ENERGY CONSUMERS AUSTRALIA

Clarifying the treatment of jurisdictional policies and system costs in the Integrated System Plan

Submission to Australian Energy Market Commission

Submitted by: Ashley Bradshaw

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Feedback on the Centre for Independent Studies Rule Change Request

Thank you for the opportunity to provide feedback on the consultation paper *Clarifying the treatment of jurisdictional policies and system costs in the ISP*. We support any effort to improve the ISP, particularly those that make it more robust, transparent and increase stakeholder confidence in the process.

The ISP's primary role should be to provide a least-cost pathway to meet consumer and system needs, including emissions reduction targets. To achieve this, the ISP must:

1. Model demand-side resources robustly, allowing them to compete against supply-side resources.
2. Better integrate distribution and transmission planning, recognising the role of CER.
3. Continually assess the optimality of the current development path as technology, policy and consumer behaviour evolve.

While the proponent raises some reasonable issues, we do not support their solutions. Notably:

- We do not believe that creating a baseline or "no emissions reduction" scenario is helpful, realistic, or aligned with public expectations.
- We only support the inclusion of distribution and CER costs in the ISP in the context of the need to improve demand-side planning, as discussed above.

The proponent does raise valid concerns around how the ISP incorporates jurisdictional policies.[1] We believe more analysis would be valuable to inform stakeholders on the implications of these policies. For example, the ISP could publish cost thresholds for project viability which would help improve accountability.

While additional analysis may increase complexity, we believe the long-term benefits of improved planning and transparency outweigh the modelling costs — provided complexity is well managed. These improvements would help ensure the ISP delivers on its intended purpose to:

> "***establish a whole of system plan for the efficient development of the power system*** *that achieves power system needs for a planning horizon of at least 20 years to contribute to achieving the national electricity objective"* [emphasis added].

We appreciate the AEMC's consideration of these views and look forward to ongoing engagement on the future of the ISP framework. We respond to some of the consultation paper's questions below. For further information, please contact Ashley Bradshaw at Ashley.b@energyconsumersaustralia.com.au.

Yours sincerely

Dr Brendan French
Chief Executive Officer

[1] We distinguish between legislated emissions or renewable energy *targets* (e.g. 65% emissions reduction by 2035) and energy *policies* (e.g. major infrastructure projects such as renewable energy zones).

Question 1: What are your views on AEMO's current approach to incorporating jurisdictional targets and policies into the ISP and its alignment with the NEO?

The ISP should incorporate jurisdictional emissions reduction targets where they are legislated or formally committed to. These targets are essential for aligning the ISP with the National Electricity Objective (NEO).

We recognise that emission reduction targets are key inputs into the ISP. However, these environmental and climate policies are legislated above and beyond the energy sector. They often incorporate economy-wide analysis to indicate the emission reduction pathways that are least cost from a whole of economy perspective. Because the ISP itself does not examine broader emission reductions (from, for example, land use or agriculture), it seems ill-suited to determining the overall appropriateness of emission reduction targets/policies.

However, jurisdictional energy policies, especially but not only those that are not legislated or committed, do not need to be incorporated into *every* ISP scenario. Including such policies without qualification risks conflating policy direction with least-cost system planning, potentially undermining transparency.

Incorporating jurisdictional emissions reduction targets

We agree that AEMO should include emissions reduction targets in all scenarios. Excluding them would be inconsistent with the ISP's purpose to:[2]

> *"establish a whole of system plan for the efficient development of the power system that achieves power system needs for a planning horizon of at least 20 years to contribute to* ***achieving the national electricity objective****."* [emphasis added].

Where relevantly, the National Electricity Objective (NEO) is clear to:[3]

> *"promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to…*
>
> *c) the achievement of targets set by a participating jurisdiction—*
>
> *i) for reducing Australia's greenhouse gas emissions; or*
>
> *ii) that are likely to contribute to reducing Australia's greenhouse gas emissions."*

More broadly, excluding legislated targets would raise questions about the ISP's relevance to real-world planning and community expectations.

Incorporating jurisdictional energy policies

We do not think AEMO should include all jurisdictional energy policies into every ISP scenario. We define jurisdictional energy policies to mean major infrastructure projects such as renewable energy zones, offshore wind, or programs promoting the adoption of energy efficiency and other CER.

[2] NER, Clause 5.22.2
[3] AEMC, National Energy Objectives, accessed here.

Clause 5.22.3(b) of the NER gives AEMO discretion as to how jurisdictional energy policies are included in the ISP. However, as we understand it, all ISP scenarios currently include jurisdictional policies as binding constraints.[4]

The proponent argues that this approach obscures whether the ISP truly represents the least-cost pathway to achieve the NEO. For example, the Consumer Panel has suggested that offshore wind appears in the Optimal Development Path primarily because it is a government policy, not because it emerged from least-cost modelling.[5] This raises concerns about transparency and the ISP's role.

This leads to a broader question: What is the ISP for? We understand stakeholders have broadly two interpretations:

- The ISP is a standalone planning document that identifies the most efficient way to meet emissions reduction targets — informing policymakers on investments and trade-offs.
- The ISP incorporates government energy policies and optimises around them.

Currently, the ISP appears to follow the second approach. We can understand why. If a jurisdiction has publicly committed to a certain policy, it would be strange for the ISP to not account for this when planning. However, we agree that doing so can lead to confusion if stakeholders interpret the ISP as a purely least-cost plan, particularly when a policy has been adopted, but not yet fully realised (e.g., offshore wind development).

There are also material risks that energy policies change. In its current form, the ISP has limited means to account for these risks. As such, if a major project or policy is cancelled, there are risks that AEMO would have to make substantial changes to the ISP in response.

It is for these reasons that we see merit in some adjustments to the ISP methodology to be more transparent about its assumptions and to use the ISP to test policies and ensure that the whole-of-system plan genuinely reflects the least-cost pathway.

The ISP currently includes policies that do not yet exist – and are possibly never going to exist. The most obvious example of this would be locational marginal pricing, a policy that despite its enormous potential savings for consumers, has not been pursued in earnest by any market body, including AEMO. We assume this policy exists within the ISP's methodology because it is not straightforward to exclude it. Such technical implications are an important consideration in the overall decision-making that surrounds the ISP modelling methodology.

A potential approach to help AEMO determine which, if any, jurisdictional energy policies to test would be within the Inputs, Assumptions and Scenarios Report (IASR) framework. During the IASR development process, AEMO can outline specific jurisdictional policies that it could relatively easily include or exclude (in various scenarios or sensitivities) and which it believes there is material value in creating a "least cost plan". It could then propose to include or exclude all jurisdictional energy policies, offering rationales for its proposal, and take stakeholder feedback before deciding on a path.

[4] AEMC, Consultation Paper: Clarifying the treatment of jurisdictional policies and system costs in the ISP, p. 7
[5] Centre for Independent Studies, Rule Change request, p. 2

Question 3: Do you consider that the categories of costs included/excluded in the ISP analysis are appropriate? If so, how material is this?

Some additional categories of costs should be included, if possible.

CER costs and planning

The marginal costs required to help increase adoption and more beneficial operation of CER, including energy efficiency, are natural costs to include in the IASR, alongside GenCost. The idea is not to include the full cost a consumer might bear or does bear in, for example, buying a heat pump water heater, home battery, or flexible EV charger. Rather, the IASR would create a cost curve of increasing adoption of CER, including energy efficiency, above and beyond the "natural" adoption that would happen absent any additional market intervention.

Multiple programs overseas demonstrate that by reducing the upfront costs of more efficient and flexible technologies, consumer adoption of such energy saving and shifting technologies can increase.[6] This increased adoption of CER benefits the entire system by obviating the need to build more expensive large-scale, supply side resources.

Over time, we think the ISP should evolve to enable CER, including energy efficiency, to compete against supply side resources as modelled solutions, as opposed to treating the adoption of these technologies as assumptions within the scenarios. Energy system planning overseas regularly attempts to optimise between supply-side and demand-side resources. Indeed, the term "Integrated" was adopted into the concept of system planning in the early 1990s, when "traditional" resource planning evolved to incorporate demand side technologies, particularly energy efficiency, into the planning regime as a resource to avoid or delay the need for large-scale transmission and generation.[7] Accordingly, one could argue that by excluding these costs and disallowing them to compete against supply-side resources today, the ISP itself is not "integrated".

We note there is a relatively large body of work overseas focused on best practice for determining these costs and incorporating them into the ISP. We are beginning some work with the research community in Australia to develop an appropriate methodology and data to fast track the development of companion demand-side cost forecasting to GenCost and will keep the AEMC updated on that work.

Distribution costs planning

We have previously advocated for better integration of distribution planning into the ISP. Improved modelling of distribution-level costs and opportunities should help improve the accuracy of the ISP's modelling and may help identify more efficient pathways and reduce the risk of over-investment. The work currently underway to improve "consideration of demand-side factors in the ISP" along with the rule change consultation focused on the Integrated Distribution System Plan (IDSP) potentially obviates the need for additional work at this time within the ISP to incorporate distribution system costs into the ISP. When IDSPs are mature processes, we believe their outputs should be well-integrated into the ISP.

[6] Toshi H. Arimura et al,, ""Cost-Effectiveness of Electricity Energy Efficiency Programs," National Bureau of Economic Research (NBER) Working Paper 17556. Available at: https://www.nber.org/system/files/working_papers/w17556/w17556.pdf

[7] E Hirst and C Goldman, "Creating the Future: Integrated Resource Planning for Electric Utilities," Annual Review of Environment and Resources Volume 16, 1991

Other costs

We do not support the inclusion of additional categories such as renewable recycling and disposal costs and payments to coal generators. All modelling projects need to assign a boundary to their considerations, and our perspective is that these are likely too far outside the scope of the ISP. We would, however, suggest that the GenCost assumptions, which are central to the ISP, should treat waste streams from all generation projects equivalently. If they include long-term decommissioning costs for coal and gas power plants in the capital costs for those technologies, they should treat renewable projects similarly. Our working assumption is that they already do so.

System costs versus retail prices

We also note that system *costs* are not the same as *prices*. The NEO is clear in its goals towards promoting long-term interests with regards to price.

Additional analysis could, for example, model likely future transmission charges to end users. It could then outline how these charges impact certain consumers.

Another important factor to consider is that prices are influenced by the relationship between total costs and customer volumes. For example:

- Costs can increase while prices fall if customer numbers or volumes grow.
- Conversely, costs can fall while prices rise if volumes decline.

The ISP forecasts significant uptake of CER, which reduces grid volumes. This dynamic has implications for retail pricing and equity, particularly for customers unable to access CER. If anything, the ISP should do more to guide price impacts, not just system costs, to support government policy.

We note here that, working with CSIRO, Energy Consumers Australia did in practice model the retail price impacts of the 2022 ISP. There is significant value to incorporating such modelling in all future ISPs.[8] Given this work, there does not appear to be a methodological barrier to releasing more data on the consumer impacts, including price impacts, of the ISP.

[8] Paul Graham et al. “Consumer impacts of the energy transition: modelling report,” CSIRO, 2023. Available at: https://energyconsumersaustralia.com.au/sites/default/files/wp-documents/CSIRO-Technical-Report-Stepping-Up.pdf

Question 5: What are your views on the role the ISP should play in the development of the energy sector and the way it can best support achievement of the NEO?

As outlined in our response to Question 1, the ISP can serve multiple purposes. In our view, the ISP should function as a standalone, unbiased model of the efficient development of the energy sector, designed to meet the National Electricity Objective (NEO). It should be used to inform policy, not be constrained by it.

The ISP's primary role should be to identify the least-cost, least-regrets pathway to meet system needs over the long term, including emissions reduction targets. This requires a planning framework that is independent, transparent, and capable of testing policy assumptions — not simply embedding them.

To achieve this, we believe the ISP must:

- Improve modelling of demand-side resources, including energy efficiency and flexible demand, which are critical to least-cost system development, allowing them to compete against supply side resources in the model.
- Better integrate distribution and transmission planning, recognising the growing role of CER and localised solutions.
- Continually reassess whether the current development path remains optimal, especially as technology, policy, and consumer behaviour evolve.

Consumers need confidence that the energy system is being developed in a way that is efficient, equitable, and responsive to change. The ISP has a central role to play in providing that assurance — but only if it remains a genuinely independent planning tool.

Question 6: What are your views on the proposed solution to include a 'baseline' scenario and plausible changes in government policy in the ISP?

We do not think that a baseline scenario is required.

As noted in our response to Question 1, environmental and climate policies are legislated above and beyond the energy sector. Because the ISP itself does not examine broader emission reductions (from, for example, land use or agriculture), it seems ill-suited to determining the overall appropriateness of emission reduction targets/policies.

Moreover, if AEMO were to create a baseline scenario, its assumptions would immediately be subject to debate. Should it be purely a least-cost pathway? Should it include some emission reduction targets (e.g. no net emissions by 2050)? These questions are not easily resolved and could undermine the scenario's usefulness.

Last, it is unclear whether a baseline scenario would add material value. The ISP already includes a range of scenarios to reflect significant uncertainty into the future. Further, even having a no emissions policy scenario would still result in significant clean energy investment, given Australia must replace its aging coal fleet.

In section 3.1.1, AEMC outlines some alternative solutions, many of which appear to have merit. Sensitivity analysis around the timing and deliverability of targets seems a practical and informative approach. This would allow AEMO to test the robustness of the Optimal Development Path without needing to define a contentious baseline.

The national voice for residential and small business energy consumers

PO Box A989,
Sydney South NSW 1235
T 02 9220 5500

energyconsumersaustralia.com.au