2nd February 2024

Office of Energy and Climate Change

NSW Department of Climate Change,
Energy, the Environment and Water

The Renewable Fuel Scheme (RFS) Consultation

Thank you very much for the opportunity to provide feedback to the consultation paper. It is a very comprehensive document with great information. It could help Coregas to create new strategy and provide direction for new developments.

We believe Coregas could play some role in the hydrogen economy. However, Coregas can't add value in ammonia, steel or blending with natural gas applications. This market is very well established with big players covering the entire supply chain. So, our feedback is very short with focus only on a few questions.

As a Wesfarmers company, Coregas is the only Australian industrial gases company. We manufacture gases locally and distribute throughout Australia and New Zealand via a network of branches and third parties. Coregas provide a wide range of industrial gases for users across various market segments: healthcare, manufacturing and fabrication, steel and aluminium production, power generation, food, hospitality, R&D, semiconductors, universities, analytical laboratories, and many others. Gases are produced at Port Kembla Air Separation Unit (ASU) and Steam Methane Reformer (SMR) and distributed to branches and customers across Australia, New Zealand, and PNG.

Coregas is involved in many local initiatives driving forward the pursuit of hydrogen as an energy source. We are proud to operate Australia's largest merchant hydrogen plant in Port Kembla, NSW at the BlueScope site. Coregas is the leading supplier of hydrogen gas in Australia.

We supplied hydrogen to car during the Sydney Olympics, first Australian refuelling station at Hyundai North Ryde head office, HESC liquid hydrogen trial for Japan and first RED Bus trial at Central Cost in 2023.

In 2023 Coregas opened the first Australian heavy vehicles station in Port Kembla. While we are still waiting for ordered prime movers, we are filling Remondis' refuse truck and Premier's bus, which are driving on the streets of Wollongong for the last few months.

Coregas will provide hydrogen to existing hydrogen customers using existing SMR, which is relatively small in comparison with plants used for ammonia or petrochemical production.

The Renewable Energy Scheme provides a comprehensive overview of NSW directions. We appreciate the information, but Coregas will be relatively small players when all planned MW project will come online. We are sure you will receive a lot of feedback from ammonia, natural gas ammonia and steel players. So just few comments from our end.

We believe that transition to zero emission heavy transport will provide opportunity, as it requires smaller volumes of hydrogen to be delivered and dispensed in multiple locations. We could provide solution with new hydrogen production capacity.

Proposal 2: Product Go certificate

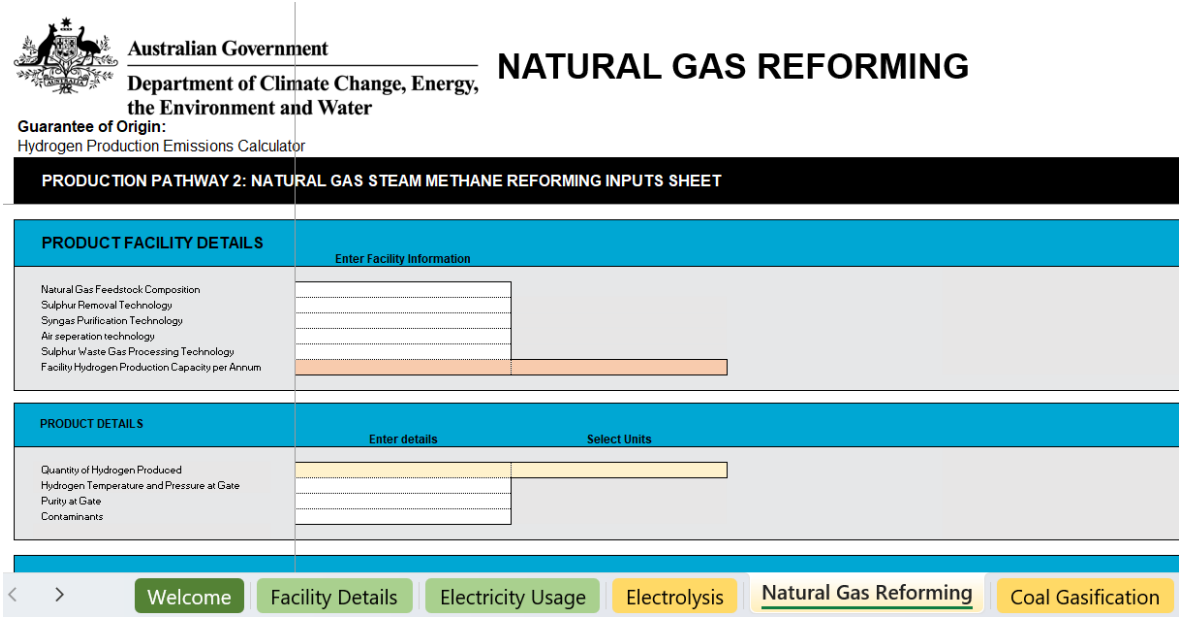
The volumes of hydrogen for mobility in the next few years will be too small to justify complex process RFS, Guarantee of Origin and Green Power accreditation. To be successful the process must be simple and streamlined. However, the 3rd part accreditation should be required. The GO process is too complex, so it will be very difficult to rely on robust corporate reporting systems. Emissions from natural gas or LNG projects are good example of systematic failures.

Proposal 3: The eligible production method is electrolysis of water using renewable electricity

Most of the world's hydrogen is produced by Steam Methane Reforming. It is very reliable and economical technology at scale. It could operate continuously and has a wide range of load flexibility. If combined with biogas source and carbon capture it could provide a solution for global carbon emission problem. The large-scale electrolysers are at early stage of development, and they don't have a record of reliable long-term operation.

Electrolysers could offer a solution for oversupply of renewable energy during sunny days. South Australia $600mln project will test this solution. However, for large scale industrial applications including transport the supply should match demand as close as possible for long term economical solution. To achieve that with electrolysis, we will need renewable GW scale 24/7 power supply independent of weather conditions. Biogas at scale with SMR and carbon capture could solve this problem.

The Product GO certificate includes SMR technology already, so there is no reason to exclude it from RFS. There multiple sources and technology for biogas with Germany giving perfect example with thousands of biogas plants.



Proposal 5: The Local Use Factor is 1 for all green hydrogen produced in NSW

It is not clear yet whether local small production of hydrogen will be more economical than large scale production on the back of big export or ammonia project. If produced by large plants at low cost and liquefied it could be more economical to distribute than multiple small sources. At this stage of development liquid hydrogen from NSW could be used by heavy vehicle refuelling stations in Victoria and Queensland. The location exclusion will add complexity to the process. The local use should cover Australia with NSW production.

The consultation paper covers a wide range of topics, but we don't have any specific comments regarding remaining questions. However, I would like to make one additional comment.

Current Australian focus and government support (Federal and States) is directed towards large scale renewable energy projects, including ammonia, hydrogen, synthetic and biofuels. To be viable they require low-cost production at large scale with government funding for capex and opex. However, transport is contributing almost 20% of Australian emissions and is still growing. While government is supporting rollout of BEV passenger cars and light trucks, there is not enough support for heavy transport. It could include just support for bus and truck operators, coaches, and trains. The industry will make investment in hydrogen production without subsidies if there is a clear demand for hydrogen for mobility. This support is required for locally built vehicles and their operators.

If you would like to discuss our feedback, please contact us.

Regards,

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