Amended National Energy Objectives: The AER's Expenditure Forecast Assessment Guidelines Review

Final Decision and Explanatory Statement

October 2024

AUSTRALIAN ENERGY REGULATOR

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1 Introduction

The Australian Energy Regulator (AER) exists to ensure energy consumers are better off, now and in the future. Consumers are at the heart of our work, and we focus on ensuring a secure, reliable, and affordable energy future for Australia as it transitions to net zero emissions.

Following assent of the *Statutes Amendment (National Energy Laws) (Emissions Reduction Objectives) Act 2023*[1] amending the national energy objectives (NEO), a new emissions reductions objective has been added in all three energy objectives[2] and the Australian Energy Market Commission (AEMC) published a targets statement that lists jurisdictional targets to be considered.[3] The long-term interests of consumers now extends to the achievement of Commonwealth, State and Territory targets for:

- reducing Australian's greenhouse gas emissions, or
- actions that are likely to contribute to reducing Australia's greenhouse gas emissions.

On 1 February 2024, the AEMC published its final determination to harmonise the national energy rules with the updated energy objectives.[4] The final harmonising rule change (Amending Rule) supports the incorporation of emissions reduction in the energy regulatory framework.

As a result of the AEMC's Amending Rule, the capital expenditure and operating expenditure objectives have been amended to include expenditure that would contribute to achieving emissions reduction targets through the supply of regulated services.[5] The Amending Rule provides the AER with a clear role in considering expenditure proposed by network businesses in their revenue proposals that contributes to achieving emissions reduction targets.

In operationalising the Amending Rule, we commenced a review of our Expenditure Forecast Assessment Guidelines (EFA Guidelines),[6] with the release of a draft decision on 28 June 2024. In our draft decision, we proposed minor changes to the EFA Guidelines to reflect the updated expenditure provisions in the National Electricity Rules (NER) and sought feedback on the development of a separate emissions reduction guidance note.[7] We received 7

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2 See, for example, National Electricity Law, section 7.

3 AEMC, Targets statement for greenhouse gas emissions.

4 AEMC, Harmonising the national energy rules with the updated national energy objectives (electricity) - Final Determination, February 2024. The Final determination contains both electricity and gas rule changes.

5 Regulated service in this statement means standard control services for distribution network service providers and prescribed transmission services for transmission network service providers. See NER cll. 6.5.6(a)(5), 6.5.7(a)(5), 6A.6.6(a)(5) and 6A.6.7(a)(5).

6 AER, *Expenditure forecast assessment guideline – distribution*, August 2022; AER, *Expenditure forecast assessment guideline – transmission*, November 2013.

7 AER, *Amended National Energy Objectives: The AER's Expenditure Forecast Assessment Guidelines Review – Draft Decision*, June 2024.

submissions in response to our consultation. We have considered these submissions in developing our final decision.

This document sets out our final decision on the EFA Guidelines review, including an explanatory statement outlining the reasons for our decision. It also sets out the next steps for the separate emissions reduction guidance note.

Our final EFA Guidelines should be read in conjunction with this document. To assist stakeholders, a list of guideline clauses that we have amended or deleted is provided in Section 2.4.

1.1 AEMC's Harmonisation Rule Change

An emissions reduction component has been added to the three energy objectives: National Electricity Objective, National Gas Objective and National Energy Retail Objective (the objectives).

The objectives are to promote efficient investment in, and efficient operation and use of, energy services for the long-term interests of consumers with respect to:

a) price, quality, safety, reliability and security of supply of electricity and natural gas; and

b) the reliability, safety and security of the national electricity system; and

c) the achievement of targets set by a participating jurisdiction—

    i) for reducing Australia's greenhouse gas emissions; or

    ii) that are likely to contribute to reducing Australia's greenhouse gas emissions.

On 1 February 2024, the AEMC published the final electricity, gas and retail rules (Amending Rule) that harmonise the national energy rules with the emissions reduction component.[8]

The Amending Rule supports the incorporation of emissions reduction in the energy regulatory framework, by allowing network and pipeline operators to propose expenditure for activities that contribute to achieving emissions reduction targets.

The AEMC's Amending Rule: [9]

- Allows network service providers and pipeline operators to include capital and operating expenditure in their revenue proposals and access arrangement proposals that would contribute to achieving Australia's greenhouse gas emissions reduction targets.
- Requires that, in order to be included in a network or pipeline operator's building block proposal, any proposed emissions reduction expenditure must relate to regulated services or pipeline services.

8 AEMC, Harmonising the national energy rules with the updated national energy objectives (electricity) - Final Determination, February 2024. Noting that the AEMC's Final determination contains both electricity and gas rule changes.

9 AEMC, Harmonising the national energy rules with the updated national energy objectives (electricity) - Final Determination, February 2024, section 4.

- Allows emissions reduction across the Australian economy to be considered, as a result from expenditure on regulated services. We will need to assess whether the expenditure proposed by a network service provider or pipeline operator meets the definition established in the rules.
- Mandates that any expenditure contributing to emissions reduction outside Australia should not be included, as the new NEO refers to targets for reducing Australia's greenhouse gas emissions.
- Includes transitional provisions for revenue determination and access arrangement processes underway when this Amending Rule came into effect. This transitional arrangement allows us to choose whether to apply the new rules in assessing expenditure proposals that are currently underway.

Gas Rule

In relation to gas, the Amending Rule:[10]

- Amends the criteria governing operating expenditure and the criteria for conforming capital expenditure, to make clear that contributing to meeting emissions reduction targets is a relevant objective of capital and operating expenditure.
- Enables pipeline operators to include capital and operating expenditure in their access arrangement proposals, where that expenditure would contribute to meeting emissions reduction targets through the supply of pipeline services.
- Amends the exemption criteria under rule 39A to provide an exemption to the prohibition on increasing charges to develop pipeline assets if the expansion is necessary to contribute to meeting emissions reduction targets.

The Amending Rule enables us to consider expenditure proposals that contemplate jurisdictional (Commonwealth and State/Territory) emissions reduction targets. All entities that apply the energy objectives must, at a minimum, consider these targets when having regard to the emissions component of the energy objectives.[11] In addition, the AEMC may update its targets statement from time to time.

1.2 Our Role

The national energy objectives guide our work to promote the long-term interests of consumers with respect to achieving emissions reduction targets, alongside our existing considerations, including price, quality, safety, reliability and security of energy supply.

The Amending Rule requires us to:

- consider expenditure as part of building block proposals that contributes to achieving emissions reduction targets through the supply of regulated services.

[10] AEMC, Harmonising the national energy rules with the updated national energy objectives (electricity) - Final Determination, February 2024, section 4.

[11] AEMC, Targets statement for greenhouse gas emissions.

- update the guidelines and instruments, required under the Laws or Rules, to incorporate the amended national energy objective, including the changes to the capital and operating expenditure objectives.

Therefore, in giving effect to the Amending Rule, we must review the EFA Guidelines for electricity distribution and transmission.[12] This review is in addition to our guidance on the amended NEO provided in September 2023. Our September 2023 guidance sets out the high-level principles we are likely to have regard to in making decisions.[13]

1.3 Related processes

We note that there are other AER processes that are in effect or currently underway, which overlap with the matters of emissions reduction. Our guidance on the amended National Energy Objectives,[14] and valuing emissions reduction final guidance,[15] are two AER documents that are in effect. Where possible, we have considered submissions received during the consultation of these documents, insofar as they relate to this review.[16]

The Amending Rule also requires us to review all statutory guidelines, including the Cost Benefit Analysis Guidelines and Regulatory Investment Test (RIT) Application Guidelines.

Figure 1 below illustrates the direct interlinkages and indicative timing of our work schedule giving effect to the amendments to the national energy objectives. The details of the work streams are summarised in Appendix A.

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12 The Expenditure Forecast Assessment Guidelines are established under the NER cll. 6.4.5 and 6A.5.6.

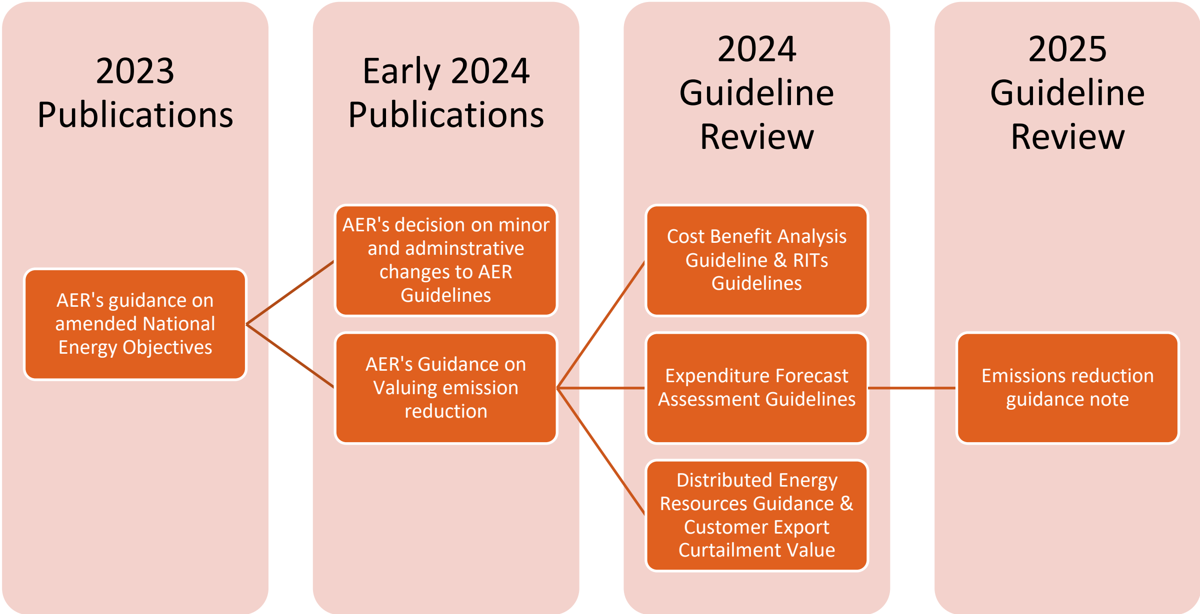
13 AER, Guidance on amended National Energy Objectives, September 2023, p. 6.

14 AER, Guidance on amended National Energy Objectives, September 2023.

15 AER, Valuing emissions reduction – Final guidance and explanatory statement, May 2024.

16 Ausgrid and AEC raised issues in relation to network investments in its submissions to the AER draft guidance on amended National Energy Objective and the AER valuing emissions reduction, respectively. Please refer to our explanatory statements for amended National Energy Objective guidance and valuing emissions reduction guidance.

Figure 1 AER processes to address the amended National Energy Objectives



Note: Timelines are indicative
Source: AER

1.4 Scope of this document

The scope of our final decision is to give effect to the amendments required for the EFA Guidelines by the AEMC's harmonisation rule change. We have considered the stakeholder submissions insofar as they relate to the EFA guidelines.

In addition to our final decision on the EFA Guidelines, Section 3 sets out the next steps for further consultation and publication of our proposed emissions reduction guidance note. We intend to publish a draft of the emissions reduction guidance note after the completion of other related processes to update AER guidelines and guidance for the amended NEO. This approach will allow us to consider all the issues identified through these processes, and adequately respond to issues raised in submissions that may overlap with the emissions reduction guidance note. That way, we can provide more detailed information for stakeholders on our considerations and approach to assessing emissions reduction expenditure than is provided in the EFA Guidelines. We anticipate that the emissions reduction guidance note will be published in April 2025.

2 Explanatory statement for Expenditure Forecast Assessment Guidelines

2.1 Purpose of the Expenditure Forecast Assessment Guidelines

Our assessment approach to electricity distribution and transmission expenditure proposals is set out in several documents, with the overarching guideline being the EFA Guidelines.[17] The EFA Guidelines describe, at a high level, the process, techniques and associated data requirements for our approach to setting efficient expenditure for network businesses.

The assessment techniques we can use to test the prudency and efficiency of a network business' expenditure proposal include:

- economic benchmarking—productivity measures used to assess a business's efficiency overall
- category level analysis—comparing how well a business delivers services for a range of individual activities and functions, including over time and with its peers
- predictive modelling—statistical analysis to predict future spending needs, currently used to assess the need for upgrades or replacement as demand changes (augmentation capex) and expenditure needed to replace aging assets (replacement capex)
- trend analysis—forecasting future expenditure based on historical information, particularly useful for opex where spending is largely recurrent and predictable
- cost benefit analysis—assessing whether the business has chosen spending options that reflect the best value for money
- project review—a detailed engineering examination of specific proposed projects or programs
- methodology review—examining processes, assumptions, inputs and models that the business used to develop its proposal
- governance and policy review—examining the business's strategic planning, risk management, asset management and prioritisation.

Over time, we have supplemented the EFA Guidelines with more detailed guidance on specific expenditure assessment approaches and issues, such as non-network ICT, network resilience, consumer energy resources, and asset replacement planning.[18]

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[17] AER, *Expenditure forecast assessment guideline – distribution*, October 2024; AER, *Expenditure forecast assessment guideline – transmission*, October 2024.

[18] AER, Capex assessment outline for electricity distribution determinations, February 2020; AER, Non-network ICT capex assessment approach for electricity distributors, November 2019; AER, DER integration expenditure guidance note, June 2022; AER, Note on the key issues of network resilience, April 2022 and AER, Industry practice application note – Asset replacement planning, July 2024.

2.2 Amending Rule Requirements

The AEMC's Amending Rule requires that our review of the EFA Guidelines must consider:

- the amended national electricity objective as stated in section 7 of the National Electricity Law
- the inclusion of emissions reduction objective in the capital and operating expenditure objectives
- the AEMC's targets statement.

The review of the EFA Guidelines is required to be undertaken using the distribution and transmission consultation procedures as set out in the NER.[19] These consultation procedures allow the AER, under specific circumstances, to extend the time within which the AER is required to publish the final decision.[20]

2.3 Consultation and stakeholder views

On 28 June 2024, we published our draft decision setting out our proposed amendments to the EFA Guidelines. We sought stakeholder views on:

- our proposed updates to the EFA Guidelines
- whether there were any additional updates, related to the amended national electricity objective, that should be incorporated.

Submissions closed on the 9 August 2024. We received 7 submissions from:

1. Ausgrid
2. Endeavour Energy
3. Essential Energy
4. Evoenergy
5. Justice and Equity Centre (JEC)
6. South Australia Power Networks (SA Power Networks)
7. Transgrid

We appreciate the submissions received and have carefully considered the issues raised. Overall, stakeholders broadly supported our approach to making minor amendments in the EFA Guidelines. Appendix B sets out the submissions on the EFA Guidelines in more detail and our responses.

Ausgrid and the JEC both submitted that the Guideline amendments could go further than those proposed in our draft decision. Ausgrid submitted that a broader review of the EFA Guidelines may be warranted given the changes in the industry since the introduction of the Guidelines in 2013.[21] The JEC considered that the draft amendments to the Guidelines were too narrowly focused on expenditure for emissions reduction—rather than considering

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19 NER cl. 6.16 and 6A.20.

20 NER cl. 6.16(g) and 6A.20(g).

21 Ausgrid, *Submission to AER EFA Guidelines draft determination*, August 2024.

emissions more broadly (where emissions may increase or be maintained)—and the amendments did not adequately address emissions reduction targets in the AEMC's targets statement.[22]

Endeavour Energy and Essential Energy submitted that we should consider further minor amendments to sections 2.2.1 (general assumptions) and 2.2.2 (common approaches to assessing capex and opex) to clarify the assumptions used in expenditure forecasting.[23]

The remaining submissions from Evoenergy, SA Power Networks and Transgrid were supportive of the minor amendments to the EFA Guidelines. SA Power Networks stated that prescription in the Guidelines should be limited to avoid restricting innovation with regards to incorporating emissions reduction into expenditure forecasting.[24]

Table 1 sets out further detail on the sections that stakeholders proposed for amendment and our response. Overall, we have maintained most of the amendments from the draft decision, except for section 2.2.2 of the Guidelines, where we have clarified the common approaches to treating emissions reduction within capex and opex proposals. The purpose of these amendments is to better reflect the Minister's Second Reading Speech for the legislative change,[25] the AEMC's targets statement,[26] and the expectations of factors to consider in expenditure forecasting and assessment.

Table 1 Summary of stakeholder proposed amendments to the EFA Guidelines and AER response

Proposed amendment	AER response
Ausgrid suggested a broader review of the EFA Guidelines given the changes in the sector since the Guideline was introduced in 2013	We acknowledge there have been changes since the introduction of the EFA Guidelines. The EFA Guidelines are generally high-level documents such that the approaches and principles are sufficiently flexible and applicable to accommodate a variety of types of expenditure. We supplement the EFA Guidelines with guidance notes where further targeted information is warranted to guide stakeholders. The scope of this review of the EFA Guidelines is in response to the changes to the national energy objectives and expenditure provisions in the NER to account for emissions reduction. Therefore, we consider that a broader review of the EFA Guidelines is beyond this scope and is not warranted at this time.

22 Justice and Equity Centre, *Submission to AER EFA Guidelines draft determination*, August 2024.

23 Endeavour Energy, *Submission to AER EFA Guidelines draft determination*, August 2024; Essential Energy, *Submission to AER EFA Guidelines draft determination*, August 2024.

24 SA Power Networks, *Submission to AER EFA Guidelines draft determination*, August 2024.

25 Second reading speech, Statutes Amendment (National Energy Laws) (Emissions Reduction Objectives) Bill 2023, Parliament of South Australia, Hansard of the House of Assembly, 14 June 2023, pp. 4377–4382.

26 AEMC, Targets statement for greenhouse gas emissions.

Proposed amendment	AER response
Ausgrid suggested to include a framework in the EFA Guidelines regarding how the AER will balance the emissions reduction objective against other considerations in the NEO.	We appreciate Ausgrid's suggestion of setting out a framework for balancing the components of the objectives. We have considered whether to include this framework in the EFA Guidelines given the information already contained therein. We take on board the feedback that such a framework could be helpful for stakeholders to understand any trade-offs or prioritisation of sometimes competing objectives. While the EFA Guidelines do not set out a framework of balancing the components of the objectives, our view is that this provides the necessary flexibility in making decisions applicable to the circumstances. This flexibility is especially important given emissions reduction is an emerging element of the framework. When we make our revenue determinations, we exercise discretion in weighing the components of the objectives, depending on the circumstances. As already noted in the EFA Guidelines, we must take into account the revenue and pricing principles when exercising discretion in relation to distribution and transmission determinations.[27] Overall, we have decided to not include the proposed framework in the EFA Guidelines. See part of the amendments in section 2.2.2, which addresses part of Ausgrid's submission on balancing components of the objectives.
Section 2.2.1 – General assumptions Endeavour Energy submitted that we should place lesser weight on the assumption that past expenditure is sufficient to meet the expenditure objectives given that the expenditure objectives have been amended.	We understand Endeavour Energy's comment with the general assumptions given the changes to the expenditure objectives. This was a point we sought to address in our draft decision by adding the wording for changes in "…the expenditure objectives themselves." We maintain our draft decision position as we consider the wording is sufficiently flexible because it already acknowledges that when we rely on past actual expenditure as an indication of required forecast expenditure, we will account for changes to this assumed efficient starting point expenditure, including changes in the expenditure objectives themselves.
Section 2.2.2 – common approaches to assessing capex and opex Essential Energy submitted that the proposed wording of "quality and veracity of data sources and assumptions" does not adequately consider the current challenges with	We recognise the challenge Essential Energy refers to and that emissions reduction is a new and emerging element of the regulatory framework. The proposed wording in our draft EFA Guidelines was intended to provide guidance on the general factors we would have regard to in expenditure forecasting and assessment. We agree that some flexibility is important while the industry

27 NEL, s. 16(2)(a)(i).

Proposed amendment	AER response
developing models to satisfy these requirements.	adapts to these amendments to the NER. Any choices regarding data inputs, assumptions, and methodologies should be justified on a reasonable basis. We have maintained the draft wording but have added a footnote reference to the amended expenditure criteria for clarity. This aligns with the AEMC's intent of amending the expenditure criteria, which places other relevant inputs (including emissions inputs) on an equal basis as demand and cost inputs.[28] We recognise that service providers may be developing their approaches and capabilities regarding data sources, assumptions, and methodologies. As such, we would have regard to the best available information at the time and be flexible provided there is a reasonable basis for the proposed data sources, assumptions, and methodologies.
Section 2.2.2 – common approaches to assessing capex and opex The JEC submitted that the draft Guidelines are not sufficient to meet the Minister's intent with the legislative change. The JEC considers the draft EFA Guidelines did not adequately consider maintaining and increasing emissions. Instead, the draft EFA Guidelines narrowly focused on "expenditure for emissions reduction" rather than emissions reduction being a relevant consideration in any expenditure proposal. The JEC also submitted that the AEMC's targets statement needs to be better addressed in the Guidelines.	We appreciate the JEC's feedback on our proposed drafting and we have amended the wording in the final EFA Guidelines to consider emissions more holistically. While the JEC did not specify the section, we have inferred that the JEC is referring to section 2.2.2 (separate from the other comments below in this table) as this is where we amended the draft EFA Guidelines. We amended the language in section 2.2.2 to be more general and holistic in describing our approach to considering emissions in expenditure proposals for regulated services, where emissions are material and relevant. This clarifies that, when we are assessing the prudency and efficiency of proposed expenditure, we would expect regulated businesses to consider changes in emissions (decreases and increases), where material and relevant, in achieving the emissions reduction targets. This clarifies two things from the initial drafting. Firstly, it clarifies that both costs and benefits from emissions should be considered, where material and relevant to the selection of the preferred option in an investment. Secondly, it clarifies that emissions would be considered not only where emission reduction is the primary or only driver for proposed expenditure, but also where there are multiple investment drivers for the proposed expenditure, one of which may be emissions reduction. For example, an investment decision to replace an asset may have multiple relevant/material benefit (and cost) streams such as changes in maintenance, safety outcomes, reliability, and emissions. On balance, we consider this approach is

28 AEMC, *Harmonising the national energy rules with the updated energy objectives, Rule determination*, 1 February 2024, p. 28.

Proposed amendment	AER response
	more flexible and pragmatic compared with requiring that emissions be considered in any investment case. Further to JEC's comments, we added text to clarify the intent of the legislative change as stated in the Second Reading Speech and we referred to the AEMC's targets statement. Consistent with these changes, we clarified that we would consider emissions reduction alongside the other components of the objectives without prioritising it over those elements. We added text to note that we would continue to exercise discretion on balancing those components, depending on the circumstances.
Section 2.5 – assessment principles The Justice and Equity Centre noted that this section could be updated with reference to achieving emissions reduction targets	We consider the existing assessment principles are broad and flexible enough to accommodate a variety of expenditure in expenditure assessments. While we did not amend section 2.5, we amended section 2.2.2 to refer to the emissions reduction targets. The emissions reduction guidance note is intended to provide further information on principles and assessment approaches we will apply in considering emissions reduction in the context of our network regulation functions.
Section 3 – capex assessment Section 5 – information requirements The Justice and Equity Centre noted that these sections could be updated with reference to the achieving emissions reduction targets and requirements to provide emissions data	We consider the changes in section 2.2.2, which apply to both capex and opex, should be sufficient to address the JEC's proposed updates to section 3. Given the evolving nature of emissions reduction considerations, we consider it is more appropriate to include further information in the non-binding emissions reduction guidance note rather than defining and prescribing the requirements in section 5 of the EFA Guidelines at this time. Examples of further information may include emissions accounting practices, emissions scopes, and justification of sources for input values/assumptions in cost-benefit analysis.

2.4 Final EFA Guidelines amendments

In accordance with the Amending Rule and stakeholder submissions, we have reviewed the EFA Guidelines and considered what changes are necessary.

Overall, we maintain our draft decision view that only minor changes are required to the EFA Guidelines. As described above, the EFA Guidelines are high-level documents that outline a range of assessment tools and techniques that we use when assessing the prudency and efficiency of capital and operating expenditure proposals. We consider that the existing tools and assessment techniques, as outlined in the EFA Guidelines, are sufficiently flexible to accommodate the emissions reduction objective. Therefore, we consider our assessment methodology outlined in the EFA Guidelines is still valid.

Following from the proposed amendments from submissions in Table 1 above, Table 2 below sets out our final decision, listing the sections and the amendments made to the EFA Guidelines.

Table 2 Final Guideline amendments

Section and Page number	Final amendment
Transmission – Section 2.1 Page 3 **Distribution – Section 2.1 Page 3** No change from draft decision	Replace the quoted NEO with: The National Electricity Objective as stated in the National Electricity Law (NEL) is: "to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to: a. price, quality, safety, reliability and security of supply of electricity; and b. the reliability, safety and security of the national electricity system; and c. the achievement of targets set by a participating jurisdiction— i. for reducing Australia's greenhouse gas emissions; or ii. that are likely to contribute to reducing Australia's greenhouse gas emissions."
Transmission – Section 2.1 Page 4 **Distribution – Section 2.1 Page 4** No change from draft decision	Amend (3) to "a realistic expectation of the demand forecast, cost inputs and other relevant inputs required to achieve the capex and opex objectives."
Transmission – Section 2.2.1 Page 6 **Distribution – Section 2.2.1 Page 6** No change from draft decision	In section relating to "Past expenditure was at least sufficient to achieve objectives" amend the last sentence to "Accounting for such changes (including in demand, input costs, regulatory obligations, the expenditure objectives themselves, and productivity) ensures the TNSP [DNSP] receives an efficient allowance that a prudent operator would require to achieve the expenditure objectives for the forthcoming regulatory control period."
Transmission – Section 2.2.2 Page 7 **Distribution – Section 2.2.2 Page 7** Wording amendments compared to the draft decision	Amend section heading to "Common approaches to assessing capex and opex". Insert an additional dot point stating, "the proposed expenditure will contribute to achieving emissions reduction targets through the supply of prescribed transmission services [standard control services]. In doing so, we will consider changes in emissions and costs/benefits from emissions, where relevant and material"

<table>
<tr><th>Section and Page number</th><th>Final amendment</th></tr>
<tr><td>Transmission – Section 2.2.2 Pages 8–9

Distribution – Section 2.2.2 Pages 8–9

Wording amendments compared to the draft decision, including:
• Amended section sub-heading.
• Introductory paragraph and intent of legislative changes.
• Addition of identified need, emissions reduction targets, and options analysis as factors we will have regard to.
• Clarification with footnote references</td><td>Insert sub-heading “Contributing to achieving emissions reduction targets”.

Insert the following paragraph “Our expenditure assessment is guided by the NEO, and the expenditure objectives and criteria.[29] The introduction of an emissions reduction component to these objectives requires us to consider emissions reduction alongside the other components of the objectives (price, quality, safety, reliability and security of supply of prescribed transmission services [standard control services]) and is not intended to sit above or be prioritised over any other components.[30] Therefore, we will consider and balance the components of the objectives on a case-by-case basis.

For the purpose of contributing to the achievement of emission reduction targets, our approach to assessing expenditure, where emissions are relevant and material, will focus on the prudency and efficiency of the investment. We expect the TNSP [DNSP] to provide information, amongst other things, to explain the driver of the investment and how it will contribute to achieving emissions reduction targets through the supply of prescribed transmission services [standard control services]. In conjunction with our related assessment process described in the Guideline, we will have regard to factors such as the:
• identified need of the investment and whether there are multiple cost and benefit streams, including actual and expected changes (reducing, increasing, maintaining) in emissions
• emissions reduction targets in the AEMC’s targets statement[31]
• options analysis (including non-network options) to address the identified need and considering whether the proposed investments are the least-cost means of achieving emissions reduction targets
• efficiency of the costs of the options, including the calculation methodology, input drivers and assumptions
• quality and veracity of data sources and assumptions, including basis for input values, accounting methodologies and emission factors[32]
• consistency and relationship with incentive schemes[33] and relevant government policies.</td></tr>
</table>

Note: The amendments to the Guidelines for transmission and distribution are substantially the same. Therefore, the above table shows the wording in the Guideline for transmission, with any variations for distribution shown in square brackets.

[29] NER, cll 6.5.6(a), 6.5.7(a), and 6.5.6(c), 6.5.7(c)(1).

[30] Second reading speech, Statutes Amendment (National Energy Laws) (Emissions Reduction Objectives) Bill 2023, Parliament of South Australia, Hansard of the House of Assembly, 14 June 2023, pp. 4377– 4382.

[31] AEMC, Targets statement for greenhouse gas emissions.

[32] NER, cll. 6A.6.6(c)(3), 6A.6.7(c)(3), 6.5.6(c)(3), 6.5.7(c)(1)(iii).

[33] NER, cll. 6A.6.6(e)(8), 6A.6.7(e)(8), 6.5.6(e)(8), 6.5.7(e)(8).

3 Next steps on the emissions reduction guidance note

3.1 Background on the guidance note

The EFA Guidelines provide an overview of our assessment processes and techniques for assessing the prudency and efficiency of electricity distribution and transmission expenditure. The EFA Guidelines are supplemented by guidance notes that provide more granular and targeted information to stakeholders on our expectations for expenditure proposals and how we intend to apply certain assessment approaches.

Similar to the other guidance notes that support the EFA Guidelines,[34] we consider an emissions reduction guidance note would provide more specific information to stakeholders on expectations for expenditure forecasting and how we intend to assess the emissions reduction component set out in the national energy objectives and the capital and operating expenditure objectives.[35]

The guidance note intends to cover topics related to both electricity and gas, as well as related matters such as tariffs. It would likely be of relevance to investments such as consumer energy resources, the replacement of assets that use sulphur hexafluoride gas (SF6), investment in gas connections, and expenditure to minimise leaking gas pipelines.

The proposed guidance note will be non-binding, and we may update it from time-to-time as needed. This is to ensure there is sufficient flexibility while we and the industry develop our understanding of the issues and approaches relevant to applying the amended national energy objectives and the amended capital and operating expenditure objectives.

3.2 Consultation on the guidance note

In our draft decision on the EFA Guidelines review, we included an initial list of implementation considerations as a starting point for consultation. Appendix C summarises the stakeholder submissions on the implementation considerations.

The key themes raised by stakeholders so far are:

- Cost benefit analysis—stakeholders considered it would be useful for the guidance note to cover the integration of emissions reduction into cost benefit analysis, through the value of emissions reduction (VER). Submissions did not agree with a materiality threshold for emission reduction, and instead considered that the cost benefit analysis would identify whether costs/benefits associated with emissions were material.

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34 AER, Capex assessment outline for electricity distribution determinations, February 2020; AER, Non-network ICT capex assessment approach for electricity distributors, November 2019; AER, DER integration expenditure guidance note, June 2022; AER, Note on the key issues of network resilience, April 2022 and AER, Industry practice application note – Asset replacement planning, July 2024.

35 NER cll. 6.5.6, 6.5.7, 6A.6.6 and 6A.6.7; NGR rr. 79 and 91.

- AEMC's targets statement—submissions were interested in how we may approach emissions reduction targets that are beyond the AEMC's targets statement, or that have not yet been added to the targets statement.
- Emissions Scopes—in general, submissions considered that all emissions Scopes could be considered, with Scope 1 (direct) and Scope 2 (indirect) emissions being most relevant, and with potential for Scope 3 (upstream/downstream indirect) emissions to be considered in expenditure proposals. However, there was broad acknowledgement of the challenges and complexities with estimating Scope 3 emissions.
- Emissions accounting and reporting obligations—service providers identified the existing and potential future emissions accounting and reporting obligations. Submissions suggested we consider what emissions accounting methodologies could be 'acceptable', rather than being prescriptive, to minimise administrative burden and promote consistency and transparency.
- Leveraging approaches by other leading regulators—submissions considered we should have regard to the approaches of other leading regulators, such as how Ofgem considers emissions in its cost-benefit analysis guidance.
- Interrelationships with other obligations and incentives—some service providers did not agree with the potential issues with the existing expenditure incentive schemes. They considered that reputational incentives may assist with minimising any unintended outcomes, such as the potential conflict between minimising costs and undertaking emissions reduction activities. Post-implementation reports were suggested as a way of mitigating risk of misalignment between what a business proposes to do in relation to emissions reduction and what it ultimately undertakes.
- Relationship of emissions reduction and tariffs—there was general acknowledgement of the relationship between tariffs and potential contributions to emissions reduction through behaviour change. It was suggested that this relationship could be further considered at the time of each revenue determination. For gas tariffs, it was questioned whether declining block tariffs provided appropriate incentives for reducing emissions.
- Principles—equity was raised as an additional principle for us to consider in the guidance note, in the context of sharing benefits and risks between current and future customers.
- Examples of emissions reduction activities—submissions suggested a variety of examples of potential investments that related to emissions reduction, which could be useful as illustrative examples in the guidance note.

Given the other AER emissions reduction related consultation processes, we will consider submissions on those processes to inform the guidance note, to the extent they are relevant. We will undertake further targeted consultation with a variety of stakeholders and further research on existing resources, tools, and information sets, as well as the approaches of other regulators for measuring emissions and making decisions on weighing emissions reduction against other objectives.

We expect to publish our draft guidance note for further consultation in February 2025, with a final guidance note in April 2025.

Appendix A Interlinkages with AER documents and processes

This appendix sets out the interlinkages that this consultation and decision process has with other AER documents and processes.

AER Documents	Status	Scope and overlap with emissions reduction
AER Guidance Amended National Energy Objectives: *Statutes Amendment (National Energy Laws) (Emissions Reduction Objectives) Act 2023*	Published September 2023	Provides high-level transitional guidance on the matters the AER is likely to have regard to in considering whether to apply the amended energy objectives. The national energy objectives guide our work to promote the long-term interests of consumers with respect to achieving emissions reduction targets, alongside our existing considerations including price, quality, safety, reliability and security of energy supply. This guidance continues in effect.
Minor amendments to AER Guidelines: AEMC Harmonisation Rule Change	Published May 2024	We used the 'omnibus' approach to consult on minor and administrative changes across the AER's Guidelines where appropriate, and where consultation is required under the Rules, through one consolidated process.
AER Guidance on Valuing Emission Reduction: *National Electricity Rules Schedule 3, Clause 42 (and corresponding savings and transition schedules in the National Gas Law and National Energy Retail Law)*	Published May 2024	The Energy & Climate Ministerial Council issued an 'MCE Statement' that states the value, or a method of or guidance for working out the value, of greenhouse gas emissions or greenhouse gas emissions reduction, that is to be used by a government or regulatory entity in considering or applying the amended energy objectives until a Regulation or Rule takes effect. We provided administrative guidance on the value of emission reduction (VER). The VER guidance must be complied with: • by the AER in considering or applying the amended objective and • by the AER, and network service providers (including AEMO as a RIT Proponent) in relation to RITs. An amended statement was published 19 July 2024 to extend the interim VER until 30 June 2026. Our VER guidance will continue to apply unless it is varied or revoked by the AER. Issuing any revised guidelines required by the Rules does not itself revoke or amend the VER guidance, and the VER guidance would prevail to the extent of any inconsistency.

AER Documents	Status	Scope and overlap with emissions reduction
Cost Benefit Analysis Guidelines & RITs Guidelines: AEMC Harmonisation Rule Change	Draft published August 2024 Final Guidelines expected in November 2024.	We consulted on how the VER will be used to include emissions reduction as a class of market benefit in the integrated system plan (ISP) and RIT by AEMO and network businesses, respectively. The RIT is a cost–benefit test that network businesses must perform and consult on before making major investments in their networks. The review considered the effect of an emissions reduction objective on the ISP and RITs, with any other effects being outside the scope of the review. We sought stakeholder views on: • Which additional material factors should be considered in modelling emissions? • How should data to support these factors be sourced? • Should the AER consider including specific guidance on any of the factors? We will consider any submissions and outcomes of this review to the extent they relate to expenditure assessment.
Customer export curtailment value and Distributed (Consumer) Energy Resources	July 2024	In July 2024, we updated the customer export curtailment value. During this process, we also published emissions intensity profiles, including the distributed network service providers model adjusted to include those emission intensities, a ‘calculator’ for consumer energy resources, and instructions for using the relevant emissions information. Any further guidance or incremental updates specific to emission reduction may be required. However, we are contemplating whether to capture this in the proposed emissions reduction guidance note.
Expenditure Forecast Assessment Guidelines: AEMC Harmonisation Rule Change	*Current process*	Our assessment approach to electricity distribution and transmission expenditure proposals is set out in several documents, with our overarching guideline being the EFA Guidelines.[36] Our EFA Guidelines include a range of assessment tools and techniques we consider when assessing the prudency and efficiency of capital and operating expenditure proposals. We consider that our existing tools and assessment techniques can accommodate the additional emissions reduction objective.

36 AER, *Expenditure forecast assessment guideline – distribution*, August 2022; AER, *Expenditure forecast assessment guideline – transmission*, November 2013.

AER Documents	Status	Scope and overlap with emissions reduction
		We have made minor amendments to the EFA Guidelines to reflect the updated NEO and expenditure provisions in the NER.
Emissions Reduction Guidance Note: AER initiated	*Proposed next steps*	The guidance note is intended to provide detail, as appropriate, regarding both electricity and gas matters relevant to emissions reduction in expenditure proposals. In addition, this guidance is proposed to cover specific guidance in relation to tariffs.

Appendix B Stakeholder submissions on the EFA Guidelines

This appendix summarises the stakeholder comments on the EFA Guidelines and our responses.

EFA Guideline	
AER Proposed changes	**Stakeholder comments:** • Endeavour Energy, Transgrid, SA Power Networks and Evoenergy broadly accept the AER's proposed changes to the EFA Guidelines. • Transgrid supported the minor updates and proposed that no other changes to the guidelines were required. • Endeavour Energy sought further clarification for section 2.2.1 on the general assumption on whether past expenditure is still sufficient against the objectives. Endeavour Energy considered that lower weight may need to be ascribed to this assumption given the expansion of the expenditure objectives. • Ausgrid considers a broader review is required to address any significant developments since the last update and to scope future opportunities in response to the rapid transformation in the sector. • Ausgrid considers that the guidelines could include more detail about how the objectives in the NEO are weighted, and further suggests emission reduction should hold more weight depending on the circumstances. • Essential Energy noted its concern with the phrasing in section 2.2.2 regarding "quality and veracity of data sources and assumptions, including the basis for input values, accounting methodologies and emission factors". Essential Energy considers that this does not fully consider the challenges inherent in developing modelling which will satisfy the necessary criteria and suggests amending the wording to recognise these challenges and note that the AER will allow distribution businesses some flexibility in their methodology, underlying inputs, and assumptions as long as it is on a reasonable basis. • SA Power Networks noted that alternative control services should also be considered a potential source of emissions reduction. • SA Power Networks and Ausgrid do not consider a materiality threshold should be prescribed, with Transgrid suggesting, if set, a materiality threshold should not be overly limiting. Transgrid further suggested this should apply to the options selection process within the cost benefit analysis.

EFA Guideline	
	• SA Power Networks stated that the EFA Guidelines should avoid being prescriptive to avoid restricting innovation. Further, SA Power Networks proposed that considerations of the nature of emissions reduction actions should be deferred to the service classification decisions for each network, rather than in the Guideline. • Overall, the Justice and Equity Centre considers our proposed guideline amendments are not sufficient to meet the Minister's intent with the legislative change. JEC contends this because the draft Guidelines have not adequately considered maintaining and increasing emissions and have instead narrowly focused on expenditure relating to emissions reduction. • The JEC also submitted that the AEMC's targets statement needs to be better addressed in the guidelines. • The JEC recommended we amend three sections of the guidelines (sections. 2.5 – assessment principles, 3 – capex assessment, 5 – information requirements) to account for the emissions reduction targets and emissions information.
	AER Response: • We have made minor amendments to the Guidelines between the draft and final to clarify section 2.2.2 on the common approaches to assessing capex and opex for expenditure relating to emissions reduction. We appreciate the submissions on proposed amendments to other sections of the guidelines. In most cases, we have not adopted those suggestions as we consider the existing wording and framing is sufficiently broad and flexible such that further amendments for emissions reduction are not currently required. • The review of the EFA Guidelines is in response to the changes to the national energy objectives and expenditure provisions to account for emissions reduction. We consider a broader review of the guidelines is beyond this scope and is not required at this time. More broadly, the guidelines are sufficiently flexible and applicable to accommodate a variety of types of expenditure. • In terms of how the components of the objectives may be weighted, we have referred to the Minister's Second Reading Speech for the legislative change to clarify that emissions reduction would be considered alongside the other components of the expenditure objectives, rather than prioritised over other components.[37] • We do not consider section 2.2.1 (general assumptions) requires amending. Section 2.2.1 already acknowledges that when we rely on past actual expenditure as an indication of required forecast expenditure to achieve the expenditure objectives, we need to

[37] Second reading speech, Statutes Amendment (National Energy Laws) (Emissions Reduction Objectives) Bill 2023, Parliament of South Australia, Hansard of the House of Assembly, 14 June 2023, pp. 4377–4382.

EFA Guideline	
	account for changes to the assumed efficient starting point expenditure. In particular, the draft decision wording specifies that changes in the expenditure objectives themselves are a change that needs to be accounted for. • We do not consider the wording for data sources and assumptions needs to be amended as this aligns with the AEMC's intention of adding "other relevant inputs" (which includes emissions inputs) to the expenditure criteria. We recognise that service providers may be developing their approaches and capabilities regarding data sources, assumptions, and methodologies. As such, we would have regard to the best available information at the time and be flexible provided there is a reasonable basis for the proposed data sources, assumptions, and methodologies. • The AEMC's rule change applies to the expenditure provisions in the NER for standard control services and prescribed transmission services. Therefore, we have not considered the application of emissions reduction to alternative control services. • We have not introduced a materiality threshold into the guidelines but recognise that it is still important that relevance and materiality of emissions is considered in assessing and justifying expenditure proposals. Relevance and materiality are key considerations in the options analysis and cost benefit analysis for any investment, and we consider this should extend to emissions, so that the appropriate preferred options are selected to best achieve the expenditure objectives. • Under section 2.2.2, we have clarified the intent of the legislative changes as stated in the Second Reading Speech and referred to the emissions reduction targets contained in the AEMC's targets statement. We have also clarified that, as part of contributing to achieving emissions reduction targets, changes in emissions (increases, decreases, continuation) should be considered in expenditure proposals, where material and relevant. We have also introduced some clarification about the expectations around the identified need of the investment and the options analysis. • We have not amended sections 2.5 (assessment principles), 3 (capex assessment) and 5 (information requirements). The information set out in these sections is, in general, flexible enough to accommodate a variety of types of expenditure into expenditure assessment, including in relation to emissions reduction. We are also conscious of being overly prescriptive and limiting in the early stages of incorporating emissions reduction into expenditure proposals and assessments. The emissions reduction guidance note will be non-binding guidance that intends to provide more specific information for principles, expenditure assessment and information expectations while we and the industry develop our understanding of the issues and approaches relevant to applying the amended energy objectives and expenditure provisions.

Appendix C Stakeholder submissions on the emissions reduction guidance note

As part of the consultation on the draft EFA Guidelines, we asked 10 questions relating to the proposed emissions reduction guidance note. This appendix sets out a summary of the key issues and themes raised in submissions. We appreciate the submissions and we will consider these points and feedback in forming the guidance note.

Guidance Note	
Requirements and contents for the guidance note	**Stakeholder comments:** <u>Context for the guidance note</u> • All submissions support further information in the guidance note that informs what expenditure relating to emissions reduction is required. • Several submissions note the fast-paced transformation in the energy sector, and how the guideline needs be able to evolve concurrently with it. • Essential Energy and SA Power Networks recommend that the guidance note is not overly prescriptive. Essential Energy notes that it should complement other guidance material relating to expenditure. • Evoenergy noted that the guidance note should be non-binding, as the industry is still learning and changes may be needed. <u>Cost benefit analysis, valuing emissions reduction, and materiality</u> • SA Power Networks notes the VER will guide towards meaningful actions/projects, given that if the emissions reduction benefit is small then it may not be sufficient to decide on whether the action/project is efficient. • Endeavour Energy and Transgrid have both indicated they would like to know how the VER will apply to CBAs. • SA Power Networks considers nuance is important for identifying the need for expenditure, where there are multiple benefit streams (e.g. network benefit from demand management and avoided capacity upgrades, with an emissions reduction benefit). SA Power Networks noted that:

Guidance Note	
	– where there are multiple benefit streams, the option that best meets the capex and opex objectives should be the option that maximises total net benefit. – there may be cases where emissions benefits may be the dominant benefit in a cost-benefit analysis. • SA Power Networks and Transgrid do not consider a materiality threshold is required. Transgrid considers materiality should be assessed in relation to whether the inclusion of an emissions benefit is expected to impact the identification of the preferred investment. • Ausgrid notes, in terms of materiality, neither the NEL nor the NER reference a minimum cost or emissions threshold. Further, it states that it would appear inconsistent with the AER's existing assessment approach, regarding considering other elements of the NEO, and therefore should not apply a materiality threshold approach to emission reduction. Scope of expenditure relating to regulated services and the AEMC's targets statement • Ausgrid sought clarification regarding targets outside AEMC's target statement and whether they will be considered. • The JEC agrees that only expenditure related to 'providing regulated services' can earn regulated revenue. • The JEC notes that the AER only proposes to consider the achievement of emissions targets where expenditure will reduce emissions, not where it may increase emissions, or maintain ongoing network systems and continuing emissions. JEC considers this to be an inappropriately narrow interpretation of the AER's requirement to consider emissions. • JEC stated that the AER, in its consideration of the energy objectives, is now required to consider the achievement of emissions targets in assessment of all expenditure, which may have an impact on emissions (regardless of what that impact may be). • The NGR refers to 'changes' to emissions, so excessively adding to emissions would result in a 'negative net value'. The JEC considers that this interpretation is consistent with its interpretation that all emission impacts, and relative contributions to emissions targets, must be considered.
Definitions and service classification	**Stakeholder comments:** • Ausgrid would like the guidance note to define distribution services and inform what the AER intends to regulate. • Ausgrid further suggests distribution services could capture anything from network investments (e.g. replacing SF6 switchgear) to non-network alternatives (e.g. carbon offsets).

<table>
<tr><th colspan="2">Guidance Note</th></tr>
<tr><td>Emissions Scopes</td><td>
Stakeholder comments:

Ausgrid, Essential Energy, Transgrid and Endeavour Energy support the incorporating all three scopes for emissions into the guidance note.
Ausgrid considers that total net emissions (from Scopes 1, 2, and 3) is consistent with the intentions of the legislative change and the Commonwealth Department of Climate Change, Energy, the Environment and Water.
Endeavour Energy notes that Scope 3 emissions will be hard to measure, but request this be consistent with:

the International Financial Reporting Standards International Sustainability Standards Board requirements, and
the new mandatory climate reporting requirements for large businesses with the Treasury Laws Amendment (Financial Market Infrastructure and Other Measures) 2024 Bill.

Transgrid submitted that we should provide guidance on estimating emissions changes in the wider economy given electrification across other sectors is expected to be a material driver of emissions reduction.
Essential Energy notes that accounting standards required by jurisdictions need to be considered for the purposes of our guidance note.
SA Power Networks considers Scope 1 and 2 emissions to be the most relevant. Scope 3 embodied emissions are too complex to account for and the data from third parties is not mature. Clarification is needed as to how to account for changes in emissions from network investments/actions that influence consumption behaviour.
SA Power Networks states clarity is needed on the classification of emissions in other sectors that are influenced/changed as a result of the choice of investment/practice option in delivering regulated services. For example, investment/practices affecting energy use and consumption patterns of consumers connected to the distribution network, and thereby changing the generation mix of the National Electricity Market (NEM) (e.g. via enabling CER, demand management and load shifting solutions, or broader energy efficiency measures). There may also be network actions that may provide incentives for customers to abolish their gas connections.
The JEC considers that all Scope 1, 2 and 3 economy wide emissions (beyond electricity and gas networks) in Australia should be considered when considering emissions accounting and scope.

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<table>
<tr><th colspan="2">Guidance Note</th></tr>
<tr><td>Methodologies and accounting standards</td><td>Stakeholder comments:
Ausgrid states that emissions accounting should be aligned with industry best practice to streamline reporting and audit obligations.
Ausgrid raises marginal abatement cost curves as a way of more thoroughly considering an NSPs approach to reducing emissions and pursuing the least cost options.
Ausgrid considers the AER’s existing methods should address uncertainty of the benefits of emissions reduction investment.
Endeavour Energy and Essential Energy do not want to prescribe an emissions accounting approach, but Endeavour Energy would like information about acceptable carbon accounting methodologies. Endeavour Energy noted a non-exhaustive list of possible options for emissions accounting approaches: the Greenhouse Gas Protocol (GHG Protocol), National Greenhouse and Energy Reporting Scheme (NGERS), and the Carbon Disclosure Project.
Transgrid supports guidance and worked examples on emissions accounting being provided in the AER’s guidance note on the quantification of benefits associated with changes in Australia’s greenhouse emissions.
SA Power Networks put forth the GHG Protocol as appropriate for emissions accounting and will minimise administrative burden due to existing ESG reporting requirements. SA Power Networks notes that the GHG Protocol is a transparent and widely adopted methodology, and it is the prescribed methodology of the International Sustainability Standards Board. NGERS is another option.</td></tr>
<tr><td>Perspectives from leading energy bodies</td><td>Stakeholder comments:
Ausgrid considers we should refer to the approach of other leading regulators (such as Ofgem’s CBA Guidance) when assessing the prudency and efficiency of emissions reduction expenditure.
Ausgrid suggests, similar to AEMC, AER should include a section in its framework that discusses “elements shaping the big picture”, covering decarbonisation, technological change, stakeholder behaviour, jurisdictional policy trends, and increased uncertainty.</td></tr>
<tr><td>Interrelationships with other regulatory mechanisms and guidance</td><td>Stakeholder comments:
NSPs have submitted the following in relation to AER incentive schemes:</td></tr>
</table>

Guidance Note	
	– Ausgrid considers that the risk of competing incentives (e.g. CESS reducing costs and selecting lower cost option than emissions reducing option) can be addressed with reporting and information sharing, such as Post Implementation Reports (PIR). This approach is similar with the approach in the ICT Guidance Note, where PIRs could be expected to be provided on the largest projects/programs for reducing emissions. – Endeavour Energy, conversely, suggests emission reduction does not align with current incentive schemes (CESS/EBSS for promoting service provision at least cost; and STPIS and small-scale incentive schemes like customer service and export service for quality/reliability), and considered the reputational incentives may be unbalanced against these existing schemes. This may lead to undesirable outcomes. – Transgrid disagrees with the AER's noted scenario. "The AER notes that for the CESS, an undesirable scenario may arise if a more expensive but lower carbon intensive investment is approved at a determination stage, but the service provider ultimately invests in a cheaper, higher emission asset." – Essential Energy supports, in principle, incentives being developed for emissions reduction investments. Further, it notes there is a potential interaction with the voluntary Export Services Incentive Scheme. – Endeavour Energy questions whether the current incentive schemes are keeping pace with customer expectations rather than just focusing on least cost service provision. – SA Power Network notes that the CESS issue is unlikely to be a material concern due to reputational incentives created by the level of public reporting on emissions for sustainability reports and the expectations established with investors and stakeholders. SA Power Network considers existing reputational incentives are sufficient to mitigate risk of incentive payments for not undertaking investments that are included in forecast revenue. If the AER considers the reputational incentives are insufficient, a specific incentive scheme could be developed for emission reduction, whereby any material differences between expected performance could be rewarded/penalised. • Endeavour Energy supports the guidance note being developed after the RIT application guidelines to incorporate any feedback. • Evoenergy similarly considers utilising feedback from other consultative processes (e.g. CBA/RIT consultation) in forming the guidance note. • Endeavour Energy suggests a review is conducted to avoid duplication with such docs like the DNSP expenditure forecasting methodology statement.

Guidance Note	
	• Endeavour Energy is also concerned that the development of input focused regulatory tools outpaces the output-based measures over the long term.
Tariffs	**Stakeholder comments:** • Ausgrid questioned the declining block tariff approach in gas, as this provides customers with lower prices with greater consumption. • Essential Energy submitted that tariff structures can incentivise behaviours that support emissions reduction, such as peak load shifting and increased utilisation of renewable energy sources at certain times of the day. It considers that it would be beneficial for this to be included in the AER's guidance. • SA Power Networks considers that including consideration of emissions in the choice of tariff design and weighting the considerations against cost reflectivity appears to be an unnecessary and complex distraction from the sole focus of being to drive efficient consumer behaviour and long-term investment decisions. SA Power Networks elaborates that this view is based on the role of price signals influencing the use/mix of generation in the NEM is better directed at generator market participants • SA Power Network states attempting to apply a value of carbon to distribution network tariff proposals appears to double count other economic incentives in upstream generation (e.g. large-scale generation certificates and the safeguard mechanism). • Evoenergy supports the AER's view that the relationship between gas network tariffs and emissions reduction objectives should be considered in the context of assessing individual access arrangement proposals, and does not see a need for broader guidance at this time.
Principles	**Stakeholder comments:** • Ausgrid supports the proposed principles and suggests equity as an additional principle. Ausgrid considers that equity is relevant to: – How costs, benefits and risks are distributed between current and future customers – Fairly allowing equitable outcomes regardless of a customer's living circumstances or access to capital to participate in the energy transition e.g. installing solar; and – Providing appropriate protections to support customers.

Guidance Note	
	• Essential Energy encourages the AER to consider the issue of equity as a principle when applying the NEO, both in regard to past and future customers and how costs are allocated between them.
Examples of actions to reduce emissions	**Stakeholder comments:** • Transgrid, Ausgrid and Essential Energy support the inclusion of specific work examples on how the Guidance Note would be applied. • Ausgrid provided feedback on investments relating to emissions reduction: – Fleet - The transition of existing fleet to electric vehicles where justified by the total cost of operation, including the value of emissions in the cost stack. – EV charging - Recent analysis from L.E.K identified that electricity distributor led EV charging could enable up to 1.2 million additional EVs by FY30. These investments would lower barriers customers currently face to purchasing an EV and reduce emissions across the Australian economy. – Shore Power - Ships berthed at most major ports in Australia currently need to keep their diesel engines running to power their systems. These emissions could be avoided with network upgrades that allow berthed ships to plug into the grid and power their operations using renewables. – Gas insulated assets - Phasing out the use of SF6 as an insulating gas in equipment through proactive replacements. – Innovation and digital platforms - Innovation and the rollout of digital platforms can reduce emissions with investment in smart, climate resilient grids holding the key to diversifying Australia’s generation mix to support more renewables and improving energy efficiency. – High voltage cables - Installing larger cross-sectional conductors on the main lines of high voltage underground feeders to reduce resistance. – Low voltage cables - Installing larger cross-sectional conductors in low voltage underground feeders to reduce energy losses. – Non-technical losses - Reduce theft in conveyance (unauthorised connections) and correctly record electricity consumption (meter reads, investigate tampering etc.)

Guidance Note	
	– Disposal - New circular economy initiatives could be introduced to minimise economy wide emissions and make best use of existing embodied emissions. – Line losses. – Tariffs encouraging load shifting to sunlight hours. • Essential Energy suggests examples of proposed projects and their expected emissions reductions outcomes could assist and could include the types of cost-benefit analysis undertaken, and how this aligns with jurisdictional targets. • At a high level, Essential Energy considers that any type of investment in network infrastructure upgrades that is undertaken to support higher penetration of renewable energy, energy efficiency programs, and advanced smart metering infrastructure to enable better demand management could be relevant. It notes specific examples could include investments in dynamic operating envelopes, network batteries, real-time network monitoring, electric vehicle charging infrastructure – anything that can facilitate the uptake of consumer energy resources, and other activities that can reduce emissions on a broader scale and that are supported by customers. Investments to reduce operational emissions from fleet and SF6 should also be considered. • Transgrid suggested providing guidance on the consideration of emissions from imported materials. It highlighted that, where imported materials are assumed to be zero, these materials would always be preferrable to domestically produced materials (which would be treated as a cost in the analysis). • SA Power Networks noted that clarity is needed on the classification of emissions in other sectors that are influenced/changed as a result of the choice of investment/practice option in delivering regulated services. For example, investment/practices affecting energy use and consumption patterns of consumers connected to the distribution network and thereby changing the generation mix of the NEM (e.g. via enabling CER, demand management and load shifting solutions, or broader energy efficiency measures). There may also be network actions that may provide incentives for customers to abolish their gas connections.

Appendix D Shortened forms

Short form	Extended form
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Operator
AER	Australian Energy Regulator
Amending Rule	The AEMC's final determination on harmonising the national energy rules with the updated national energy objectives
Capex	Capital expenditure
CBA	Cost-benefit analysis
CER	Consumer energy resources
CESS	Capital expenditure sharing scheme
EBSS	Efficiency benefits sharing scheme
EFA Guidelines	Expenditure Forecast Assessment Guidelines
GHG Protocol	Greenhouse Gas Protocol
ISP	Integrated System Plan
JEC	Justice and Equity Centre
NEL	National Electricity Law
NEM	National Electricity Market
NEO	National Energy Objective
NER	National Electricity Rules
NGERS	National Greenhouse and Energy Reporting Scheme
NSP	Network service provider
Ofgem	The UK's Office of Gas and Electricity Markets
opex	Operating expenditure
PIR	Post implementation review/report
RIT	Regulatory investment test
SA Power Networks	South Australia Power Networks
VER	Value of emissions reduction