

Incorporating an emissions reduction objective into the national energy objectives Consultation paper

Stakeholder submission from Tyson Vaughan, 7 February 2023

Position

NEM statutory authorities should have regard to the energy transition

The energy market bodies—the statutory authorities established in the national energy laws, including the Australian Energy Regulator (AER), Australian Energy Market Commission (AEMC) and Australian Energy Operator (AEMO) — provide advice and set policies that can significantly impact energy market development and investment. These include issues such as access regimes, the generator connection process, network operator expenditure determinations, and the amount of emergency reserves that should be procured to secure the market. As such, the decisions these market bodies make impact the equity, efficiency, and effectiveness of the energy transition.

The decisions of these energy market bodies should therefore consider how their policies impact Australia's overall emissions and facilitate the energy transition in their operations and decisions. Energy Ministers should direct these market bodies to develop policies and provide advice that supports the energy transition.

Setting emissions objectives is necessary but not sufficient

Setting emissions objectives for NEM agencies can help Energy Ministers direct energy market bodies to do this. However, the proposed approach, by itself, is not sufficient to achieve the stated objectives of this process.

This is explained further below.

Current framework and context

The energy transition is a major challenge that may require innovative policy

Broadly, the National Energy Market and the national energy objectives intended to address problems in the energy sector that occurred during the 1980s.

From the 1950s to the 1990s, state governments directly invested in centralised power plants and transmission to grow the energy market's capacity from 3GW to 30GW—the most rapid growth in electricity capacity that Australia has seen to date.¹ While real residential electricity prices decreased between 1955 and 1980, they grew by around 60% during 1982 and 1986.² This taxpayer-supported investment also significantly impacted state government budgets. These factors, plus the 1990 recession, other macroeconomic reforms during the 1980s, and the general consensus of policy theory at the time, created pressure to pursue a more efficient electricity market through competition policy.³

These problems are fundamentally different to those we face today. Rather than excess supply, the energy market is at risk of supply shortages. We also need to urgently decarbonize to avoid the worst impacts of climate change. Under the energy transition, we need to build around 76GW of

¹ F. Brady, 1997, *A dictionary on electricity, a report prepared for the Australian National Committee of The International Conference on Large High Voltage Electrical Systems (CIGRE) and The Association for the History of Electricity in France (AHEF)*, Sydney; Alan Rai and Tim Nelson, "Australia's National Electricity Market after twenty years", *Australian Economic Review*, volume 53, issue , p. 168.

² Alan Rai and Tim Nelson, "Australia's National Electricity Market after twenty years", p. 169.

³ Harriet Gray, *Congruent Regulation: Designing the optimal utility regime*, thesis submitted for the degree of Doctor of Philosophy, the Australian National University, 16 June 2020, p. 43. Accessed at: <https://openresearch-repository.anu.edu.au/bitstream/1885/205794/1/Gray%20Thesis%202020.pdf>; cf. Industry Commission, *Microeconomic Reforms in Australia: A Compendium from the 1970s to 1997, 1998-1998*, 1-12 and Gary Banks, *Structural Reform Australian-Style: Lessons for Others?* (Paper presented to the IMF, World Bank and OECD, May 2005) 5.

capacity in the next 11 years just to replace lost capacity from retiring coal generators⁴—three times the capacity in a quarter of the time of the post-war boom. To decarbonise, we may need to build at around 243GW of new capacity within 27 years.⁵

Simply constructing this amount of generation, storage and transmission infrastructure in this amount of time is already difficult. But we also need to do it in a way that is equitable, efficient, cost-effective and minimises social and environmental impacts.

Inefficiency and potential overinvestment remain policy risks over the very long-term given the scale of forecast investment. However, these are likely outweighed in the short-to-medium term by the risk of underinvestment in new supply, particularly given we are currently building capacity at less than half the pace required to replace retiring generation and meet 2030 climate targets.⁶

As such, it may be useful to consider whether the framework for the national electricity objectives remains relevant given the fundamentally different challenge of the energy transition.

The second reading speech guides how energy market bodies make decisions

Competition policy theory acknowledges that there are limits to what aspects of the economy should be liberalised and privatised, and other policies may be necessary to deliver broader government objectives. As the 1993 Hilmer Report stated:

Competition policy is not about the pursuit of competition *per se*. Rather, it seeks to facilitate effective competition to promote efficiency and economic growth while accommodating situations where competition does not achieve efficiency or conflicts with other social objectives.⁷

However, competition policy tends to compel policy makers strongly prefer market liberalisation over all other policies for all areas of the economy. For example, the National Competition Council states “the guiding principle [of competition policy] is that competition, in general, will promote community welfare by increasing national income through encouraging improvements in efficiency.”⁸ The second reading speech for the National Electricity Law similarly states that the NEO “should be guided by an objective of efficiency that is in the long term interest of consumers.”⁹

The second reading speech for the National Electricity Law also appears to prohibit energy market bodies from considering or developing policies that achieve broader government social and environmental objectives:

“It is important to note that the National Electricity Objective does not extend to broader social and environmental objectives... Environmental and social objectives are better dealt with in other legislative instruments and policies which sit outside the National Electricity Law.”¹⁰

⁴ AEMO, 2022, *2022 Integrated System Plan*, chart data, figure 1, (ISP step change scenario, new storage, generation and DER required from 2023-24 to 2033-34). Accessed at: <https://aemo.com.au/en/energy-systems/major-publications/integrated-system-plan-isp/2022-integrated-system-plan-isp>

⁵ Ibid (new storage, generation and DER capacity from 2023-24 to 2050-51).

⁶ Daniel Mercer, 2023, “Australia adding green energy at less than half the required rate to keep grid stable: UNSW”, *ABC News*, 31 January 2023. Accessed at: <https://www.abc.net.au/news/2023-01-31/australia-adding-renewable-energy-less-than-half-speed-needed/101907914>

⁷ Commonwealth of Australia, 1993, *National Competition Policy: Report by the Independent Committee of Inquiry*, Commonwealth of Australia, p. xvi Accessed at: <http://ncc.ncc.gov.au/docs/National%20Competition%20Policy%20Review%20report,%20The%20Hilmer%20Report,%20August%201993.pdf>

⁸ National Competition Council, 1996, *Considering the Public Interest under the National Competition Policy*, Commonwealth of Australia. Accessed at: <http://ncc.ncc.gov.au/docs/PIRePu-001.txt>

⁹ South Australian Government, 2007, “National Electricity (South Australia) (National Electricity Law—Miscellaneous Amendments) Amendment Bill, Second Reading”, *South Australian Hansard*, Tuesday 16 October 2007. Accessed at: <https://hansardsearch.parliament.sa.gov.au/daily/uh/2007-10-16/28>

¹⁰ Ibid.

This delineation is not entirely clear. Energy market bodies set policy which can impact on social and environmental objectives. A competition policy framework could also reason that minimising social and environmental objectives is economically efficient. Australian and state governments are also developing energy market policies that have clear economic objectives. Broadly, because energy policy can have such complex and wide-ranging effects, the current framework does not fully delineate which policies are the responsibility of governments and which are the responsibility of energy market bodies.

Limitations of the proposed approach

The approach proposed in this process embeds emissions objectives within the existing competition policy framework of the National Energy Laws.

This means the proposed approach would retain the normative aspect of competition policy, where market liberalisation is the default, preferred policy solution for all problems—including the energy transition. It aims to broaden the remit of energy market bodies to also consider emissions reduction objectives but appears to continue the current approach where energy market bodies cannot have regard to other broader social and environmental government objectives.

Maintaining the normative elements of the current framework would affect how energy market set policy and deliver advice. Under the proposed framework, the default position of energy market bodies would remain that the best way to deliver the energy transition is by increasing competition through further market liberalisation. Energy market bodies would reason that, under a fully liberalised market, investment in renewables and storage should be optimal because renewables and storage are the cheapest form of new electricity market capacity. The competition framework would compel market bodies (at least *prima facie*) to consider that policies that intervene in the market are bad, including state government policies and programs like the VRET, QRET, and NSW Infrastructure Safeguard.

Essentially, it is not clear that the proposed reform would actually change how energy market bodies make decisions. This is compounded by the fact that energy market bodies already claim to consider emissions objectives in their current work. For example, AEMO's 2022 Integrated System Plan already models a 2050 net-zero target.¹¹ Similarly, the AEMC states that, "in order to make decisions that meet the NEO, the Commission considers whether its decisions are robust to mitigation or adaptation that may manifest due to climate change."¹² If Energy Ministers expect that energy market bodies will change the way they make decisions as a result of this Bill, they may wish to provide additional direction and clarification to energy market agencies to clarify intent.

More broadly, it may not be appropriate to maintain this bias towards one type of policy, particularly given the challenge of the energy transition. The proposed approach could lead policy makers to pursue market liberalisation when it is not appropriate and not intervene when it is appropriate. At the very least, it skews decisions in a certain policy direction that may not be universally appropriate. Governments and energy market bodies ideally need to impartially consider all available policies to deliver the energy transition equitably, efficiently and effectively.

If the proposed process continues to restrict energy market bodies from considering environmental and social objectives, Energy Ministers and energy market bodies should also take steps to identify which policies they are separately or jointly responsible for pursuing. Energy Ministers will need to clearly understand how the decisions of NEM regulatory bodies impact on broader government objectives and take appropriate action to develop policy in areas where it is not the remit of government agencies. NEM regulatory bodies will also likely have more detailed understanding of

¹¹ AEMO, 2022, *2022 Integrated System Plan*, p. 34.

¹² AEMC, 2022, *Enhancing Operational Resilience in Relation to Indistinct Events*, consultation paper, 17 December 2020. Accessed at: https://www.aemc.gov.au/sites/default/files/2020-12/Enhancing%20Operational%20Resilience%20in%20relation%20to%20indistinct%20events%20-%20Consultation%20Paper%20-%20ERC0304%20-%20FINAL_0.PDF

market operations and issues than government departments given their focus. Energy Ministers should consider expanding the remit of these NEM regulatory bodies so they can provide holistic policy advice.

Recommendations

In addition to setting emissions objectives for energy market bodies, Energy Ministers should:

- work with stakeholders and energy market bodies to identify the key barriers to the transition.
- work with energy market bodies to iteratively clarify what energy market issues should be addressed by governments and which should be addressed by NEM bodies.
- provide additional direction to energy market bodies to:
 - develop policy and advice the way that government departments do: by impartially considering the spectrum of policy options and considering how these impact broader government objectives
 - have regard to broader government objectives (when providing advice to Energy Ministers) if a given policy could significantly affect these objectives.
- direct their departments to collaborate with NEM agencies to determine how NEM policy impacts broader government objectives and identify which policy issues should be dealt with by NEM agencies and which should be dealt with by governments.

Energy Ministers could provide this additional direction to energy market agencies through different amendments to this Bill or:

- the second reading speech for the proposed Bill (which would need to clarify the policy remit of NEM regulatory bodies).
- a set of policy-making principles, like those required for a Regulatory Impact Statement, which could be referenced in the law and potentially managed by Energy Ministers.

Tyson Vaughan bio

Tyson is an energy and sustainability policy specialist with 15 years' experience in the National Energy Market. His prior experience includes developing policy and advice for Enel Green Power Australia, the NSW Government and the Australian Energy Market Commission.

This experience includes leading rule change processes at the AEMC; planning and executing energy advocacy campaigns; negotiating with AEMO and TNSPs to connect solar and hybrid storage projects; and designing emissions and energy efficiency schemes.

Tyson's experience providing analysis and strategic advice to government, energy companies and NGOs makes him uniquely positioned to help companies navigate Australian energy market regulations and advocate for their interests.

Tyson currently works as the Technical Director for Energy Policy for Mott MacDonald Australia, but makes representations here as a private citizen. The positions made in this paper are not necessarily those of Mott MacDonald Australia.

Responses to questions in the Consultation Paper

Question 1: Do you consider incorporating the emissions reduction objective into the existing 'economic-efficiency' framework is an effective way of integrating the concept into the decision making of energy market bodies?

Incorporating an emissions reduction objective into the existing competition policy framework is not an effective way for Energy Ministers to direct energy market agencies to help facilitate the energy transition and deliver the stated outcomes for this policy process.

This is because it retains the existing competition policy framework and embeds emissions reduction objectives within it.

Question 2: Is the current level of discretion afforded through an 'economic efficiency' framework appropriate for balancing an emissions reduction component against existing components of the energy objectives?

No. The current competition policy framework does not provide energy market bodies sufficient remit to deliver policy that facilitates the energy transition and delivers existing energy objectives.

This is because the existing competition policy framework biases market liberalisation policies. It does not allow energy market bodies to impartially consider which set of policies may best deliver energy market outcomes and advise Energy Ministers which policies may best deliver broader outcomes.

To provide an appropriate level of discretion, Energy Ministers should set parallel emissions reduction objectives and direct energy market bodies to impartially consider policies. This could be done through the second reading speech for this bill and through a set of policy principles.

Question 3: Do you consider that, for certain instances/processes, market bodies should develop/update guidance material to assist market participants in understanding how market bodies will interpret the proposed revised national energy objectives?

a) *What are these instances/processes and what sort of content would you want to be included in this guidance?*

Market bodies should develop guidance material that sets out how they will interpret the revised national energy objectives for all policy processes, much like how the AEMC already does for each rule change.

Given the range of potential policy issues in the energy market, market bodies will also need to clarify responsibility for developing policies that have significant impacts on broader government objectives. If market bodies are excluded from pursuing policies that achieve broader environmental or social objectives, it may be more appropriate for government departments to implement policies that have significant environmental and social impacts.

Question 4: Does this approach give an appropriate level of clarity as well as discretion to market bodies to consider relevant targets in their decision making? If not, detail your reasons and suggested solutions.

Question 5: Does the inclusion of 'public commitments' including 'publicly as a matter of policy,' as well as legislated targets, provide sufficient certainty for effective consideration of an emissions objective by market bodies?

It is not clear whether this approach provides an appropriate level of clarity for market bodies to consider emissions targets in their decision-making. Energy Ministers could provide further clarity through the second reading speech for this Bill, and by setting out guiding principles.

The proposed approach may provide sufficient discretion market bodies to consider the impacts of legislated emissions targets in their modelling. AEMO already appears to consider climate modelling and emissions reductions policies as inputs to its Integrated System Plan (ISP).¹³ It could potentially consider additional voluntary or non-legislated emissions reductions targets and the impacts of government policy in different scenarios. However, given this may involve additional time and resources, Energy Ministers should advise AEMO that this is necessary so it can assign appropriate budget to this task.

However, it is not clear how market agencies would alter their policies to account for different emissions targets, if at all. Perhaps this process could examine recent decisions of market agencies and illustrate how Energy Ministers may have preferred market bodies to have implemented policy differently were they to have regard to climate change objectives.

Question 6: Do you agree that the proposed change to ‘consumers of energy’ is necessary and appropriate to recognise the interconnections between the two energy markets and to enable future decisions to consider the implications for the energy system as a whole?

It is appropriate and necessary for energy market bodies to consider interactions between the electricity and gas markets. However, it is not clear that the proposed change to ‘consumers of energy’ is strictly necessary because it seems that energy market agencies can already consider interactions between gas and electricity markets under the current rules.

If valid legal interpretations consider that energy market bodies would breach their legislative responsibility if they were to consider interactions between electricity and gas markets, then Energy Ministers should amend the legislation to clarify that market bodies can do this. Energy Ministers may therefore wish to seek legal advice to determine whether the proposed change to ‘consumers of energy’ is sufficient to achieve this.

It may also be useful for this process to:

- consider that the future gas market may comprise many different types of gas.
- not describe fossil gas as a ‘transition fuel’.

Describing fossil gas as a ‘transition fuel’ is problematic because it gives the impression that the future power system is more dependent on fossil gas than it is. It can also lead audiences to perceive that gas use needs to grow or be prolonged to support the transition.

Electrification and green hydrogen and its derivatives can potentially substitute all industrial processes that currently rely on natural gas. As Australia’s former Chief Scientist, Professor Penny Sackett states, “The role of gas needs to be a significantly declining one, not a growing one, if we are to avoid the worst of climate change so that Australia’s future is safe, sustainable and competitively modern.”¹⁴

¹³ AEMO, 2022, *Integrated system plan*, p. 8

¹⁴ Penny D. Sackett, 2020, *Journal & Proceedings of the Royal Society of New South Wales*, vol. 153, part 2, 2020, p. 186–188. Accessed at: <https://royalsoc.org.au/images/pdf/journal/153-2-PCP-Sackett.pdf>

Describing gas as a transition fuel also appears to contradict the Australian Government Minister for Climate Change and Energy, who states “[t]he one thing about gas is I don’t regard it as a transition fuel, I don’t regard it as low emissions fuel, but I do regard it as flexible”¹⁵

Question 7: What impacts (positive and/or negative) would the proposed change [to consumers of energy] have on your organisation or your stakeholders/customers?

- a) What are these instances/processes and what sort of content would you want to be included in this guidance?*
- b) Do you foresee any unintended adverse consequences coming from such a change, especially for market participants or consumers?*

This question does not directly pertain to my activities as an individual making this submission.

However, it is not clear that the proposed change to ‘consumers of energy’ would have any direct impacts on consumers or energy market participants.

Question 8: Do you consider the additional change to ‘supply of energy’ is necessary given the reasons above?

Question 9. Do you agree that the market bodies, when making a decision under the NEL/NER should be empowered to consider the implications for price, reliability, security etc. in the gas market and vice versa? If not, what are other ways of managing the potential implications of the transition on all energy consumers?

Question 10. Do you foresee any unintended adverse consequences coming from such a change, especially for market participants or consumers?

It is not clear whether the additional change to ‘supply of energy’ is necessary because, again, this comes down to legal interpretation. If Energy Ministers want market bodies to consider the interactions between electricity and gas markets when making policy decisions and valid legal interpretations could consider that energy bodies would be in breach of the NEL or NGL by doing so, then Energy Ministers should propose appropriate amendments.

Question 11: Do you have views on other consequential changes that might be required for the NEL, NGL or NERL as part of implementing the emissions reduction component?

Question 12: Are there existing rules or regulations under the national energy laws that may require consideration of consequential changes? If so, please provide details including why consequential changes are envisaged as necessary or appropriate.

Question 13: Do you have views on any rules that would benefit from a concurrent change within the current Bill process? If so, please provide details of the changes and the reasons why they would benefit from a concurrent change.

Question 14: Do you have views on/are you aware of any rules that might benefit from more explicit reference to the objectives as a whole, or specifically the emissions reduction component?

¹⁵ Giles Parkinson, “Chris Bowen: Gas is neither a transition fuel, nor low emissions. But at least it’s flexible”, *Reneweconomy*, 20 December 2022. Accessed at: <https://reneweconomy.com.au/chris-bowen-gas-is-neither-a-transition-fuel-nor-low-emissions-but-at-least-its-flexible/>

As previously stated, Energy Ministers could consider requiring the energy market bodies to have regard to a set of policy making principles when developing policy and advice, similar to a Regulatory Impact Assessment/Statement guidance document.

It is not clear whether there are specific rules that need to change as a result of the change in objectives.

Question 15: Do you agree with the proposed Proclamation date being six months after passage through the South Australian Parliament?

The proposed Proclamation date does not seem to pose issues.

Question 16: What are your views on the proposed transitional arrangements in the Draft Bill?

- a) Are there particular processes that should be subject to different transitional arrangements?*
- b) How or where should arrangements for these specific processes be prescribed – in the primary legislation or through a subordinate instrument?*

Question 17: What already-commenced regulatory processes under the energy laws or rules might benefit from transitional arrangements that provide for the emissions reduction component to apply (i.e. automatically and not be subject to market body discretion)?

- a) Should business-initiated processes such as RIT-Ts and RIT-Ds be captured, rather than just market body processes?*

Question 18: Should market bodies be afforded a broad discretion to decide when to apply the amended objective to a process that is 'underway'?

Question 19: Are there logical points in multi-stage and/or multi-year processes (e.g. RIT-T and RIT-D assessment processes and revenue determination processes/resets) after which the emissions reduction component should or should not be able to be applied?

- a) Should a RIT-T process be considered 'underway' when a project specification consultation report has been made available (clause 5.16.4(c)), or at a different stage?*
- b) Should a RIT-D process be considered 'underway' when an options screening report or determination has been published (clause 5.17.4(b) and (c)), or at a different stage?*
- c) Electricity – should a revenue determination/reset be considered 'underway' when the network service provider has submitted its initial revenue proposal (clause 6A.10.1 for transmission and clause 6.8.2 for distribution), or at a different stage?*
- d) Gas – should a gas access arrangement process be considered 'underway' when an access arrangement proposal is lodged with the AER under rule 46(1A) in the NGR, or at a different stage?*

I do not have a position on these matters.

Question 20: Do you agree with the characterisation of how market bodies' decision processes might be impacted or changed as a result of inclusion of an emissions reduction component in the energy objectives?

Question 21: Do you have any concerns with regards to the impact an emissions reduction component in the energy objectives may have in broadening the scope of the AEMC's rule making power or the decision-making powers of the other market bodies under the laws and rules?

I am concerned that the proposed approach does not sufficiently clarify or broaden the scope of the AEMC, AER and AEMO to develop policies that appropriately facilitate the energy transition.

I am not concerned about broadening the decision-making powers of energy market bodies. However, I am concerned that the proposed approach does not sufficiently broaden these powers.

Please see the attached submission for further details.