Discussion paper

Review of regulatory tax approach

November 2018

AUSTRALIAN ENERGY REGULATOR

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Invitation for submissions

The Australian Energy Regulator (AER) invites interested parties to make submissions about this discussion paper by 23 November 2018.

We prefer that all submissions are in Microsoft Word or another text readable document format. Submissions about our discussion paper should be sent to: TaxReview2018@aer.gov.au.

Alternatively, submissions can be sent to:

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

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

We will place all non-confidential submissions on our website. For further information regarding our use and disclosure of information provided to us, see the ACCC/AER Information Policy (June 2014), which is available on our website.

Please direct enquires about this paper, or about lodging submissions to TaxReview2018@aer.gov.au or to the Network Finance and Reporting branch of the AER on (03) 9290 1444.

Shortened forms

Note: A glossary with plain English explanations of some technical tax terms is included at the end of this document.

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
APGA	Australian Pipelines and Gas Association
ATO	Australian Tax Office
ATO Note	Note issued by the ATO to the AER dated 10 April 2018 with the subject: "Indicative comparative analysis of the AER electricity distribution tax allowance and tax payable"
Capex	Capital expenditure
CESS	Capital expenditure sharing scheme
CPI	Consumer price index
DNSP	Distribution network service provider
DV	Diminishing value
EBSS	Efficiency benefit sharing scheme
ENA	Energy Networks Australia
Energy networks	electricity and gas network service providers
IPA	Infrastructure Partnerships Australia
ITAA 1936	Income Tax Assessment Act 1936
ITAA 1997	Income Tax Assessment Act 1997
M&A	Mergers and acquisitions
MIT	Managed Investment Trust
NEL	National Electricity Law
NEO	National Electricity Objective.
NER	National Electricity Rules - means the rules, as defined in the NEL.
NER	National Electricity Rules
NERL	National Energy Retail Law
NGL	National Gas Law
NGR	National Gas Rules
NSP	Network Service Provider
NTER	National Tax Equivalent Regime

NWDV	Notional written-down value
OFGEM	Office of Gas and Electricity Markets
PC	Prime cost method
PTRM	Post Tax Revenue Model
R&D	Research and development
R&D Entity	Entity that can access the R&D tax incentive
RAB	Regulatory Asset base
Regulatory period	An access arrangement period for gas network service providers and/or a regulatory control period for electricity network service providers
RFM	Roll forward model
RIN	Regulatory information notice
TAB	Tax Asset Base
The rules	Collectively, the NER and NGR
TNSP	Transmission network service provider
WACC	Weighted average cost of capital

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1 Process Overview

The Australian Energy Regulator (AER) is the independent regulator for Australia's national energy market. We are guided in our role by the national electricity, gas, and energy retail objectives set out in in the National Electricity Law (NEL), National Gas Law (NGL) and the National Energy Retail Law (NERL). These objectives focus on the long term interests of consumers.

This discussion paper is the next step in our regulatory tax approach review, following the release of our issues paper in May 2018 and initial report in June 2018. It presents analysis based on the limited set of information currently available. It identifies possible changes to our regulatory tax approach for stakeholder consideration and also outlines potential changes that we do not consider should be pursued. We have focussed on testing potential changes to our regulatory tax approach against the long term interests of consumers as framed in the National Electricity Objective and National Gas Objective (NEO and NGO).

This chapter explains the purpose of our review and outlines the future consultation steps. We invite submissions about this discussion paper from all interested stakeholders by 23 November 2018.

1.1 Why are we undertaking this review?

The estimate of expected tax payments is one component we consider when we set revenue allowances for regulated electricity and gas networks. These allowances are set using a 'building block' approach in which revenue is expected to equal the total efficient costs incurred by the regulated networks, including expected tax costs. The AER determines the expected cost of corporate tax in accordance with the relevant rules—that is, the National Electricity Rules (NER) and National Gas Rules (NGR).

It is an incentive framework, so the energy networks retain the benefit (or detriment) where costs are lower (or higher) than expected for a time. Changing the approach to estimating tax for regulated energy networks will therefore change the total revenue allowance for these businesses. This will affect the prices paid by consumers of electricity and gas across the NEM.

The incentive framework operates differently than a cost of service framework. The former provides for a forecast of efficient costs based on a benchmark efficient firm whereas the latter provides for actual costs incurred by the individual network. We would expect an individual network's actual costs to differ from the benchmark. The framework encourages networks to increase efficiency through reduction in costs while still maintaining safe and reliable services. However it would be necessary to examine further where actual costs of many networks are all above or all below the benchmark.

Stakeholder concerns

Consumer submissions in 2017 and early 2018 asked the AER to examine whether our forecast of tax costs materially differed from the actual tax payments made by regulated networks.[1] Consumers were concerned that tax payments were below the AER's forecasts and so they might be paying more than the efficient cost of providing electricity and gas services.

We initiated the review by publishing preliminary advice from the Australian Tax Office (ATO).[2] This identified several potential drivers causing an apparent material difference between the provision for tax costs in AER determinations and the actual tax payments made to the ATO by the regulated networks. The Minister for the Environment and Energy requested that we investigate this issue and produce a final report with recommendations by December 2018.[3]

Purpose of the review

In this review we are investigating the nature of the identified difference between the regulatory forecast of tax costs and actual tax payments. We are examining the drivers of any tax difference and considering whether changes to our regulatory tax approach are required. We are looking to see whether an alternative regulatory treatment will better measure efficient tax costs. We also need to consider how recently introduced or imminent tax legislation changes will impact any difference between our assumed tax and what the businesses pay.

In assessing options for possible change to our approach to assessing tax costs, we are not seeking to reduce the tax difference as an aim in itself insofar as there may be valid and enduring reasons for the regulatory forecast of tax costs and actual tax payments to differ. Rather, our focus remains on making decisions in relation to revenue proposals that are in the long term interest of consumers as required under the NEO and NGO. We are identifying possible changes to our tax approach that might reduce the tax difference, but only where to do so helps ensure customers pay only efficient costs over the long term. Options may include changes to how the AER regulates the tax aspects of its revenue determinations (for instance, through changes to the regulatory models) and/or changes to the NER and NGR.

Our starting point is that energy consumers should pay no more than necessary for the safe and reliable delivery of electricity and gas services. Our benchmark incentive framework provides a benefit for network businesses that have costs lower than our forecasts to provide them with an incentive to become more efficient over time.

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1 For example, see Consumer Challenge Panel (CCP) 9, *Submission to the AER, Response to TransGrid for a revenue reset for 2018-19 to 2022-23*, 12 May 2017, pp. 36–38, 80–83; Consumer Challenge Panel (CCP) 9, *Submission to the AER, Response to draft decision and revised proposal for revenue reset for Murraylink for 2018-23*, 29 January 2018, p. 36.

2 ATO, *Note to the AER*, 10 April 2018.

3 The Hon Josh Frydenberg, Minister for the Environment and Energy, *Letter to the AER re: tax allowances*, May 2018.

Consumers also benefit when efficient costs are revealed, and a lower cost benchmark is set in subsequent regulatory periods. The nature of tax costs means that they are not automatically revealed in the manner of other building blocks such as opex. This review is necessary to understand current tax management practices and whether our current regulatory tax approach still models efficient tax costs. This is integral to the operation of the incentive framework so that consumers can benefit from more efficient tax practices adopted by regulated networks.

1.2 What has happened since the June report?

We held a public forum about our initial report on 18 July 2018 and received 15 written submissions from stakeholders.[4] We engaged PricewaterhouseCoopers (PwC) as technical tax advisors, and commissioned a second report from Dr Lally on the assessment of tax under the regulatory framework.[5]

Our initial report stated that we would use our information gathering powers to obtain detailed tax information from the energy networks. This would allow us to better understand the apparent tax difference identified by the ATO in its May 2018 note.[6] We had already examined publicly available information, but found it was scarce and conflicting.

To investigate the apparent tax difference and the materiality of the various potential drivers, we requested information from all the regulated network service providers covering their actual tax payments and tax management practices. There were two information gathering phases—voluntary and formal.

In August and September 2018, most of the energy networks voluntarily provided core tax information to us. This voluntary process arose from extensive stakeholder engagement following the publication of the initial report, including a dozen bilateral meetings with energy networks.[7] Most service providers cooperated and assisted us to understand their current tax management practices. The core tax information provided during this process included group structure diagrams, tax returns and tax asset registers.

This voluntary process complemented the use of our formal information gathering powers under section 28D of the NEL and section 46 of the NGL, in the form of regulatory information notices (RINs). The RINs we issued to the energy networks asked more detailed questions in several areas.[8] Following the legislated consultation

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4 Submissions are available on our website at https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/review-of-regulatory-tax-approach-2018/consultation

5 PwC, *AER tax review 2018, Expert advice*, 26 October 2018; Dr Martin Lally, *Review of submissions on the AER's review of its regulatory tax approach*, 25 October 2018.

6 ATO, *Note to the AER*, 10 April 2018, p. 1.

7 We also met with the AER's Consumer Challenge Panel (consumer representatives), the Network Shareholder Group (investor representatives) and the Energy Networks Australia (an industry body).

8 The RINs included all the information requested in the voluntary phase; where service providers had already provided this information voluntarily they were simply able to state 'already provided' in response. Service providers who had not provided core tax information voluntarily were required to do so by the RINs.

process, we issued draft RINs at the end of August 2018, and consulted on these throughout September 2018. Final RINs were served on 9 October 2018, with responses due by 26 October 2018, just before the publication of this discussion paper.

How does the available information affect our findings?

Given these timelines, the analysis in this discussion paper is based on the first tranche of tax information voluntarily provided by networks. We have not yet had the opportunity to examine the material provided in response to the RINs. The full set of RIN responses will improve the scope of the tax information available to us, as some networks did not voluntarily provide all the material we initially requested. Further, there are several types of tax information that were only requested in the RINs, not in the voluntary phase. One such area is information about the debt financing activities of the regulated networks, which determines the interest expense reported in tax returns. The voluntary request was focused on core tax information that all businesses had readily available. The formal RINs allowed us to request more complex or sensitive material, and material that had to be prepared specifically for our review.

This is an important limitation on the findings and analysis we present. This discussion paper identifies several possible changes to our regulatory approach. It also identifies a number of areas where we do not consider changes are practicable or warranted. We considered that it was important to consult with stakeholders on our findings prior to the December final report, even though adhering to the legislated information gathering processes means we have not yet analysed the RIN responses. Our subsequent analysis of the full set of tax information available may cause us to revise our findings or our considerations of these possible changes.

The likelihood of changes to our findings set out in this paper is directly linked to how much new information we will receive on a particular topic. Where our analysis is based on specific tax information that has already been provided, the additional RIN data is unlikely to change our current findings. A key example of this is our analysis of depreciation, where we have already obtained a robust database of tax fixed asset registers across both gas and electricity sectors. On the other hand, there are some areas where very little detailed tax information is currently available, and so the RIN responses may lead to a change in our considerations. The key example of this is our analysis of interest charges and interest expense for tax purposes.

1.3 How can stakeholders contribute?

We invite stakeholder submissions on this discussion paper and accompanying consultant reports by PwC and Dr Lally.[9] Engaging with those affected by this review assists us to make better decisions because it enables us to understand all

[9] PwC, *AER tax review 2018, Expert advice*, 26 October 2018; Dr Martin Lally, *Review of submissions on the AER's review of its regulatory tax approach*, 25 October 2018.

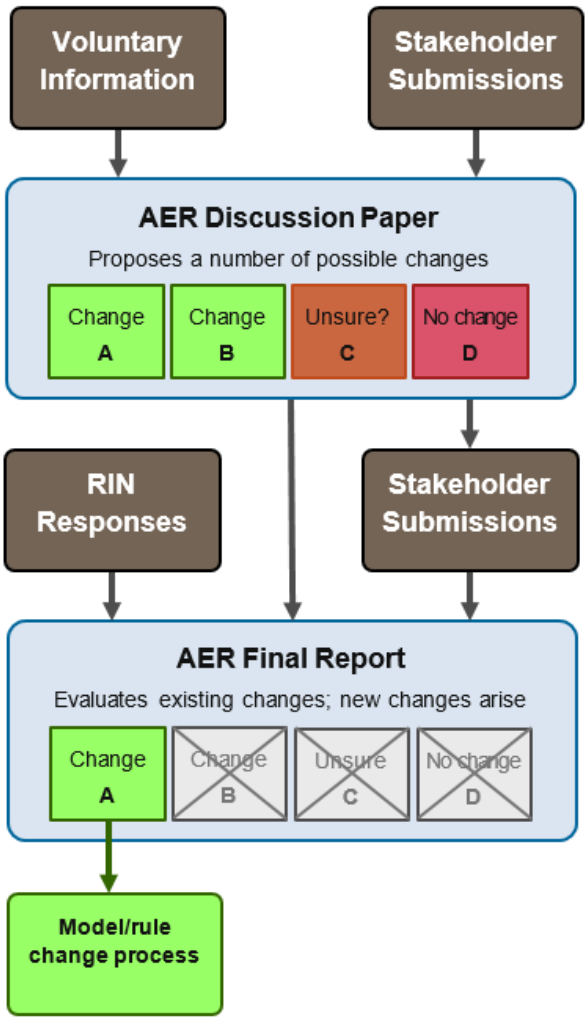
stakeholder perspectives and evaluate the merits of any possible changes. It also increases regulatory transparency and confidence in the regulatory regime.

We welcome stakeholder comments on any aspect of this report. However, to better facilitate stakeholder comments, we have highlighted what we consider to be the seven most prominent issues. For these seven major issues, we include a summary table at the start of the relevant chapter that lists the key reasons for and against a change in that area, and the range of implementation options that might be adopted. Based on this preliminary analysis:

- In three cases, we consider a possible change is merited.
- In one case, we make no finding on a possible change because the current information is insufficient for detailed consideration.
- In three cases, we do not consider a change is warranted (one issue on whether to change our overall framework, and two issues within the current benchmark framework).

While all submissions are welcome, stakeholders may wish to focus their submissions on this relatively small number of options.

Figure 1.1 Consultation leading to the final report



We are aware that this discussion paper has been informed by the tax information voluntarily provided by energy networks and previous stakeholder submissions. We consider that for some of the possible changes, this information is sufficient and provides a sound basis to assess the pros and cons and possible implementation issues. However, we have sought further information through our RINs which may be material and have an effect on the assessment of the proposed changes.

Figure 1.1 illustrates how we propose to progress our consideration of the issues, how we propose to incorporate new information and stakeholder views, and how we propose to progress to a final report.

We have identified three categories for consideration: firstly, possible areas for change (illustrated in Figure 1.1 as A

and B); areas where we are unsure due to lack of information (illustrated as C); and areas where we do not propose any change (illustrated as D).

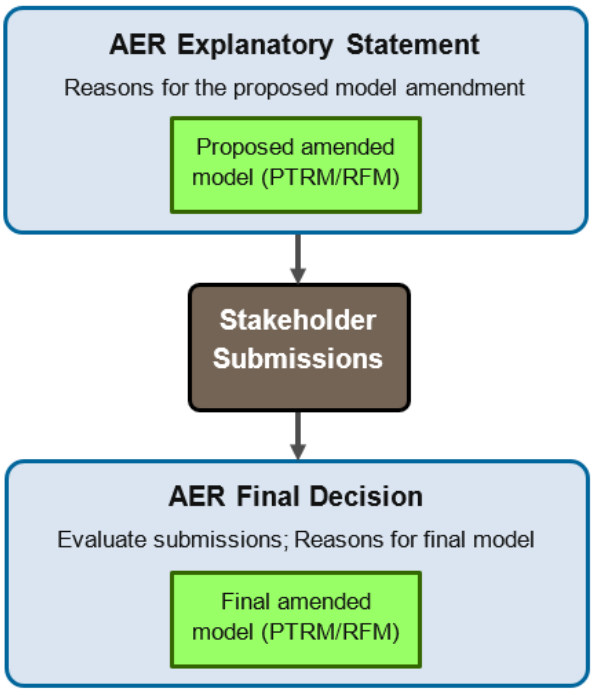
Stakeholders are invited to make submissions on all categories and comment on the proposed changes. During this time we will also analyse the detailed tax information obtained through the RINs and re-evaluate the changes identified in this discussion paper in light of all this material.

In the final report, we will either determine that a change propose in this discussion paper is still appropriate (change A in Figure 1.1) or we may determine that it is not appropriate (B, C and D) based on submissions from stakeholders and our assessment of the RIN information.

For those changes where stakeholders have already had opportunity to comment and where the RIN information has not materially changed our assessment, we may in the final report propose to proceed to the implementation phase—a model or rule change process. The further consultation process for these changes is discussed below.

The model change process

Figure 1.2 Consultation leading to a model change



We may decide that a change could proceed to implementation without further consultation on information provided in the RINs either because it does not raise any new material relevant to the proposed change or it confirms the existing information provided in the voluntary information phase. However, there would still be another opportunity for stakeholder consultation as part of the process for making a change to the two key regulatory models, the post-tax revenue model (PTRM) and the roll forward model (RFM).[10] The model change process is illustrated in Figure 1.2

Any recommendation for a model change in our final report would require the AER to produce an explanatory statement that includes the proposed model changes and the reasons for those changes.

[10] These models are legislated under the NER, but not the NGR. In practice, most gas businesses use the electricity templates. NER, r. 6.4.1(b), 6.5.1(c) and 6.16 (distribution consultation procedures). There are equivalent transmission clauses.

We would invite stakeholder submissions on the proposed change and the reasons for that change.[11] There will be opportunity for stakeholders to comment on the RIN information relevant to the proposed model change.[12]

After considering submissions, we would finalise the model changes (if we still considered that they were required) and publish our decision with the final model and accompanying reasons.[13]

One key consideration is the timing of the model change process. In our initial report we stated our intention to apply model changes to the group of revenue determinations with final reset decisions due in April 2019.[14] We consider that this is still an appropriate course of action for the possible changes identified in this discussion paper, where the tax information we find in the RIN responses is consistent with the voluntary information tranche (on the matters relevant to these changes). The model change process is capped at 80 business days and could occur from January to April 2019. It would be necessary to undertake additional consultation with the affected businesses on the specific implementation of the model changes for their network, but this could be done simultaneously with the general model changes.[15]

The rule change process

Alternatively, if we were to recommend changes to the rules (the NER/NGR) in our final report, there would be further opportunities for stakeholder consultation as part of the Australian Energy Market Commission (AEMC) led rule change process. Details of this process would be at the discretion of the AEMC. While we would submit a rule change request, the decision on what amendments (if any) to make to the NER/NGR would rest with the AEMC. This would include the scope for applying the rule change to upcoming or ongoing regulatory determinations.

New material arising in the RIN responses

We recognise the possibility that the detailed tax information provided in response to the RINs may lead to changes in the proposals put forward in this discussion paper. We might identify new possible changes to our approach, or determine that previously identified proposals are no longer appropriate.

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11 This would be at least 30 business days under NER cl.6.16(c).

12 Noting that in this scenario, the RIN information (as relevant to this model change) was consistent with the initial information provided in the voluntary information phase, which stakeholders commented on in November.

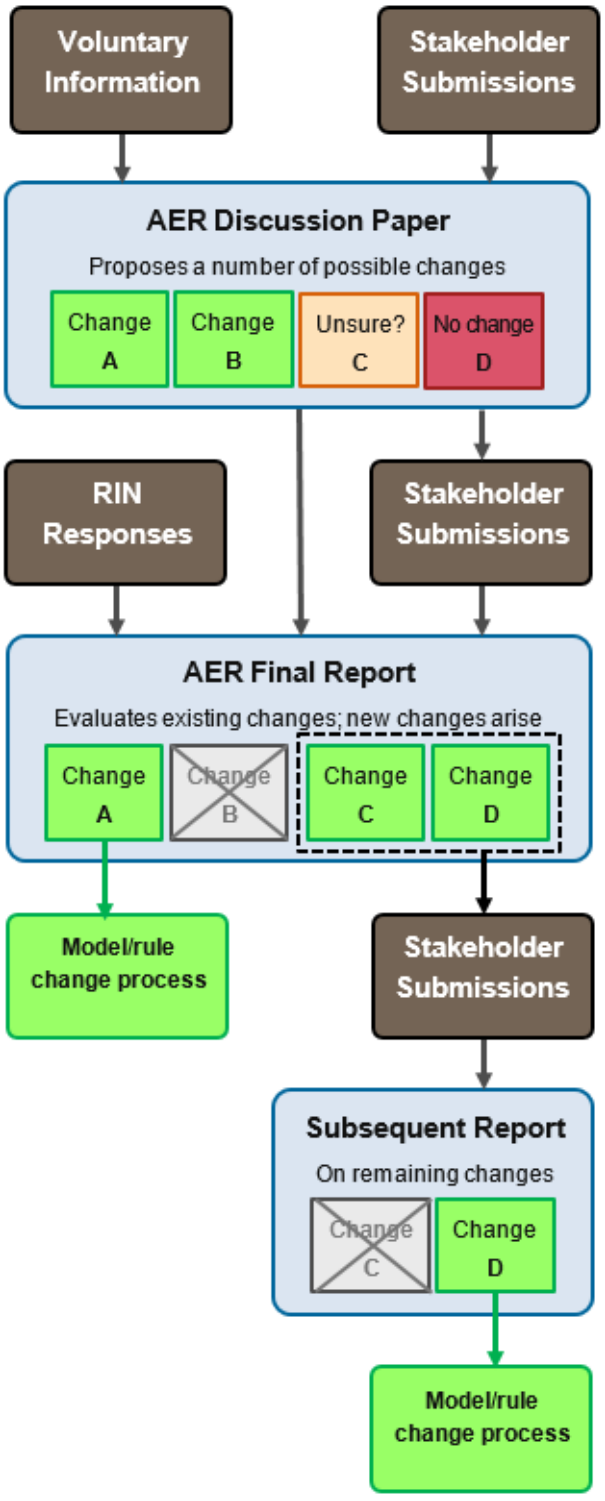
13 We would finalise model changes within 80 days under NER cl.6.16(e).

14 TasNetworks, Evoenergy and NT Power and Water are due to submit their revised proposals in November 2018. NSW DNSPs' revised proposals (Ausgrid, Endeavour Energy and Essential Energy) are due to be submitted in January 2019.

15 The initial report explicitly asked for stakeholder views on whether the model changes should be applied to the April 2019 reset decisions. Stakeholder submissions from the affected networks (where they made such a submission) did not address this issue. Ausgrid made an earlier submission to the issues paper opposing the application of model changes to its 2019 reset. See Ausgrid, IFM and AustralianSuper, *Submission – AER review of regulatory tax approach*, 31 May 2018, p. 19.

To provide stakeholders with the opportunity to respond to any changes in our considerations, should this occur, we would publish a subsequent report after the December final report. Stakeholders could then comment on our positions developed in response to any new information incorporated into our final report, as presented below in Figure 1.3.

Figure 1.3 Consultation leading to a subsequent report



As before, this illustrative example commences with this discussion paper informed by voluntary tax information and stakeholder submissions. At the discussion paper stage we identify two possible changes (illustrated as A and B), one area where we are unsure due to lack of information (illustrated as C) and one area where we do not propose any changes (illustrated as D).

At the final report stage, outcomes for change A and change B are identical to those presented in Figure 1.1 above. That is, after consideration of RIN material and stakeholder submissions, we consider that we should make change A, but the new material means we no longer consider change B is appropriate.

In contrast to Figure 1.1, in this figure we now identify new possible changes at the final report stage (changes C and D). This might be where new RIN information has clarified an area where we lacked information previously (C was 'unsure' at the discussion paper stage) or caused us to reverse our initial assessment (as with change D)

As before, change A might proceed to implementation phase—a rule or model change process— directly after the final report, because there has already been opportunity for stakeholder comment on this

change.[16]

However, there has not yet been opportunity for comment on any newly raised changes first identified in the December report (C and D). In this event, we would undertake a further round of stakeholder consultation prior to releasing a subsequent report. This consultation would be limited to matters around the newly raised changes. After due consideration, we might determine not to proceed with a change (change C in the bottom box of Figure 1.3), or confirm that we should proceed (change D). This would then lead to a separate rule or model change process for change D.

We would not consider that model changes arising from proposals first aired in the December final report (such as Change D in this illustrative example) could be implemented in time for the April 2019 reset determinations. Instead, we will consider any relevant model and rule changes after March 2019 if our subsequent report found them to be necessary.

What happens next?

The updated timeline and milestones for this review are shown in Table 1.1. We may alter the timeline and milestones during the review in response to emerging issues.

Table 1.1 Project timeline and milestones

Date	Milestone
June 2018	Publish initial report
July 2018	Submissions on initial report Public forum (18 July)
August 2018	Stakeholder engagement on RINs Voluntary information requests issued
September 2018	Issue draft RINs Voluntary information responses received Submissions on draft RINs
October 2018	Issue final RINs Final RIN responses due (26 October)
November 2018	Publish discussion paper (2 November) Submission period on discussion paper (3 weeks) Public Forum (7 November)
December 2018	Publish final report and recommendations.
January 2019	(if required) Submission period on final report leading to subsequent report

[16] When deciding to proceed to implementation, we would also consider whether the RIN responses raised new material relevant to change A, or simply confirmed the existing information from the voluntary information phase.

	(if required) Release proposed rule change (if required) Publish proposed PTRM/RFM amendments and explanatory statement (if required) Submission period on PTRM/RFM amendments (six weeks)
February 2019	(if required) Submission period on PTRM/RFM amendments cont. (six weeks)
March 2019	(if required) Publish subsequent report (and possibly trigger rule/model change) (if required) Publish final PTRM/RFM amendments and final decision on amendments

The timeline includes several conditional milestones:

- If there is new information (arising from the RINs) in the December final report that requires further consultation—we will proceed to issue a subsequent report in March 2019.
- If our final position is to change to our models (PTRM and/or RFM)—we will consult on the implementation of these changes in the early part of 2019.
- If our final position is to propose changes to the rules (the NER and/or NGR) we will recommend changes in the final report or subsequent report (as relevant) and then consult prior to submitting a rule change proposal to the Australian Energy Market Commission (AEMC). The AEMC would undertake further consultation on the proposed rule changes.

The changes impacting this timeline since the June 2018 initial report are:

- Including additional stakeholder consultation around the RINs led to some networks providing us with information voluntarily and provided useful consultation prior to the issuance of the formal RINs.
- Shortening the submission period on this discussion paper from four weeks to three weeks
- Adding the possibility of a subsequent report and consultation in early 2019 (if required)
- Moving the initiation of model or rule change implementation processes (if required) to January 2019.

2 Content Overview

2.1 How is tax assessed?

We set regulated revenues using a 'building block' approach so that energy networks can recover their efficient costs, including their tax costs. On average, the tax building block comprises about 4 per cent of the total regulated revenue for an energy network.

We currently forecast tax costs using a standard tax calculation based on our estimates of taxable revenue, tax expenses (such as depreciation, interest, operating expenditure) and the statutory corporate income tax rate (30 per cent). This forecast tax is then adjusted for the value of imputation credits (gamma) to set the allowance for corporate income tax.

Our forecast of tax costs broadly aligns with the core steps in the tax calculation undertaken by the ATO. Actual taxable revenue, tax expenses and resulting taxable income for the energy networks is reported to the ATO, which then becomes the basis for calculating tax payable using the applicable tax rate.

In this review, we are examining the difference between:

- our provision for tax costs in the regulatory determinations (*before* the adjustment for gamma), and
- the actual tax payments made by the regulated energy networks.

The reason the appropriate comparison point is actual tax paid to forecast tax costs before the value of imputation credits is deducted, is because this reflects our forecast of corporate tax to be paid by the regulated business. Critically, the value of imputation credits reflects a reduction in the regulated allowance to account for the expected imputation credits to be claimed back from this tax payment, not an expected reduction in corporate tax to be paid.

Some of the regulated energy networks are wholly (or partly) owned by State Governments or Territories. These government owned energy networks may participate in the National Tax Equivalent Regime (NTER).[17] The NTER is administered by the ATO and is an arrangement under which relevant taxation laws are applied notionally to the NTER businesses as if they were subject to federal income tax laws.

Each NTER entity is assessed annually for its income tax equivalent liability, and is required to pay this amount to the Treasury or Revenue Office in the State or Territory to which the NTER business belongs.

Therefore, for government owned energy networks, we are comparing their income tax equivalent liability against our forecast tax costs for those businesses.

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[17] http://law.ato.gov.au/atolaw/view.htm?DocID=NTR%2FNTER0001.

2.2 What are our findings?

We find that there is a material difference between our regulatory forecast of tax costs and actual tax payments made to the ATO (or equivalent NTER payments to State and Territory governments). There are valid explanations for some of the difference and we find that changes in our regulatory approach are not warranted. However, we find some aspects of our regulatory approach appear to be out of step with efficient tax management practices and therefore warrant consideration. We identify possible changes to our approach to incorporate these practices. We consider whether these possible changes will advance the long-term interests of consumers and put them forward for stakeholder consideration.

In our initial report, we noted that publicly available information, though scarce and conflicting, tended to support the direction of the ATO advice of a material tax difference.[18] This led us to conclude that it was necessary to obtain additional information including through the use our formal information gathering powers.

Working with our tax advisors, PricewaterhouseCoopers (PwC), we reviewed the tax information obtained to date—that is, the information provided in response to the voluntary information request. The information provided to us by the energy networks has allowed us to better understand the drivers of the difference.

At this point, we have reviewed sufficient information to determine that:

- the underlying tax difference is smaller than the face value tax difference highlighted by the ATO note,[19] but
- the underlying tax difference still appears to be material.

What is driving the face value tax difference?

Our key considerations on the drivers of the face value tax difference are:

- **Chain of ownership**. It is necessary to carefully examine the chain of ownership particularly where the regulated energy networks are held as partnerships or trusts. For example, if you compare the tax paid by a network partnership to the regulatory estimate of tax, the partnership pays no tax. However, the tax obligation flows through to the next level of ownership. This means that an effective comparison needs to track those tax payments through to the first level at which corporate tax is required to be paid. Some of the energy networks we regulate are not the ultimate tax paying entity, and so tax is paid by another entity within the ownership structure rather than the energy network itself. As shown in Figure 2.1, of the information provided by the businesses in response to the voluntary information

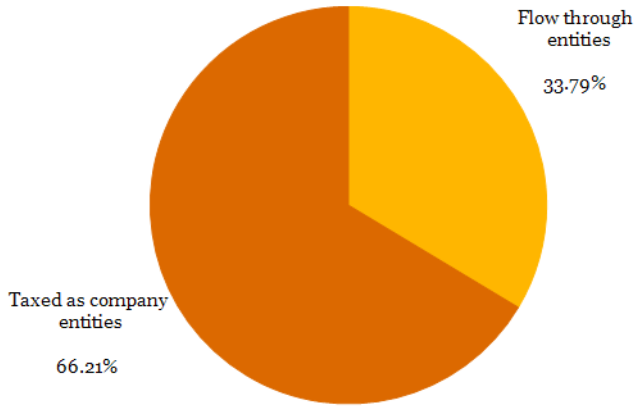
[18] AER, *Initial report, Review of regulatory tax approach*, June 2018, p. 2. See also AER, *Issues Paper, Review of regulatory tax approach*, May 2018, p. 1

[19] The face value tax difference is the observed variance between forecast and actual tax, commensurate with that reported in the ATO note. The underlying difference is the observed variance after adjustment to exclude those effects not relevant to the regulatory approach; noting that some portion of the underlying difference arises from the intended operation of the incentive framework.

request, five (or 34 per cent by regulated TAB value) are structured as flow through structures (i.e. either a partnership or trust where tax obligation is assessed at the next ownership level). Therefore, if we examine the actual tax paid by these regulated networks only we will not see the corporate tax that is paid by other entities in the ownership chain. Unfortunately, we have not been able to obtain tax information from these upstream entities.

Figure 2.1 Tax profile of regulated entities by TAB value and count—from PwC expert advice

By TAB value



By count of NSP	
Flow through	5
Taxed as company	12

Source: PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 50 (figure 10).

- **Aggregation of tax outcomes**. Observed tax payments to the ATO reflect the overall outcome of all business activities (regulated and unregulated) undertaken by an entity. The tax obligation relevant to the regulated activities may not be clearly visible in the tax return of the reporting entity because it may have a tax position arising from other businesses or unregulated activities. The assessment of tax payable is at the consolidated level, which makes it difficult to disaggregate tax outcomes pertaining to regulated activities from the overall outcome. The tax paying entity is still facing a tax obligation in line with that estimated in our regulatory determination, but that obligation is not clearly visible in the tax assessment at the corporate level. Detailed disaggregation and allocation of costs and revenues are required to isolate the tax obligation associated with the regulated activities. This is a difficult task, as we discuss below.

- **Accrued tax losses**. The ATO note was focused on cash payments of tax each year. Some of the regulated entities would have paid tax if the years in the ATO analysis period were considered in isolation. However, no cash payments were made to the ATO because of accrued tax losses from previous years. It then becomes relevant to consider why these entities had tax losses. We are still exploring this aspect but a contributor seems to be the use by some businesses of depreciation approaches that bring forward tax depreciation so it is accounted for earlier than in the AER's standard tax depreciation approach. The use of these front-loaded depreciation approaches does not change the total tax paid, rather it changes the timing.[20] If a business employs these depreciation approaches it will pay less tax than we estimate initially, but once the depreciation is exhausted it will pay more than we estimate. We therefore need to be careful not to make changes that will make consumers worse off in the long run.

A deeper examination of structures, the aggregation of taxable income inside corporate structures, and the deferral of tax liabilities to later periods suggests that the underlying tax difference is likely to be materially smaller than the face value tax difference. The available information does not allow us to fully quantify the effect of these factors at this time, principally because:

- We do not have access to the tax records of upstream investors.
- Disaggregation of regulated activities from the consolidated tax outcomes is imprecise, and in some areas arbitrary. Disaggregation requires a number of allocation assumptions that limit the strength of any findings, and is further constrained by the limited available information set.
- We do not have the historical material necessary to reconstruct the accrued tax losses at the commencement of the ATO's analysis period.

However, we consider that these three factors go a considerable distance in explaining the difference between our regulatory provision for corporate tax costs and the actual tax paid. We do not consider that changes to our regulatory approach to reduce (or eliminate) the difference arising from these factors would be in the long term interests of consumers.

We also consider that recently introduced or imminent tax legislation changes will reduce the difference between our regulatory provision for tax costs and tax paid by the regulated networks. To the extent to which this is the case, amendment of the AER's tax framework is unnecessary.

What is driving the underlying tax difference?

After accounting for these factors, we consider there remains an underlying difference that is relevant to our regulatory tax approach. These drivers are relevant to our assessment of efficient tax costs under the regulatory approach, and therefore the

[20] While the amount is unchanged in nominal terms, there is still an NPV consequence as a result of the timing effect.

costs that consumers should be paying through their electricity and gas bills. Our key considerations on the drivers of this underlying tax difference are:

- **Entity structure and ownership**. The current AER regulatory approach adopts the assumption that tax will be assessed as fora standard Australian company. In practice networks are operated under a number of different structures (including partnerships, stapled structures and trusts) and the ultimate owners may not be Australian taxpayers. The observed entity structures have complicated taxation implications that may have the effect of reducing tax payable relative to the assumptions in the AER's regulatory approach. This might be by allowing double gearing of debt or creation of a passive investment stream taxed at a lower rate. The tax status of the ultimate owner is relevant where the effective corporate tax rate differs from the assumed AER regulatory tax rate (30 per cent). We note the difference between AER and actual tax rates had little effect historically, principally because many private sector networks were in tax losses and so it did not matter what tax rate the owner was subject to.

Table 2.1 Tax profile of regulated asset holders tracing flow-through vehicles—from PwC expert advice

Investor tax profile	% of TAB	Expected tax rate
1. NTER entity	40.00%	30%
2. Australian company	29.98%	30%
3. Australian States or Territories (tax exempt, non-NTER)[a]	11.10%	N/A[a]
4. Australian managed investment fund	7.86%	15%-30%
5. Australian superannuation funds	3.79%	15%
6. Foreign sovereign wealth funds	2.90%	0%–30%
7. Foreign pension funds	2.07%	15%–30%
8. Foreign companies	2.30%	30%

Source: PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 17 (figure 1).

Notes:

(a) There is no effective difference in the investor tax profiles of the 11 per cent identified in this row, and the NTER entities in row 1 (with an expected tax rate of 30%). The classification (30% tax equivalent rate or tax-exempt) reflects a policy decision by the State or Territory owner on whether to participate in the NTER. The total distribution to owners is unchanged.

Table 2.1 shows the investor tax profiles of the businesses that responded to our voluntary information request.[21] Less than 17 per cent of regulated energy assets are owned by investors with an applicable tax rate that may be less than 30 per cent. This 17 per cent of regulated energy assets is an upper bound because some portion of these investor groups will pay tax at the 30 per cent rate. As a proportion

[21] Figures are as at the end of the most recent financial year (30 June 2018).

of privately held networks (excluding state or territory government owned networks) this upper bound is 34 per cent. It appears the standard corporate rate of 30 per cent is applicable to most of the businesses.[22]

- **Interest expense**. The interest expense reported in tax returns appears to be higher than the equivalent amount estimated in our regulatory models. Interest expense reduces taxable income and therefore tax payments. We have requested more information on this aspect from the energy networks. Although we are not yet able to determine whether there is an issue here to be addressed, we expect the RIN responses will allow us to better examine the case for or against a possible change.
- **Treatment of depreciation**. It appears that the tax depreciation expense recorded by energy networks (on average) is materially higher than the tax depreciation expense estimated in our regulatory models at this time. Several key causes are timing effects, bringing forward tax depreciation now (and hence a reduction in tax payable in the near term) but leading to lower tax depreciation expense in the future (and hence an increase in tax payable in later years).[23] This appears to arise from a combination of factors:
    - The use by networks of the diminishing value approach for calculating tax depreciation is more prevalent than the straight-line approach assumed by the AER. For private sector networks, around 65 per cent of assets (by tax asset base (TAB) value) are currently depreciated using diminishing value, compared to 35 per cent using straight-line.[24] The diminishing value approach results in increased depreciation in the earlier years of the asset's life, relative to the straight-line tax depreciation approach currently used in our regulatory models. In the later years of an asset's life, this effect is then reversed.
    - The immediate tax deduction of certain types of capital expenditure (capex), such as refurbishment capex which then reduces taxable income in the year it is incurred, rather than being depreciated for tax purposes gradually over the life of the asset. Immediate expensing of capex is not currently recognised in the AER's regulatory approach.
    - Asset lives determined by tax legislation are shorter than those used by us for some pipelines in the gas sector. This has the effect of bringing forward tax depreciation, relative to the AER's approach.

2.3 What changes might be made to our approach?

We are reviewing whether or not to change the regulatory approach in response to the drivers of the underlying difference, and considering whether those changes would

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22 Those with applicable tax rates that may be less than 30 per cent are Australian managed investment funds, Australian superannuation funds, foreign sovereign wealth funds and foreign pension funds.

23 There are also value-related (non-timing) depreciation effects, such as TAB revaluation (discussed below and in chapter 7).

24 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 76.

contribute to the long term interests of consumers under the NEO and NGO. We have not presumed that reducing the tax difference—that is, the difference that might occur between actual tax payments and our regulatory provision for tax costs—is always in the long term interest of consumers. As this discussion paper sets out, certain drivers of the difference may be irrelevant to the regulatory regime (e.g. not related to the operation of the regulated network), while others may be an expected consequence of the incentive regime (e.g. outperformance of regulatory estimates). The key question is whether each change would align our benchmark tax approach with efficient tax management practices, as this leads to consumers paying no more than efficient costs over the long term.

Not moving to a tax pass through

The most fundamental change would be to depart from the current benchmark approach to instead use a 'tax pass through' approach, where the regulated tax allowance is based on actual tax paid by each energy network. Our initial report discussed some advantages and disadvantages of a tax pass through. We also noted caution around making such a change, and asked for stakeholder comments.

The additional tax information we now have, as well as subsequent submissions, confirm that such a change would not be in the long-term interests of consumers. While it might have the initial attraction of reducing the size of the tax difference, this is not in and of itself enough to advance the long-term interests of consumers. The tax costs passed through to consumers would likely increase over time, as service providers would have no incentive to minimise their tax costs. This is a pervasive problem under any form of cost-plus regulation, and would result in consumers paying more than the efficient costs of providing electricity and gas. For NTER (state government owned) entities there would be incentive to increase tax payments under a pass through, since they ultimately flow through to State Treasuries.

As well as the long term increase, a tax pass through risks an immediate increase in tax costs for consumers where networks have depreciated assets for ATO tax purposes in excess of the AER's tax depreciation. If a benchmark approach was maintained, the natural reversal of this timing effect would mean that these networks are likely to pay more actual tax than the benchmark in the future (all else equal), but consumers would be protected from the higher actual tax payments because they only pay costs at the benchmark level. Switching to a tax pass-through at the wrong time would result in consumers paying more tax in the second phase of the asset's life, when the actual tax costs (higher than the benchmark) are passed through to consumers.

Determining the actual taxes paid for only the regulated services of an energy network would require consideration of the drivers of the face value tax difference. It would be difficult to monitor and enforce a ring-fence around regulatory tax, and so this also risks consumers paying tax costs above their efficient level.

The PwC report also notes other implementation difficulties. Implementing a true-up for tax costs could lead to substantial price shocks and intergenerational equity issues,

given the scope for the ATO and the network businesses to amend past tax returns even after a significant period has elapsed.

For all these reasons we consider that maintaining a benchmark approach would provide the energy networks with the incentive to continue to adopt efficient tax practices, and this is in the long term interests of consumers. From time to time, we will review our regulatory tax approach to assess whether it reflects efficient practices, as we are currently doing.

Possible changes under the current incentive framework

There are a number of options for change that we consider could better align our estimates of regulatory tax with current tax management practices, in a manner that is compatible with the current incentive framework. At this stage, possible changes include:

- **Recognising immediate expensing of capex** in the regulatory models, so that the value of certain capex (such as some refurbishment capex) is immediately expensed (depreciated) for tax purposes in the year it is incurred. This could be implemented by the energy network proposing (and the AER assessing) specific refurbishment programs as part of a regulatory proposal. The amount of capex actually expensed for tax purposes could be reported to the AER and used to inform forecasts for subsequent periods. Alternatively, a benchmark refurbishment percentage could be set based on observed sector-wide practices.
- **Using the diminishing value approach** instead of straight-line depreciation for tax purposes. Using diminishing value provides higher tax depreciation (and less tax paid) early in the asset's life, relative to straight line depreciation. We also need to consider whether this change should be made prospectively (that is, applying to new assets only), to align with the ATO framework that does not allow switching of depreciation approach for existing assets. Alternatively, we could consider making such a change to existing assets for regulatory tax purposes, even though this would not align with the switching rules. That is, all existing capex in the TAB could be changed to use diminishing value on the grounds that this is already the dominant industry practice.
- **Reducing tax asset lives for gas**. Tax legislation caps tax asset lives for gas pipelines at 20 years, but the current AER regulatory models use higher tax asset lives that continued the previous jurisdictional approach for certain gas businesses. The key implementation decision would be whether to apply this to new capex or all existing capex in the TAB.

Each of these changes would involve model amendments, but immediate expensing could potentially require a rule change. These changes could be implemented in isolation or together. We are seeking stakeholder submissions on all these possible changes, including the alternative implementation options.

Where we are waiting for further information before proposing any change

We have also considered the case for adjusting interest expense, so that the regulatory approach to this tax deduction aligns more closely with observed tax management practices. This potential driver was identified in the ATO note and discussed in our initial report. We have not made any decision yet on whether there is or is not a possible change in this area. This is because we do not yet have the relevant information on the financing practices of regulated networks. This material will be included in the response to the RINs, and discussed in our December final report.

Where are we not proposing changes?

We are not proposing changes for two other key areas discussed in our initial report:

- **Entity structure and ownership**. While the different entity structures explain a small proportion of the historical tax difference, they will be less relevant to future tax outcomes because of changes in the ATO's assessment approach. This includes legislative changes that mean certain structural practices no longer have the effect of reducing tax payable. Further, information provided to date indicates that about 80 per cent of regulated entities are subject to the corporate tax rate of 30 per cent or national tax equivalent. Only a relatively small proportion of the energy networks currently flow through tax to ultimate owners who attract effective company tax rates below 30 per cent. Legislative changes mean that the tax rates paid by several of these owners will increase over time to align with the standard corporate rate. These findings suggest that it remains appropriate for us to maintain our current benchmark for tax at the 30 per cent rate.
- **Asset revaluations**. The effect of asset transactions (mergers, acquisitions and privatisations) can be to increase (or decrease) the tax cost base recognised by the ATO. This allows for higher (or lower) depreciation expense in subsequent years and a reduction (or increase) in tax payable relative to the estimate of regulatory tax cost. Under the current approach, the AER does not adjust the TAB (or RAB) for market transactions. We consider that it remains appropriate to preserve a consistent regulatory approach that insulates consumers from changes in market valuation on both the RAB and TAB. Where an asset trades at a multiple in excess of its RAB, the incremental value sits outside the regulatory framework. Customers do not pay a higher return on capital and return of capital building blocks associated with the asset value that exceeds the RAB; but they also do not pay a lower tax building block.

3 What is our current approach?

The AER's current tax approach sits within our overall regulatory approach—a building block incentive framework. As it has been some time since we reviewed our regulatory approach to forecasting tax costs, we consider it an appropriate time to review whether there are more efficient approaches to taxation that should be reflected in our benchmark approach—approaches that might better reflect the long-term interest of consumers.

3.1 What is the current regulatory framework?

This section describes the operation of the overall regulatory approach, not the details of our specific regulatory tax approach. It is important to understand the purpose and operation of the regulatory framework in which the tax allowance sits.

The building block approach

We set regulated revenues so that energy networks can recover the efficient costs of providing energy services to consumers. We use a 'building block' approach to determine the efficient costs (and therefore total regulated revenues) by adding together expected costs in five different categories.[25] The building block components are:

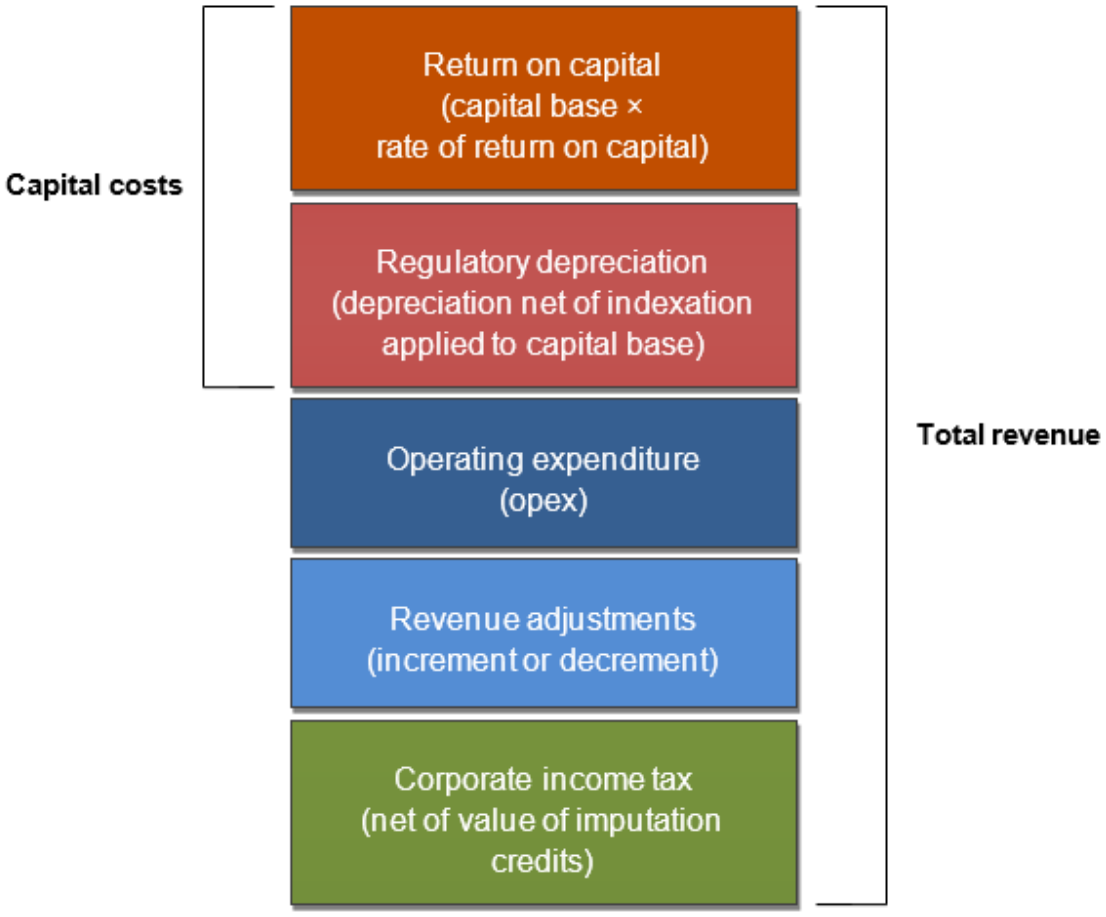
- return *on* capital (to compensate investors for the opportunity cost of funds invested in the business)
- return *of* capital (regulatory depreciation, to return the initial investment to investors over time)
- operating expenditure (to cover the day-to-day costs of maintaining the network and running the business),
- revenue adjustments (increments or decrements from incentive mechanisms[26]), and
- cost of corporate taxation (which is net of value of imputation credits, gamma).

This last building block recognises that corporate tax is a cost incurred by businesses operating in Australia. The building blocks are illustrated in Figure 3.1.

[25] The 'revenue adjustments' building block does not directly relate to expected costs; rather, it operates to add or subtract from total revenue in order to incentivise efficient behaviour in other building blocks.

[26] Such as the Efficiency Benefits Sharing Scheme for opex, and the Capital Expenditure Sharing Scheme for capex.

Figure 3.1 The AER building block approach for determining total revenue



Source: AER.

The incentive benchmark approach

The building block approach sits within an incentive framework where regulated revenues are set for a five-year period based on the expected costs of a benchmark efficient entity operating that energy network. Network service providers (NSPs) who keep actual costs below the regulatory forecast of costs retain part of the benefit.[27] This incentive benchmark framework is a foundation of the AER's regulatory approach and promotes the delivery of the national electricity objective (NEO) and national gas objective (NGO). This provides for investment in—and operation and use of—energy services that is efficient and in the long-term interests of consumers.[28] Operators of energy networks have an incentive to become more efficient and reduce costs over time, as they retain part of the financial benefit from improved efficiency. Consumers also benefit when efficient approaches or costs are revealed and more accurate or

[27] Likewise, where actual costs are above the regulatory forecast of costs the NSP bears a part of this cost.

[28] NEL, s. 7; NGL, s. 23.

efficient benchmark is set in subsequent regulatory periods. Over multiple regulatory periods this cycle of efficiency gains, revealed costs and lower benchmarks benefits both energy networks and consumers.

Under a benchmark incentive regime it is expected that the inherent incentives will drive actual costs below the regulatory allowance. As such, observation of actual costs is important to the implementation of the incentive approach over time. For capex and opex, we observe actual expenditure outcomes at each regulatory determination. The observed cost outcomes are used to inform the regulatory forecasts of efficient capex and opex for subsequent periods. This provides consumers with a share in efficiency gains and they pay no more than necessary for a safe and reliable supply of energy. It promotes the achievement of the NEO and NGO.

NTER entities and our regulatory benchmarks

The overall compensation package we determine (including the rate of return on capital), is based on private sector ownership for competitive neutrality reasons. In our consideration of the practices of a benchmark efficient entity, it is important to note the different practices between privately held (non-government) NSPs from government (state or territory owned) NSPs.

3.2 What is the current tax approach?

The tax building block approach

The tax building block reflects our estimate of the cost of corporate income tax for the benchmark entity. We currently forecast tax costs using a standard tax calculation that has regard to regulatory estimates of taxable revenue, tax expenses (depreciation, interest, opex) and the statutory corporate income tax rate (30 per cent). We described the tax calculation in detail in our initial report.[29]

The incentive benchmark approach and tax

As with other building blocks, NSPs who keep actual tax costs below the regulatory forecast of tax costs retain the part of the benefit.[30] This is an intended outcome under the incentive benchmark approach, designed to reward service providers for their efficient improvement while benefiting consumers over the longer term. However, the progression of efficient tax costs across multiple regulatory periods differs in several ways to the revealed cost process for capex and opex. Actual tax outcomes are not as readily observed at each determination stage—and the observed tax payments reflect many other factors outside the regulatory regime. This means that from time to time we need to examine the actual tax management practices of NSPs to inform our view on the practices of a benchmark efficient entity operating an energy network. These observations can then be used to ensure our benchmark regulatory tax approach will

[29] AER, *Initial report - Review of regulatory tax approach*, June 2018, pp. 7–12.

[30] Likewise, where actual tax costs are above the regulatory forecast of tax costs the NSP bears this cost.

generate a forecast of tax costs that reflects efficient costs. This provides consumers with a share in efficiency gains; means they pay no more than necessary for the tax costs associated with a safe and reliable supply of energy; and promotes the achievement of the NEO and NGO.

Is reducing the tax difference in the long-term interests of consumers?

The ATO undertook analysis that indicated non-government owned energy networks (listed or privately held) appeared to pay less tax than provided for in our determinations; while government owned energy networks appeared to pay more tax than provided for in AER determinations.

In reviewing our approach to tax, our intent is to ensure that our approach promotes the NEO and NGO. We have not presumed that reducing the tax difference—that is, the difference that might occur between actual tax payments and our regulatory provision for tax costs—is always in the long term interest of consumers. As this discussion paper sets out, certain drivers of the difference may be outside the regulatory regime (e.g. not related to the operation of the regulated network), while others may be an expected consequence of the incentive regime (e.g. outperformance of regulatory estimates) or there may be valid and enduring reasons for the difference. A number of stakeholders noted in their submissions to our review that under an incentive based framework the expectation is that there will be a difference between actual costs and regulatory forecasts.[31] The Consumer Challenge Panel (CCP22) also notes this expectation, but submits that the AER must understand the reasons for these differences and their relevance as part of its review.[32]

The intent of this review is not simply to reduce the tax difference, but to identify tax practices that a benchmark efficient entity may engage in that are in the long term interest of consumers. The potential changes that are proposed in this discussion paper are changes that we consider likely to reduce the tax difference, while also promoting more efficient investment in, and efficient operation and use of, energy services for the long term interests of consumers, consistent with the NEO and NGO.

NTER entities and our tax benchmarks

As highlighted by the ATO note, there is a clear difference in the observations of the two groups—with one generally paying less tax than provided for in AER determinations and the other paying more tax than provided for. The NTER is an administrative intergovernmental arrangement that aims to ensure competitive neutrality by notionally applying the tax laws to government owned entities as though they were subject to Federal income tax. While observing patterns of practice based on ownership is useful for understanding the tax practices of NSPs, we note that the tax incentives faced by NTER entities may not align with those in the private sector. NTER

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31 ENA, *Response to AER Issues Paper*, 31 May 2018, p. 8; SAPN, et al., *Submission to Initial Report*, 26 July 2018, p. 1.

32 Consumer Challenge Panel – sub-panel 22 (CCP22), *Submission to Initial Report*, 26 July 2018, p. 7.

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 compensation package we determine (including the rate of return on capital), which is also based on private sector ownership for competitive neutrality reasons.

3.3 Incentive approach and proposed rule changes

The terminology used in this discussion paper reflects the current NER and NGR provisions governing estimation of the cost of corporate tax. We are aware that these provisions may soon change as a result of the consequential ministerial rule change amendments to implement a binding rate of return instrument.[33] However, we anticipate this rule change will not impact upon our views about the approach to estimating corporate income tax.

Under the draft rule changes, which we support, the estimate of taxable income for service providers will no longer include a reference to the 'benchmark efficient entity'.[34] This is consistent with the removal of this term from the factors we must have regard to in developing a methodology for estimating the rate of return and the value of imputation credits.

The removal of the term 'benchmark efficient entity' does not affect our views on the role of the tax building block in an incentive regulatory framework. The updated drafting continues to require a forward looking estimate of company tax. In our view, it remains open to us that this estimate should depend on the other forward-looking building block revenue components.[35]

3.4 How do we account for imputation credits?

This review has arisen because of a perception that regulated businesses are not paying as much tax as anticipated in our regulatory determinations. A fundamental first step in this review is to establish the correct reference points for comparison. There has been some confusion on this point because the tax allowance we include in our decisions is reduced for our estimate of the value of franking credits to shareholders. As such there are two possible points of comparison:

1. Actual tax paid by regulated businesses compared to the AER's estimate of the actual tax that will be paid by the regulated businesses or
2. Actual tax paid by regulated businesses compared to the AER's regulatory tax allowance included in our decision (where the AER's regulatory tax allowance is

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[33] COAG Energy Council, *National Electricity Rules (NER) and National Gas Rules (NGR) – Consultation*, Available at: http://www.coagenergycouncil.gov.au/publications/national-electricity-rules-ner-and-national-gas-rules-ngr-consultation

[34] See draft NER cl. 6.5.3, cl. 6A.6.3; NGR draft r. 87A.

[35] In particular, within the NER, the provision continues to require that this be done in accordance with the PTRM.

the AER's estimate of the actual tax that will be paid by the regulated businesses discounted for the value of franking credits).

This choice has a material impact. In the initial report, we estimated that the regulated energy networks would pay $923 million in corporate tax over the 2016-17 financial year, while the tax allowance included in our decisions amounted to $541 million after discounting to reflect the estimated value of franking credits to shareholders.[36]

Our conclusion is that the correct comparison is point 1. That is, the correct comparison is actual tax paid by regulated businesses compared to the AER's estimate of the actual tax that will be paid by the regulated businesses (i.e. before any reduction for the estimated value of imputation credits).

The reason the appropriate comparison point is actual tax paid to tax expected to be paid before the value of imputation credits is deducted is because this reflects the AER's forecast of corporate tax to be paid by the regulated business. Critically, the value of imputation credits reflects a reduction in the regulated allowance to account for the expected value of imputation credits to be claimed back from this tax payment, not an expected reduction in corporate tax to be paid.

3.5 How much was provided for tax costs?

In our June initial report we included sector level summaries of the provision for tax costs in AER determinations across the five-year period from 2012–17. The tax building block represents a small portion of the overall building block revenue collected by the regulated energy networks, usually around 4 per cent of total revenue. We calculated the aggregate regulatory forecast of total tax costs from within the PTRMs for all regulated networks.[37] We repeat the key table here for ease (See Table 3.1).

[36] AER, *Initial Report, Review of regulatory tax approach*, June 2018, pp. 17–18.

[37] This relates to core regulated activities only and is before any deduction for gamma.

Table 3.1 AER forecast of tax costs across 2012–17, regulated activities ($million 2017)—from AER initial report

Ownership	2012–13	2013–14	2014–15	2015–16	2016–17	Total
State government owned	804.2	853.7	593.1	497.4	474.9	3223.2
Privately owned[a]	326.2[b]	345.8	355.2	351.8	448.2	1827.2
Total	1130.4	1199.5	948.3	849.2	923.1	5050.4

Source: Figures taken from most recent PTRM for each NSP (final decision, post-appeal or annual return on debt update).

Notes: We removed forecast CPI and then used actual CPI to bring to June 2017 values. We converted to June-end financial years by pro-rata adjustment of calendar years or March-end financial years.

TransGrid (NSW TNSP) was privatised during 2015–16; we have classified it as state government owned up to 2015–16 and then privately owned for 2016–17. Ausgrid and Endeavour Energy (NSW DNSPs) were partially (about 51%) privatised during 2016–17; we have classified them as state government owned for all years in these tables. Evoenergy, previously known as ActewAGL (ACT Electricity and Gas DNSP), has 50% share of state government and private ownership; we have split its tax data accordingly.

(a) 'Privately owned' includes listed, privately held or overseas owned (including overseas government owned).

(b) Excludes three private sector DNSPs where data was not available for this year.

4 How have we analysed the tax difference?

The next five chapters of this discussion paper present more detailed analysis of the observed tax difference.

These analysis chapters are focused on the identification of possible changes for discussion. We have reviewed all drivers and potential responses from our Initial report, as well as those drivers/responses that have arisen from other sources. We have analysed these drivers and responses having regard to the evaluation criteria discussed below in section 4.1. Our analysis enables identification of which of these drivers are material and relevant and to rule out many potential responses.

As noted in section 1.3, we have prioritised the seven most prominent and most material issues for particular analysis. For these seven major issues, we include a summary table at the start of the relevant chapter that lists the key reasons for and against a change in that area, and the range of implementation options that might be adopted. Based on our analysis:

- In three cases, we consider a possible change is merited (denoted by green shading in the heading of the table)
- In one case, we make no finding on a possible change because the current information is insufficient for detailed consideration (denoted by orange shading).
- In three cases, we do not consider a change is warranted (red shading).

Each chapter has the same broad outline:

- **Summary of the issue**. We describe the core issue, the relevance and materiality of the driver, and our considerations on whether changes are required.
- **Changes for discussion**. Where a chapter deals with one of the seven major issues, there is a summary table at the start of the chapter that sets out the high level detail of the change as well as possible implementation options and issues.
- **How does this issue contribute to the tax difference?** We explain the current AER approach and observed real-world tax management practices. We then compare and contrast the two, identifying whether this driver contributes to the face value or underlying difference, and the materiality of the effect.
- **How might we respond to this issue?** We consider possible changes, including describing its relevance and the evaluation of the change, regarding the factors discussed below.

4.1 How do we evaluate possible changes?

In analysing each possible change in response to drivers of the tax difference, we have paid particular regard to the criteria set out below. Our primary concern is always

whether or not the possible change promotes the delivery of the NEO and NGO.[38] Any change resulting from this review must be considered to promote the delivery of these objectives to the greatest degree. As discussed in section 3.1, the benchmark incentive framework is a foundation of our regulatory approach as we consider it promotes the long term interest of consumers. This is why we examine the current tax management practices of regulated networks and consider whether they should be reflected in our regulatory tax approach.

The criteria we use to evaluate the possible changes reflect different aspects that promote the achievement of our overall objective:

- Is it reflecting the efficient costs of operating the regulated network?
- Is it a material change?
- Is it an achievable tax practice?
- Is it a broader tax issue?

Our assessment of each of possible change reflects a joint assessment against all of these criteria.

Efficient costs

The first criterion is whether the possible change reflects efficient costs of operating the regulated network. Efficient costs are the minimum costs required to ensure continuing safe and reliable and secure of supply of energy to consumers. If a change results in a better estimate of the forecast efficient tax costs of a benchmark entity, and NSPs are able recover their forecast efficient costs (i.e. the NPV = 0 principle) then we would consider it to be in the long term interest of consumers.[39] Such a change would mean that customers pay no more than the efficient costs of providing electricity and gas services over the long term. This would promote delivery of the NEO and NGO.

In assessing the recovery of forecast efficient costs we must have regard to the overall compensation package provided. This includes consideration of the interaction of potential changes with the incentives and regulatory decisions in other areas of the regulatory regime. This may include interactions with the rate of return, or implications for the expenditure assessment criteria.

We also consider any issues of intergenerational equity that may arise from a change. Intergenerational equity is concerned with the proportion of costs borne by past, current and future consumers. Consumers should only pay for costs relevant to the delivery of services they receive. This is particularly relevant when considering retrospective changes and depreciation timing effects (section 6), where there is tension between:

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[38] NEL, s. 7; NGL, s. 23.

[39] The NPV=0 principle states that the regulatory goal is to set prices so that the PV of the net cash flows equals the initial investment. See Dr Martin Lally, *Review of submissions on the AER's review of its regulatory tax approach*, 25 October 2018, p. 16.

- spreading tax costs evenly across consumers over the life of the asset, and
- matching the timing of tax costs incurred by a benchmark efficient entity.

Materiality

The second criterion is to assess the materiality of any change. This begins with assessment of the underlying driver. If it is not a material driver of tax costs over the long term, any change to address this driver would be unlikely to be in the long-term interests of consumers. Likewise, if the driver was material, but the change to address the driver does not have a material impact over the long term, we would not consider making the change to be in the long term interest of consumers.

There are two reasonable yardsticks for the assessment of materiality. The first is the proportional impact on the tax allowance (the tax building block) over the long term (multiple regulatory periods). As noted in our initial report, the tax building block generally accounts for around four per cent of total revenue.[40] The second is the absolute dollar value impact on tax costs, again over a longer term. This is a relevant materiality measure when weighing up implementation costs to address a particular change.

In our consideration of the materiality of a change, we must also have regard to the costs to implement the change. This may include:

- increased regulatory burden (increased costs) on NSPs to comply with the changes to the regime.
- added complexity of the regulatory regime, making the process less transparent for stakeholders to engage in.

Such practical issues are important to consider ensuring the benefits of a change outweigh the costs, ensuring that making a change is in the long term interest of consumers.

Achievable tax practice

The third criterion is whether a possible tax management practice is able to be implemented or adopted by NSPs. Firms that seek to adopt the benchmark efficient approach should be able to do so. Certain practices may be considered efficient for certain situations, but for legal or practical reasons may be unachievable by all networks. This includes an assessment of the validity of such a practice under current tax legislation.

- We consider that tax management practices assumed by the benchmark regulatory tax approach should be able to be adopted by NSPs.

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[40] AER, *Initial report, Review of regulatory tax approach*, June 2018, p. 18.

This does not imply that we have a role in endorsing any particular tax management practice as complying with Australian tax law (or that it does not comply). The responsibility and authority to do so rests solely with the ATO.

In our assessment of whether tax practices are achievable, we have regard to:

- ATO guidelines, public rulings and private rulings on the practice
- How widespread the practice is
- Whether there is ongoing ATO enquiry in this area.

As noted in the PwC report, there are often difficulties in consistently administering the tax law in various situations.[41] Such difficulties may result in 'grey areas' where the validity of such a practice is not completely clear, or depends on the specific situation.

The ATO often assists taxpayers to interpret tax legislation by publishing a public guideline or ruling that describe how the ATO will assess a particular tax issue.[42] Generally, these documents set out a number of complex factors that must be considered in order to determine the appropriate tax assessment. Nevertheless, they are an important tool in assessing whether certain tax practices are available to the efficient benchmark firm.

In addition to these rulings, we acknowledge how widespread such a practice is across the sector. The ATO regularly assesses the tax practices of the regulated networks, through annual reviews and targeted engagement activities. With this background, if a tax practice has been in use for some time and by a number of networks, we consider it reasonable to infer that it is achievable. This would not necessarily imply unconditional ATO acceptance of that approach—as noted above, the ATO has regard to the specific circumstances for each taxpayer—but the circumstances where that practice is able to be adopted appear to be applicable to the circumstances of the regulated networks.

However, where there has been (or is ongoing) ATO compliance activity regarding the practice, we would be more cautious about considering this practice as reflecting the efficient tax practice of a benchmark entity.

Nonetheless, under the benchmark incentive framework, individual NSPs are free to depart from the benchmark assumption where it considers such a departure to be more efficient to their specific circumstance. In this case the NSP accepts the additional risk (relative to the benchmark), and therefore retains the benefit or detriment that arises from this departure. Consumers continue to pay only the efficient costs included in the benchmark. We consider this is in the long term interest of consumers.

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41 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 61.

42 The ATO makes both public rulings and private rulings. Private rulings are so called because they respond to a particular taxpayer's circumstances, but they are still published on the ATO website (and hence are public) so as to provide guidance to the wider taxpayer community.

Broader tax issues

This review engages with some issues that reflect broader tax considerations across the economy, rather than specific to the treatment of regulated networks. Our fourth criterion is whether the scope of and impact of the issue means it can best be dealt with by ATO action or government changes to tax legislation, rather than by the AER. In this case we would not seek to change the efficient tax practices assumed by the benchmark tax approach.

5 Entity structure and ownership

Summary of the issue

The AER's regulatory tax approach currently assumes the benchmark entity calculates its assessable income in the same way as an Australian company, and is assessed using the standard corporate income tax rate (30 per cent). In practice, regulated networks are held using a variety of structures (e.g. tax consolidated groups, partnerships, trusts) and with a variety of ultimate owners (e.g. state governments, sovereign wealth funds, Australian superannuation funds).

The different real-world structures and owners contribute in several ways to the face value tax difference.[43] This is a concern because it complicates our measurement of the underlying difference relevant to the regulatory approach. We must make a like-for-like comparison between the tax costs calculated in the regulated environment and the actual tax costs paid to the ATO.

The varied real-world structures and owners also contribute to the underlying tax difference. However, the overall effect arising from these drivers (both historical and forward-looking) appears to be minimal. Our assessment of these factors aligns with the expert advice we received from PwC and Dr Lally.

We propose to maintain the current approach where our regulatory tax allowance is based on the standard corporate tax rate. This reflects the most commonly observed tax profile of regulated networks.[44] It also appears to be the relevant basis for assessing tax in the future, particularly with regard to legislative changes affecting the tax treatment of structures and certain classes of owners.

Change for discussion

The table below summarises our considerations on the key issue (change to tax rate) arising from this chapter, noting that we have not proposed this as a potential change.

[43] PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 31–36, 40–47, 50–56.

[44] PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 50.

Table 5.1 Changing benchmark owner—no change warranted

Key issue	**Change benchmark tax rate to reflect a different tax status (Australian superannuation fund, overseas sovereign wealth fund or foreign investor in MIT)**	
AER consideration	We propose no change is warranted. Maintain use of standard corporate tax rate (30%).	
Pros of this change		**Cons of this change**
Reduces tax cost rate to reflect more 'efficient' ownership structure.		No clear alternative to current benchmark as only a small portion receive concessional tax rates (e.g. <4% of TAB owned by super funds, <3% overseas sovereign wealth fund). May not be an 'achievable' structure for all or at significant cost. Concessional tax rates set to increase even for existing owners. May impact future decisions on sale of assets.
Description of change	Change benchmark tax rate to a lower statutory tax rate (15% or 0%).	
Current tax practice	**AER current approach**	**Effect of difference**
Some ownership types may have the effect of attracting a lower statutory tax rate including where the tax is payable at the investor level.	Applies the statutory corporate tax rate (30%), which applies to Australian companies	A lower tax rate means a lower tax payable amount than in our models (all else equal).
Consultant opinion:		
PwC	Maintain current benchmark structure and tax rate "[G]iven the majority of NSPs are held via companies, the assumption that a benchmark efficient entity is a company is reasonable." "The instances where the tax rate for non-government asset owners is below the corporate tax rate is not wide spread and is limited" Australian superannuation funds control only 3.79% of current TAB. See PwC report pp. 38–57.	
Dr Lally	Does not address superannuation owners directly, but recommends against reflecting tax minimisation strategies, such as holding structures. See Dr Lally report pp. 8-11.	
Implementation options		**Considerations**
1. Apply 0% statutory tax rate in PTRM, reflecting rate applicable to overseas sovereign wealth funds or Australian superannuation funds (the latter on the basis that this is a 15% personal tax rate)		**Pros:** Reflect an 'efficient' ownership status **Cons:** Would have to re-evaluate applicability of rate of return and gamma, to ensure correct overall compensation Likely to require Rule change.
2. Apply 15% statutory tax rate in PTRM, reflecting rate applicable to foreign owned managed investment trusts		**Pros:** Reflect an 'efficient' ownership status **Cons:** Would have to re-evaluate applicability of rate of return and gamma, to ensure correct overall compensation. Likely to require Rule change.

How does this issue contribute to the tax difference?

Issues around entity structure and ownership contribute to the face value tax difference in three ways:

- the chain of ownership.
- the aggregation of tax outcomes.
- accrued tax losses.

Issues around entity structure and ownership contribute to the underlying tax difference in two ways:

- Structures that result in changes to taxable income (via double gearing or related party interest deductions)
- Structures and end-ownership status that result in changes to the relevant tax rates

The ATO note identified entity structure and ownership as a key driver of the tax difference.

Our current approach

The current approach to setting the regulatory tax allowance applies a statutory tax rate of 30 per cent, equal to that faced by a standard Australian corporation. This means:

- There is no adjustment for any different ownership forms or holding structures.
- The tax forecast in the AERs regulatory models follows the same core steps as for a standard Australian company completing its tax return, for both the calculation of taxable income and the tax rate applied to that income (currently 30 per cent).
- The AER's models allow for tax losses to be carried forward to offset future taxable income. The current regulatory practice is to input any tax loss arising from the regulatory model for the previous period, but in regulatory determinations to date no network has been forecast to incur these losses.

There are three broad areas where observed real-world tax practices differ from the AER's current regulatory tax approach.

5.1 Entity structures

In practice, regulated networks are held under a variety of more complicated holding structures—including tax consolidated groups, partnerships, stapled partnerships, trusts and stapled trusts. These structures are listed in Table 5.2.

Table 5.2 Observed entity structures and key tax effects

Entity structure	Tax rate	Details
Corporation	30%	Franking credits for tax paid by the corporation can be distributed to investors to reduce investor tax payment.
Tax consolidated group	30%	A head company with at least one Australian subsidiary that is treated as a combined tax entity
Government business enterprise	30%	National Tax Equivalent Regime. Tax equivalent paid to the State, as are dividends. Generally indifferent between tax or dividends.
Partnership	N/A	Tax paid by partners at applicable tax rate.
Trust	N/A[a]	Tax paid by trust beneficiaries at applicable tax rate[a]
Stapled structure	N/A	Tax paid at investor level at applicable tax rate.

Source: PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 12, 15, 17, 25.

Notes:

N/A Not applicable as tax obligation flows through to upstream entities.

(a) Generally speaking, trusts are a flow through vehicle, but some trusts (such as Division 6C public trading trusts) are taxed as a company at the 30% rate.

The tax effects of these different structures are discussed in some detail in the PwC report.[45] The standard Australian company is both the simplest 'structure' and an owner.[46] A tax consolidated group will also be assessed at the standard corporate rate, and may include the regulated network as just one of a large number of business units. We have included state government business enterprises on this table of structures, though it is also possible for a state government to be an owner of a regulated network while utilising one of the other flow-through vehicles (partnerships, trusts and their stapled variants). The flow through vehicles have a 'not applicable' tax rate because they simply pass the tax obligation to owners further up the chain.

Structure and the face value tax difference

There are two ways that these different structures drive the face value difference but not the underlying difference.

First, where flow through vehicles are used, observing tax paid at the service provider level will not capture tax payments further up the chain. The tax obligation passes through the partnership or trust to the ultimate taxpaying entity, who pays tax at their applicable statutory tax rate. While zero tax appears to be paid at the NSP level, it might instead be paid by an upstream owner.

Observing these upstream tax payments is difficult. Our formal information gathering process does not compel upstream entities to provide tax information, and there is

[45] PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 50–58.

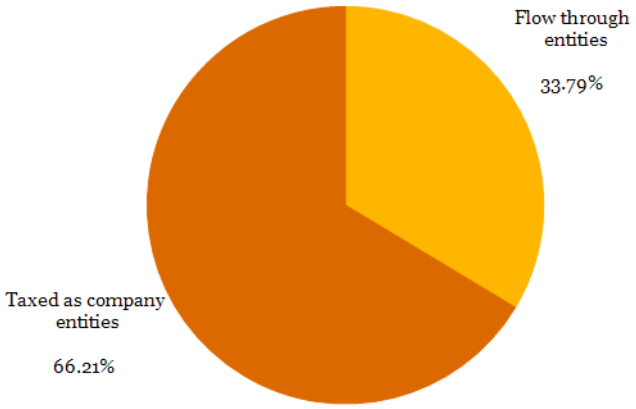
[46] This driver is closely related to the ultimate owner of the network, discussed in the next section.

often a significant disaggregation problem where the upstream investor's tax outcomes reflect not just their investment in the regulated network but many other investments as well. The PwC report noted the difficulty inherent in trying to assess these upstream payments.[47]

Nonetheless, this appears to be a key driver for the face value tax difference, particularly with regard to the historical period analysed in the ATO note. Figure 5.1 shows the prevalence of observed entity structures at the network service provider level.

Figure 5.1 Tax profile of regulated entities by TAB value and count—from PwC expert advice

By TAB value



By count of NSP	
Flow through	5
Taxed as company	12

Source: PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 50 (figure 10).

Figure 5.1 shows that, whether assessing by number of service providers or by the proportion of regulated TAB, flow through entities (partnerships and qualifying trusts) comprise a significant portion of the sector.

[47] PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 57.

The tax payments referenced in the ATO note related to the entity that owned the regulated network, but did not go further up the chain. It does not give a complete picture of tax payments, and contributes to the face value difference.[48]

The structures that hold the regulated electricity and gas networks in Australia include other income generating activities separate from the regulated network. The clearest example is a tax consolidated group where the regulated network is just one unit among many unregulated business units. Even in the simplest structure of a straight corporation the corporate entity is rarely just the regulated network. The tax obligation relevant to the regulated activities may not be clearly visible in the tax return of the reporting entity because it may have a tax position arising from other businesses or unregulated activities. .

Since the tax consolidation regime was introduced in 2002, tax is not calculated and paid at the individual business unit level. Instead it is calculated and paid at the overall consolidated tax entity level. This 'single entity rule' means that all members of the corporate group are taken to be part of the consolidated entity for income tax purposes.[49] The tax paying entity still faces a tax obligation in line with that estimated in our regulatory determination, but that obligation is not clearly visible in the tax assessment at the corporate level.[50]

This appears to be a material driver of the face value tax difference in the ATO analysis period. The PwC report notes that all the regulated networks held through corporate entities were held in tax consolidated groups. There may be a case where the unregulated activities would be incurring a tax loss if calculated on a standalone basis. In this case, when the taxpaying entity lodges its tax return the unregulated loss would be combined with the income from the regulated activities and effectively reduce part of the tax payable by the regulated activities.

While some elements of the tax calculation may be able to be disaggregated to individual business units—such as income and asset depreciation—other elements may only be relevant at taxpaying entity level. For example, debt is generally sourced at the corporate group level and not allocated to the individual business units. This further complicates the comparison, as there is no clear allocation rule to determine the regulated networks' share of this component of tax.

The ATO note also grappled with this disaggregation issue, and noted that it was necessary to make assumptions and exclusions when preparing its analysis for consolidated groups. The ATO was not able to disclose the exact basis on which it was making its comparison between the AER forecast of tax costs for regulated networks and available income tax return data.

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48 Further, the cost of intermediate taxes that we would classify as being akin to a company tax—(i.e. tax costs prior to taxes paid by the final investor's overall income) should be included when making a comparison with our provision for tax costs.

49 Section 701-1 of the ITAA 1997.

50 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 25, 41.

Structure and the underlying tax difference

There are also ways that the entity structure contributes to the relevant underlying difference. Entity structure can alter both the tax rate and the estimate of taxable income for the regulated network so that they depart from that applicable to a simple corporate structure (assumed in the regulatory models). In particular:

- Entities can hold debt at multiple levels of the entity structure (double gearing). This will reduce the estimate of taxable income by increasing deductions for interest expense.
- Entities can issue related party loans between entities at higher interest rates. This will reduce the estimate of taxable income by increasing deductions for interest expense.
- Entities can structure themselves so that upstream entities received 'passive' income, which attracts a lower tax rate, and so reduces the applicable tax payable.

The PwC report provides details on the sector-wide use of these structures and describes each of these effects.[51]

How might we respond to this issue?

When we assess the efficient costs and materiality of this driver, we must also consider tax legislation changes that will impact the future ability of NSPs under certain structures to access tax management practices that reduce tax costs. This includes:

- removing the ability of NSPs to engage in double gearing[52]
- applying the corporate tax rate to the 'passive income' of stapled trusts,[53]
- applying a 30 per cent withholding tax on income flowing to foreign pension and sovereign wealth funds.[54]

These changes reflect the government's decision to amend the tax assessment approach across the economy, not just for the electricity and gas sectors. Under the criteria set out in section 4.1, we have regard to whether or not each issue is more appropriately addressed at a higher level. In this case, there has already been a governmental response and there appears no need for subsequent changes to the AER's regulatory tax approach. The outcome is that legislative change has already reduced the scope for these tax management practices to reduce the tax paid. This means that potential changes in response to this driver are unlikely to have a material effect on the efficient costs incurred by consumers going forward.

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51 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 42–50.

52 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 48.

53 A 15 year transitional rule period will apply to existing economic infrastructure that is held in an MIT. PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 48.

54 This applies to new investments post 27 March 2018 or from 2034 for assets acquired before that date. PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 49.

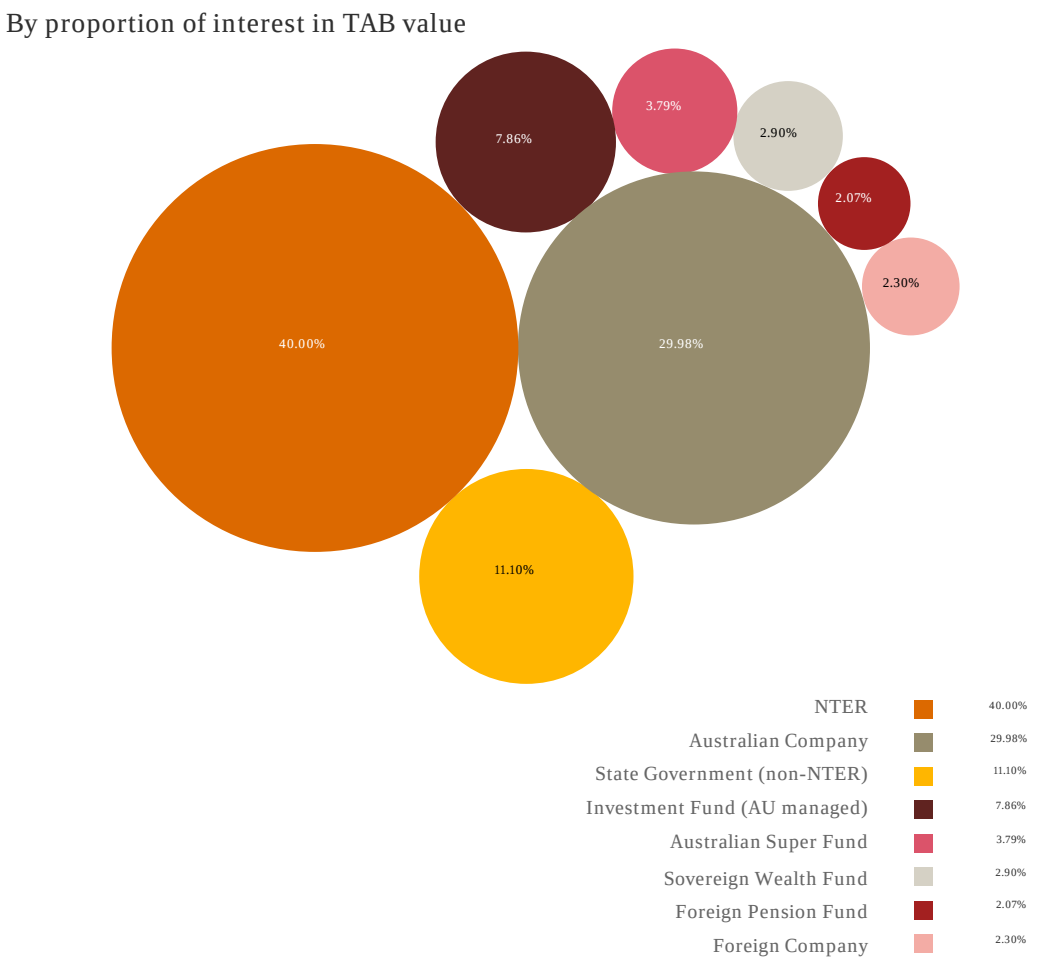
What are the possible changes?

For the reasons set out above, we consider that no change is warranted to respond to the different real world structures adopted by the regulated networks.

5.2 Entity ownership

Owners of regulated networks may be governments (domestic or foreign), corporate entities (domestic or foreign), individuals (domestic or foreign), superannuation funds, or a combination of various owners. Each of these owners may have a different effective tax rate applied to its income. This may result in the ultimate tax paid on the revenue from regulated services to differ from the standard corporate income tax rate (30 per cent) assumed in the regulatory models. Here, we need to consider the ultimate owner after accounting for flow-through vehicles as identified in the previous section.

Figure 5.2 Profile of all interest holders—from PwC expert advice



Source: PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 54 (figure 12)

State and territory governments own about 53 per cent (by TAB value) of the regulated networks, with the majority of this stake enrolled in the NTER. The next largest stake is held by Australian companies, who own around 28 per cent of regulated networks (or 59 per cent of the private sector regulated networks). Together these two types of owners comprise around 81 per cent of the regulated networks and pay effective tax at the standard corporate rate (30 per cent). The next largest category, managed investment funds, comprises eight per cent by TAB value, with four small categories (Australian super funds, sovereign wealth funds, foreign pension funds and foreign companies) rounding out the final 10 per cent of regulated networks.

At this point, it is necessary to make a distinction between company tax and personal (or investor) level tax.

Our regulatory framework is a post-company-tax pre-personal-tax model. The allowed 'Vanilla' rate of return is after company tax but before personal (or investor level) tax is incurred. We provide a return on equity that includes compensation for the personal taxes that will be incurred after it is received.[55] Therefore, we must make an allowance for company tax (in addition to the Vanilla allowed rate of return) so investors will receive the required post-company-tax return after the regulated entity pays corporate tax.

This is relatively straightforward in the context of the standard corporate entity with individual investors, but more challenging when different owners are considered. As the AER makes a company tax allowance, but the allowance for investor level taxes is already included in the rate of return provided, it is important to correctly classify tax paid as either (effectively) company tax or (effectively) personal tax.

While most of these categorisations are straight forward, we note that:

- State government owners pay no Commonwealth tax at all, which is an effective tax rate of 0 per cent. However, most then are assessed under the NTER, which applies the 30 per cent rate to determine the equivalent tax payment (made to the relevant State Government, not the ATO). This is effectively a company level tax.
- Foreign investors pay a withholding tax, and this intermediate level tax is best considered an effective company tax. Final taxes paid by foreign investors in their home country are akin to personal level taxes.
- Managed investment funds constitute a difficult case where it is not possible to know the relevant tax rate (and whether it is effectively corporate tax) without further information on upstream investor identities. This information is not available to us.[56]

These tax rates are detailed in Table 5.3.

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[55] As estimated in an equilibrium asset pricing model, representing the required return for the marginal investor.

[56] As discussed in section 5.1 our formal information gathering process as part of this review does not compel upstream entities to provide tax information.

Table 5.3 Observed tax rates for entity owners

Owner	Tax rate	Effective tax level	Details
Corporation	30%	Corporate	Franking credits for tax paid by the corporation can be distributed to investors to reduce investor tax payment.
State government	30%	Corporate	National Tax Equivalent Regime. Tax equivalence paid to the State as are dividends. Indifferent between receiving tax or dividends.
Sovereign wealth funds	0%	Corporate	Certain non-commercial income derived in Australia by foreign governments is exempt from Australian tax.
Australian Managed investment funds	15%–30%	Corporate	30% for Australian investors 15–30% relates to foreign investors
Foreign investors	15%–30%	Corporate (withholding) Investor (final)	30% withholding tax. 15% concessional rate for Managed Investment Trust (MIT) income only applicable for EOI countries.
Australian super funds	15%	Investor	The taxable income of a superannuation fund is taxed at a flat rate of 15%.
Australian resident investors	0-45%	Investor	Marginal tax rate of individual. Franking credits can be used to reduce effective rate where applicable.

Source: PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 55; AER analysis.

The tax status of the ultimate owner could contribute to the underlying tax difference where the effective corporate tax rate differs from the standard corporate rate (30 per cent) assumed in the AER's models. The investor level tax rates would not contribute to the relevant difference, however, because of the AER's post-company tax pre-personal tax framework. Compensation for investor level taxes (at varying levels) is provided through the rate of return, not the AER's tax allowance.

However, although the different effective corporate tax rates are potential contributors of the underlying tax difference, they appear to have had little effect in the historical period included in the ATO analysis. This is because many private sector networks had large existing tax losses and so it did not matter what tax rate the owner was subject to. We discuss these accrued tax losses in the following section. Accrued tax losses offset the taxable income otherwise generated during the analysis period, bringing taxable income to zero, and so any tax rate would generate tax payable of zero.

How might we respond to this issue?

Our core finding is that a 30 per cent tax rate reflects the costs incurred by owners of most regulated networks. Less than 17 per cent of regulated energy assets are owned by investors with an applicable tax rate that may be less than 30 per cent. This 17 per

cent of regulated energy assets is an upper bound because some portion of these investor groups will pay tax at the 30 per cent rate. As a proportion of privately-held networks (excluding state or territory government owned networks) this upper bound is 34 per cent. Consideration against our efficient cost criteria suggests that the current approach (using a 30 per cent tax rate) should be maintained.

It is also relevant to our materiality criteria that there are only a small proportion of networks currently paying tax rates below 30 per cent. When we examine the historical causes of the tax difference, there is also an interaction with the existence of prior period tax losses. This is discussed in the following section.

Under our achievability criteria, we have also considered whether it would be possible for regulated networks to align with a benchmark tax approach based on non-corporate owners. Overseas sovereign wealth funds currently benefit from the lowest tax rates. If we were to change the benchmark to this level, it would not be possible for the current owners of regulated networks to align with the new benchmark as they cannot change to become overseas sovereign wealth funds. Meeting the benchmark would require a sale transaction where the pool of buyers was relatively small. This would likely impose windfall losses on existing owners and reduce long term investment in the Australian regulated networks. While this is the most extreme example, risks of this nature would also occur if the benchmark was shifted to be a foreign-held managed investment trust or an Australian superannuation fund.[57]

What are the possible changes?

For the reasons set out above, we consider that no change is warranted to respond to ownership structure.

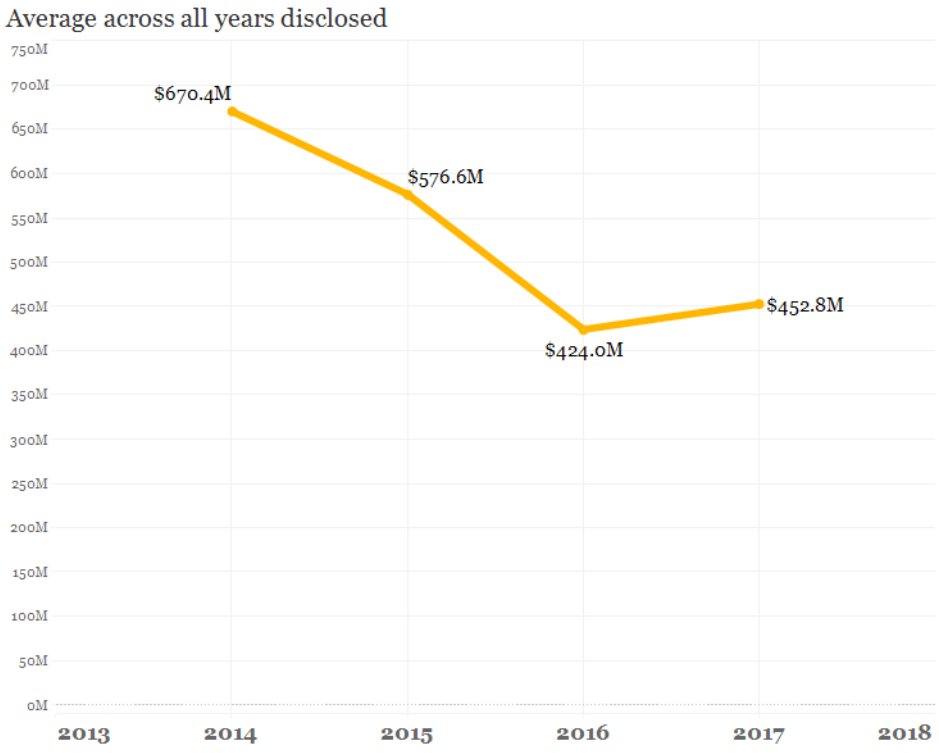
5.3 Accrued tax losses

When a business entity records a tax loss in a given year it is able to carry forward that loss to offset against future taxable income. Instead of paying tax on that income, it instead deducts it from the value of carried forward tax losses, until those losses are exhausted. If substantial carried forward tax losses are built up, perhaps over a number of years, it may be that it takes many years of otherwise profitable business activity to use up these losses and return to the point where tax is again paid. In accounting terms, the entity might record a tax expense each year, but this would be offset against the accrued tax loss so no tax payment was made.

Some of the regulated networks had built up large tax losses at the start of the period analysed by the ATO. Below we reproduce the key figure from the PwC report on carried forward tax losses.

[57] With all these changes, it would also be necessary to ensure that the overall compensation package we provided to investors was correct. In particular, we currently estimate the rate of return (and gamma) with regard to the Australian market, recognising both domestic and foreign investors in that market.

Figure 5.3 Tax losses carried forward—from PwC expert advice



Source: PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 31 (figure 5).

Figure 5.3 shows the size of aggregate tax losses recorded by the privately held or listed regulated networks, as well as the general decrease in those tax losses during the ATO analysis period. The ATO note was focused on 'cash' tax payments by these networks during that period, but some businesses paid no tax (or less tax) because instead they drew down their pre-existing tax losses. Even if actual taxable revenue, tax expenses and therefore taxable income for each year within the period exactly aligned with AER forecasts, no tax would be paid because of earlier events. Hence, this effect contributes to the face value tax difference but is not of itself a driver of the underlying tax difference.

Finally, it is the case that some state or territory owned regulated networks no longer make NTER payments to their owners as they have not elected to be covered by the scheme. In this case, there is no NTER payment but the end result is effectively the same—the same total distribution flows to the state or territory government owner either as a combination of tax and dividends (under NTER) or solely as dividends (where they have elected not to enter the NTER). This contributes to the face value tax difference where NTER payments are included as actual 'tax payments' but no portion of dividends is similarly included.

How might we respond to this issue?

The first effect of accrued tax losses is on the face value tax difference, not the underlying difference. Although it does require that we carefully consider how we best measure the underlying difference, this does not require a change to our regulatory approach in and of itself.

It then becomes relevant to consider why these entities had pre-existing tax losses—including whether they arose from deficiencies in the regulatory tax approach.[58] This assessment is complicated by interactions with the two earlier issues in this chapter, on chain of ownership and aggregation of tax outcomes. Tax losses can be passed up the chain of ownership in a partnership, and it is difficult to track any upstream impact. Tax losses may have been generated by the non-regulated activities within a tax consolidated group. It is also difficult because of the longer time period that has elapsed since these losses were generated.

However, we consider that dealing with the primary drivers of the underlying tax difference should also address that portion of past losses relevant to the regulatory approach. This is particularly relevant for timing differences around depreciation, discussed in chapter 6. These naturally reverse so that tax losses built up in the first portion of an asset's life will be drawn down in the later portion (albeit with a lasting NPV effect).

We have also considered the interaction effect where prior period tax losses might be obscuring the underlying tax difference arising from network owners paying different tax rates. Hence, we have considered the counterfactual circumstance where these accrued tax losses were excluded from consideration (for instance, if they could be entirely attributed to unregulated activities). In this case, there would be more scope for the different tax rates to contribute to the tax difference between actual tax payments and the AER's provision for tax costs. However, the ownership effect would still be relatively small, because only a small number of owners (less than 17 per cent by TAB value) might be subject to these lower tax rates (though they may also possibly pay tax at the standard tax rate).

The accrued tax losses will diminish over time, and in isolation we would expect that the forward looking impact of different tax rates might then be material. Against this, in several instances the currently favourable tax rates themselves are set to increase as a result of legislative changes designed to bring them back to the standard corporate tax rate of 30 per cent. Some of these changes are already in force, though some have a transition window for existing entity owners (up to 15 years in some circumstances). The net effect of the existence of accrued tax losses, a relatively low proportion of owners with less than 30 per cent tax rates, and the increase in those tax rates over time, is that even on a prospective basis the entity ownership structures do not appear to be a material driver of the tax difference.

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[58] The AER models currently include provision for handling prior period tax losses, but the regulatory models had not forecast that the regulated networks would have incurred these losses.

What are the possible changes?

We consider that no change is warranted to respond to accrued tax losses.

6 Depreciation–timing effects

Summary of the issues

Tax depreciation is a non-cash expense and represents the change in the value of an asset for tax purpose. Different depreciation schedules result in different annual tax expenses.[59] All else being equal, a higher depreciation expense in a given year results in a lower tax payable for that year. However, given that an asset can only be depreciated once, the total tax depreciation (in nominal terms) over the life of an asset should not be impacted by the method used to depreciate an asset. However, the total depreciation value will be different in net present value terms due to the timing difference under different depreciation schedules.

Our voluntary information request sent to network service providers queried providers' current practices around the calculation of the tax depreciation expense. This included the lives and methods used to depreciate assets, and capitalisation policies for claiming immediate expenses. This section discusses four key drivers related to depreciation expense that are timing effects:

- Immediate expensing of capex
- Diminishing value approach
- Self-assessed asset lives
- Capping of gas asset lives
- Low value pools

We consider that the use of immediate tax deduction for certain capex (such as refurbishment capex) is a material driver of the difference between tax paid and the regulatory provision for tax costs.[60] The potential to immediately expense some capex is not presently recognised in the AER's regulatory models. We are not able to draw a clear conclusion on whether the use of diminishing value method and the use of 20 year capped lives for gas assets are material drivers of the tax difference historically, but we consider that they are likely to be drivers of a difference going forward.[61] At present, the regulatory models use straight line tax depreciation (not diminishing value) for all regulated networks but one, and recognise the 20-year gas asset life cap in about half our gas determinations.

These three drivers are relevant to the regulatory tax approach and we consider possible changes relating to each one.

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59 The previous chapter discusses the scenario where the total amount of depreciation varies (rather than the timing of when depreciation is expensed).

60 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 64–67.

61 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 78, 85.

We consider that the self-assessed asset lives and the low value pool assets are not material drivers of the tax difference and do not propose changes in response to these issues.[62]

Changes for discussion

The three tables below summarise our considerations on the three key issues arising from this chapter, each of which is proposed as a possible change.

[62] PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 85.

Table 6.1 Immediate expensing—possible change

Key issue	**Immediate expensing of capex**	
AER consideration	We consider this is a possible change.	
Pros of this change		**Cons of this change**
Reflects common efficient approach adopted by NSPs not currently modelled. Addresses material driver of tax difference for some NSPs.		Not material for many NSPs. Assessment (forecasts and actuals) difficult. Potential negative capex incentives.
Description of change	Amend models to enable capex to be immediately expensed for tax, but capitalised and depreciated for RAB.	
Current tax practice	**AER current approach**	**Effect of difference**
Certain capex is able to be immediately expensed for tax purposes (E.g. refurbishments).	Use standard tax asset lives to depreciated all capex.	Depreciation expense is higher than in our models, and therefore taxable income is lower (this period). Real NPV consequence.
Consultant opinion:		
PwC	Recognise immediate expensing on an NSP specific basis. See PwC report pp. 19–20, 59–63	
Dr Lally	Recognise immediate expensing on an NSP specific basis. See Dr Lally report pp. 11-12, 21, 27	
Implementation options		**Considerations**
1. Apply NSP specific immediately deductable capex		**Pros:** Doesn't create 'race to the bottom'. Reflects actual choice of NSP. **Cons:** Significant model changes. Assessment of forecasts difficult. Assessing actual deductions relevant to regulated network difficult.
2. Apply benchmark proportion/type of capex as immediately deductable.		**Pros:** Creates incentive to lower tax costs, consistent with benchmark regulatory approach. **Cons:** Significant model changes. Determining benchmark difficult. Still requires assessment of actual deductions (difficult). Rewards 'aggressive' tax behaviour.

Table 6.2 Diminishing value—possible change

Key issue	Diminishing value (DV) depreciation method	
AER consideration	We consider this is a possible change.	
Pros of this change		**Cons of this change**
Reflects the efficient practice of a benchmark entity, and it is the common approach adopted by most of the non-NTER NSPs and is not currently modelled. Likely to address a material driver of tax difference for most non-NTER NSPs if it is applied to both existing and future assets. Likely to be material over the long term if applied prospective to new assets.		Justify exclusion of NTER entities in establishing DV as the efficient benchmark method. Inconsistent with tax law if applied to existing assets. Implementation issues.
Description of change	Amend models to reflect diminishing value method for tax depreciation.	
Current tax practice	**AER current approach**	**Effect of difference**
NSPs may adopt DV method for tax purposes to front-loads asset depreciation.	Use straight-line depreciation for tax purposes.	Depreciation expense is higher than in our models, and so taxable income is lower (in this period).
Consultant opinion:		
PwC	Apply DV method prospectively to new assets "Whilst in reality a substantial portion of the assets are currently being depreciated using the prime cost method, it is likely that the adoption of the diminishing value method (largely by the private sector) is likely to result in a divergence between actual tax paid and the amount calculated under the regulatory allowance going forward ….. any requirement to change the choice of depreciation methodology should only be applied prospectively to new depreciating assets acquired." See PwC report pp. 78–79.	
Dr Lally	Apply DV method prospectively to new assets …in respect of future asset acquisitions, DV depreciation is optimal for stand-alone regulated businesses to use and therefore the AER should adopt the same approach in determining its tax allowances. See Dr Lally report pp. 11-12, 20–21, 27	
Implementation options		**Considerations**
1. Apply DV to all NSPs and to all new and existing assets		**Pros:** Reflects the efficient practice of a benchmark entity. Material impact. **Cons:** Inconsistent with ATO rules on switching NSPs could not switch to benchmark where currently using straight line (SL) depreciation
2. Apply DV to (new/existing) assets but only if it is consistent with the NSP's actual depreciation approach		**Pros:** Reflects the efficient practice of a benchmark entity. **Cons:** Different tax depreciation approach and benchmark for NSPs Complex modelling for all permutations NSPs may elect to stay on 'inefficient' SL
3. Apply DV to new tax assets (perhaps a subset of new capex)		**Pros:** Aligns with ATO rules on switching **Cons:** May be difficult to assess in practice Immaterial impact in the short run.

Table 6.3 Cap gas asset lives—possible change

Key issue	**Cap gas lives to 20 years**		
AER consideration	We consider this is a possible change.		
Pros of this change		**Cons of this change**	
Reflects common approach adopted by NSPs not currently modelled, aligning the forecast tax costs to efficient costs. Addresses significant driver of tax difference for some NSPs and may lead to material change. Correctly applies the current tax laws. Easy to administer (no model change).		May have implementation issues (please see below).	
Description of change	Amend models to apply statutory tax cap of 20 years to gas pipeline assets.		
Current tax practice	**AER current approach**	**Effect of difference**	
By tax law, all NSPs must apply the 20 year cap on the assets prescribed in Tax Ruling 2018/4.	Follow businesses' proposals on whether the gas assets are capped or not.	Depreciation expense is higher than in our models, and therefore taxable income is lower (this period). Real NPV consequence.	
Consultant opinion:			
PwC	Apply 20 year cap to all applicable gas assets "….a statutory cap of 20 years applies to the effective life of gas distribution and transmission assets. This statutory cap has not been provided uniformly for all gas participants."…"We recommend that the 20 year effective life statutory capping applying to gas assets should be applied uniformly to all gas participants" See PwC report pp. 82–83, 85		
Dr Lally	Apply 20 year cap to all applicable gas assets "…the life of gas assets is capped at 20 years for purposes of determining depreciation deductions claimed by firms, and this has not been recognized by the AER in determining its tax allowance in some cases. Furthermore, this seems to be a significant issue. Accordingly, the AER should use the capped life in its determination of the tax allowances for all of the gas businesses." See Dr Lally report pp. 20, 27		
Implementation options		**Considerations**	
1. Apply 20 year cap to new capex only		**Pros:** Reflects statutory cap for future expenditure. **Cons:** Does not address the cap for all assets covered by cap May lead to reduced materiality.	
2. Apply the cap to new capex and existing assets by capping remaining lives to 20 years		**Pros:** Reflects statutory cap for all relevant assets. **Cons:** May result in a large step up in the tax allowance in 4 regulatory periods when a large proportion of the TAB is fully depreciated. May be considered a retrospective change.	
3. Apply the cap to new capex and existing assets by relative adjustment such as pro-rata		**Pros:** Reflects statutory cap for all relevant assets. **Cons:** Requires specific method to adjust remaining lives above cap. May lead to loss of intergenerational equity. May be considered a retrospective change.	

How does this issue contribute to the tax difference?

Our current approach

Our current approach is to record capex in our regulatory models based on asset class, grouping physically similar types of assets. Each asset class has a tax asset life, based on the ATO standard tax asset lives. The initial value for tax purposes is the amount of capex incurred to build the asset. The value of the asset declines in subsequent years as depreciation is deducted. We use straight-line depreciation for tax purposes, which means that the same amount of tax depreciation is deducted each year of the asset's life (in nominal terms) until its value for tax purposes drops to zero.[63]

In electricity, we use the approved PTRM and RFM for all service providers.[64] This implements our standard depreciation approach as described above, including the use of straight-line depreciation for all current determinations and almost all previous determinations. The exception is the use of diminishing value tax depreciation for the Victorian distribution networks in the 2011–15 regulatory control period in accordance with the transitional rules.[65]

In gas, there is more scope for NSPs to propose tax depreciation methods other than the straight-line approach. Nonetheless, the straight-line approach has been applied in current access arrangement determinations for all gas NSPs regulated by the AER except for Jemena gas networks. However, the AER has accepted the diminishing value method proposed by a numbers of gas NSPs for tax deprecation in previous access arrangement periods.[66] We have applied a 20-year asset life cap to pipeline assets in about half our current gas decisions.

Although the asset classes in the PTRM and RFM are based on the type of asset installed, earlier in the regulatory determination when assessing regulatory proposals we have regard to different categories of capex. One common category is 'repex', which is that portion of network capex where the primary driver is replacement of existing assets that have reached the end of their life. Repex may include a specific program targeting the refurbishment of existing assets.

6.1 Immediate expensing of capex

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63 There is one exception, where Jemena Gas Networks currently uses the diminishing value approach instead of straight line.

64 AER, *Post-tax revenue models (transmission and distribution) - January 2015 amendment*, January 2015
AER, *Roll forward model (distribution) - December 2016 amendment*, December 2016
AER, *Roll forward model (transmission) - October 2015 amendment*, December 2016

65 AER, *Final decision, Victorian electricity distribution network service providers Distribution determination 2011–2015*, October 2010, p. 582

66 This includes 2010–15 Jemena Gas Networks access arrangement period, Multinet Gas 2013–17 access arrangement period, Envestra (now Australia Gas Networks) Victoria and Albury 2013–17 access arrangement periods, and AusNet Services (Gas) 2013–17 access arrangement period.

In regulatory proposals, service providers generally propose two broad categories of capex based on the asset type—network and non-network (sometimes labelled system and non-system or pipeline and non-pipeline). Network capex is then further divided into a number of categories based on the key driver for that capex, such as: augmentation (augex, sometimes labelled growth capex) or replacement (repex). The replacement capex proposal might include a specific program that deals with the refurbishment of network assets (refurbishment capex). There is currently no specific regulatory treatment of these types of capex. Capex is differentiated on an 'asset class' basis, where certain similar assets are classed together, and then depreciated at the approved standard life for that asset class. The standard asset life reflects the average effective life of the assets assumed to be included in that asset class.

Service providers include maintenance-type activities as part of their opex allowance, and some of these activities might be labelled as refurbishment. In this case, the cost does not enter the asset base (tax or regulatory), and the service provider instead recovers the expenditure from customers in that year. Accordingly, the value is expensed immediately for tax purposes. However, we understand that generally refurbishments would be capitalised and treated as standard capex for RAB and TAB purposes. For this capex, the value enters the regulatory and tax asset bases at the end of the year it is incurred and is depreciated at the standard life of the asset class it relates on a straight-line basis.[67]

Although these costs are capitalised into the asset bases in the regulatory environment, it may be possible for service providers to immediately deduct these expenses for tax purposes if they meet certain criteria. It has generally been accepted by the ATO that a 'distribution line' in the electricity industry can be regarded as a single ‘functional unit’ of property for tax depreciation purposes. This includes the various components that make up the distribution line (poles, wires, conductors, transformers, insulators, etc.).[68] This definition of a 'functional unit' impacts what may be considered a new depreciating asset for tax purposes. Building a new network line (augex), is generally regarded as a separate depreciating asset for tax purposes, as it can be separately identified or regarded as having a separate function from any existing distribution infrastructure. However, replacing or refurbishing an item (e.g pole) that forms part of a broader functional asset like an existing network (repex), may not substantially alter the function or life of the asset to which it belongs. This type of capex may therefore give rise to an immediately deductible tax expense that the service provider can claim when lodging their tax returns.[69]

The draft ATO ruling which sets out the ATO position on composite items and identifying the depreciating asset provides some guiding principles and examples of

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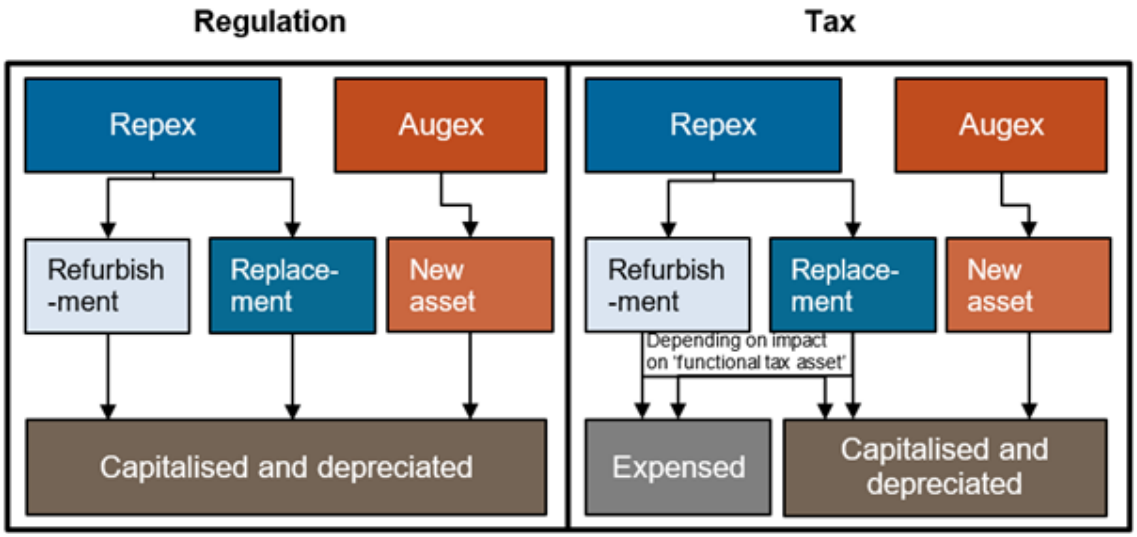
67 There is one exception, where Jemena Gas Networks currently uses the diminishing value approach instead of straight line.

68 This position was set out in a previous ATO Tax Determination in 2002 (TD 2002/5) and confirmed by a draft Taxation Ruling in 2017 (TR 2017/D1).

69 See example 2 2 in ATO Tax Determination (Withdrawn) TD 2002/5, and example 9, ATO Tax Ruling (Draft) TR 2017/D1.

how certain types of capex should be identified for income tax.[70] However, it understandably does not account for every individual capex scenario, leading to different interpretations of the guiding principles by different taxpayers. An NSP taking a risk-averse approach to claiming tax deductions may immediately expense capex that fits clearly in the ATO definition of a deductible repair—such as a like-for-like pole replacement after storm damage. Another taxpayer may interpret this to include replacement of assets that it does not consider to be materially altering the function or life of the overall composite asset of the network. PwC note the potential for differing views and interpretation of what constitutes a functional asset in its report. It also notes that whether replacement assets are repairs, improvements to an existing asset or a separate new depreciating asset is a contentious area of law and the appropriate income tax treatment is situation and fact specific.[71]

Figure 6.1 Comparison of treatment of refurbishment–regulatory vs tax



Source: AER analysis.

How does this issue contribute to the tax difference?

This difference in treatment of certain types of expenditure leads to a timing difference between when these costs are assumed to be deducted in the regulatory models (over the life of the asset), and when they are actually deducted (the year of incurrence). In its report, PwC note that this creates a material difference between tax paid and the regulatory provision for tax costs for some NSPs.[72]

In submissions to our initial report, stakeholders acknowledged this potential for different treatment of refurbishment expenditure for regulatory and tax purposes.

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70 ATO, Tax Ruling TR 2017/D1.

71 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 60–63.

72 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 63.

However, the ENA recommended that any proposed change in this area should be the subject of a detailed consultation process to avoid any unintended consequences.[73]

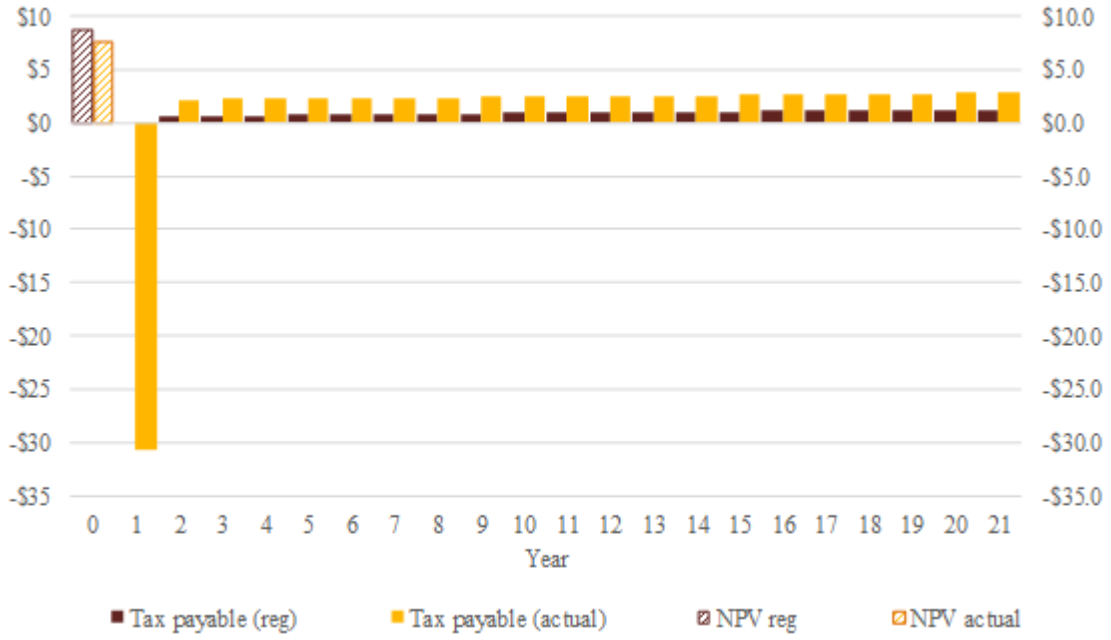
Many stakeholders also highlighted that as this is simply an issue of the timing of deductions, not the overall value and is therefore revenue neutral over the life of the asset. However, as we discussed in our initial report, due to the lack of compensation for the time value of money in the TAB, the NPV of tax depreciation for a shorter-lived tax asset will be greater than that with a longer tax asset life.[74] This means that service providers generally have an incentive to front load actual depreciation expenses—and write off immediately if possible—but capitalise the costs in the regulatory tax environment.

This is illustrated in a simplified example shown in Figure 6.2 where a single year of refurbishment capex for an asset with a 20-year life is incurred in year one. In the regulatory modelling of tax costs the expenditure is capitalised and deducted from taxable income over the 20 year life of the asset, therefore there is a small tax amount for the life of the asset. However, if that expenditure is expensed in the year in which it occurred for tax purposes, there is a large tax loss in that year—where the amount deducted for tax outweighs the revenue recovered for this expenditure. For the remainder of the asset's life the tax payable is larger than that modelled in the regulatory environment. When these tax costs are discounted to net present value terms using the assumed rate of return, the tax payable calculated in the regulatory environment is larger than the actual tax payable.

[73] Energy Networks Australia, Submission to initial report, 26 July 2018, p. 13.

[74] AER, *Initial report, Review of regulatory tax approach*, 28 June 2018, pp. 12–16.

Figure 6.2 Comparison of regulatory tax payable and actual tax payable for refurbishment expenses ($ nominal)



Source: AER analysis.

Assumptions:

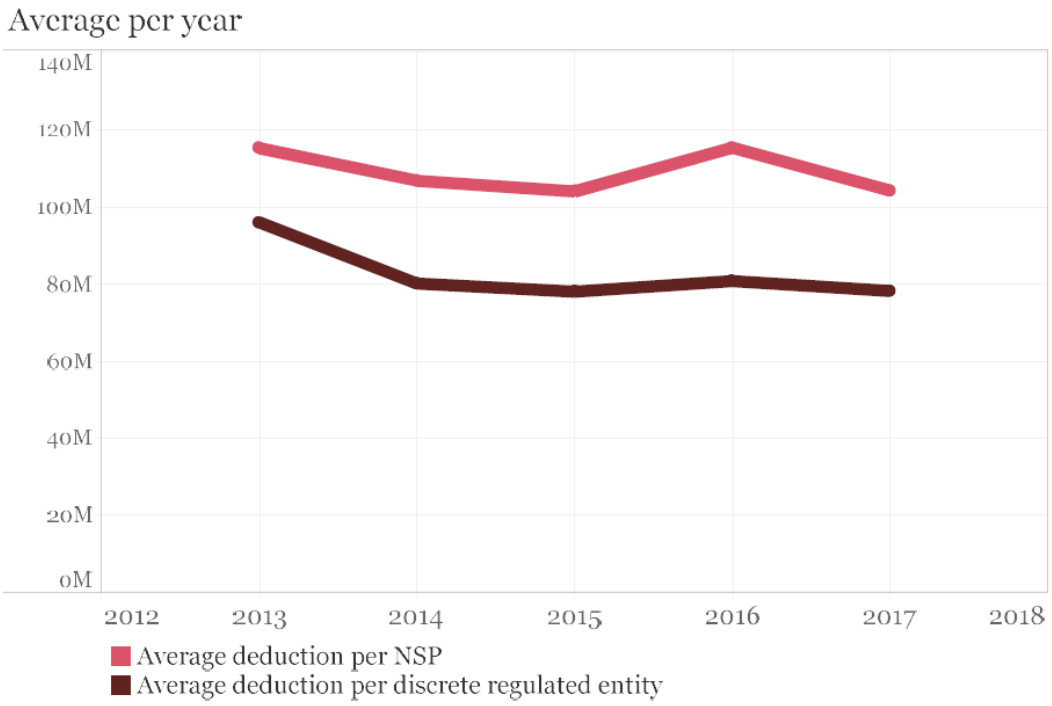
Inflation = 2.50%, Capex = $100 in year 1, RAB life = 20 years, TAB life = 20 years, nominal WACC = 7.00%.

In our voluntary information request letter to service providers we asked for documented tax capitalisation policies and details of expenditure which was included in the regulatory capex allowance (and hence capitalised into the RAB and TAB), but treated as immediately deductible for income tax purposes. All of the 10 service providers that responded (representing around 80 per cent of the regulated TAB) were claiming immediate tax deductions for costs included in the regulatory capex allowance.

As shown in Figure 6.3, on average, NSPs were observed to be immediately deducting about $100 million annually.[75] The amount expensed does not appear to be directly related to the size of the networks, with some relatively small networks expensing large amounts, and vice versa.

[75] PwC, AER *Tax review 2018 Expert advice*, 26 October 2018, p. 66.

Figure 6.3 Average amount of Capex in the TAB immediately deducted annually for tax purposes—from PwC expert advice



Source: PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 66 (Figure 15).

The information received in response to the voluntary request was informative, but incomplete.

- not all of those who responded provided a detailed description of the assets being treated as immediately deductible, and in some cases, it was not purely related to refurbishment expenditure, but also included capitalised labour or overheads.
- Some NSPs did not provide any information, while some information that was received was missing some detail. [76]

However, it appears that the different treatment of certain capital related expenditure is causing a material difference between the provision for tax costs in our regulatory models and the actual tax costs of some NSPs.

How might we respond to this issue?

As discussed above and highlighted in the PwC report, the information received so far suggests that the treatment of capex that may be immediately deductible for tax purposes is a material driver of the underlying tax difference for some NSPs. The choice to immediately expense capex (where possible) is also an efficient approach

[76] For example, some responses appeared to only pick up amounts which were book to tax adjustments in the tax returns, which PwC note could potentially understate the annual amount being deducted immediately. See: PwC, *AER Tax review 2018, Expert advice*, 26 October 2018, p. 66.

that reduces the present value of tax costs. On this basis, we consider amending our regulatory models to allow for certain capex to be included in the RAB but expensed immediately for regulatory tax purposes. Addressing this issue in our calculations of tax costs requires a change to our regulatory models to treat immediately deductible capex separate to other capex entering the TAB. It also requires a change to our assessment of capex in regulatory determinations and the information required from networks when submitting regulatory proposals.

Change to regulatory models

Currently, all capex is treated equally for tax purposes in our regulatory models (RFMs and PTRMs)—it is included in the TAB and depreciated at its approved tax standard life. The tax depreciation deductions used to calculate tax payable matches this depreciation profile. In our determinations we do not currently assess whether the proposed capex would be able to be deducted immediately for tax purposes. There is currently no option in our regulatory models to add capex to the RAB—to be depreciated over its economic life—while immediately expensing this capex for tax purposes.[77] Therefore, any change to address this issue would require amending our models to provide for this separate capex treatment.

This discussion paper proposed two separate approaches to address this issue in our regulatory models:

1. Create a separate capex input section to record immediately deductible capex
2. Duplicating each asset class that includes immediately deductible capex and specify this asset class as immediately deductible for tax purposes.

The first option would create a separate capex input in our regulatory models— similar to the inputs for disposals and customer contributions currently in our regulatory models—where immediately deductible capex can be recorded. The value and calculation of net capex entering the RAB would therefore remain unchanged—gross capex, less disposals, less customer contributions.[78] The value of capex entering the TAB—currently gross capex, less disposals—would be amended to also remove immediately deductible capex from gross capex. This value of capex would instead be recorded as a tax expense for the year in which it is (or forecast to be) incurred. This change would be required for both the PTRM—for calculating the tax depreciation expense—and the RFM—for rolling forward the TAB for actual capex incurred.

The second option (to duplicate each asset class that includes immediately deductible capex) would require an option (switch) to be added to each asset class to specify that the capex recorded is immediately deductible for tax purposes. Any capex entering a 'deductible asset class' would not enter the TAB, but be expensed in the year in which it is incurred instead. For RAB purposes the capex would enter the RAB as normal, and be depreciated at its approved standard asset life. The advantage of this option is

[77] While it is possible to have an asset class with a tax standard life of 1 and a regulatory standard life >1, there is still a one-year lag between when the capex is incurred and when it is expensed for the tax calculation.

[78] Note that customer contributions are not a required input for the electricity transmission models.

that a different regulatory asset life can be applied to reflect the different economic life that may apply to this 'refurbishment' type capex. As with option 1, this change would be required for both the PTRM and the RFM. This discussion paper seeks submissions from stakeholders on these options, or any alternative implementation options.

Assessment and application

The proposed amendments to our regulatory models require a forecast for immediately deductible capex to be included in the modelling of forecast revenues. They also require an amount for actual deductions claimed to be included when rolling forward the TAB for actual capex. Currently, service providers are not required to provide this information to the AER as part of their regulatory proposals. There are two main options to determine the value of immediately deductible capex to be used when calculating an NSP's tax costs:

1. Apply a benchmark approach—assuming a certain proportion of capex would be immediately expensed by a benchmark firm operating the regulated network.
2. Apply an NSP specific approach—reflecting the NSP's actual values (and forecasts) of immediately deductible capex when determining its tax costs.

Option 1 – benchmark approach

Option 1 would not require the NSPs to provide details of the elements of its capex forecast that are expected to be claimed as immediately deductible as part of their regulatory proposal. Instead, a benchmark proportion of capex would be assumed to be claimed as immediately deductible for tax purposes and treated as such when calculating the provision for tax costs. When rolling forward the TAB for actual capex incurred, the amount actually claimed would be required to be provided to ensure actual capex entering the TAB does not include capex that was actually immediately expensed. It is evident from the information received so far that while immediate expensing of capex is undertaken by all NSPs, it is only a material driver of the underlying tax difference for some NSPs. The average amount of capex treated as immediately deductible for tax ranges from less than $10 million per year to over $200 million, and does not appear to be materially influenced by the size of the network. Recognising this material variance in amounts claimed as immediately deductible for tax purposes across NSPs, the PwC recommends against applying an industry average when determining the amount of capex to be treated as immediately deductible for tax purposes.[79]

This material variation is likely to reflect different interpretations of the ATO rulings, different risk appetites for NSPs in grey areas of tax law, and the various age profiles of networks. Some networks may have large ageing functional assets—reflecting the point at which their tax asset bases were established. Such networks may require more individual components to be replaced or refurbished, without materially impacting the function of the overall asset. Other networks may be in a time of significant growth,

[79] PwC*, AER tax review 2018, Expert advice*, 26 October 2018, pp. 67.

requiring new depreciating assets to be constructed that are less likely to be able to be immediately expensed. Applying a sector wide proportion of capex to be treated as immediately expensed may create windfall gains and losses to individual networks purely based on the age of their networks. It also results in NSPs that are currently taking a conservative approach to claiming tax deductions being worse off, while those with more 'aggressive' approaches to claiming immediate deductions would be relatively better off. This has the potential to create an incentive for NSPs to be more aggressive in their interpretation of the tax law when claiming immediate deductions. Dr Lally described this 'race to the bottom' in his advice to our initial report, recommending against reflecting an average level of activity amongst regulated businesses when setting the provision for tax costs.[80] He noted that such an outcome is not socially desirable.

Option 2 - apply an NSP specific approach

The alternative option is to reflect the individual circumstances and practices of NSPs. This approach would apply NSP specific forecasts of immediately deductible capex when determining the provision for tax costs. This option requires NSPs to include a forecast of immediately deductible capex as part of the determination process. In turn, it also requires the AER to assess the efficiency and accuracy of this forecast. The actual amount claimed as immediately deductible for tax purposes would then be used when rolling forward the TAB for the previous regulatory period.

Under this approach NSPs may have an incentive to under-forecast immediate deductions at the determination stage—to gain lower tax expenses and in turn a higher provision for tax costs and tax allowance. When rolling forward the TAB for actual expenditure, there would be an incentive to include a high amount of immediate deductions as having been claimed.[81]. Assessing the disaggregation of actual deductions claimed at the consolidated entity level to those that apply to the regulated network is likely to be a difficult task for the AER to undertake.

The actual costs revealed when rolling forward the TAB for actual capex will assist the AER in assessing the accuracy of NSP forecasts for future periods. However, given the inherent incentive to under-forecast immediately deductible capex, there may be the need to introduce an incentive mechanism related to immediately deductible capex similar to the capital expenditure incentive mechanism currently in the NER, and set out in an AER guideline.[82] Such a mechanism would reduce the incentive for NSPs to under-forecast their likely immediately deductible capex for tax purposes. We note however, that such a change would likely require a change to the current rules.

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80 Dr Martin Lally - Capital Financial Consultants Ltd, *Tax payments versus the AER's allowances for regulated businesses*, 16 June 2018, pp. 22–23.

81 Higher actual immediate deductions result in less actual capex entering the TAB (relative to RAB) and in turn a lower TAB on which to calculate forecast tax depreciation deductions, leading to a higher forecast tax allowance.

82 NER, cl. 6.4A

PwC recommends considering the immediate deductibility of capex on a participant basis as appropriate to address the difference.[83] They note that the treatment of capex was unlikely to be a material driver of the tax difference for all NSPs, but was material for some NSPs. We consider that a change that reduces this difference is in the long-term interests of consumers as it ensures that current consumers of energy are paying no more than necessary for the provision of energy services. This discussion paper seeks submissions from stakeholders on these application and assessment related options, or any alternative options.

Submissions from stakeholders

The PwC report noted, in recommending that immediately deductible capex be considered on a participant basis, that the AER should assess the commercial impact of any amendments to the regulatory approach that are non-tax considerations.[84] The ENA, in its submission to our initial report, recommended that any proposed change in this area should be the subject of a detailed consultation process to avoid any unintended consequences.[85]

The ENA submission set out a scenario whereby if we were to change our approach to recognise immediately expensed capex, an NSP with $100 million refurbishment expenditure over 5 years would receive $33 million less in allowed revenue over the period. Thus, it would be required to fund this extra expenditure, while also receiving a lower revenue allowance over the period than otherwise.[86] SAPN, et al and the NSG also reference this ENA example in their submissions. SAPN, et al recommend maintaining the current approach to refurbishment and replacement capex as any change may result in inefficient investment incentives if not treated consistently in the regulatory framework.[87] NSG submits that any change must take in to account any distortionary effects on the incentive to expense or capitalise costs.[88]

We do not consider the comparison of a single regulatory period to be correct when comparing a change to the treatment of capex. Any revenue analysis resulting from capex should occur over the life of the asset—50 years in the ENA's example. The NPV of the resulting revenues—over 55 years—is still higher where the NSP is funding five years of refurbishment expenditure, as would be expected where the costs of the NSP have increased. In a case where the tax life is also assumed to be 50 years, the increase in revenue over a single period would not fund the $100 million of capex each year.[89] This may give the impression of a revenue shortfall, but it is an incomplete analysis. We do not dispute that reflecting this approach in our regulatory models will result in a different profile of revenues than the current approach, resulting in lower

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83 PwC*, AER tax review 2018, Expert advice*, 26 October 2018, p. 67.

84 PwC*, AER tax review 2018, Expert advice*, 26 October 2018, p. 67.

85 Energy Networks Australia, *Submission to initial report*, 26 July 2018, p. 13.

86 Energy Networks Australia, *Submission to initial report*, 26 July 2018, pp. 14–15

87 SAPN, AGIG, CitiPower, United Energy and Powercor, *Submission to Initial Report*, 26 July 2018, p. 3.

88 NSG, *Submission to the AER's Initial Report Paper on the review of regulatory tax approach*, 20 July 2018, p. 8.

89 Revenue would increase by about $55 million over the initial period, with the rest of the recovery spread over the remaining life of the asset.

revenues in the short term than otherwise. However, key to addressing this issue is whether the provision for tax costs reflect that of a benchmark entity operating the NSPs regulated network and satisfies the NPV = 0 principle.[90] In response to the example raised by ENA, Dr Lally illustrates in his advice to the AER that if the expenditure is immediately deductible and the AER instead acts as if the expenditure is gradually deductible, the revenues will be set above the NPV = 0 level. Reducing the revenues to recognise the true tax situation will satisfy the NPV = 0 principle, and this is the desirable outcome in the long-term interest of consumers.[91]

We also note that there is a generational equity issue to be considered. Under the current approach NSPs engaging in immediate expensing of refurbishment capex are provided with an immediate tax benefit to their actual tax costs. This lower tax cost is not reflected in lower costs recovered from current consumers of the NSP's services. However, as the deduction for this expenditure is pushed to the future in the form of depreciation expenses, future consumers of the network are paying less than required for the actual costs related to the network services received. Our view is that reducing generational inequity encourages efficient use of energy services, and is in the long term interest of consumers.

Some service providers have also submitted that where a tax policy has a specific objective of encouraging certain behaviour (e.g. refurbishing assets instead of replacing) if we reflect this treatment in our revenue modelling, the incentives of this policy would be neutralised and negated.[92] The AER would therefore be undermining or distorting policy objectives that are being achieved through tax rules through its regulatory modelling. In consultation with stakeholders, we have not been made aware of any objective of this particular tax policy. Rather, the tax rulings regarding the treatment of depreciable assets appear to be pragmatic regarding how assets are recorded in asset registers (not broken down by individual components), and the treatment of refurbishment capex is a result of this approach. As such, we consider that the current tax rules and policies should be reflected as they stand— to ignore them would result in our estimate of tax costs not reflecting a benchmark firm operating in the current tax environment. Allowing tax costs that do not reflect the current tax environment would not promote efficient investment in energy services and is in-the long term interest of consumers.

This point closely relates to the issue raised in submissions regarding the incentives of NSPs to choose between refurbishment and replacement expenditure. Where an NSP is deciding between replacing or refurbishing an asset, the type of capex that is incurred should be the option that results in the highest NPV to consumers to provide a safe and reliable supply of energy. If an NSP is obtaining a tax benefit from one form of capex (and including this in its benefit cost analysis), but this benefit is not shared with

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90 The NPV=0 principle states that the regulatory goal is to set prices so that the PV of the net cash flows equals the initial investment. See Dr Martin Lally, *Review of submissions on the AER's review of its regulatory tax approach*, 25 October 2018, p. 16.

91 Dr Martin Lally - Capital Financial Consultants Ltd, *Review of submissions on the AER's review of its regulatory tax approach,* 25 October 2018, pp. 11–14.

92 APA, *AER review of regulatory tax approach, APA response to issues paper*, May 2018, p. 10.

consumers (as it is not reflected in regulatory modelling), then this option may not be in the long-term interests of consumers. We consider capex that is prudent and efficient to the NSP should also be the lowest cost to consumers in meeting the standards of conforming capex, and the capital expenditure objectives set out in the rules.[93] Amending the modelling of tax costs to better reflect the timing of actual tax costs and benefits should result in the option that is the lowest cost to the NSP also being the lowest cost option for consumers. We consider such a change to be in the long-term interests of consumers.

We consider that a possible change to reflect the efficient tax costs of a benchmark firm by incorporating immediate expensing in our regulatory forecast could be in the long term interest of consumers—promoting the delivery of the NEO and NGO.

6.2 Diminishing value

Real world tax practices

Under Division 40 of the income tax assessment ACT (ITAA) 1997, a taxpayer can deduct an amount equal to the decline in value of a depreciating asset towards its tax accessible income, provided that the taxpayer meets various requirements prescribed under this division which includes:[94]

- In applying the mechanics for determining the deduction for depreciation under Division 40, it is first necessary is to identify the 'depreciating asset". The identification of the "depreciating asset" determines the tax treatment of expenditure on or in relation to assets for income tax purposes. Specifically, the identification will determine whether expenditure is:
    - treated as immediately deductible for income tax purposes[95];
    - added to the cost base of an existing deprecating assets;[96] or
    - included in part of the cost of a new and separate depreciating asset for the purposes of Division 40.

Once the "depreciating asset" has been identified a tax payer can select either the diminishing value method or the straight-line (prime cost) method to work out a depreciating asset's decline in value.[97]

For the straight-line method, tax law sets out the following formula for calculating the tax depreciation of a depreciating asset for an income year,[98]

Asset's cost × (days held/365) × (100%/asset's effective life)

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93 NER, cll. 6.5.7(a) & 6A.6.7(a); NGR, s79.

94 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p 73.

95 i.e. repairs to an existing depreciating asset under section 25-10 ITAA 1997

96 i.e. second element of cost base pursuant to section 40-190 ITAA 1997

97 Under section 40-65 of the ITAA 1997.

98 Section 40.75 of the ITAA. Please use the following link to access the relevant section of the ITAA 1997, http://www5.austlii.edu.au/au/legis/cth/consol_act/itaa1997240/s40.75.html

For the diminishing value method, tax law sets out the following formula for calculating the tax depreciation of a depreciating asset held post 9 May 2006 for an income year,[99]

Current asset value × (days held/365) × (200%/asset's effective life)

For assets held prior to 10 May 2006 the following formula applies

Current asset value × (days held/365) × (150%/asset's effective life)

Tax law also states that once a particular method of depreciation has been adopted for a particular asset, a tax payer must continue with that method over the life of the asset or for the length of their ownership of the asset. If similar assets are added in later years, the tax payer must also choose the same depreciation method for those assets.[100]

International experience

We asked PwC to survey international regulatory regimes and their treatment of tax. Their report included consideration of recent evaluation in the United States of the choice between alternative tax depreciation profiles.[101]

Effect of the difference

To investigate the difference between the choice of tax deprecation method selected by the NSPs and the regulatory approach, in particular over the period 2013–16 covered by the ATO note, we have asked the NSPs to provide information on their Tax Fixed Asset Registers (TFAR).

We provide the analysis undertaken by PwC on the TFAR in Figure 6.4 below. It shows in Figure 6.4 that the straight-line depreciation method has been adopted in respect of 57% of total assets by value (for all entities that responded), while diminishing value method accounted for 37%.[102] Further analysis on the data separately for NTER and non-NTER entities revealed that this result is skewed by the fact that NTER entities adopted the straight-line method for 96% of the assets by value. On the other hand, the diminishing value method is chosen by non-NTER entities in respect of more than 60% of assets by value.[103]

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99 Section 40.72 of the ITAA. Please use the following link to access the relevant section of the ITAA 1997, http://www5.austlii.edu.au/au/legis/cth/consol_act/itaa1997240/s40.72.html. It should be noted that this section only applies post 9 May 2006 assets.

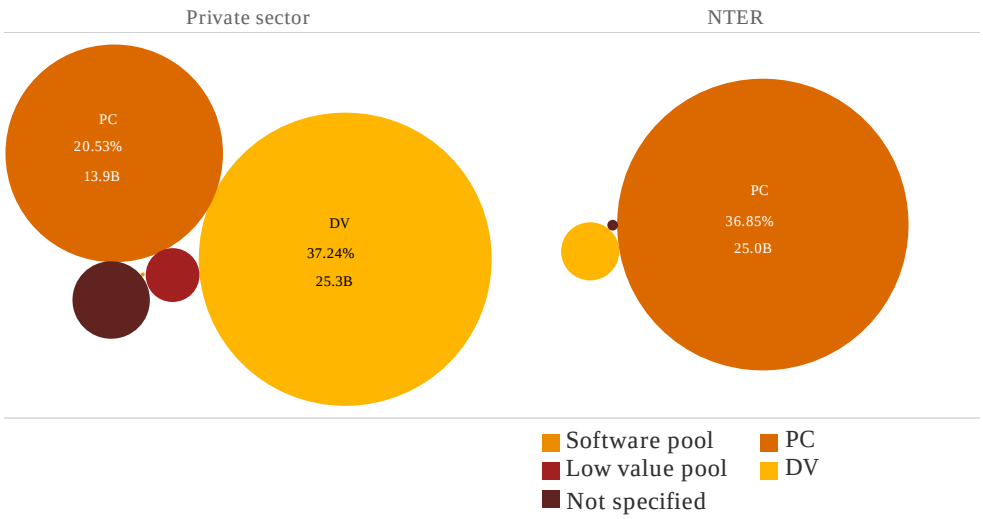
100 Section 40.130 of the ITAA. Please use the following link to access the relevant section of the ITAA 1997, http://www5.austlii.edu.au/au/legis/cth/consol_act/itaa1997240/s40.130.html

101 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 100.

102 PwC, *AER Tax review 2018 Expert advice*, 26 October 2018, p. 75.

103 PwC, *AER Tax review 2018 Expert advice*, 26 October 2018, pp. 76–77.

Figure 6.4 Depreciation method for all valid responses received from all participants—from PwC expert advice



Overall (Electrical & Gas assets)

	TFAR CWDV (nearest available date as provided)	% of total CWDV
PC	38.97B	57.39%
DV	26.28B	38.70%
Not specified	1.80B	2.65%
Low value pool	0.85B	1.26%
Software pool	0.00B	0.01%
Grand Total	**67.90B**	**100.00%**

Source: PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 75 (figure 22).

Note: PC in the chart is the shortened form for Prime Cost depreciation method, which is referred to as straight-line depreciation method in this report.

OWDV in the chart is the shortened form for Opening Written-Down Value in the Tax Fixed Asset Register (TFAR), which is referred to as the opening tax asset value in this report.

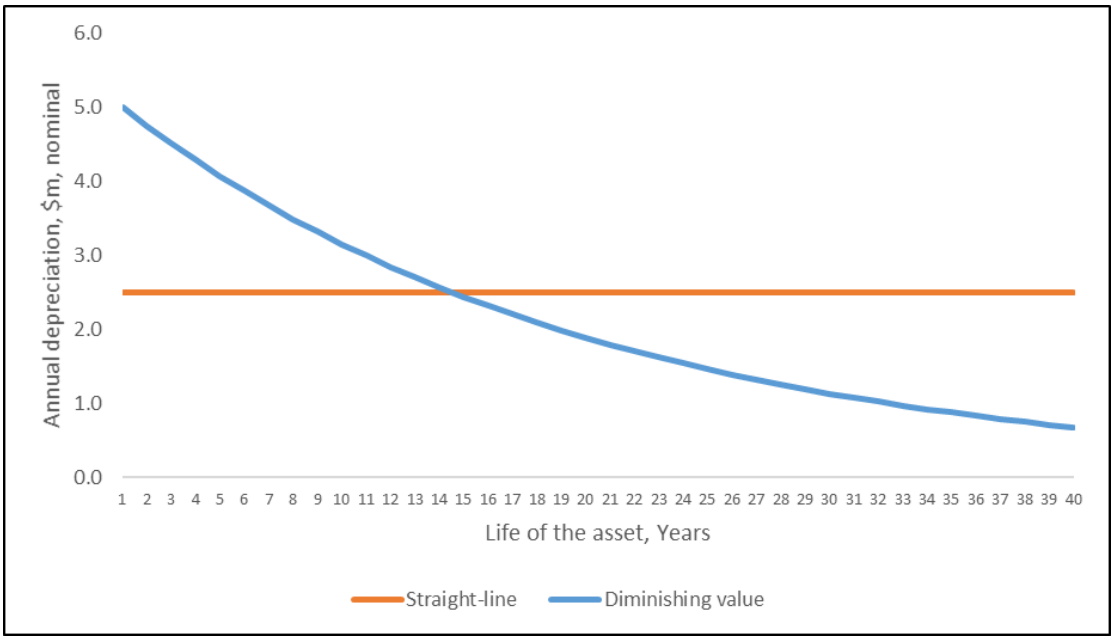
We found that the diminishing value approach is a commonly used depreciation method in actual practice by non-NTER entities as opposed to the straight-line tax depreciation method applied by the AER in regulatory models for these entities. To establish whether this was a material cause of the difference between forecast tax costs provided in regulatory determinations and actual tax payments, we have established the difference in depreciation outcomes of the two approaches over the life of the asset.

Under the straight-line method, the annual tax depreciation amount for an asset is calculated by dividing the asset value by the number of years it is expected to be in service. The diminishing value method, on the other hand, depreciates an asset's remaining value by a given percentage each year. Regardless of the percentage

chosen, this results in the depreciation amount diminishing (reducing) each year as the percentage is applied to a decreasing asset value. All else being equal, the tax depreciation of an asset will be higher under the diminishing value method compared to straight-line method in the earlier part of the asset's life, but lower towards the end of the asset's life.

The difference between the two approaches can be best demonstrated by considering a simple example. Figure 6.5 shows the tax depreciation for an asset with an expected standard asset life of 40 years and a starting value of $100m under the two approaches in nominal terms.

Figure 6.5 Tax depreciation ($m, nominal) under Straight-line vs Diminishing value methods



Source: AER analysis.

Figure 6.5 shows that under the diminishing value method, more depreciation is being recovered from customers early in the asset's life compared to the straight-line method. However, starting from year 15, the relationship reversed under the two methods. This means that for an asset which has been subject to contrasting tax depreciation methods in the regulatory setting and in actual practice, the difference in tax depreciation amounts in any given year or over a certain time period depends on the age of the asset. Quantifying the impact of this difference would require an asset by asset analysis over an extended period given the typical life of the regulated assets. We do not consider the benefit to conduct such an analysis is justified due to the complexity, cost and the amount of data required.

There is no inflation or the time value of money (that is, the real weighted average cost of capital or WACC) adjustments for tax depreciation. However, given that the typical life of regulated assets is about 40 years, an efficient entity would consider these two

factors in selecting the depreciation method for tax purposes in actual practice. By bringing these two factors into our analysis, it can be demonstrated that the net present value (NPV) of the tax depreciation under the two methods over the life of an asset will not be the same.[104] Therefore failing the NPV = 0 test. For instance, assuming an inflation rate of 2.5 per cent and a real WACC of 3.4 per cent, the NPV of the tax depreciation over the life of the asset in the example shown in Figure 6.5 using diminishing value method is $44.9m, which is higher than the NPV of $37.6m under the straight-line method.[105] In general, this outcome demonstrates that there is an incentive for an asset owner to depreciate assets faster in order to maximise tax benefits from depreciation.[106]

We cannot draw a clear conclusion about whether the application of the diminishing value method by the regulated entities is a material driver in the historical difference between tax paid and the forecast regulatory tax costs during the period 2013–16 referred to in the ATO Note for reasons including:

- during the period 2013–16 several regulated entities were subject to the diminishing value tax depreciation method for regulatory purposes.
- during the period 2013–16, most of the NSW electricity assets were still owned by the NSW State Government. We are not able to confirm the methodology adopted for these assets while they were still owned by the State Government based on the information available to us.

Although we cannot draw a clear conclusion for the historical period from 2013–16, we consider the application of diminishing value method by non-NTER entities is likely to be a factor which will cause a difference between income tax payments and the regulatory forecast of tax costs. This is due to the timing difference of tax depreciation under the two approaches for new assets. For existing assets, the magnitude and direction of the difference will depend on the age profile of the asset.

How might we respond to this issue?

The analysis of businesses' fixed asset registers shows that there is a clear difference between our current regulatory approach of applying a straight-line method to all assets and the actual tax practice of the non-NTER entities. For this reason, we consider it is necessary to review our assumed tax depreciation approach for a benchmark efficient entity operating in the network service provider's circumstances.

Based on the above analysis we conclude that a switch from straight-line to diminishing value method should be considered as a potential change to the benchmark tax depreciation method. This is because it is reasonable to assume that a

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[104] Dr Martin Lally, *Review of submissions on the AER's review of its regulatory tax approach*, 25 October 2018, pp. 17–20.

[105] Net present value calculation is based on 40 years, and results rounded to one decimal.

[106] We note that under some exceptional circumstances an asset owner may prefer a lower asset depreciation under the straight-line approach. These circumstances are discussed in more detail in Dr. Martin Lally, *Review of submissions on the AER's review of its regulatory tax approach*, 25 October 2018, pp. 15–17.

benchmark efficient entity will select the diminishing value tax depreciation approach. The faster or earlier tax depreciation under the diminishing value method will mean that the regulated entity receives more in NPV terms after accounting for the cost of capital. This is supported by the analysis of actual tax data provided by NSPs and a scenario analysis based on a depreciation profile of hypothetical assets.[107] The fixed asset registers show that the diminishing value method is chosen by non-NTER entities in respect of more than 60 per cent of assets by value. The scenario analysis based on hypothetical assets with asset lives reflecting typical electricity and gas network assets shows that the application of the diminishing value method produces a higher tax depreciation in net present value terms over the life of an asset. We consider that the application of a benchmark that better reflects the tax depreciation method of an efficient entity is important for setting the regulatory cost of tax and therefore is in the long-term interest of consumers.

We recognise that NTER entities have adopted the straight-line method for the majority of their assets by value. We note that the NTER entities are subject to an income tax equivalent liability under which a tax equivalent liability is paid to the relevant State/Territory shareholder and not the Federal Government. We consider this may have an impact on the tax practices adopted by NTER entities. This is because there is no difference between paying a higher notional tax amount and lower post-tax income or vice versa for these entities. In addition, PwC noted that under the NTER framework, there are limited avenues for the NTER entities to dispute a position adopted by the ATO. It is therefore expected that where uncertainty in the law exists, an NTER entity may be more likely to adopt a conservative position. The application of straight-line depreciation rather than the diminishing value by NTER entities as the primary tax depreciation method may be reflective of this behaviour.[108] For these reasons, we consider the benchmark tax depreciation method should be established based on the actual tax practices of non-NTER entities.

There are a number of options for applying a change to the benchmark tax depreciation method, including how the benchmark should be established and applied to our regulatory models, and secondly what assets it should cover. These two issues are considered below. As discussed in chapter 4, our assessment will based on the following criteria:

- whether the implementation method reflects efficient practice;
- the materiality of the potential changes on consumers over both the short and long term;
- the practical difficulties in implementing the change, the incentive and the NSP's ability to respond to the change; and
- the regulatory and administrative costs it imposes on the AER and the NSPs due to its application.

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[107] PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 74–78. Dr Martin Lally, *Review of Submission on the AER's review of its regulatory tax approach*, 25 October 2018, pp. 16–17.

[108] PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 35.

Implementation method

In order to implement a change, it is necessary to establish how the benchmark should be applied to account for tax depreciation from the straight-line method to the diminishing value method. One implementation option is to apply the diminishing value method to all NSPs and the alternative is to apply diminishing value method only if it is consistent with the NSP's actual tax depreciation approach.

As outlined above, our analysis shows that NTER entities have predominantly adopted the straight-line method for tax depreciation, whilst the diminishing value method is chosen by non-NTER entities in respect of 60 per cent of the assets by value. We note that there are wide variations between non-NTER entities in the proportional split of assets under the diminishing value and straight-line depreciation methods. We found that there a numbers of non-NTER entities selected straight-line method as the tax depreciation method for a large portion of their assets. An industry wide application of diminishing value method would mean a deviation from their actual tax practices for these NSPs.

The alternative approach is to apply the diminishing value method only if it is consistent with the NSP's actual depreciation approach. The advantage of this approach is that it better reflects the actual practice of each individual NSP. However it provides no incentive for a NSP to change its practice to align with the efficient benchmark. It will likely to be more costly to implement and administrate compared to an industry-wide benchmark as it requires each entity to identify the actual and forecast tax depreciation method for each asset and for the AER to review and verify that forecast on an ongoing basis.

We are aware that the diminishing value method cannot be apply to some assets such as intangible depreciable assets in accordance with section 40.72 of ITAA. However, PwC's analysis of fixed asset registers did not identify any significant presence of such assets. For this reason, we are not proposing any adjustments to our implementation method to reflect the specific tax treatment of these assets at this stage. We will review this consideration in our final decision based on improved data available from the formal RIN request and further stakeholder submissions.

Asset coverage

Our assessment of the potential changes to the regulatory tax deprecation method also consider what assets any new benchmark should cover.

Option one, change the benchmark tax depreciation method for all assets

The first option is for the benchmark to apply to both existing and future assets. The AER has in past determinations changed the tax depreciation method for several

regulated gas and electricity NSPs, and we have applied the changes to cover both the existing and future assets.[109]

The retrospective nature of the change means that some existing assets will be subject to two different tax deprecation methods over their lives. PwC noted that such a change is not consistent with tax law.[110] PwC further noted several of implementation issues associated with this change. For example, a switch from straight-line deprecation method to diminishing value may require the opening TAB in regulatory models to be recalculated on the basis that the diminishing value method had always applied to the asset. The outcome of this process could be an overall step up or step down in the tax asset value compared to the value of the existing TAB depending on the age and profile of the individual network assets. An overall step down in the value would mean that more tax would actually be paid as compared to the tax cost calculated under the existing regulatory model throughout the remaining life of the existing assets. There are risks that this could also introduce integrity issues to the data. Specifically, any changes to the opening TAB starting base in this manner could give rise to permanent differences as opposed to timing differences.[111]

Submissions from ENA, AusNet Services, Network shareholders' group, SA Power Networks and Endeavour Energy on our initial report opposed any retrospective changes to tax depreciation method for existing assets.[112] On the other hand submissions from the CCP22 and Energy Consumers Australia suggested that if diminishing value method is a dominant practice, then the AER should adopt it. Both submissions noted that not doing so would mean that current customers pay more than they need to.[113] Ergon Energy and Energex's submission noted that an asset must continue to be depreciated using the same method for tax purposes under the tax law. A change in depreciation method mid-asset life may lead to a windfall gain or loss depending on the current stage of the asset's life.[114]

The advantage of changing the tax depreciation method for all NSPs from straight-line to diminishing value to cover both existing and future assets is that this better reflects the current actual practice of the private NSPs. These NSPs have consistently applied the diminishing value method for over 60 percent of their assets, including the period

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109 The AER has changed the tax depreciation method from diminishing value to straight-line method in following determinations, Multinet Gas 2017–22 access arrangement determination, Envestra (now Australia Gas Networks) Victoria and Albury 2017–22 access arrangement determinations, AusNet Services (Gas) 2017–22 access arrangement determination, and 2015-20 Victorian electricity distribution price determinations.

110 Section 40-130 of the ITAA requires that the choice of depreciation method should remain the same over the life of a depreciable asset.

111 PwC, *AER Tax review 2018, Expert advice*, 26 October 2018, p. 79.

112 SA Power Networks, Australian Gas Infrastructure Group, CitiPower, United Energy and Powercor, *Submission to Initial Report*, 26 July 2018, p 2. APGA, *Submission to Initial Report*, 26 July 2018 pp. 2-3. AusNet Services, *Submission to Initial Report*, 26 July 2018, pp 2–3. Energy Networks Australia, *Submission to Initial Report*, 26 July 2018, p. 10. Network Shareholder Group, *Submission to Initial Report,* 26 July 2018 pp 7–8. Endeavour Energy, *Submission to Initial Report*, 8 August 2018, p. 2.

113 CCP22, *Submission to Initial Report*, 26 July 2018, pp. 31–33.
Energy Consumers Australia, *Submission to Initial Report*, 30 July 2018, p. 2.

114 Ergon Energy and Energex, *Submission to Initial Report*, 27 July 2018, p. 2.

where the straight-line method has been applied for regulatory purposes. We are aware that the exact impact of changing the tax depreciation method midway during the asset's life is difficult to estimate and the outcome depends on the asset's age profile. Our consultant conducted a scenario analysis based on hypothetical assets with asset lives reflecting the typical electricity and gas network assets. The analysis shows that changing regulatory tax depreciation method in the midpoint of the asset's life can have a moderate impact on narrowing the differences in the total depreciation amount over the assets life in net present value terms.[115]

The inclusion of existing assets in any change to the tax depreciation method will have a large impact on the materiality of the change. However, the disadvantage of including existing assets is that the opening TAB in the regulatory models may need to be re-established for some NSPs to achieve consistency with common tax practice. We recognise there may be a significant cost, added complexity and the potential for error involved in this process. We also note that even after the revaluation of the TAB, a change to the depreciation method midway through an asset's life can still be inconsistent with the tax law. However, we do not consider inconsistency with tax law should preclude us from applying a change in tax depreciation method to existing assets. This is because we are setting the regulatory benchmark for a hypothetical efficient entity. Instead, we consider that consistency with tax law is one of the relevant factors we need to consider when setting the benchmark because it could potentially limit the ability for the NSPs to respond to the incentive of the benchmark by changing their actual tax practices. The inclusion of existing assets will reduce the effectiveness of the benchmark because some regulated NSPs have limited scope to change their tax depreciation method for these assets.

The option to apply the change in tax depreciation method to all assets should be further considered in our final decision based on improved data from the formal RIN request.

Option two, change the benchmark tax depreciation method for new assets only

An alternative is to limit the change to cover only new assets. This is a prospective change which demonstrates consistency with section 40-130 of the ITAA 1997. This is the approach recommended by PwC.[116] We accept that by limiting the coverage of any potential change in tax deprecation method to new assets will better align with the requirements of the tax law. The advantage of achieving consistency with the tax law is that the NSPs have the ability to respond to the incentive of the benchmark by changing their actual tax practices.

We note our consultant's view that the reduced levels of coverage mean that the change is likely to have much less impact in the short term if implemented in isolation. However, we consider the impact of the change will grow over the long term as new assets continue to be added to the TAB.

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115 Dr Martin Lally, *Review of submissions on the AER's review of its regulatory tax approach*, 25 October 2018, p. 25.

116 PwC, *AER Tax review 2018, Expert advice*, 26 October 2018, p. 79.

On balance, we conclude the accumulative impact of this change over time is likely to be material and will outweigh the implementation cost. We consider this change will likely to provide a material net benefit in the long term for consumers.

Submissions from ENA and SAPN and APGA expressed conditional support for this approach but noted a numbers of implementation issues that the AER should consider including[117]:

- any change to the regulatory allowance should be based on evidence about the extent to which diminishing value depreciation is used in practice; the deprecation rates used; and the sorts of assets that are depreciated
- whether any change to the depreciation profile for tax purposes should be matched with a corresponding change in the profile for regulatory depreciation; and
- whether to adopt a very approximate high-level approach at the total RAB level or a detailed approach to each type of asset to implement the change.

AusNet Services submitted that they do not consider the application of diminishing value for tax depreciation purposes reflects the benchmark efficient practice, and that the use of straight line depreciation smooths customers' prices. Similar views are also expressed in Endeavour Energy and NSG's submissions.[118]

We do not consider the change to the depreciation profile for tax purposes should be matched with a corresponding change in the profile for regulatory depreciation. This is because an NSP can adopt a particular tax depreciation approach as long as it can demonstrate that it complies with the tax law. However, this does not mean that the selected approach for tax purposes reasonably reflects the depreciation profile of the assets used to provide regulated services in accordance with the requirements of the NER. For example, the immediate expensing of some qualified refurbishment capex is permitted under the tax law. However, this does not necessarily reflects the depreciation profile based on the nature of the asset during its economic/technical life for providing regulatory services as required under Clause 6.5.5 of the NER.

Furthermore, we agree with Dr Lally's argument that the regulator's choice of the regulatory depreciation method has no impact on the NPV of the NSP's' net cash flows because it is offset by the revenue allowance for the cost of capital, while the choice for the tax depreciation method does affect the NPV of the net cash flows. Thus, the tax depreciation should be chosen to satisfy the NPV = 0 principle, because this has no implications for the regulatory depreciation method.[119]

We accept that any change to the benchmark tax depreciation approach should take into account the extent to which diminishing value depreciation is used in practice, the

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[117] SA Power Networks, Australian Gas Infrastructure Group, CitiPower, United Energy and Powercor, *Submission to Initial Report*, 26 July 2018, p 2; APGA, *Submission to Initial Report*, 26 July 2018 pp. 2-3; Energy Networks Australia, *Submission to Initial Report*, 26 July 2018, p. 10.

[118] AusNet Services, *Submission to Initial Report*, 26 July 2018, pp 2–3; Endeavour Energy, *Submission to Initial Report*, 8 August 2018, p. 2; Endeavour Energy, *Submission to Initial Report*, 8 August 2018, p. 2.

[119] Dr Martin Lally, *Review of submissions on the AER's review of its regulatory tax approach*, 25 October 2018, p. 11.

deprecation rates used; and the assets covered. As noted above, our analysis on the fixed asset registers suggests that the benchmark efficient entity would select the diminishing value method for tax depreciation. We have set out a number of implementation options for applying this change including a selection of entity and industry-wide based benchmarks, and different asset coverages. As noted above, we anticipate that improved data will be available from our formal RIN process and this will assist our assessment of the benefit, cost and the risks of these options. We will also take further submissions from stakeholders into consideration in reaching our final decision.

6.3 Self–assessed asset lives

Real world tax practices

For income tax purposes, NSPs can either adopt the Commissioner's effective lives or alternatively use their own effective life estimate.[120]

Once an effective life has been adopted, a further self-assessment of the effective life is allowed if the circumstances regarding the use or nature of the use of the asset have changed and the effective life is no longer accurate. [121] The PwC report provides examples of such changes and the circumstances where the taxpayer can recalculate the effective asset life [122] (e.g., an NSPs use of the asset turns out to be more rigorous than they or the Commissioner's determination expected, legislation prevents the assets continued use, or changes in technology make the asset redundant). The PwC report also provides discussion on the circumstances in which a taxpayer must recalculate the effective life.[123]

Effect of the difference

The ATO note suggests that taxpaying entities often exercise their option to self-assess shorter effective lives[124], while PwC suggests self-assessment would not be a widespread practice based on their knowledge and experience in the industry[125]. Our understanding is that historically, the ATO has rarely challenged a self-assessment.

As previously noted, different tax depreciation methods are not NPV neutral, because the time value of money is not compensated for in tax calculations (deductions sooner rather than later would provide a higher NPV).Dr Lally suggested that this may be the incentive to self-assess shorter tax asset lives and this can potentially lead to material differences. However, Dr Lally also commented that the scope for such shortening of effective life may be unclear, and that it would put a significant burden on the AER to

120 ITAA 97, s.40-95.

121 Pursuant to ITAA 1997 subsection 40-110(1).

122 Pursuant to ITAA 1997 subsection 40-110(2).

123 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 80–81.

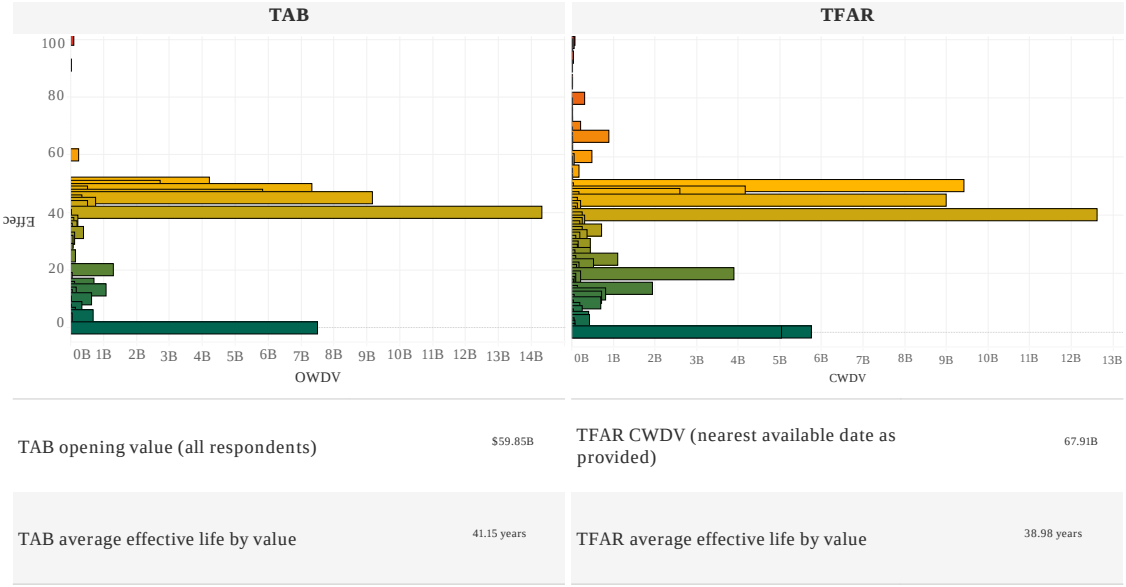
124 Australian Tax Office (ATO), *Note to the AER*, 10 April 2018, p. 2.

125 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 81.

replicate these self-assessments for individual assets.[126] We would need to understand which assets were subject to self-assessed lives, as well as what those lives were.

PwC noted that based on the voluntary responses from the NSPs there seems to be a relatively small difference between the effective lives from the regulatory determinations and from tax asset registers (when considering both electricity and gas assets – see Figure 6.6). However, for gas assets specifically PwC noted that the difference is material - they suggested that it reflects that the 20 year effective life statutory cap was not being uniformly considered in the AER's TAB for these NSPs.[127] This statutory cap is discussed in the gas capping section.

Figure 6.6 Effective life spread of electrical and gas assets, Non-NTER and NTER entities—from PwC Expert advice -



Source: PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 82 (figure 25, extract)

Based on the above analysis, PwC did not find any evidence that the existing regulatory approach to determining the tax allowance should be amended to reflect effective life choices made by electricity industry participants.[128]

How might we respond to this issue?

Where an NSP has self–assessed their asset lives the AER may consider applying new standard lives to new assets only, new assets and future capex of existing assets, or new and existing assets retrospectively.

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126 Dr Martin Lally, *Tax payments versus the AER's allowances for regulated businesses*, 16 June 2018, pp. 26–27.

127 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 81–84.

128 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 85.

The asset lives may be applied to each individual business, or the AER may set a benchmark that reflects standards across the industry.

All these methods will adjust the depreciation schedule (in most cases front load) to replicate actual practice. However, as discussed previously the PwC analysis suggests the change is small, any impact may not be material and Dr Lally suggests the scope for shortening asset lives is unclear.

Having considered PwC's analysis and Dr Lally's advice, we consider that the pros and cons of adjusting for self-assessed asses lives is as follows:

Pros:

- Reflects the individual scenarios
- Easy to administer, no modelling change

Cons:

- Changes are not likely to have a material impact
- Collecting information and applying lives to individual assets while considering different circumstances of each NSP may be time consuming
- Setting a benchmark for self-assessing asset lives will be difficult as NSPs would all have different circumstances

The AER does not propose any changes regarding self-assessment of asset lives.

6.4 Gas asset life caps

Real world tax practices

There is currently a statutory cap of 20 years for the effective lives of Gas transmission and distribution assets.[129]

Effect of the difference

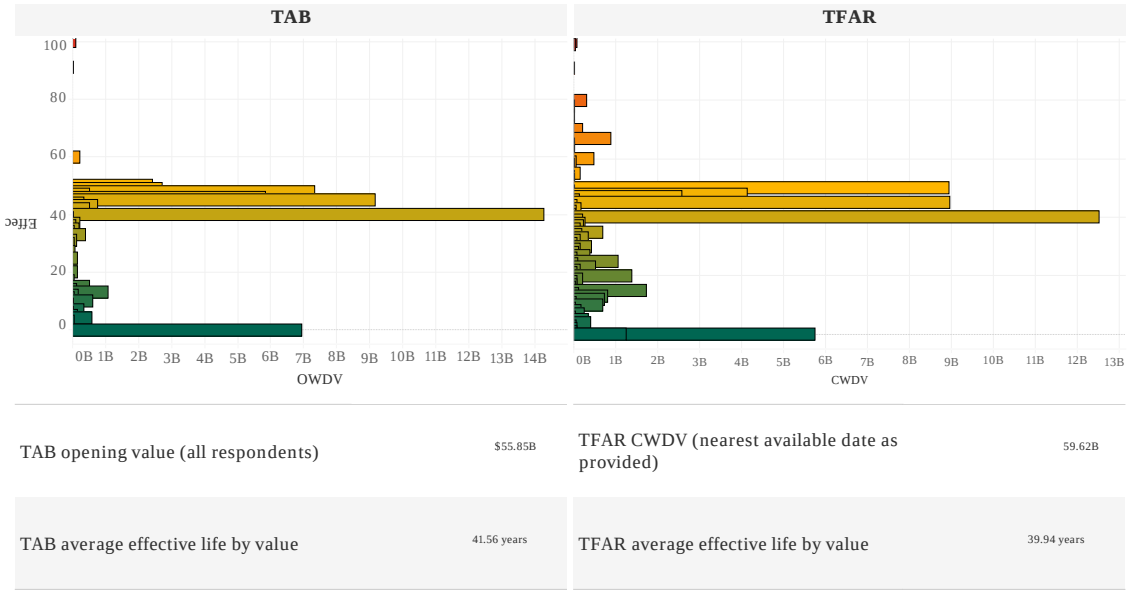
PwC comments that for electricity assets, the average effective lives in the tax fixed asset registers (39.94 years) were similar to the average effective lives in the AER's TAB (41.56 years) for the NSPs from which information was provided.

However, for gas assets the average effective lives in the tax asset registers (27.83 years) were significantly lower than the average effective lives in the AER's TAB (35.12 years). PwC suggests this reflects the 20-year cap for gas transmission and

[129] The *Taxation Laws Amendment Act (No.4) 2002 (Cth)* inserted into the ITAA 1997 subsection 40-102(5) applies the statutory cap of 20 years for the effective lives of gas transmission and distribution assets. Section 40-102(5) of the ITAA 1997. The Explanatory Memorandum to this Act applies this cap to assets capitalised prior to 2002. PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 80.

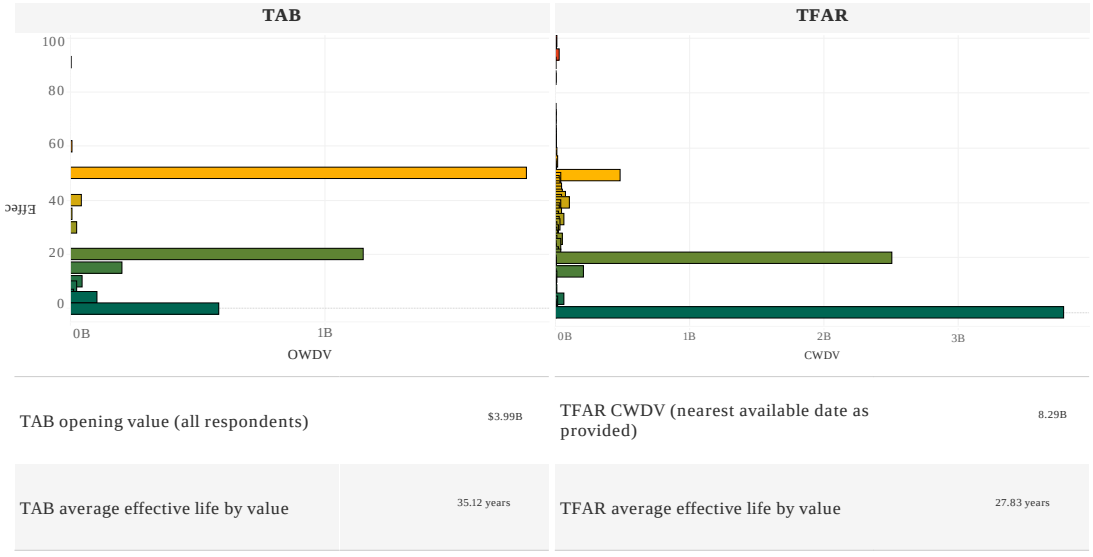
distribution assets not being uniformly applied to the part of the regulated businesses in their determinations.[130]

Figure 6.7 Effective life spread of electrical assets, Non-NTER and NTER entities—from PwC Expert advice



Source: PwC, *AER tax review 2018, Expert advice,* 26 October 2018, p. 83 (figure 26, extract)

Figure 6.8 Effective life spread of gas assets, Non-NTER and NTER entities—from PwC Expert advice



Source: *PwC, AER tax review 2018, Expert advice,* 26 October 2018, p. 84 (figure 27, extract)

130 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 84

How might we respond to this issue?

Since the 20-year cap is prescribed in tax legislation it may be appropriate to include it when calculating efficient tax costs of gas transmission and distribution assets. We could implement the 20-year cap by:

- applying the cap to new capex only, or
- in addition to new capex, applying the cap to existing assets as well (either by applying a hard cap of 20 years or adopting some form of pro-rata adjustment where the remaining effective life differs from 20 years).

All these implementation methods would apply shorter lives and hence front load the depreciation expenses to mirror actual practice. These three options are summarised in Table 6.3 above.

6.5 Low value pools

Real world tax practices

A tax payer can calculate the depreciation of certain low-cost and low-value assets by allocating them to a low-value pool and depreciating them at a set annual rate of 37.5%. This is provided that the asset has been depreciated for at least one year using the diminishing value method, and has a written-down value of less than $1,000. Once an asset has been allocated to the pool, it must remain there.[131]

Effect of the difference

All assets included in the low-value pool are depreciated at a fixed rate of 37.5% for tax purposes. This means any difference between the fixed rate and the depreciation rate assumed in our regulatory models for these assets will contribute to the underlying tax difference between actual tax paid and the regulatory provision for tax costs. However, our analysis of available actual data found that only 1.3% of the total assets held by NSPs are classified as low-value assets. Although, there may be reporting issues in relation to these assets, we consider that the relative small percentage of low-value pool assets is unlikely to be a key factor in any difference between the forecast tax costs provided for in revenue determinations and actual tax payments.[132] This is consistent with the advice provided by PwC and Dr Lally.[133] For this reason, we are not proposing any changes in our regulatory benchmark to reflect the specific tax treatment of the low-value pool assets.

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131 Further details on the low value pool assets can be found on the ATO website https://www.ato.gov.au/Business/Depreciation-and-capital-expenses-and-allowances/General-depreciation-rules---capital-allowances/Low-value-assets-(pool)/

132 PwC, *AER Tax review 2018, Expert advice*, 26 October 2018, p. 76.

133 Dr Martin Lally, *Review of submissions on the AER's review of its regulatory tax approach*, 25 October 2018, p. 4. PwC, *AER Tax review 2018, Expert advice*, 26 October 2018, p. 76.

We note that submission from AusNet Services, APA, APGA and CCP22 also suggested that low-value pool assets are unlikely to be a material driver of the differences.[134]

How might we respond to this issue?

We are not proposing any changes in our regulatory benchmark to reflect the specific tax treatment of the low-value pool assets.

[134] APGA, *Submission to Initial Report*, 26 July 2018 p. 3; AusNet Services, *Submission to Initial Report*, 26 July 2018, pp 3–4; CCP22, *Submission to Initial Report*, 26 July 2018, p. 27; APA, *Submission to Initial Report*, 26 July 2018, p. 5.

7 Depreciation–value effects

Summary of the issue

When an asset is acquired, that asset's cost or value is available to offset the future income generated from its use. Tax depreciation is a non-cash expense and represents the change in the value of an asset for tax purpose. The total amount of depreciation available (and so the value of this tax expense used to reduce tax payable) may change as a result of various corporate transactions for regulated assets—such as privatisation, mergers or acquisitions.[135] NSPs may revalue their tax asset base (TAB) to reflect the market value of depreciable assets.

TAB revaluations are not currently reflected in our regulatory modelling of tax costs.[136] If such a revaluation is upward, the actual TAB is higher than in our models. This in turn leads to future depreciation expenses calculated in our models being lower than the amount actually claimed. As such, our provision for tax costs would be higher than if the revaluation of the TAB was reflected in our modelling.

We are not proposing to adjust the TAB in response to market transactions for regulated assets. We consider that it remains appropriate to preserve a consistent regulatory approach that insulates consumers from changes in market valuations. Where an asset trades at a multiple in excess of its regulatory asset base (RAB), the incremental value sits outside the regulatory framework. Customers do not pay for higher return on capital and return of capital building blocks, but they also do not pay a lower tax building block.

Tax law governs the cost of a depreciable asset in relation to privatisations and mergers and acquisition market transactions. These transactions can provide for a step up (or step down) in the depreciable cost base of assets. Transactions involving ownership changes can also give rise to costs outside of the regulatory regime such as stamp duty or taxable gains. In certain circumstances a stamp duty cost may be either immediately expensed or included in the depreciable cost of an asset at the time of changing ownership.[137] The immediate expensing of stamp duty costs may result in tax losses that may be carried forward for several years. Where stamp duty costs are capitalised this creates a step up in the depreciable cost base.

The recognition of a step up or step down in the TAB could see costs not incurred in providing regulated services included in the regulated estimated cost of tax. Further, the recognition of costs incurred based on the market value of an asset would transfer the benefit of higher depreciation deductions from the buyer to customers. This could

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135 The next chapter discusses scenarios where the timing of when depreciation is received varies (rather than the total amount of depreciation received).

136 Similarly, the regulatory framework does not provide for revaluation of the regulatory asset base, which is used to calculate the return on capital and return of capital building blocks.

137 This is dependent on whether the change in ownership involves an asset privatisation or merger and acquisition related to a tax consolidated group, asset sale or long-term lease.

have implications for future market transactions that may reduce the long-term efficiency of regulated services.[138]

Change for discussion

Table 7.1 summarises our considerations on the key issue (TAB revaluation) arising from this chapter, noting that we have not proposed this as a potential change.

[138] NEL, s.7; NGL, s.23.

Table 7.1 TAB revaluation – no change warranted.

Key issue	**Tax asset base (TAB) revaluation**
AER consideration	No change warranted

Pros of this change	**Cons of this change**
Addresses significant driver of tax difference for some NSPs. Reflects tax treatment of consolidated corporate groups (non-NTER NSPs). No model changes (just new input value).	Source of revaluation (market value) not related to cost of 'operation' of network Assessment of new value input difficult. Requires disaggregation of consolidated tax costs. Potential for other costs external to regulatory regime to be included in TAB. Potential to discourage future asset sales not in long term interests of consumers.

Description of change	Revise TAB value to reflect actual/market value of tax asset base.

Current tax practice	**AER current approach**	**Effect of difference**
NSPs may revalue their tax asset base as a result of a sale or corporate restructure ('corporate transactions' in some submissions).	TAB reflects nominal historical cost of assets used to provide regulated services. TAB is not revalued.	If the revaluation is upward, TAB is higher than our models. Actual depreciation expenses will then be higher, and taxable income will be lower.

Consultant opinion:	
PwC	No change recommended on TAB revaluations. "[F]rom a conceptual perspective we would not recommend that any changes should be made to the regulatory tax allowance to address [the quantitative impact of M&A activity, including tax uplifts under the tax consolidations regime]. The application of the tax consolidation rules especially around the resetting of the tax base of depreciable assets introduces substantial integrity risk not consistent with the regulatory regime." See PwC report pp. 21–22, 87–88.
Dr Lally	Do not recognise uplifts to the tax cost base in the regulated tax asset base. "…the TBV uplift arising from a change of ownership at a higher price should remain with the buyer rather than be passed through to consumers … because acting otherwise would reduce the offer price in the purchase offer, thereby discouraging some changes of ownership from occurring, and this is not socially desirable." See Dr Lally report pp. 3, 13-15, 26.

Implementation options	**Implementation issues**
1. Adjust TAB for 'actual' TAB value.	Pros: Directly addresses the tax difference Cons: Not clear what proportion of change is relevant to regulatory costs Assessment of regulated allocation of tax assets difficult.
2. Apply market multiple to TAB value	Pros: Addresses driver of tax difference Cons: Would require reconsideration of RAB changes as well. Market values subject to variability. Determination of multiple to use difficult

7.1 Asset revaluations

How does this issue contribute to the tax difference?

Our current approach to valuing the TAB reflects the historical cost base of tax assets. We do not currently recognise the sale value of assets or transaction costs arising from a change in ownership which fall outside of the regulatory framework, either in RAB or TAB.

Tax legislation includes a number of divisions under which the tax cost base of a depreciable asset is set or reset. This would include how the cost of an individual asset is measured (Division 40), asset privatisations (Division 58) and resetting the tax cost base of an entity or asset on entering a tax consolidated group (Division 700).

The effect of market transactions (mergers, acquisitions and privatisations) can be to increase (or decrease) the tax cost base recognised by the ATO. Because such changes are not recognised in the TAB, this allows for higher (or lower) depreciation expense in subsequent years and a reduction (increase) in tax payable relative to the estimate of regulatory tax cost. Where a buyer of an entity or asset is part of a tax consolidated group, the possibility exists of both step ups and step downs in depreciable tax cost base.[139] The cost of acquiring the entity is essentially recognised as the market value for tax purposes.[140] The regulatory approach has not recognised these revaluations because market values can differ from the current cost value.

PwC reports aggregate opening written down values in the TAB of $59.8 billion and those reported in the TFAR of $67.9 billion.[141] This represents a difference of $8.1 billion or 13.5 per cent. PwC cautions against drawing specific inferences about the drivers in these values due to the interaction of the following:

- The treatment of immediately deductible expenses of a capital nature (refurbishments),
- The inclusion of unregulated (or unspecified) assets,
- The choice of depreciation method and asset lives applied (affecting historical depreciation), and
- Step ups in the tax cost of depreciable assets that arise on acquisition of regulated (and unregulated) assets not recognised in the TAB.[142]

The current information set is too limited to quantify the contribution of asset revaluations to the tax difference. We expect to receive further information on the revaluation of the tax cost base in response to our final RINs. However, it is not

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139 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 93.

140 The tax consolidation rules determine an "allocable cost amount" for the joining entity which recognises the cost of membership interests and the value of the joining entities liabilities, including other adjustments that affect the entity's value.

141 PwC, *AER tax review 2018, Expert advice*, p. 85.

142 PwC, *AER tax review 2018, Expert advice,* pp. 85–86.

expected that we will be able to accurately quantify the drivers of the differences between TAB and TFAR. This would require extensive historical analysis of the progression of the TFAR, but it is not clear that regulated networks have sufficient historical records and we have not requested it.

Submissions from stakeholders

Submissions received from industry stakeholders in response to our initial report sought a consistent treatment of costs that extended to revaluations of the TAB to be reflected in the RAB.

APGA submitted that changes to the TAB can have a significant impact on investment decisions and incentives. Any revaluations of the TAB should flow through to the RAB because consumers would receive a benefit without other building blocks reflecting the higher cost this imposes on the business. To reflect the symmetrical treatment of costs the TAB revaluation would need to flow through to the RAB. This would lead to higher RAB related returns and higher costs for consumers.[143]

The ENA stated that market transactions can result in the upward revaluation of the tax cost base, increasing the tax depreciation deductions in relation to that asset.[144] The buyer in those transactions factors in the tax benefit from those deductions into its bid price and therefore the owners of the network are the beneficiary source of the increase in deductions.[145]

The NSG also commented that revaluations under the ITAA 1997 could not be interpreted to include the revaluation of assets used to provide regulated services. The NSG stated that recognising a revaluation in the TAB would represent a subsidy from competitive (unregulated) services to regulated services.[146]

The CCP22 considered the impact of asset revaluations on tax calculations was an important issue requiring further consideration. While it appeared such a change of approach could be included in NSP specific benchmarks further consideration should be given to how it may be applied to a sector wide benchmark. CCP22 went further to suggest that a sector wide benchmark include an adjustment factor specific to an NSP.[147]

How might we respond to this issue?

We are not proposing to adjust the TAB in response to market transactions for regulated assets. We consider that it remains appropriate to preserve a consistent regulatory approach that insulates consumers from changes in market valuation, on both the RAB and TAB. Where an asset trades at a multiple in excess of its RAB, the

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143 APGA, *Letter in response to AER Review of Regulatory Tax Approach*, 26 July 2018, p.3.

144 The effect is symmetrical, so a downward revaluation would decrease the tax depreciation deductions

145 ENA, *Review of Regulatory Tax Approach – Response to the AER Initial Report*, 26 July 2018, p. 18.

146 NSG, *Submission to initial report*, 26 July 2018, p. 8.

147 CCP22, *Submission to the AER on Review of regulatory tax approach – Initial Report June 2018*, 26 July 2018, p.27.

incremental value sits outside the regulatory framework. Customers do not pay for higher return on capital and return of capital building blocks, but they also do not pay a lower tax building block.

Revaluations of the tax cost base for depreciation purposes occur in response to changes of ownership, where the buyer forms or is part of a tax consolidated group.[148] The incentives applied under the regulatory framework are based on efficient costs of operating the network. Therefore, a change in ownership that gives rise to costs unrelated to the efficient operation of the network would not reflect the efficient costs that should be borne by customers.

PwC does not recommend any change to the TAB to recognise revaluations of the tax cost base for the following reasons:

- cost associated with changes in ownership or a step up in the cost base of depreciable assets are not referrable to the efficient operation of the regulatory assets,
- step ups in the tax cost base may be matched by a cost to the seller, such as a capital gain,
- the introduction of integrity risks to the regulatory regime through the incidental allocation of costs unrelated to the regulatory assets,
- tax cost resetting rules can also give rise to step downs in the tax cost of depreciable assets (impairment),
- potential for market value allocation rule to skew value from unregulated business to regulated business and vice versa.[149]

In some of these circumstances there exists a risk that costs not associated with the regulated services are included in our assessment of the cost of tax and would not meet the NEO and NGO.

To recognise the market value of a regulated network in the cost of regulated assets would transfer the buyer's risk (the uncertainty of its assessment of value of the firm) reflected in the bid price to customers. Further, reflecting the market value in the RAB would embed the expected benefit from future cash flows in the return on and return of capital building blocks. This circularity between market values and cash flows from regulated activities would lead to a misallocation of risk and providing greater certainty to investors and a higher allocation of resources. This would be inconsistent with the NEO and NGO.

The buyer valuing an asset on a discounted cash flow basis expects to be able to derive a higher value (and positive cash flow) through management efficiencies and growth opportunities, than what is recognised in the asset's current value. Acquisition prices may also be affected by factors other than the efficient delivery of regulated

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148 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 21.

149 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 93–94.

services (or outperformance of expenditure allowances) such as unregulated revenues potential, control premiums, intangible assets or changes in demand. Therefore, market values are subject to variability in response to economic conditions, whereas regulatory values (RAB and TAB) are set based on efficient costs incurred to provide regulated services.

An efficient sale transaction that results in changes of ownership, occurs where both the seller and buyer expect to derive a benefit. The tax consequence on both sides of the transaction results in costs and benefits incurred by both parties. We acknowledge the incidence of tax on both sides of a sale transaction. Where an asset or entity is traded at a value higher than its current tax cost base, the buyer is able to benefit from the future tax depreciation expenses, and expensing of stamp duty, that reduce its actual cost of tax for a given level of revenue. On the side of the seller it is likely a taxable gain will be earned.

A change of approach to recognise revaluation of the tax cost base in the regulatory TAB would reallocate benefits of incremental increase in tax depreciation deductions from buyers to customers. This outcome may discourage future asset sales influencing the long-term efficiency of regulated networks which is not consistent with the NEO and NGO.[150]

Dr Lally also considers that we should not revalue the TAB to reflect market value transactions. However, his reasoning differs from PwC.

Dr Lally supports the proposition that the tax cost base uplift arising from a change in ownership should remain with the buyer on the grounds of efficiency.[151] He concludes that by altering the valuation through the recognition of a higher tax cost base a rational bidder will lower its prices. This lower value may not coincide with the expected benefit of the seller and may discourage changes of ownership occurring.

We agree with Dr Lally's conclusion that revaluing the TAB in response to an uplift would discourage changes of ownership which is not an outcome in the long-term interest of consumers.[152] Transactions involving changes of ownership between rational players perform an important function in identifying efficiencies as assets are transferred to those who value them most. To recognise the market value of assets and costs outside of the regulatory framework in the TAB is likely to reduce the prospective buyer's offer price. The potential to discourage changes of ownership may prevent the transfer of an asset to owners able to deliver services more efficiently. We do not propose that TAB revaluations be applied in order to prevent these adverse outcomes. Such outcomes would hinder the promotion of efficient investment and operation of electricity and gas services provided by network service provider in the long-term interests of consumers.

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150 NEL, s.7 National Electricity Objective; NGL, s.23 National Gas Objective.

151 Dr Martin Lally, *Review of submissions on the AER'S review of its regulatory tax approach*, 25 October 2018, p.1.

152 Dr Martin Lally, *Review of submissions on the AER'S review of its regulatory tax approach*, 25 October 2018, p.15.

What are the changes for discussion?

We consider that no changes are warranted to respond to revaluations of the TAB.

7.2 Stamp duty

Stamp duty is imposed by state and territory governments on the transfer of property, such as a business, and can vary depending on the state or territory.

How does this issue contribute to the tax difference?

We currently do not make any allowance within the regulatory models for stamp duty. Stamp duty is a cost incurred by the purchaser of an asset that does not contribute to the provision of regulated services.[153]

Asset sale transaction costs including stamp duty may either be:[154]

- recognised in the depreciable cost base of an asset,[155] or
- immediately deducted.

In the former case, the capitalisation of stamp duty may be a contributing factor to step ups in the tax cost base of depreciable assets.[156] Our analysis of this driver aligns with the treatment of that general issue above.

In the latter case, the immediate deductibility of stamp duty would reduce the tax payable (relative to the regulatory benchmark) for an entity that had recently been purchased.

How might we respond to this issue?

Transaction costs such as stamp duty paid on the transfer of an asset are not incurred in the provision of regulated services. These costs fall outside the regulatory framework and do not form part of our assessment of forecast efficient costs under the NEL or NGL.[157] To recognise these cost would transfer the tax benefits of cost incurred by the buyer to customer.[158] Customers do not pay for these transaction costs in regulated prices, but they also do not benefit from a lower tax building block.

It is unclear how material these transaction costs are in driving the difference between the actual tax paid and our forecast cost of tax.[159] These costs sit outside of the regulatory regime as they do not contribute to the provision of regulated services. The recent privatisations of NSW electricity distribution and transmission assets were

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153 NEL, s.7A(2)(a); NGL, s24(2)(a).

154 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 36, 106–107.

155 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 106.

156 PwC, *AER tax review 2018, Expert advice*, p. 106.

157 NEL, 7A (2)(a) and NGL, 24(2)(a)

158 Dr Martin Lally, *Review of submissions on the AER'S review of its regulatory tax approach*, 25 October 2018, p.13.

159 ATO, *ATO note to the AER – Comparison of regulatory tax allowances and tax paid*, 10 April 2018.

granted under long-term lease arrangements. As noted by PwC, stamp duty paid in respect of a lease is deductible for income tax purposes pursuant to section 25-20 of the ITAA 1997.[160] This expected to contribute to tax losses for these businesses.[161]

We expect to receive more information on stamp duty in response to our formal RIN process.[162]

What are the changes for discussion?

We do not propose any possible changes related to stamp duty. We propose to continue to exclude these costs from the regulatory framework as they do not contribute to the provision of regulated services. We note that further information on stamp duty payments will be available at the final report stage.

[160] PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 107.
[161] PwC, *AER tax review 2018, Expert advice*, 26 October 2018, p. 107.

8 Interest expense

Summary of the issue

In its note to the AER, the ATO identified that one of the material drivers of the apparent tax difference was deductions for interest expense. We sought detailed debt information as part of the RINs to examine its materiality. However, we received the information just before finalising this discussion paper, and so we are currently analysing it. As such, we have not made any decisions about whether a possible change is warranted in this area, and have not evaluated it against the criteria set out in Chapter 4. We will include further analysis on this issue in our December report, along with our findings from the information received in response to the RINs.

In this section we provide some further consideration of this issue for stakeholder comment.

Change for discussion

Table 8.1 summarises our considerations on the key issue (change to interest expense) arising from this chapter, noting that we do not have sufficient information at this time to determine whether this is a possible change.

Table 8.1 Interest expense—insufficient information

Key issue	**Interest expense**	
AER consideration	Insufficient information at this stage to determine whether this should be a possible change	
Pros of this change		**Cons of this change**
More accurate indication of deductions for interest expenses.		Difficult to determine an appropriate adjustment that would be in the long term interest of consumers. Difficult to ensure consistency with rate of return/overall compensation package.
Description of issue	Amend interest expense in the tax calculations but leave the rate of return calculations unchanged (may require a rule change to implement).	
Current tax practice	**AER current approach**	**Effect of difference**
Debt is initially determined in accordance with accounting standards, then adjusted for certain tax rules (e.g. thin cap, transfer pricing).	The rate of return assumptions (benchmark gearing of 60% and return on debt) are applied to the RAB to determine the interest expense that is used in the tax calculations.	If actual interest expenses are higher than the interest expense assumed in our models for tax, then the actual tax liability is lower than what we have provided.
Consultant opinion:		
PwC	Has not commented as information in response to the RINs had not been available at the time of preparing its report.	
Dr Lally	Recommends against changes to the current approach**.** Dr Lally considers that the same gearing should be adopted for both rate of return and tax calculations. It would potentially discourage optimal behaviour if the advantages of higher interest deductions are removed from the businesses, but the disadvantages are not (e.g. higher bankruptcy risk). Dr Lally considers that the tax calculations should not use the market value of debt to calculate interest expense. It would remove the benefits of the higher interest expense deductions for potential buyers, which would lower the bid price, resulting in the transaction potentially not taking place, which is socially undesirable. See Dr Lally reports (June pp 4-5) (October 2018, p 15).	
Implementation options	**Considerations**	
1. Adjust tax gearing to reflect actual higher gearing	**Pros:** More accurate estimate of tax liabilities **Cons:** Not clear as to how it serves the long term interest of consumers better than the current approach; difficult to ensure consistency with rate of return.	
2. Adjust tax interest expense to reflect higher market values (compared with RAB)	**Pros:** More accurate estimate of tax liabilities **Cons:** Not clear as to how it serves the long term interest of consumers better than the current approach; difficult to ensure consistency with rate of return; unclear how the adjustment would be made; source of the higher deductions may be due to market value not efficient 'operation of network'.	
3. Adjust tax interest expense to reflect actual cost of debt	**Pros:** More accurate estimate of tax liabilities **Cons:** Not clear as to how it serves the long term interest of consumers better than the current approach; difficult to ensure consistency with rate of return.	
4. Adjust tax interest expense to reflect difference in treatment of hybrid securities (e.g., stapled shareholder loan notes) between the AER and ATO.	**Pros:** May potentially better reflect actual interest expense deductions made by NSPs if hybrid securities are used. **Cons:** May not be material; unclear how we would adjust for certain securities (e.g., stapled shareholder loan notes – unclear how we would separate the value of the loan note from the share value (to calculate a different gearing ratio) given that they are stapled and cannot be traded independently.	

Our current approach

In our provision of tax costs, we calculate interest expense by adopting the same assumptions used in calculating our rate of return. That is, we adopt the same benchmark gearing ratio[163] (applied to the same RAB value) and the same cost of debt assumption. Thus, interest expense is calculated as:

$$Interest\ expense = 60\% \times RAB \times cost\ of\ debt$$

If any of the above assumptions differ from either the NSPs' actual practice or how interest expenses are calculated for tax purposes, then these differences would contribute to a tax difference. For example, if an NSP's actual gearing is higher than our benchmark gearing of 60 per cent, then it would have higher interest deductions, resulting in a lower tax liability compared with our calculations.

Information requested in the Regulatory Information Notices

In the RINs we requested detailed information from the NSPs about their financing arrangements[164] e.g., outstanding principal amounts and interest rates.[165] Once we receive this material, we will be able to examine and better understand the materiality of the difference between what we have applied in our tax calculations and the actual practices of the NSPs. Further, it may also provide us with data on what changes might be appropriate to improve our benchmark tax calculations.

PwC did not commented in detail on this issue given that the information in response to the RINs was not available at the time it prepared its report - although in its report PwC outlines some reforms and judicial decisions which are likely to narrow the gap between actual debt deductions being claimed for tax purposes and the debt assumptions used by the AER.[166] However, it will provide an addendum report, with analysis of the information received, along with its recommendations. We will publish PwC's addendum report in conjunction with our December report.

How does this issue contribute to the tax difference?

Our preliminary analysis of the tax return information voluntarily provided by the NSPs suggests that:

- actual interest expenses for the non-NTER entities were generally *higher* than what we applied in our tax calculations, and
- actual interest expense for NTER entities were generally *lower* than what we applied in our tax calculations.

There may be four potential reasons as to why the actual interest expense for NSPs may differ from what we have applied in our tax calculations:

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163 Gearing ratio = debt/(debt + equity).

164 All financing arrangements except those classified as equity for income tax purposes.

165 And also whether any of its entities were subject to the thin capitalisation regime.

166 PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 22–23.

- Actual gearing may be different from our benchmark 60 per cent gearing;[167]
- Actual debt levels may be different from the level of debt we have deemed in its RAB (calculated as 60% x RAB) - reflective of differences in market value and RAB value;[168]
- Actual cost of debt may be different from our benchmark cost of debt; and
- There may be hybrid securities which we have treated as equity in our return on capital assumption, but the payments made under them are deductible for tax purposes.

In response to our initial report, stakeholders generally submitted that a consistent gearing should be adopted between the rate of return assumption and the tax calculations.[169] Although, we note that the CCP22 indicated that the use of instruments that contain some properties of equity and debt, but are considered debt for tax purposes may be contributing to lower actual taxes.[170]

8.1 Actual gearing

In its note, the ATO stated that *some* listed or privately owned entities it reviewed had an average gearing level above the AER's assumed gearing level of 60 per cent. It then noted that this would lead to higher tax deductions being claimed for interest expenditure compared to the AER's calculations.[171]

Our understanding is that the ATO based its preliminary analysis primarily on the tax information submitted by the businesses. As such, the gearing levels calculated by the ATO would be based on book values (i.e, financial statements) for the businesses examined.

We have undertaken some preliminary analysis on the tax returns voluntarily provided by the NSPs and have found that on average gearing based on book values are higher than 60 per cent.[172] These results are also consistent with our recent empirical analysis undertaken for our draft rate of return guideline. The guideline notes that gearing based on book values for listed businesses[173] examined in our comparator set was 68

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167 The benchmark gearing applied is an observed average across the industry, so some variation around this average is to be expected by individual businesses.

168 For example a network may have a RAB value of $10 billion, but a market value of $15 billion. 60% of the market value would by $9 billion. Comparing this to the RAB value implies a gearing ratio of 90%.

169 ENA, *Review of regulatory tax approach, Response to the AER initial report*, 26 July 2018, p. 19; NSG, *Submission to the AER's Initial Report Paper on the review of regulatory tax approach*, 26 July 2018, p. 8; J.Doueihi, *Submission to the Initial Report: Review of regulatory tax approach*, 27 July 2018, p. 4; Ergon Energy and Energex, *Submission to the AER's consultation on the Review of Regulatory Tax Approach Initial Report*, 27 July 2018, p. 3; AusNet Services, *Response to AER Tax Initial Report*, 25 July 2018, p. 4.

170 CCP22, *Submission to the AER on Review of regulatory tax approach, Initial report June 2018*, 26 July 2018, p. 17.

171 ATO, *Note to the AER*, 10 April 2018, p.2.

172 This was based on electricity distribution businesses as per the ATO's note.

173 These listed businesses are APA Group, Spark Infrastructure, DUET Group, AusNet and Envestra.

per cent to 70 per cent based on 5-year and 10-year historical averages, respectively.[174]

However, our benchmarking gearing of 60 per cent is based on market values rather than book values. This is because:

- the rate of return being determined is appropriately a market based return, thus
- to promote consistency with the other rate of return parameters that are typically informed by market data,[175] the gearing level itself should appropriately be based on market values[176].

We note that in our empirical analysis for our recent draft rate of return guideline, gearing based on market values for the same listed businesses examined in our comparator set, was 54 per cent to 61 per cent based on a five-year and 10-year historical averages, respectively.

Despite the difference in measurement of gearing, NSPs may choose to adopt a higher gearing ratio than our benchmark (based on market value) if they consider it optimal to do so. Thus, a higher gearing ratio may lead to a higher interest expense, hence lower tax liabilities compared with our tax calculations

How might we respond to this issue?

In conjunction with our Initial report we published a report prepared by Dr Martin Lally (June 2018) which included discussion on NSPs adopting gearing levels higher than used by the AER.[177] As discussed in the table above, Dr Lally advised against a change to gearing for tax purposes.

As discussed above, in response to our Initial report, stakeholders generally submitted that we should adopt a consistent gearing for both our rate of return and tax calculations.

We also note that in its review of our recent draft explanatory statement for the current rate of return guideline review, the Independent Panel stated the following in relation to gearing:

> "*The only significant interaction of the gearing ratio with other building blocks is with the taxation component. Because interest costs are tax deductible, consistency requires the same gearing ratio to be used in the rate of return and taxation building blocks."*[178]

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174 AER, *Draft rate of return guidelines explanatory Statement*, July 2018, pp. 164–166.

175 We considered that this was important given the relationship between leverage risk and equity beta, and the estimation of equity beta from returns data of listed equity.

176 AER, *Draft rate of return guidelines explanatory Statement*, July 2018, p. 167.

177 Dr Martin Lally, *Tax payments versus the AER's allowances for regulated businesses*, June 2018, pp. 4-5.

178 Independent Panel, *Review of the Australian Energy Regulator's rate of return draft guidelines*, September 2018, p. 35.

We identify the pros and cons of a possible change to the gearing ratio for tax purposes in Table 8.1 above.

8.2 Market value of debt

As discussed above, the interest expense is calculated by multiplying the cost of debt assumption by 60 per cent of the RAB. Therefore, we are implicitly deeming 60% of a business' RAB to be its debt level.

A potential source of difference in interest expense may be due to the market value of a business's debt being higher than our assumed level of debt in a business's RAB. Therefore, even if a business were to adopt a 60 per cent gearing ratio (based on market values) its level of debt would be higher than our assumed level of debt in the RAB.

Evidence of the market value of businesses being higher than RAB values can be seen from RAB multiples for acquisitions/transactions. In recent transactions of NSW network businesses they have been around 1.4x to 1.6x.[179] Thus, the actual value of a business's debt is likely to be higher than what we have applied in our calculations (60% x RAB).[180] This means that a business's actual interest expense would be higher than the interest expense applied in our tax calculations, resulting in lower actual taxes paid by the business than calculated in our models.

We note that in our rate of return calculations, we do not adjust either the WACC or the RAB value to account for potential differences between the acquisition price (or market value) of a business and its RAB value. This is because we consider that the business's RAB represents the appropriate economic value of the assets for which it should earn a rate of return. We do not consider the RAB to represent the acquisition price (or the market value) of the business which may be affected by factors other than the efficient delivery of regulated services (e.g., unregulated revenues, control premium, outperformance of expenditure allowances, intangibles[181]).

However, a higher debt level may be contributing to the underlying tax difference. We expect to be able to determine the materiality of this issue from the information received in response to the RINs.

How might we respond to this issue?

We identify two possible approaches for this issue:

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179 AER, *Discussion paper, Financial performance measures*, February 2018, pp. 14-15.

180 For example a network may have a RAB value of $10 billion, but a market value of $15 billion. 60% of the market value would by $9 billion. Comparing this to the RAB value implies a gearing ratio of 90%.

181 If we were to increase the RAB value to reflect unregulated revenues, then the business would earn a rate of return for assets that are not involved in the delivery of regulated services. Also, if we were to increase the RAB to reflect potential outperformance of expenditure allowances, then the business would be rewarded twice - when it actually outperforms on its allowances, e.g. through lower actual opex, and again through a higher return on and of capital, through the larger RAB.

- Maintain the RAB value for the purposes of determining the rate of return, but adjust the interest expense in the calculation of the tax building block to reflect any differences between a business's market value and the RAB value; or
- Maintain the current approach to *not* adjust the interest expense to reflect any differences between a business's market values and the RAB value.

Option 1 - Adjust the interest expense to reflect differences in market vs RAB value

For Option 1 we could make an adjustment to the tax calculations in the PTRM by adjusting the interest expense (based on 60% x RAB) with some form of ratio of market value to RAB value. A possibility is to use some form of average historical RAB multiple. However, under such a scenario, we consider that it would be prudent to first make any necessary adjustments to the RAB multiples to ensure correct comparison. This may include removing the impact of any factors (e.g., unregulated revenues) contributing to a higher RAB multiple.

If the market value were to be higher than the RAB value, then the higher actual debt levels would lead to a higher interest expense, hence a lower tax liability compared with our tax calculations, or vice versa.

Option 2 - *Not* adjust the interest expense to reflect differences in market vs RAB value

For Option 2 we would maintain the current approach and hence consistency with the assumptions underpinning our rate of return and RAB. That is, the difference between the market value and the RAB value is excluded from the regulatory framework for the purposes of calculating the return *on* capital, return *of* capital and the tax building blocks. This is on the basis that only the RAB value should be reflected in determining regulated revenues as it represents the economic value of the assets required to deliver regulated services.

Under this option, if the owners of the business paid for a higher acquisition price, they bear the risk of doing so. Once the market value is adjusted to make a correct comparison with the RAB, the RAB multiple may still be greater than 1. This may be indicative of the potential for the business to outperform on any of the building block allowances - but there is a risk that the outperformance may not eventuate as expected. Under this option, the owners of the business are able to retain any resulting benefits of bearing the risk of having paid a higher acquisition price.[182]

This option is also consistent with the argument discussed in Chapter 7 about not adjusting the TAB in response to market transactions for regulated assets. As discussed, where an asset trades at a multiple in excess of its RAB, the incremental value sits outside the regulatory framework. Customers do not pay for higher return *on*

[182] For example, having higher interest expenses, and hence lower actual taxes.

capital and return *of* capital building blocks, but they also do not pay a lower tax building block.

We note that in its submission to our Initial report, the ENA argued against an adjustment for interest beyond the regulatory allowance, as it sits outside the regulatory framework.[183]

We identify the pros and cons of a possible change to interest expense for tax purposes in Table 8.1 above.

8.3 Cost of debt

In calculating the interest expense, we apply the same return on debt assumption as in our rate of return—which we consider to be the efficient debt costs. If a business has higher actual debt costs than our benchmark return on debt assumption, then the business bears the additional cost—customers do not provide a higher return. This encourages businesses to pursue efficient debt costs.

Differences in businesses' actual debt costs and our assumed debt costs can be a contributor to the underlying tax difference, which we expect to be able to determine from the information received in response to the RINs.

How might we respond to this issue?

As discussed above, a higher cost of debt would lead to a higher interest expense than is applied in our models (holding all else constant). This in turn would lead to a lower tax liability than provided for in our models.

Therefore, a possible option could be to apply a higher cost of debt in our tax calculations.

However, given that customers are not providing an additional return for the higher debt costs, it could be argued that NSPs should retain the benefits of higher interest deductions; and that such a change would be contrary to our incentive regulation framework, and thus not in the long-term interest of consumers.

We identify the pros and cons of a possible change to interest costs for tax purposes in Table 8.1 above.

8.4 Hybrid securities

Hybrid securities are securities that have characteristics of both debt and equity (e.g., stapled shareholder loan notes or convertible notes).

A possible cause of higher interest expenses could be due to differences in treatment of hybrid securities between the AER and the ATO. That is, we may treat certain hybrid securities as equity, in both the rate of return and the tax calculations. However,

[183] ENA, *Response to AER Review of Regulatory Tax Approach Initial Report*, 26 July 2018, p. 17.

for actual tax purposes, payments made under these securities may be treated as deductible interest expenses.

In our recent draft rate of return guideline we maintained our existing approach for these hybrid securities.

Table 8.2 Draft Rate of Return - Treatment of hybrid securities

Hybrid security	Treatment - Draft rate of return guideline
Stapled shareholder loan notes	Treated as equity - we noted the following characteristics: • Stapled to each share, with no separate existence without the share (that is, they cannot be traded independently) • Subordinate to all other creditors • Returns on the notes were not guaranteed and only payable to the extent to which there is available cash.
Non-convertible subordinated notes	Treated as debt - was applicable to AusNet Services; we noted that given the relative size of AusNet Services' current level of debt and hybrid securities, adjusting for these hybrid securities was unlikely to have a material impact on the overall gearing estimates, and that these particular notes are not stapled to its shares.

Note: Stapled loan notes were a consideration in the calculation of gearing for Spark Infrastructure in recent years and was treated as equity when calculating gearing on both market and book values.

Source: AER, *Draft rate of return guidelines, Explanatory Statement*, July 2018, pp. 169–170.

We have treated stapled shareholder load notes as if they were equity that was mainly relevant to the calculation of one of the five listed business' gearing in our comparator set.[184] It is quite possible that for tax purposes, the payments made under these loan notes may be deductible expenses. Hence, it may contribute to the tax difference, although this may not be a material driver (given that it only applied to one of the five businesses in our comparator set). We expect to be able to determine the materiality of these types of hybrid securities from the information received in response to the RINs.

How might we respond to this issue?

As outlined above there may potentially be a difference in the treatment between our regulatory approach and actual tax practices for stapled shareholder loan notes.

Therefore, we could potentially adopt a different approach in our tax calculations and treat these shareholder loan notes as debt. However, we are cognisant of the difficulty in separating the loan notes from its stapled shares in order to calculate a different gearing for tax purposes, given that they cannot be traded separately and, as such, have no separate existence from the share (the share price encompasses the value of the loan note).[185]

[184] Stapled shareholder loan notes applied to Spark Infrastructure over the historical period examined, but only up until 2008 for Envestra.

[185] AER, *2018 Rate of Return Guideline review, Discussion Paper Gearing*, February 2018, p. 25.

We identify the pros and cons of a possible change to hybrid securities for tax purposes in Table 8.1 above.

9 Incentive regulation vs tax pass through

Summary of the issue

In our initial report we stated that we would exercise caution before adopting a tax pass-through approach. In response, most stakeholders supported maintaining the existing benchmark approach. However, the CCP22 submitted that a pass-through should not be completely ruled out, particularly if a better benchmark could not be established. The CCP22 considered that in such a case, a pass-through should be reconsidered as the current approach generates a biased estimate of tax payments which it considers not to be in the long term interest of consumers.

Given this issue is important to a variety of stakeholders, we have considered it in further detail.

Our view is that a benchmark incentive approach to forecasting tax costs serves the long-term interests of consumers better than a tax pass-through approach. We consider that a benchmark approach is important for economic efficiency, which serves the long-term interests of consumers, as it provides incentives for businesses to adopt the most efficient practice which consumers are able to benefit from. That is, if a business is able to be more efficient compared with our benchmark costs, then through our regulatory framework, it is generally able to retain part of the benefits which are then passed onto consumers in subsequent determination periods.

This also applies to our calculation of the expected tax costs of the regulated businesses i.e., if there are more efficient tax practices that a business can adopt, to legally reduce its tax liability, then it is able to keep those benefits - which are then passed onto consumers, albeit following subsequent reviews of our tax approach e.g., in this discussion paper we have identified possible changes for stakeholder comment.[186]

We consider the alternative of a tax cost pass-through is unlikely to encourage businesses to adopt efficient tax practices as there would be no incentive to do so – as any tax liability would be wholly passed onto consumers. This could lead to increased consumer charges over time (compared with a benchmark incentive approach).

Further, determining the actual taxes paid for only the regulated services of an energy network would require consideration of the drivers of the face value tax difference identified earlier. It would be difficult to monitor and enforce a ring-fence around regulatory tax, and so this also risks consumers paying tax costs above their efficient level.

We provide in the table below a summary of our considerations.

[186] Adoption of diminishing value, immediate expensing of refurbishment capex, applying the statutory cap of 20 years for gas assets.

Change for discussion

Table 9.1 summarises our considerations on the key issue (change to a tax pass-through) arising from this chapter, noting that we have not proposed this as a potential change.

Table 9.1 Tax pass-through—no change warranted

Key issue	**Tax pass-through**
AER consideration	We propose no change is warranted. Maintain benchmark approach and not adopt a pass-through.

Pros of this change	**Cons of this change**
Directly addresses and removes the tax difference.	Removes incentives on businesses to adopt efficient tax practices, which is not in the long-term interests of consumers. Difficult to monitor and enforce a ring-fence around regulatory tax, and so this also risks consumers paying tax costs above their efficient level. Introduces significant complexity to the overall framework.

Description of change	Pass through actual tax paid (or actual tax below benchmark provision)

Current tax practice	**AER current approach**	**Effect of difference**
Either the NSP pays tax on a consolidated basis based on actual revenues/expenses, or if a flow through structure is adopted then tax is paid at the investor level (not by the NSP).	Set tax costs based on benchmark costs. This is important for economic efficiency which serves the long-term interests of consumers. If businesses are more efficient than benchmark costs, then consumers can benefit.	There is a difference between the benchmark tax costs and actual tax costs (investigation of the difference may allow us to improve our benchmark over time).

Consultant opinion:	
PwC	Recommends against any form of pass-through for 'actual' tax (see PwC report pp. 36–37), as it: - Requires detailed exercise to reconcile the portion of actual tax actually paid for regulated activities - May be winners/losers among different consumer groups depending on the lifecycle of their network and its tax profile. - Would need to identify ultimate investor in a flow through structure to determine the relevant tax paid.
Dr Lally	Recommends against any form of pass-through for 'actual' tax (See Dr Lally (June) report pp. 11-18). June report advised that complete pass through should be dismissed due to perverse incentives for firms. E.g. completely eliminate all debt financing. Capped approach is superior, but not recommended due to wrongly attributing all shortfalls to tax minimization.

Implementation options	**Implementation issues**
1. True up difference between forecast tax payable and actual tax paid in the PTRM (or annual pricing).	**Pros:** Directly addresses the tax difference **Cons:** Does not provide incentives to adopt efficient tax practices; difficult to monitor and enforce a ring-fence around regulatory tax, and so this also risks consumers paying tax costs above their efficient level.
2. True-up only if below forecast.	**Pros:** Directly addresses the tax difference (if actual tax costs are lower); and protects consumers from actual tax costs exceeding the benchmark **Cons:** Does not provide incentives to pursue efficient tax practices below the benchmark; introduces complexity to the overall regulatory framework.
3. Implement tax incentive/sharing scheme	**Pros:** May address the difference; may provide incentives for businesses to pursue efficient tax practices as they would retain part of the benefit (and would also be passed onto customers). **Cons:** Unclear what component of tax outcomes would be the appropriate basis for calculating incentive payments relevant to the regulated network; introduces substantial complexity to the overall regulatory framework.

How does this issue contribute to the tax difference?

Our approach

We use a benchmark building block approach to determine the efficient costs (and therefore total regulated revenues) by adding together expected costs, which includes a tax building block for the cost of corporate taxation.

We forecast tax costs using a standard tax calculation that has regard to regulatory estimates of taxable revenue, tax expenses (depreciation, interest, opex) and the statutory corporate income tax rate (30 per cent). We described our tax calculation in detail in our initial report.[187]

How does it cause a tax difference?

A difference between actual tax payments and the AER's forecast of tax costs can arise if any of our regulatory estimates (e.g. estimates of taxable revenue, tax expenses and the statutory corporate income tax rate) vary from businesses' actual practice. Some of these variances have highlighted that our approach may need to be updated to reflect the efficient tax practices of businesses (as described above).

However, other differences arise from the intended operation of the incentive regulation framework. These do not appear to be significant drivers of the historical tax difference identified in the ATO note. Looking forward, it is possible that these drivers could cause material variation between actual tax payments and forecast tax. However, we consider that it is in the long term interest of consumers to allow this source of variation. It acts to provide an incentive to businesses to seek efficiency gains. It also helps avoid price shocks for consumers. There are three (related) causes of this type:

- Cost variations - differences in actual and forecast costs in the non-tax building blocks (e.g. differences in actual and forecast opex and capex) will lead to tax payments that are above or below the AER's forecast of tax costs. The movement in tax will be in the opposite direction to the initial deviation - that is, if there is an underspend in the non-tax building block costs, the regulated network would record a higher taxable income than forecast, and thus actual tax payments will be above forecast tax costs. However, at the end of the regulatory control period (usually every five years) the observed costs are used to inform the regulator's forecasts for the upcoming regulatory period. This should act to limit the magnitude of any tax difference driven by this effect.
- Revenue variations - under the incentive framework there may also be variations between forecast revenue and actual revenue (driven by differences in actual versus forecast consumption) which may lead to differences in actual and forecast tax.

[187] AER, *Initial report, Review of regulatory tax approach*, June 2018, pp. 7–11.

- Where businesses are regulated under a revenue cap, differences between actual versus forecast (target) revenue are adjusted for in following years through an unders/overs account. This limits the scope for this driver to cause a tax difference. We also note that the ATO focussed its indicative analysis on electricity distribution businesses, which operate under a revenue cap.
- Where businesses are regulated under a price cap, the AER targets prices (derived from revenue using forecast consumption) and the business retains volume risk. Actual revenue may be above or below forecast revenue for a number of years in a row (outperformance or underperformance) where actual consumption differs from forecast consumption. Tax payments will move in the same direction as the revenue outcome (i.e. higher than expected revenue would result in higher tax payments than forecast). This issue was raised by stakeholders.[188] One limit on this effect is the accuracy of the initial forecast. The second limit would be the subsequent regulatory determination, where consumption outcomes are now known and the new forecast is set with regard to this information.

- Smoothing - The annual building block costs (the AER's forecast of the expected costs to operate the regulated network each year) can vary substantially from year to year. We use a 'CPI -X' control mechanism to smooth revenue across the regulatory control period and mitigate consumer price shocks. This can result in a tax difference, because the tax building block aligns with unsmoothed revenue, but smoothed revenue is recovered from customers and is the determinant of taxable income reported to the ATO. We do not consider that this will be a material driver of a tax discrepancy. The smoothed revenue path is chosen to prevent a large gap between unsmoothed and smoothed revenue by the end of the regulatory control period.[189] This timing effect is also limited by the length of the regulatory control period (usually five years).

International experience

We asked PwC to survey international regulatory regimes and their treatment of tax. Their report included consideration of the extent to which these regimes followed an approach similar to the Australian model (a benchmark incentive framework) or an alternative cost of service framework.[190]

How might we respond to this issue?

We identify two possible options to address the tax difference:

- Maintain the incentive approach; or
- Change to a tax pass-through.

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[188] APA Group, *AER review of regulatory tax approach – APA response to initial report*, 26 July 2018, p 6; APGA, Submission to the Initial Report on the AER Review of Regulatory Tax Approach, 26 July 2018, pp 3-4;

[189] Generally, smoothed revenue is set to be within three percent of unsmoothed revenue.

[190] PwC, *AER tax review 2018, Expert advice*, 26 October 2018, pp. 100.

9.1 Maintain the incentive approach

In response to our initial report, most stakeholders submitted that the current benchmark approach to tax should be retained.[191]

However, whilst not necessarily disagreeing with a benchmark approach, the CCP22 submitted that a pass-through should not be completely ruled out particularly if a better benchmark could not be established.[192] It noted that:

- taxes are a transfer payment, rather than a real resources costs and that a reduction in tax paid by an NSP does not reduce the real resource cost of supplying energy in the same way that a reduction in opex or capex does;
- raised concern that the current approach is not in the long term interest of consumers as it does not satisfy the NPV=0 principle as estimates of the tax liabilities are biased upwards (i.e., exceed actual tax obligations); and that
- the incentives to reduce tax under the current treatment of tax are not the same as the incentives to reduce opex and capex.

The ECA submitted that it was important that NSPs have an incentive to manage tax costs efficiently and that consumers should benefit from these efficiencies.[193] It raised concern that a tax pass-through may remove incentives for further efficiencies and that further analysis is needed before deciding on which approach best meets the long term interest of consumers.

We consider that a benchmark approach is important for economic efficiency, which serves the long-term interests of consumers, as it provides incentives for businesses to adopt the most efficient practice which consumers are able to benefit from. That is, if a business is able to be more efficient compared with our benchmark costs, then through our regulatory framework, it is able to retain part of the benefits which are then passed onto consumers in subsequent determination periods.

This would also apply to our calculation of the expected tax costs of the regulated businesses. If there are more efficient tax practices that a business can adopt to validly reduce its tax liability, then it is able to keep those benefits, but they should then be passed onto consumers, albeit following subsequent reviews of our tax approach. In

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191 NSG, *Submission to the AER's Initial Report Paper on the review of regulatory tax approach*, 26 July 2018, pp 1-2; ENA, *Response to AER Review of Regulatory Tax Approach Initial Report*, 26 July 2018, p 21; AusNet Services, *Response to AER Tax Initial Report*, 25 July 2018, p 4; TransGrid, *Submission on AER's initial report for the regulatory tax review*, 26 July 2018, p 1; APGA, *Submission to the Initial Report on the AER Review of Regulatory Tax Approach*, 26 July 2018, pp 3-4; APA Group, *AER review of regulatory tax approach – APA response to initial report*, 26 July 2018, p 6; Ergon Energy and Energex, *Submission to the AER's consultation on the Review of Regulatory Tax Approach Initial Report*, 27 July 2018, p 3; J.Doueihi, *Submission to the Initial Report: Review of regulatory tax approach*, 27 July 2018, p 5; IPA, *Submission to the Australian Energy Regulator on the Consultation Paper - Initial Report on the Review of the Regulatory Tax Approach*, 07 August 2018, pp 1,3-4; Endeavour Energy, *Submission to the Tax Review initial report*, 08 August 2018, p 2.

192 CCP22, *Submission to the AER on Review of regulatory tax approach - Initial Report*, June 2018, pp. 23.

193 ECA, *Review of regulatory tax approach 2018*, July 2018, pp. 3–4.

this discussion paper we have identified three possible changes for stakeholder comment.[194]

The alternative of a tax cost pass-through is unlikely to encourage businesses to adopt efficient tax practices as there would be no incentive to do so – as any tax liability would be wholly passed onto consumers. This could lead to increased consumer charges over time (compared with a benchmark incentive approach).

Therefore, we consider a benchmark incentive approach serves the long-term interest of consumers better than a tax pass-through approach.

We further discuss our concerns about a tax pass-through approach below.

9.2 Change to a tax pass-through

Whilst a tax pass-through approach might reduce the size of the tax difference, reduction in the tax difference is not this review's end goal. Our aim is to ensure that customers pay no more than the efficient costs (including tax costs) of operating regulated energy networks. Under a tax pass-through, the tax costs passed through to consumers would likely rise above efficient cost level over time. This is because service providers would have no incentive to minimise costs they were not exposed to, and so no incentive to pursue efficient tax practices.

This is a pervasive problem under any form of cost-plus regulation and is likely to lead to higher consumers prices compared to a benchmark incentive approach.

We note that for NTER entities, we found that actual tax payments have been higher than our forecast tax costs, in line with the ATO's note. Under the current benchmark approach customers are not exposed to these higher tax payments, but continue to fund the benchmark allowance. Given that state or territory owned businesses are not subject to Commonwealth income tax, and retain both income tax equivalent payments and dividends, a move to a tax pass-through would likely lead to an incentive to increase tax payments. This would result in consumers paying more than efficient costs over the long term.

In addition to the long term increase, moving to a tax pass-through risks an immediate increase in tax costs. For privately held networks, actual tax payments have been lower than our forecast costs over the historical period examined. One driver is businesses depreciating their assets faster (through use of diminishing value) than what we have applied in our modelling (predominately prime cost). However, there would eventually be a turning point where the use of prime cost would result in higher depreciation expenses compared with the use of diminishing value, hence higher actual tax costs compared with our current benchmark approach. Therefore, a switch to a tax pass-through at the wrong time would result in consumers paying more tax in the second phase of the asset's life, when the benchmark approach would otherwise

[194] Adoption of diminishing value, immediate expensing of refurbishment capex, applying the statutory cap of 20 years for gas assets.

have protected them from higher actual tax payments. This issue was raised by stakeholders.[195]

Further, we also have concerns in determining the actual taxes paid for only the regulated services of an energy network. This would require consideration of the drivers of the face value tax difference identified earlier. It would be difficult to monitor and enforce a ring-fence around regulatory tax, and so this also risks consumers paying tax costs above their efficient level.

Other possible approaches - tax incentive mechanisms

We currently operate incentive schemes for both capex (the capital expenditure sharing scheme or CESS) and opex (the efficiency benefit sharing scheme or EBSS) where NSPs are able to retain part of the efficiencies they are able to achieve (consumers are also able to benefit through lower efficient costs revealed by the NSPs). In its submission, the CCP22 noted that no such schemes exist for tax, and that the NSPs retain all the benefits if actual taxes are lower than forecast by the AER.[196]

We are still considering this matter, but have not been able to identify a robust tax incentive mechanism that would advance the long term interest of consumers. We note that there are challenges identified in the Dr Lally report (June 2018) with regard to "capping" that would also apply to a tax incentive scheme.[197] This includes concerns around distinguishing what component of tax outcomes would be the appropriate basis for calculating incentive payments relevant to the regulated network. For example:

- If an NSP adopted higher gearing levels because it considered it optimal to do so, it would result in higher interest deductions and lead to lower actual taxes - if this was to be shared with consumers it may discourage firms from adopting efficient behaviour which is not in the long-term interests of consumers.
- If actual (inefficient) costs (e.g, opex) are higher than forecast costs, this would result in lower pre-tax cash flows and hence lower actual taxes. It may not be appropriate to share the lower taxes with consumers given that they do not contribute towards higher actual costs.

We note that one key aim of the CESS and EBSS is to determine the proportion of efficiency gains retained by the network; and therefore the proportion which is passed on to consumers. We note the CCP22's concerns that NSPs retain all benefits where actual taxes are lower than those forecast by the AER. Where the regulator adjusts the benchmark to reflect efficient tax practices, as in this review, then efficiency gains are shared with consumers. It will be important that we review our regulatory tax approach from time to time.

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195 AusNet Services, *Response to AER Tax Initial Report*, 25 July 2018, p. 4;

196 CCP22, *Submission to the AER on review of regulatory tax approach – Initial report June 2018*, 26 July 2018, pp. 15–16, 35.

197 Dr Martin Lally, *Tax payments versus the AER's allowances for regulated businesses*, June 2018, pp. 14–18.

What are the possible changes?

For these reasons, we consider that maintaining a benchmark approach would provide businesses with the incentive to continue to adopt efficient tax practices, and this is in the long term interests of consumers. From time to time, we will review our regulatory tax approach to check that it reflects efficient practices.

Glossary

This glossary provides plain English definitions for technical tax terms used in this discussion paper.

Term	Meaning
AER initial report	Initial report released by the AER on 28 June 2018 entitled "review of regulatory tax approach".
Asset	A resource controlled by an entity as a result of past events from which future economic benefits are expected to flow to the entity. For example: electricity poles and wires, gas pipelines and compressors, motor vehicles or buildings.
asset revaluations	Adjustment (up or down) to the tax cost base of a depreciable asset arising as a consequence of a change in ownership.
ATO	Australian Tax Office.
ATO Note	ATO's note to the AER received on 10 April 2018, setting out its findings of the potential discrepancies between actual tax payments and the forecast regulatory tax costs for regulated electricity distribution network services provider from 2013-16.
Australian Resident investor	An investor considered as an Australian resident for tax purposes.
Australian superannuation fund	An Australian superannuation fund is superannuation fund which satisfies the definition as set out under in subsection 295-95(2) of the Income Tax Assessment Act 1997.
Capitalisation policy	The basis on which the NSP classifies costs as either capitalised expenditure or an immediately deductible expense.
Chain of ownership	Entities or subsidiaries under common control by the ultimate owners of the business.
Confidentiality guideline	The AER's, 'Better Regulation: Confidentiality Guideline', 29 November 2013 as updated or amended by the AER from time to time.
Corporation	A separate legal entity often used to conduct business in Australia. Registered with the Australian Securities & Investments Commission.
Debt-to-equity ratio	A financial ratio indicating the relevant proportion of equity and debt used to finance a company's assets.
Diminishing value	A depreciation method allowed under section 40.72 of the Income Tax Assessment Act 1997. Diminishing value method depreciates an asset's remaining value by a given percentage each year based on the asset's effective life.
Dr Lally report	Expert report by Dr Martin Lally, Capital Financial Consultants Ltd.
Effective corporate tax rate	The effective corporate tax rate is the rate (or %) that is actually paid by the corporate.
Effective life	Is a defined term under section 995.1 under ITAA 1997. The effective life of a depreciable asset is based on how long the asset can be used to produce income. The effective life is a key input used to calculate the annual tax depreciation amount of a depreciating asset.

Energy networks	Electricity networks and gas pipelines regulated by the AER
Face value discrepancy	The difference between the actual tax payment by the regulated entity, inclusive of any tax debit or credit associated with unregulated activities or other taxable expenses/deductions outside of the regulatory framework, and the forecast regulatory tax cost.
Flow through vehicle	An entity that does not in itself have an applicable tax rate. In these structures, income is distributed up the chain to owners who are themselves liable to pay tax depending on their particular circumstances.
Gamma	Assumed benefit which will be received by shareholders following distribution of franking credits to those investors.
Government business enterprise	A Government business enterprise is a commercially focused government owned business that operates as a separate legal entity that has been delegated financial and operational authority to carry on a business.
Imputation credit	Some or all of the tax paid by a company is attributed, or imputed, to the shareholders by way of a tax credit to reduce the income tax payable on a dividend distribution.
Low-value pool	A low value pool of assets that cost or have a written down value of less than $1,000. This pool of assets can be depreciated at an annual rate of 37.5%.
Managed Investment Trust	A trust in which members of the public collectively invest in passive income activities such as shares, property or fixed interest assets. It has the meaning given in s275-10 of the ITAA 97. The withholding tax rate for foreign investors in jurisdictions with which Australia has an exchange of information agreement under the Managed Investment Trust regime is 15%.
Market value	An amount for which an asset should be exchanged for in an open market between a knowledgeable, willing, but not anxious buyer and seller.
Maximum allowable debt	Level of deductible debt permitted under the thin capitalisation rules as set out in Division 820 of ITAA 97.
McGrathNicol report	Expert report by McGrathNicol on how the various corporate ownership structures of the gas and electricity businesses that the AER regulates may impact on the actual tax paid by the regulated entities.
Membership interest	Any interest or right held by a member of an entity as defined in s960.135 of ITAA 97.
Minister's media release	Media release issued on 15 May 2018 by the Minister for the Environment and Energy stating that, following a request by the Turnbull Government, the AER would undertake "an investigation into whether electricity networks and regulated gas pipelines are gouging consumers to cover their corporate tax liabilities"
National Tax Equivalent Regime (NTER)	An administrative arrangement under which the relevant taxation laws are notionally applied to certain State and Territory businesses as if they were subject to those laws.
Net present value (NPV)	Net present value is a measurement of dollar value of future cash flows over a certain period in today's dollar terms by applying a discount rate to future cash flows.
Net profit before tax	The profit of entity after deducting the costs directly or indirectly incurred by the entity when producing revenue through ordinary activities. This does not include income tax expenditure.
Network Service Provider	Has the meaning given by Part 1 Section 2 of the NEL and in this notice refers to

Partnership	An association of persons carrying on a business or in receipt of income jointly.
Pre-investor level tax	The tax paid by the entity carrying on the regulated activities, as distinct from any tax payable further up the chain by the owner(s) of the entity.
Prime cost method	A depreciation method allowed under section 40.75 of the Income Tax Assessment Act 1997. Prime cost method depreciates an asset's remaining value by a uniform amount each year based on the asset's effective life. It is also often refers to as the Straight-line method.
RAB multiple	A ratio between the value of the regulatory asset base for regulatory purposes and the sale value of the assets (e.g. As a result of an ownership change).
Regulated assets	Refers to assets that form part of the regulatory asset base as prescribed in the NER.
Revenue	The gross inflow of economic benefits during the period arising in the course of the ordinary activities of an entity when those inflows result in increases in equity, other the increases relating to contributions from equity participants.
RIN	Regulatory information notice.
RIN (Electricity)	Regulatory information notices. An instrument under the NEL which allows the AER to gather information from regulated network service providers for the performance or exercise of a function or power conferred on it under the NEL or the National Electricity Rules (NER).
RIN (Gas)	Regulatory information notices. An instrument under the NGL which allows the AER to gather information from regulated scheme pipeline service providers for the performance or exercise of a function or power conferred on it under the NGL or the National Gas Rules (NGR).
Single entity rule	Taxable income of the consolidated group is calculated on a combined basis and included in one income tax return (refer s.701-1 ITAA 97).
Sovereign wealth fund	A sovereign wealth fund is a state-owned investment fund.
Stamp duty	Stamp duty is a tax on certain transactions and it is imposed by state and territory governments. For example a purchaser of public owned network asset from privatisation process may be liable to pay stamp duty to the relevant state and territory governments.
Standard (statutory) corporate rate	The relevant income tax rate applicable to the corporate entity.
Stapled structure	A stapled structure is an arrangement where two or more entities that are commonly owned (at least one of which is a trust) are bound together, such that they cannot be bought or sold separately.
State Owned Enterprises	Corporate vehicles established under State law which hold assets owned by the public sector.
Step up/down	Readjustment of the value of an asset for tax purposes - often occurs during acquisition of a business or consolidation.
Tax consolidated group	Companies (and certain trusts and partnerships) that are owned within a group are treated as a single taxpayer for income tax purposes.
Tax liabilities	The amount of tax payment owed by an entity and is responsible for paying to the taxing authority.
Tax loss and accrued tax losses	A tax loss occurs when the total deductions a tax payer can claim for an income year exceed their income for the year. If a taxpayer make a tax loss in an income year they can carry it forward (accrued) and deduct it in future years against

	income for tax purposes.
Tax pass through	An approach where the regulated tax costs is based on actual tax paid by each energy network.
Tax payments	A tax payment paid to the taxing authority (ATO) by an entity.
Timing effect	Bringing forward a deduction now (e.g. higher depreciation claim) and foregoing an amount of deduction in future years.
Trust	A trust is an obligation imposed on a person - a trustee - to hold property or assets (such as business assets) for the benefit of others, known as beneficiaries.
Underlying discrepancy	The difference between the actual tax payment by regulated entity and the forecast regulatory tax cost within the regulatory framework
Upstream equity participants	Any entities that have a direct or indirect equity interest in the NSP of greater than 10 per cent. This would include a total participation interest as defined in section 960-180 of the Income Tax Assessment Act 1997, but only to the extent that the participation interest is greater than 10 per cent.

Summary of submissions to the initial report

Summary
AusNet Services The AER should generate sound principles against which it can assess potential changes, and any changes should better reflect the efficient behaviour of NSPs as well as being consistent with incentive regulation. The AER should consider the BEE to be an Australian corporate structure. There may be many reasons as to why different businesses adopt different structures, so it is not possible to conclude that a single structure is "benchmark efficient". If the benchmark was changed to be other than a corporate structure, AusNet would be unable to replicate this, and thus unable to fund its efficient costs. Further, it considers that the discrepancies in the actual tax paid and AER allowances are timing issues which should not be the focus of this review, as the current benchmark produces a smoother profile of tax paid. The application of diminishing value for tax depreciation purposes does not reflect the benchmark efficient practice (but it may be efficient for some businesses). Straight line depreciation smooths tax payable over time, and where reflected in the regulatory tax allowance, smooths customers' prices. Many of the potential changes flagged by the AER in its initial report incorporate elements of actual tax practice and retain some elements of a benchmark approach. It may be problematic if the AER picks and chooses particular components from each of the two regimes. AusNet does not support moving to a tax pass through approach – its tax paid since 2013 has been volatile, which is not unusual. This volatility would be passed through to customers under an actual tax approach.
Major Energy Users (MEU) The AER could address each element that allows a network to reduce its tax payable. However, networks can argue that the AER has reached an incorrect conclusion, or that the AER's approach is not feasible and does not reflect the actual issues faced by each network. The AER could instead consider adopting the Effective Average Tax Rate (EATR) or the Effective Marginal Tax Rate (EMTR) which are measures that include the ability of firms to legally minimise tax. The AER should assess these measures against the actual tax rates observed for the privately owned networks to identify which measure delivers the closest correlation. The outturn effective tax rate identified would then be applied to the BBM used for all networks, including those owned by governments.
TransGrid The current incentive-based framework should be retained. A tax pass-through approach should be considered with caution as it is likely to lead to increased consumer charges over time. Further, a cost and its tax effect should be treated consistently – either both in or outside the regulatory framework. Any changes to the tax framework should be prospective only (no retrospective effects), accompanied by sound evidence and clear explanation of the reasons for the change. Regulatory certainty is paramount to businesses being able to continue access to capital markets and secure sufficient and affordable finance for capital-intensive, long-lived assets.
Australian Pipelines & Gas Association (APGA) Given that the tax paid by private businesses is at the corporate entity (group) level, separating it out to the regulated business will be complex (unregulated activities, group level gearing, tax losses and interest costs will need to be adjusted for). Adoption of group level information will be inconsistent with the benchmark definition adopted for setting the allowed rate of return and gamma. Further, only prospective changes should be made as it could lead to windfall gain or losses due to change in practice mid-way; complexity of the change vs the revenue impact of the change should be considered; and changes should be symmetrical. For example, if an item is expensed for tax purposes in the PTRM, it should also be expensed in the allowed revenue section. Pass through of tax costs shifts risk to the customer and is not in the long-term interests of consumers. APGA operates under a price cap, and higher than forecasted volumes that result in higher taxes will be borne by customers. Low value pools are unlikely to be relevant but it does not consider it appropriate to comment when industry wide data

has not been collected or analysed.

SA Power Networks, Australian Gas Infrastructure Group, CitiPower, United Energy and Powercor

All strongly support the maintenance of the incentive based regime. If the AER were to make any changes, these should be forward looking and not retrospective, and there must be consistency in approach between the cost and the tax effect – either both are taken account in the regulatory framework, or both are excluded. These stakeholders further submitted that if the AER were to adopt diminishing value depreciation, then it should give consideration to the extent businesses adopt this approach, address the implementation issues and apply it prospectively.

There is no scope for changing tax asset values, unless changes are also made to the RAB values so that consumers also pay for costs symmetrically; and refurbishments and replacements should be treated consistently in the regulatory framework.

They also noted that the AER's draft rate of return guideline set the value of imputation credits to 0.5 and also reduced other elements, which would have a significant impact on networks' allowances, which should be considered as part of this review.

Power and Water Corporation (PWC)

PWC considers its tax information is not very useful to the AER and noted that it does not adopt aggressive tax positions. It also submitted that given it has multiple unrelated business units, providing information will involve significant allocation assumptions.

Energy Networks Australia (ENA)

The incentive based framework should be maintained and the focus of the review should be whether the AER can implement a better benchmark for tax costs. Any changes should only be made prospectively and with evidence that it better reflects efficient practice of a BEE.

The ENA considers that there are three broad potential reasons for the discrepancy in AER regulatory allowances and actual tax costs: allowance differing from benchmark efficient tax costs (AER needs to reset its benchmark efficient allowance); expenses outside the regulatory framework; and/or structure of the regulated firm departing from a simple corporate structure.

The AER may refer to actual practice of the firms to determine treatment on DV and gearing. However, a separate tax gearing is inconsistent and illogical.

Some businesses capitalise corporate overhead costs, which results in an immediate tax deduction which the AER may choose to reflect.

AER should continue to set the benchmark efficient corporate tax allowance on the basis of the BEE operating under a standard corporate structure.

Incorporating immediate tax deduction for refurbishments may reduce revenues and may not be in the long-run interests of consumers.

Any payments that are made entirely by networks outside the regulatory framework are irrelevant to the regulatory tax allowance (e.g., R&D expenditure, interest payments beyond the regulatory allowance such as through asset revaluations, stamp duty paid on corporate transactions, tax loss carry-forward arising from historical circumstances); they are either both outside the regulatory framework, or both inside.

Network Shareholders' Group (NSG)

Submitted that the AER should retain the incentive-based framework under the NEL and the Rules, and consider the cost-benefit trade-off of any potential adjustments. Also submitted that it is appropriate to consider whether any changes to the regulatory tax allowance will change the expected risk profile and return for the BEE, if so, then it must be taken into account in the rate of return.

It also submitted that it does not support a tax pass through as it would require each NSP to be considered separately, would result in outcomes for customers wholly dependent on structure and ownership rather than efficiency, and require significant costs associated with producing and reviewing information.

It considered that the ATO should be the regulatory entity tasked with focussing on policing tax positions taken by the NSPs. The AER should not be putting itself in a position where tax positions of entities become an issue due to the AER taking a different position on tax policy in its regulatory regime.

On changing tax depreciation methods, a change in treatment that delivers a lower price in the short term may result in higher prices in the medium term; depreciation methods cannot be changed midway; and changes must be prospective.

On gearing, it is not valid to adopt a different gearing ratio from the rate of return, which has been thoroughly assessed.

Recognising expenses that do not relate to the provision of regulated services would result in a subsidy between competitive activities.

TAB revaluations should not be undertaken as it would result in an inconsistent treatment between expenses and tax liabilities, and would result in a subsidy from competitive services to regulated services.

Incorporating prior tax losses would result in a subsidy between competitive and regulated services.

APA Group

Submitted that differences between tax allowed and cash tax paid are to be expected. Also that any changes must clearly promote the NGO better than the current approach, and must be made with due consideration of the costs and benefits of undertaking that change. APA further submitted that the AER gathering detailed tax data from the businesses will not identify the key drivers to explain the discrepancy in the tax costs provided to a business and the cash tax it pays. The NSPs in the APA Group are not tax paying entities and do not lodge separate tax returns nor maintain separate tax accounts. They could be expected to pay notional tax on a stand-alone basis, but the tax profiles of the unregulated businesses have historically resulted in the APA Group's consolidated tax payments being lower than AER tax allowances.

APA issues debt at corporate level, and reports corporate costs at consolidated level – this means an arbitrary allocation of debt, interest expense and corporate costs may be required.

In regards to TAB values, to the extent that a business' tax asset base has been revalued (e.g., due to an acquisition), it is inappropriate to consider revaluing the regulatory TAB unless the increases in asset values giving rise to the increased tax asset base are equally reflected in the RAB.

The gas businesses are under a price cap regime. If a business is successful in responding to the incentives, it will earn higher revenues and pay more tax. A pass through would require consumers to pay on the company's success, which is not in the long-term interests of consumers.

Dr Lally suggests that as Government-owned businesses pay more tax than AER's expected tax costs, no change is required for them. APA argues that this fails the Competitive Neutrality policy provisions.

Ergon Energy and Energex

Submitted that the variances between the AER's allowances and actual tax paid to the ATO should be expected given that actual tax paid is based on actual financial performance not expected performance. They do not support a move away from an incentive-based regulatory framework.

Energex and Ergon noted that tax information is available at a parent entity level, and disseminating interest expense and actual tax paid to the regulated businesses would be on an arbitrary basis.

Seeks clarity from the AER as to whether assets must continue to be depreciated using the same methodology for the entirety of the asset life. For tax purposes, assets must continue to be depreciated using the same methodology for the entire life of the asset. A change mid-way may have windfall gains or losses depending on the stage of the asset life, particularly given the long asset life of network assets.

Expenses outside the regulatory framework should not be considered in the tax allowance, unless it is also brought within the regulatory framework. Any tax losses derived from the unregulated parts of the businesses should not be provided for the benefit of consumers by allowing it to flow through to the regulatory framework.

The same estimate of benchmark efficient gearing should be used throughout the regulatory process. Does not support use of a different gearing ratio for tax purposes.

Does not support a pass through approach to tax as it is retrospective and inconsistent with the current incentive framework (only support prospective changes). They also do not support changes to the tax rate that is not consistent with the tax law, and considers the use of effective tax rate as essentially cost pass through.

Consumer Challenge Panel – sub-panel 22

Submitted that the current approach does not satisfy the NPV=0 principle, prices are higher (not in the long-term interest of consumers) and inconsistent with the NGO/NEO. It also submitted that the incentives to reduce tax are greater than that of opex or capex, as the NSP retains 100% of value gains.

It considered that the sector-wide benchmark approach is more likely to achieve the NEO/NGO. Any alternative benchmarks should reflect tax strategies of a private company in a workably competitive market subject to the social licence. The tax allowance should be an unbiased estimate of tax paid by this company, with NPV=0 and transparent enough for third party verification.

However, if the AER concludes it is not practical to establish a better benchmark, a pass through should reconsidered as taxes may be viewed as a transfer payment rather than a real resources cost. However, the current approach should not be maintained.

It also submitted that tax minimisation is a legitimate and legal activity of networks seeking to manage their tax affairs within the bounds of the existing tax laws and ATO rulings. It entails risks and costs, and different businesses will adopt different strategies.

The CCP22 further submitted that higher payments by Government-owned businesses may be due to lack of incentive to reduce taxes, and that lower payments by privately owned NSPs may be due to different depreciation profile, revaluation, gearing, debt with equity characteristics and ownership structures.

The AER could 'target' the benchmark tax allowance on actual gearing for tax purposes at either the sector or individual firm level.

The AER should consider adopting DV; however, the change cannot be retrospective and should only apply to new assets.

Adoption of self-assessed asset lives may be worth pursuing, depending on the RIN results.

The AER should establish a framework for defining common tax related practices of the networks.

J. Doueihi

Submitted that there are two very different frameworks that underpin the calculation of tax paid (tax law framework based on actual results) and the tax allowance (regulatory framework which is based on forecast income and expenses and uses the concept of a benchmark efficient entity). It is to be expected that the actual tax paid will differ from the tax allowance. Pass-through is inconsistent with other parts of the regulatory framework.

On changing tax depreciation method, the AER might consider making changes to new assets only, so there would not be any large adjustments.

On ownership structures, unless the statutory tax rate is less than 30% (e.g., MITs) changing the statutory tax rate for the tax allowance is inconsistent with the statutory tax rate in tax law

To use different gearing levels for tax allowance and WACC purposes is inconsistent. Decreasing the tax allowance to match actual gearing (or another gearing, if higher) penalises the business twice.

Agrees with what the AER is proposing in relation to TAB revaluations. Other expenses should only be considered in the tax building block if they are also considered in other parts of the building block framework (would be inconsistent to do otherwise)

The AER should consider the reasons for prior tax losses and if it is due to e.g. businesses applying DV to a very large asset, the AER should not use the loss to offset tax payable.

If all other things (e.g., depreciation, ownership structure and so on) are not the cause of the difference between tax allowed and tax paid, then suggests that the shortfall is due to other items which are not reflected in the regulatory framework. This would indicate that the businesses are worse off because, even though the tax allowance is greater than the tax paid, the business is claiming deductions it is not being compensated for in prices.

Energy Consumers Australia (ECA)

Submitted that the long-term interests of consumers occurs when current and future consumers pay no more than they need to for the quality of service the community has come to expect. It also submitted that the AER should ensure that NSPs are not over-compensated for their tax liabilities without reducing the incentives for efficient cost management.

The ECA supports the AER using the same depreciation methodology as the businesses (if this is indeed DV) – not to do so will result in current customers paying more than they need to.

Another material driver may be the capital structure of businesses allowing for a higher deduction for interest expense.

Supports the AER's proposal to collect tax information from the businesses. Also, considers that the notional under-provisioning of tax allowance for the government owned businesses under the NTER is of no concern.

Considers that further work is required to refine the concept of the BEE in regard to the calculation of tax allowance and to determine the appropriate level of sharing with consumers.

A tax pass through may remove incentives for further efficiencies, and so further analysis is needed before it can be clear on which approach best meets the long-term interests of consumers.

Infrastructure Partnerships Australia (IPA)

Raised concern regarding the sheer volume of reviews being undertaken in the energy sector and that it is eroding policy and regulatory stability. IPA also submitted that the AER should preserve incentive based regulation and rule out any retrospective changes to the regulatory tax approach.

A cost-pass through was seen as leading to price uncertainty and reduced efficiency incentives.

There will always be a difference between allowance and actual under incentive regulation, indicating the framework is working in the long term interest of consumers by endorsing efficiency.

Endeavour Energy

The AER, given the time available, should focus on the most likely causes of differences between actual tax paid and the AER's tax allowances. Specifically, the degree to which businesses have adopted tax depreciation methods other than straight-line, the impact that differences in capitalised values would be expected to have on tax returns, and the extent to which unregulated expenditures would be expected to influence the actual tax returns of the regulated entities. Further, Endeavour Energy submitted that detailed investigation into the tax affairs of non-regulated entities will be costly, irrelevant and take more time than available.

The AER should not adopt a straight pass through approach of actual tax paid.

The AER should have regard to whether there should be consistency between approaches adopted for tax purposes vs those adopted for RAB based calculations (e.g. adopting the same depreciation method for both) to address intergenerational equity considerations.