability measures.	Agreed that self-assessment is likely to allow for the most meaningful and accurate estimate. Within a self-assessment approach, NSPs may rely to varying extents on some of the specific allocators discussed in the review. A one size fits all approach is unlikely to result in a meaningful measure. Reporting of multiple	Self-assessment approach (method 3) preferred to allow NSPs to allocate interest expense of general or specific debt to regulated NSP based on the use of funds. Self-assessment approach may be more accurate but less transparent. Specific interest allocation approach necessary as NSP is in

	MEU: Supportive of PwC's method 3. View is method 3 is more equitable and likely to provide a more accurate outcome. **Ausgrid, AGIG, ENA, TransGrid:** Supported NSPs being able to choose the allocation method that provides the best estimate of interest expense. **Ausgrid:** Preferred PwC's method 1 for simplicity and ease of application. Most businesses track EBIT across different lines of business so the information is more readily available. **APA Group, APGA:** Suggested using the benchmark assumptions including return of debt, gearing ratio and RAB value to calculate interest expense. The allowed return on debt provides the best indication of appropriate cost of debt.	data points including the cost of debt allowance to provide a sense check of NSP selected approach. NSPs to provide supporting information to improve transparency of approach selected.	the best position to make judgements about the most appropriate allocation with respect to the individual circumstances. Supplementary information required to provide stakeholders with consistent information to assess the interest allocation including: • A description and explanation of the methodology. • Face value and book value of debt allocated to core regulated services. • The portfolio weighted average term of debt instruments allocated to core regulated services. • The proportion of interest expense paid to related parties.
Alternative approaches to interest allocation.[2]	**APA Group, APGA:** Interest expense be determined using the debt and gearing information from Rate of Return Instrument and not an allocation method. **ENA:** Proposed an alternative two stage allocation method using NSP Statutory PP&E/Statutory PP&E, then RAB/Regulated Assets.	Self-assessment would allow NSPs to apply an approach reflective of their individual circumstances for allocating general debt, noting we expect specific debt to be allocated accordingly. However, the AER would need to review the suitability of actual interest expense submitted.	NSPs will self-assess the interest expense allocated to the NSP and will be responsible for determining the most meaningful approach. In our view, an approach using the return on debt and benchmark gearing from the rate of return instrument assumes away potential differences between forecast and actual interest expense and is not fit for purpose.
Need to account for differences in asset valuation.[3]	**APA Group, APGA:** The PwC report inadequately addresses the question of how the debt portfolio might be allocated amongst regulated and unregulated assets (valued using different methodologies). **Ausgrid:**	The working group discussed the strengths and weaknesses of the different possible allocation methods and reached the view that self-assessment was preferable.	We agree that, without adjustments to remove indexation from the RAB, PwC's allocation method 2 is likely to over-allocate interest expense to the provision of core regulated services. However, if such an adjustment can be made, our view is that the use of asset values is a highly relevant driver on which to allocation interest expense.

	One-off events, such as asset revaluation and impairment, can influence asset book values producing unreasonable interest allocation. Therefore, does not prefer PwC's method 2. **APGA:** Using asset values will mix RAB values and recovered capital method values (NGL, Part 23) that will lead NPAT results affected by difference in the way these valuation approaches operate.		
Regulated and unregulated assets subject to different levels of risk and different cost of debt.[4]	**AGIG:** Need to account for differences in regulated and unregulated assets, and differences in tenor of debt that affect interest expense incurred. **APGA:** Businesses that borrow as the corporate level for uncovered (unregulated) and covered (regulated) businesses together can expect to have a higher cost of debt than they would face if they operated only covered businesses. **APA Group:** PwC's allocation approach assumes all businesses within a corporate group are financed the same way. That is, they have the same inherent risks driving the same gearing structure and composite cost of debt as the overall corporate portfolio.	Questioned whether the debt could be split using different methods to allocate regulated specific debt, debt to fund business operations (as a whole) and unregulated portion.	We agree that general debt raised for an entire ownership group might reflect of investor valuations of risk beyond just the provision of core regulated services. However, in the initial instance, our expectation is the RoRE measure will seek to capture the effects on profitability between this debt allowance and the actual debt financing of the NSP. These differences might arise due to: • rates achieved by the NSP in debt markets which are higher or lower than the yields estimated for return on debt in our AER determinations • differences in the gearing, term of credit, credit rating and debt optionality of the NSP, than assumed in our AER determinations, and • differences in the debt raising practices of the NSP (percentage of the debt portfolio which is refinanced annually, hedging practices etc.) than assumed in AER determinations.
Publication of multiple data points for each allocation to 'sense check' the main allocation.	This issue was discussed primarily with the working group, as it was not raised in submissions.	Discussed the reporting of multiple different allocations of interest expense would provide various data points to assess the interest allocated to the NSP. However, members indicated that this might also confuse consumers, as they need to understand how	We will not publish multiple data points reflecting the recommended allocation approaches. However, we recognise that a self-assessment (allocation method 3) might rely on a range of different techniques to allocate different types of debt within entities.

		these different allocation approaches impact the outturn RoRE being calculated for comparative purposes.	We will require NSPs to provide clear supporting information and basis of preparation information to overcome reduced transparency under the self-assessment approach.

Source:

1 CCP18, *Submission to the AER on PwC "Advice on the allocation of interest and tax expense" for the calculation of return on equity (regulatory) profitability measure*, 23 August 2019, p.3-4; MEU, *Profitability measures for electricity and gas network businesses – Discussion paper on allocations of interest and tax*, 22 August 2019,, p.3-4; APGA, *Submission to the AER discussion paper: Profitability Measures (Review of PwC Advice)*, 22 August 2019, p. 5; Ausgrid, *AER Profitability Measures: Return on equity and allocations of interest and tax expenses*, 22 August 2019, p.5; TransGrid, *Discussion Paper – Allocations of interest and tax expenses for the calculation of return on equity (regulatory) profitability measures*, 22 August 2019, p.2.

2 APA Group, *AER Profitability Reporting Guideline - allocation of tax and interest expense*, 22 August 2019, pp.1–2; APGA, *Submission to the AER discussion Paper: Profitability Measures (Review of PwC Advice)*, 22 August 2019, p.5; ENA, *Allocation of interest and tax expenses – return on equity profitability measure: Response to AER Discussion Paper*, 22 August 2019, pp.7–8.

3 APA Group, *AER Profitability Reporting Guideline - allocation of tax and interest expense*, 22 August 2019, pp.1–2; APGA, *Submission on AER Discussion Paper: Profitability Measures (Review of PwC advice)*, 22 August 2019, p.3; Ausgrid, *AER Profitability Measures: return on equity and allocations of tax and interest expense*, 22 August 2019, p.6.

4 AGIG, *Allocation of Interest and Tax Expense for the Return on Equity (Regulatory) Profitability Measures*, August 2019, p.1; APGA, *Submission to the AER discussion paper: Profitability Measures (Review of PwC advice)*, 22 August 2019, p.3; APA Group, *AER Profitability Reporting Guideline - Allocation of tax and interest expense*, 22 August 2019, p.1.

9.5 New data requirement−Actual tax expense

Summary of issues	Stakeholder submissions	Working group discussion	Final Position
Top down versus bottom up approaches to determine tax expense.[1]	**APA Group, APGA, CCP, MEU:** Generally supported PwC approach to estimate tax applying applicable tax rate to adjusted profit before tax ('bottom-up' approach), as a relatively straight-forward or 'streamlined' approach. **APGA:** A more complex allocation methodology would result in a false sense of precision.	Supported proposed 'bottom-up' approach to determine actual tax expense.	Actual tax expense is well suited to a bottom up approach. It requires us to adjust EBIT only for relevant differences for tax purposes and to multiply this by an applicable tax rate. This approach is straightforward and predictable irrespective of an entities ownership structure.

	Ausgrid and TransGrid: Do not agree with the recommended approach, as NSPs are held under a variety of more complicated holding structures.		
Tax rates applicable to corporate entities.[2]	**AGIG, Ausgrid, ENA, and TransGrid:** Supported application of statutory corporate tax rate of 30 per cent regardless of corporate ownership structure.	Supported principle of applying different tax rates based on ownership structure.	Corporate entities to be subject to statutory tax rate of 30 per cent.
Tax rates applicable to entities held in flow through structures.[3]	**Ausgrid, ENA, and TransGrid:** PwC's tax estimation approach applying a blended rate below 30 per cent may unfairly overstate the profit performance of some NSPs held in flow-through structures. Application of a blended tax rate could expose NSPs to scrutiny due to a perception of profitability driven by ownership structure. NSPs held in flow through structures lack visibility of upstream investor's tax profiles and the inability to compel upstream investors to provide information introduces complexity in determining a blended tax rate. Statutory corporate tax rate of 30 per cent should be applied to all NSPs regardless of corporate ownership structure as it is consistent with the regulatory benchmark rate. **CCP, MEU:** Supported self-assessed blended tax rate for flow through structures as a reasonable approach. In the interest of transparency NSPs self-assessing tax rates need to explain reasons for approach.	Supported self-assessment of blended tax rates for flow through entities. Stakeholders could test assumptions and perform sensitivity analysis.	Flow through entities to self-assess blended rate based on tax circumstance of upstream investors (first level up). Self-assessment of blended tax rates should be guided by investor tax profile applicable tax rates.
Tax rates applicable to NTER entities.[4]	**Ausgrid:** Supported application of 30 per cent tax rate,	Discussed a range of views to support interpretation of NTER payments as either a	We agree that NTER payments have characteristics of tax expenses, and

	regardless of NTER status. Treatment of NTER payments as tax or dividend is irrelevant, as the state government owner will receive tax paid under the NTER as a cash distribution. **ENA:** For fairness and practicality, a tax rate of 30 per cent should be assumed for all NSPs.	tax or return to equity holders: • NTER payments are an obligation and NSPs have no scope to influence them or adopt different tax structures • They are an administrative scheme outside the scope of network regulation • NTER payments ultimately go to their owners with no constraints on its use, which is more like a return to equity holders than an expense.	characteristics of returns to equity holders. The appropriate interpretation for NSP profitability reporting requires judgement. We will report actual tax expense to allow stakeholders to view outcomes using applicable tax rates of both 0 per cent and 30 per cent for: • Government owned entities subject to NTER, and • Government owned entities not subject to NTER.
Approach to identify relevant amount of tax depreciation expense - Permanent capital expenditure adjustments.[5]	**APGA:** Noted to calculate the correct amount of tax depreciation applicable to regulated assets would be a substantial task without necessarily providing an accurate result. PTRM tax depreciation would result in a lower calculated amount of tax payable. **APA Group, APGA:** Tax depreciation requires adjustment to recognise inflation component of the RAB.	Supported proposed approach to use tax depreciation calculated based on regulated tax asset base as proxy for actual tax depreciation.	The taxable position to be determined with regard to the regulatory estimate of tax depreciation expense. Tax depreciation expense is calculated based on tax value of regulated assets or Tax Asset Base (TAB). This will be applied as a reasonable proxy measure for actual tax depreciation expense.
Adjustments to income tax expense.[6]	**AGIG, APGA:** Supported PwC's suggested approach to report income tax on a regulatory basis by multiplying profit before tax by applicable tax rate subject to specific adjustments for: • permanent differences related to depreciation for regulatory and actual tax purposes • interest expense treated as non-deductible for income tax purposes, and • amendments to prior year income tax returns within the regulatory ring-fence. Submissions did not raise any specific issues other than the approach to identify the	Supported adjustments in relation to capex and interest expense. Suggested adjustments for prior year tax returns may be subject to confidentiality and unable to be disclosed AER should work with NSPs to ensure as much data be made publically available as possible.	We will require the profit before tax position to be adjusted for: • permanent differences in relation to capex (refer to above item) • adjustments to prior year tax returns, and • non-deductible interest expense. We will require the NSPs to self-report adjustments to prior year income tax returns (as core regulated service level) and non-deductible interest expense for tax purposes.

	appropriate value of tax depreciation, as identified above.

Source:

1 APA Group, *AER Profitability Reporting Guideline - allocation of tax and interest expense*, 22 August 2019, p.2.; APGA, *Submission to the AER discussion paper: Profitability Measures (Review of PwC advice)*, 22 August 2019, p.3; CCP18, *Submission to the AER on PwC "Advice on the allocation of tax and interest expense" for the calculation of return on equity (regulatory) profitability measure*, 23 August 2019, p.3; MEU, *Profitability measures for electricity and gas network businesses – Discussion paper on allocations of interest and tax*, 22 August 2019, p. 3.

2 AGIG, *Allocation of Interest and Tax Expenses for the Return on Equity (Regulatory) Profitability Measures*, 22 August 2019, p.1; Ausgrid, *AER Profitability measures: return on equity and allocations of tax and interest expenses*, 22 August 2019, pp.3–5; ENA, *Allocations of tax and interest expenses - return on equity profitability measure: Response to AER discussion paper*, 22 August 2019, pp.5–7; TransGrid, *Discussion paper - Allocations of interest and tax expenses for the calculation of return on equity (regulatory) profitability measure*, 22 August 2019, pp.1–2.

3 Ausgrid, *AER Profitability measures: return on equity and allocations of tax and interest expenses*, 22 August 2019, pp.3–5; ENA, *Allocation of tax and interest expenses - return on equity profitability measure: Response to AER discussion paper*, 22 August 2019, pp.5–7; TransGrid, *Discussion paper - Allocations of interest and tax expenses for the calculation of return on equity (regulatory) profitability measure*, 22 August 2019, pp.1–2; CCP18, *Submission to the AER on PwC 'Advice on the allocation of tax and interest expense' for the calculation of return on equity (regulatory) profitability measure*, 23 August 2019, p.3; MEU, *Submission on PwC's advice on the allocation of tax and interest expense*, 22 August 2019, p.3.

4 Ausgrid, *AER Profitability measures: return on equity and allocations of tax and interest expenses*, 22 August 2019, pp.3–5; ENA, *Allocations of tax and interest expenses - return on equity profitability measure: Response to AER discussion paper*, 22 August 2019, p.6.

5 APA Group, *AER Profitability Reporting Guideline - allocation of tax and interest expense*, 22 August 2019, p.2; APGA, *Submission to the AER discussion paper: Profitability Measures (Review of PwC advice)*, 22 August 2019, p.4.

6 AGIG, *Allocation of Interest and Tax Expenses for the Return on Equity (Regulatory) Profitability Measures*, 22 August 2019, p.1; APGA, *Submission to the AER discussion paper: Profitability Measures (Review of PwC advice)*, 22 August 2019, p.4.

9.6 RAB multiples

Summary of issues	Stakeholder submissions	Working group discussion	Final Position
RAB multiples use is limited by the restricted sample of values, due to transaction infrequency or limited number of NSPs actively traded.[1]	**Endeavour Energy:** RAB multiples are not suitable measures for regular reporting due to the infrequent nature of transactions. RAB multiples are not available for all NSPs, further limiting their use as a comparable	AER should test RAB multiples to determine a reasonable range, using comparators from other sectors – e.g. defensive stocks, or capital intensive businesses. To compare NSP RAB multiples, a better comparison would be businesses operating in	We agree that the infrequency of transaction RAB multiples is a limitation, but this can be offset by also reporting on trading RAB multiples which are continuously available.

	measure.	competitive markets, instead of theoretical value of 1 (NPV=0). The RAB multiple is another guide of profitability. However comparing NSPs to other non-regulated businesses is difficult as each faces different drivers and risks.	
Reporting either or both transaction multiples and trading multiples.[2]	**AusNet Services:** Reporting market (or trading multiples) eliminate some of the problems associated with transaction multiples. **Endeavour Energy:** Validity of historic transaction multiples can be affected by changes to energy policy and regulatory framework. **SAPN, et al.:** A RAB multiple for a particular acquisition will only be relevant for a limited time after the transaction as it represents the price paid based on a certain state of affairs.	Supported reporting both trading and transaction multiples.	We will report on complementary measures of trading and transaction multiples calculated by credible market analysts.
RAB multiples can be influenced by a range of factors, and it may not be possible to estimate with precision the effect of individual factors on the measure.[3]	**CCP18:** Supports inclusion of RAB multiples, they can provide useful information that can be used in a qualitative manner. Further analysis is required to make the best use of the information on relativity of expected and actual return. It cannot be automatically assumed a premium (discount) above (below) the RAB value indicates the allowed rate of return is above (below) the investors required rate of return. **AusNet Services:** There are limitations to decomposition and application of RAB multiples.	Transaction multiples greater than a value of 1 occur due to a number of factors identified in the Biggar paper which do not necessarily relate to overcompensation. Recognised the factors to include in explanatory information, such as regulated and unregulated sources of revenue.	RAB multiples will be used as an indicator of sector wide trends. It is important to remember the contribution each measure plays in the performance reporting. We propose not to decompose either transaction or trading multiples into specific sources of value. In our view, this is not necessary to draw useful inferences from RAB multiples considered in combination with the other profitability measures. We will set out information on the range of factors which can influence RAB multiples in our explanatory material and in our analysis of outcomes.

	ENA: RAB Multiples may reflect external macroeconomic conditions. Investor decisions on a transaction may contain little specific content on the operation of the regulatory framework. **SAPN, et al.:** RAB multiples are of limited use given there are many factors in addition to expected returns that can influence a RAB multiple.		
RAB multiples are forward looking and therefore differ from other measures used to measure historical performance.[4]	**CCP18:** Investor expected returns are an important factor in determination of market values. Issues of using RAB multiples to inform rate of return and circularity may be overstated, as rate of return is set with regard to benchmark assumptions, not individual NSPs. **ENA, Endeavour Energy, Jemena, SAPN et al.:** RAB Multiples are a forward looking measure and relevance is limited as valuations are based on information available at the time. E.g. regulatory framework in operation at the time.	Supported the multiples being considered with other measures to limit the risk of circularity.	RAB multiples considered in context with other information and measures before triggering investigation. We expect that investor expectations of performance informed partially by historical performance and current market information. In combination with other measures, RAB multiples may give some context as to whether investor perceptions of contemporaneous performance trends as transient or ongoing.

Source:

1 Endeavour Energy, *AER draft positions paper - Profitability measures for electricity and gas network businesses*, 6 June 2018, p.2.

2 AusNet, *Profitability measures for electricity and gas network businesses – Draft Position Paper*, 30 May 2018, p. 2; Endeavour Energy, *AER draft positions paper - Profitability measures for electricity and gas network businesses*, June 2018, p.2; SAPN et al., *AER draft positions paper: Profitability measures for electricity and gas network businesses*, 31 May 2018, p.4.

3 CCP18, *Submission to the AER on its Profitability measures positions paper*, May 2018, pp.14–15; AusNet, *Profitability measures for electricity and gas network businesses – Draft Position Paper*, 30 May 2018, p.2; ENA, *Profitability measures for electricity and gas network businesses – Response to AER Draft Position Paper*, 31 May 2018, p.10; SAPN et al., *AER draft positions paper: Profitability measures for electricity and gas network businesses*, 31 May 2018, p.4.

4 CCP18, *Submission to the AER on its Profitability measures Position Paper*, 30 May 2018, p.14; ENA, *Profitability measures for electricity and gas network businesses – Response to AER Draft Position Paper*, May 2018, p.10; Endeavour Energy, *AER Draft Position Paper - Profitability measures for electricity and gas network businesses*, 6 June 2018, p.2; Jemena, *Response to draft position paper on profitability measures for electricity and gas network businesses*, 30 May 2018, p.3, SAPN et al., *AER draft positions paper: Profitability measures for electricity and gas network businesses*, 31 May 2018, p.4.