

Queensland Hydrogen Investor Toolkit

May 2020



Find out how we're invested in growing Queensland at qld.gov.au/investedinqld

Connect with us @GrowingQld



Copyright

This publication is protected by the *Copyright Act 1968*.

Licence



This work is licensed by the Department of State Development, Tourism and Innovation under a Creative Commons Attribution-Non-Commercial-No Derivative Works (CC BY-NC-ND) 4.0 Australia licence. To view a copy of this licence, visit: <http://creativecommons.org.au/>

You are free to copy, communicate and adapt this publication, as long as you attribute it as follows:
© State of Queensland, Department of State Development, Tourism and Innovation, April 2020.

Disclaimer

While every care has been taken in preparing this publication, the State of Queensland accepts no responsibility for decisions or actions taken as a result of any data, information, statement or advice, expressed or implied, contained within. To the best of our knowledge, the content was correct at the time of publishing.



The Queensland Government is committed to providing accessible services to Queenslanders of all cultural and linguistic backgrounds. If you have difficulty understanding this publication and need a translator, please call the Translating and Interpreting Service (TIS National) on telephone 131 450 and ask them to contact the Queensland Department of State Development, Tourism and Innovation on (07) 3452 7100.

Copies of this publication are available on our website at www.dsdmip.qld.gov.au and further copies are available upon request to:

Department of State Development, Tourism and Innovation
PO Box 15009
City East Queensland 4002
Phone: 13QGOV (13 74 68)
Email: info@dsdmip.qld.gov.au
www.dsdmip.qld.gov

Contents

1.0	Introduction	3
1.1	Background.....	3
1.2	Purpose.....	3
2.0	Investor enquiries	4
3.0	Key considerations in Queensland	5
4.0	Choosing a site	6
4.1	Land tenure	6
4.2	Freehold land	6
4.3	Non-freehold land.....	6
4.4	Unallocated state land.....	6
5.0	State Development Areas	7
6.0	Economic Development Queensland	8
7.0	Renewable energy.....	9
8.0	Regulatory processes for development in Queensland.....	10
8.1	Development assessment	10
8.2	Local government planning schemes.....	10
8.3	State Assessment Referral Agency	11
8.4	Coordinated projects.....	11
8.5	Prescribed projects	12
9.0	Prescribed thresholds under legislation.....	13
10.0	Examples of other approvals that may be required	17
11.0	Water	19
12.0	Vehicles.....	20
13.0	Useful resources and contacts.....	21

1.0 Introduction

1.1 Background

Around the globe hydrogen has a growing role in the drive to decarbonise energy markets and the demand for renewable hydrogen is growing rapidly. Hydrogen has many potential applications including providing emission-free fuel sources, electricity grid stabilisation and various industrial applications.

Already recognised as one of the world's great energy commodity exporters, Queensland is well positioned for the production and export of hydrogen having access to significant renewable resources, land and established ports.

The Queensland Hydrogen Industry Strategy (QHIS)¹ was released by the Queensland Government in May 2019. The objective of the strategy is to drive the development of an economically sustainable and competitive hydrogen industry that creates economic growth, opportunities for new export markets and generates the highly skilled jobs of the future, while supporting the transition to a low-emission economy.

The National Hydrogen Strategy was released by the COAG Energy Council in November 2019 and is available at www.industry.gov.au.

1.2 Purpose

The Queensland Hydrogen Investor Toolkit (the toolkit) responds to two actions from the QHIS:

- Action 2.1 of the QHIS is to 'Prepare an investor toolkit to assist private sector proponents with information on developing projects in Queensland' and
- Action 2.2 to 'Provide project facilitation services, including investment facilitation and the application of the powers of the Coordinator-General, to eligible project proponents.

The toolkit has been prepared to assist investors with project planning for hydrogen developments in Queensland. It provides an overview of the planning and other regulatory approvals information in Queensland. Application of this toolkit is most relevant during the feasibility phase of a project, prior to final site selection and design.

This toolkit focuses on 'renewable hydrogen' produced from renewable energy via electrolysis. Not all sections of this toolkit will be relevant to all proposals. It provides general information, contacts and references to seek further detailed assistance. It is advised to seek professional advice in relation to proposals.

It is important to note that this investor toolkit will not be a static document. It will be regularly updated as new information emerges from engagement with project proponents and direct experience with hydrogen projects.

For information on renewable hydrogen projects in Queensland that are public please refer to **Queensland Hydrogen Projects** and for **coordinated projects** under the *State Development and Public Works Organisation Act 1971*.

¹ <https://www.dsdmip.qld.gov.au/resources/strategy/queensland-hydrogen-strategy.pdf>

2.0 Investor enquiries

The Department of State Development, Tourism and Innovation (DSDTI) actively engages with companies to attract investment. Proponents with proposals for hydrogen developments are encouraged to contact the department at hydrogen@dsdmip.qld.gov.au for initial advice. Other facilitation services provided by DSDTI include:

- Project facilitation to assist private proponents to deliver projects that generate jobs and boost economic growth, for example:
 - addressing issues and barriers that inhibit a project's establishment or expansion
 - ensuring a coordinated approach across government
 - providing an exclusive mandate to develop a transaction with government for government assets such as land, information or networks.
- Coordination and filtering of ideas from industry, for prompt referral to appropriate government agencies and decision-makers.
- Pre-lodgement meetings to discuss and plan approval pathways for projects with (or enquiring about) state referral matters.
- For projects declared as Prescribed Projects the Coordinator-General can intervene in approvals processes to ensure they run on time.

The Coordinator-General is an authority to strengthen facilitation and expedite the delivery of large-scale and complex projects which will deliver new jobs and promote investment in Queensland. The Coordinator-General has a range of powers under the *State Development and Public Works Organisation Act 1971* (the State Development and Public Works Organisation Act). The Office of the Coordinator-General works with private sector project proponents to facilitate, develop, assess and manage major project development across the State.

The Office of the Coordinator-General has experience in facilitating the establishment of new industry in Queensland and played an important role in the efficient establishment, assessment and development of the LNG industry in Queensland, through the use of a range of powers under the State Development and Public Works Organisation Act.

3.0 Key considerations in Queensland

The approvals pathways for hydrogen projects will vary significantly depending on the nature and scale of the proposal, the intended location and other factors such as storage options, transportation and use.

Some projects may be located and be of a nature and scale that will have minimal impacts and therefore require little assessment, while others may be complex and require detailed assessment through State and commonwealth processes. As a project proponent, you need to consider planning and environmental requirements under the relevant Australian, Queensland and local government legislation applying to the site.

Project proponents are encouraged to contact the Queensland Government as early as possible to discuss their proposal. There are a range of project facilitation services available that can assist a proponent with identifying the optimal location for a proposed development, advice on potential assessment and approval pathways and ensuring the proponent allows sufficient time in the project plan for the assessment and approval processes.

Initial inquiries can be directed to hydrogen@dndmip.qld.gov.au

Other initial considerations for hydrogen proposals may include:

- surrounding sensitive land uses
- the zoning of the site (industrial, rural, strategic port land etc)
- existing approvals and constraints over the site
- access to appropriate transport infrastructure
- access to existing gas pipeline network
- proximity to ports for export opportunities
- capacity of surrounding area to accommodate new pipelines (if proposed)
- access to other services such as water, sewerage etc.
- access to skilled workforce
- risk factors and mitigation tactics
- potential for co-location with proposed renewable energy projects.

4.0 Choosing a site

4.1 Land tenure

The tenure of land in Queensland may be defined under two broad headings—freehold and non-freehold. Land tenure can be searched under the [Queensland Globe mapping system](#) (under the layer planning cadastre).

4.2 Freehold land

Approximately 28 per cent of the total land area in Queensland is freehold land². Freehold land can be owned outright with no time limit. However, minerals or petroleum in Queensland are generally reserved to the State and the use of the land may be controlled by further legislation.

Freehold land is recorded in the Freehold Land Register and not ordinarily subject to native title considerations, however advice on native title should be sought. In general, it is viewed that freehold land provides the greatest security of tenure for investors.

4.3 Non-freehold land

Non-freehold land is land under the control of the State of Queensland, but may be subject to a lease, license or permit, reserved for a community purpose, dedicated as a road or subject to no tenure at all. *The Land Act 1994* (the Land Act) applies to non-freehold land and is administered by the Department of Natural Resources, Mines and Energy (DNRME).

A term lease, perpetual lease or freehold lease may be granted over State land. A road license and a permit to occupy are available for shorter term, specific occupation. A term lease is granted for a set period of time (between 1–100 years) while perpetual leases have no fixed term and are issued for a specific purpose such as grazing. A freeholding lease is where the landholder previously held a grazing homestead perpetual lease, special lease or a non-competitive lease and agrees to purchase the land and pay the State via instalments over a number of years.

4.4 Unallocated state land

Under Schedule 6 of the Land Act unallocated state land is all land that is not:

- a) freehold land, or land contracted to be granted in fee simple by the State; or
- b) a road or a reserve, or a national park, conservation park, State forest or timber reserve; or
- c) subject to a lease, license or permit issued by or for the State, other than a permit to occupy under this Act issued by the chief executive.

There are a number of criteria to convert unallocated state land to freehold or to grant a lease over unallocated state land. In general land cannot be converted without competition or undertaking a 'most appropriate use assessment' and native title must also be considered.

² <https://www.austrade.gov.au/land-tenure/land-tenure/freehold-land>

5.0 State Development Areas

State Development Areas (SDAs) are clearly defined areas of land planned and managed by Queensland's Office of Coordinator-General to promote economic development in Queensland. SDAs are established by regulation. A number of these are established to support major industrial developments in close proximity to trading ports e.g. Gladstone, Townsville, Abbot Point.

SDAs are typically one of the following:

- industrial hubs for large-scale, heavy industry - mainly located on the coast of Queensland, close to ports, rail and major road networks
- multi-user infrastructure corridors - for the co-location of infrastructure such as rail lines, water and gas pipelines, and electricity transmission lines
- major public infrastructure sites - for example, the Queensland Children's Hospital.

Each SDA is subject to a development scheme which is a regulatory document that controls the planning and development in an SDA. Where the development scheme is silent on matters, other planning instruments (such as local planning schemes and other State legislation) are applicable. There are currently **12 SDAs in Queensland**.

The Coordinator-General can acquire land within an SDA to provide for the establishment of industry. For example, the LNG industry in Queensland was established with assistance of the Coordinator-General's powers to acquire land in the Gladstone SDA and the Callide Infrastructure Corridor SDA.

For further information on State Development Areas contact:

Email: sdainfo@coordinatorgeneral.qld.gov.au

Phone: 1800 001 048 (business hours 8.30 am to 5.00 pm Monday to Friday).

6.0 Economic Development Queensland

Economic Development Queensland (EDQ) is the Queensland Government's specialist land use planning and property development unit. They work with local governments, industry and the community to identify growth opportunities and deliver infrastructure and property projects for Queensland's economic benefit. EDQ operates under the *Economic Development Act 2012* (The Economic Development Act) and is a commercial business unit within DSDTI.

The EDQ property portfolio includes almost 20,000 hectares of industrial land which they develop, sell and manage. This includes land located within SDAs across Queensland. EDQ also manages development projects in some Priority Development Areas (PDAs). PDAs are declared by the Minister for Economic Development Queensland and are parcels of land identified for development to deliver significant benefits to the community.

For further information on Economic Development Queensland contact:

Email: edq@dsmip.qld.gov.au

Phone: 07 3452 7880 (business hours 8.30 am to 5.00 pm Monday to Friday)

www.industrial.edq.com.au

and/or

<https://www.dsmip.qld.gov.au/economic-development-qld/priority-development-areas-and-projects.html>

7.0 Renewable energy

The QHIS focuses on renewable hydrogen production to meet both domestic demand and international customers. Information on renewable energy resources is available through the [**Australian Renewable Energy Mapping Infrastructure**](#).

Detailed information on electricity generation in Queensland (including proposed, under construction or existing generation) is available [**here**](#).

When planning or commencing a renewable energy project, you must obtain access to suitable and available land and follow the relevant development assessment processes. Detailed information is available [**here**](#). This covers the assessment process for both wind farms and large-scale solar projects.

8.0 Regulatory processes for development in Queensland

There are various development assessment pathways in Queensland depending on the scale and complexity of a project. Essentially, development applications are assessed by the local Council while projects requiring multiple complex approvals may be eligible for management and assessment by the Coordinator-General. Development applications in SDAs are assessed by the Coordinator-General.

8.1 Development assessment

A planning approval is required when undertaking 'assessable development'. Development is not limited to just construction and can also occur when changing the use of the land, even if the use is located within the confines of existing built structures (constituting a material change of use).

The main types of development (further defined in the *Planning Act 2016* - the Planning Act) include:

- making a material change of use — a new use of a building, structure or land, or intensifying an existing use (e.g. expanding a service station, or developing a new industrial use on land that was previously a house on a rural lot)
- carrying out building work — includes building, repairing, altering, underpinning and some excavation
- carrying out operational work — making other changes to the land itself (e.g. earthworks, vegetation clearing etc)
- reconfiguring a lot — subdividing land, or carrying out other actions such as amalgamating lots or rearranging boundaries
- carrying out plumbing and drainage work.

Development applications are made by the 'applicant' and are assessed by an 'assessment manager'. Most commonly the assessment manager is the local council however there are instances where the assessment manager is not the local council. Schedule 8 of the *Planning Regulation 2017* (the Planning Regulation) identifies the assessment manager for different types of development.

All development applications go through a process of assessment (the 'DA process') resulting in a decision. The DA process is outlined by the Development Assessment Rules (statutory instrument). The application may also be assessed by a referral agency for specific matters and this process is further described below.

There are three categories of development applied by local governments through their planning schemes. Local governments apply different levels of assessment to development types in their local area.

The three categories (or levels) of development are:

- prohibited — applications for these circumstances cannot be made as these types of developments are not permitted.
- accepted — does not require an application to be made, including if it meets certain conditions
- assessable — requires an application to be made and a development decision to be issued. There are two types of assessable development:
 - code assessable — no public consultation required
 - impact assessable — public consultation required.

8.2 Local government planning schemes

Local governments prepare planning schemes to advance State and regional policies through more detailed local responses (in addition to other requirements under the Planning Act).

Planning schemes set out zones, tables of assessment and codes which outline the criteria which development applications are assessed against (in the 'DA Process').

Generally, an impact assessable application will take more time (sometimes significantly more time) to assess than a code assessable application. Public notification calls for the public to make submissions relating to the proposal which are then considered as part of the decision-making process. Submitters, who have made a properly made submission on impact assessable development applications also have the right to appeal to the court about the decision.

It is recommended that applicants take advantage of councils' pre-lodgement services to gain an understanding of the requirements and assessments related to their proposals that is specific to the local government area it is to be located in.

More on the development application processes can be found at <https://planning.dsdmip.qld.gov.au/>

8.3 State Assessment Referral Agency

The Planning Regulation prescribes when certain types of development require referral to the State for assessment (e.g. development in proximity to state controlled roads, clearing of certain vegetation, development affecting waterways etc). The State Assessment and Referral Agency (SARA) provides a whole-of-government approach to this assessment, by facilitating specialised technical input from a range of state agencies. As stated previously there are some limited circumstances where SARA may also be the assessment manager for an application and in these cases the application is made directly to SARA. Referral of development applications to SARA must be made through its electronic lodgement system MyDAS2.

The State Development Assessment Provisions (SDAP) provides assessment benchmarks to assess applications where the State is the referral agency (or assessment manager). For example, the relevant SDAP code detailing assessment benchmarks for the development of 'hazardous chemical facilities' is State code 21: Hazardous chemical facilities.

SARA also offers a free pre-lodgement service to provide advice about elements of the proposal that will trigger state assessment and how proposals are assessed against the relevant performance benchmarks, prior to submitting an application. SARA is positioned within the Department of State Development, Tourism and Innovation (DSDTI).

More information on SARA's role in the development assessment process can be found [here](#).

8.4 Coordinated projects

The Office of the Coordinator-General uses powers under the State Development and Public Works Organisation Act to evaluate large scale, regionally significant and complex projects, which are declared a coordinated project. The Coordinator-General ensures that environmental, social and economic impacts of coordinated projects are properly managed.

Coordinated projects play a key role in the minerals, energy, manufacturing, transport, tourism, agricultural and infrastructure sectors. Coordinated projects are typically large and complex with the potential to generate significant impacts and benefits that require a comprehensive and coordinated whole-of-government assessment. Declaration of a coordinated project also allows for a more efficient and effective assessment of Commonwealth matters, via the bilateral agreement between the Queensland and Australian Governments

A proponent of a project with one or more of the following characteristics may apply to have it declared a 'coordinated project' under the State Development and Public Works Organisation Act:

- complex approval requirements, involving local, state and or federal governments
- significant environmental effects
- strategic significance to the locality, region or state, including for the infrastructure, economic and social benefits, capital investment or employment opportunities it may provide
- significant infrastructure requirements.

The proponent of a coordinated project must prepare an environmental impact statement (EIS) or impact assessment report (IAR). The Office of the Coordinator General is available to meet with proponents to discuss proposals, the approvals pathways and the process of assessment. Further information about coordinated projects and the Office of the Coordinator General is available [here](#).

The coordinated project assessment pathway sets clear expectations for environmental assessment. For coordinated projects requiring an EIS, project-specific Terms of Reference, outlining assessment requirements, are developed. Amongst other things, Terms of Reference may adopt international standards where there is no relevant State or National standards (e.g. hydrogen technologies and/or standards). Terms of Reference are developed in conjunction with proponents and may include public consultation before finalisation by the Office of the Coordinator-General.

Importantly, in evaluating the impacts of coordinated projects, the Office of the Coordinator-General may set conditions to be included in subsequent local, state and commonwealth approvals.

8.5 Prescribed projects

The Minister responsible for administering the State Development and Public Works Act may, by Gazette Notice, declare a project to be a 'prescribed project'. A prescribed project is one which is of significance, particularly economically and socially, to Queensland or a region.

The types of projects that may be declared prescribed projects include:

- a project in a state development area
- an infrastructure facility (as defined in the State Development and Public Works Organisation Act)
- a project declared a 'coordinated project'
- another project the minister considers is economically or socially significant to Queensland or the region in which the project is to be undertaken, or affects an environmental interest of Queensland or a region.

A prescribed project declaration enables the Coordinator-General, if necessary, to intervene in state and local government approval processes to ensure timely decision-making for the prescribed project.

The Coordinator-General may give notices to a decision-maker for making a decision on the development of a prescribed project to ensure that the assessment process proceeds without undue delay.

This decision-maker may be a state government agency, local government or a government-owned corporation responsible for providing approvals, permits or authorities. The Coordinator-General cannot issue a notice relating to a decision to be made by the Governor in Council or a minister, or decisions outside Queensland.

For prescribed projects, the Coordinator-General can issue a:

- progression notice, which requires the decision-maker to 'progress' the administrative processes necessary to complete the assessment process
- notice to decide, which requires the decision-maker to make the relevant decision within a specified timeframe
- step in notice, which allows the Coordinator-General (with the Minister's approval) to 'step in' and assume responsibility for assessing and deciding on a project, in place of the decision-maker.

9.0 Prescribed thresholds under legislation

Environmentally Relevant Activities (ERAs) are outlined in the *Environmental Protection Regulation 2019* (the Environmental Protection Regulation) and where forming part of a development application are made through SARA. Standalone ERAs can be applied for directly to the Department of Environment and Science (DES). Where hydrogen production or storage is proposed as part of an existing development (with current ERAs), it is possible that this new activity may fit into existing approvals. It is recommended that this be determined through a pre-lodgement meeting with SARA.

Thresholds are also prescribed under other acts and regulations. Note that typically fees are associated with applications, permits and licenses and cost is often determined by the scale of proposal.

ERAs that may be triggered are outlined in the following table. It should be noted that this list has been developed based on ‘typical’ investment leads to date and is not intended to be exhaustive. Proponents are encouraged to contact SARA as early as possible and seek advice on potential ERAs that may apply.

Table 1 – Potential hydrogen triggers and thresholds

<p>ERA 7 Chemical manufacturing (part 2 of schedule 2, Environmental Protection Regulation)</p> <p>‘<i>Chemical manufacturing</i>’ is defined as manufacturing 200t or more in a year.</p> <p>No approval is required for chemical manufacturing under 200t (unless specifically referred to in the Environmental Protection Regulation).</p> <p>For instances where multiple chemicals are manufactured a cumulative threshold may apply. Pre-lodgement meetings with SARA are encouraged to determine if an ERA is applicable.</p>	Organic chemicals:		Inorganic chemicals:	
	Threshold	Aggregate Environmental Score	Threshold	Aggregate Environmental Score
	200t to 1,000t	30	200t to 1,000t	56
	More than 1,000t to 10,000t	66	More than 1,000t to 10,000t	115
	More than 10,000t to 100,000t	139	More than 10,000t to 100,000t	200
	More than 100,000	202	More than 100,000	268

<p>ERA 8 Chemical storage (part 2 of schedule 2, Environmental Protection Regulation)</p> <p><i>'Chemical storage'</i> is defined as storing (in containers of at least 10m³) 200t or more of solids or gases or/and 200m³ of liquids.</p> <p>Note: The Environmental Protection Regulation points to the Australian Dangerous Goods Code to define the 'class' of chemical. Hydrogen (compressed, refrigerated liquid and fuel cell cartridges containing hydrogen in metal hydride) are defined as Class 2, division 2.1.</p> <p>For instances where multiple chemicals are stored a cumulative threshold may apply. Pre-lodgement meetings with SARA are encouraged to determine if an ERA is applicable.</p>	<table border="1"> <thead> <tr> <th>Threshold</th> <th>Aggregate Environmental Score</th> </tr> </thead> <tbody> <tr> <td>Storing 200t or more of chemicals that are solids or gases, other than chemicals mentioned in items 1 to 3, under subsection (1)(d)</td> <td>31</td> </tr> </tbody> </table>	Threshold	Aggregate Environmental Score	Storing 200t or more of chemicals that are solids or gases, other than chemicals mentioned in items 1 to 3, under subsection (1)(d)	31	<table border="1"> <thead> <tr> <th>Threshold</th> <th>Aggregate Environmental Score</th> </tr> </thead> <tbody> <tr> <td>Storing 200t or more of chemicals that are liquids, other than chemicals mentioned in items 1 to 3, under subsection (1)(d)</td> <td>31</td> </tr> </tbody> </table>	Threshold	Aggregate Environmental Score	Storing 200t or more of chemicals that are liquids, other than chemicals mentioned in items 1 to 3, under subsection (1)(d)	31
Threshold	Aggregate Environmental Score									
Storing 200t or more of chemicals that are solids or gases, other than chemicals mentioned in items 1 to 3, under subsection (1)(d)	31									
Threshold	Aggregate Environmental Score									
Storing 200t or more of chemicals that are liquids, other than chemicals mentioned in items 1 to 3, under subsection (1)(d)	31									
<p>Major hazard facilities Schedule 15 of the Workplace Health and Safety Regulation</p> <p>Proposed facilities exceeding the threshold (eg > 50 t of hydrogen) will be major hazard facilities.</p> <p>Note: Aggregation of numerous chemicals stored in one location in addition to hydrogen may trigger the aggregate threshold.</p>	<table border="1"> <thead> <tr> <th>Chemical</th> <th>Threshold</th> </tr> </thead> <tbody> <tr> <td>Hydrogen</td> <td>50t</td> </tr> </tbody> </table>	Chemical	Threshold	Hydrogen	50t	<p>Major hazard facilities are managed by the Office of Industrial Relations (OIR) within Queensland Workplace Health and Safety.</p> <p>Projects determined as Major Hazard Facilities must comply with all parts of chapter 7 <i>Hazardous Chemicals</i> of the Workplace Health and Safety Regulation, and part 9.3 <i>Duties of operators of determined Major Hazard Facilities while preparing a safety case and licence application.</i></p> <p><i>State code 21: Hazardous chemical facilities</i> of the SDAP outlines the assessment benchmarks for design, siting and risk mitigation for proposed facilities.</p> <p>Please contact OIR for advice.</p>				
Chemical	Threshold									
Hydrogen	50t									

<p>Hazardous chemical facilities</p> <p>Schedule 10, Part 7, Division 1 Planning Regulation.</p> <p>‘Hazardous chemical facility’ means the use of premises for a facility at which a prescribed hazardous chemical is present or likely to be present in a quantity that exceeds 10% of the chemical’s threshold quantity under schedule 15 of the Work Health and Safety Regulation (WHSR).</p>	<p>Facilities storing greater than 5 t of hydrogen but less than 50t <i>may</i> be subject to an inquiry to determine <i>if</i> they should be a major hazard facility.</p>	<p><i>State code 21: Hazardous chemical facilities</i> of the SDAP outlines the assessment benchmarks for design, siting and risk mitigation for proposed facilities.</p> <p>Hazardous chemical facilities are managed by the Office of Industrial Relations (OIR) within Queensland Workplace Health and Safety</p> <p>OIR considers the maximum storage quantity, the proposed location and proposed design to decide if an inquiry is necessary. An inquiry will be held concurrently with the development assessment process.</p> <p>Facilities determined as a major hazard facility on inquiry must prepare a safety case and be licenced (see above).</p> <p>Please contact OIR for advice.</p>
--	---	--

Petroleum and Gas (Production and Safety) Act 2004

Where hydrogen is used or intended to be used as a fuel source to generate heat, light or power (including vehicles) the operation from a safety perspective is overseen by the *Petroleum and Gas (Production and Safety) Act 2004* (the Petroleum and Gas Act). Australian Standards specific to hydrogen use are currently being developed (see www.standards.org.au).

A strategic action under the National Hydrogen Strategy is to complete a review which considers the application of the National Gas Law and relevant jurisdictional laws and regulations to hydrogen, and options to address regulatory ambiguity, remove unnecessary regulatory barriers and improve the consistency of laws across jurisdictions. The scale and use of the hydrogen proposal will determine whether the Petroleum and Gas Inspectorate or OIR will have oversight of the safety management.

Table 2 – Petroleum and Gas Act

<p>Potential uses:</p> <ul style="list-style-type: none"> - Injecting to gas network - Using hydrogen in a combustion engine or another gas fired appliance - Hydrogen at fuel stations - Feedstock for fuel cells 	<p>Relevant sections of legislation:</p> <ul style="list-style-type: none"> - The Petroleum and Gas Act (Chapters 7-9 - Petroleum and Gas (Safety) Regulation 2018, Chapters 5-7 - Use of hydrogen as a fuel in a gas appliance requires the installer to have a gas license (Type A appliances) or a gas work authorization (Type B appliances) <p>Note: Hydrogen blended in the gas network at up to 10% is not likely to require any change to appliances or requirements for current users of the gas network. 10% hydrogen is within allowances of current Australian standards.</p>	<p>Please contact the Petroleum & Gas Inspectorate to discuss requirements specific to the proposed project.</p>
<p>Hydrogen refuelers</p>	<p>Hydrogen fuel stations are 'operating plant' and require a Safety Management System as outlined in s675 of the Petroleum and Gas Act.</p>	

Electrical Safety Act 2002

Refer to the Electrical Safety Act for the application of the Act to a hydrogen plant.

During the building construction phase of a hydrogen plant and prior to commencing hydrogen production:

- a high voltage installations accredited auditor is required to inspect high voltage electrical installations prior to connection to an electricity source
- Hazardous area accredited auditors are required to inspect workplaces prior to connection of electrical equipment located in a classified hazardous area to an electricity source.

Accredited auditors are appointed by the Electrical Safety Regulator under Section 129 of the Electrical Safety Regulation 2013. Only an Electrical Safety Office accredited auditor is authorised to satisfy the audit requirements of the Electrical Safety Act 2002 for inspections of hazardous areas and high voltage installations.

<https://www.worksafe.qld.gov.au/laws-and-compliance/accredited-electrical-auditors>

10.0 Examples of other approvals that may be required

Table 3 – Other potential hydrogen approvals

Approval	Regulator/Authority	Relevance
<p>Other potential ERAs may include:</p> <ul style="list-style-type: none"> - 14 - Electricity generation - 53 – Organic material processing - 55 - Other waste reprocessing or treatment - 61 – Thermal waste reprocessing - 64 - Water treatment. 	<p>Queensland Department of Environment and Science (DES)</p> <p>ERAs 14, 53, 55, 61 and 64 are concurrence ERAs.</p>	<p>Thresholds and details for all ERAs are listed in schedule 2 of the Environmental Protection Regulation.</p>
Carbon capture and storage	Queensland Department of Natural Resources, Mines and Energy (DNRME)	Governed by the <i>Greenhouse Gas Storage Act 2009</i> .
Generation authority (when connecting to a transmission network)	DNRME	<p>A generation authority application may be required as set out in the <i>Electricity Act 1994</i>. A generation authority is required before connecting to the transmission grid or distribution network. DNRME seeks public submissions during the approval process for a generation authority as well as considering any development approval associated with the project.</p> <p>Note: if you operate a generating plant with a capacity of 30 megawatts or less you have special approval (under section 130 of the Electricity Regulation 2006) to connect the generating plant to a transmission grid or supply network. In this case, you would not need to hold a generation authority but may rely on the special approval given by regulation.</p>
Retail authority (when selling energy)	Australian Energy Regulator (AER)	As of 1 July 2015 and the commencement of the National Energy Customer Framework (NECF) all retail authorities are administered at a national level by the AER.

<p>Native title</p>	<p>DNRME For protected areas – DES</p>	<p>The <i>Native Title Act 1993</i> provides for the recognition and protection of native title and establishes the processes in which future dealings affecting native title may proceed such as through Indigenous Land Use Agreements. This may be particularly relevant to proposals in remote or off-grid locations.</p>
<p>Cultural heritage management plan</p>	<p>Queensland Department of Aboriginal and Torres Strait Islander Partnerships (DATSIP)</p>	<p>The <i>Aboriginal Cultural Heritage Act 2003</i> and the <i>Torres Strait Islander Cultural Heritage Act 2003</i> seek to provide effective recognition, protection and conservation of Aboriginal cultural heritage, including a significant Aboriginal area, object or archaeology. In some cases (including when an Environmental Impact Statement is prepared) a Cultural Heritage Management Plan (CHMP) may be required.</p>
<p>Permits required under the <i>Environmental Protection and Biodiversity Conservation Act 1999</i> (Environmental Protection and Biodiversity Conservation Act)</p>	<p>Commonwealth Department of Agriculture, Water and the Environment</p>	<p>Under the Environmental Protection and Biodiversity Conservation Act, actions that have, or are likely to have, a significant impact on a matter of national environmental significance require approval from the Australian Government Minister for the Environment.</p>

11.0 Water

A water authorisation may be required before taking or interfering with water. An authorisation may be in the form of a water allocation, water license or water permit. A development application may also be required for associated works such as pumps and bores.

Water allocations authorise the holder to take a certain volume of water from a particular source, such as a watercourse or aquifer. Allocations have a separate title, similar to a land title, and can be bought and sold on the **water trading market**. A water license is an authority granted under the *Water Act 2000*.

Water licenses are issued for long-term activities for taking water and are usually attached to land. In some parts of Queensland, water licenses to take water can be **relocated permanently or seasonally**.

Permits are issued for temporary activities with a foreseeable end date. Permits cannot be relocated, traded, amended, renewed or suspended. Permits specify the location of take, an expiration date and the conditions attached to the permit.

12.0 Vehicles

Before a new vehicle can be registered for the first time in Australia, it must meet the requirements of the *Motor Vehicle Standards Act 1989* (the Act). Under the Act, new vehicles are required to be fitted with an identification plate (formerly known as a compliance plate). The identification plate provides a clear indication to the state or territory registering authority – and to the owner and the general public – that the vehicle is ready for use in transport on public roads in Australia.

The Australian Government maintains jurisdiction over road vehicles up to the point of first supply to the Australian market. State and territory governments are responsible for continued regulation after this point (e.g. vehicle registration, roadworthiness, the approval of modifications to vehicles in-service).

Table 4 below outlines options for import approvals and registration of HFCEV's in Australia.

Table 4 – HFCEV Approval Options

Type Approval	Type Approval of a Variant Vehicle	Alternate International Standards
<p>If the manufacturer holds Identification Plate Approval from the Department of Infrastructure, Transport, Regional Development and Communications (DITRDC), and the vehicle is fitted with an identification plate, then the access to the road network is available as a matter of right.</p> <p>The manufacturer can obtain an Identification Plate Approval by demonstrating the vehicle type complies with the Australian Design Rules (ADR).</p> <p>Vehicles will need to be registered with a state authority.</p>	<p>In some cases, vehicle types can include known combinations or “variants”. For example, a vehicle model with a HFC variant requires the manufacturer to demonstrate the hydrogen fuel system only.</p> <p>Manufacturers may apply to import and register variant models for test and evaluation, through the Evaluation Vehicle Option. State and Territory registering authorities have agreed on arrangements that apply for the registration of test and evaluation vehicles and their use on public roads. A permit from Vehicle Standards, Queensland Department of Transport and Main Roads (DTMR) will be required providing an exemption from the requirement to fit an identification plate (as the hydrogen fuelled vehicle won't be fitted with one).</p> <p>After the approved time, the vehicle must either fit a vehicle identification plate (i.e demonstrate that it complies with the ADR) or be re-exported.</p>	<p>In making an application for a type approval (IPA), manufacturers may be able to provide evidence of compliance with United Nations Economic Commission for Europe (UNECE) Regulations where they are referenced as an alternative standard in the ADR. This streamlines the approval process for manufacturers that already meet UN standards.</p> <p>Currently 34 UN regulations are applied in the ADR.</p>

13.0 Useful resources and contacts

Department of State Development, Tourism and Innovation

For general hydrogen project information/facilitation enquires:

Email: hydrogen@dsmip.qld.gov.au

State Assessment and Referral Agency (SARA)

Email: saraplanningsupport@dsmip.qld.gov.au

Office of the Coordinator General

Coordinated Project Delivery

Email: cpdinfo@coordinatorgeneral.qld.gov.au

Land Acquisition and Project Delivery

Email: PrescribedProjects@coordinatorgeneral.qld.gov.au

State Development Areas

Email: sdainfo@coordinatorgeneral.qld.gov.au

Economic Development Queensland for State-owned industrial land enquiries

Email: edq@dsmip.qld.gov.au

Department of Natural Resources Mines and Energy

Petroleum and Gas Inspectorate

Email: gassafe@dnrme.qld.gov.au

Phone: (07) 3199 8027

Office of Industrial Relations

Workplace Health and Safety Queensland

Major Hazard Facilities

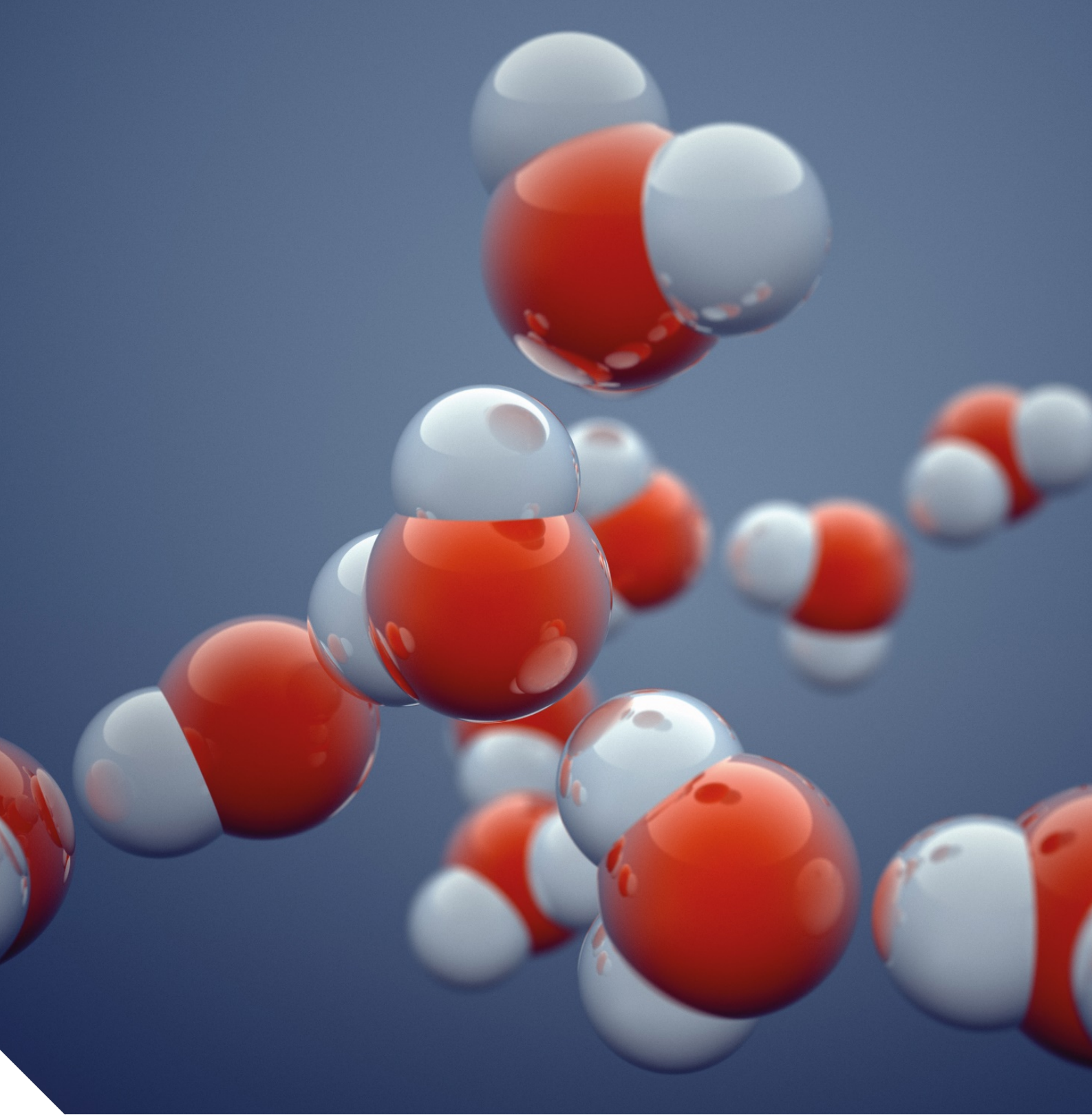
Email: hicb@oir.qld.gov.au

Phone: (07) 37385010

Department of Transport and Main Roads

Standards and Accreditation

Email: vehiclestandards@tmr.qld.gov.au



Department of State Development,
Tourism and Innovation
PO Box 15009 City East Qld 4002 Australia
tel 13 QGOV (13 74 68)
info@dsmip.qld.gov.au
www.dsmip.qld.gov.au



Queensland
Government