Financeability guideline

Explanatory Statement – Proposed

AUSTRALIAN ENERGY REGULATOR

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Invitation for submissions

The Australian Energy Regulator invites interested parties to make written submissions on the proposed financeability guideline by close of business, **28 August 2024**.

We prefer that all submissions sent in an electronic format are in Microsoft Word or other text readable document form. Submissions should be sent electronically to: ModelReviews@aer.gov.au.

Alternatively, submissions can be sent to:

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GPO Box 520
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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 are requested to:

- 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 enquiries about this paper, or about lodging submissions to ModelReviews@aer.gov.au or to the Network Pricing Branch of the AER on 1300 585 165.

Contents

1 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 Rules (NER) and the National Gas Rules (NGR). These objectives focus on promoting the long term interests of consumers.

Australia's electricity market is undergoing a fundamental transformation, transitioning from a reliance on coal to renewable sources of energy (mainly wind and solar) to meet State and Federal Government's renewable energy targets. This transition will require an unprecedented level of investment in, and build of, transmission infrastructure to deliver power from renewable generation and energy storage to consumers efficiently.

On 21 March 2024 the Australian Energy Market Commission (AEMC) released its final determination on its *Accommodating financeability in the regulatory framework* rule change. This rule change is applicable to transmission network service providers (TNSPs) that are undertaking the large infrastructure projects set out in the Australian Energy Market Operator's (AEMO) Integrated System Plan (ISP). These ISP projects are considered to be part of the optimal development path to transition to net zero by 2050. The nature of these projects mean that they generally take several years to complete, which under the current regulatory framework can give rise to cashflow issues during the construction period.

The amended rules allow a TNSP to request an adjustment to bring forward cashflows related to the ISP project if they were to demonstrate that undertaking the project may result in issues with securing efficient financing for the investment. This aims to ensure that the regulatory framework is not impeding a TNSP's ability to efficiently raise finance and invest in the transmission projects required for an effective energy market transition.

The financeability adjustment is made to the regulatory cashflows received by the TNSP and will be the minimum necessary to ensure the financeability issue is addressed. This is done by amending the recovery of depreciation for assets that form part of the ISP project. The final rule sets out a financeability test that a TNSP may apply to an ISP project. It also requires the AER to develop and publish a financeability guideline that provides further detail on how we would assess a TNSP's financeability position using this test. This includes the financial metrics and weightings for those metrics, and how the financeability position relates to the financeability threshold used for the assessment.

In accordance with the transmission consultation procedures in the NER, we have prepared this explanatory statement setting out the provision of the rules under which the guideline is to be prepared, and the reasons for the proposed guideline. The proposed guideline accompanies this explanatory statement, along with a financeability guideline model, which sets out our proposed approach to assessing financeability and adjustments to depreciation profiles.

We also include a list of questions where we are particularly interested in hearing stakeholders' views. We invite submissions on this proposed guideline from all interested stakeholders by 28 August 2024.

1.1 Summary

This explanatory statement provides the context around the preparation of the financeability guideline to apply to TNSPs that seek to submit a financeability request for an ISP project as part of a contingent project application or revenue proposal. Section 2 provides some background of depreciation and financeability in the regulatory context, our current approach and NER requirements. Section 3 sets out the details of our proposed guideline, and reasons for our proposed approach including the set of metrics and weightings used, and defining the financeability threshold.

Without any amendments to our current regulatory models, we consider that financeability adjustments can be achieved through beginning the recovery of depreciation as capital expenditure (capex) is incurred (prior to commissioning of project), as well as using shorter asset lives based on the straight-line depreciation method. To allow for shaped depreciation to be applied to capex, which has some longer-term benefits compared to applying shorter asset lives, we would need to amend the existing regulatory models. We consider that following the release of the final financeability guideline, the electricity transmission regulatory models may be amended to include the option to apply the sum-of-the-years' digits depreciation method to ISP project capex in order to address any identified financeability issues.

1.2 Next steps

The proposed timeline and milestones for the preparation of our guideline are shown in Table 1.1. We will decide on the final timeline and milestones for developing the guideline after reviewing responses to this proposed guideline. We may alter the timeline and milestones in response to emerging issues.

Table 1.1 Proposed project timeline and milestones

Date	Milestone
17 July 2024	Proposed financeability guideline released
28 August 2024	Six week submission period on proposed guideline
November 2024	Final financeability guideline released (if required) Proposed PTRM/RFM amendments and explanatory statement released
November 2024–January 2025	(if required) Six week submission period on proposed model amendments
March 2025	(if required) Final PTRM/RFM amendments released

The proposed timeline includes conditional milestones if our final depreciation guideline was to confirm changes are required to be made to our template regulatory models—the post-tax revenue model (PTRM) and/or roll forward model (RFM)—for electricity TNSPs. If changes are required, we expect to consult on the implementation of these changes in late 2024.

1.3 Key questions for stakeholders

This below list of key questions is not exhaustive, and we welcome submissions on any aspect of our proposed financeability guideline:

1. Does the proposed financeability guideline conform with the AEMC's final determination on financeability rule change? If not, what are the main issues with the proposed guideline?

2. Is replicating Moody's leverage and coverage scorecard an appropriate quantitative approach to calculate a TNSP's financeability position? If not, what is a more appropriate approach? (Section 3.2.1)
3. Are there any issues with how we have replicated Moody's leverage and coverage scorecard methodology in the guideline? If so, how should we address these issues? (Section 3.2.1 and attachment B)
4. Is there a more appropriate mechanism to adjust the financeability position for expected concessional finance agreements? If so, what is the mechanism? (Section 3.2.1 and attachment B)
5. Is the proposed financeability threshold appropriate given the AEMC's final determination? If not, what is a more appropriate threshold to apply? (Section 3.2.2)
6. Are the proposed methods and approach to addressing a demonstrated financeability issue appropriate? Are there any methods to address the issues that are not covered? (Section 3.3)
7. Are amendments to the current template regulatory models to include the ability to apply shaped depreciation required, or are the options available in the current template models sufficient? (Sections 2.3.2 and 3.3)

2 Background

On 21 March 2024 the AEMC released its final determination on *Accommodating financeability in the regulatory framework* rule change. This rule change allows TNSPs to request an adjustment to the depreciation profile of assets that form part of an actionable ISP project by bringing forward cashflows if the project were to face financeability issues. The final rule also requires the AER to develop and publish a financeability guideline that provides further detail on how we would assess a TNSP's financeability request. This includes the financial metrics and weightings for those metrics used to calculate the TNSP's financeability position, and how this relates to the financeability threshold used for the financeability test.

This rule change process followed the AEMC's Transmission planning and investment review which considered whether the current regulatory framework was sufficiently flexible to support the step-change build of transmission. The final report of Stage 2 of this review recommended introducing greater flexibility to mitigate the foreseeable risk that financeability concerns may arise in the future for TNSPs. To enable this flexibility, the AEMC recommended making a change to the NER to give us the explicit ability to vary the depreciation profile for actionable ISP projects where it would better meet the National Electricity Objective (NEO).

Following this recommendation, the AEMC received rule change requests from the Honourable Chris Bowen MP, Commonwealth Minister for Climate Change and Energy (Minister) and Energy Networks Australia (ENA), to implement the recommendation. The AEMC consolidated these rule changes for consultation and determined a more preferable final rule which it considered provided an appropriate balance between a principles-based approach (from the Minister's request) and a prescriptive approach (from the ENA's request).

2.1 Rule change

On 11 April 2023, the AEMC received a rule change request from the Minister that sought to address the foreseeable risk that financeability challenges could arise for actionable ISP projects. To address the risk faced by TNSPs, the Minister proposed to introduce greater flexibility in the revenue-setting framework to vary the depreciation profile of assets that form part of an actionable ISP project.

On 9 June 2023, the ENA submitted a separate rule change request that also sought to ensure the financeability of actionable ISP projects. The ENA proposed that the NER specify a financeability formula that the AER must use to assess whether a TNSP can finance a specific ISP project.

In July 2023, the AEMC consolidated the two rule change requests proposed by the Minister and ENA, as it considered it necessary or desirable to deal with the requests together. The proposals from the Minister and ENA both sought to improve investor certainty regarding the investment in actionable ISP projects by addressing potential challenges faced by TNSPs in raising finance.

Following consultation on this consolidated rule change process the AEMC decided to make a more preferable final rule to address challenges that TNSPs may have in efficiently raising finance to proceed with actionable ISP projects. The final rule addresses financeability challenges by preventing a TNSP's financeability position from worsening as a result of the

ISP project where a TNSP's financeability position is at or below the financeability threshold. The final rule required the AER to bring forward a TNSP's cashflows related to an actionable ISP project through a combination of one or more of: applying as-incurred depreciation, varying the depreciation profile of assets, and revenue smoothing within a regulatory control period. The AEMC considered that the final rule strikes an appropriate balance between the two rule change requests, and the two objectives of providing the AER with sufficient flexibility, while also providing TNSPs and their investors with sufficient certainty to secure financing for investment in a timely manner.

The proposed guideline sets out our proposed approach to implement the requirements of the final rule.

2.2 Financeability

We have previously defined financeability as a service provider's ability to meet its financing requirement and to efficiently raise any new capital required to undertake the forecast investment in the regulated network.[1] We note that in the regulatory context, this may refer to the service provider's ability to achieve the benchmark credit rating applied in the estimation of the rate of return.[2] However, there is no one definitive measure of financeability amongst regulators and credit rating agencies.

We do not include any specific tests for financeability in our revenue determinations. Some other regulators do include specific financeability tests in their revenue decision making. The electricity regulator in Great Britain (Ofgem) conducts financeability testing as part of its revenue decisions. In NSW, IPART also uses financeability testing in the regulation of the water industry. These tests are intended to reflect approaches and financial metrics used by credit-rating agencies in determining the credit rating of a business.

Ratings agencies will compute various quantitative metrics and combine them with other qualitative assessments—such as the stability of the regulatory regime, revenue risk, and asset ownership model, financial policy, etc—to assess the overall credit rating for an entity. The weighting applied to each factor differs by agency, and in many cases is not transparent to those external to the assessment process.

Our revenue setting framework is based on a benchmark service provider operating a regulated transmission network is able to access funds at rates equivalent to the BBB+ credit rating level. We do not assume that all TNSPs will actually operate at a credit rating of BBB+ (or equivalent). We have discussed our views on financeability in greater detail in our recent rate of return working papers as part of developing the 2022 *Rate of Return Instrument*.[3] As required by the amended rules, the proposed guideline sets out how we will test for the financeability of actionable ISP projects consistent with clause 6A.6.3A(k).

2.2.1 Large projects' impact on financial metrics

Financial metrics tend to be relatively stable if the regulatory asset base (RAB) is in a relatively steady-state—where capital expenditure is mainly incurred to replace depreciated

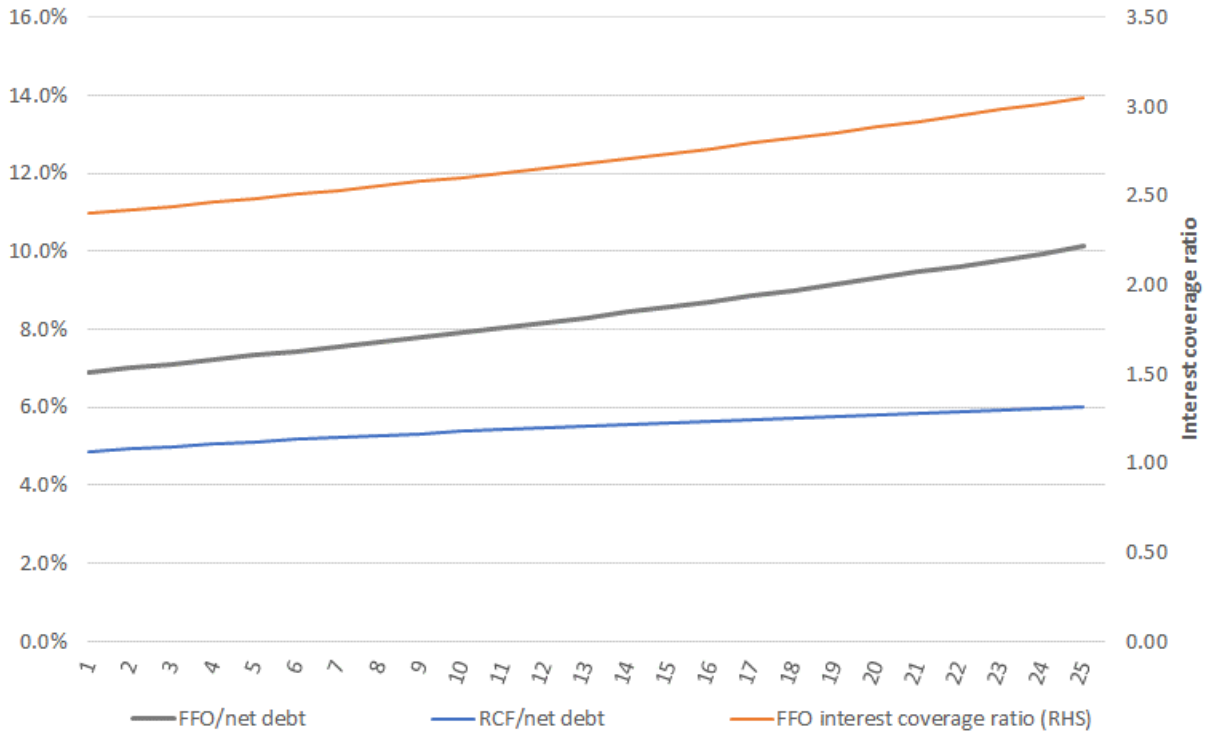
1 AER, Rate of return and cashflows in a low interest rate environment draft working paper, May 2021, p. 35.

2 AER, Overall rate of return draft working paper, July 2021, p. 54.

3 AER, Explanatory Statement - Rate of Return Instrument, 24 February 2023, pp. 266–269.

assets—or where there is steady expansion of the network. If there are a number of large expenditure projects over a short time, financial metrics can be more volatile. For example, Figure 2.1 shows various financial metrics from our revenue modelling of a benchmark service provider over a 25-year period for a steady state transmission network.

Figure 2.1 Financial metrics of steady state service provider

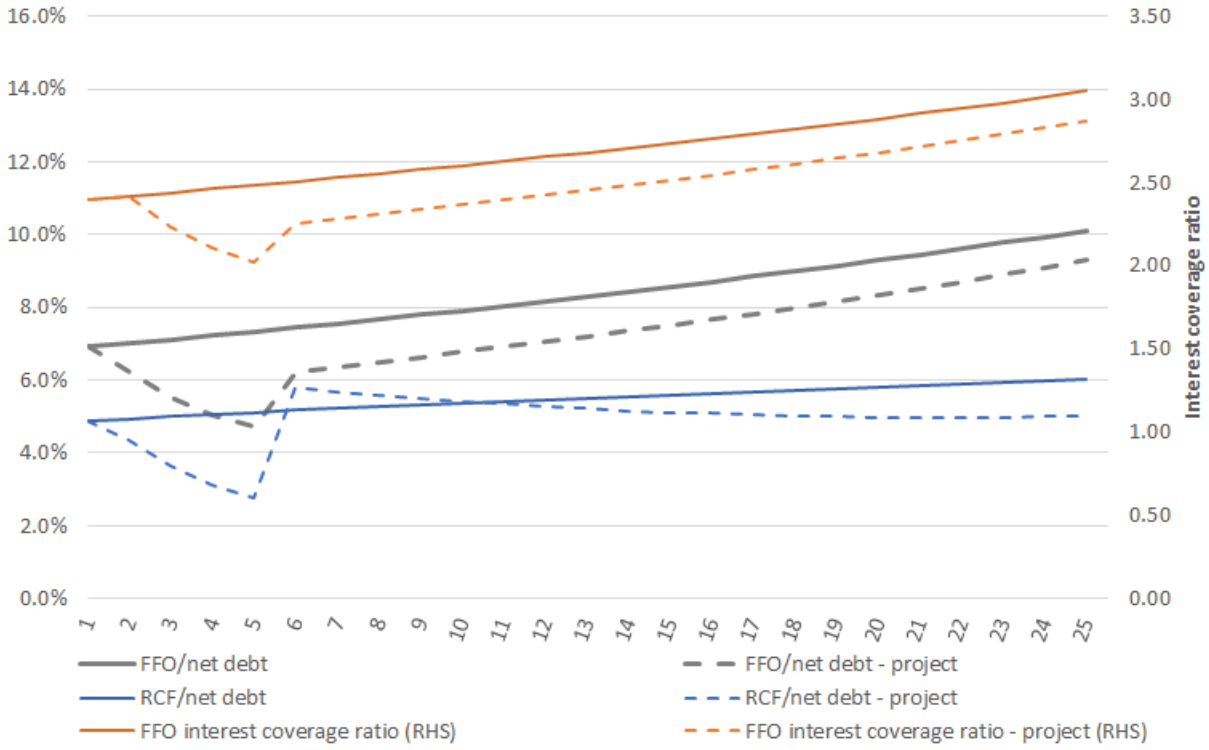


Source: AER analysis.
Assumptions: Opening RAB = $5 billion ($real, year 0), remaining asset life = 35 years
BAU capex = depreciation on opening RAB, standard life = 50 years
Opex = $200 million per annum ($real, year 0)
Nominal WACC = 6.60% (Return on debt = 5.00%, Return on equity = 9.00%, 60% gearing)
Inflation = 2.50%.

As illustrated, the metrics are relatively stable over time where there are no significant capex projects, and the RAB stays at a constant level in real terms. The example shown in Figure 2.2 illustrates the same underlying steady state scenario as above but adds a capex project that doubles the RAB over 5 years. Construction costs are incurred evenly over years 2 to 5, with the asset commissioned in year 5. As we can see, each metric is negatively impacted and incurs a large drop (during construction) and remains below the steady-state case for some time.[4] This is because under the current regulatory framework only a return on capital (rate of return) is provided for the expenditure as it is incurred. The return of capital (depreciation) cashflow begins after the asset is commissioned and providing services.

[4] Note that if we extend the analysis beyond the 25 years displayed, each metric does improve above the steady-state case scenario in future years.

Figure 2.2 Financial metrics with a capex project that doubles the RAB



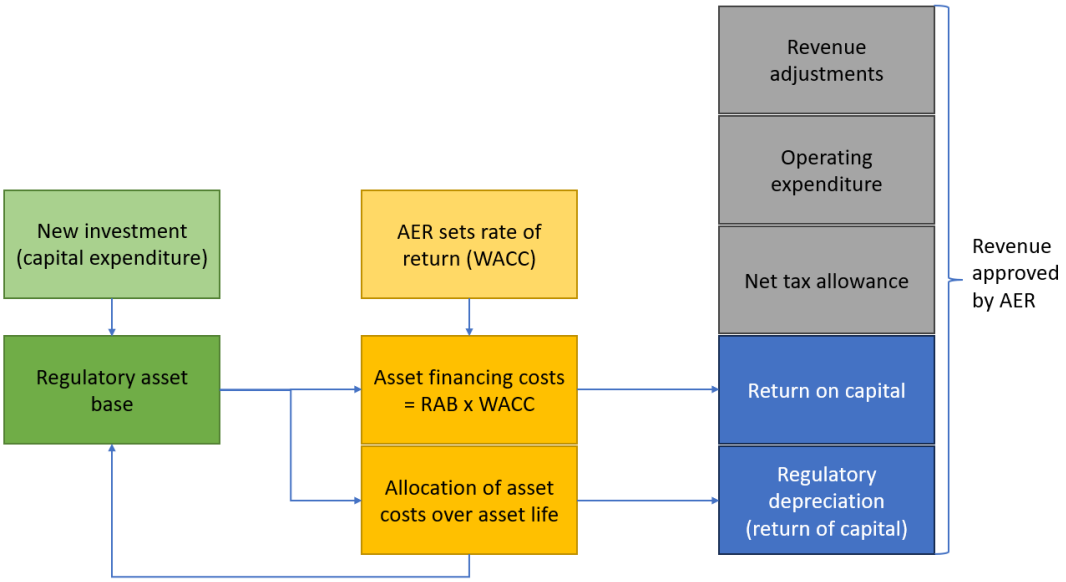
Source: AER analysis.
Assumptions: As for figure 2.1 + additional capex of $1.25 million per annum ($real, year 0) in years 2-5, commissioned in year 5.

The projects forecast to be required under the ISP generally involve significant increases to transmission RABs and in certain cases the impact of these projects on financial metrics may impact the TNSP's capability of securing efficient financing to undertake these projects. As such, the amended rules allow the depreciation profile to be adjusted for this capex to the extent required to mitigate financeability issues. Adjusting depreciation allows cashflows to be brought forward to reduce the impact to cashflows that is experienced under our current regulatory approach for large capex projects.

2.3 Depreciation in the regulatory context

Regulated service providers invest in large sunk assets. While some connection assets may be recovered from customers upfront, the greater proportion of the sunk costs enter the RAB and are recovered over time through allowances for the return on capital and return of capital (depreciation). The RAB is the value of the assets used by electricity TNSPs to provide prescribed transmission services to customers. The RAB is the foundation for determining a TNSP's return on capital and return of capital (regulatory depreciation), two key elements of the building block revenue requirement as shown in Figure 2.3.

Figure 2.3 The building block model to forecast network revenue



Source: AER analysis.

The return on capital building block is the amount of revenue required to pay for the two sources of funds for investment in the RAB (comprising equity and debt). The allowed rate of return is multiplied by the RAB to estimate the revenue required to service the interest on its loans and give a return on equity to investors in each year.

The regulatory depreciation (return of capital) building block is the amount provided so that capital investors can recover their investment over the useful life of the asset. The annual depreciation of assets that is provided through the revenue allowance is removed from the RAB value each year.

The current depreciation approach applies the straight-line method (coupled with an indexed RAB and nominal rate of return) and results in a relatively even recovery of sunk costs over time.[5]

2.3.1 Rule requirements and standard approach

The NER is not explicit in specifying the profile of depreciation that must be applied to transmission assets. Clause 6A.6.3 sets out the requirements for the calculation of depreciation in each regulatory year. It requires that the sum of the real value of the depreciation attributable to any asset or category of assets over the economic life must be equivalent to the value at which that asset or category of assets was first included in the RAB. This ensures that no more than the original cost of the asset is recovered from customers, accounting for the time value of money. The only requirement for the profile of

5 AER, *Fact sheet – "Why do we index the regulatory asset base?"*. Available at: https://www.aer.gov.au/-system/files/Fact%20sheet%20-%20Indexation%20of%20the%20regulatory%20asset%20base.pdf

this recovery is that 'the schedules must depreciate using a profile that reflects the nature of the assets or category of assets over the economic life of that asset or category of assets'.[6]

The exception to this—prior to the financeability rule change—was for an asset (or group of assets) that forms part of the RAB for a transmission system dedicated to one (or a small group of) transmission network user(s) and has an initial value of greater than $20 million. These assets must be depreciated on a straight-line basis over the life at which that asset (or group of assets) was first included in the RAB.[7] The financeability rule change included a further exception to this requirement, being for assets that form part of an actionable ISP project where the financeability test demonstrated that there is a financeability issue.[8]

The NER requires that we develop and publish a PTRM and RFM, and always have one of each in force.[9] The PTRM sets out the details of how the depreciation building block is to be calculated.[10] The NER also requires that these models are used by the TNSP in preparing a revenue proposal.[11] Therefore, the depreciation methods available to TNSPs to propose in its revenue proposal are also limited to those available in the template regulatory models.

Asset classes and useful lives

The RAB is broken down into various asset classes that reflect similar assets, or assets with similar useful lives. The number of asset classes used in the models will vary between TNSPs, but the breakdown of asset classes will generally be consistent across regulatory control periods. The rate at which each asset class is depreciated depends on the standard life attached to that asset class. Each asset class is assigned a particular standard asset life. This is a measure of how long the average asset in the class is expected to be in service.

We have generally interpreted this to also reflect the technical length of time/life over which the asset will provide transmission services to customers. For example, large physical assets such as transformers may be expected to provide services for 40 years, while office furniture and IT equipment may have a much shorter life before requiring replacement.

For intangible assets—costs that are not particular to a specific physical asset but are capitalised into the RAB—we consider that the depreciation schedule should be linked to the profile of physical assets which the cost relates. For example, equity raising costs relate to the cost of raising new equity finance where a TNSP has insufficient retained cashflow from which to finance capital expenditure. This cost is capitalised into the RAB, despite not relating to a specific asset, but to the broader capital expenditure program. In this case, we would generally amortise (depreciate) these costs over the weighted average life of the forecast capex program. Similarly, for biodiversity offset costs, they are inextricably linked to the capital project's life as the biodiversity credits are used to offset the project's biodiversity obligation. For this reason, we would amortise the costs of establishing the biodiversity credits over the weighted average life of the project.

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6 NER, cl. 6A.6.3.

7 NER, cl. 6A.6.3(c).

8 NER, cl. 6A.6.3A.

9 NER, cll. 6A.5.2 and 6A.6.1.

10 NER, cl. 6A.5.4(a)(3).

11 NER, cl. S6A.1.3

Consistent with this interpretation of providing depreciation over the time that the asset will provide transmission services to customers, our standard approach is to only begin depreciating an asset once it is commissioned and in use. We have generally only provided accelerated depreciation (shortened asset lives) in situations where assets are no longer being used (de-commissioned early), or there is a change in the expected useful life of the asset.

As-commissioned depreciation

Given the NER requirements, the nature of transmission assets has guided the standard approach set out in our template regulatory models. In contrast to distribution capital projects, transmission projects are generally larger and require a longer construction lead time. This means that there is often significant time gap during construction between when costs are incurred and when the assets are commissioned and providing services to customers.

In 2007 when we developed the transmission regulatory models, we took the view that the as-commissioned approach (depreciation of an asset starts when the asset is commissioned) was the preferred interpretation of the NER. We considered that customers should not have to pay for the return of capital until the assets were providing transmission service (commissioned).[12] Since 2007, we have consistently applied the as-commissioned depreciation approach for transmission.

While we accept that there may be exceptions to this principle (such as intangible assets like equity raising costs and biodiversity offset costs), our standard approach for TNSPs is to provide depreciation on an as-commissioned basis for physical transmission assets.

Straight-line depreciation

Once depreciation commences, our standard depreciation approach applies the straight-line method (coupled with an indexed RAB and nominal rate of return) to determine the profile of capital recovery. This results in a relatively even recovery of asset investment over time and is generally neutral in terms of incentives.[13] That is, of itself, this recovery profile does not encourage or discourage early or later consumption or investment. Calculating regulatory depreciation on a straight-line basis for transmission assets has been the only approach available in our regulatory models since their inception and has been generally supported by stakeholders.

2.3.2 Alternative depreciation approaches

As-incurred depreciation

Currently all transmission capex on physical assets is depreciated on an as-commissioned basis, meaning depreciation of the assets only begins when the asset is commissioned and being used to provide services. TNSPs still receive a return on the capital as expenditure is incurred, however, no return of capital (regulatory depreciation) is provided until the asset is commissioned. Alternatively, an as-incurred approach allows depreciation to begin when the expenditure has been incurred, even if the asset is not yet being used to provide

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12 AER, *Final decision: Electricity transmission network service providers, Post-tax revenue model*, September 2007, pp. 6–7.

13 AER, *Fact sheet – "Why do we index the regulatory asset base?"*. Available at: https://www.aer.gov.au/-system/files/Fact%20sheet%20-%20Indexation%20of%20the%20regulatory%20asset%20base.pdf

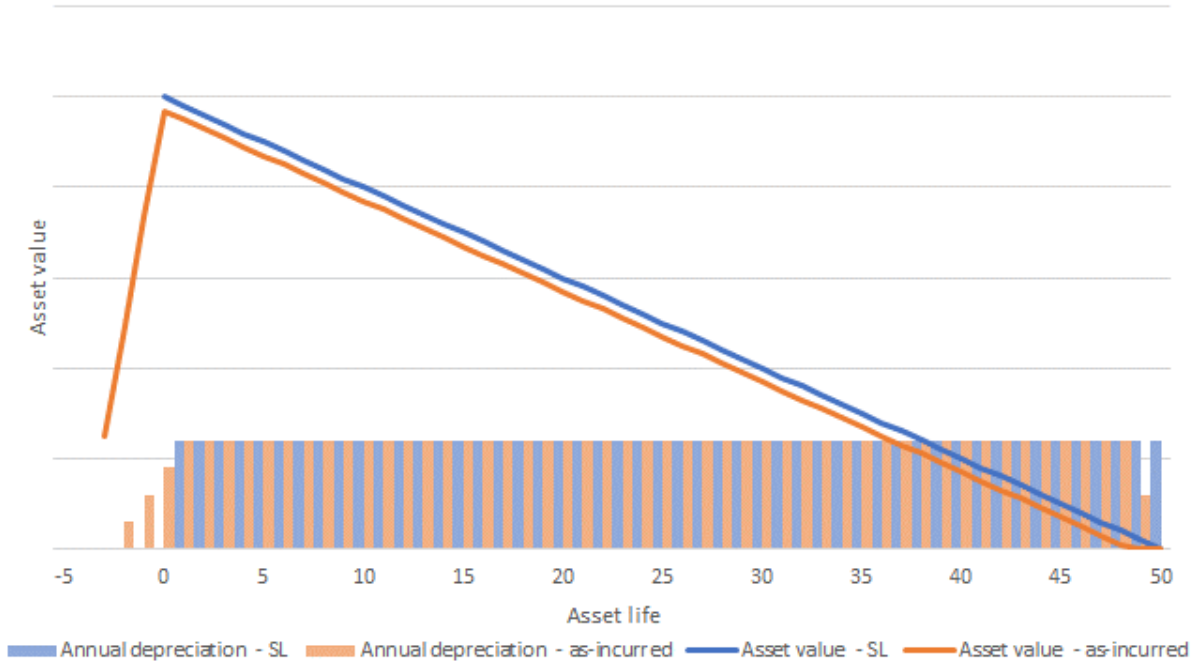
transmission services. This allows service providers to start receiving a regulatory depreciation allowance during the time a new project is being built and before it is commissioned.

We use the as-incurred depreciation approach for distribution network service providers because the capital projects or programs tend to be smaller and are generally commissioned in the same year as the expenditure is incurred. Providing regulatory depreciation on an as-incurred basis (rather than when assets are commissioned) is also a tool that can be used by regulators to encourage service providers to undertake capital investments that might otherwise be deferred due to construction risk. By requiring consumers to pay regulatory depreciation on investments for several years before a project is commissioned, at least some construction risk can be transferred from businesses to consumers.

As discussed in section 2.3.1, we do not consider as-incurred depreciation reflects the nature of physical transmission assets. However, under the amended rule we are not bound by the same requirements for assets that form part of an actionable ISP project where there is a financeability issue.

From a cashflow perspective, applying as-incurred depreciation would remove the typical dip in financial metrics that is evident during the construction stage of ISP projects (as shown in Figure 2.2 above), while the metrics following commissioning are mostly unchanged. However, this approach also results in consumers paying earlier the costs associated with the depreciation of investments before the projects are commissioned and providing any service to customers.

Figure 2.4 Comparison of asset depreciation under as-incurred depreciation versus as-commissioned depreciation ($real)



Source: AER analysis.

If we adopt a transmission proportion of 10% on a $2000 annual electricity bill, applying as-incurred depreciation to the example project that doubles the RAB over 4 years (discussed in

section 2.2.1) would lead to bills that are around $15 per annum higher over the construction period than under the as-commissioned approach. These higher bills during the construction period are offset by slightly lower (around $2 per annum) bills over the remaining life of the project's assets.

We note that moving to as-incurred depreciation is net present value (NPV) neutral. However, it may also weaken incentives for service providers to complete capital projects in a timely and efficient fashion. The more revenue a service provider receives prior to completion of a project, the less incentive there is to complete the project in a timely manner.

We also note that a change to using as-incurred depreciation for actionable ISP project capex can be implemented in combination with any change to the underlying method of calculating depreciation discussed below.

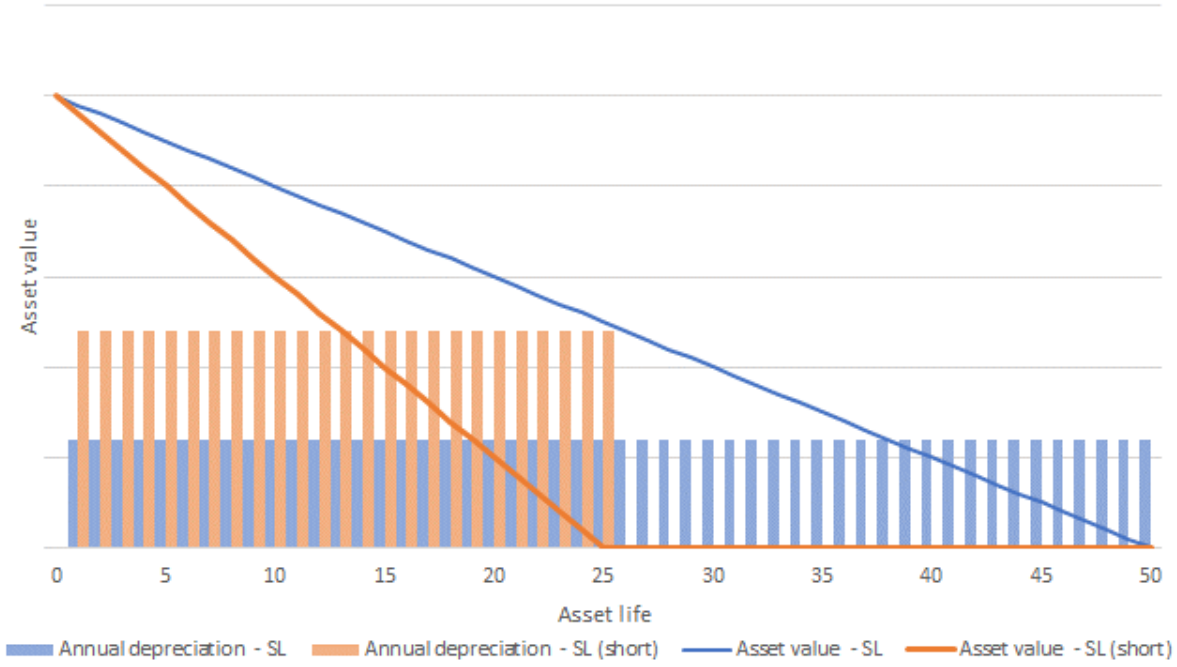
Accelerated depreciation

Adjusting the asset lives that are used to calculate the straight-line depreciation rate is an option available using the current template regulatory models, provided it satisfies the NER requirements. We have previously approved shorter asset lives in revenue determinations where the revised life results in a depreciation profile that reflects the nature of the assets over their economic life. The most common case for shortened asset lives is to accelerate depreciation of assets that are no longer in service or have a particular reason for early replacement, resulting in reduced economic lives.[14]

As a result of the amended rules, we consider that we can approve shorter asset lives for capex associated with an actionable ISP project where there is a demonstrable financeability issue. Reducing the asset life applied to capex brings forward the stream of depreciation cashflows—thereby improving short-term financial metrics. However, simply shortening asset lives may also lead to further financeability concerns in future years where the asset has been fully depreciated and results in lower revenue being received by the service provider. The asset is still expected to be providing services over this time, however, no further streams of depreciation cashflows are being provided for. Compared to the use of shaped depreciation profiles discussed below, applying shorter asset lives also lead to more volatile financial metrics over the longer term.

[14] For example, we accepted AusNet Services' accelerated depreciation of particular high bushfire risk assets which were forecast to be replaced as part of approved safety programs, resulting in the replaced assets having zero economic lives. See: AER, *Final decision - AusNet Services distribution determination 2021–26 - Attachment 4 - Regulatory depreciation*, April 2021.

Figure 2.5 Comparison of asset depreciation under straight-line depreciation using accelerated life versus economic life ($real)



Source: AER analysis.

Shaped depreciation

While straight-line depreciation provides an even recovery of depreciation (in real terms) over the life of an asset, shaped depreciation varies this recovery over the asset's life. Two common approaches that provide shaped depreciation are the diminishing value method and sum-of-the-years' digits method. Both of these methods provide for similar profiles of depreciation, with higher depreciation being provided early in an asset's life, with relatively less provided later in its life. Although the diminishing value method is already applied in our template models for depreciation of the tax asset base, we consider it has certain characteristics that make it less ideal than the sum-of-the-years' digits method when considering alternative approaches. Most notably being that the asset value is not fully depreciated over its expected life under the diminishing value method. There is a residual value for the asset that remains after it is expected to expire which requires an ad hoc adjustment at the end of the asset's useful life to remove the remaining value or the life is effectively extended indefinitely. This adjustment may result in a sudden jump in depreciation in the final year of an asset's life.

The sum-of-the-years' digits method shares a similar shaped depreciation profile to the diminishing value method, but the asset value is fully depreciated over its expected life. This method is not available in our current regulatory models, but may be made available under amended template regulatory models following the decision of this guideline if required.

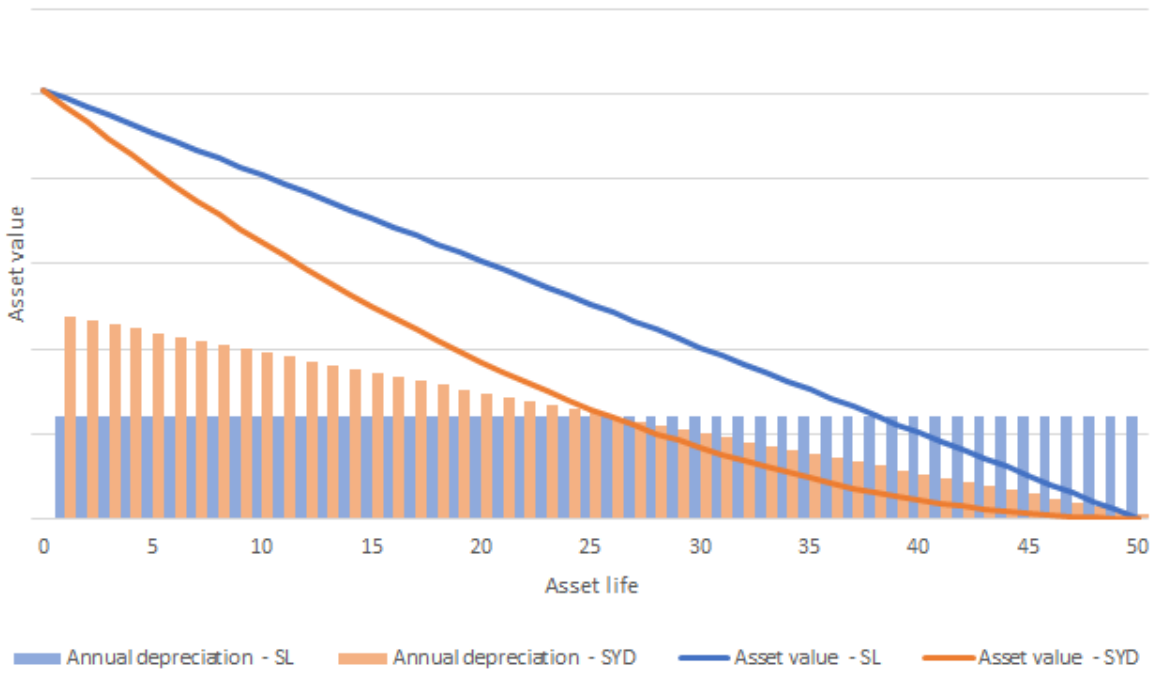
Sum-of-the-years' digits depreciation is calculated by adding up all the years in the asset's expected life, and then calculating the depreciation rate for each year by dividing the remaining life at the given year by the sum of all years. For an asset with a 5 year life, the sum of all the years (denominator) is 15 (1+2+3+4+5=15). Table 2.1 illustrates the depreciation rates in each year for an asset with a 5 year economic life and their calculation.

Table 2.1 Example depreciation rates of an asset with a 5 year life under sum-of-the-years' digits depreciation

Year	Remaining life	Calculation	Depreciation rate
Year 1	5	5/15	33%
Year 2	4	4/15	27%
Year 3	3	3/15	20%
Year 4	2	2/15	13%
Year 5	1	1/15	7%

As illustrated above, 33% of the value is depreciated in the first year of the asset's expected life, while only 7% is left to depreciate in the final year. Figure 2.6 illustrates the depreciation of an asset with a longer life of 50 years under the sum-of-the-years' digits method compared to the straight-line method. This shows that in the first half of the asset's life annual depreciation from sum-of-the-years' digits is higher than under straight-line depreciation, while towards the end of the asset's life depreciation is lower than under straight-line depreciation.

Figure 2.6 Comparison of asset depreciation under sum-of-the-years digits versus straight-line depreciation ($real)



Source: AER analysis.
Notes: SL is straight-line and SYD is sum-of-the-years' digits.

As for the case of shortening asset lives, this front-loading of depreciation under the sum-of-the-years' digits method brings forward the revenues and therefore cashflows associated with recovering the asset's cost. However, unlike shortening the asset life, under the sum-of-the-years' digits approach the life over which the entire value of the asset is recovered is not changed. As such, while sum-of-the-years' digits depreciation improves short to medium term financial metrics like shorter asset lives, it also results in financial metrics over the longer term that are less volatile than simply applying a shorter asset life to the assets.

The sum-of-the-years' digits method is currently used by Ofgem for its gas distribution networks. Ofgem conducted a review of its approach to asset life and depreciation assumptions across the energy networks in 2011.[15] Following the review Ofgem concluded that, while it would retain a 45 year asset life assumption to all future energy network assets, it decided to front-load depreciation of gas distribution assets using the sum-of-the-years' digits method.[16] The objective of this change in approach was to reduce the risk of lower utilisation in the future driving up unit costs to customers. We note, however, that Ofgem operates under a different building block framework than us that assesses total expenditure (totex) and applies an assumed capitalisation rate to calculate the value to be depreciated using a single asset life. Our approach to regulatory depreciation applies a more granular approach to assessing asset depreciation.

15 Ofgem, The Economic Lives of Energy Network Assets – Report by CEPA/SKM/GL on behalf of Ofgem, December 2010.

16 Ofgem, RIIO-GD1: Final Proposals - Finance and uncertainty supporting document, December 2012, pp. 6–7.

3 Contents of the guideline

This proposed guideline sets out how we propose to implement the financeability rule change and assess financeability following a financeability request related to actionable ISP projects. Once finalised, it is expected that a financeability guideline must always be in force. That is, we may amend the guideline, but a guideline must always be in operation. The amended rules set out some specific requirements of the contents of the guideline, but also allow us to set out any other matters we consider appropriate.[17] This section sets out the elements of our guideline and reasons for our decision.

3.1 Guiding principles

Our guiding principles will be informed by the requirements of the NER, and our obligation under the NEO to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers.

In the following sections we set out how we will propose to identify and define financeability issues, and what will guide our determination of an appropriate approach to addressing the issue.

3.2 Demonstrating a financeability issue

The amended rules set out a two-stage process for demonstrating whether a TNSP has a financeability issue from an actionable ISP project. First, we must determine a financeability position without the actionable ISP project using the revenues derived from the prevailing PTRM (step one).[18] Following this we must determine the financeability position (using the same process) but including the relevant actionable ISP project cost and any adjustment to the gearing ratio agreed in a concessional finance agreement (step two). A financeability issue is determined to exist if the financeability position for the TNSP is either:

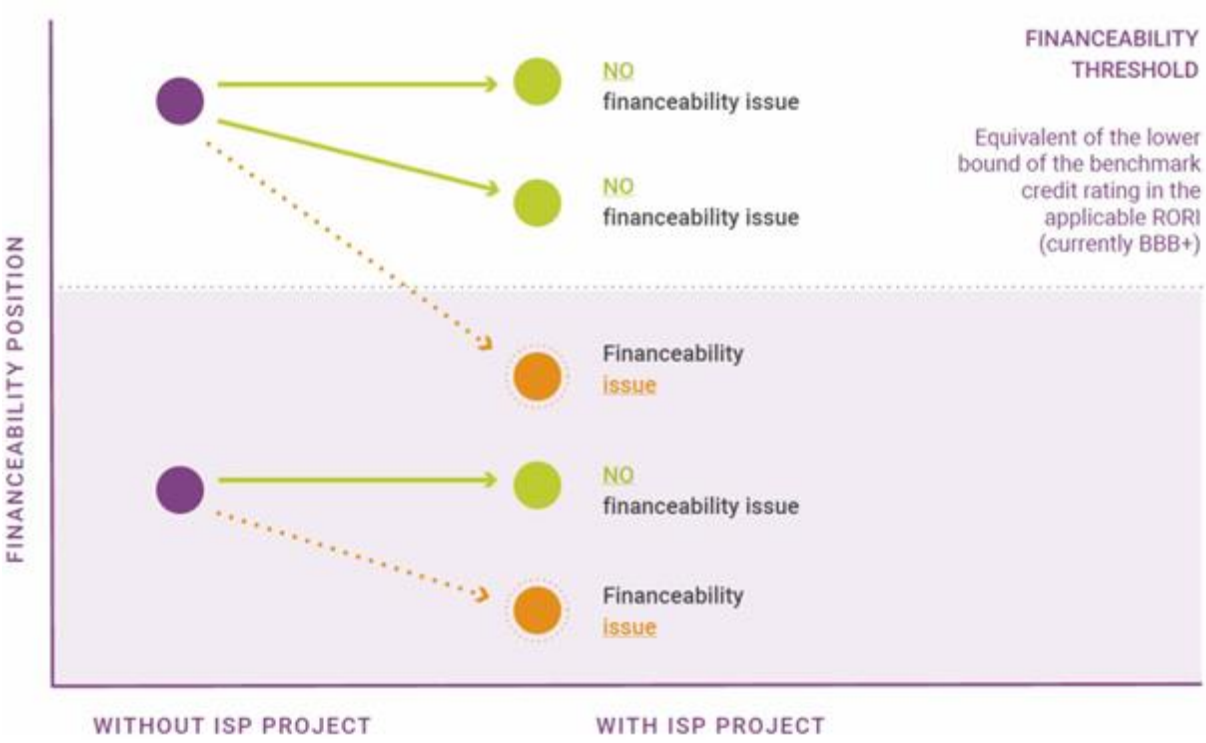
- equivalent to or higher than the financeability threshold at step one, and deteriorates below the financeability threshold following the application of step two; or
- lower than the financeability threshold at step one and deteriorates below that financeability position following the application of step two.

The financeability threshold for the purposes of this test means the benchmark credit rating used to estimate the return on debt component in the applicable *Rate of Return Instrument*. Figure 3.1 shows the process for demonstrating a financeability issue from the AEMC's final determination.

17 NER, cl. 6A.6.3A(r)–(s).

18 These revenues must reflect the benchmark gearing ratio, or the benchmark gearing ratio adjusted in accordance with any relevant concessional finance agreements.

Figure 3.1 Determining whether a TNSP has a financeability issue after an actionable ISP project



Source: AEMC, *Rule determination - Financeability of ISP projects*, March 2024, p. 21.

Following this test, we are required to adjust cashflows—primarily through an adjustment to depreciation—to ensure the TNSP's financeability position either does not fall below the financeability threshold or does not worsen below the current level as a result of the ISP project—whichever requires the least adjustment to depreciation cashflows.

Question on guideline

1) Does the proposed financeability guideline conform with the AEMC's final determination on financeability rule change? If not, what are the main issues with the proposed guideline?

The amended rules require our guideline to set out how we will determine the financeability position of the TNSP for the purposes of the financeability test, including the basis and weighting for the selection of financial metrics used. It must also set out how the financeability position relates to the financeability threshold. We discuss these elements in turn below. The detailed calculations of each metric, weighting and overall financeability position is set out in the proposed financeability guideline. We also describe a worked example of applying the financeability test (Attachment A), as well as the proposed financeability guideline model (Attachment B – excel workbook including the relevant models (zip file) used for the worked example).

3.2.1 Determining the financeability position

The AEMC noted in its final determination that it expected the AER to adopt a set of financial metrics and weightings that are similar to the approaches used by credit rating agencies when determining a TNSP's financeability position. There are a number of key financial

metrics that ratings agencies consider (among other things) when assessing an entity's financeability. These include, but are not limited to:

- Funds From Operations over Net debt ratio (FFO/Net debt)
- FFO Interest Coverage Ratio (FFO ICR)
- Adjusted Interest Coverage Ratio (AICR)
- Net debt to RAB ratio (Net debt/RAB)
- Retained Cash Flows to Net debt ratio (RCF/Net debt).

Ratings agencies will compute these and other quantitative metrics, and combine them with various qualitative assessments—such as the stability of the regulatory regime, revenue risk, and asset ownership model, financial policy, etc—to assess the overall credit rating for an entity. The weighting applied to each factor differs by agency, and in many cases is not transparent to those outside the organisation.

Moody's has published its methodology for rating regulated electricity and gas networks.[19] Other ratings agencies have not published a specific methodology. The credit rating assigned to an overall business entity impacts the cost of credit, as well as the ease with which the entity can access credit to undertake its operations.

Moody's published methodology applies a 40% weighting to the key financial metrics noted above. A further 40% of its preliminary outcome comes from its assessment of the regulatory environment and ownership model, and the remainder is split evenly between the scale and complexity of the capital program and its assessment of financial policy. Furthermore, there are considerations beyond this preliminary scorecard outcome that can uplift or adjust the assigned credit rating and relies on judgement. The calculation and assessment of these other qualitative factors are not as simple or transparent to reproduce and quantify.

Figure 3.2 illustrates Moody's regulated electricity and gas networks methodology framework.

We consider that Moody's methodology for its 'Leverage and coverage' scorecard factor is a reasonable tool to use to calculate and define a TNSP's quantitative financeability position for benchmark regulation purposes. Our proposed guideline replicates the approach that Moody's set out in its methodology for scoring the leverage and coverage factor in regulated electric and gas networks using cashflows from the relevant PTRM, including any adjustments required for concessional finance.

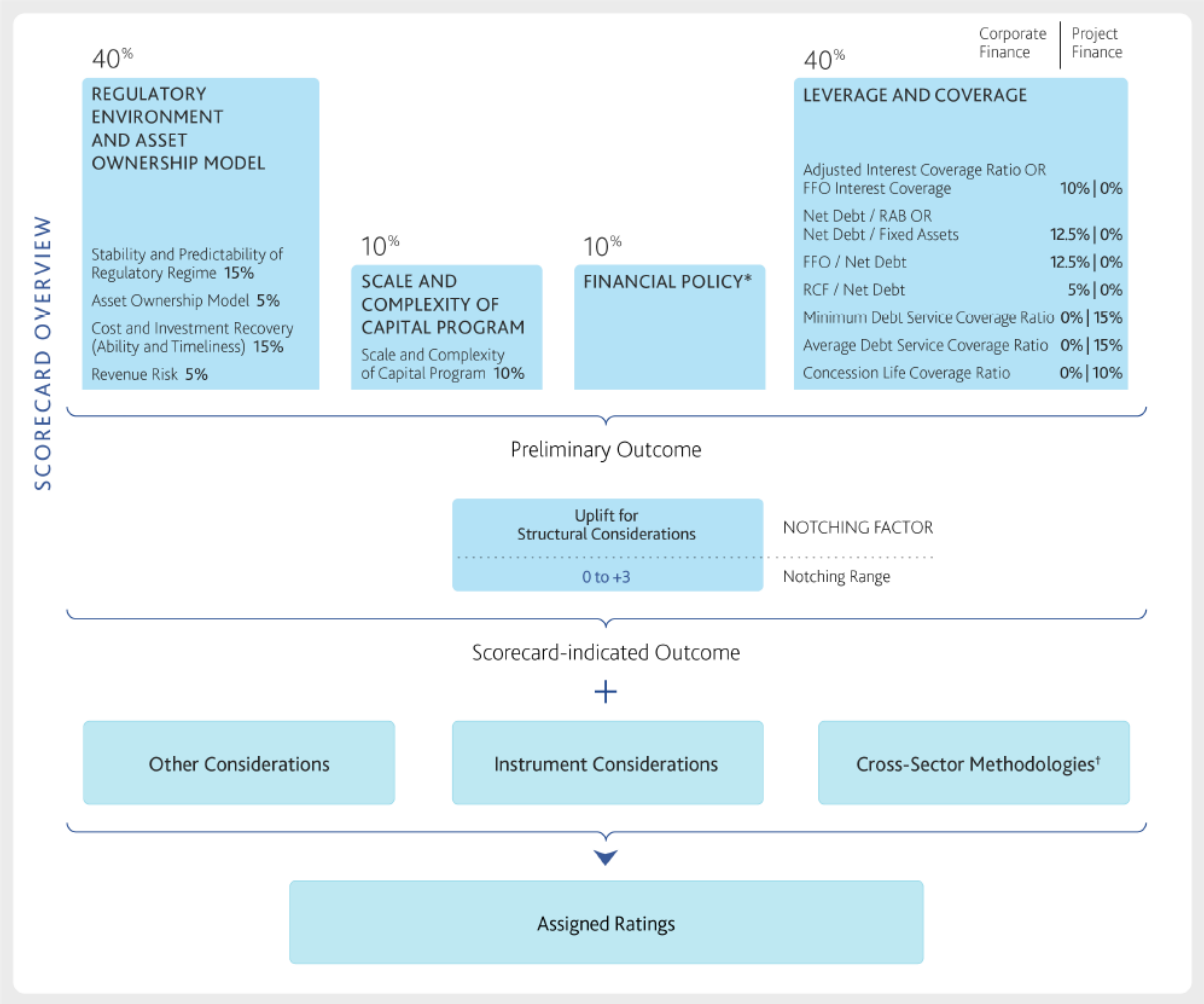
Questions on financeability position

2) Is replicating Moody's leverage and coverage scorecard an appropriate quantitative approach to calculate a TNSP's financeability position? If not, what is a more appropriate approach?
3) Are there any issues with how we have replicated Moody's leverage and coverage scorecard methodology in the guideline? If so, how should we address these issues?

[19] Moody's Investor Service, *Rating Methodology - Regulated Electric and Gas Networks*, 13 April 2022.

While we are aware that this quantitative assessment only makes up 40% of Moody's preliminary credit rating assessment outcome, the AEMC's final determination noted that the financeability test set out in the amended rules deliberately uses quantitative financial metrics and weightings and does not need to consider qualitative factors in order to provide greater investment certainty.

Figure 3.2 Illustration of Moody's regulated electricity and gas networks methodology framework



* This factor has no sub-factors.
† Some of the methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector. A link to a list of our sector and cross-sector methodologies can be found in the "Moody's related publications" section.

Source: Moody's Investor Service, *Rating Methodology - Regulated Electric and Gas Networks*, 13 April 2022, p. 3.

Moody's leverage and coverage scorecard methodology

Moody's leverage and coverage factor in its ratings methodology attempts to measure the financial flexibility and long-term viability of a regulated network, including the ability to adapt to changes in the economic and regulatory environments. It does this by computing four key financial metrics and mapping the results to broad rating categories (and numeric score), and calculating an overall outcome based on the weighted average of the individual scores. The base weightings applied to the metrics are shown in Table 3.1.

Table 3.1 Weighting of financial metric outcomes in Moody's leverage and coverage scorecard

Metric	Weighting of overall assessment	Weighting of leverage and coverage factor
AICR[20]	10%	25%
Net debt/RAB	12.5%	31.25%
FFO/Net debt	12.5%	31.25%
RCF/Net debt	5%	12.5%
Total	**40%**	**100%**

Source: Moody's Investor Service, *Rating Methodology - Regulated Electric and Gas Networks*, 13 April 2022, p. 3.

Each financial metric is computed and based on the result it is given a numeric score that is mapped to a broad rating category as shown in Table 3.2. The metrics considered are generally based on a 3-year average forecast of the metric. A lower score indicates a better result for this metric.

Table 3.2 Ranges for financial metric results and rating category score mapping

Rating category	AICR	Net debt/RAB	FFO/Net debt	RCF/Net debt	Numeric score
Weighting	**25%**	**31.25%**	**31.25%**	**12.5%**	
Aaa	≥5.5	<30%	≥35%	≥30%	1
Aa	3.5-5.5	30%-45%	26%-35%	21%-30%	3
A	2.0-3.5	45%-60%	18%-26%	14%-21%	6
Baa	1.4-2.0	60%-75%	11%-18%	7%-14%	9
Ba	1.1-1.4	75%-90%	5%-11%	1%-7%	12
B	0.9-1.1	90%-100%	0%-5%	–4%-1%	15
Caa	<0.9	≥100%	<0%	<–4%	18

Source: Moody's Investor Service, *Rating Methodology - Regulated Electric and Gas Networks*, 13 April 2022, pp. 4–8, 20.

If all the metrics are in the A-Aaa range, then they are simply weighted at the base rates shown in Table 3.3 to calculate a weighted average. However, if any metrics fall below the broad A rating category, a further weighting is applied as shown in Table 3.3. This is an attempt to reflect that a serious weakness in one area often cannot be completely offset by a strength in another. For example: although 'Net debt/RAB' and 'FFO/Net debt' are both weighted the same before this adjustment, if a network scored 6 (A) for Net debt/RAB, but scored a weaker 15 (B) for FFO/Net debt, the FFO/Net debt score would get a greater weighting after the adjustment. As a result, the weighted average score would be closer to the lower credit rating category (B) than the upper (A).

[20] Moody's methodology notes that it uses the Adjusted Interest Coverage Ratio (AICR) rather than pure FFO interest coverage for regulated networks where allowed revenues/tariffs are determined using a 'building block approach' and where the components of allowed revenues/tariffs are routinely published and can be verified by an independent source. As this reflects our regulatory framework, we expect to use AICR instead of FFO interest coverage in our analysis.

Table 3.3 Weighting multiplier for financial metrics

Rating category	Numeric score	Weighting multiplier
Aaa	1	1
Aa	3	1
A	6	1
Baa	9	1.15
Ba	12	2
B	15	3
Caa	18	5

Source: Moody's Investor Service, *Rating Methodology - Regulated Electric and Gas Networks*, 13 April 2022, p. 20.

Table 3.4 provides a worked example of a hypothetical network's financial metrics and resulting leverage and coverage score according to Moody's methodology. In the example the network scores 9 (Baa) for each metric except FFO/Net debt where it scores 12 (Ba). As a result, the score for FFO/Net debt gets a relatively higher weighting applied to it than the other metric scores. In the example below, although the base weighting for FFO/Net debt and Net debt/RAB are the same (31.25%), after the adjustment of metric weighting FFO/Net debt is reweighted to 44.1%, while Net debt/RAB is weighted at a lower 25.4%.

Table 3.4 Worked example of Moody's methodology leverage and coverage scorecard calculation

Metric	Result	Base weighting	Numeric score	Weighting multiplier	Adjusted score
AICR	1.80x	25%	9	1.15	9 x (20.3%)
Net debt/RAB	60%	31.25%	9	1.15	9 x (25.4%)
FFO/Net debt	10.0%	31.25%	12	2	12 x (44.1%)
RCF/Net debt	10.0%	12.5%	9	1.15	9 x (10.2%)
Weighted average	n/a	n/a	**9.94**	n/a	**10.32**

Source: AER analysis.

This numeric value is then combined with the factors that make up the other 60% of its preliminary outcome (and any notching factors) to determine the 'Scorecard-indicated outcome' which is mapped to Moody's alphanumeric credit rating as shown in Table 3.5.

For the same worked example above (if we considered the score for the qualitative factors was also 10.32) the network would be allocated a credit rating of Baa3. This is broadly equivalent to the S&P rating of BBB-. If the qualitative assessment resulted in a stronger score—for example a score of 6.0 in the A range—the scorecard indicated outcome would be 7.73.[21] This is in the Baa1 range, which is broadly equivalent to an S&P rating of BBB+.

[21] Calculated as (10.32×40%) + (6.0×60%)

Table 3.5 Moody's overall scorecard-indicated outcome

Numeric score	Scorecard-Indicated Outcome	S&P equivalent rating
x < 1.5	Aaa	AAA
1.5 ≤ x < 2.5	Aa1	AA+
2.5 ≤ x < 3.5	Aa2	AA
3.5 ≤ x < 4.5	Aa3	AA-
4.5 ≤ x < 5.5	A1	A+
5.5 ≤ x < 6.5	A2	A
6.5 ≤ x < 7.5	A3	A-
7.5 ≤ x < 8.5	Baa1	BBB+
8.5 ≤ x < 9.5	Baa2	BBB
9.5 ≤ x < 10.5	Baa3	BBB-
10.5 ≤ x < 11.5	Ba1	BB+
11.5 ≤ x < 12.5	Ba2	BB
12.5 ≤ x < 13.5	Ba3	BB-
13.5 ≤ x < 14.5	B1	B+
14.5 ≤ x < 15.5	B2	B
15.5 ≤ x < 16.5	B3	B-
16.5 ≤ x < 17.5	Caa1	CCC+
17.5 ≤ x < 18.5	Caa2	CCC
18.5 ≤ x < 19.5	Caa3	CCC-

Source: Moody's Investor Service, *Rating Methodology - Regulated Electric and Gas Networks*, 13 April 2022, p. 21; AER analysis.

Adjustments for concessional finance

The amended rules specify that where the TNSP has entered into one or more concessional finance agreements with a government funding body and the benefits are not all being passed through to consumers, those benefits retained by the TNSP are to be taken into account in applying the financeability test.[22] In this case, the TNSP must provide the AER with the details of the agreement, and explanation of how the benefits are to be taken into account in applying the financeability test, in accordance with the concessional finance agreement.

The amended rules require that we have regard to the information set out in the relevant concessional finance agreements when applying the financeability test. The concessional finance agreement is expected to set out how benefits are to be taken into account in applying the financeability test. Therefore, our proposed guideline simply allows the relevant cashflows to be adjusted consistent with this agreement before calculating the financeability position of the TNSP. This may result in an adjustment to the base financeability position (without the actionable ISP project) for concessional finance received for prior actionable ISP projects, or the financeability position after including the actionable ISP project, or both.

We consider that such an adjustment could take the form of using the forecast interest payments for a loan with a concessional rate when calculating the financial metrics. It could

22 NER, cll. 6A.6.3A(e)(1)–(2).

also take the form of an adjustment to the gearing ratio used in the metrics. This would reflect an increased equity component in that ratio from hybrid instruments as agreed in a concessional finance agreement.[23] The proposed financeability guideline and model sets out how we will make such adjustments to account for concessional finance in calculating the financeability position.[24]

Question on concessional finance

4) Is there a more appropriate mechanism to adjust the financeability position for expected concessional finance agreements? If so, what is the mechanism?

3.2.2 Financeability threshold

The amended rules require that our guideline set out how the financeability position (discussed in 3.2.1) relates to the financeability threshold. This relationship is used to determine whether a financeability adjustment is required and to what degree as shown in Figure 3.1. There are 2 occasions where a financeability adjustment is required:

1. The financeability position before including the ISP project is at or above the financeability threshold and deteriorates below the threshold after including the ISP project expenditure. In this case a financeability adjustment is only required to return the financeability position to the threshold.
2. The financeability position before including the ISP project is already below the financeability threshold and deteriorates further after including the ISP project expenditure. In this case a financeability adjustment is required to return the financeability position to equivalent to that before including the ISP project.

The rules define the financeability threshold for the purpose of this test to be the benchmark credit rating used to estimate the return on debt component in the applicable *Rate of Return Instrument*. In the 2022 *Rate of Return Instrument* we used a benchmark credit rating of BBB+ to estimate the return on debt.[25]

As noted above, the scorecard indicated outcome that is matched to individual credit rating bands (e.g. Baa1/BBB+) is only performed at the overall assessment level, not on the leverage and coverage score alone. Individual metrics are only mapped to the broader rating band (e.g. Baa which encompasses Baa1–Baa3). As such, matching a purely quantitative score to a specific credit rating ignores the fact that TNSPs operating under our regulatory framework would be expected to score well in the qualitative assessment. This positive qualitative assessment would allow the TNSP to carry relatively worse quantitative metrics than would be implied by only linking the quantitative score directly to a credit rating.

The amended rules only allow us to consider the quantitative financial metrics of the regulated network in determining a TNSP's financeability position. We consider it important to clarify that the financeability position and its relationship to a credit rating outcome for the purposes of undertaking a financeability test must be viewed in the context of this rule

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23 NER, cl. 6A.6.3A(k).

24 Rows 26 to 48 in the 'Inputs' sheet of the financeability guideline model set out the inputs and adjustments to the 'base case' position as a result of past concessional finance. Rows 75 to 96 set out the inputs and adjustments to the proposal as a result of expected concessional finance arrangements.

25 AER, *Rate of Return Instrument - Explanatory Statement*, February 2023, pp. 222–223.

requirement. The financeability position implied from PTRM cashflows based purely on quantitative metrics—using Moody's methodology as the base—may fall below the' 'benchmark' threshold, or even reflect a 'non-investment grade' score. However, this does not imply that a TNSP experiencing these cashflows would be assigned this credit rating. The overall score (and in turn credit rating) would be expected to be lifted by the qualitative factors which make up a greater proportion of the assessment.

For the purposes of the financeability test and consistent with the AEMC's final determination we consider that a financeability position score (calculated consistent with the leverage and coverage methodology) of 8.5 should be used as the financeability threshold. As shown in Table 3.5 this reflects the threshold between Baa1 (equivalent to BBB+) and Baa2 (equivalent to BBB). If a TNSP's financeability position scores below 8.5 it will be considered above the threshold, and if it scores at or above 8.5 it will be considered below the threshold.

Question on financeability threshold

5) Is the proposed financeability threshold appropriate given the AEMC's final determination? If not, what is a more appropriate threshold to apply?

3.3 Addressing a financeability issue

If a financeability issue has been demonstrated based on the change in financial position resulting from the addition of an actionable ISP project expenditure, we can address the issue by any combination of the following:

1. depreciating the assets forming part of the actionable ISP project using a profile that would bring forward cashflows to satisfy the financeability test,
2. adjusting the X factors for each regulatory year in the remainder of the relevant regulatory control period,
3. taking other steps through another mechanism available to the AER under the Rules.

An adjustment to X factors (Option 2) will apply for any decision on an actionable ISP and is unlikely to address any financeability issues solely by itself. Therefore, the focus of the proposed guideline will be on appropriate adjustments to depreciation (Option 1).

We consider that a guiding principle for addressing a financeability issue through depreciation would be that any such adjustment should be the minimum required to satisfy the financeability test. The most appropriate option will likely depend on the timeframe and significance of the financeability issue demonstrated. The options available also depend on the flexibility available within the applicable regulatory models. At the time of the proposed guideline applying a shaped depreciation profile to actionable ISP related assets is not available and would require an amendment to the regulatory models.

As a general principle we consider that applying depreciation on an as-incurred basis to all or part of the actionable ISP capex (without adjusting asset lives) should be applied as the first step to adjusting the depreciation of assets. This option is most likely to address financeability issues faced during the construction phase of an ISP project, while minimising any potential longer-term issues associated with accelerating depreciation (see section 2.3.2). Although it requires consumers to pay for an asset prior to services being provided, it is the only practical means to address financeability issues faced during the construction phase.

If applying as-incurred depreciation is not sufficient to address the demonstrated financeability issue, further options to adjust the depreciation profile should be considered. As noted above the options available to accelerate depreciation depend on the flexibility available within the applicable regulatory models.

At the time of the proposed guideline, the only option to accelerate depreciation of ISP related capex is to adjust the asset lives at which the capex is depreciated under a straight-line basis. We consider that there is sufficient flexibility because this accelerated depreciation can be implemented by either adjusting the standard asset life of an entire asset class (provided that only ISP related capex was allocated to this asset class), or by creating a new asset class with a shorter life and allocating a proportion of ISP capex to this class. The appropriate amount of accelerated depreciation would only reflect the level to adjust the financeability position to the degree required to address the financeability issue, and not improve the position beyond the threshold or previous position (whichever is relevant).

For example, if reallocating 10% capex from an asset class with a 50-year asset life to a new asset class with a 5-year life was sufficient to address the demonstrated financeability issue, then this is more appropriate than an approach that reallocated 25% of capex to this shorter life asset class. While both approaches address the financeability issue, accelerating only 10% is more appropriate as it addresses the financeability issue with the least impact on the overall depreciation profile of the RAB.

If the template regulatory models are amended to accommodate an option to apply sum-of-the-years' digits depreciation, we consider that this would provide for another mechanism to apply accelerated depreciation to address the demonstrated financeability issue. As discussed above, the same principle of minimising the adjustment also applies to using the shaped depreciation profile. If a financeability issue can be addressed by applying sum-of-the-years' digits depreciation to 10% of an asset class that would otherwise be depreciated using the straight-line depreciation method, then this is more appropriate than applying it to a greater proportion.

Questions on addressing financeability issue

6) Are the proposed methods and approach to addressing a demonstrated financeability issue appropriate? Are there any methods to address the issues that are not covered?
7) Are amendments to the current template regulatory models to include the ability to apply shaped depreciation required, or are the options available in the current template models sufficient?

Shortened forms

Term	Definition
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AICR	adjusted interest coverage ratio
capex	capital expenditure
CPA	contingent project application
FFO	funds from operation
ISP	Integrated System Plan
NEL	National Electricity Law
NER	National Electricity Rules
NEO	National Electricity Objective
NPV	net present value
PTRM	post-tax revenue model
RAB	regulatory asset base
RCF	retained cash flows
RFM	roll forward model
TNSP	transmission network service provider