

Welcome to the March issue of the ISP Newsletter.

This edition provides an overview of submissions provided to the Draft Inputs, Assumptions and Scenarios Report (IASR), and previews our upcoming engagements on the ISP Methodology and the transmission network expansion options that will be modelled as part of the 2024 plan.

This newsletter also contains an update from the ISP Consumer Panel, summarising their recent activities and positions on issues currently under consideration.

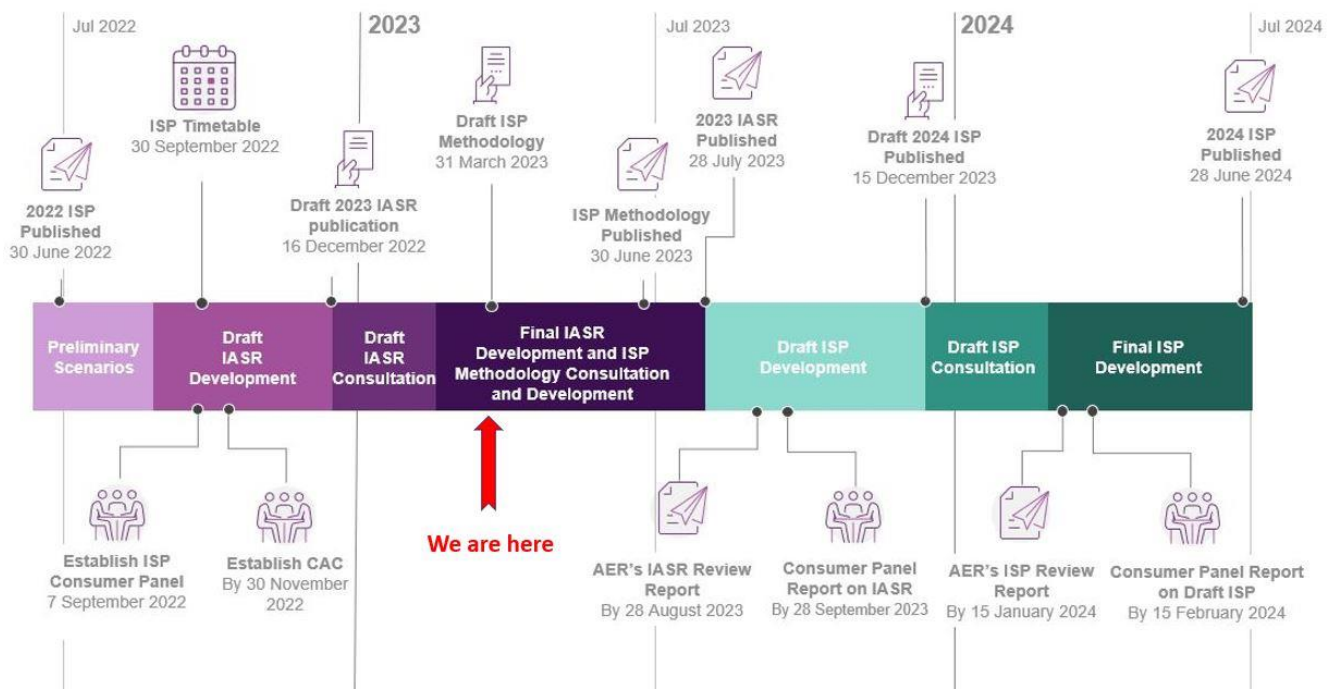
## ISP Methodology consultation now open

AEMO has begun consultation on proposed amendments to the ISP Methodology.

The ISP Methodology sets out how AEMO will undertake modelling for the ISP, including the capacity outlook model, time-sequential model and engineering assessment. The methodology also outlines how AEMO will undertake the ISP cost-benefit analysis, including the steps to determine relative scenario likelihoods and determine the ODP.

Submissions in response to the consultation materials are invited by 1 May 2023. A public forum will be held on 20 April 2023. Register [here](#) for that event.

**Figure 1 – The two-year ISP Development cycle**





## Upcoming consultation on Transmission Expansion Options Report

This report packages up network expansion options and is developed as input to the ISP market modelling. The model then has the technical and economic information required to optimise transmission investments with generation and storage.

The report is prepared with advice and feedback from the transmission network service providers and relevant government organisations. AEMO conducts due diligence on network options.

The Draft Transmission Expansion Options Report will be released on 28 April 2023, for stakeholder comment by the end of June. The expansion options in the report will ultimately be fed into the Draft 2024 ISP for further consultation.

## Submissions to the Draft 2023 IASR

AEMO published the Draft 2023 IASR on 16 December 2022, with submissions invited by 16 February 2023. AEMO received 68 submissions from a wide variety of stakeholders. AEMO sincerely thanks all stakeholders who took the time to make submissions. Stakeholder input is essential to the production of robust 2023 IASR. All consultation materials, including non-confidential submissions, are available on [AEMO's website](#).

AEMO identified 380 individual points and recommendations across the 531 pages of content submitted. On 22 March, AEMO held a public forum to provide an overview of the key topics raised by stakeholders. Those topics are summarised below. The presentation and recording of the session are available [here](#).

AEMO continues to consider how we will respond to the matters raised in submissions, as we work to develop the final 2023 IASR by the end of July 2023.

### Scenario design

The design of the scenarios was the topic that attracted the most comments in submissions. Key feedback included:

- General support for the **1.8°C Orchestrated Step Change** scenario, with a range of views on consumer appetite for orchestration of consumer energy resources (CER)
- Some doubt about elements of the **1.5°C Green Hydrogen Export** scenario, including the cost and feasibility of blending hydrogen in the domestic gas network. Many submissions sought a 1.5°C non-hydrogen scenario
- Frequent concern that the **2.6°C Progressive Change** scenario is inconsistent with Australia's Paris Agreement. Some suggested removal of the scenario.



### Electrification

Key feedback regarding electrification of transport, household gas use and other industries included:

- Support for a strong electrification scenario or sensitivity
- Calls for greater consideration of the cost, investment decisions and consumer behaviour in converting gas appliances to electricity



- Some caution about the magnitude of electrification contained in the Draft 2023 IASR, based on technical challenges.

## Other drivers of consumption

In addition to increased electrification, other drivers of demand that received attention in submissions included:

- Energy efficiency policies and settings
- Factoring in committed new large industrial loads
- Broader economic drivers, including population growth.



## Generator assumptions

Stakeholder submissions called for further consideration of:

- Additional candidate technologies, such as waste-to-energy, nuclear and high efficiency low emissions coal
- Build costs, including the impact of international supply chain constraints
- The financial parameters/discount rates applied
- The treatment of offshore wind generation, including the use of an offshore wind modelling sensitivity.

## Social licence

Submissions commented on social licence for both new transmission and the development of Renewable Energy Zones (REZs), noting:

- Some support inclusion of specific costs related to the effort needed to work with communities in developing infrastructure
- Broad support for applying a sensitivity to reflect longer lead times for projects

- Some disagreement with the use of a land-use penalty factor, advocating instead for strategic land use mapping and multi-criteria analysis of where REZ development will and won't be possible.

## Carbon emissions

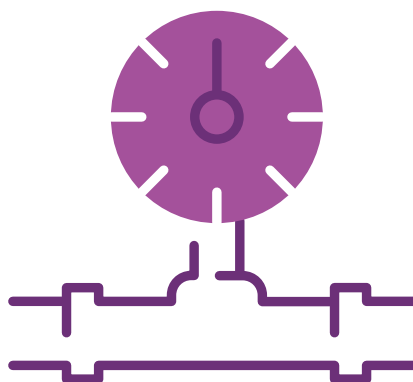
On carbon emissions, submitters:

- Expressed concern about the level of sequestration assumed across the scenarios
- Both agreed with AEMO's approach of only including legislated emissions reductions targets and argued for the inclusion of other, state-based targets.

## Hydrogen

In addition to the comments on hydrogen blending in domestic gas networks outlined above, submitters:

- Called for greater consideration of fugitive emissions from hydrogen, including because it is an indirect greenhouse gas
- Noted the different between transporting electrons and molecules and the different requirements associated with each
- Technical issues related to technologies such as Steam Methane Reforming and Autothermal Reforming.





## Update from the ISP Consumer Panel

The following section is an update directly from the ISP Consumer Panel members: Mark Henley, Jo De Silva, Mark Grenning and Craig Memery.

### Consumer Panel activities

#### Consumer Risk Preferences

The Panel is working closely with AEMO and its external consultant on a project to shape consideration of Consumer Risk Preferences in the ISP. More detailed consideration of risk preferences was a strong recommendation from the 2022 ISP Consumer Panel.

Two core matters need to be understood from this work:

Q1. *What is the existing level of cost/risk that electricity consumers bear now as an electricity consumer, taxpayer or asset owners?*

Q2. *What is the level and nature of people's preferences in terms of risk? What trade-offs are people prepared to make to avoid, or accept, volatility and uncertainty?*

The Panel's work on this project is focused on ensuring high quality, deliberative engagement to accurately reveal the preferences of all types of consumers on these complex issues.

#### Draft IASR Submission

The Panel [prepared a submission](#) to the Draft 2023 IASR. This process can be considered as the engine of the ISP development process as it both outlines the scenarios that are used to explore potential futures as the basis of transmission planning and then develops starting positions for the modelling of scenarios, which in turn is crucial information for consideration of more likely future scenarios. Ultimately these are refined into the 'least regrets' transmission projects that form the Optimal Development Path (ODP) – which is what most people focus on when the final ISP is released.

The next two significant parts of the ISP Development process are consultation on the ISP Methodology and Transmission Expansion Options Report (see below)

### Consumer Panel Positions

In our submission to the Draft 2023 IASR, we commenced by outlining some key themes arising from the IASR for 2024 ISP, as follows.

Bigger Picture Themes:

1. Cost Matters – and who pays that cost matters
2. Net Zero matters – and behavioral responses will vary
3. Orchestration – optimising network and non-network responses
4. Uncertainty
  - a. Consumer side, how consumers will behave / respond, particularly to rising prices
  - b. Supply side, particularly supply chain blockages and rising input costs
5. Transparency (for consumers)
6. Government policy, both in Australia and internationally
7. Social License.

Process Themes:

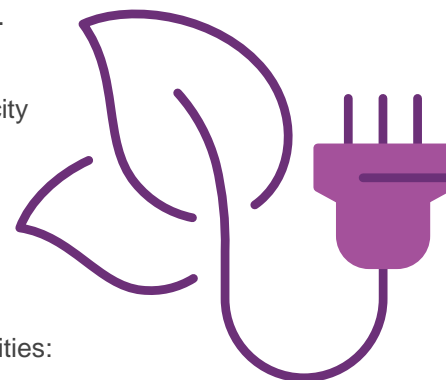
8. Role of electricity distribution networks
9. Sensitivity analysis
10. Consumer engagement

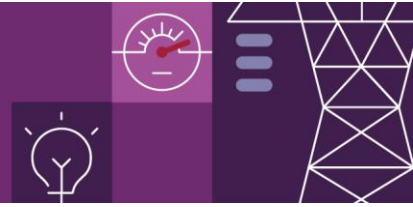
Topic Specific Priorities:

11. Discount rates
12. 'Hydrogen Scenario'

### Social License

We have had a strong focus on social license considerations and recently met with the [Advisory Council on Social License](#). Through our Draft 2023 IASR submission and discussions, we have encouraged an understanding of a range of aspects of social license, summarised as:





1. Social license related to the construction of infrastructure, including compensation to landowners and impacted communities
2. Social license for the energy transition from consumers who are going to pay for it, including acceptance of policies and programs to enable the transition and consumer actions including behaviour change and investment in transition
3. Societal objectives for transition, including a just transition, regional development, and other considerations.

We encourage active participation by all stakeholders in social license debates and consideration.

## Staying engaged with the ISP development process

All AEMO engagement activities being undertaken as part of the development of the 2024 ISP are listed on the [Opportunities for Engagement page](#) on our website. This forward calendar of activities is updated regularly.

If you have any questions for the AEMO ISP team, please email [ISP@aemo.com.au](mailto:ISP@aemo.com.au).