

An effective regulatory framework for Queensland's hydrogen industry

Australian Workers' Union Queensland branch submission

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Introduction

The Australian Workers' Union (AWU) is one of Queensland's largest and most diverse unions. We represent around 22,000 Queensland workers across a wide range of industries – including in both the current and emerging hydrogen supply chains. From hydrogen production to transport and both incumbent and future offtakers, the AWU covers workers at all stages of the fuel's production and use. This includes:

- Civil construction, including gas pipelines and solar and wind generation sites;
- Manufacturing and industry, including key hydrogen offtakers in ammonia production and oil refining, and future users in facilities requiring high process heat;
- Gas storage;
- Water infrastructure; and
- Natural gas extraction - an essential input for blue hydrogen production.

Accordingly, the AWU is the union for hydrogen workers. We believe Queensland is well positioned for large scale production of green hydrogen. Our state possesses numerous and significant comparative advantages in this space, including world class renewable energy resources, abundant land and a highly capable industrial and construction workforce.

We also acknowledge the important and increasing role that hydrogen will play in Queensland and Australia's energy transition. Ready access to affordable hydrogen will facilitate emissions reductions in the industry sector. In the longer-term, it can also support many facilities to flourish as the 'clean manufacturing superpower' vision takes shape. Existing users will shift from grey and blue to green hydrogen as production scales up and it becomes cost competitive. Many other facilities requiring high heat energy will also shift towards hydrogen in their transition away from fossil fuels. For instance, hydrogen is likely to be a key input to green iron and steelmaking, as well as production of green alumina.¹ In the power sector, AEMO's draft 2024 Integrated System Plan identifies a potentially important role for hydrogen and other 'flexible gas' generation in the National Electricity Market. Dispatchable capacity provided through such fuels will be increasingly necessary in a grid centred on intermittent renewables.² In transport, hydrogen presents a likely decarbonisation pathway for heavy road vehicles, as well as parts of the shipping, rail and aviation industries.³

In addition, Queensland is well placed to meet rising demand for hydrogen from Australia's trade partners. Direct export of hydrogen is part of the "vast new economic opportunity for Australia" in clean manufactured exports.⁴ However, given the barriers to transporting the molecule by ship,⁵ and its importance to many domestic clean manufacturing opportunities, its larger role is likely to be as an input to other products.

This outlook for hydrogen in Queensland could help support an efficient and effective energy transition, as well as tens of thousands of direct and indirect jobs. For instance, the Central Queensland Hydrogen Hub alone is projected to deliver nearly 9,000 jobs in construction and operations in the coming years.⁶

However, achieving such outcomes will require more than natural advantage. Queensland must deliver a regulatory framework that is as certain, simple and efficient as possible, without compromising on worker and community interests. Such a regime will be key to supporting both investment and social licence for what will be large developments with a considerable environmental footprint.

The AWU thus welcomes the Queensland Government's decision to review the hydrogen industry's regulatory framework. This initiative can serve as an important step to moving beyond mere potential and towards the realisation of a safe, sustainable and strongly jobs-positive hydrogen industry in Queensland.

We are pleased to provide commentary on key principles that should underpin regulatory reform in this space below. We also address select proposals canvassed in the consultation paper.

Community benefits and impacts

Ongoing attempts by nefarious actors to scuttle offshore wind developments by stoking community opposition highlight the importance of earning social licence for green power and industrial projects. Despite the minimal impacts of offshore wind on local amenity, these campaigns continue to exhibit traction in host communities. As green hydrogen production requires very high volumes of both renewable energy and water, together with dedicated transmission, production, transport and storage infrastructure, local opposition poses a serious risk to the timely development of the industry.

The consultation paper goes some way to acknowledging this risk – suggesting there are “considerable benefits” to developers acknowledging and addressing community impacts.⁷

However, the best path to securing community buy-in is to ensure community returns. More than mitigating impacts, earning and retaining social licence will require industry to deliver tangible benefits to the communities hosting hydrogen infrastructure. Developers must directly and strongly support local employment and economic development, with high labour standards for the resulting jobs, in the areas where they operate. Local people should have confidence that the hydrogen industry will mean more and better jobs for them in industries such as civil construction and infrastructure operations. In addition to ensuring social licence, strong local employment and economic outcomes also mean the benefits of Queensland’s green hydrogen industry are realised in Queensland itself.

To support these outcomes, the approvals process for hydrogen production sites and directly related infrastructure should require that proponents demonstrate local employment and economic benefits. Most importantly, proponents should be required to show that a project will drive the creation of well-paying, quality local jobs – for instance, via a commitment to enterprise bargaining, union site access, and procurement from Queensland-based suppliers. Provided such commitments are a prerequisite to approval, this might be achieved through planning reform, conditions in the mooted hydrogen generation licensing scheme, or another regulatory mechanism.

To support the benefits of local hydrogen production to flow through the local economy, the approvals framework for hydrogen projects should also give regard to developer commitments to supply Queensland and Australian offtakers ahead of export clients.

Recommendation: The approvals framework for hydrogen production sites and directly related infrastructure should:

- Require a proponent to demonstrate that a project will deliver well-paying, high-quality jobs and other economic benefits to the host community; and
- Give regard to any commitments by the proponent to supply Queensland and Australian offtakers ahead of export clients.

Worker safety

While the AWU strongly supports reform to facilitate the development of Queensland’s green hydrogen industry, the economic dividend promised by the fuel cannot come at the expense of worker safety. Good

economic and regulatory policy should always be pro-worker and, clearly, industrial development never necessitates an erosion of the right to safe workplaces.

We therefore welcome the Queensland government's indication that existing safety standards, as well as requirements to consult with workers and other stakeholders around workplace safety issues, will not be amended as part of this reform process.⁸

Recommendation: Regulations governing worker safety in the hydrogen industry should not be amended as part of the regulatory reform initiative.

Consolidation and simplification

To support developers and other stakeholders to engage effectively with regulation, and ultimately to foster rapid development of the industry, Queensland should simplify and consolidate regulatory processes wherever practicable (without compromising on support for local economic development and worker safety). To this end, Queensland should prioritise harmonisation of its regulatory regime with that of other jurisdictions. This could be achieved via several means, including by:

- Supporting the development of uniform State and Territory-level regulations for equivalent approvals and other regulatory processes;
- Coordinating plans to deliver common user infrastructure and low emissions industrial precincts with related Commonwealth initiatives – particularly the Hydrogen Hubs program and Capacity Investment Scheme;
- Providing certainty around whether a project must undergo state or local government planning assessment – for instance, via development of a 'threshold' mandating state assessment for developments over a certain scale; and
- Ensuring state-level regulation is consistent with international standards for the hydrogen industry where relevant.

Recommendation: The Queensland Government should harmonise the hydrogen industry's regulatory framework with that of other Australian and international jurisdictions where practicable.

In addition, Queensland should incorporate industry-specific regulation for hydrogen into existing frameworks for energy and major infrastructure where possible, in preference to prescribing entirely novel schemes. Recent legislation to bring hydrogen transport under the pipeline licensing regulation prescribed in the *Petroleum and Gas (Production and Safety) Act 2004*⁹ is a welcome example of this approach. Queensland should continue to be guided by this principle in pursuing further reform. For instance, we note the Australian Hydrogen Council's suggestion that additional amendments to the *Petroleum and Gas (Production and Safety) Act* could assist to further integrate the approvals process for hydrogen projects into what is an established and well-understood regime.¹⁰

Recommendation: The Queensland Government should incorporate hydrogen industry regulation into existing regulatory frameworks wherever practicable.

Clarity and certainty

In reforming the hydrogen industry's regulatory framework industry, Queensland should seek to maximise user certainty and clarity. This is particularly so in relation to the key terms and timeframes that drive many approval processes which project proponents are required to navigate.

Two ongoing Commonwealth projects in the energy and environment space are suggestive as to this approach. In particular, the Federal Government's commitment to simplify consultation requirements around offshore gas developments has a strong focus on delivering greater certainty as to the meaning of key terms.¹¹ For example, the process appears likely to clarify who is a 'relevant person' that a developer must consult and the 'sufficient information' they must be given before a project's environmental plan is submitted to government. Uncertainty around these and related terms has contributed to notable delays and uncertainties in project development. In addition, proposed reforms to national environmental laws, currently under consultation, would explicitly require the Commonwealth to complete what are often complex environmental approval assessments, of uncertain duration, within 60 days (and in some cases 20 days).¹² In our submission, Queensland should be guided by these same principles in seeking to deliver a clearer, more certain framework for approvals and other regulatory processes.

Recommendation: The Queensland Government should reform the hydrogen industry's regulatory framework to support user clarity and certainty, particularly in relation to key provisions governing approvals processes.

Underground storage

The AWU is supportive of regulatory reform to accommodate underground storage of hydrogen in Queensland. Underground storage in spaces such as salt caverns offers a means of supporting the hydrogen industry's growth and emerging needs, as well as repurposing depleted gas and mineral reservoirs.

However, though a small number of underground storage sites have commenced operation in foreign jurisdictions, this remains a nascent area and the subject of some technical uncertainty.¹³ Accordingly, the development of fit-for-purpose regulation in the immediate term is likely to be challenging. This reform does appear to be a candidate for incorporation into existing frameworks – likely the *Minerals Resource Act 1989* and *Petroleum and Gas (Production and Safety) Act 2004*. But given uncertainty around the path to large-scale underground storage, further engagement and research with industry and others as to the optimum path forward is appropriate as a first step.

Recommendation: The Queensland Government should complete dedicated research and stakeholder engagement with a view to developing a regulatory framework for underground storage of hydrogen in the medium-term.

Blue hydrogen

Given its distinct production process, blue hydrogen is likely to give rise to a number of separate regulatory considerations to green hydrogen. The AWU therefore acknowledges that the current consultation and reform process may not be suited to optimising the regulatory framework for blue hydrogen.

Its work on green hydrogen notwithstanding, government should also look to support blue hydrogen production through an optimised regulatory framework. Given the product's similarity to grey hydrogen, established hydrogen producers and suppliers are better placed to pivot to blue hydrogen in the short and medium-term. Such a shift could drive emissions reductions among established offtakers in the near future, whereas the green hydrogen industry is only likely to achieve scale in the long term. Ultimately, an established market for low emissions hydrogen will also benefit the green hydrogen industry by identifying confirmed offtakers for such a product in an emerging market.¹⁴

The blue hydrogen regulatory reform process should be informed by the same overarching objectives as the current process. That is, Queensland should look to simplify and consolidate regulatory processes overall, while advancing support for local economic development and ensuring worker safety.

Recommendation: The Queensland Government should initiative a separate consultation and reform process to optimise the regulatory framework for the blue hydrogen industry.

References

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- ⁹ McKillop, L. et al (2023), '*New legislation paving the way for hydrogen projects in Queensland*', Ashurst. Available at: <https://www.ashurst.com/en/insights/new-legislation-paving-the-way-for-hydrogen-projects-in-queensland/>
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