

9 August 2024



Executive General Manager, Consumers Policy and Markets
Australian Energy Regulator
E: NEOreforms@aer.gov.au

24-28 Campbell St
Sydney NSW 2000
All mail to
GPO Box 4009
Sydney NSW 2001
T +61 2 131 525
ausgrid.com.au

Dear Stephanie,

Ausgrid response to Draft Decision on Expenditure Forecast Assessment Guideline Review following amendments to National Electricity Objectives (NEO)

Ausgrid is pleased to provide this submission to the Australian Energy Regulator (**AER**) in response to its *Draft Decision – Expenditure Assessment Guideline Review – National Electricity Objective (Draft Decision)* and the *Emissions Reduction Guidance Note (Emissions Guidance Note)*.

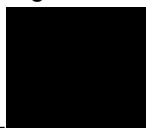
Ausgrid operates a shared electricity network that powers the homes and businesses of more than 4 million Australians living and working in an area that covers over 22,000 square kilometres from the Sydney CBD to the Upper Hunter.

Our comments on the AER's Draft Decision and the Emissions Guidance Note are outlined in **Appendix A and B**, respectively. Overall, we consider that the inclusion of emissions reduction in the NEO requires the AER take a more broad and holistic view of emissions in considering expenditure proposals. More specifically, our comments are primarily focus on:

- The AER providing additional information on how will balance the new emissions reduction objective with other considerations in the amended NEO;
- The AER providing guidance on the circumstances when emissions reductions will be elevated above other considerations, similar to other leading regulators in Australia;
- Suggestions for how the AER can leverage existing emission accounting and reporting practices that apply to electricity networks; and
- Affirming that the policy intent of the amended NEO is to enable investments that reduce total net emissions (scope 1, 2 and 3) in the Australian economy i.e. not only the energy sector.

We look forward to engaging with the AER on this project of work. Please contact Shannon Moffitt, Regulatory Strategy Manager, on [REDACTED] or [REDACTED] if you would like to discuss this submission.

Regards,



Fiona McAnally
Head of Regulation

Appendix A: Expenditure Forecast Assessment Guidelines

1. Do you agree with the proposed updates to the EFA Guidelines

We support the AER undertaking a broader review of the EFA Guidelines that extends beyond the incremental updates in the Draft Decision.

The electricity industry is experiencing a rapid transformation on an unprecedented scale. This transformation is likely to accelerate in the coming years so that the operating environment of the early 2010s when the AER first developed the EFA Guidelines is set to look vastly different to the final years of the upcoming AER determinations, ending in the early 2030s.

The introduction of an emissions reduction objective in the amended NEO provides a timely opportunity to take stock of changes in the sector, both past and expected. This should facilitate a holistic assessment of how the EFA Guidelines should be updated to keep pace with how electricity networks deliver services to customers. We include suggested updates in our response to question 2 below.

2. Are there any additional updates, related to the amended national energy objective, we have overlooked that need to be incorporated?

Our recommended additional updates to the EFA Guidelines draw from how other leading regulators, including the Australian Energy Market Commission (**AEMC**), the Australian Competition and Consumer Commission (**ACCC**) and the UK's Office of Gas and Electricity Markets (**Ofgem**), have incorporated emissions reduction into their decision-making.

Balancing emissions with other objectives

We would welcome more guidance from the AER on how it will balance the emissions reduction objective against other considerations in the NEO. Other market bodies have taken this step. The AEMC, for example, has published a note called *How the National Electricity Objectives Shape Our Decisions* that includes a framework for balancing the emissions reductions component alongside other objectives in the NEO. We strongly encourage the AER to include a similar framework in the Final EFA Guideline, because this Guideline sets out the AER's assessment approach for all types of expenditure, not just expenditure that is emissions related.

The AEMC's guidance also contains a section on 'elements shaping the big picture'. These elements include decarbonisation, technological change, stakeholder behaviour, jurisdictional policy trends, and increased uncertainty.¹ The AER should similarly turn its mind to these 'big picture' elements when outlining how it will apply the introduction of the emissions reduction objective in the amended NEO.

Putting more weight on emissions reductions objectives in certain circumstances

Leading regulators are increasingly recognising that emissions reduction, as a wider social good, outweighs other economic factors typically considered in economic regulation decision making.² The ACCC, for example, found that an acquisition of Origin Energy would amount to substantial lessening of competition, primarily in electricity transmission and generation businesses, but still approved the proposed merger. This was based on a finding that an expected reduction in greenhouse gas emissions in Australia from the proposed transaction

¹ AEMC, [How the National Energy Objectives Shape Our Decisions](#), September 2023, p.9.

² ACCC, [Decision on Brookfield LP and MidOcean proposed acquisition of Origin Energy Ltd](#)

going ahead would result, or be likely to result, in a greater public benefit than the substantial lessening of competition.³

We would support the AER engaging widely on whether it should take a similar approach. The amended NEO means that emissions reduction now sits on an equal footing with price, quality, safety, reliability and security of supply as the objectives that guide regulatory decisions. Nonetheless, to balance competing considerations in a way that achieves the long-term interests of customers, we expect that the AER is likely to put more weight on some objectives in the NEO and less weight on others, depending on the circumstances at hand. We consider it to be good regulatory practice for the AER to outline its framework for making these decisions, particularly with respect to when emissions reduction expenditure would be elevated in a similar way to the ACCC's approach for the Origin Energy acquisition.

International examples – Ofgem's guidance note

The AER should consider how international regulators have incorporated emissions reduction into their guidance material. In the UK, Ofgem has published detailed guidance on Cost Benefit Analysis (**CBA**) that focuses on:

1. Line losses – CO₂ emissions;
2. Line losses – Wholesale market benefits; and
3. Other greenhouse gas emissions not associated with line losses.

With respect to 'line losses – CO₂ emissions', Ofgem notes that carbon intensity is likely to decline over time as energy policy in the UK targets net zero emissions. To account for this, Ofgem states that networks should apply a 'linear reduction of power sector carbon intensity towards a final power sector carbon intensity of 10g/kWh in 2040'.⁴ We encourage the AER to examine Ofgem's approach and consider setting out a similar method within the EFA Guidelines or Emissions Guidance Note for investments targeting line losses.

The AER should also explore a framework for 'line losses – wholesale market benefits'. Ofgem advises networks: 'Where expenditures are justified using the reduction of electrical energy lost, we have provided a standard value for £/MWh lost based on average wholesale electricity prices less the EU Emissions Trading Scheme (**ETS**) cost of carbon'.⁵ Network investments that reduce lost energy have clear and substantial benefits that promote the long term interests of customers, in line with the NEO. We would welcome the opportunity to work with the AER on implementing similar arrangements in Australia.

³ ACCC, [Decision on Brookfield LP and MidOcean proposed acquisition of Origin Energy Ltd](#), p.i

⁴ Ofgem, [RIIO-ED2 Cost Benefit Analysis \(CBA\) Guidance](#), p. 9-10.

⁵ Ofgem, [RIIO-ED2 Cost Benefit Analysis \(CBA\) Guidance](#), p. 9.

Appendix B: Emissions Reduction Guidance Note

1. We are interested in any views as to whether there are further specific considerations that we should take into account in considering whether proposed expenditure which contributes to the achievement of emissions reduction targets relates to relevant regulated services.

The AER's initial position is that emissions expenditure must be 'reasonably required for the provision of electricity network or gas pipeline services' (emphasis added). We support further guidance on how 'reasonably required' will be determined in relation to the:

- definition of 'distribution services' in the National Electricity Rules (**NER**); and
- service classification determination processes that set out the suite of activities that the AER recognises as 'regulated'.

The key factor in deciding if an activity is capable of AER regulation is whether a distribution network provides an activity 'in association with' their network.⁶ This captures a wide range of services, from network investments (e.g. replacing SF6 switchgear) to non-network alternatives (e.g. carbon offsets). Our response to question 10 below lists the activities that the AER should consider in its Guidance Note.

2. We are seeking stakeholder input on what emissions reduction should be considered in meeting the new objective, including what materiality thresholds should apply. We note that this issue is currently being consulted in our review of the Cost Benefit Analysis Guideline and Regulatory Investment Test (RIT) Application Guidelines. We will consider submissions in response to Cost Benefit Analysis Guidelines and Regulatory Investment Test (RIT) Application Guidelines review process insofar as it relates to the EFA Guideline and the emissions reduction guidance note.

Our views on how the AER will apply the amended NEO is guided by the relevant amendments to the National Electricity Law (**NEL**). These include a new section 32A(5) of the NEL which states that 'a person or body [such as the AER] must consider, as a minimum, the targets stated in the target statement' (emphasis added).

The word 'must' and use of the plural 'targets' in section 32A(5) suggests that the AER may, technically speaking, have to turn its mind to every target on the AEMC's target statement when considering an emissions reduction proposal. However, in practice it may be more helpful to put more weight on some targets and less on others. The word 'minimum' in section 32A(5) also implies that the AER and other market bodies are not limited to considering only those targets included in the AEMC's target statement i.e. other targets can be considered. We recommend that the AER clarifies the circumstances in which it could consider other targets.

In terms of materiality, the updated NEL and NER do not reference a minimum cost or emissions threshold. We are also not aware of the AER applying a materiality threshold when considering other elements of the NEO in assessing expenditure proposals. It would be inconsistent with the equal footing that emissions reduction now has with other objectives in the NEO if a minimum expenditure requirement was established only for emissions reduction and no other objective of the NEO.

⁶ [Ergon v AER \[2012\] FCA 393](#) (see paragraph 54)

We agree with the AER that expenditure supported by a reduction in emissions should have a 'direct and commensurate reduction impact on the respective jurisdiction's total carbon account'. There is nonetheless always a level of uncertainty about the benefits associated with any investment, regardless of whether it relates to emissions reduction. We expect that this uncertainty can be managed by using the AER's existing expenditure assessment methods which consider a range of scenarios to test the likelihood of success, as well as the expected timing of benefits and costs. We would also encourage the AER to take a similar position to other leading regulators, like the ACCC, that have elevated emissions reductions objectives above other economic considerations, when the circumstances merit this position.⁷

3. We are seeking stakeholder views on appropriate emissions accounting for electricity and gas regulatory proposals. We note that this issue is currently being consulted in our review of the Cost Benefit Analysis Guideline and Regulatory Investment Test (RIT) Application Guidelines. We will consider submissions in response to these guideline review processes insofar as it relates to the EFA Guideline and the emissions reduction guidance note.

We strongly support the AER leveraging existing emission accounting and reporting practices that apply to electricity networks. This will align the datasets the AER receives to industry best practice and streamline regulatory reporting and audit obligations.

Ausgrid has existing reporting processes that the AER could leverage. As an entity that emits 50,000 tonnes or more of CO₂-e (scope 1 and scope 2 emissions) annually, we are required to submit an annual emissions statement to the Federal Government under the National Greenhouse Emissions Reporting (**NGER**) Scheme. Most, if not all, electricity distributors in Australia are also likely to meet this threshold. Ausgrid also reports Scope 1, 2 and 3 emissions in our annual Global Reporting Initiative (**GRI**) sustainability report. GRI is a globally recognised voluntary sustainability reporting framework.

Ausgrid is preparing for the introduction of the Australian Sustainability Reporting Standard (**ASRS**). The ASRS will require certain entities to report on their scope 1, 2 and 3 emissions, and have these figures externally audited. The ASRS will require entities to report on the risks and opportunities that businesses face from the physical impacts of climate change and the transition to a low carbon economy.

While the legislation has not yet passed, it is expected that the ASRS will require entities to publish emission reduction targets and a climate transition action plan. Such plans are likely to include the range of activities that are required to achieve net zero on a marginal abatement cost (**MAC**) curve. Using a network's published MAC curve, the AER could test whether it has thoroughly considered its approach to emissions reduction and is taking the least cost approach to stay on track with its net zero trajectory over an upcoming 5-year regulatory period. We recommend that the AER monitors the development of the ASRS processes and works with electricity networks to determine if the reporting requirements, once made, can be leveraged for the AER's purposes.

4. We are seeking stakeholder views on what the relevant scope of emissions can be considered in forming a view on a capex or opex proposal. We note that this issue is currently being consulted in our review of the Cost Benefit Analysis Guideline and

⁷ ACCC, [Decision on Brookfield LP and MidOcean proposed acquisition of Origin Energy Ltd](#)

Regulatory Investment Test (RIT) Application Guidelines. We will consider submissions in response to these guideline review processes insofar as it relates to the EFA Guideline and the emissions reduction guidance note.

The Commonwealth and State Governments responsible for developing the amended NEO have made it clear that the reform is intended to drive changes in how networks and other market participants consider the total net emissions from an investment. In a case study on how the amended NEO would apply to AER decisions assessing network expenditure, the Federal Department of Climate Change, Energy, the Environment and Water (**DCCEEW**) has stated that:⁸

The calculation of emissions reduction from a proposed project or program would take account of the total net emissions from the investment. It would therefore incorporate emissions from inputs (e.g. materials used in the investment), as well as outputs (e.g. emissions reduction from coal or gas).

The AER's Emission Reductions Guidance Note should reflect this policy intent. It should clarify that emissions reduction benefits can include 'outputs – scope 1 and 2 emissions' like the benefits from fleet electrification, as well as 'inputs – scope 3 emissions' such as low emissions steel and concrete in the construction of network assets. Consideration of these inputs is likely to become more important in the future as advances in technology or trade tariffs make lower emissions materials more cost competitive, and investors and stakeholders seek for organisations to reduce their scope 1, 2 and 3 carbon footprints.

Our largest source of emissions as an electricity distribution network is from line losses. In FY24 3.5% of electricity carried was lost in our network and this was responsible for over 620,000 t-cO₂-e or 97% of our combined scope 1 and 2 emissions. The International Energy Agency (**IEA**) estimates that worldwide losses in electricity networks account for 1 gigatonne of carbon dioxide emissions.⁹ Traditional options to reduce these losses include replacing transformers and power lines. Innovation and the rollout of digital platforms can also play a part with the investment in smart, climate resilient grids holding the key to diversifying Australia's generation mix to support more renewables, along with the adoption of electric vehicles and improvements in energy efficiency.

5. We are seeking stakeholder views on whether our approach to approving expenditure and incentive schemes needs to be adapted to mitigate any adverse outcomes.

The AER's Draft Decision notes an 'undesirable scenario may arise if a more expensive but lower carbon intensive investment is approved at [an AER] determination stage, but the service provider ultimately invests in a cheaper, higher emission asset'. We consider that this risk can be managed through reporting and information sharing, rather than fundamental shifts in how the AER assesses proposed expenditure programs.

Reporting arrangements could include Post Implementation Reports (**PIRs**). This was the solution the AER designed in 2019 when it received feedback from customers about the

⁸ Federal DCCEEW, [Incorporating an Emissions Reduction Objective into the national energy objectives](#), 20 December 2022, p.16

⁹ IEA, <https://www.iea.org/reports/sustainable-recovery/electricity>

transparency of the benefits associated with ICT expenditure.¹⁰ Similarly, the AER's Guidance Note could establish an expectation on energy networks that they share PIRs on their largest projects targeting reduction in emissions.

6. We are seeking stakeholder views on how tariff structures might contribute to meeting the emissions reduction objective, and whether additional guidance on the AER's approach would be useful (including what the areas of additional guidance being sought).

Ausgrid's included emissions reductions considerations throughout the development of its approved 2025-29 Tariff Structure Statement.¹¹ For example, from 1 July 2024 we are allowing 170,000 more controlled load customers to heat their hot water systems in the middle of the day at a cheaper rate. We have also reduced our daytime energy prices by removing the shoulder period and extending the off-peak period. Both of these tariff reforms support more renewable energy entering the distribution network and broader energy system.

We support further review of gas network tariffs. The AER has noted that 'gas distribution network haulage tariffs are currently dominated by declining block structures'.¹² Under these tariff structures the haulage price for the first 'block' of gas consumed by a customer is set higher than the price for subsequent blocks. As customers consume progressively more gas within a billing period, they meet the threshold between blocks and pay progressively lower per unit prices for haulage. We question whether this approach to pricing is consistent with the inclusion of emissions reduction in the NEO, as customers with greater emissions intensity are rewarded with lower prices.

7. Do you consider that guidance on the above principles would be useful for formulating regulatory proposals for emissions reduction-related expenditure?

We support additional guidance from the AER in line with our response to question 7 below.

8. What other key principles should be included in the emissions reduction guidance note? (For example, are there issues relating to demand forecasting that might be relevant?)

We encourage the AER to establish equity as a key principle that it will consider when applying the emissions objective in the amended NEO. Equity is relevant with respect 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.

The AER has shown leadership on this topic by publishing documents such as 'Towards energy equity: A strategy for an inclusive energy market' and spearheading the Game Changer

¹⁰ AER, [Guidance Note - Non-network ICT capex assessment approach for electricity distributors](#), 28 November 2019, p. 13.

¹¹ Ausgrid, [Tariff structure statement for 2024-29](#), April 2024.

¹² AER, *Issues Paper: Review of gas distribution network reference tariff variation mechanism and declining block tariffs*, May 2023 p.20

package of reforms. Clarifying that equity is a matter that requires consideration under the amended NEO aligns to the AER's continued leadership in this area.

We also consider equity to be a matter requiring consideration based on a plain English reading on the amended NEO. The text expressly requires consideration of the 'the long term interests of consumers of electricity' which, in our view, requires equity to be considered. Put another way, outcomes that are inequitable would fail to be in the long-term interests of consumers. Further, a growing number of economists consider inequity as barrier to economic performance.¹³

9. What are some of the key information that should be included in the emissions reduction guidance note to support the submission of prudent and efficient emissions reduction expenditure proposals?

The AER should consider the approach of other leading regulators when assessing the prudence and efficiency of emissions reduction expenditure. Ofgem, for example, has published a guidance note setting out its expectations on the following:¹⁴

- Valuing the cost and benefits of options
- Treatment of society benefits and non-marketed goods
- How non-monetised engineering judgment should be applied
- Uncertainty and sensitivity analysis
- Modelling assumptions e.g. CBA period

We look forward to continuing to collaborate with the AER on the contents of the Emissions Guidance Note. To facilitate this, we strongly recommend that a draft version of the document is published with a further opportunity to engage with the AER on the key information requirements.

10. What are some examples of potential emissions reduction expenditure or investments that stakeholders envisage to be included in proposals?

We have included a list of potential investments that electricity distributors could make in the table below. These are examples only and have been provided as a way of commencing more detailed engagement with the AER on the types of investments that are likely to deliver significant benefits to customers by reducing emissions.

Investment	Description
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. ¹⁵ These investments would lower barriers customers

¹³ Dr Anne Holmes, [Parliament of Australia](#)

¹⁴ Ofgem, [RIIO-ED2 Cost benefit analysis guidance](#)

¹⁵ L.E.K, [The time is now to get smarter with the local grid](#), August 2024

	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 (HV) cables	Installing larger cross-sectional conductors on the main lines of HV underground feeders to reduce resistance.
Low voltage (LV) cables	Installing larger cross-sectional conductors in LV 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.)
Disposal	New circular economy initiatives could be introduced to minimise economy wide emissions and make best use of existing embodied emissions