

1<sup>st</sup> March 2024

Kahil Lloyd  
Executive Director, Hydrogen and Future Fuels  
Department of Energy and Climate  
Queensland Government  
Level 9, 1 William Street, Brisbane QLD 4000

Dear Kahil,

**Re: An effective regulatory framework for Queensland's hydrogen industry**

The Australian Hydrogen Council (AHC) is the peak body for the hydrogen industry, with over 100 members 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 plays a meaningful role in decarbonising Australian industry.

AHC welcomes the opportunity to respond to this consultation on Queensland's regulatory reforms. The regulatory framework for the hydrogen sector sets the foundation for all industry development. We are pleased to see this work as it provides investor confidence and supports further industry development.

We have organised our feedback to the consultation around themes of clarity of requirements, streamlining processes, and whole of ecosystem planning.

**Clarity for the nascent hydrogen industry**

Whilst there are numerous hydrogen and derivatives projects under development across Queensland and Australia more broadly, very few projects have progressed through to planning and approvals stages. Given the nascency of the sector, many organisations are still in the process of understanding how existing regulation interacts with their individual projects and are cautious to provide suggestions or recommendations for streamlining or reforming legislation or regulations. Therefore, much of the feedback received from our members has sought clarity on the proposed reforms, including scope and applicability. Industry proponents require additional feedback and guidance on the suite of planning and approvals requirements that apply to the different projects, as well as the timeframes and triggers that initiate each planning requirement. One way that you may consider to address this need is the development of a document, such as the NSW hydrogen regulatory guide<sup>1</sup> or HyStandards<sup>2</sup>, where a model or indicative project could be tracked through the relevant regulatory pathways to give a sense of both the requirements and the potential timelines.

Furthermore, given the limited experience in this nascent field and the wide range of hydrogen projects being developed, ongoing support should be provided to local councils regarding their role and responsibilities in approving the relevant hydrogen activities. While there are guides available for local governments in Queensland, further support and training is required in this early phase to ensure that hydrogen projects are not delayed by uncertain timelines or processes at this level.

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<sup>1</sup> Office of Energy and Climate Change (2023) *NSW hydrogen regulatory guide*, NSW Government, December, [https://www.energy.nsw.gov.au/sites/default/files/2023-12/NSW\\_hydrogen\\_regulatory\\_guide\\_OECC\\_2023.pdf](https://www.energy.nsw.gov.au/sites/default/files/2023-12/NSW_hydrogen_regulatory_guide_OECC_2023.pdf).

<sup>2</sup> CSIRO (2024) *HyStandards*, Standards Australia, <https://research.csiro.au/hylearning/hystandards/>.

## Harmonisation, streamlining and minimising duplication

Regulatory harmonisation across Australian jurisdictions as well as (where possible) with international standards and regulations, remains the industry focus. Where there are state-specific processes, such as the hazardous area interpretation under the *Electrical Safety Regulation 2013*, the differences between jurisdictions can cause confusion and overcomplication for both project developers and equipment manufacturers, resulting in unnecessary delays and additional costs. We note that the 2019 National Hydrogen Strategy Agreement 29 related to coordinated regulatory reviews, but the delays in this work programme have led to jurisdictions following their own paths.

It is integral that any regulatory changes considered through this process should facilitate and streamline processes and timelines, rather than adding in further complexity. Therefore, when considering the pathway for auditing and verifying hydrogen projects, we would encourage the use of national standards such as the Guarantee of Origin scheme, when this is finalised.

Additionally, the extension of already well understood regulation to cover hydrogen should be considered as an option, rather than the creation of bespoke legislation and regulation. The proposal of hydrogen-specific licences or Acts provides some uncertainty and brings into question why hydrogen would be treated differently to other energy sectors. One option for your consideration could be further amendments to the *Petroleum and Gas (Production and Safety) Act 2004* (P&G Act), which could incorporate most hydrogen activities, limiting unnecessary complexity or the duplication of overlapping approvals. This would then also automatically trigger the relevant environmental processes. Amending the P&G Act would take considerable time given the complexities and scope, and further investigation would need to identify any risks or potential classification impediments. However, this would avoid developing a completely new, experimental framework for the remaining elements of hydrogen activities not already covered under the P&G Act.

The consultation paper also discusses the future of underground storage in Queensland and that the current regulatory framework would only accept hydrogen storage in tanks. The field of underground hydrogen storage requires further research and development but is likely to play a key role in Australia's future long-term storage needs. The Queensland Government should follow this research as it develops and facilitate additional legislative amendments to the P&G Act when required.

## Unlocking hydrogen ecosystem planning

The energy transition will require new and upgraded infrastructure for a range of purposes, not the least for decarbonising the electricity grid and connecting regions. This matter is being addressed by several parties, including AEMO and the state-sponsored renewable energy zones (REZs), but it is still early in the process.

The REZs should be a model for how to address and integrate hydrogen, however, they do lack the national coordination required to build a national industry with national export objectives. While we are interested in the option of the hydrogen specific versions of REZs, this prompts further questions about their timing, locations and intent. It would be beneficial for the emerging industry to receive an updated statement of intent from the Queensland Government regarding hydrogen's role and the government's proposed timelines for infrastructure and other development, especially the planned mix between domestic decarbonisation and export.

The benefits of hydrogen specific REZs could include allocated energy for hydrogen production and alleviating issues of transmission access, however, these benefits could be undermined if these proposed hydrogen REZs aren't rolled out in parallel with the committed REZs. It is also important to consider that the current REZs are positioned in the most advantageous locations for renewable energy generation, and therefore also the most advantageous for hydrogen production. If hydrogen REZs are to be considered on alternative sites, due consideration would be required on location selection to minimise the imposition of significant additional infrastructure costs (e.g. pipelines, storage).

As we have previously advocated <sup>3</sup>, the REZ and hubs model should be extended to Hydrogen Economic Zones (or Low Carbon Precincts) in order to facilitate planning for the wider decarbonisation ecosystem within boundaries and with some degree of central coordination.

While REZs are not a perfect match for hydrogen economic zones because they do not account for non-electricity matters (and it is not clear how they may grapple with the energy workforce and one-stop-shop permitting), the REZ model can be built on and supported to ensure coverage of hydrogen for industrial use and transition matters. The hubs are too small and localised to themselves be hydrogen economic zones, but they provide the starting points for future hydrogen economic zones.

We note that the Australian Government is currently working on an update to the National Hydrogen Strategy, and we are pleased to see the state and federal collaboration and committed funding for both the Central Queensland and Townsville Regional Hydrogen Hubs. Through both of these processes, the Queensland Government should work closely with the Australian Government on developing a national approach to regulation and ecosystem development, including designating dedicated hydrogen economic zones or low carbon industrial precincts.

### **Collaboration and support**

We are pleased to hear that the development of Queensland's regulatory framework for hydrogen will be gradual and iterative. The emerging nature of this market means that organisations are working their way through regulatory requirements and will need assistance to map out the implications as they arise. AHC convenes a number of member working groups, including dedicated committees for policy and technical regulations. We and our members would be pleased to participate in targeted consultations and co-design processes with you as you consider the next stage of reform.

If you have any queries or wish to discuss any element of this submission in further detail, please contact me at [ncerexhe@h2council.com.au](mailto:ncerexhe@h2council.com.au).

Yours sincerely,

**Natasha Cerexhe**  
Policy Officer  
**Australian Hydrogen Council**

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<sup>3</sup> AHC (2023) *A fit-for-purpose refreshed National Hydrogen Strategy: next steps for building Australia's hydrogen industry*, August, <https://h2council.com.au/ahc-publications/>.