May 1, 2023

Mr Drew Clarke AO PSM
Chair of the Board
AEMO

Lodged via email to ISP@aemo.com.au

Dear Mr Clarke,

AEMO Draft ISP Methodology Consultation Paper and Draft 2024 ISP Methodology

The CEC is the peak body for the clean energy industry in Australia, representing over 1,000 of the leading businesses operating in renewable energy, energy storage and renewable hydrogen. We are committed to accelerating the decarbonisation of Australia's energy system as rapidly as possible, while maintaining a secure and reliable supply of electricity for customers.

We welcome the opportunity to provide a submission in response to AEMOs Draft Methodology Consultation Paper (the paper) and draft Methodology (methodology).

Following the ambitious targets that have been set by the Australian Government since the 2022 ISP was published, the next instalments of the 2024 ISP should demonstrate a clear pathway to achieving net zero by 2050. Specifically, when considering costs of candidate pathways, the impacts of climate change must be actively considered, preferably through direct consideration of the costs of carbon.

Consideration of carbon emissions

This methodology must ensure it is consistent with the Australian Governments international emissions reductions commitments. AEMO must carefully assess what costs are currently internalised and externalised in its modelling and assumptions, specifically carbon emissions. We see the methodology as therefore requiring a well-considered and communicated incorporation of an explicit value of carbon emissions (e.g., sectoral carbon price), or some alternate methodology which considers the impact of emissions in transmission planning.

It is concerning to see the methodology reference that "there is the possibility…at some point" that AEMO may include a cost of carbon emissions into the classes of market benefits considered in the development of the ISP[1]. With recent agreement by Energy Ministers to include emissions reductions into the National Electricity Objective (NEO), the cost of carbon emissions will soon be formally accounted for by regulatory decision makers. It can no longer be a false externality. AEMO must

[1] AEMO, *Draft ISP Methodology*, March 2023, p. 84

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therefore include the cost of carbon emissions in their methodology and ensure accurate accounting for the full suite of carbon costs.

Furthermore, we see it as negligible to be considering net market benefits of Candidate Development Paths (CDPs) in section 5.6.2 without also considering the emissions deltas these produce. While important to highlight the cost savings between CDPs, the methodology must also recognise the potentially greater economic impacts from climate change that would result from increased emissions that pathway could result in.

Emissions outcomes should be considered equal, if not prioritised, in the ranking of CDPs. Like the scenarios presented in the IASR, temperature increases or a relative emissions marker that that pathway would produce should be included. This incorporation or weighting needs to be clearly captured and represented in subsequent review phases, including through the Delphi panel process.

We would urge further consideration of this amendment given the likelihood of the NEO changes. At the least, AEMO should call for a clear dollar value for carbon emissions to be created by another party (such as the AEMC or AER) so that appropriate consideration can be given to the costs of emissions reduction implicit in the various CDPs.

Consumer risk preferences

As outlined in the CEC response to the draft Inputs, Scenarios and Assumptions Report (IASR), we encourage AEMO to consider the fundamental principle of risk asymmetry. That is, that the risks of going too late on transmission build far exceed the risks associated with going too early. Bringing forward transmission build provides an inherent buffer in the power system that helps manage the price and reliability risks associated with unplanned events, such as the unanticipated failure of an ageing coal unit, and associated price shock events as observed in June 2022.

While planning tools such as the ISP can hope to deliver the ideal 'just in time' delivery of required transmission, the multitude of complexities that impact delivery of large-scale projects, especially in a constrained post-COVID market, mean that targeting earlier rather than later should be prioritised as a matter of necessity.

Incorporating consumer risk preferences in evidence-based risk metrics to finalise the optimal development path (ODP) represents a rational approach. Quantitative and sensible risk preferences can be applied and justified in a transparent manner.

Nevertheless, we encourage AEMO to carefully engage with the full range of energy consumer groups. AEMO must also carefully account for the potential for some consumer groups to exhibit salience bias and place too much emphasis on upfront costs, due to a poor appreciation of the full suite of costs that may be on the other side of the ledger.

Missing the window of opportunity to deliver transmission on time sees reduced investor confidence, spilled energy, and ultimately increased costs for consumers. The methodology needs to actively consider the insurance value of transmission build to generate a clearer understanding of the impacts of delays on transmission delivery. While the methodology determines least-cost development paths "assuming perfect foresight"[2], that is not reality. Sufficient consideration must be given for risks of delays, and the destructive and expensive outcomes delay would cause.

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[2] AEMO, *Draft ISP Methodology,* March 2023, p. 85

Transmission lead time uncertainty

Regarding AEMOs proposed considerations for incorporating uncertainty into project lead time outlined in section 2.1 of the paper, we see introduction of an 'actionable window' as suitable given more prevalent delays being faced caused by supply chains issues, shortage of skilled workforce, and the time needed to ensure communities and traditional landowners are engaged.

As the volume of projects increase, these issues will only become more frequent. However, we would not expect the delays to be like-for-like in how they impact project timelines. Given this, the level of discretion in considering what is an acceptable delay timeframe must be carefully considered along with subsequent risks and consequences.

When determining how this uncertainty will be reflected, AEMO needs to consider all critical dimensions and uncertainties affecting the energy sector. This includes the health and evolution of the Australian economy, the pace, scale, and coordination of consumer energy resources (CER), progress and cost outlooks for enabling technologies across electricity generation, storage and CER, and the role of emerging energy technologies affecting Australia's decarbonisation pathway and export economy.

Additionally, AEMO needs to ensure that while accounting for uncertainty, they do not inadvertently increase complexity and reduce accountability. The priority needs to remain that the ISP provides a useful guidance for all stakeholders. While we support the revision of project lead times to reflect the current climate for project delays, this consideration must not come at the cost of enabling proponents being able to delay for their own benefit without justification.

Impact of fossil-fuelled generation of REZ transmission limits

As renewable energy zones (REZs) grow and fossil-fuelled generation retires, resource limits that cap the volume of generation within these zones need to be reviewed and accurately reflected to ensure maximum renewables uptake can occur. We agree in recognising the transmission that supports REZ connections may be shared with other generators (including fossil fuelled sources), however are wary of conflating available network capacity of REZs with fossil fuel generation too deeply resulting in a lag in REZ network expansion.

We do see opportunity to integrate this line of thinking with AEMCs Enhanced Information Rule Change, responding to instruction by Energy Ministers to improve current sources of information in the NEM and make information relating to transmission planning more consistent and easier for proponents to engage with. This would enable more diligent sharing of available information of existing transmission limits and constraints and planned projects within REZs.

As referenced in the paper, this consideration needs to reflect not only whether a fossil fuel generator is operational or not, but also capture decreases in dispatch quantities of a generator over time. This will ensure that the proponents have an accurate representation of network capacity of a REZ as it adapts to retiring fossil-fuel generation.

Short- to medium-term congestion consideration

Additionally, while we recognise the necessary large-scale nature of the ISP and methodology required, further consideration for short to medium term congestion would also be pertinent, not solely longer-term large-scale risks but risks emerging in the present.

For example, in NSW there has been a recent increase in congestion and curtailment on transmission lines 94T and 9R6 because of increased solar generation connecting to the lines. There would be value in the methodology considering how more effectively to account for and manage these kinds of rapidly emerging congestion issues.

Overall, our priority remains to ensure that this methodology and subsequent ODP accurately represent the rapidly changing climate and need to prioritise decarbonisation of our electricity market.

As always, the CEC welcomes further engagement from AEMO on this reform. Further queries can be directed to Morgan Rossiter at the CEC on mrossiter@cleanenergycouncil.org.au

Kind regards

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