13th August 2024

Andrew Turley
Group Manager - Forecasting
Australian Energy Market Operator
Level 22, 530 Collins Street
Melbourne 3000

Dear Andrew,

Re: 2025 IASR Scenarios consultation

The Australian Hydrogen Council (AHC) welcomes the opportunity to engage with the development of AEMO's 2025 Inputs, Assumptions and Scenarios Report (IASR).

AHC is the peak body for the hydrogen industry and our membership includes companies from across the hydrogen value chain. Our members are at the forefront of Australia's hydrogen industry, developing the technology, skills and partnerships necessary to ensure that hydrogen and its derivatives play a meaningful role in decarbonising Australian industry.

AEMO's modelling is key to how Australian stakeholders, especially governments, view and make decisions regarding the future energy portfolio, including the infrastructure, planning and policy required. Noting this important task, it is integral that AEMO's outputs adequately communicate the complexity and pace of each energy type in the modelling.

AEMO recognises the necessary role of hydrogen in Australia for tackling the hard to electrify sectors and achieving net zero, and we are pleased to see that this is touched on in each of the scenarios.

However, it has been proposed that the 2025 IASR scenarios will be largely similar to the previous 2023 versions. We do not agree with this approach.

There has been significant policy progressed since 2023 which impacts hydrogen, and this ambition and strategic direction should be strongly reflected in the development of AEMO scenarios and forecasting. AEMO should ensure it has accessed and accommodated the key information for each of the below policy processes, including any data that underpinned analyses. These are Australian Government initiatives that will be pivotal to the operating environment of the energy sector, influencing the progress and investment in Australia. While much of the analysis and data will not be public, it should be shareable within the Australian Government to support broader government policy.

We have also linked to our submissions on each consultation to raise awareness of the hydrogen considerations in each and how the policies interlink.

The key processes are:

- *Future Made in Australia Act (FMIA)*[1] – FMIA is a vital Australian Government response to changes in global supply chains and energy security, as well as a necessary step to reinvigorate Australian capabilities and grow economic complexity. The energy transition is hugely

[1] AHC (2024) *The Future Made in Australia Bill*, 26 July, https://h2council.com.au/wp-content/uploads/2024/07/240726-AHC-FMIA-submission.pdf.

challenging but it also presents an important opportunity for Australia to develop competitive advantage in renewable energy production, technology and use within the global marketplace, as well as ensuring ongoing prosperity in our region.

Notably, of the five industries aligned with the National Interest Framework, hydrogen plays a vital role in most, including green metals, low carbon liquid fuels, clean energy manufacturing (such as electrolysers), and renewable hydrogen itself. There has already been progress in the demand side mechanisms of green metals and low carbon liquid fuels, and, coupled with the FMIA Innovation Fund and Hydrogen Headstart, this policy framework is working to derisk investment into the hydrogen value chain.

We note that AEMO has adjusted the Green Energy Exports scenario to a stronger domestic focus, which does align with the FMIA direction. These new industries and increased sovereign capabilities will impact Australia's energy mix, scale, emissions, and pace of transition, and should be strongly factored into the AEMO modelling under each scenario.

- *Hydrogen Production Tax Incentive (HPTI)*[2] – Further to the FMIA, the HPTI is an incentive aimed at addressing the cost of production, while also encouraging increased scale and an advanced timeline of the renewable hydrogen industry. While the HPTI is committed in the 2024-25 federal budget as $6.7 billion over 10 years, this is an uncapped incentive. More grid-connected hydrogen production may need to be factored in future modelling.
- *National Hydrogen Strategy (NHS)*[3] – The refreshed NHS is expected imminently and will provide further direction about the Australian Government's next steps and ambitions for the emerging hydrogen industry. There was a range of policy work and modelling that supported the revision of NHS, and we recommend that this work – plus any subsequent policy, targets, mandates or strategic directions – should be accommodated by AEMO.
- *Net Zero 2050 Plan*[4] – The six sectoral plans plus the Climate Change Authority's advice on targets and pathways are significantly progressed, albeit not yet public. Each of these are modelling the scale, timeline and demand required by each sector and regarding each energy source. This whole of net zero approach examines efficiencies, challenges and sequencing from different, often siloed, perspectives. This analysis should be shared and shaped with AEMO, with insights incorporated into AEMO modelling and influencing the increased scope of the ISP.
- *Sustainable Finance Taxonomy*[5] – This financial framework aims to encourage investment and avoid greenwashing, including by categorising activities as green or transitionary. AEMO's modelling will likely impact Treasury's approach, influencing what is covered and the timelines for this.

[2] AHC (2024) *The Hydrogen Production Tax Incentive*, 12 July, https://h2council.com.au/wp-content/uploads/2024/07/240712-AHC-HPTI-submission_final.pdf.
[3] AHC (2023) *A fit-for-purpose refreshed National Hydrogen Strategy*, 17 August, https://h2council.com.au/wp-content/uploads/2023/10/230921-AHC-NHS-sub-master-Oct-edits-2.pdf.
[4] AHC (2024) *Electricity & Energy Sector Plan – Discussion Paper*, 26 April, https://h2council.com.au/wp-content/uploads/2024/04/240426-AHC-submission_Electricity-and-Energy-Sector-Plan.pdf, and AHC (2024) *Re: Climate Change Authority 2024 issues paper: targets, pathways and progress*, 21 May, https://h2council.com.au/wp-content/uploads/2024/05/240521-AHC-submission-CCA-issues-paper.pdf.
[5] AHC (2024) *Australian Sustainable Finance Taxonomy V0.1 consultation*, 7 July, https://h2council.com.au/wp-content/uploads/2024/07/240707-AHC-submission-to-ASFI.pdf.

- *Carbon Leakage Review*[6] – This process is investigating carbon mitigation policies, including the option of a carbon border adjustment mechanism (CBAM). An implemented CBAM would fundamentally influence the volumes of green energy/products domestically produced, as this would aim to avoid parallel imports of grey products, such as cement and steel (but ideally also hydrogen, ammonia and urea), which otherwise would undermine Australia's decarbonisation efforts and investment.

While we recognise that hydrogen (in its zero/low carbon form) is still a nascent industry that is not yet commercially viable, it is vital that AEMO modelling captures these policies, which fundamentally change Australia's ambitions and strategic direction. Even in its 'niche' uses (such as green iron and ammonia/methanol production), hydrogen will require a significant and long-term boost to Australia's electricity system – both on and off grid – as well as in other infrastructure such as pipelines.

The above policies should shape and be shaped by AEMO modelling to capture a whole of net zero approach. In this, we are also pleased to see the proposed increased scope of the Integrated System Plan and look forward to further details in the upcoming methodology consultation.

Thank you again for the opportunity to input into the design of the 2025 IASR ahead of the draft later this year. We look forward to working with AEMO through the further consultation processes in preparation of the 2026 Integrated System Plan.

If you wish to discuss any element of this in further detail, please contact me at ncerexhe@h2council.com.au.

Yours sincerely,

Natasha Cerexhe
Policy Manager
Australian Hydrogen Council

[6] AHC (2023) *Public consultation on the proposed approach to assess and address carbon leakage risk, as part of the Carbon Leakage Review*, 15 December, https://h2council.com.au/wp-content/uploads/2023/12/231215-Carbon-Leakage-Review-AHC-SUB_for-submission.pdf.