

# Valuing emissions reduction

AER draft guidance

March 2024

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## Have your say

Interested parties are invited to make written submissions to the AER regarding our draft guidance on valuing emissions reduction by close of business, **18 April 2024**.

Submissions should be sent electronically to [NEOReforms@aer.gov.au](mailto:NEOReforms@aer.gov.au). Alternatively, you may mail submissions to:

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We ask that all submissions sent in an electronic format are in Microsoft Word or other text readable document form. We prefer that all submissions be publicly available to facilitate an informed and transparent consultative process. We will treat submissions as public documents unless otherwise requested. All non-confidential submissions will be placed on the AER's website.

For further information regarding the AER's use and disclosure of information provided to it, see the ACCC/AER Information Policy. We request parties wishing to subject confidential information:

- 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.

If you have enquiries about this paper, lodging a submission or would like to meet with us to discuss issues raised in this paper, please contact [NEOReforms@aer.gov.au](mailto:NEOReforms@aer.gov.au).

# 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.

Energy Ministers have reformed the National Energy Laws to introduce an emissions reduction element into the national energy objectives. These changes took effect in late 2023.

As the independent regulator, the national energy objectives guide the AER's work in the long-term interests of consumers.

The purpose of this document is to provide guidance, as contemplated by the emissions reduction amendments to the National Electricity Law,<sup>1</sup> about valuing emissions reductions in regulatory processes under the National Electricity Law. This guidance complements our guidance on applying the amended NEO, released in September 2023,<sup>2</sup> which set out:

- the matters the AER is likely to have regard to in considering whether to apply the amended energy objectives to processes which are underway at the time the amendments took effect; and
- how we may operationalise the amended electricity objective to Ausgrid, Endeavour Energy, Essential Energy, Evoenergy, TasNetworks Distribution, TasNetworks Transmission and Power and Water Corporation (NT) (network service providers) for the 2024–29 regulatory determinations.

## 1.1 Changes to the national energy objectives

An emissions reduction element has been added to all three energy objectives: National Electricity Objective, National Gas Objective and National Energy Retail Objective.

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 covered 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

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<sup>1</sup> See clause 42 of Schedule 3 of the National Electricity Law.

<sup>2</sup> AER, [Applying the amended National Energy Objectives](#), September 2023. This guidance was a separate statutory requirement and continues in effect. The topic it deals with is different to this guidance on applying a VER.

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

## 1.2 Authority for AER guidance

On 28 February 2024, Australia's Energy Ministers, collectively known as the MCE, agreed to a method to derive the interim value of greenhouse gas emissions reduction to be used in considering or applying the national energy objectives.

The method is captured in the MCE Statement at attachment A.

The MCE Statement itself is not legally binding. However, clause 42 of Schedule 3 of the National Electricity Law enables the AER to provide administrative guidance on considering or applying the amended objective. If our final guidance includes a value of emissions reduction (VER) or a method of working out a VER, and the guidance is consistent with any MCE Statement about those matters, then:

- we must comply with the interim VER or method of working out the interim VER stated in our guidance in considering or applying the amended NEO (including in respect of revenue determinations);<sup>3</sup> and
- we, and network service providers, must comply with the guidance in respect of the Regulatory Investment Test for Transmission (RIT-Ts) and the Regulatory Investment Test for Distribution (RIT-Ds).

Our guidance is limited to the above listed issues that bind the AER and RIT proponents.

However, we will shortly commence our review of several AER Guidelines where we will consider our approach in more detail in consultation with stakeholders. These include the:

- Cost Benefit Analysis Guideline and RIT Applications Guidelines, between April and November 2024
- Expenditure Forecast Assessment Guideline and Distributed Energy Resources integration expenditure guidance note, between May and December 2024.

The AER will also publish electricity generation forecasts and associated emissions intensity factors as part of its annual customer export curtailment value update in July 2024, for use in estimating the emissions from generation displaced by consumer energy resources.

Issuing revised Guidelines will not itself revoke or amend this guidance and this guidance would prevail to the extent of any inconsistency. However, it would be open to us to amend this guidance in the event of any inconsistency emerging between it and a Guideline. This would allow us to achieve continued alignment

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<sup>3</sup> This guidance is akin to other informal guidance the AER provides about how we will approach our decision making in regulatory determinations and access arrangements.

between this guidance and AER Guidelines.

## 1.3 Consultation

While the interim VER is derived from a methodology prescribed for us and therefore not the subject of this consultation, we are interested in hearing from stakeholders on whether:

- a) we should include Table 1 (chapter 2) in our final guidance, which sets out the values derived from the method.
- b) there are alternative approaches we could take or other issues we should consider, in particular in relation to the RIT-D.

## 2 Interim VER

The methodology as set out in the MCE Statement is as follows:

### VER

#### Methodology

The VER is the 2022-23 average of the generic Australian Carbon Credit Unit spot price (AUD\$33/tonne CO<sub>2</sub>-e) with a growth rate of 10% p.a. averaged with a linear interpolation of:

1. From 2024-2029: the IPCC Fifth Assessment Report Representative Concentration Pathway 2.6 (commonly referred to as RCP2.6) scenario, median marginal cost of abatement figures,<sup>8</sup> converted into 2023 AUD dollars.
2. From 2030-2050: the IPCC Sixth Assessment Report Category 2 (commonly referred to as C2) emissions scenario median marginal cost of abatement figures<sup>9</sup>, converted into 2023 AUD dollars.

Beyond 2050, the 2050 value should apply.

To assist stakeholders, we have included a table of interim VERs derived from the methodology that we will use in our carrying out our regulatory functions, and that network businesses should use in their proposals.

**Table 1: Interim values of emissions reduction (\$/tonne CO<sub>2</sub>-e)**

Year	Average IPCC & ACCU (using official IPCC) AUD2023	Year	Average IPCC & ACCU (using official IPCC) AUD2023
2023	66	2037	181
2024	70	2038	194
2025	75	2039	207
2026	80	2040	221
2027	84	2041	236
2028	89	2042	252
2029	95	2043	268
2030	105	2044	286
2031	114	2045	305
2032	124	2046	325
2033	135	2047	346
2034	146	2048	369
2035	157	2049	393
2036	169	2050	420

This guidance will continue to apply unless we vary or revoke it.



### 3 Valuing emissions reduction in Regulatory Investment Tests

The Regulatory Investment Test (RIT) is a cost-benefit test that networks (RIT proponents) must undertake before building electricity network infrastructure. The Regulatory Investment Test for Transmission (RIT-T) applies to transmission projects over \$7 million in capital costs and for projects in the distribution network, the Regulatory Investment Test for Distribution (RIT-D) applies for projects over \$6 million in capital costs.

The purpose of the RIT is to identify and assess a range of credible options that could address an identified need in the electricity network, and then identify the preferred option that maximises the net economic benefit, whether or not those benefits are to NEM participants.<sup>4</sup>

In accordance with the NER, we are responsible for establishing and maintaining guidelines on the application of the RIT.

This guidance note sets out requirements on RIT proponents regarding valuing emissions reduction in:

- RIT-T for actionable ISP projects
- RIT-T for non-actionable projects; and
- RIT-D.<sup>5</sup>

#### 3.1 Using an interim VER in the RIT

The current RIT-T instrument requires proponents to, amongst other things:<sup>6</sup>

- for actionable Integrated System Plan (ISP) projects:
  - adopt the identified need from the ISP
  - consider credible options to address the identified need including exploring refinements to the ISP candidate option and non-network options identified in the ISP as well as new credible options
  - adopt the ISP parameters, including inputs, assumptions and scenarios from the most recent Inputs, Assumptions and Scenarios Report unless there is a demonstrable reason not to
  - as, far as practicable, adopt the market modelling from the ISP
- for all other RIT-T projects:
  - use the inputs and assumptions from AEMO's most recent Inputs,

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<sup>4</sup> NER, Chapter 10, definition of 'net economic benefit'; AEMC, [Harmonising the national energy rules with the updated national energy objectives \(electricity\)](#), Final Determination, Section 3.4, February 2024.

<sup>5</sup> Guidance on the RIT-T for actionable ISP projects is housed in the Costs Benefit Analysis Guidelines and refers to RIT-Ts that are required to be undertaken as directed by AEMO's most recent ISP. The RIT-T application guidelines apply to projects that are identified outside the ISP.

<sup>6</sup> AER, Regulatory investment test for transmission, pp. 5-6.

- Assumptions and Scenarios Report when applying the RIT-T unless there is a demonstrable reason not to
- as, far as practicable, adopt the market modelling from the ISP.

AEMO is currently developing the 2024 ISP for release in June 2024. The harmonisation rule change means that, having received the MCE Statement on the VER prior to 29 February 2024, AEMO will now consider emissions reduction as a class of market benefit in the final 2024 ISP, and it will flow through to the ISP market modelling and option analysis. Hence, under the rules, RIT proponents now need to consider emissions as a class of market benefits, and in doing so, they should use the VER as set out in section 2.<sup>7</sup>

For the avoidance of doubt, RIT-Ts should be undertaken using a consistent approach to that taken in the ISP, unless there is a strong reason not to do so. This will enable the VER to be appropriately accounted for in the RIT analysis and for consistency to be maintained between ISP and RIT-T inputs, in keeping with the requirements in our existing Guidelines. (To the extent that RIT proponents adopt any departures from the ISP, they must comply with the interim VER or method of working out the interim VER stated in this guidance.

The RIT-D Guidelines indicate that RIT-D proponents should use inputs based on market data and assumptions and forecasts that are transparent and from a reputable and independent source. They cite AEMO data as a starting point or default for RIT-D analysis but are less specific than the guidelines applying to RIT-Ts in this sense. However, should RIT-D proponents decide to estimate the benefit of emissions reduction in their assessments, they should wherever possible take a consistent approach to that taken in the ISP.

As we progress our review of the Cost Benefit Analysis and RIT application guidelines over the course of 2024, we will consider whether this guidance should be amended.

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<sup>7</sup> AEMC, [Harmonising the national energy rules with the updated national energy objectives \(electricity\)](#), Final Determination, Section 3.4, February 2024.

# Appendix A

## MCE statement about the interim value of greenhouse gas emissions reduction

Issued for the purpose of:

National Electricity Law (NEL), Schedule 3, clause 42(6)

National Gas Law (NGL), Schedule 3, clause 137(4)

National Energy Retail Law (NERL), Schedule 1, clause 11(4)

### Description

This statement is issued by the group of ministers responsible for energy matters at a national level, comprising the ministers from the Commonwealth, states and territories – collectively referred to as the MCE.

This instrument states the interim value of greenhouse gas emissions reduction (VER) that is to be used by a government or regulatory entity<sup>1</sup> in considering or applying the national energy objectives,<sup>2</sup> as amended by the *Statutes Amendment (National Energy Laws) (Emissions Reduction Objectives) Act 2023* (the amended objectives). It is intended that this interim value will be replaced by a permanent value prior to the expiry of this statement on 30 June 2025.

This statement is not a MCE statement of policy principles.

### Background

The amended objectives apply in relation to a thing required or permitted to be done by the Australian Energy Market Commission (AEMC), or by a person or body in relation to particular revenue determinations and access arrangements, from the commencement of the *Statutes Amendment (National Energy Laws) (Emissions Reduction Objectives) Act 2023* on 21 September 2023. Otherwise, they apply in relation to a thing required or permitted to be done under the national energy laws<sup>3</sup> by a person or body (other than the AEMC) two months after the commencement of that Act.<sup>4</sup>

A government or regulatory entity may issue administrative guidance about considering or applying the amended objectives. If that guidance includes the VER, or a method of working out the value, and the guidance is consistent with this MCE statement, then the entity must comply with the value

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<sup>1</sup> The Australian Energy Market Commission, the Reliability Panel, the Australian Energy Regulator, the MCE, the Energy Security Board, another government entity, or the Australian Energy Market Operator (other than to the extent it is exercising a power or performing a function as a network service provider for a declared transmission system or a declared transmission system operator): clause 38 of Schedule 3 to the National Electricity Law (NEL), clause 133 of Schedule 3 to the National Gas Law (NGL), clause 7 of Schedule 1 to the National Energy Retail Law (NERL).

<sup>2</sup> The national electricity objective set out in section 7 of the NEL, the national gas objective set out in section 23 of the NGL and the national energy retail objective set out in section 13 of the NERL.

<sup>3</sup> The NEL, the NGL and the NERL.

<sup>4</sup> Clause 39 of Schedule 3 to the NEL, clause 134 of Schedule 3 to the NGL and clause 8 of Schedule 1 to the NERL.

or method when considering or applying the amended objective.<sup>5</sup> If the guidance is issued by the Australian Energy Regulator (AER), then the AER and any regulatory investment test (RIT) proponent must comply with the guidance in relation to the RIT project.<sup>6</sup> However, any such guidance is only binding on the entity or proponent pending the making of a Regulation or Rule dealing with the value, or the method for working out the value.<sup>7</sup>

The VER measures the dollar value per tonne of avoided greenhouse gas emissions in order to operationalise emissions reduction as a component of the national energy objectives, as agreed by the MCE. This component is to be considered alongside the other components of the amended objectives and does not take priority over them.

The key processes that require a VER are those that incorporate quantitative analysis, including in considering the various components of the amended objectives – price, quality, safety, reliability and security of the supply of electricity and gas, the reliability, safety and security of the national electricity system, and the achievement of targets set by a participating jurisdiction for reducing (or that are likely to contribute to reducing) Australia’s greenhouse gas emissions.

Key affected processes include changes to the Rules under the national energy laws, the Integrated System Plan, RITs, revenue determinations/resets and gas access arrangements.

## VER

### Methodology

The VER is the 2022-23 average of the generic Australian Carbon Credit Unit spot price (AUD\$33/tonne CO<sub>2</sub>-e) with a growth rate of 10% p.a. averaged with a linear interpolation of:

1. From 2024-2029: the IPCC Fifth Assessment Report Representative Concentration Pathway 2.6 (commonly referred to as RCP2.6) scenario, median marginal cost of abatement figures,<sup>8</sup> converted into 2023 AUD dollars.
2. From 2030-2050: the IPCC Sixth Assessment Report Category 2 (commonly referred to as C2) emissions scenario median marginal cost of abatement figures<sup>9</sup>, converted into 2023 AUD dollars.

Beyond 2050, the 2050 value should apply.

<sup>5</sup> Clause 42(2) of Schedule 3 to the NEL, clause 137(2) of Schedule 3 to the NGL, clause 11(2) of Schedule 1 to the NERL.

<sup>6</sup> Clause 42(4) of Schedule 3 to the NEL.

<sup>7</sup> Clause 42(5) of Schedule 3 to the NEL, clause 137(3) of Schedule 3 to the NGL, clause 11(3) of Schedule 1 to the NERL.

<sup>8</sup> IPCC Fifth Assessment WGIII Final Report, Figure 6.21a (<https://www.ipcc.ch/report/ar5/wg3/>). The IPCC figures are expressed in USD 2010 dollars and converted into 2023 AUD dollars using the 2010 12-month average of the RBA’s official monthly exchange rates (F11 EXCHANGE RATES) (<https://www.rba.gov.au/statistics/historical-data.html#exchange-rates>), and inflated to 2023 AUD dollars using the 2023 average to September of RBA/ABS’s official quarterly CPI Index (G1 CONSUMER PRICE INFLATION) ([https://www.rba.gov.au/inflation/measure-cpi.html#year\\_ended](https://www.rba.gov.au/inflation/measure-cpi.html#year_ended)).

<sup>9</sup> IPCC Sixth Assessment WGIII Final Report, Figure 3.32 (<https://www.ipcc.ch/report/ar6/wg3/>). The IPCC figures are expressed in USD 2015 dollars and converted into 2023 AUD dollars using the 2015 12-month average of the RBA’s official monthly exchange rates (F11 EXCHANGE RATES) (<https://www.rba.gov.au/statistics/historical-data.html#exchange-rates>), and inflated to 2023 AUD dollars using the 2023 average to September of RBA/ABS’s official quarterly CPI Index (G1 CONSUMER PRICE INFLATION) ([https://www.rba.gov.au/inflation/measure-cpi.html#year\\_ended](https://www.rba.gov.au/inflation/measure-cpi.html#year_ended)).

### Sensitivity analysis

Sensitivity analysis tests the results of quantitative analysis by varying key assumptions to reflect risks and uncertainties. Where a regulatory entity considers that a sensitivity analysis is appropriate in relation to the interim VER, it is recommended that sensitivity testing be undertaken with upper and lower bounds 25% above/below the VER value. The decision on whether to undertake a sensitivity analysis will be at the discretion of the regulatory entity.

### Scope of emissions reduction

The amended objectives encompass emissions reduction targets that apply to the whole of the Australian economy. As such, emissions reduction that is achieved in any sector of the Australian economy is potentially within the scope of the amended objectives. Within the regulatory framework and requirements established by the NEL, the NGL and the NERL, decisions on the extent to which emissions reduction achieved outside of the energy sector should be considered will be at the discretion of the relevant regulatory entity. Regulatory entities may issue further guidance on this matter.

### Emissions reduction for government or regulatory entity actions interacting with the Safeguard Mechanism

Governments or regulatory entities' actions in applying the VER may have impacts on emissions from covered facilities under the Safeguard Mechanism. The relevant government or regulatory entity should account for the impacts of its actions on emissions from covered facilities under the Safeguard Mechanism. Any emissions reductions achieved under the amended objectives should be considered as complementary to the incentives provided by the Safeguard Mechanism.

The calculation of emissions reduction will depend on the nature and extent of the interactions with the Safeguard Mechanism and should be assessed by the government or regulatory entity on a case-by-case basis. However, discretion is to be used to ensure that the costs and benefits of emissions reduction are distributed in accordance with the long-term interests of energy consumers.

### Period of effect

This instrument commences on the day it is issued and remains in force until 30 June 2025 or until it is superseded by an updated instrument, rule, or regulation, whichever is earlier.

Issued on 28 February 2024