

3 April 2023

Department of Energy & Public Works

Submitted via email: HaveYourSayHydrogenQld@epw.qld.gov.au

Dear Sir/Madam

**Gas Supply and Other Legislation
(Hydrogen Industry Development) Amendment Bill 2023**

Stanwell Corporation Limited (Stanwell) welcomes the opportunity to respond to the Department of Energy and Public Works (DEPW's) 6 March 2023 consultation on the "Gas Supply and Other Legislation (Hydrogen Industry Development) Amendment Bill 2023" (Amendment Bill).

We acknowledge the work of DEPW in preparing this consultation paper and we thank DEPW for the opportunity to provide a response.

This submission contains the view of Stanwell and should not be construed as being indicative or representative of Queensland Government policy.

As a major provider of electricity to Queensland, the National Electricity Market (NEM) and large energy users throughout Australia, Stanwell is invested in providing reliable and affordable energy for today and into the future. We are also developing renewable energy, storage and hydrogen projects and technologies within Queensland to help reduce emissions and ensure Queensland electricity supply remains secure and reliable now and into the future.

Stanwell is very pleased to see the Queensland Government commit to supporting the effective regulation of hydrogen development, and use, by preparing this proposed Amendment Bill. Stanwell is currently about to move into the Front End Engineering Design (FEED) Phase for our Central Queensland Hydrogen (CQH2) product, and the timely implementation of the necessary legislative changes would provide much greater certainty on how CQH2 approaches the regulatory approval requirements to construct and operate the CQH2 project.

The Amendment Bill proposes amendments to the *Gas Supply Act 2003* and the *Petroleum and Gas (Production and Safety) Act 2004* (P&G Act). Stanwell's feedback is focused on the P&G Act 2004.

Pipeline licences for water, carbon dioxide and oxygen

Under the current P&G Act, a pipeline carrying hydrogen between a Hydrogen Production Facility (HPF) and a Hydrogen Liquefaction Facility (HLF) is classified as a distribution pipeline and unable to be granted a pipeline licence.

Stanwell understands the proposed amendments would now enable pipelines carrying hydrogen as well as substances such as ammonia (prescribed by regulation as Regulated Hydrogen) to also be granted pipeline licences under the P&G Act. By enabling substances which are integral to the hydrogen industry to be granted a pipeline licence means that proponents and landholders have a clear process with set timeframes for negotiations and compensation for land access. The process is tried and tested, but most importantly, a pipeline licence provides proponents and landholders with transparency and an avenue for dispute resolution.

For these reasons, Stanwell considers that it is imperative for the Amendment Bill to accommodate changes which also enable other substances such as water, carbon dioxide and oxygen which are:

.....“involved in, or produced for, a process related to the production, or storage, or transport of hydrogen”

to be granted a pipeline licence under the P&G Act. This will provide proponents a single regulatory process to follow for all substances which need to be transported via pipelines as part of the hydrogen production process.

Water

Of the three substances mentioned, water is of highest priority for the hydrogen industry given it is the key input required to produce green hydrogen. In addition, due to the volume of water required for large scale green hydrogen production, the only real feasible way to provide enough water to a production facility is via a pipeline. In the production of hydrogen by electrolysis, water has to be treated to meet the requirements of the electrolyzers. Depending on the quality of the water supply, this can be achieved with a single pass reverse osmosis (RO) process which has a recovery rate of 70-80%. The remaining 30-20% output from RO stream which is unsuitable for the electrolyser remains very suitable for a range of industrial uses, so it would be sensible to enable this water to be transported via pipelines to be utilised at other types of industrial and agricultural facilities that require it.

Australia is a dry continent and communities understand that good quality water is a scarce resource. The success of the hydrogen industry will by and large be dependent on the industry's social licence to operate and the ability to move and use water and electricity effectively. Legislative changes must enable industry to innovate to be as efficient with the use, re-use and recycling of water and investment in critical infrastructure cannot be achieved unless there is more certainty around the ability to secure land for linear infrastructure.

Stanwell is by no means seeking for legislative changes which overlap with or exceed powers in place for statutory bodies like the Gladstone Area Water Board to build and operate pipelines for public use. Stanwell is simply seeking a streamlined regulatory process for pipelines transporting substances which are imperative to the production of green hydrogen to be accommodated under the same legislative framework, much in the same way that “produced water” was captured under the P&G Act to support the CSG industry.

Should the Queensland Government be supportive of including water for the hydrogen industry in the P&G Act, then a more in-depth review of subordinate legislation and further consultation with industry will be needed to address aspects of regulations which may not be fit for purpose. One example is Section 67(2) of the Petroleum and Gas (Safety) Regulation 2017 which currently requires the design, construction, operation, maintenance and abandonment of pipelines to comply with one of the following code or standard:

- a) 'APGA code of practice upstream polyethylene gathering networks- CSG industry' version 4.0 supplementary, August 2017 published by the Australian Pipelines and Gas Association Limited ACN 098 754 324;
- b) AS/NZS 4645;
- c) AS 2885.

However, none of the codes or standards currently in the Petroleum & Gas (Safety) Regulation 2018 would be appropriate for a water pipeline because the APGA code of practice is for Coal Seam Gas, AS/NZS 4645 is for gas distribution networks and AS2885 is for gas and liquid petroleum.

Carbon dioxide & Oxygen

Stanwell's rationale for including carbon dioxide (CO₂) and oxygen (O₂) is similar to that for water, with CO₂ more so of a priority than O₂. O₂ is a biproduct from the electrolysis process and as a feedstock to some industrial processes, could be a potential value add which could be commercialised in the future depending on scale. In the case of CO₂, the current amendments proposed appear only to enable pipelines to be granted a pipeline licence where the pipeline is transporting CO₂ to be stored under provisions of the GHG Storage Act.

One existing industry which generates a lot of CO₂ emissions is the cement industry. So, it seems counterintuitive that a pipeline transporting CO₂ would be able to be granted a pipeline licence if the pipeline was taking the CO₂ to be stored, but not if the CO₂ was to be transported to a green methanol facility. The proposed amendments already include methanol as a regulated substance which indicates that the government wants to support a methanol industry and CO₂ is an integral feedstock for the production of green methanol.

Operating plant and excluded compounds

The proposed amendments include the provision to declare (by regulation) a substance to be an excluded compound so that pipelines transporting declared excluded compounds would not be classified as operating plant.

From discussions with Resources, Safety and Health Queensland (RSHQ), Stanwell understands that the provision to declare substances as excluded compounds is to enable RSHQ to determine whether RSHQ has the appropriate resources and expertise to regulate these activities or whether certain activities should instead be regulated by Worksafe Queensland.

Currently, none of the new substances associated with the Amendment Bill for Hydrogen Industry Development have been declared as excluded compounds. However, as Stanwell progresses with the development of the CQH2 project, it would be greatly appreciated for Stanwell to be given advanced notice should RSHQ decide to declare ammonia to be an excluded compound.

Timing of proposed legislative amendments and transitional provisions

Stanwell considers the overall direction of the proposed amendments to be very positive. However as with most things, timing is key. Ideally Stanwell would like the changes to take effect before the CQH2 applications for approvals are lodged, or after the approvals are granted. However, we acknowledge that it is important that the regulatory framework around pipelines for hydrogen facilities is done correctly, and not just quickly. Should the final amendments come into effect post approval of any pipelines, then it is vital that the flow on impacts to proponents such as the requirement to obtain retrospective Environmental Authorities for Resource Activities under the *Environment Protection Act 2004* be considered as part of the transitional provisions within the Amendment Bill.

Stanwell appreciates the opportunity to contribute to DEPW's proposed legislative changes to the P&G Act. Should you wish to discuss our submission in more detail, please contact Zi Ying Koh on (07) 3228 4137 or email ZiYing.Koh@Stanwell.com.

Yours sincerely



Ian Chapman
Manager Market Policy and Regulatory Strategy
Energy Markets
Stanwell