

**Submission
No 13**

INQUIRY INTO DEVELOPMENT OF A HYDROGEN INDUSTRY IN NEW SOUTH WALES

Organisation: Illawarra Business Chamber

Date Received: 26 February 2021



26 February 2021

Illawarra Business Chamber
Level 5, 6 Regent Street
Wollongong NSW 2500

NSW State Legislative Council
Standing Committee on State Development
Parliament House
6 Macquarie Street
Sydney, NSW 2000.

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To whom it may concern

RE: Inquiry into the development of a Hydrogen Industry in NSW

The Illawarra Business Chamber welcomes the opportunity to provide a submission to the State Legislative Council's "Inquiry into the Development of a Hydrogen Industry in NSW" (the 'Inquiry'). The Chamber commends the government for seeking to capitalise on our advantages as an established exporter of natural resources to become a key player in hydrogen markets. In particular, the Chamber endorses the priority that the Inquiry places on seeking to ensure that NSW maximises the opportunities presented by emerging trends in the production and demand for hydrogen as the world seeks zero-emission energy sources.

The Illawarra, and, in particular Port Kembla, are uniquely positioned to contribute to the realisation of NSW and Australia's potential as a major hydrogen producer and exporter through the utilisation and development of the existing industrial supply chain and associated distribution infrastructure. To this end, the Chamber strongly advocates for strategic investment that will leverage Wollongong's existing industry and port infrastructure to develop hydrogen production and export capabilities at scale and establish Port Kembla as a "hydrogen hub". The Chamber highlights the significant experience, expertise and adaptability of Illawarra industry as a key factor in ensuring the success of Port Kembla as a future hydrogen cluster.

The Chamber notes that in seeking to cultivate new industries for a zero-emissions future, it remains important to consider the commercial viability of technologies to deliver the desired objectives. The Chamber emphasises the need for policy makers to have regard to the potentially disproportionate impact that policy and regulatory measures to reduce greenhouse gas emissions may have on certain industries, including mining and related industrial sectors such as steel manufacturing. The Chamber advocates for nuanced plans for transitioning to a low carbon economy that reflect careful consideration of the needs of all stakeholders.

Port Kembla – Illawarra's hydrogen hub

The Illawarra-Shoalhaven is one of the state's fastest-growing regions with a strong and diversified economy; home to more than 26,565 businesses employing 147,000 residents (ABS, February 2020). As the third largest economy in NSW, the region holds the solutions to many of the challenges facing Greater Sydney and contributes \$23.9 billion to the state economy (2019).

Port Kembla is a growth port that is already the largest vehicle importation hub in Australia and will eventually function as the state's second container terminal. Port Kembla services large parts of Southern NSW as a grain terminal and as an import facility for an array of

construction materials and bulk goods. Port Kembla was identified as a potential hydrogen export hub in the Federal Government's National Hydrogen Strategy.

The Chamber submits that Port Kembla is perfectly suited as a hydrogen hub given the considerable energy and related industries as well as the existing infrastructure and technical skills in the Illawarra. Companies in the region include a mix of heavy industrial, engineering, technology and services businesses that support customers across the region, NSW, Australia and internationally. The University of Wollongong is an industry focused university with globally significant engineering and energy related research capabilities and is well placed to be a leading contributor to a hydrogen hub and the broader hydrogen industry in NSW.

We note that the Illawarra has also already attracted several important projects that will provide opportunities for the adoption of hydrogen and the development of a regional hydrogen industry. These include H2X's announcement of their intention to build a hydrogen fuel cell vehicle manufacturing facility, Energy Australia's Tallawarra power station expansion and Australian Industrial Energy's (AIE) gas import terminal and potential gas turbine. The Chamber supports maintaining this momentum through the establishment of a local hydrogen cluster at Port Kembla, as advocated by i3net and other regional stakeholders. A cluster would help build opportunities for businesses to collaborate and develop the hydrogen supply chain in the region, thereby maximising the utility of existing infrastructure and industry networks.

The Illawarra business community supports and looks forward to the development of the gas import terminal and the proposed development of hydrogen production facilities at Port Kembla. The Chamber encourages the NSW Government to continue engaging with businesses and industry representatives on the establishment and commencement of operations of a hydrogen hub at Port Kembla.

Economic development of the Illawarra

The Terms of Reference specifically identify the economic and employment opportunities of a hydrogen industry for regional NSW as a key focus of the Inquiry. The Illawarra is already known for its world class steel making and coal mining industry, with a number of globally competitive firms and related businesses employing a sizeable portion of the Illawarra workforce. That said, in recent years the local economy has been in transition with a shift in the labour market away from mining and manufacturing to health care, knowledge services and the tourism sector. While manufacturing now represents around 6.6% of employment, it remains an important sector in terms of its contribution to the local economy and is still the largest export sector.¹

Despite a successful transition to new industries in the region, the Chamber notes that there remains the potential for a jobs deficit in the near term. This is particularly the case given recent events, including the devastating bushfires in late 2019/early 2020 and the impact of COVID-19. The Chamber welcomes the NSW Government's focus on the economic development and employment opportunities for the Illawarra that may arise from a hydrogen industry. Continued investment in the economic development and employment opportunities of the region, such as the recent announcement of the establishment a Job Skills Bootcamp in

¹ Wollongong City Council, Economic Development Strategy 2019-2029, p.31

South Nowra, is crucial to ensure the ongoing economic recovery of the region, now and into the future.²

Regional economic development will depend on successfully identifying and supporting key growth sectors, such as hydrogen, but also in the electricity, gas, water and waste services sectors.³ In this regard, the Chamber welcomes the NSW Government's announcement of an Electricity Infrastructure Roadmap and the enactment of the *Electricity Infrastructure Investment Act 2020* (NSW) on 2 December 2020. The Chamber is pleased that the Illawarra has been identified as one of five Renewable Energy Zones (REZs) though notes that implementation plans remain vague at this time. Again, the significant experience and expertise of Illawarra industry will be an important ingredient in the future success of the REZ.

The need for strategic rail infrastructure investment

The realisation of the Illawarra's potential as a key contributor to any NSW hydrogen industry will require strategic investment from both the public and private sectors. Investment in transport and infrastructure is crucial to ensuring the effective utilisation of existing resources and to reduce any barriers to the activation of a hydrogen industry that may be attributable to a lack of supporting infrastructure and/or the cost of hydrogen supply.⁴ In this regard, we are encouraged by Infrastructure Australia's identification of "enabling infrastructure for hydrogen exports" as a Priority Initiative on its February 2021 Infrastructure Priority List.⁵

The Illawarra Business Chamber is a strong advocate for the upgrade of transport infrastructure in the region. In particular, there is an urgent need for the NSW Government to consider, as a matter of priority, the upgrade of rail capacity in the Illawarra, particularly to support the future expansion of Port Kembla. The Chamber has developed a strong and persuasive evidence base, through directed research funded by Illawarra First and conducted by the University of Wollongong's SMART Infrastructure Facility, on the need for a South West Illawarra Rail Link (SWIRL) connecting Wollongong with South West Sydney (St Marys). The key Illawarra First rail transport reports can be downloaded via the following links:

- [2017 – Upgrading Rail Connectivity between the Illawarra and Sydney \(University of Wollongong, SMART Infrastructure Facility\)](#)
- [2020 – South West Illawarra Rail Link \(University of Wollongong, SMART Infrastructure Facility\), joint project with Wollongong City Council and Wollondilly Shire Council\)](#)

This research identifies a looming rail capacity horizon of 2036 and emphasises the need for increased freight capacity to enable the efficient dispatch of containers from Port Kembla to Western Sydney in the future. Without intervention, the research finds that freight capacity constraints will cost the Illawarra economy \$230 million per annum by 2041.

² 'South Coast Productivity Bootcamp A Boost to Youth Employment Opportunities'; Illawarra Business Chamber media release; 25 February 2021

³ Wollongong City Councils vision for 10,500 new jobs for the Illawarra over the next decade and has identified the Electricity, Gas, Water and Waste Services sector as a key sector for jobs growth; Wollongong City Council, Economic Development Strategy 2019-2029, p.38

⁴ CSIRO, National Hydrogen Roadmap, Pathways to an economically sustainable hydrogen industry in Australia, Executive Summary, p.4

⁵ Current Infrastructure Priority List available at <https://www.infrastructureaustralia.gov.au/search-priority-list-map>

The Chamber submits that significant investment in rail infrastructure is crucial to the realisation of Wollongong and the Illawarra's contribution to the development of a hydrogen industry in NSW. Given the likely long time horizon for the completion of such infrastructure upgrades, the Chamber submits that planning and design work should start now. The Chamber is therefore concerned that Infrastructure Australia's February 2021 Infrastructure Priority List has adjusted the timeframes for 'Freight Rail Access to Port Kembla' from a near term (0-5 years) to a medium term (5-10 years) priority.⁶

Notwithstanding some recent positive announcements from the NSW Government in relation to improvements to the South Coast line capacity, the Chamber strongly encourages Transport for NSW to set out a plan for the commencement of the SWIRL for completion by no later than 2041. The Chamber has set out its position in more detail in its [submission to the NSW Government Draft Illawarra-Shoalhaven Regional Transport Plan](#).

The need for considered and consistent policy

The Chamber wholeheartedly endorses the comments from the Chair of the State Development Committee that "*New South Wales has historically been an energy exporter and we must ensure that we maximise our role in the international hydrogen economy to maintain a strong export base as the world looks for zero-emission energy sources*".⁷

More generally, the Chamber also supports the development of measures to reduce greenhouse gas emissions and notes the commitments made including by regional authorities to a clean energy future.⁸ However, the Chamber emphasises the need for policy makers to have regard to the potentially disproportionate impact that policy and regulatory measures to reduce greenhouse gas emissions may have on certain industries, including coal mining and related industrial sectors such as steel manufacturing. The Chamber advocates for nuanced plans for transitioning to a low carbon economy that reflect careful consideration of the needs of all stakeholders.

The Chamber notes recent announcements from key industry figures for a rapid transition to a "green steel" industry in Australia, fuelled by "green hydrogen".⁹ While such vision is laudable, we also point to the need to be realistic in our expectations of the pace of change. The views recently expressed by Illawarra First member BlueScope Steel, Australia's pre-eminent steel manufacturer, are telling in this regard. It is clear that the use of green hydrogen in steel production is a considerable way off from being commercially viable.¹⁰ In this light, the Chamber cautions that too rapid a transition to hydrogen may create significant, and potentially avoidable, economic disruption, that if not properly managed, will

⁶ August 2020 Priority List available at https://www.infrastructureaustralia.gov.au/sites/default/files/2020-08/current_priority_list_august_2020_0.pdf

⁷ The Hon Taylor Martin MLC; "New Inquiry into the Development of a Hydrogen Industry in NSW"; media release 15 December 2020

⁸ See for example the Wollongong City Council's Climate Change Mitigation Plan 2020

⁹ Andrew Forrest in the ABC Boyer Lecture, "Oil vs Water – confessions of a carbon emitter", 24 January 2021

¹⁰ "Green steel 20 years away: BlueScope Steel"; the Argus; 22 February 2021. The article notes that "*BlueScope has found that using hydrogen from renewable sources would currently be about six times more expensive than natural gas, and that replacing the blast furnace with an electric arc furnace would be inefficient because of the high cost of power and lack of scrap availability in Australia.*" Accessible here <https://www.argusmedia.com/news/2189095-green-steel-20-years-away-bluescope-steel>

disproportionately affect communities with substantial mining and steel production sectors, such as the Illawarra.

Finally, the Chamber notes that there are numerous separate but interrelated policy initiatives being undertaken in the hydrogen space at all levels of government. The Chamber recommends that these initiatives be aligned, to the greatest extent practicable, with a view to ensuring clear and consistent messaging thereby avoiding unnecessary confusion for business. Clear messaging should help promote the required investment and ultimately the realisation of policy objectives in this area. To this end, the Chamber supports the establishment of inter/intragovernmental hydrogen authorities to coordinate policy and planning on hydrogen.

Most importantly, and on behalf of all our members, the Chamber reiterates that our region's complete economic recovery will not be possible without supporting infrastructure connectivity to match its growth; particularly road and rail services. The future growth and prosperity of the Illawarra, and any prospective hydrogen industry, relies on this transport connectivity being steadily improved in line with demonstrated need.

About the Illawarra Business Chamber

The Illawarra Business Chamber is the region's peak business advocacy organisation and the regional chamber representing businesses and local chambers across the Illawarra-Shoalhaven, as well the South Coast and Capital regions. The Illawarra Business Chamber is a division of Business NSW – a founding member of the Australian Chamber of Commerce and Industry and is a vocal advocate for opportunities to grow the economy and create more jobs for the Illawarra community.

Illawarra First is the top tier of the Chamber membership, comprising a select group of leading businesses, that collectively seek to progress key priorities for regional development, such as improving transport connectivity with Sydney, realising greater value from existing strategic infrastructure and leveraging competitive advantages to bolster economic growth.

We look forward to further engagement on the development of a hydrogen industry in NSW and maximising the potential of this important growth sector for the Illawarra community.

Thank you in advance for your consideration. Please do not hesitate to contact us via _____ or on _____ if any clarification, follow up or further discussions as required.

Kind regards,

Adam Zarth

Executive Director

Illawarra Business Chamber and Illawarra First