

Submission on the *Interim Hydrogen Roadmap*

Name	
Organisation (if applicable)	BOC Limited
Contact details	

Release of information

Please let us know if you would like any part of your submission to be kept confidential.

I would like to be contacted before the release or use of my submission in the summary of submissions that will be published by MBIE after the consultation.

I would like my submission (or identified parts of my submission) to be kept confidential, and **have stated below** my reasons and grounds under the Official Information Act that I believe apply, for consideration by MBIE.

I would like my submission (or identified parts of my submission) to be kept confidential because
[\[Insert text\]](#)

[To check the boxes above: Double click on box, then select 'checked']



BOC LIMITED
NZBN: 9429040953946
988 Great South Rd
Penrose, Auckland NZ

INTERIM HYDROGEN ROADMAP

Ministry of Business, Innovation & Employment

Submission by BOC Limited, a Linde company
2 November 2023

BOC, a Linde company, welcomes the opportunity to provide feedback on the Interim Hydrogen Roadmap. We would like to play an active role in supporting and sharing our significant expertise with the Ministry of Business, Innovation and Employment and the newly formed Government to progress hydrogen opportunities in New Zealand.

We believe the Interim Hydrogen Roadmap is key to driving the industry forward and the implementation of a green hydrogen consumption rebate is an important first step that can help New Zealand progress beyond proof-of-concept hydrogen projects, and into significant pilot green hydrogen projects with strong potential to scale.

BOC has been producing hydrogen in New Zealand for over 80 years, with local expertise and world-leading Linde Engineering technology across the entire hydrogen value chain, from production (conventional or renewable) and conditioning, to transport and refuelling.

We currently supply hydrogen for industrial applications across New Zealand, with proven expertise in the safe handling and transportation of hydrogen in gas cylinder packs and for bulk use through tube trailers and road trailers.

BOC has been involved in most early hydrogen projects in New Zealand, demonstrating strong technical leadership and supplying green hydrogen from our Glenbrook hydrogen production facility. This facility has been producing certified green hydrogen since early 2021, through our partnership with Certified NZ and Kea Energy.

As a Linde company, BOC is part of a global leader in the production, processing, storage and distribution of hydrogen and ammonia. Linde has the largest liquid hydrogen capacity and distribution system in the world. Linde is at the forefront in the transition to clean hydrogen and has installed over 250 hydrogen refuelling stations and 100 hydrogen electrolysis plants worldwide.

The company offers the latest electrolysis technology through its 50:50 joint venture with ITM Linde Electrolysis. Linde can also support with other electrolysis technologies and integrate with in-house hydrogen, syngas and engineering product lines. This includes, storage, ammonia cracking and designated modularisation, execution and EPC teams for mid to large-scale projects.

With proven success in delivering hydrogen production, distribution, refuelling, and supply projects across New Zealand, BOC is proud of our role in supporting the emerging hydrogen industry. It will take a collaborative approach to build a nascent green hydrogen industry, and we are actively sharing our expertise and learnings to build an understanding of the regulatory, safety and community settings for hydrogen.

BOC has also been a reliable partner for New Zealand's largest industrial companies, exporters and critical sectors for over 80 years. We are developing strategic partnerships and using our gases, technologies and applications to support decarbonisation across many industries. We believe hydrogen has a key role to play in achieving net zero emissions, and committed to working with government to scale the hydrogen industry in New Zealand.

With key projects in our development pipeline in New Zealand and a strong commitment to invest, BOC believes government rebates will be a key instrument to enable early-stage projects to get off the ground and reach financial investment decision. It is important that clarity is provided on the likelihood and timeline of further funding and other incentives across the hydrogen supply chain.

We would welcome the opportunity to meet to further discuss key aspects of our submission, and provide technical and market information to assist MBIE as it finalises the Interim Hydrogen Roadmap.

Responses to questions

General comments

The commercial gap for hydrogen will remain in the short-term and green premiums are not yet developed, so government support is needed.

Deployments across a range of use cases (heavy mobility, feedstock etc) will help define future investment. At this stage 1-2 bus pilot activities will achieve very few learnings.

OEMs in the trucking and bus sector will only come to New Zealand with a commitment of scale (Tier 1 and tier 2).

We agree that the focus should be on domestic use, and not export at this stage.

The Inflation Reduction Act and other funding mechanisms are attracting talent and equipment (including vehicles and other technology) to the US. It is important that the government supports industry and gives them confidence to invest to ensure a successful viable hydrogen industry, and that New Zealand isn't left behind.

It's important that learnings from government-supported projects to date are shared. These learnings will help the next projects.