



STANDING COMMITTEE ON STATE DEVELOPMENT

NSW Government Response

Development of a hydrogen industry in New South Wales

March 2022



Response

The NSW Government welcomes the Standing Committee on State Development's report and recommendations on the development of a hydrogen industry. NSW has the potential to become a global green hydrogen superpower, supplying the world with the clean fuels and zero-emissions products it increasingly demands. The report highlighted the critical role of Government along with the key opportunities and barriers to the development of hydrogen industry in NSW. The NSW Hydrogen Strategy, released on 13 October 2021, delivers on the committee's recommendations and places NSW at the forefront of the development of this critical new industry. Implementation of the strategy is well underway, with the major policy initiatives expected to be in place by the end of 2022 so NSW can achieve its ambitious 2030 industry development and decarbonisation objectives.

	Recommendation	Response
1	That the NSW Government prioritise finalising and publishing a hydrogen strategy that includes its intentions for funding, policy and regulation.	<p>Support.</p> <p>On 13 October 2021, the NSW Government released the NSW Hydrogen Strategy, which brings together the Government's existing and new policies into a framework to support the development of a commercial hydrogen industry in NSW. The strategy will deliver an estimated \$3 billion of incentives to reduce the cost of hydrogen and attract investment to the state. It includes a total of 60 actions across the hydrogen value chain to enable industry development, lay infrastructure foundations and drive rapid scale. The strategy also includes specific actions to put in place hydrogen ready regulatory frameworks that will enable the large-scale production, storage, distribution and use of hydrogen across NSW.</p>

	Recommendation	Response
2	<p>That the NSW Government establish a cross-sector taskforce from across the government to support the state's hydrogen strategy, address any cross-sector barriers and engage with the National Hydrogen Project Team.</p>	<p>Support.</p> <p>In May 2020, the Department of Planning and Environment established a cross-government executive steering committee, supported by officer level subcommittees, to oversee the development of the NSW Hydrogen Strategy. Input was provided from across Government in relation to key issues for development of the hydrogen industry, including safety, regulations, planning, investment attraction and regional collaboration. The executive steering committee remains in place and is the primary governance body to coordinate efforts across Government for the strategy's implementation. The Department of Planning and Environment has also been leading ongoing engagement with the National Hydrogen Project Team on behalf of the Government since its inception in 2019 and will continue to do so during the strategy's implementation.</p> <p>In December 2021, the Government established the Net Zero Emissions and Clean Economy Board to support implementation of the Government's net zero plans and programs, within which hydrogen is expected to play an important role. The Board is chaired by Dr Kerry Schott AO and comprises members from industry, research and not for profit sectors. The Board's role includes providing advice on the design of Net Zero programs, opportunities for low emissions research and industries in NSW and strategies to support existing industries to adopt low or zero greenhouse gas emissions technologies.</p>
3	<p>That the NSW Government commission a study into alternative large scale storage options for hydrogen.</p>	<p>Support.</p> <p>Under the NSW Hydrogen Strategy, the Government is developing a state-wide strategic hydrogen infrastructure masterplan to compare the relative merits of locations for large-scale hydrogen production and the different storage and distribution options for potential demand centres. This study will help guide industry and Government decision making in relation to the production and storage of hundreds to thousands of megawatts equivalent hydrogen production capacity.</p>

	Recommendation	Response
4	That the NSW Government continue to support and monitor the development of hydrogen hubs in the Illawarra and Hunter regions.	<p>Support.</p> <p>In October 2021, the Government opened applications for the \$70 million hydrogen hub initiative, which is providing grant funding to support the establishment of hydrogen hubs in the Illawarra and Hunter regions. The Government expects to award grant funding to successful projects before the end of 2022. The strategy is also delivering a range of incentives to support these hubs to scale, including electricity network charge concessions, the hydrogen target under the Energy Security Safeguard, development of precinct decarbonisation roadmaps to identify and support common use infrastructure and financial support for large-scale transformative industrial projects under the Net Zero Industry and Innovation Program.</p> <p>The development of hydrogen hubs will also be supported through the Government's Special Activation Precincts (SAP). In addition to the Hunter and Illawarra, the SAPs are promising locations for new hydrogen hubs, as they will bring together planning and investment support services to enable industrial and commercial infrastructure projects. The SAPs will benefit from Government-led studies, efficient planning determinations, Government led development and infrastructure investment under the \$4.2 billion Snowy Hydrogen Legacy Fund. Already the Regional Growth NSW Development Corporation has committed to funding a hydrogen reticulation network to supply industrial customers across Wagga Wagga and is investigating opportunities for the reticulation network's hydrogen supply.</p>

	Recommendation	Response
5	That the NSW Government invest in demonstration projects with priority given to diesel replacement projects.	<p>Support.</p> <p>Under the NSW Hydrogen Strategy, the Government is supporting demonstration projects through its hydrogen hub and hydrogen refuelling network initiatives. Proposals for the hydrogen hub initiative are being assessed against a range of criteria, including value for money, to ensure projects have strategic value for growth of the hydrogen industry in NSW. This includes prioritising proposals that activate new markets for hydrogen, such as replacing diesel in heavy transport applications. Replacement of diesel is also being supported under the hydrogen refuelling network initiative, which aims to establish hydrogen refuelling corridors along major transport routes that service heavy vehicle diesel fleets. This initiative will help unlock the heavy transport sector as a new market for hydrogen while supporting the decarbonisation of the state's heavy vehicle fleet. This work will build off the \$500,000 already awarded through the Government's Port Kembla Community Investment Fund to a hydrogen powered truck and refuelling trial, which is expected to be operational in 2022.</p>

	Recommendation	Response
6	<p>That the NSW Government create local demand for hydrogen by:</p> <ul style="list-style-type: none"> • developing and publishing a policy pathway for gas blending • considering the use of hydrogen fuel cell vehicles in the public transport network. 	<p>Support.</p> <p>Under the NSW Hydrogen Strategy, the Government has set a stretch target of 10 per cent hydrogen blending in the gas network by 2030. To support this target, the Government is updating the state's regulatory framework for the gas network to enable hydrogen blending. To align with national policy settings, the Government is contributing to National Hydrogen Project Team's gas blending work program, which will include a review of national legislation, determining the maximum blending limit for hydrogen and developing a hydrogen certification of origin scheme. The Government will also provide financial support to research and industry organisations investigating safety, standards, injection requirements and economics of hydrogen blending in the gas network.</p> <p>The NSW Hydrogen Strategy includes a NSW Government heavy vehicle fleet target of 20 per cent hydrogen vehicles by 2030. Achieving this target will put an estimated 1800 hydrogen heavy vehicles on the road, generating demand for approximately 10,000 tonnes of hydrogen per annum. Work is already underway to determine where hydrogen buses can be most effectively used as part of the Government's zero emission bus fleet transition. The Government is also completing a feasibility study for a hydrogen train trial on a regional network.</p>

	Recommendation	Response
7	<p>That the NSW Government prepare for the transition of the workforce to meet the needs of an emerging hydrogen sector by conducting a study to:</p> <ul style="list-style-type: none"> • understand the current skills base • identify the gaps that may need to be addressed by future training • develop the appropriate safety standards. 	<p>Support.</p> <p>In addition to supporting the establishment of hubs, which will enable ‘learning by doing’ and knowledge sharing to grow hydrogen related skills in our workforce, the Government will be engaging with and dedicating resources to industry and training institutions to develop a complementary and holistic approach to hydrogen industry skills development and training. The Government will also support the skills sector to update and deliver relevant curriculum for hydrogen occupations, ensuring that NSW maintains and grows its highly skilled workforce across its regions.</p> <p>Under the strategy, the Government is dedicating resources to research organisations, Standards Australia and the National Hydrogen Project Team, to accelerate the development of national standards for safe hydrogen production, storage, handling, distribution and use that are contemporary, best practice and enable access to cost-effective supply chains.</p> <p>The Government is also supporting coal mining communities through the Royalties for Rejuvenation Fund. The scope of this fund may include supporting the skills development for emerging industries including the hydrogen sector in the Hunter and Illawarra regions.</p>