Climateworks CENTRE

Level 27, 35 Collins St,
Melbourne VIC 3000

P: +61 3 9902 0741

info@climateworkscentre.org

climateworkscentre.org

17 April 2025

Australian Energy Market Operator
Submitted via email to isp@aemo.com.au

To whom it may concern,

Climateworks Centre submission to the Draft ISP Methodology (March 2025) consultation

Climateworks Centre welcomes the opportunity to provide a submission to the Australian Energy Market Operator (AEMO) in response to the *Draft ISP Methodology (March 2025).*

Climateworks bridges the gap between research and climate action, operating as an independent not-for-profit within Monash University. We develop specialist knowledge to accelerate emissions reduction, in line with the global 1.5 degrees Celsius temperature goal, across Australia, Southeast Asia and the Pacific.

AEMO has engaged CSIRO, supported by Climateworks, to conduct multi-sector modelling to quantify the dynamic influences that would shape electricity demand under different emissions reduction scenarios for this and previous Integrated System Plans (ISP). The recommendations in this submission draw on insights from that process and will contribute to a robust and optimised ISP Methodology.

Rapid decarbonisation of the electricity and energy system is essential for Australia to meet its obligations under the Paris Agreement. Electricity generation is the nation's largest source of greenhouse gas emissions. Adopting renewables will reduce emissions by approximately one-third (CSIRO 2023) and have powerful flow-on effects for other sectors of the economy.

This transformation is complex. It requires forecasting and planning that considers evolving energy demand, generation, transmission and storage technologies, changing market and regulatory conditions, and emerging opportunities in renewable energy and resource exports. AEMO must ensure that the electricity supply supports increasingly ambitious jurisdictional emissions reduction targets while remaining reliable, secure, safe and affordable.

In March 2024, the Energy and Climate Change Ministerial Council (ECMC) recognised AEMO's evolving role and directed it to play a more active part in guiding the energy transformation (Commonwealth of Australia 2024). Climateworks supports this approach, and the recommendations in this submission will help facilitate that shift.

The energy system in Climateworks' 1.5-degree aligned decarbonisation scenario

In 2023, Climateworks published least-cost emissions reduction pathways for Australia. Our report shows that to align with the Paris Agreement target of limiting global warming to 1.5°C, Australia reduces emissions 68 per cent below 2005 levels by 2030 and reaches net zero before 2040.

In our 1.5ºC-aligned scenario, renewables make up 88 per cent of total electricity generation in the National Electricity Market (NEM) by 2030 and close to 100 per cent by 2034. Clean electricity generation and storage capacity would expand from 55 GW today to around 151 GW by 2030 and 398 GW by 2050. All coal-fired power generation would cease by 2035, and gas-powered electricity generation would reduce by 13 per cent by 2030 and 80 per cent by 2050 (Climateworks Centre 2023).

Submission summary

Climateworks suggests AEMO consider the following recommendations as they develop the ISP Methodology. The submission body includes specific details on each point. Climateworks recommends AEMO:

- Formally request that the Australian Energy Regulator (AER) revise AEMO's role in system forecasting and planning from responding to trends and transformations to providing evidence that enables governments and energy market operators to shape them in a way that will benefit Australians.
- Ensure the ISP Methodology plans for broader analysis across all modelled scenarios to enable the ISP to embed robust contingency planning.
- Include support for timely updates and data services in the ISP Methodology to enhance planning planning and policy responses to uncertainty and rapid change.
- Formally request that the ECMC direct the Australian Energy Market Commission (AEMC) to incorporate the energy impacts of industrial decarbonisation and green export targets into the Emissions Target Statement to account for those policies in power system planning and forecasting.
- Work with government agencies to conduct place-based modelling to inform the design of an energy system that will enable Australia to become a 'renewable energy superpower', providing industrial actors with local forecasting data and optimal infrastructure planning for supply, storage, transmission and demand-side solutions.
- Provide energy users with more information to help them plan investments effectively, including opportunities for cost reductions based on time, day, season and location factors.
- Incorporate gas phase-out analysis, including modelling the orderly replacement of gas infrastructure with renewable alternatives.

Recommendations for the 2026 ISP Methodology

Recommendation 1: Formally request that the AER revise AEMO's role in system forecasting and planning from responding to trends and transformations to providing

evidence that enables governments and energy market operators to shape them in a way that will benefit Australians.

An AEMO that actively steers the energy transition will result in greater investor confidence, stronger economic outcomes, reduced emissions and a more robust grid. With a different approach to scenario selection and sensitivities, AEMO could use its forecasting and planning role to more clearly demonstrate the opportunities and trade offs under different policy approaches and levels of ambition. This approach would better inform governments and energy market agencies in meeting their objectives.

Australia's electricity and energy landscape is undergoing unprecedented change. All levels of government have implemented policies to reduce emissions while ensuring a prosperous economic future. These policies — including Future Made in Australia, National Consumer Energy Resources Roadmap, National Energy Performance Strategy, National Hydrogen Strategy and sub-national jurisdictional emissions reduction and renewable energy targets — will significantly impact the nature and requirements of the National Electricity Market (NEM).

The AER can place binding obligations on AEMO and the ISP process through directives in the Cost-Benefit Analysis Guidelines (AER 2024). Currently, these guidelines require AEMO to use 'the most probable value(s) for each variable and/or parameter that forms part of the most likely scenario'. Where the scenarios all have an equal likelihood, AEMO must 'identify one scenario as the most likely scenario for the purposes of clause 5.22.5(e)(3) of the National Electricity Rules' (AER 2024).

The requirement for AEMO to select a 'most likely' optimal development path was appropriate when Australia's energy system faced less disruption. However, current transformations – driven by renewable energy adoption replacing fossil fuels, rapidly expanding electricity demand and evolving government policy – necessitate that AEMO take a more proactive approach to scenario selection and modelling.

In its 'Response to the Review of the Integrated System Plan' (March 2024), the ECMC recognised this evolution, noting 'AEMO's role is changing as the energy market rapidly evolves' and 'governments and energy sector participants now look to the ISP for guidance on issues across the energy value chain' (Commonwealth of Australia 2024).

AEMO has a highly complex task in analysing a range of potential outcomes in a rapidly evolving energy demand and policy environment while planning alternatives for an energy system that ensures reliability, security, safety, affordability and quality – all while helping jurisdictions achieve emissions reduction targets. Similarly, governments and investors face increasingly complex challenges designing long-term policies and investments in a market with diverse outcomes. The interaction between these efforts has become problematic given the accelerated pace of market and policy change.

While AEMO considers government targets and policies as key inputs for the Inputs, Assumptions and Scenario Report (IASR) and ISP, as required by the AEMC's Emissions

Target statement, the AER's Cost-Benefit Analysis Guidelines, and National Electricity Rules 5.22.3, exclude consideration or comparison of emerging policies.

Governments, in turn, use ISP scenarios as key inputs to design new policies and estimate impacts but have limited capacity to update or consider interactions with wider ISP assumptions and modelling dynamics. Given the current rate of policy development, this leads to the ISP becoming rapidly outdated as policies evolve, while governments receive limited insights into policy impacts. Several findings in the 'ECMC's Response to the Review of the ISP' explicitly reflects this need (Section 2.4), seeking more transparency and guidance regarding policy considerations and impacts in the ISP, including AEMO's consideration of emerging and potential future policies (Commonwealth of Australia 2024).

Both governments and market bodies will benefit if AEMO modifies the balance between responding to energy system dynamics and providing the information that shapes them. AEMO and governments would both benefit from greater engagement between ISP scenarios and policy design to inform and optimise policy and planning outcomes.

Therefore, Climateworks recommends that AEMO formally request the AER adjust the Cost-Benefit Analysis Guidelines to shift AEMO's role from outlining the 'most likely' development path to proactively designing one that will inform and optimise the energy system transformation. This change would empower AEMO to take more proactive, strategic actions guiding the market through the energy transition and enabling more effective coordination between policy and planning.

Recommendation 2: Ensure the ISP Methodology plans for broader analysis across all modelled scenarios to enable the ISP to embed robust contingency planning.

AEMO has to plan an energy system at a time of acute uncertainty. By including additional sensitivity analysis insights in the ISP, AEMO could pinpoint areas of low confidence and outline how modelled scenarios might unfold under different conditions. This presents an opportunity for AEMO to navigate unknowns better and proactively plan an energy system that will help the country transition to near zero emissions energy supply and supports production of green commodities.

Contingency planning can offer alternate responses where there is low confidence in the pace and characteristics of change within scenarios. This would be achieved by exploring these topics in detail and identifying their anticipated path – and alternates where change is inconsistent with expectations – in forecasting and planning materials. The ISP Methodology provides an appropriate and useful framework for integrating this contingency planning approach into AEMO's broader planning. This would enable governments and energy system stakeholders to plan and allocate resources in alignment with the expected pathway and to understand the implications of changing conditions.

For example, Climateworks modelling indicates that consumer energy resources (CER), industrial and building electrification, demand management and energy efficiency all play crucial roles in achieving a 1.5°C-aligned energy system. However, uncertainties remain regarding the pace and scale of their adoption and the behaviour of actors within the system. In such cases where change is not in line with expectations, AEMO could set out additional detail on forecasting and planning materials and when alternative approaches could be needed, such as increased investment in grid-scale generation and storage. Furthermore, comprehensively and transparently detailing how AEMO will incorporate the impacts of the National Consumer Energy Resources Roadmap into its planning will enable stakeholders to better understand how distributed resources will be accounted for in the optimal development path. This would also help governments understand how CER might influence decisions about generation, storage and transmission investment.

This approach has two significant benefits. Firstly, it would enable AEMO to pursue a 1.5°C-aligned scenario with the confidence that planned contingencies would guide governments and energy system stakeholders if assumptions do not unfold as expected. Secondly, it would provide information that enables governments and energy system stakeholders to shape trends and transformations.

Recommendation 3: Include support for timely updates and data services in the ISP Methodology to enhance planning and policy responses to uncertainty and rapid change.

The ISP provides a roadmap for the National Energy Market in an environment of uncertainty and rapid change. Consequently, key ISP input assumptions, and modelling of potential impacts, are often outdated before the completion of the ISP planning cycle. For example, shortly before the ISP 2024 was finalised, the Australian Government released a revised National Vehicle Emissions Standard (March 2024) and the Future Made in Australia policy (April 2024). Due to their timing, neither were fully incorporated into the ISP in 2024. Similarly, major coal plants frequently revise their anticipated closure dates, quickly rendering the ISP's related projections obsolete. This rapid outdating significantly reduces the ISP's effectiveness as a planning tool and undermines confidence among energy users and investors.

AEMO currently undertakes sensitivity analysis to limit uncertainty. However, time constraints, competing priorities and limited resources restrict the range of sensitivities AEMO considers. Because of those limitations, they provide access to most aspects of the ISP model and underlying data in order to allow others to conduct their own analysis.

Climateworks recognises developing the ISP is a complex process and that delivering it over a shorter time period or with a wider range of scenarios would likely be impractical. However, there is an opportunity to respond more proactively to identified uncertainties during the ISP cycle by releasing updates when appropriate.

Since AEMO already updates its forecasts internally for more frequent analyses in the Electricity Statement of Opportunities (ESOO) and Gas Statement of Opportunities (GSOO), it could be authorised to publish more frequent ‘update sensitivities’ between ISP cycles. These

updates would be developed in collaboration with governments in response to major policy or market changes, keeping stakeholders informed with current information.

Furthermore, as policy interventions in the energy market transition increase, it is becoming more critical for AEMO and the government to collaborate early in their respective planning processes. There is value in governments considering diverse modelling and research, as this allows them to evaluate and explore a wider range of approaches and policy options. By providing more detailed model information and data earlier in government planning processes, AEMO can help policy-makers assess the consistency of their policies with ISP scenarios, resulting in more robust policy outcomes. The ECMC could serve as an appropriate forum for achieving collaboration during the early stages of policy development.

This evolution in AEMO's role is consistent with recent data reforms implemented by the ECMC, which expanded AEMO's legislated function to include data services that support more informed policy and research. As part of these reforms, the ECMC authorised AEMO to develop dedicated data services resources to help governments, researchers and market stakeholders access and effectively use AEMO's data and modelling capabilities for better policy development and decision-making (Parliament of South Australia 2025).

Recommendation 4: Formally request that the ECMC direct the AEMC to incorporate the energy impacts of industrial decarbonisation and green export targets into the Emissions Target Statement to account for those policies in power system planning and forecasting.

Under national electricity laws, AEMO must develop the ISP in accordance with the National Energy Objective (NEO), to identify an optimal development path to an energy system which is reliable, secure, affordable and, since 2023, one that reduces emissions in line with defined targets. These targets are defined by the AEMC, based on agreements by the ECMC, in the Emissions Targets Statement and include national and jurisdictional net zero targets and policies. Furthermore, AEMO is empowered to consider the array of federal, state and territory policies that could impact the nature and size of the electricity system, where they meet the committed policy threshold (AEMC 2024a).

However, the scope of the current Emissions Targets Statement remains constraining. Few policies, beyond those directly relevant to emissions and energy, meet the threshold for inclusion in AEMO's planning and forecasting (AEMC 2024b). Without including low-carbon export targets, AEMO cannot effectively develop an energy system that would support Australia's ambition to become a 'renewable energy superpower'. The absence of the quantification of the energy impacts of broader policies undermines confidence in the availability of affordable renewable energy, consequently limiting both the pace and scale of industrial decarbonisation and new green export industries.

To address this challenge, Climateworks recommends that AEMO formally request that the ECMC direct the AEMC to expand the scope of the Emissions Target Statement to include energy impacts of industrial and transport decarbonisation and low-carbon export targets.

Furthermore, Climateworks recommends that AEMO request that the AEMC modify its threshold for including policies in planning and forecasting documentation to enable consideration of policies with substantial commitment (such as Future Made in Australia) even when they have not yet been formalised through legislation, regulation, funding allocations or international agreements. AEMO could then incorporate these broader policy directions into its forecasting while maintaining analytical rigour by developing contingency pathways for scenarios where anticipated policy outcomes do not materialise.

AEMO's ability to incorporate these crucial policies into its planning and forecasting materials would be enhanced by more precise information from federal, state and territory governments regarding their targets, timelines and plans for low-carbon exports and industrial electrification. With clearer information from the government and an expanded remit to account for these policies, AEMO can more effectively support the transition to a decarbonised energy system capable of supporting Australia's 'renewable energy superpower' ambitions.

Recommendation 5: Work with government agencies to conduct place-based modelling to inform the design of an energy system that will enable Australia to become a 'renewable energy superpower', providing industrial actors with local forecasting data and optimal infrastructure planning for supply, storage and transmission solutions.

Climateworks supports the establishment of 'net zero industrial precincts' across Australia. Precinct-scale planning for industrial regions would provide long-term guidance for industry and assurance for the communities these industries support. Precinct decarbonisation could be enhanced if each major industrial region has a 'regional ISP' or equivalent to show how much renewable energy is needed to support ambitious decarbonisation. This place-based planning approach would make it easier for industrial actors to integrate and share resources, workforces and clean energy alternatives. Through a place-based approach, policy-makers could leverage a region's comparative advantages and unique characteristics and support Australia's ambition to establish itself as a 'renewable energy superpower'.

Australian industry, including supply chains for iron and steel, aluminium, copper, nickel, zinc, lithium, chemicals and liquified natural gas, account for around 44 per cent of Australia's total emissions. Mining and manufacturing processes consume 44 per cent of total energy and 40 per cent of electricity. Most emissions come from burning fossil fuels to power boilers, turbines, haulage and electricity use (Climateworks Centre and Climate-KIC 2023).

Transitioning away from fossil fuels will significantly increase industry's reliance on electricity and, to a lesser extent, green hydrogen and bioenergy and, to an even lesser extent, gas with carbon capture and storage. For this shift to be successful, industry and investors need confidence that there will be sufficient renewable energy supply that is affordable and reliable.

The ISP 'Step Change' scenario plans for moderate levels of industrial electrification and new renewable energy and resource exports, with generation capacity (excluding rooftop solar PV)

reaching around 85 GW by 2030 and 150 GW by 2050 (AEMO 2024). Climateworks anticipates the forthcoming 'Step Change' scenario will maintain similar capacity projections. To fully capitalise on the economic opportunities presented by low-emissions exports and to electrify industry consistent with a 1.5°C pathway, an Australian Industry Energy Transitions Initiative report indicates a NEM generation capacity of 141 GW by 2030 and 341 GW by 2050 (Climateworks Centre and Climate-KIC 2023). Similarly, the ISP 'Green Energy Exports' scenario projects grid generation capacities of 124 GW by 2030 and 396 GW by 2050 (AEMO 2024).

Detailed place-based energy system planning can provide industry and investors the confidence they need to transition to low-carbon products. Climateworks recently conducted an analysis showing that even the 'Green Energy Exports' scenario may fall short of the electricity capacity needed to rapidly decarbonise existing industries and establish new low-emissions export sectors in the Gladstone region. Our analysis estimates demand for the Gladstone region alone could reach 74 TWh/year by 2040 (Climateworks Centre 2025). In contrast, the industrial forecast for all of Queensland under the 'Step Change' scenario is only 44 TWh/year (AEMO 2024). If future analyses of industrial precincts across Australia tell a similar story, it may be that even the 'Green Energy Exports' scenario's 396 GW by 2050 would not provide enough generation capacity to support industrial energy transformation.

Climateworks recommends AEMO use the development of additional forecasting materials in tandem with regional-scale energy system planning to better deploy energy generation, storage and transmission technologies. This would support localised planning to provide detailed insights into the specific electricity and energy needs of different regions and sectors. This is essential for directing investment, allocating resources and securing social license. AEMO can help give industry actors, investors and communities the confidence to transition away from fossil fuels by integrating facility-level modelling into its planning and forecasting materials or collaborating with government agencies like the Department of Climate Change, Energy, Environment and Water (DCCEEW) or the Net Zero Economy Authority as they develop such materials.

Recommendation 6: Provide energy users with more information to help them plan investments effectively, including opportunities for cost reductions based on time, day, season, and location factors.

The ISP has primarily focused on guiding supply-side investments, with recent reforms addressing policy development needs. However, significant planning gaps remain regarding efficient demand-side investment decisions and modelling responsive demand.

Demand growth uncertainty has become the largest source of planning risk in the energy transition. Large-scale energy-intensive investments – including hydrogen production, data centres and new low-carbon industries – are being considered, alongside widespread

electrification of gas and transport systems. Additionally, there is ongoing growth in CER, which continues to present coordination challenges. Under the ISP 'Step Change' scenario, the NEM's optimal development path would deliver 213 GW of renewable generation capacity, 75 GW of firming capacity and an additional 10,000 km of transmission. In contrast, the 'Green Energy Exports' scenario would require 461 GW of renewable generation capacity, 117 GW of firming capacity and an additional 26,000 km of transmission – more than double the infrastructure requirements. Energy system planners face a monumental challenge not only with regard to the scale of demand but also its location and how it will respond to changing market signals.

The new demand-side factors statement introduces, for the first time, a focus on optimising distribution-level augmentations alongside related CER and demand activities. This represents a significant step toward creating a more comprehensive approach to considering demand factors. Climateworks acknowledges that the first version of this framework, already included in the ISP methodology, will broadly focus on initial scenarios and that more detailed analysis will develop in future ISPs as data availability and modelling capabilities improve. However, at this stage, it is unclear whether the demand-side factors statement will address key gaps in guiding efficient demand-side investment decisions or include modelling responsive demand scenarios.

Future energy costs in Australia will be greatly influenced by the extent to which individual investments can capture opportunities from frequent low-cost excess solar capacity during daylight hours; minimise exposure to increasing winter gas firming costs when renewable generation is scarce; take advantage of strategic locations to reduce expanding network costs; and respond effectively to increasingly volatile weather-driven price signals. These factors will significantly impact not only the investors' own costs but also costs for all consumers and the overall competitiveness of the Australian economy.

The window for investors to capitalise on these opportunities is narrow. Many exist only during the system planning phase when decisions about infrastructure location are made, systems are scaled to operate during specific periods (rather than 24/7), or designs incorporating smarter, flexible technologies can be implemented. Furthermore, differences between sectors and energy uses, such as those that exist between large- and small-scale energy infrastructure, create further complexity.

Currently, the ISP provides minimal insight into these trends, omitting any modelling of price patterns, their underlying drivers, demand-side opportunities for cost reduction, or differences between regions. This has resulted in investors having little visibility or insight into demand-side opportunities.

Climateworks welcomes the proposed changes in the 2026 ISP Methodology that will provide improved modelling of gas-electricity demand interactions and distribution planning impacts on CER uptake, though these improvements are limited in how they model dynamic feedback of

price pressures on demand response. While recognising these as important first steps toward improved demand-side consideration, Climateworks recommends AEMO continue investing in these capabilities to address the sector's rapid rate of change and provide more comprehensive information for demand-side investors, potentially in a Demand Side Statement of Opportunity. That would include transparency regarding cost drivers and patterns, trends across seasons, times of day and locations as well as identifying opportunities to reduce costs through demand-side actions. Improving the ability of demand-side investors and energy users to make informed decisions will have a material impact on both energy costs and the level of investment needed in grid-scale infrastructure.

Recommendation 7: Incorporate gas phase-out analysis, including modelling the orderly replacement of gas infrastructure with renewable alternatives.

Gas infrastructure across Australia will face diminishing utilisation as the energy system transitions toward near zero emissions. This shift will impact consumers and gas network operators. Climateworks welcomes AEMO's commitment to undertake additional analysis of the interplay between gas supply and the electricity system, focusing on assessing infrastructure adequacy. However, the ISP Methodology gas modelling approach lacks explicit modelling for the systematic replacement of gas infrastructure in response to electrification.

Under Climateworks' (2023) 1.5°C-aligned decarbonisation scenario, gas-powered generation for the NEM would be reduced by 61 per cent by 2030 relative to 2024 levels and to near zero by 2050. Whole-of-economy gas use falls by 54 per cent by 2030 and 90 per cent by 2050. Industry gas use in 2030 falls by 46 per cent and by 86 per cent by 2050. The move away from gas in residential buildings is rapid under both the 1.5°C and well-below-2°C scenarios, respectively, declining by 53 per cent and 49 per cent by 2030. Both scenarios reach near-zero fossil gas by the mid-2040s. The relatively small differences between scenarios show that the electrification of energy use in buildings is a beneficial strategy regardless of the emissions trajectory.

By incorporating gas phase-out analysis in the ISP, AEMO would provide valuable insights into the optimal timing and economic implications of retiring gas assets. Current planned modelling will consider uncertainties around gas pricing, gas development projections and gas-powered generation fuel costs but does not sufficiently explore the economic impacts of maintaining gas infrastructure with declining utilisation rates. A more comprehensive approach would include assessing stranded asset risks, determining optimal retirement schedules for gas infrastructure and modelling the costs and benefits of electrification across industrial, commercial and residential sectors. This analysis would help policy-makers and industry stakeholders make informed decisions about future infrastructure investments.

To help policymakers and industry achieve these reductions, AEMO could expand its gas supply modelling beyond the current approach outlined in Section 4. That would include explicit

consideration of gas phase-out pathways (including for gas distribution networks), electrification timelines, alternative technologies such as heat pumps for residential and commercial heating, and renewable hydrogen for industrial processes where electrification is challenging. This expanded analysis would complement the existing gas supply development model while providing critical insights for planning a controlled phase-out of gas distribution infrastructure.

By modelling these interactions explicitly, AEMO can also improve planning for the electricity network upgrades needed to support widespread electrification, thereby enabling a more cost-effective approach. Furthermore, it will enable policy-makers to plan for and implement support for vulnerable households and businesses that may be impacted by the increasing costs associated with underutilised gas network infrastructure.

AEMO has begun to explore these impacts, recently releasing valuable analysis linking gas and electricity meters at individual sites to understand distribution-level electrification trends (AEMO 2025). However, significant data gaps remain regarding gas phase-out, particularly for distribution networks. Incorporating this analysis in more detail into ISP 2026 will provide essential insights. It will highlight which gaps in data are most important and identify ongoing work beyond 2026, including as part of broader electricity distribution network initiatives. Promptly identifying data access barriers and establishing necessary engagement with gas networks will support AEMO to resolve these challenges and develop more comprehensive planning approaches.

Thank you for taking the time to consider our submission. We welcome an opportunity to brief your team to provide further insights from our work.

Yours Sincerely,

Matthew Benetti
Policy Manager – Energy, Climateworks Centre
matthew.benetti@climateworkscentre.org

REFERENCES

AEMC (Australian Energy Market Commission) (2024a) *National Electricity Rules*, Australian Energy Market Commission, accessed 3 April 2025.

AEMC (Australian Energy Market Commission) (2024b) *Emissions Targets Statement*, Australian Energy Market Commission, accessed 3 April 2025.

AEMO (Australian Energy Market Operator) (2024) *2024 Integrated System Plan*, AEMO, accessed 3 April 2025.

AEMO (Australian Energy Market Operator) (2025) *Gas-Electric Meter Data Linking Project*, AEMO, accessed 9 April 2025.

Australian Energy Regulator (2024) *Cost-Benefit Analysis Guidelines*, Australian Energy Regulator, accessed 3 April 2025.

Climateworks Centre (2025) *Seizing Gladstone's low-carbon opportunity*, Climateworks Centre, accessed 3 April 2025.

Climateworks Centre (2023) *Climateworks Centre decarbonisation scenarios 2023: Australia can still meet the Paris Agreement*, Climateworks Centre, accessed 3 April 2025.

Climateworks Centre and Climate-KIC Australia (2023) *Pathways to industrial decarbonisation: Positioning Australian industry to prosper in a net zero global economy*, Australian Industry Energy Transitions Initiative, Phase 3, Climateworks Centre, accessed 3 April 2025.

Commonwealth of Australia (2024) *Response to the Review of the Integrated System Plan*, Commonwealth of Australia, accessed 3 April 2025.

CSIRO (Commonwealth Scientific and Industrial Research Organisation) (2023) *What are the sources of carbon dioxide in the atmosphere?*, CSIRO, accessed 3 April 2025.

Parliament of South Australia (2025) *Statutes Amendment (National Energy Laws) (Data Access)*, Parliament of South Australia, accessed 9 April 2025.