

Office of Energy and Climate Change

NSW hydrogen regulatory guide

December 2023



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The NSW Hydrogen Strategy

The NSW Hydrogen Strategy, released in October 2021, sets out the NSW Government’s policy to support the development of a commercial green hydrogen industry in NSW. Within this strategy, the NSW Government committed to reviewing regulatory frameworks to enable the safe production, distribution and use of hydrogen (see Actions 34, 47 and 48).

Action	Description
Action 34	Identify and make any necessary updates to NSW legislation and regulations relevant to the safe use and distribution of hydrogen in transport applications at scale. This includes the <i>Dangerous Goods Act (Road and Rail) Act 2008</i> , <i>Heavy Vehicle (Adoption of National Law Act) Act 2013</i> and <i>Transport Administration Act 1988</i> .
Action 47	Review and make any necessary amendments to NSW legislation to enable the safe use of hydrogen in the gas network, including the: <i>Gas Supply Act 1996</i> , <i>Gas Supply (Safety and Network Management) Regulation 2013</i> and <i>Gas Supply (Natural Gas Retail) Regulation 2014</i> <i>National Gas (New South Wales) Act 2008</i> and <i>National Gas (NSW) Law Pipelines Act 1967</i> and <i>Pipelines Regulation 2013</i> <i>Gas and Electricity (Consumer Safety) Act 2017</i> and <i>Gas and Electricity (Consumer Safety) Regulation 2018</i> .
Action 48	Contribute to the National Hydrogen Project Team's gas blending work program. This will include a review of legislation, determining the maximum blending limit for hydrogen and developing a hydrogen certification scheme.

The NSW Government also committed to the National Hydrogen Strategy, which includes actions to ensure responsive regulation. Action 4.3 below is being led by the Australian Government’s Legal Frameworks Review Working Group.

Action	Description
4.1	Agree for each jurisdiction to review its existing legislation, regulations and standards as needed to determine whether their respective legal frameworks can support hydrogen safety and hydrogen industry development.
4.2	Agree to consider the principles and prioritisation criteria set out in the preliminary legal review, and the legislation, regulations, and standards it identified when undertaking the reviews outlined in 4.1.
4.3	<p>Agree to coordinate reviews of legal frameworks where practical, and work together to:</p> <ul style="list-style-type: none"> • support the development of standards for the hydrogen industry, including technical safety standards, noting the role of Standards Australia • consider and evaluate regulatory models to address and support: • hydrogen safety, noting the role of SafeWork Australia and state-based safety agencies • hydrogen industry development with the aim of developing a nationally consistent approach as far as practicable • where necessary, amend existing legislation and regulations or draft new legislation to address hydrogen safety and support hydrogen industry development.

About hydrogen

How hydrogen is made

Hydrogen is a versatile energy carrier and feedstock (raw material), primarily created by passing an electric current through water (electrolysis), or by reacting hydrocarbons such as methane or coal with steam (steam methane reforming). Currently, manufactured hydrogen mostly comes from steam methane reforming, which releases greenhouse gas emissions.

If produced from renewable energy sources, hydrogen has the potential to drive decarbonisation across the hard-to-abate sectors of our economy. In recent years, government policies and industry actions across the world have worked towards commercialising renewable hydrogen to achieve net zero objectives.

How hydrogen is transported

Hydrogen can be transported as a pressurised gas or in liquid form after being cryogenically cooled. It can also be converted to carriers or derivatives such as ammonia or methanol and transported in those forms. These carriers and derivatives can be used as is, or be converted back to hydrogen. Hydrogen and its derivatives can be transported in containers on vehicles, trains or vessels, or distributed using pipelines.

How hydrogen is used

While hydrogen has historically been used for industrial processes, its versatility allows it to be used across a range of applications, with water as the only by-product. Like fossil fuels, hydrogen can be combusted for industrial and residential heating. When combined with oxygen in a fuel cell (the reverse process of electrolysis), hydrogen generates electricity that can power our grid, homes, remote off-grid sites and vehicles.

Hydrogen can also be used as a feedstock to create synthetic fuels that power aircraft and ships and as a reductant to replace coking coal to manufacture steel. As an energy carrier, hydrogen or products made using hydrogen (such as ammonia, liquid organic hydrocarbons or steel) can be used to transport energy overseas and over long distances more easily than electricity.

Using this guide

This guide contains an overview of the legislation and regulations governing hydrogen supply chain activities in NSW. It has been prepared to help hydrogen producers and users understand their regulatory obligations.

Key supply chain activities are shown in the [NSW hydrogen regulatory map](#), from upstream inputs and production of hydrogen and its derivatives (such as ammonia, methanol and sustainable aviation fuel), through to storage and distribution and then downstream end-use.

You can use the line reference numbers in the regulatory map to locate guidance for each activity in the [regulatory information table](#).

You can also find web resources for each activity in the [appendix](#).

Disclaimer

This guide only provides general information. For your specific project, you should make your own enquiries and obtain professional advice.

We will periodically update the guide to reflect the latest changes to legislation and regulations. Please understand that the information contained in this publication is based on knowledge and understanding at the time of writing.

Contact

If you have any questions regarding the information in this document, please contact us at hydrogen@planning.nsw.gov.au

Abbreviations

Abbreviation	Full name
ADG Code	Australian Code for the Transport of Dangerous Goods by Road & Rail
ADRs	<i>Australian Design Rules (Cth)</i>
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AMSA	Australian Maritime Safety Authority
AS	Australian Standard
CASA	Civil Aviation Safety Authority
CASR	<i>Civil Aviation Safety Regulations 1998 (Cth)</i>
Cth	Commonwealth
DITRDCA	Department of Infrastructure, Transport, Regional Development, Communications and the Arts (Australian Government)
DPE	Department of Planning and Environment
DGA	<i>Dangerous Goods (Road and Rail Transport) Act 2008 (NSW)</i>
DGR	<i>Dangerous Goods (Road and Rail Transport) Regulation 2022 (NSW)</i>
DNSP	Distribution network service provider
EPA	Environment Protection Authority
EPA Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
GECSA	<i>Gas and Electricity (Consumer Safety) Act 2017 (NSW)</i>
GECSR	<i>Gas and Electricity (Consumer Safety) Regulation 2018 (NSW)</i>
GCM	Gross combination mass

GSA	<i>Gas Supply Act 1996 (NSW)</i>
GVM	Gross vehicle mass
Heavy Vehicle Reg	<i>Heavy Vehicle (Vehicle Standards) National Regulation 2013 (NSW)</i>
IPART	Independent Pricing and Regulatory Tribunal
kL	Kilolitre
LFRWG	Legal Frameworks Review Working Group
LGA	<i>Local Government Act 1993 (NSW)</i>
LHEV	Light hybrid electric vehicle
Light Vehicle Standards Rules	Schedule 2 of the <i>Road Transport (Vehicle Registration) Regulation 2017 (NSW)</i>
MEG	Mining, Exploration and Geoscience
MHF	Major hazard facility
Modification Order 2013	Vehicle Safety Compliance Certification Scheme Declaration of Modification or Class of Modification Order 2013.
NEM	National electricity market
NER	National Electricity Rules
NHVR	National Heavy Vehicle Regulator
NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority
NRAR	Natural Resources Access Regulator
NSW	New South Wales
OECC	Office of Energy and Climate Change
ONRSR	Office of the National Rail Safety Regulator
POEO Act	<i>Protection of the Environment Operations Act 1997 (NSW)</i>

POEO Waste Reg	<i>Protection of the Environment Operations (Waste) Regulation 2014 (NSW)</i>
Road Transport Reg	<i>Road Transport (Vehicle Registration) Regulation 2017 (NSW)</i>
RVSA	<i>Road Vehicle Standards Act 2018 (Cth)</i>
SAF	Sustainable aviation fuel
SAPS	Standalone power systems
SSD	State significant development
SSI	State significant infrastructure
TfNSW	Transport for NSW
VSB	Vehicle Standards Bulletin
VSI 6	Vehicle Standards Information No. 6
WAL	Water access licence
WHS Act	<i>Work Health and Safety Act 2011 (NSW)</i>
WHS Reg	<i>Work Health and Safety Regulation 2017 (NSW)</i>

Regulatory information table

1: Obtaining and using fresh or desalinated water for hydrogen production

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Section 68 of the LGA	The local council grants approval for water supply work. DPE Water issues WALs for SSDs and SSI.	Accessing and obtaining water supplies. Setting up water supply infrastructure for sole use at a production premises.	Obtain council approval for water supply work.
Chapter 3 Parts 2 and 3 of the <i>Water Management Act 2000</i> (NSW)	WaterNSW issues WALs and associated approvals for non-SSD/SSI entities. NRAR assesses compliance.	Accessing and obtaining water supplies. Setting up water supply infrastructure for sole use at a production premises.	Obtain a WAL. Obtain water supply work and water use approvals from WaterNSW, if the project is not a SSD or SSI.

2: Operating a sewage recycling facility to obtain water for hydrogen production

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Section 68 of the LGA Regulation 48 of the <i>Local Government (General) Regulation 2021</i> (NSW)	The local council	Operating a sewerage management facility for sole use at a production premises, either on the same premises or on different premises. The facility does not have an environment protection licence.	Obtain council approval for operating a system of sewage management.
Chapter 3 and Schedule 1 clause 36 of the POEO Act	NSW EPA	Sewage treatment with a processing capacity over 2,500 persons equivalent or 750 kL per day.	Obtain an environment protection licence and comply with its conditions.

3: Disposal of water by-products used for hydrogen production

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Part 5.3 and section 43 of the POEO Act	NSW EPA	Causing water pollution through discharges to waters.	Obtain an environment protection licence and comply with its conditions.

4: Transporting water to a production facility via a dedicated water pipeline

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Paragraph 5(1)(d) and Parts 3 and 4 of the <i>Pipelines Act 1967</i> (NSW)	OECC	Water obtained off-site under a WAL is transported to the site using a dedicated water pipeline.	Generally, no pipeline licence is required, but one can be obtained voluntarily for easement purposes. If a licence is obtained, comply with its conditions.

5: Accessing off-site renewable electricity to produce hydrogen or its derivatives

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Chapters 5 and 5A of the NER	AEMO and the relevant electricity network service provider.	Obtaining access to the electricity network.	Apply for a transmission network connection to the NEM with Transgrid, or apply for an electricity distribution network connection with Ausgrid, Endeavour Energy or Essential Energy.

6: Purchasing off-site renewable electricity to produce hydrogen or its derivatives

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Chapter 2 of the NER	AEMO	<p>Registering as an electricity market customer rather than using an electricity retailer.</p> <p>You must have an annual consumption of at least 100 megawatt hours to avoid needing a retailer.</p>	Comply with AEMO registration conditions.

7: Producing electricity on a wind farm

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Chapter 3 and Schedule 1 clause 17 of the POEO Act	NSW EPA	<p>Operating a wind farm facility that carries out the activity of 'electricity works (wind farms)' in Schedule 1 clause 17 of the POEO Act.</p> <p>Note: This includes offshore windfarms in coastal waters where NSW has jurisdiction (up to 3 nautical miles from the shoreline).</p>	Obtain an environment protection licence and comply with its conditions.

8: Providing electricity generation or storage services in SAPS using hydrogen fuel cells*

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Rule 2.3C of the NER	<p>The AER regulates DNSPs in SAPS.</p> <p>AEMO regulates contestable electricity generation activities within distributor-led SAPS.</p> <p>There are no regulators for third-party SAPS.</p>	Establishment and operation of generation services within regulated SAPS.	<p>Register with AEMO as a Market SAPS Resource Provider and comply with Market SAPS Resource Provider obligations under the NER.</p> <p>These obligations do not apply to third-party SAPS.</p>

* Currently not regulated or reforms underway: [A 2023 statutory review of the GECSA](#) recommended amending the Act to include hydrogen, which would enable certification of hydrogen appliances with an inlet pressure up to 200 kilopascals.

9: Transporting biomass (waste) on road to a production facility

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Part 4 and Schedule 1 of the POEO Waste Reg	NSW EPA	Waste, of a type described in Schedule 1 Part 1 of the POEO Waste Reg, is transported on road.	<p>To transport waste:</p> <ul style="list-style-type: none"> • complete relevant parts of the waste transport certificate for the waste and certify that these parts have been completed accurately • carry this certificate in the vehicle used for transportation of the waste • ensure there is consignment authorisation. <p>Liquid waste must be tracked using the EPA's online system and a liquid waste levy applies.</p>

10: Producing hydrogen or its derivatives using biomass feedstock (waste) produced by another party and obtained from another location

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Part 4 and Schedule 1 of POEO Waste Reg	NSW EPA	Operating a site that receives and processes waste for production of hydrogen or its derivatives.	To receive waste, ensure that particulars are recorded on the waste certificate, including: <ul style="list-style-type: none">• the date on which the waste arrived• whether the receiving facility has accepted or rejected the waste• the date on which the waste was processed• the method of processing used.

11: Installing an electrolyser

Acts/Regulations	Regulator	Regulatory triggers	Obligations
<p>Part 5 of the GECSA</p> <p>Parts 8 and 9 of the GECSR</p>	<p>NSW Fair Trading</p>	<p>Installing, repairing or removing an electrolyser.</p> <p>This is classified as 'electrical installation work'.</p>	<p>Electrical installation work:</p> <ul style="list-style-type: none"> • requires an electrical licence • requires distribution authorisation before the connection is energised • must be carried out in accordance with the Australian/New Zealand Wiring Rules. <p>A Certificate of Compliance for electrical work must be submitted within 7 days of an electrical installation.</p>

12: Producing, handling or storing hydrogen or its derivatives*

Relevant supply chain areas include storage, production, blending, onsite pipelines, fuel cell generators, industrial facilities and refuelling stations.

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Parts 2, 3 and 6 of the <i>Industrial Chemicals Act 2019</i> (Cth)	The Australian Government Department of Health and Aged Care	Planning to manufacture or import any quantity of hydrogen and its derivatives.	Register with the Australian Industrial Chemicals Introduction Scheme and comply with reporting obligations.

Acts/Regulations	Regulator	Regulatory triggers	Obligations
<p>Chapter 3 of the WHS Reg covers general risk and workplace management</p> <p>Part 7.1 and Schedules 11, 12 and 13 of the WHS Reg apply to the production, use, handling and storage of hazardous chemicals.</p>	SafeWork NSW	<p>Any use, handling and storage of hydrogen or its derivatives (hazardous chemicals) in a workplace.</p> <p>Operating on the same property (workplace) that uses, handles and stores hazardous chemicals.</p> <p>Note: A hazardous chemicals facility can also be a MHF.</p>	<p>Obligations such as labelling and register maintenance apply to all quantities for workplaces. These obligations apply to non-workplace premises where there is:</p> <ul style="list-style-type: none"> • 50L of hydrogen or more • More than 250L of methanol • Any quantity of ammonia. <p>Hydrogen is classified as a ‘flammable gas’ to which:</p> <ul style="list-style-type: none"> • placard obligations apply from the 200L threshold, and • manifest obligations from the 5,000L threshold. <p>Note: Derivatives with a different hazard chemical classification from hydrogen can also have different thresholds.</p>

* Currently not regulated or reforms underway: The LFRWG is currently developing [National Codes of Best Practice for Hydrogen and Ammonia Production Safety](#). The Codes will provide

transparency of regulatory pathways and guidance on best practice standards for the lifecycle of hydrogen and ammonia production facilities.

13: Producing, handling or storing large quantities of hydrogen or its derivatives*

Relevant supply chain areas include storage, production, fuel cell generators, industrial facilities and refuelling stations.

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Chapter 9 and Schedules 15-18 of the WHS Reg	SafeWork NSW	Reaching the MHF threshold by holding more than 50 tonnes of hydrogen, 200 tonnes of ammonia or 50,000 tonnes of methanol, or being determined by SafeWork NSW to be a MHF. Operating on the same property as a MHF.	Notify SafeWork NSW within 3 months if intending to operate a facility with more than 10% of threshold quantities, and whenever there is an increase to quantities at the facility. If SafeWork determines that a facility is a MHF: <ul style="list-style-type: none"> develop required safety arrangements, and obtain a MHF licence.

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Chapter 3 and Schedule 1 clause 8 of the POEO Act	NSW EPA	Operating a facility with the capacity to produce, blend, recover or use more than 1,000 tonnes of hydrogen, ammonia or methanol (dangerous goods) per year. Above these thresholds, the facility is carrying out the activity of 'dangerous goods production'.	Obtain an environment protection licence and comply with its conditions.

* Currently not regulated or reforms underway: The LFRWG is currently developing [National Codes of Best Practice for Hydrogen and Ammonia Production Safety](#). The Codes will provide transparency of regulatory pathways and guidance on best practice standards for the lifecycle of hydrogen and ammonia production facilities.

14: Blending hydrogen with natural gas at a facility*

Acts/Regulations	Regulator	Regulatory triggers	Obligations
National Gas (NSW) Law	AER	Operating a facility with the capacity to blend hydrogen with natural gas.	No specific obligations under the National Gas (NSW) Law currently.

* Currently not regulated or reforms underway: New obligations for blend processing service providers will apply once the [Statutes Amendment \(National Energy Laws\) \(Other Gases\) Bill 2023](#) takes effect.

These include:

- publishing access-related information
- negotiating in good faith with prospective users
- not hindering access to their facility, and
- complying with ring-fencing provisions.

15: Exploration and mining of hydrogen

Acts/Regulations	Regulator	Regulatory triggers	Obligations
<p><i>Mining Act 1992</i> (NSW)</p> <p><i>Mining Regulation 2016</i> (NSW)</p> <p>Division 4.3 of the EPA Act</p>	<p>MEG grants exploration licences and mining leases and regulates exploration and mining activities.</p> <p>NSW DPE is consulted as part of the planning approval process.</p>	<p>Hydrogen exploration and mining within NSW.</p>	<p>Currently, no area in NSW has been released for hydrogen exploration or mining.</p> <p>To explore or mine for hydrogen in a released area, obtain:</p> <ul style="list-style-type: none"> • authorisation under the Mining Act 1992 (NSW), and • development consent under the EPA Act.

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Chapter 3 and Schedule 1 clause 29 of the POEO Act	NSW EPA	<p>The hydrogen mining has disturbed, is disturbing or will disturb a total surface area of more than 4 hectares of land by:</p> <ul style="list-style-type: none">a) clearing or excavating, orb) constructing dams, ponds, drains, roads, railways or conveyors, orc) storing or depositing overburden, ore or its products or tailings.	Obtain an environment protection licence and comply with its conditions.

16: Underground storage of hydrogen*

Acts/Regulations	Regulator	Regulatory triggers	Obligations
<i>Work Health and Safety (Mines and Petroleum Sites) Act 2013 (NSW)</i>	NSW Resources Regulator (MEG)	Injecting hydrogen into an underground cavern or geological structure for storage.	<p>Comply with any requirement made by an inspector, mining safety officer or investigator.</p> <p>Notify the NSW Resources Regulator immediately after becoming aware of a notifiable incident and preserve the incident site.</p>

* Currently not regulated or reforms underway: Underground and geological storage of hydrogen do not currently have any specific requirements.

17: Storing hydrogen or its derivatives, including in hydrogen cylinders

Relevant supply chain areas include storage, production, fuel cell generators and industrial facilities.

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Chapter 3 and Schedule 1 clause 9 of the POEO Act	NSW EPA	<p>Operating a facility with the capacity to store hydrogen or its derivatives of a quantity more than:</p> <ul style="list-style-type: none"> • 20 tonnes as pressurised gases • 200 tonnes as liquified gases • 2000 tonnes in other chemical forms. <p>Above these thresholds, the facility is carrying out the activity of 'general chemicals storage'.</p>	Obtain an environment protection licence and comply with its conditions.

18: Using hydrogen cylinders in a workplace

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Clause 224 of the WHS Reg	SafeWork NSW	Using hydrogen (gas) cylinders in a workplace.	Regular inspections are required, as well as markings showing the most recent inspection date.

19: Preparing hydrogen or its derivatives for transportation via roads or rail

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Parts 3 to 5 of the DGR	SafeWork NSW	Hydrogen or its derivatives are being readied for transport by road or rail.	Comply with classification, packaging and labelling requirements.

20: Transporting hydrogen or its derivatives as a good by road or rail*

Acts/Regulations	Regulator	Regulatory triggers	Obligations
<p>Part 2 of the DGA DGR ADG Code</p> <p>Note: The Sydney tunnels travel prohibition applies to placard loads under both Part 7, Division 4 of the DGR and Rule 300-2 of the Road Rules.</p>	<p>The NSW EPA, SafeWork NSW and TfNSW regulate the transportation of dangerous goods by road and rail.</p> <p>The NHVR regulates transportation of dangerous goods via heavy vehicles.</p> <p>The ONRSR regulates rail safety in Australia.</p>	<p>Transportation of hydrogen or its derivatives (dangerous goods):</p> <p>a) in a receptacle with a capacity of more than 500L, or</p> <p>b) more than 500kg of dangerous goods in a receptacle.</p> <p>The dangerous goods classification is determined in accordance with the ADG Code.</p> <p>Note: These obligations do not apply when hydrogen or its derivatives are in the vehicle's fuel tank only.</p>	<p>Obtain dangerous goods driver licences and dangerous goods vehicle licences.</p> <p>Comply with other safety obligations as required, including relating to training, transport documentation, placarding, and, in some cases, avoiding certain roads in Sydney.</p> <p>Any person involved in the transportation of hydrogen must ensure that goods are transported in a safe manner.</p> <p>Vehicles transporting hydrogen require design approval under the DGR. Currently, the approval process involves consulting the NSW EPA, SafeWork NSW, NHVR and TfNSW.</p>

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Part 6.1 of the <i>Road Transport Act 2013</i> (NSW)	TfNSW and the NHVR	<p>Transportation of hydrogen or its derivatives (dangerous goods) in a:</p> <ul style="list-style-type: none"> a) a coach, or b) a motor vehicle that has a GVM exceeding 13.9 tonnes, or c) a motor vehicle and trailer combination that has a GCM exceeding 13.9 tonnes. <p>The dangerous goods classification is determined in accordance with the ADG Code.</p> <p>Note: These obligations do not apply when hydrogen or its derivatives are in the vehicle's fuel tank only.</p>	Fit monitoring devices to vehicles used to transport placard loads of hydrogen and keep vehicle movement records.

* Currently not regulated or reforms underway: Until an Australian standard is developed for hydrogen tube-vehicle approval, the approval process involves consulting the NSW EPA, SafeWork NSW, NHVR and TfNSW.

21: Importing or manufacturing, and selling light hydrogen vehicles that can be driven on NSW roads*

Acts/Regulations	Regulator	Regulatory triggers	Obligations
RVSA	DITRDCA	Importing light hydrogen vehicles (a vehicle with a gross vehicle mass equal to or less than 4.5 tonnes).	Seek approval to enter vehicles on the Register of Approved Vehicles and ensure ongoing compliance with national road vehicle standards.
Part 4 of the Road Transport Reg. Light Vehicle Standards Rules Category M of the ADRs	TfNSW	Selling light hydrogen vehicles to be driven on NSW roads.	Comply with light vehicle requirements and procedures that include those relating to: <ul style="list-style-type: none"> • mass, dimension and load • number plates • labelling • construction and performance.

* Currently not regulated or reforms underway: Public consultation on [ADR 110/00](#) has concluded. This ADR proposes to address safety issues with high voltage systems and the high-pressure storage systems associated with hydrogen vehicles.

22: Importing, manufacturing and selling heavy hydrogen vehicles that can be driven on NSW roads*

Acts/Regulations	Regulator	Regulatory triggers	Obligations
RVSA	DITRDCA	Importing heavy hydrogen vehicles (a vehicle with a gross vehicle mass greater than 4.5 tonnes).	Seek approval to enter vehicles on the Register of Approved Vehicles and ensure ongoing compliance with national road vehicle standards.
Part 5 of the Road Transport Reg Categories N and T of the ADRs Heavy Vehicle Reg The Heavy Vehicle National Law and Regulations as applied by the <i>Heavy Vehicle (Adoption of National Law) Act 2013</i> (NSW)	TfNSW and the NHVR	Selling heavy hydrogen vehicles to be driven on NSW roads.	Comply with heavy vehicle requirements and procedures that include those relating to: <ul style="list-style-type: none"> • general safety • axle mass • vehicle marking, configuration and dimension • braking systems • lights and reflectors.

* Currently not regulated or reforms underway: The LFRWG is coordinating with transport regulatory agencies to identify areas for reform.

23: Maintaining light hydrogen vehicles*

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Light Vehicle Standards Rules. Category M of the ADRs	TfNSW	Owning and operating a light hydrogen vehicle.	Comply with ongoing performance standards under applicable ADRs and the Light Vehicle Standards Rules.
<i>Motor Dealers and Repairers Act 2013 (NSW)</i> <i>Motor Dealers and Repairers Regulation 2014</i>	NSW Fair Trading	'Repair work' on a light hydrogen vehicle. 'Repair work' means work of a class or classes prescribed by regulation 34 of the <i>Motor Dealers and Repairers Regulation 2014 (NSW)</i> .	Repair work on a light hydrogen vehicle must be done by a tradesperson with a current motor vehicle repairer licence (if they run a vehicle repair business) and a motor vehicle tradesperson certificate. To obtain a certificate for a class or classes of repair work, the tradesperson must have completed the prescribed qualification set out in the <i>Motor Dealers and Repairers Regulation 2014 (NSW)</i> .

* Currently not regulated or reforms underway: There is currently no prescribed class or qualification for repair work on a light hydrogen vehicle.

24: Maintaining heavy hydrogen vehicles*

Acts/Regulations	Regulator	Regulatory triggers	Obligations
<p>Part 5 of the Road Transport Reg</p> <p>Categories N and T of the ADRs</p> <p>Schedule 2 of the Heavy Vehicle Reg</p> <p>The Heavy Vehicle National Law and Regulations as applied by the <i>Heavy Vehicle (Adoption of National Law) Act 2013</i> (NSW)</p>	TfNSW and the NHVR	Owning and operating a heavy hydrogen vehicle.	<p>Obtain from the NHVR an exemption permit for higher steer and drive axles, and gross vehicle mass. This permit is available as part of a 2 year trial.</p> <p>Driving on certain roads may also require an access permit.</p> <p>Comply with ongoing performance standards under both the ADRs and Heavy Vehicle Reg.</p> <p>Comply with inspections by TfNSW, or the NHVR at Heavy Vehicle Safety Stations.</p>

Acts/Regulations	Regulator	Regulatory triggers	Obligations
<p><i>Motor Dealers and Repairers Act 2013 (NSW)</i></p> <p><i>Motor Dealers and Repairers Regulation 2014</i></p>	NSW Fair Trading	<p>'Repair work' on a heavy hydrogen vehicle.</p> <p>'Repair work' means work of a class or classes prescribed by regulation 34 of the <i>Motor Dealers and Repairers Regulation 2014 (NSW)</i>.</p>	<p>Repair work on a heavy hydrogen vehicle must be done by a tradesperson with a current motor vehicle repairer licence (if they run a vehicle repair business) and a motor vehicle tradesperson certificate.</p> <p>To obtain a certificate for a class or classes of repair work, the tradesperson must have completed the prescribed qualification set out in the <i>Motor Dealers and Repairers Regulation 2014 (NSW)</i>.</p>

* Currently not regulated or reforms underway: There is currently no prescribed class or qualification for repair work on a heavy hydrogen vehicle. There are also no particular requirements for these vehicles at inspections.

25: Modifying light hydrogen vehicles*

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Section 64 of the Road Transport Reg Light Vehicle Standards Rules VSI 6 Modification Order 2013 National Code of Practice for Light Vehicle Construction and Modification (VSB 14)	TfNSW	Modifying the engine of a light hydrogen vehicle so that it can consume hydrogen as a fuel or as an additive in the combustion process.	Obtain a compliance certificate (once available) and modification plate issued by a licensed certifier on the Vehicle Safety and Compliance Certification Scheme. A modified light vehicle must continue to meet applicable requirements in the Light Vehicle Standards Rules.

* Currently not regulated or reforms underway: A compliance certificate is not yet available under the Vehicle Safety and Compliance Certification Scheme as there is no assessment, training or accreditation framework for modified hydrogen vehicles.

26: Modifying heavy hydrogen vehicles*

Acts/Regulations	Regulator	Regulatory triggers	Obligations
National Code of Practice for Heavy Vehicle Modifications (VSB 6) Categories N and T of the ADRs Schedule 2 of the Heavy Vehicle Reg	TfNSW and the NHVR	Modifying the engine of a heavy hydrogen vehicle so that it can consume hydrogen as a fuel or as an additive in the combustion process.	Comply with the modification requirements in VSB6. Obtain a compliance certificate (once available) and modification plate issued by a licensed certifier on the Vehicle Safety and Compliance Certification Scheme. A modified heavy vehicle must continue to meet applicable requirements in the ADRs and Heavy Vehicle Reg.

* Currently not regulated or reforms underway: A compliance certificate is not yet available under the Vehicle Safety and Compliance Certification Scheme as there is no assessment, training or accreditation framework for modified hydrogen vehicles.

27: Selling hydrogen as a fuel in a service station*

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Sections 47C and 58 of the <i>Fair Trading Act 1987</i> (NSW) <i>Fair Trading Regulation 2019</i> (NSW)	NSW Fair Trading	Selling hydrogen as a fuel in a service station.	Display service station retail prices for hydrogen on-site.

* Currently not regulated or reforms underway: There is no obligation to publish retail prices for hydrogen online, as hydrogen has not been added to [FuelCheck Order 2016](#).

28: Refuelling an aircraft with hydrogen, SAF or a fuel blend

Acts/Regulations	Regulator	Regulatory triggers	Obligations
<p>Division 91.D.6 of the CASR</p> <p>Clauses 121.240, 133.195, 135.220 and 138.300 of the CASR apply to aircraft used by air operators that hold an Australian air transport Air Operator's Certificate, or aerial work certificate, from CASA.</p> <p>Sections 6.60, 8.78 and 24.06 of <i>Part 139 (Aerodromes) Manual of Standards 2019</i> apply to certified aerodromes.</p>	CASA	Refuelling an aircraft with hydrogen, SAF or a fuel blend at an airport.	<p>Adhere to safety requirements such as ensuring:</p> <ul style="list-style-type: none"> • an aircraft is fuelled with fuel that is not contaminated, degraded or inappropriate • an aircraft and the equipment used to fuel the aircraft are electrically bonded • at least 2 fire extinguishers are close by.

29: Operating a hydrogen-powered train*

Acts/Regulations	Regulator	Regulatory triggers	Obligations
<p>Part 3 of the <i>Rail Safety National Law</i> (NSW) No 82a of 2012</p> <p>Part 2 of the <i>Rail Safety National Law National Regulations</i> 2012 (NSW)</p>	ONRSR	Operating a hydrogen-powered train to transport passengers or freight on public lands or in public areas.	<p>Comply with conditions for obtaining accreditation for railway operations, which includes having a safety management system.</p> <p>Adhere to rail transport operator duties such as ensuring, so far as is reasonably practicable, the safety of the operator's railway operations.</p>
Schedule 1 clause 33B of the POEO Act	NSW EPA	Operating a hydrogen-powered train to transport passengers or freight on public lands or in public areas.	Obtain an environment protection licence and comply with its conditions.

* Currently not regulated or reforms underway: There are no standards for the use of hydrogen-powered trains.

30: Injecting into the natural gas distribution network

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Part 4 of the GSA The National Gas Rules	OECC	Obtaining access to the natural gas network.	Apply to the relevant gas network operator for a connection.

31: Transporting hydrogen or blended hydrogen via the natural gas distribution network

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Part 2 of the GSA Parts 2, 3 and 4 of the Gas Supply (Safety and Network Management) Regulation 2022	IPART is the licence administrator and compliance regulator for natural gas reticulation authorisation holders (reticulators). OECC administers the GSA	Hydrogen or a compliant mixture of hydrogen and natural gas is transported in a pipeline that is part of the gas distribution network. The pipeline crosses public land, and the owner does not obtain a pipelines licence.	Obtain a reticulator's authorisation for the purpose of conveying hydrogen or blended hydrogen. Ensure that the hydrogen or hydrogen blend is compliant with the standards set out in AS 4564 – 2020 (general purpose natural gas). Lodge a safety and operating plan and comply with its requirements.

Acts/Regulations	Regulator	Regulatory triggers	Obligations
The National Gas (NSW) Law The National Gas Rules	AER	Hydrogen or blended hydrogen is transported in the gas distribution network.	Comply with obligations for distributors where relevant under the National Gas (NSW) Law and National Gas Rules.

32: Selling residential or commercial gas appliances that make use of or burn hydrogen[^]

Relevant hydrogen value chain areas include residential and commercial use appliances, and electricity generation (SAPS).

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Part 3 of the GECSA Part 5 of the GECSR	NSW Fair Trading.	Selling: a) residential gas (hydrogen) appliances, or b) commercial appliances with an inlet pressure of less than 200 kilopascals.	Obtain certification for gas appliances from a certifier registered by NSW Fair Trading. All gas appliances must also be appropriately labelled.

* Currently not regulated or reforms underway: [A 2023 statutory review of the GECSA](#) recommended amending the Act to include hydrogen, which would enable certification of hydrogen appliances with an inlet pressure up to 200 kilopascals.

The LFRWG is also developing [National Codes of Best Practice relating to the certification and approval of hydrogen and ammonia appliances](#).

33: Installing hydrogen appliances in a residential or commercial setting*

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Part 2 and Part 3 of the Home Building Act 1989 (NSW) Part 5 of the GECSA	NSW Fair Trading	Installing hydrogen appliances. This is treated as 'specialist work' under the Home Building Act 1989 (NSW).	Carry out gasfitting work under: a) a supervisor certificate, or b) a tradesperson certificate if under general supervision, or c) the immediate supervision of the holder of a supervisor certificate. You must also: a) hold a contractor licence or an owner-builder permit, or b) be employed by the holder of a contractor licence or permit.

* Currently not regulated or reforms underway: Currently, there is no accreditation course for a gasfitting licence covering hydrogen appliances.

34: Transporting hydrogen or blended hydrogen via a pipeline less than 10 km in length

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Part 3 of the GSA	OECC regulates pipelines with a licence.	<p>Hydrogen is transported in a dedicated pipeline that:</p> <ul style="list-style-type: none"> • leaves the production/ storage site boundary, • is less than 10 km, • does not enter public land or is not sold to a customer, and • is not required by the Energy Minister to be licensed. 	No pipeline licence is required, but one can be obtained voluntarily for easement purposes.

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Part 7.1, Divisions 1 and 9 of the WHS Reg for pipelines without a licence	SafeWork NSW regulates pipelines without a licence.	Hydrogen is transported in a dedicated pipeline that: <ul data-bbox="810 524 1102 1196" style="list-style-type: none">• leaves the production/ storage site boundary,• is less than 10 km,• does not enter public land or is not sold to a customer, and• is not required by the Energy Minister to be licensed.	Notify SafeWork about details of the pipeline before it is commissioned and adhere to labelling and sign-posting requirements.

35: Transporting hydrogen or blended hydrogen via a pipeline 10 km or more in length

Acts/Regulations	Regulator	Regulatory triggers	Obligations
<p>Parts 1, 3 and 4 of the Pipelines Act 1967 (NSW)</p> <p>Divisions 3 and 4 of the Pipelines Regulation 2023 (NSW)</p>	OECC	<p>Hydrogen is transported in a dedicated pipeline that:</p> <ul style="list-style-type: none"> leaves the production/storage site boundary, is 10 km or longer, and does not connect to a gas distribution network. 	<p>Obtain a:</p> <ol style="list-style-type: none"> licence to construct or operate a pipeline, or a gas distribution licence, <p>and comply with its conditions.</p> <p>Implement a:</p> <ul style="list-style-type: none"> pipeline management system, and pipeline management plan.

36: Using port infrastructure to prepare hydrogen or its derivatives for exporting

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Part 6A of the <i>Ports and Maritime Administration Act 1995</i> (NSW)	Port Authority of NSW manages the security and operational safety needs of commercial shipping in NSW.	Hydrogen or its derivatives enter port boundaries as defined under the Regulation and port facilities are used.	A mooring licence is needed to moor a domestic commercial vessel at a NSW port.
Part 4, Part 7 and Schedule 4 of the <i>Ports and Maritime Administration Regulation 2021</i> (NSW)	TfNSW oversees strategies that improve efficiency to and from NSW's ports. NSW Ports manages Port Botany and Port Kembla. Port of Newcastle manages the Newcastle Port.		Dangerous goods obligations such as obtaining port entry approval and the segregation of dangerous goods apply for compressed hydrogen and its derivatives.

37: Bunkering vessels at a NSW port

Acts/Regulations	Regulator	Regulatory triggers	Obligations
<p>Part 6A of the <i>Ports and Maritime Administration Act 1995</i> (NSW)</p> <p>Part 7 of the <i>Ports and Maritime Administration Regulation 2021</i> (NSW)</p>	Port Authority of NSW	<p>Bunkering (refuelling) a:</p> <p>a) regulated Australian vessel, or</p> <p>b) foreign flagged vessels, or</p> <p>c) domestic commercial vessel</p> <p>at a NSW port.</p>	Obtain approval for a bunker notification and comply with the conditions of the written approval.

38: Operating domestic commercial vessels fuelled by hydrogen or its derivatives

Acts/Regulations	Regulator	Regulatory triggers	Obligations
<p><i>Maritime Safety (Domestic Commercial Vessel) National Law Act 2012 (Cth)</i></p> <p>Marine Order 504 (Certificates of operation and operation requirements – national law) 2018</p> <p>Marine Order 503 (Certificates of survey – national law) 2018</p> <p>National Standard for Commercial Vessels</p>	AMSA	Certification, construction, design and operation of domestic commercial vessels in NSW waters and within Australia’s exclusive economic zone.	<p>Comply with certification, construction, design, equipment, and operation requirements for domestic commercial vessels as set out in the <i>Maritime Safety (Domestic Commercial Vessel) National Law Act 2012 (Cth)</i> and the National Standards for Commercial Vessels.</p>

39: Operating regulated Australian vessels (RAVs) or foreign flagged vessels (FFVs) fuelled by hydrogen or its derivatives*

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Chapter 3, Part 2 of the <i>Navigation Act 2012</i> (Cth) <i>Marine Order 12 (Construction – subdivision and stability, machinery and electrical installations) 2016</i> <i>Marine Order 31 (SOLAS and non-SOLAS certification) 2019</i>	AMSA	Operating a RAV or FFV that uses hydrogen or its derivatives as fuel.	Obtain a certificate for the fuel storage and distribution systems.

* Currently not regulated or reforms underway: Interim safety requirements are being developed for hydrogen- and ammonia-fuelled RAVs and FFVs.

40: Transporting hydrogen or its derivatives via domestic commercial vessels

Acts/Regulations	Regulator	Regulatory triggers	Obligations
<p>Part 3 of the <i>Maritime Safety (Domestic Commercial Vessel) National Law Act</i> (Cth)</p> <p>Marine Order 504 (Certificates of operation and operation requirements – national law) 2018</p> <p>Marine Order 503 (Certificates of survey – national law) 2018</p> <p>National Standard for Commercial Vessels</p>	AMSA	Hydrogen or its derivatives are transported via a domestic commercial vessel.	<p>Domestic commercial vessel owners, masters and crew are required to meet their general safety duties under Part 3 of the <i>Maritime Safety (Domestic Commercial Vessel) National Law Act</i> (Cth).</p> <p>The domestic commercial vessel owner must ensure that a risk assessment of the vessel operation is carried out that identifies any potential risks involved in the transport of hydrogen or its derivatives. The owner must ensure that procedures are developed to address any risks identified.</p>

41: Transporting hydrogen or its derivatives via RAVs or FFVs in Australian waters

Acts/Regulations	Regulator	Regulatory triggers	Obligations
<p>Chapter 3, Part 4, Division 4 of the <i>Navigation Act 2012</i> (Cth)</p> <p>Australian Maritime Safety Authority <i>Marine Order 41 (Carriage of dangerous goods) 2017</i></p> <p>Australian Maritime Safety Authority <i>Marine Order 94 (Marine pollution prevention -packaged harmful substances) 2014</i></p>	AMSA	Hydrogen or its derivatives are transported via an Australian or foreign-owned marine vessel as cargo in packaged form (hydrogen in a metal hydride storage system).	<p>A document of compliance, handling and regulator notification requirements apply for transporting dangerous goods.</p> <p>Additional obligations apply to:</p> <ul style="list-style-type: none"> harmful substances in packaged form under the <i>Marine Pollution Act 2012</i> (NSW), and pollution incidents under the <i>Protection of the Sea (Prevention of pollution from ships) Act 1983</i>.

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Chapter 3, Part 4, Division 4 of the <i>Navigation Act 2012</i> (Cth) Australian Maritime Safety Authority <i>Marine Order 17 (Chemical tankers and gas carriers) 2016</i>	AMSA	Hydrogen or its derivatives are transported via an Australian or foreign-owned marine vessel in Australian waters as cargo in cargo tanks in bulk form.	Obtain a certificate of fitness for the carriage of liquified gases in bulk for the vessel.

42: Transporting hydrogen via an offshore pipeline in NSW waters*

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Part 4, Division 4 of the <i>Petroleum (Offshore) Act 1982</i> (NSW)	Department of Regional NSW	Transportation of hydrogen via an offshore pipeline in NSW waters.	Obtain a pipeline licence providing approval to construct and operate an offshore pipeline.

* Currently not regulated or reforms underway: Hydrogen is currently not within the scope of offshore pipelines regulated under the *Petroleum (Offshore) Act 1982* (NSW).

43: Offshore renewable electricity production in Commonwealth waters

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Parts 3 and 4 of the <i>Offshore Electricity Infrastructure Act 2021</i> (Cth)	Offshore Infrastructure Regulator (NOPSEMA)	Development of renewable electricity in Commonwealth waters (at least 3 nautical miles from the shoreline) for	Obtain a: <ul style="list-style-type: none"> • feasibility licence • commercial licence

Acts/Regulations	Regulator	Regulatory triggers	Obligations
		hydrogen production onshore or offshore.	<ul style="list-style-type: none"> transmission and infrastructure licence. <p>to produce, store and transport electricity to an onshore or offshore electrolyser.</p>

44: Offshore hydrogen production in Commonwealth waters

Acts/Regulations	Regulator	Regulatory triggers	Obligations
Parts 3 and 4 of the <i>Offshore Electricity Infrastructure Act 2021</i> (Cth)	Offshore Infrastructure Regulator (NOPSEMA)	Production of hydrogen in Commonwealth waters as a renewable energy product.	<p>Obtain a:</p> <ul style="list-style-type: none"> feasibility licence, commercial licence, and transmission and infrastructure licence <p>to produce, store and transport hydrogen.</p>

Additional notes

- **Planning** – Planning processes are not within the scope of this document and are covered in detail in the Hydrogen Guideline by NSW DPE.
- **Construction** – Construction and maintenance of commercial and residential facilities across the hydrogen value chain (production, refuelling facilities, etc.) may soon have licensing needs under the proposed Building Act 2024 (NSW).
- **On-site water plumbing and drainage work** – Obligations under the *Plumbing and Drainage Act 2011* (NSW) may soon be moved to the proposed *Building Act 2024* (NSW).
- **Work health and safety** – Under the WHS Act and Reg, a ‘person conducting a business or undertaking’ has a duty to eliminate or minimise risks to health and safety of workers at work. The person with management or control of a workplace also has a duty to make sure, so far as is reasonably practicable, that there are no health and safety risks to anyone working in or visiting the workplace. A workplace can include a vehicle, vessel, aircraft, mobile structure or any installation on water that a worker might be at while at work. SafeWork NSW is the relevant regulator.
- **Hydrogen plant and appliances** – Under the WHS Act and Reg, key parties involved in the development, importing, selling, construction and installation of hydrogen plant and appliances must ensure that these actions do not trigger health or safety risks. SafeWork NSW is the relevant regulator.
- **Crown Land** – Additional considerations apply for hydrogen projects on dedicated or reserved Crown Land. Crown Land definitions and obligations can be found in the Crown Land Management Act 2016 (NSW). NSW DPE is the relevant regulator.
- **Commonwealth jurisdiction** – Matters including but not limited to shipping, trade (imports and exports), aircrafts, international treaties and national environmental policies are under the Federal Government’s jurisdiction. Please see the Commonwealth hydrogen regulation list for any additional obligations under Commonwealth legislation.

Appendix

Reference list

No.	Supply chain activity	Websites for further information
1.	Obtaining and using fresh or desalinated water for hydrogen production.	<ul style="list-style-type: none"> • https://www.dpie.nsw.gov.au/water/water-assist • https://www.waternsw.com.au/customer-services/water-licensing/approvals • https://www.waternsw.com.au/customer-services/water-licensing/licences • https://www.federationcouncil.nsw.gov.au/Building-Planning/Building-Renovating/What-Approvals-Do-I-Need/Local-Government-Act-Approval
2.	Operating a sewage recycling facility to obtain water for hydrogen production.	<ul style="list-style-type: none"> • https://www.dpie.nsw.gov.au/water/water-assist • https://www.federationcouncil.nsw.gov.au/Building-Planning/Building-Renovating/What-Approvals-Do-I-Need/Local-Government-Act-Approval
3.	Disposal of water by-products used for hydrogen production.	<ul style="list-style-type: none"> • https://www.epa.nsw.gov.au/licensing-and-regulation/licensing/environment-protection-licences/licensing-under-poeo-act-1997/licensing-to-regulate-water-pollution
4.	Transporting water to a production facility via a dedicated water pipeline.	<ul style="list-style-type: none"> • https://www.energy.nsw.gov.au/nsw-plans-and-progress/regulation-and-policy/our-role-networks/pipelines

No.	Supply chain activity	Websites for further information
5.	Accessing off-site renewable electricity for hydrogen production or its derivatives.	<ul style="list-style-type: none"> • Ausgrid: https://www.ausgrid.com.au/Connections • Endeavour Energy: https://www.endeavourenergy.com.au/connections • Essential Energy: https://www.essentialenergy.com.au/getting-started • Transgrid: https://www.transgrid.com.au/about-us/network/network-connections
6.	Purchasing off-site renewable electricity for production of hydrogen or its derivatives.	<ul style="list-style-type: none"> • https://aemo.com.au/en/energy-systems/electricity/national-electricity-market-nem/participate-in-the-market/registration/register-as-a-customer-in-the-nem • https://energyinnovationtoolkit.gov.au/navigating-energy-regulation/regulation-navigator
7.	Producing electricity on a wind farm.	<ul style="list-style-type: none"> • https://www.epa.nsw.gov.au/licensing-and-regulation/licensing/environment-protection-licences/wind-farm-regulation/wind-farm-regulation-qa#Q5
8.	Providing electricity generation or storage services in SAPs using hydrogen fuel cells.	<ul style="list-style-type: none"> • https://www.aer.gov.au/system/files/Ring-fencing%20Guideline%20Update%20-%20Fact-sheet%20-%20A%20guide%20for%20SAPS%20resource%20providers.pdf • https://energyinnovationtoolkit.gov.au/article/use-case/microgrids

No.	Supply chain activity	Websites for further information
9.	Transporting biomass (waste) on road to a production facility.	<ul style="list-style-type: none"> • https://www.epa.nsw.gov.au/your-environment/waste/tracking-transporting-hazardous-waste/tracking-liquid-waste • https://www.epa.nsw.gov.au/your-environment/waste/tracking-transporting-hazardous-waste/online-waste-tracking
10.	Producing hydrogen and SAF using biomass feedstock (waste) produced by another party and obtained from another location.	<ul style="list-style-type: none"> • https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/waste/22p3822-eligible-waste-fuels.pdf • https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/waste/21p3147-energy-from-waste-framework.pdf?la=en&hash=9159714DB4AE35931ACB404A88093B71AB4BBA85
11.	Installing an electrolyser.	<ul style="list-style-type: none"> • https://www.fairtrading.nsw.gov.au/trades-and-businesses/licensing-and-qualifications/electrical-licences • https://www.fairtrading.nsw.gov.au/trades-and-businesses/construction-and-trade-essentials/electricians/electrical-compliance-requirements
12.	Producing, handling or storing hydrogen or its derivatives.	<ul style="list-style-type: none"> • https://www.industrialchemicals.gov.au/ • https://www.safework.nsw.gov.au/hazards-a-z/hazardous-chemical/general-requirements
13.	Producing, handling or storing large quantities of hydrogen or its derivatives.	<ul style="list-style-type: none"> • https://www.safework.nsw.gov.au/hazards-a-z/hazardous-chemical/major-hazard-facilities • https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/licensing/22p3981-guide-to-licensing.pdf

No.	Supply chain activity	Websites for further information
14.	Blending hydrogen with natural gas at a facility.	<ul style="list-style-type: none"> • https://www.aemc.gov.au/regulation/energy-rules/national-gas-rules/part-summaries • https://www.energy.gov.au/government-priorities/energy-and-climate-change-ministerial-council/working-groups/gas/extending-national-gas-regulatory-framework-hydrogen-and-renewable-gases
15.	Exploration and mining of hydrogen.	<ul style="list-style-type: none"> • https://meg.resourcesregulator.nsw.gov.au/mining-and-exploration/applying-to-explore-and-mine-nsw
16.	Underground storage of hydrogen.	<ul style="list-style-type: none"> • https://meg.resourcesregulator.nsw.gov.au/
17.	Storing hydrogen or its derivatives, including in hydrogen cylinders.	<ul style="list-style-type: none"> • https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/licensing/22p3981-guide-to-licensing.pdf
18.	Using hydrogen cylinders in a workplace.	<ul style="list-style-type: none"> • https://www.safework.nsw.gov.au/hazards-a-z/hazardous-chemical/general-requirements
19.	Preparing hydrogen or its derivatives for transportation via roads or rail.	<ul style="list-style-type: none"> • https://www.service.nsw.gov.au/transaction/comply-dangerous-goods-legislation • Dangerous goods (nsw.gov.au)

No.	Supply chain activity	Websites for further information
20.	Transporting hydrogen or its derivatives as a good by road or rail.	<ul style="list-style-type: none"> • https://www.epa.nsw.gov.au/your-environment/dangerous-goods/dangerous-goods-nsw-overview • Prohibited routes for dangerous goods transport (nsw.gov.au) • https://www.nsw.gov.au/driving-boating-and-transport/roads-safety-and-rules/heavy-vehicles/vehicle-monitors
21.	Importing or manufacturing, and selling light hydrogen vehicles that can be driven on NSW roads.	<ul style="list-style-type: none"> • https://www.infrastructure.gov.au/infrastructure-transport-vehicles/vehicles/importing-road-vehicle-australia#8-steps • https://www.nsw.gov.au/driving-boating-and-transport/vehicle-registration/how-to/vehicle-standards/vehicle-standards-information-sheets-vsi • https://www.infrastructure.gov.au/infrastructure-transport-vehicles/vehicles/vehicle-design-regulation/australian-design-rules • https://www.ntc.gov.au/laws-and-regulations/australian-light-vehicle-standards-rules
22.	Importing or manufacturing, and selling heavy hydrogen vehicles that can be driven on NSW roads.	<ul style="list-style-type: none"> • https://www.infrastructure.gov.au/infrastructure-transport-vehicles/vehicles/importing-road-vehicle-australia#8-steps • https://www.nsw.gov.au/driving-boating-and-transport/vehicle-registration/how-to/vehicle-standards/vehicle-standards-information-sheets-vsi • https://www.infrastructure.gov.au/infrastructure-transport-vehicles/vehicles/vehicle-design-regulation/australian-design-rules

No.	Supply chain activity	Websites for further information
23.	Maintaining light hydrogen vehicles.	<ul style="list-style-type: none"><li data-bbox="651 344 1390 517">• https://www.fairtrading.nsw.gov.au/trades-and-businesses/business-essentials/information-for-specific-industries/motor-vehicle-repairers/motor-vehicle-repairer-licence.<li data-bbox="651 539 1410 667">• https://www.nsw.gov.au/driving-boating-and-transport/vehicle-registration/how-to/vehicle-standards/vehicle-standards-information-sheets-vsi<li data-bbox="651 689 1374 817">• https://www.infrastructure.gov.au/infrastructure-transport-vehicles/vehicles/vehicle-design-regulation/australian-design-rules<li data-bbox="651 840 1410 967">• https://www.transport.nsw.gov.au/operations/roads-and-waterways/business-and-industry/vehicle-examiners-certifiers-and-assessors-3-4<li data-bbox="651 990 1410 1117">• https://www.transport.nsw.gov.au/operations/roads-and-waterways/business-and-industry/vehicle-examiners-certifiers-and-assessors-4

No.	Supply chain activity	Websites for further information
24.	Maintaining heavy hydrogen vehicles.	<ul style="list-style-type: none"> • https://www.fairtrading.nsw.gov.au/trades-and-businesses/business-essentials/information-for-specific-industries/motor-vehicle-repairers/motor-vehicle-repairer-licence • https://www.nsw.gov.au/driving-boating-and-transport/vehicle-registration/how-to/vehicle-standards/vehicle-standards-information-sheets-vsi • https://www.transport.nsw.gov.au/operations/roads-and-waterways/business-and-industry/heavy-vehicles/registering-a-heavy-vehicle-4#:~:text=The%20body%20and%20cab%20must,examiner%20can%20thoroughly%20inspect%20it. • https://www.transport.nsw.gov.au/operations/roads-and-waterways/business-and-industry/heavy-vehicles/compliance/heavy-vehicle-safety • Exemption from compliance with a heavy vehicle standard NHVR • Towards Net Zero Emissions Freight Policy Transport for NSW • https://www.transport.nsw.gov.au/operations/roads-and-waterways/business-and-industry/vehicle-examiners-certifiers-and-assessors-3-0
25.	Modifying light hydrogen vehicles.	<ul style="list-style-type: none"> • https://www.nsw.gov.au/sites/default/files/2021-02/RMS-13.464-Light-vehicle-modifications-Vehicle-Standards-Information-No-6-November-2013.pdf • https://www.nsw.gov.au/driving-boating-and-transport/vehicle-registration/how-to-register/registering-a-used-or-secondhand-vehicle/modified-and-non-standard-vehicles

No.	Supply chain activity	Websites for further information
26.	Modifying heavy hydrogen vehicles.	<ul style="list-style-type: none"> • https://www.nhvr.gov.au/safety-accreditation-compliance/vehicle-standards-and-modifications/heavy-vehicle-modifications • https://www.nhvr.gov.au/safety-accreditation-compliance/vehicle-standards-and-modifications/vehicle-standards-bulletin-6
27.	Selling hydrogen as a fuel in a service station.	<ul style="list-style-type: none"> • https://www.fairtrading.nsw.gov.au/trades-and-businesses/business-essentials/service-stations
28.	Refuelling an aircraft with hydrogen, SAF or a fuel blend.	<ul style="list-style-type: none"> • Civil Aviation Safety Regulations 1998 (legislation.gov.au) • Part 139 (Aerodromes) Manual of Standards 2019 (legislation.gov.au) • Episode 11: Easy decision making and refuelling Civil Aviation Safety Authority (casa.gov.au)
29.	Operating a hydrogen-powered train.	<ul style="list-style-type: none"> • https://www.onrsr.com.au/publications/rail-safety-national-law-related-legislation/safety-responsibilities • Regulation of railway activities (nsw.gov.au) • Locomotive class register (nsw.gov.au)
30.	Injecting into the natural gas distribution network.	<ul style="list-style-type: none"> • https://www.energy.nsw.gov.au/households/guides-and-helpful-advice/being-more-energy-efficient/understand-your-energy-bill/gas-operator

No.	Supply chain activity	Websites for further information
31.	Transporting hydrogen or blended hydrogen via the natural gas distribution network.	<ul style="list-style-type: none"> • https://www.energy.nsw.gov.au/nsw-plans-and-progress/regulation-and-policy/our-role-networks/gas-networks • https://energyinnovationtoolkit.gov.au/navigating-energy-regulation/regulation-navigator • https://www.ipart.nsw.gov.au/Home/Industries/Energy/Energy-Networks-Safety-Reliability-and-Compliance/Gas-networks/Applications-Variations-Transfers-and-Cancellations
32.	Selling residential or commercial gas appliances that make use of or burn hydrogen.	<ul style="list-style-type: none"> • https://www.fairtrading.nsw.gov.au/buying-products-and-services/product-and-service-safety/gas-safety
33.	Installing hydrogen appliances and cylinders in a residential or commercial setting.	<ul style="list-style-type: none"> • https://www.fairtrading.nsw.gov.au/trades-and-businesses/licensing-and-qualifications/plumbing,-draining-and-gasfitting
34.	Transporting hydrogen or blended hydrogen via a pipeline less than 10km in length.	<ul style="list-style-type: none"> • https://www.safework.nsw.gov.au/hazards-a-z/hazardous-chemical/general-requirements/general-requirements-accordion/managing-pipelines
35.	Transporting hydrogen or blended hydrogen via a pipeline 10km or more in length.	<ul style="list-style-type: none"> • https://ablis.business.gov.au/service/nsw/licence-to-construct-or-operate-a-pipeline/16536 • https://www.energy.nsw.gov.au/nsw-plans-and-progress/regulation-and-policy/our-role-networks/pipelines

No.	Supply chain activity	Websites for further information
36.	Using port infrastructure to prepare hydrogen or its derivatives for exporting.	<ul style="list-style-type: none"> • https://www.nswports.com.au/port-users • https://www.portauthoritynsw.com.au/sydney-harbour/port-services-facilities/dangerous-goods/
37.	Bunkering vessels at a NSW port.	<ul style="list-style-type: none"> • https://www.portauthoritynsw.com.au/port-kembla/port-services-facilities/notices-forms-permits/
38.	Operating domestic commercial vessels fuelled by hydrogen or its derivatives.	<ul style="list-style-type: none"> • https://www.infrastructure.gov.au/infrastructure-transport-vehicles/maritime/maritime-safety/national-maritime-safety-regulator • https://www.amsa.gov.au/vessels-operators/domestic-commercial-vessels • https://www.amsa.gov.au/about/regulations-and-standards/national-law-act-2012 • https://www.amsa.gov.au/about/regulations-and-standards/national-standard-commercial-vessels-nscv • https://www.amsa.gov.au/vessels-operators/national-standard-commercial-vessels-nscv/novel-vessels-f3
39.	Operating Regulated Australian Vessels or Foreign Flagged Vessels fuelled by hydrogen or methanol.	<ul style="list-style-type: none"> • What is a regulated Australian vessel? (amsa.gov.au) • Navigation Act 2012 (amsa.gov.au)

No.	Supply chain activity	Websites for further information
40.	Transporting hydrogen or its derivatives via a domestic commercial vessel.	<ul style="list-style-type: none"> • https://www.amsa.gov.au/about/regulations-and-standards/national-law-act-2012 • https://www.amsa.gov.au/about/regulations-and-standards/marine-order-504-certificates-operation-and-operation-requirements
41.	Transporting hydrogen or its derivatives via Regulated Australian Vessels or Foreign Flagged Vessels in Australian waters.	<ul style="list-style-type: none"> • https://www.amsa.gov.au/vessels-operators/cargoes-and-dangerous-goods/cargo-regulations • https://www.amsa.gov.au/marine-environment/marine-pollution/marpol-and-its-implementation-australia • https://www.amsa.gov.au/about/regulations-and-standards/marine-order-17-chemical-tankers-and-gas-carriers
42.	Transporting hydrogen via an offshore pipeline in NSW waters.	<ul style="list-style-type: none"> • https://ablis.business.gov.au/service/nsw/offshore-pipeline-licence/16831
43.	Offshore renewable electricity production in Commonwealth waters.	<ul style="list-style-type: none"> • https://www.dcceew.gov.au/energy/renewable/establishing-offshore-infrastructure
44.	Offshore hydrogen production in Commonwealth waters.	<ul style="list-style-type: none"> • https://www.dcceew.gov.au/energy/renewable/establishing-offshore-infrastructure



For more information

If you have any questions, please contact us via the email below and we will reply to your enquiry as soon as possible. For more information on the NSW Hydrogen Strategy, please visit our [website](#).

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