Response to submissions

Petroleum Legislation Amendment Bill (No. 2) 2022

Petroleum Legislation Amendment Bill (No. 2) 2022

The Department of Mines, Industry Regulation and Safety (DMIRS) is proposing amendments to the *Petroleum and Geothermal Energy Resources Act 1967* (PGERA), *Petroleum Pipelines Act 1969* (PPA) and the *Petroleum (Submerged Lands) Act 1982* (PSLA) (together referred to as the Petroleum Acts) to introduce a number of amendments in the form of petroleum-specific operational amendments and amendments for naturally occurring hydrogen. The Consultation Draft of the Petroleum Legislation Amendment Bill (No. 2) 2022 and supporting information were released for public comment on 6 December 2022 closing 24 February 2023.

DMIRS has considered all submissions received and will revise the draft Bill where appropriate with a view to preparing a final consolidated draft for introduction into Parliament.

Stakeholder Comments

The review process notified respondents that their submissions would be made publicly available on the DMIRS website. For the purposes of more easily grouping and responding to feedback from stakeholders, the submissions have been sorted by theme. The text of submissions are included verbatim.

DMIRS thanks all stakeholders for their considered input into the process.

Key Themes of Feedback Received

Key themes arising from stakeholder feedback are identified below, as well as specifically detailed in the following Response to Submissions.

The key themes of this feedback were related to:

- General support for the enhancements of environmental regulation, including the formal recognition of care and maintenance, rehabilitation and decommissioning as specific phases of operations and the introduction of the polluter pays provisions.
- Practical feedback and suggested enhancements on the manner of authorising royalty calculation meters on third party infrastructure to enable the tolling of petroleum.
- General support for the revision of the manner of approving activities for the underground storage of petroleum
- General support for the ability to permit additives, including hydrogen, to petroleum
- General support for the ability to enable the exploration of naturally occurring hydrogen as well as constructive questions seeking to clarify how the amendments will operate in practice.
- A spectrum of views on the use of petroleum pipelines to convey hydrogen, ranging from concerns relating to safety to a desire to convey hydrogen in isolation through petroleum pipelines.

Ref #	Stakeholder	Comment	DMIRS Response
General and administrative			
1.	The Environment Institute of Australia and New Zealand (EIANZ)	The Environment Institute of Australia and New Zealand (EIANZ) (the Institute) Western Australia (WA) Division (the Division) is pleased to have this opportunity to provide feedback on the Petroleum Legislation Amendment Bill (No.2) 2022. The Institute is the leading professional body in Australia and New Zealand for environmental practitioners and promotes independent and interdisciplinary discourse on environmental issues. On all issues and all projects, the Institute advocates good practice environmental management delivered by competent and ethical environmental practitioners. We forward this submission on behalf of the WA EIANZ members. The WA Division currently has approximately 200 members while the Institute has over 2,100 members across Australia and New Zealand in a range of technical disciplines including certified environmental practitioners (CEnVP), ecological consultants, environmental advocates and environmental impact specialists working in government, industry and the community. Again, we thank DMIRS for the opportunity to be engaged in feedback on this amendment.	DMIRS acknowledges EIANZ's comments and thanks EIANZ for providing a submission.
2.	The Environment Institute of Australia and New Zealand (EIANZ)	Background The EIANZ WA Division is pleased to make comments on Petroleum Legislation Amendment Bill (No.2). EIANZ considers that consultation with stakeholders is timely, to promote feedback on the effectiveness of the proposed changes to legislation, to identify any gaps, and encourage ideas on how the legislation can be improved. Widespread consultation is imperative to ensure the reformed legislation provides clarity and certainty for all. EIANZ have engaged practitioners and technical experts to provide feedback on the Petroleum Legislation Amendment Bill (No.2). EIANZ's submission provides direct responses to key issues of concern and raises functional changes which could be made to resolve identified issues. EIANZ is hopeful these recommendations are included in future revisions of the bill, to ensure a more practical industry licensing regime can be achieved. Role of the EIANZ The EIANZ, as the leading membership based professional organisation for environmental practitioners in Australia and New Zealand, is an advocate for good practice environmental management. The Institute supports environmental practitioners and promotes independent and interdisciplinary discussion on environmental issues. The Institute also advocates environmental knowledge and awareness, advancing ethical and competent good practice environmental management. A Certified Environmental Practitioner Scheme (www.cenvp.org) is also in place to assess and certify competent experienced environmental practitioners working in government, industry and the community. This includes specialist competencies such as Impact Assessment, Ecology and Contaminated Lands. The EIANZ is an advocate for environmental assessment, management and monitoring investigations and reports being certified by suitably qualified and experienced persons for the completeness and scientific rigor of the documents. One of the ways of recognising a suitably qualified practitioner is through their membership of, and certification by, an organisation that holds practitioners accountable to a code of ethics and professional conduct, such as the EIANZ. The EIANZ is a not-for-profit, charitable organisation incorporated in Victoria, and a registerable Australian body under the Corporation Act 2001 (Cwlth), allowing it to operate in all Australian jurisdictions.	DMIRS acknowledges EIANZ's comments and thanks EIANZ for providing a submission.

Ref #	Stakeholder	Comment	DMIRS Response
3.	Mitsui E&P Australia (MEPAU)	Mitsui E&P Australia (MEPAU) welcomes the opportunity to make submissions to the Department of Mines, Industry Regulation and Safety (DMIRS) on the draft Petroleum Legislation Amendment Bill (No. 2) 2022 (WA) (the Bill), that proposes amendments to the following legislation: • *Petroleum and Geothermal Energy Resources Act 1967* (WA) (PGERA); • *Petroleum (Submerged Lands) Act 1982* (WA) (PSLA); and • *Petroleum Pipelines Act 1969* (WA) (PPA). MEPAU is broadly supportive of the proposed amendments set out in the Bill and recognises the practical benefits that the Bill seeks to deliver to Government and industry participants alike. In particular, MEPAU supports and shares the Government's desire to assist in the development of Western Australia's hydrogen economy, and recognises the key role that enabling legislation has in encouraging investment and development in this emerging industry. However, certain amendments proposed by the Bill do not provide sufficient clarity for industry, particularly with respect to the changes proposed to accommodate regulated substances. Whilst MEPAU recognises the desire to make legislative amendments in the most streamlined and efficient manner, this should not be done at the expense of regulatory certainty, particularly in the context of the hydrogen industry (where certainty, and a clear and precise legislative framework are necessary to attract the investment of resources required to establish and develop this important and emerging industry within Western Australia). MEPAU therefore encourages the DMIRS to consider the submissions set out below that highlight some aspects of the Bill that do not provide adequate certainty or clarity for industry participants.	DMIRS acknowledges MEPAU's comments and thanks MEPAU for providing a submission. DMIRS welcomes MEPAU's support and MEPAU's comments with respect to the proposed framework for regulated substances. MEPAU's comments are addressed throughout this document.
4.	Environmental Defenders Office (EDO)	Background On 6 December 2022, the Draft Petroleum Legislation Amendment Bill (No. 2) 2022 was released for consultation (PLA Bill). The PLA Bill proposes a number of "urgent" amendments to the *Petroleum and Geothermal Energy Resources Act 1967* (WA) (PGER Act), *Petroleum Pipelines Act 1969* (WA) (PP Act) and *Petroleum (Submerged Lands) Act 1982* (WA) (PSL Act) (collectively "Petroleum Acts") relating to environmental protection, royalty calculation, underground storage and extraction and transportation of naturally-occurring hydrogen. The Environmental Defenders Office (EDO) welcomes the opportunity to provide comments on the PLA Bill. We commend the amendment of the Petroleum Acts to provide greater environmental protection, and to attempt to ensure that the cost of environmental harm caused by fossil fuel production is borne by those who profit from the harmful activities. However, the PLA Bill falls short of its goal of ensuring the cost of localised environmental harm is properly internalised, and also contains other shortcomings. Accordingly, we offer the following comments and recommendations for amendment. EDO's submission on the Amendment Bill is couched in the context of its Roadmap for Climate Reform (Roadmap). We advocate for law reform that is science-aligned, prudent and ambitious enough to meet the scale of the climate crisis. **Summary of recommendations** **Recommendation 1:** The PLA Bill must proceed from a science-based position, being that petroleum activities must be phased out, and no new petroleum fields will be approved. **Recommendation 2:** The proposed "polluter pays" principle must make explicit that a titleholder is also liable for care and maintenance of the title area, decommissioning of operations, and rehabilitation of the title area. **Recommendation 3:** The PLA Bill should amend the Petroleum Acts to reflect the scheme established under the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (Cth) (OPGGS Act), being that: (a) a titleholder must, at all times while the title is in force, maintain financial assurance sufficient to give the titleholder the capacity to meet costs, expenses and liabilities arising in connection with, or as a result of: i. the carrying out of petroleum operations, pipeline operations or offshore resource operations; or ii. the doing of any other thing for the purposes of the petroleum operations, pipeline operations or offshore resource operations; or iii. complying (or failing to comply) with a requirement under the Petroleum Acts, or a legislative instrument under any of the Petroleum Acts, in relation to the petroleum operations, pipeline operations or offshore resource operations. (b) The following forms of financial assurance are acceptable to meet the requirement to maintain financial assurances: i. Insurance; ii. A bond; iii. The deposit of an amount as security with a financial institution; iv. An indemnity or other surety; v. A mortgage.	

Ref #	Stakeholder	Comment	DMIRS Response
		(c) Demonstration of compliance with the financial assurance requirements is a precondition to approval of an environment plan. **Recommendation 4**: The PLA Bill should give the Ministers the power to direct a person to take action to clean up escaped petroleum, remove property from a title area, decommission operations and rehabilitate a petroleum operation area. Reflecting the scheme established under the OPGGS Act, persons who may be directed should include not only the existing interest-holder, but also any related body corporate, any former interest-holder, a related body corporate of a former interest-holder, any person capable of significantly benefiting financially, or who has significantly benefited financially, from the operations authorised, and any person who is or has been, at any time, in a position to influence the way in which a person complies, or has complied, with their obligations to care for and maintain an area, decommission and remediate a site, and maintain adequate financial assurances. **Recommendation 5:** The PLA Bill should be amended to remove provisions enabling the exploration and production of naturally occurring hydrogen through petroleum titles. **Recommendation 6:** Any future decision about whether to prescribe hydrogen as a substance that may be blended and conveyed through a petroleum pipeline must be made with consideration of the different properties of hydrogen; adequate testing, trialing and monitoring of the pipeline network, and set limits based on science with an adequate margin for safety. **Recommendation 7a:** The PLA Bill should prohibit, rather than authorise, injection of petroleum into a natural underground reservoir. **Recommendation 7b:** Alternatively, the penalty set out in proposed s 67 for unlawful injection should be increased by at least a factor of 10, to reflect the potentially catastrophic consequences of the prohibited activity. **Recommendation 8:** The PLA Bill should increase all penalty provisions throughout the Petroleum Acts to appropriately reflect the seriousness of the offence being punished, which must be at least in line with inflation since each penalty provision was introduced. **Recommendation 9:** The PLA Bill should introduce a penalty unit system to replace the outdated existing specific financial penalty provisions throughout the Petroleum Acts. **Recommendation 10:** The Petroleum Acts should be reviewed for the opportunity to amend decision-making processes to require public notice of applications for titles, permits, authorisations and licences, and to provide opportunities for public comment on those applications. **Recommendation 11:** The PLA Bill should be amended to ensure that power to make regulations for grant of an authorisation to inject petroleum include publication of applications for an authorisation and the opportunity for public comment. **Recommendation 12a:** The PLA Bill should amend the Petroleum Acts to allow third party enforcement, modelled on section 9.45 of the *Environmental Planning and Assessment Act 1979* (NSW): (1) Any person may bring proceedings in the Court for an order to remedy or restrain a breach of this Act, whether or not any right of that person has been or may be infringed by or as a consequence of that breach (2) Proceedings under this section may be brought by a person on his or her own behalf or on behalf of himself and on behalf of other persons (with their consent), or a body corporate or unincorporated (with the consent of its committee or other controlling or governing body), having like or common interests in those proceedings. (3) Any person on whose behalf proceedings are brought is entitled to contribute to or provide for the payment of legal costs and expenses incurred by the person bringing the proceedings. **Recommendation 12b:** Alternatively, the PLA Bill should provide expanded standing for enforcement of the Petroleum Acts, modelled on sections 475 and 487 of the *Environment Protection & Biodiversity Conservation Act 1999* (Cth) (EPBC Act): (1) A person has standing to bring a proceeding to Court for an order to remedy or restrain a breach of this Act if: (a) the person is an Australian citizen or ordinarily resident in Western Australia; and (b) at any time in the two years immediately before the breach, the person engaged in a series of activities in Western Australia for protection or conservation of, or research into, the environment.	DMIRS acknowledges EDO's comments and thanks EDO for providing a submission. EDO's comments are addressed throughout this document.

Ref #	Stakeholder	Comment	DMIRS Response
5.	Australian Gas Infrastructure Group (AGIG)	We refer to the consultation draft of the *Petroleum Legislation Amendment Bill (No. 2)* 2022 (Draft Bill) and the Summary and Supporting Information published by DMIRS in relation to the Draft Bill setting out proposed amendments to the *Petroleum Pipelines Act* 1969 (PPA), the *Petroleum and Geothermal Energy Resources Act* 1967 (PGERA) and the *Petroleum (Submerged Lands) Act* 1982 (PSLA). Thank you for the opportunity to make submissions in relation to the proposed legislation. We also note that DMIRS has published *Petroleum Legislation Amendment Bill (B)* 2023 dealing with changes to facilitate capture and storage of greenhouse gases (the CCS Bill). We have made some preliminary comments regarding the CCS Bill where those changes interact with the changes in the Draft Bill, but note that we are still reviewing the CCS Bill and may provide a further submission at a later date. These submissions are made by Australian Gas Infrastructure Group (AGIG). AGIG is comprised of a number of companies that own and operate gas infrastructure in Western Australia including: • Dampier to Bunbury Natural Gas Pipeline (DBNGP) – high pressure gas pipeline approximately 1650 kilometres long running from the Karratha Gas Plant in the State's north west to industrial areas south of Perth and ending at Bunbury • Tubridgi Gas Storage Facility (TGS) – underground gas storage reservoir, flow lines and above ground facilities based at Tubridgi, near Onslow • Wheatstone Ashburton West Gas Pipeline (WAWP) – high pressure pipeline and above ground facilities from Chevron's Wheatstone gas plant near Onslow to the DBNGP • Fortescue River Gas Pipeline (FRGP) – high pressure gas pipeline and above ground facilities from Fortescue's Solomon Hub mine to the DBNGP • Ashburton Onslow Gas Pipeline (AOGP) – small gas pipeline from Ashburton West to Onslow power station • Pluto North West Shelf Interconnector Pipeline (PNI) – high pressure gas pipeline from the Pluto gas processing plant to the Karratha Gas Plant on the Dampier Peninsula Generally, AGIG is happy with the concepts embodied in the Draft Bill and considers that the proposed changes mirror the way that AGIG operates. However AGIG has flagged some issues with duplication of legislative oversight and the practical implications of some of the changes for its' operations as set out in the attachment. AGIG has no operations that are currently subject to the PSLA so our review and comments have focussed on the PPA and PGERA, however our comments may also be applicable to the PSLA. We address the changes that are proposed by topic in the order set out in the Summary Document provided by DMIRS and suggest some additional legislative changes to the Dampier to Bunbury Pipeline Act 1997 (DBPA) to facilitate use of the pipeline corridor for the purposes contemplated by the Draft Bill and the CCS Bill. In addition, given the wholesale nature of the changes proposed by DMIRS, AGIG has taken the opportunity to propose a further change to the PPA to fix a longstanding reoccurring issue regarding incorporation of additional land into a pipeline licence. Our submissions are set out in Attachment 1. We hope that these suggestions are clear and comprehensive and we would welcome an opportunity to meet and discuss further if that is available – in particular we are keen to meet to discuss the environmental amendments from the practical perspective of a pipeline operator and, in relation to our TGS facility.	DMIRS acknowledges AGIG's submission and thanks AGIG for its general support for the proposed amendments. DMIRS notes AGIG's comments with respect to regulatory duplication and practicality. DMIRS has provided responses to each of AGIG's comments throughout this document. DMIRS also notes AGIG's comments with respect to the Petroleum Legislation Amendment Bill (No. 2) 2022 and its interaction with the Petroleum Legislation Amendment Bill (B) 2023. Where appropriate, responses have been provided throughout this document, however DMIRS notes that some of these comments are beyond the scope of the Petroleum Legislation Amendment Bill (No. 2) 2022.
6.	Natural Hydrogen Association of Australia (NH2A)	The potential for naturally occurring hydrogen to provide a cost effective and low carbon fuel source has generated significant interest from a range of stakeholders. In response to this interest, the Natural Hydrogen Association of Australia (NH2A, ACN 660 854 473) was formed to represent and advance the natural hydrogen industry in Australia. NH2A was incorporated in 2022 as an independent association representing natural hydrogen exploration companies in Australia. The objective of the NH2A is to promote the exploration for and production of hydrogen naturally occurring in the subsurface (natural hydrogen) which includes undertaking a consistent approach toward external communication on the origin, exploration for and production of natural hydrogen in Australia, and to facilitate the sharing information regarding new and developing technology in relation to the exploration and production of natural hydrogen. Western Australia has been identified by the Geological Survey of Western Australia (GSWA) as having significant prospectivity for natural hydrogen and the NH2A and its members are encouraged by the pace at which the proposed changes to the WA Petroleum and Geothermal Energy Resources Act 1967 (PGERA) are being pursued. On behalf of the NH2A and its members, we would like to provide the following comments and queries related to the Petroleum Legislation Amendment Bill (No2) 2022 in response to DMIRS' request for submissions as part of the current consultation process.	DMIRS acknowledges NH2A's comments and thanks NH2A for providing a submission. DMIRS notes NH2A's comments and has provided responses throughout this document.

Ref #	Stakeholder	Comment	DMIRS Response
7.	Australian Pipeline Limited (APA)	Thank you for this opportunity to provide feedback on the Draft Petroleum Legislation Amendment Bill (No. 2) 2022 ('The Bill'). We welcome the opportunity to contribute to the Department's consultation on modernising the Petroleum Acts to provide greater certainty on petroleum operations, including the use of hydrogen. APA is an ASX listed owner, operator, and developer of energy infrastructure assets across Australia. As well as an extensive network of natural gas pipelines, we own or have interests in gas storage and generation facilities, electricity transmission networks, and over 593 MW of renewable generation infrastructure, including 88 MW under construction We support the global transition to a lower carbon future and are actively supporting the energy transition taking place across Australia. In August 2022, we published our inaugural Climate Transition Plan which outlines our commitments to support Australia's energy transition and pathway to achieve net zero operations emissions by 2050. APA supports policy developments which help drive the establishment of the renewable gas and future fuel industries. The existing regulatory framework was introduced when gas networks and markets were well established. In contrast, the renewable gases industry is in its infancy. To help develop a competitive renewable gases market, regulatory settings must be transparent, and wherever possible, consistent across jurisdictions. This will allow industry and businesses like APA to invest with confidence in projects which support the transition to a low carbon future.	DMIRS acknowledges APA's comments and welcomes its support for the proposed amendments for regulated substances. DMIRS notes APA's comments and has provided responses throughout this document.
8.	Australian Pipeline Limited (APA)	**1 Executive Summary** APA supports policy developments which encourage growth in the renewable gases industry. We support the approach set out in the Bill to accommodate future fuel blends (including hydrogen blends) in petroleum pipelines. • Repurposing natural gas pipelines to transport hydrogen as energy is more efficient than building electricity transmission infrastructure. • Jurisdictions should work together on the conversion of existing easements to carry alternative gases, including, but not limited to, pure hydrogen and hydrogen blends. • While we appreciate the Government's gradual approach to introducing renewable gases into the market, the WA Government should be taking active steps now to ensure there is a pathway through the existing regulatory framework that enables petroleum pipelines to transport 100 percent future fuels. • As the owner and operator of Mondarra Storage Gas Facility, APA supports the introduction of regulations for the underground storage of petroleum. We welcome the opportunity to be further involved in developing these regulations. APA is a leading Australian Securities Exchange (ASX) listed energy infrastructure business. Consistent with our purpose to strengthen communities through responsible energy, our diverse portfolio of energy infrastructure delivers energy to customers in every state and territory on mainland Australia. Our 15,000 kilometres of natural gas pipelines connect sources of supply and markets across mainland Australia. We operate and maintain networks connecting 1.4 million Australian homes and businesses to the benefits of natural gas. And we own or have interests in gas storage facilities, gas-fired power stations. In August 2022, we published our inaugural Climate Transition Plan which outlines our commitments to support Australia's energy transition and pathway to achieve net zero operations emissions by 2050. We also operate and have interests in 593 MW of renewable generation infrastructure, including 88 MW under construction, while our high voltage electricity transmission assets connect Victoria with South Australia, New South Wales with Queensland and Tasmania with Victoria. Most recently, we completed the acquisition of Basslink Pty Ltd, which owns and operates the 370km high voltage direct current electricity interconnector between Victoria and Tasmania. The acquisition adds a third electricity interconnector to APA's energy infrastructure portfolio and is consistent with our strategy to play a leading role in the energy transition.	DMIRS acknowledges APA's comments and welcomes its support for the proposed amendments for regulated substances. DMIRS notes APA's comments and has provided responses throughout this document.

Ref #	Stakeholder	Comment	DMIRS Response
9.	Australian Pipeline Limited (APA)	**APA's submission** As a longstanding owner and operator of 15,000 kms of natural gas pipelines across Australia, we are committed to efforts which decarbonise the gas sector and strive towards a lower carbon future. Through APA's Pathfinder Program, we also continue to grow our experience and expertise in hydrogen generation and other clean fuel technologies. Therefore, we support policy developments which encourage growth in the renewable gases industry. Sections of the Bill which enable substances like hydrogen to be blended with petroleum and conveyed through petroleum pipelines offers the opportunity to capitalise on existing gas infrastructure. Repurposing natural gas pipelines to transport hydrogen as energy is more efficient than building electricity transmission infrastructure. It is very important for the regulatory framework covering natural gas and future fuels to create a supportive, level-playing field for industry growth and investment. Under the proposed regulatory changes, pipelines transporting hydrogen and other future fuels will be subject to different regulatory arrangements, depending on the percentage of hydrogen and other future fuels being transported. This creates potential investment risk and may undermine decarbonisation projects working towards WA's net zero targets. In our view, there are two issues WA Government should further consider as they progress the Bill's implementation: • Jurisdictions should work together on the conversion of existing easements and other access rights to carry future fuels including pure hydrogen and hydrogen blends. • While we appreciate the Government's gradual approach to introducing renewable gases into the market, the WA Government should be taking active steps now to ensure there is a pathway through the existing petroleum regulatory framework that enables petroleum pipelines to transport 100 percent future fuels. As the owner and operator of Mondarra Storage Gas Facility, APA also supports the introduction of regulations for the underground storage of petroleum. We welcome the opportunity to be further involved in developing these regulations.	DMIRS acknowledges APA's comments and welcomes its support for the proposed amendments for regulated substances. DMIRS notes APA's comments and has provided responses throughout this document.
10.	Australian Pipeline Limited (APA)	**2.1.1 APA's growing expertise in hydrogen generation and renewable energy** Australia has some of the world's best natural resources for producing renewable energy. This is one of the key reasons why hydrogen has been identified as one of Australia's key comparative advantages and one of the logical options to help decarbonise the Australian economy and provide new export opportunities. APA is actively engaged in projects which support Australia's hydrogen economy. Through APA's Pathfinder Program, we continue to grow our experience and expertise in hydrogen generation, storage, transport and other clean fuel technologies which support a lower carbon future. Our first Pathfinder Program project is seeking to enable the conversion of around 43-kilometres of the Parmelia Gas Pipeline (PGP) in WA into Australia's first 100 per cent hydrogen-ready transmission pipeline. In May 2022, APA and Wesfarmers Chemicals, Energy and Fertilisers (WesCEF) (part of Wesfarmers Ltd) executed a Memorandum of Understanding (MoU) to undertake a prefeasibility study to assess the viability to produce and transport renewables-based hydrogen using this section of APA's PGP. In Phase One of the PGP Conversion Project, the pipeline was assessed as suitable for 100 per cent hydrogen service without any requirement to reduce operating pressure of the pipeline. Phase Two testing, supported by a $300,000 grant under the Renewable Hydrogen Fund (WA), is completed and involved testing the pipeline material in a gaseous hydrogen environment. The findings are promising and will be released publicly in the near future. APA has also signed an MoU with AGL and other consortium partners to carry out an expanded green hydrogen feasibility study in the NSW Hunter Valley region. The study will map key operational and commercial plans for the project which involves exploring the development of a renewables-based hydrogen production facility. The facility forms part of a 'Hunter Energy Hub' development, which will combine grid-scale batteries, solar thermal storage, wind and pumped hydro. Once commercially viable, renewable hydrogen will likely become a key component of the renewable energy export market for Australia. APA has had some successes in this space. In Queensland, APA has joined a consortium of Australian and Japanese energy players to establish the State's largest green hydrogen project. The consortium has completed a detailed feasibility study into the development of the green hydrogen project in Central Queensland. The feasibility study found that the project is technically feasible and commercially viable, subject to appropriate government support in the initial phases. Most recently, the consortium has started preparations for a Front-End Engineering Study to commence in early 2023.	DMIRS acknowledges APA's comments.

Ref #	Stakeholder	Comment	DMIRS Response
11.	Fortescue Future Industries (FFI)	A proud Australian company, Fortescue Metals Group (FMG) is the fourth largest producer of iron ore in the world, exporting over 185 million tonnes of iron ore annually through our integrated mining, rail, and shipping network in the Pilbara. We are a global leader in large-scale, ultra-efficient and highly complex developments with a proven track record in developing and operating assets in remote and isolated locations, and our business is evolving as we move to introduce value added iron products, decarbonise our operations and seek to build a global green energy business. Through our subsidiary, Fortescue Future Industries (FFI), we are establishing a global portfolio of green hydrogen production and manufacturing projects and operations that will position us at the forefront of the global green hydrogen industry. Fortescue welcomes the opportunity to provide comment on the Petroleum legislation Amendment Bill (No. 2) 2022.	DMIRS acknowledges FFI's comments and thanks FFI for providing a submission. DMIRS notes FFI's comments and has provided responses throughout this document.
12.	Australian Petroleum Production & Exploration Association (APPEA)	The Australian Petroleum Production & Exploration Association (APPEA) welcomes the opportunity provided by the Department of Mines, Industry Regulation and Safety (DMIRS) for ongoing consultation and to provide comment on the Petroleum Legislation Amendment Bill (No. 2) 2022 (the Draft Bill) released in December 2022. The oil and gas industry, as reflected within the broader resources sector, supports the ongoing reform of petroleum legislation and the related pending Regulations as well as the stakeholder consultation that has been undertaken to inform it. Comments on the Draft Bill APPEA would like to bring the attention of DMIRS the following key issues: • Redundant environment amendments • Clarification regarding the calculation of royalties on third party infrastructure • Definitions and treatment of regulated substances • Amalgamation and update of petroleum acts	DMIRS acknowledges APPEA's comments and thanks APPEA for providing a submission. DMIRS welcomes APPEA's support for the ongoing reform of the petroleum legislation. DMIRS notes APPEA's specific comments which have been addressed throughout this document.
13.	Australian Geothermal Association (AGA)	The Australian Geothermal Association (AGA), the peak body representing the geothermal sector in Australia, thanks the WA Department of Mines, Industry, Regulation and Safety for the opportunity to provide input into the consultation draft Petroleum Legislation Amendment Bill (No. 2) 2022. Incorporated in 2016 as the successor to the previous Australian Geothermal Energy Association (AGEA) and the Australian Geothermal Energy Group (AGEG), AGA is a professional society whose members include companies and individuals working in industry, academia and government representing the full range of geothermal applications from ground source heat pumps to direct industrial heat supply, recreational bathing and wellness, and electrical power generation. More information is available on our website – www.australiangeothermal.org.au We have read the draft Petroleum Legislation Amendment Bill (No. 2) 2022 and note that the primary purpose of the draft Bill is to introduce urgent petroleum operational-based amendments and the ability to explore and produce naturally occurring hydrogen. However, a number of changes are also included that have a significant effect on the exploration and production of geothermal energy. Our comments are focussed on this aspect of the Bill.	DMIRS acknowledges AGA's comments and thanks AGA for providing a submission. DMIRS notes that AGA has provided specific comments with respect to geothermal energy and the consequential amendments caused by the introduction of regulated substances. DMIRS welcomes AGA's comments, however notes that the Petroleum Legislation Amendment Bill (No. 2) 2022 does not specifically relate to geothermal energy.
14.	H2EX Ltd (H2EX)	Thank you for the opportunity to provide comments on the Petroleum Legislation Amendment Bill (No.2) 2022 ("Bill"). H2EX Ltd ("H2EX") appreciates the chance to engage in this process, please see below for an overview of our company and feedback on the Bill. **H2EX Company Overview** Established in April 2021, H2EX is a pioneer in natural hydrogen exploration in Australia. We are actively exploring in the Eyre Peninsula in South Australia where we have secured an exploration license, PEL 691, totalling ~6,000km . This license was awarded to H2EX in June 2022 and in July 2022 we announced a Research Agreement with CSIRO, Australia's National Science Agency to identify natural hydrogen migration pathways and seeps in the Eyre Peninsula. This first-of-its-kind study in the area is H2EXs intellectual property ("IP") and we will continue to build on our IP in natural hydrogen exploration through a continued relationship with CSIRO in 2023. In February 2023 CSIRO and H2EX executed an agreement to conduct in-the-field gas soil sampling. In addition to PEL 691, H2EX has four applications. These are the pre-cursor to a license and will proceed through the Native Title process prior to award. These applications total ~32,000km^2. Our office and team is based in Perth, with the board of directors and management having established oil and gas experience predominantly at Woodside Energy. Most notably, the H2EX Chairman and Non-Executive Director is Mr Peter Coleman, Woodside's previous CEO and Managing Director of 11 years. Mr Coleman is currently a director of Schlumberger (market cap US$75 billion), as well as Chairman of Allkem (critical minerals, market cap A$7.5 billion), Infinite Green Energy (green hydrogen) and Direct Infrastructure (wind).	DMIRS acknowledges H2EX's comments and thanks H2EX for providing a submission.

Ref #	Stakeholder	Comment	DMIRS Response
15.	Lock the Gate Alliance (LTGA)	I write on behalf of Lock the Gate Alliance (LTGA), a national grassroots organisation made up of more than 100,000 individuals and over 250 local groups who are concerned about unsafe or inappropriate mining. The mission of the Lock the Gate Alliance is to protect Australia's agricultural, environmental, and cultural resources from inappropriate mining and to educate and empower all Australians to demand sustainable solutions to food and energy production. Lock the Gate Alliance works across Western Australia, and Australia, and is committed to advocating for environmental and community health, and the productivity of local economies. LTGA welcomes the strengthening of WA's petroleum acts to increase protection of the state's natural environment. The Petroleum Legislation Amendment Bill (No.2) 2022 (PLA Bill) does, however, have deficiencies, some of which have been identified in the recommendations below.	DMIRS acknowledges LTGA's comments and thanks LTGA for providing a submission. DMIRS welcomes LTGA's comments with respect to the proposed environmental amendments and regulated substances. LTGA's comments are addressed throughout this document.
Environmental Amendments: Care and Maintenance, Rehabilitation and Decommissioning			
16.	The Environment Institute of Australia and New Zealand (EIANZ)	General Observations Feedback from EIANZ is focused on whether proposed amendments will facilitate improved environmental outcomes. EIANZ is supportive of the inclusion of care and maintenance, decommissioning and rehabilitation as recognized petroleum operations, resulting in titleholders being legally obligated to properly plan for, report on and undertake these activities as required.	DMIRS acknowledges EIANZ's support for the proposed inclusion of care and maintenance, decommissioning and rehabilitation.
17.	Mitsui E&P Australia (MEPAU)	**2.2 Expansion of petroleum operations (and associated concepts) to include care and maintenance, decommissioning and rehabilitation obligations** (a) *Summary* The Bill proposes to amend the definitions of 'petroleum operation', 'geothermal energy operation', 'offshore resource petroleum operation' and 'pipeline operation' in the PGERA, PSLA and PPA respectively to include care and maintenance, decommissioning and rehabilitation operations. DMIRS has indicated that these changes entrench the existing expectation that titleholders are to plan for, report on, and undertake care and maintenance, decommissioning and rehabilitation activities. *(b) MEPAU Submission* It is unclear whether the DMIRS intends for care and maintenance and rehabilitation to be considered as separate activities for the purposes of the Petroleum and Geothermal Energy Resources (Environment) Regulations 2012 (WA), such that a separate environmental plan will need to be prepared for each activity, or whether environmental plans will be expected to provide / account for care and maintenance and rehabilitation works? Whilst MEPAU recognises and supports the need to follow best practice with respect to care and maintenance, decommissioning and rehabilitation, it is unclear whether the changes proposed by the Bill are intended to increase a titleholder's obligations in this regard, or simply codify existing best practice?	DMIRS acknowledges MEPAU's comments. DMIRS clarifies that the proposed amendments to the definitions of 'petroleum operation', 'geothermal energy operation', 'offshore resource petroleum operation' and 'pipeline operation', are not intended to and are not expected to, increase titleholder's obligations. The proposed amendments have been designed to ensure that titleholder's will retain the flexibility to: (a) prepare separate plans for each operation (e.g. care and maintenance, decommissioning, rehabilitation); or (b) prepare one plan that describes multiple operations.

Ref #	Stakeholder	Comment	DMIRS Response
18.	Environmental Defenders Office	**B. Financial assurances should also be required for care and maintenance, decommissioning and rehabilitation** We commend the expansion of the definition of "petroleum operation", "pipeline operation" and "offshore resource operation" to include decommissioning and rehabilitation activities, to *ensure care and maintenance, decommissioning and rehabilitation are explicitly captured as recognised operations, meaning titleholders are obligated to properly plan for, report on, and undertake care and maintenance, decommissioning and rehabilitation as would be required for any other recognised petroleum operation.* However, given the experiences of other jurisdictions, and in order to be consistent with DMIRS' "principal" position that resource industry activities must be decommissioned and rehabilitated without unacceptable liability to the State, it is important that there be clarity that interest-holders are also financially responsible for decommissioning and rehabilitation, and, as with liability for escape of petroleum, interest-holders have financial capacity to carry out their obligations. Unlike mining tenements, which are subject to annual tenement levies to contribute to the Mining Rehabilitation Fund, petroleum activities are not subject to any requirement to ensure interest-holders or the State have sufficient financial resources to fulfil decommissioning and rehabilitation obligations. Currently, petroleum levies in Western Australia only fund the administration of safety regulations. Absent fulfilment of decommissioning obligations through processes such as plugging, petroleum wells continue to leak volumes of methane (in addition to brine and petroleum products) which will adversely impact Western Australia's ability to meet its net zero goals. Experience in Australia and other jurisdictions of petroleum producers avoiding decommissioning and rehabilitation liabilities through bankruptcy demonstrates the absolute necessity of requiring financial assurances not only for "escape of petroleum" events but also for site decommissioning and remediation. The burden to taxpayers of decommissioning and rehabilitation can be extensive. In 2015 Woodside Energy Ltd, after announcing its intention to cease production from the Northern Endeavour and decommission the Laminaria-Corralina oil fields, instead entered into a sale agreement by which both the facility and fields were ultimately transferred to a sole-director company incorporated a month before the sale agreement was entered. After this new entity went into liquidation, after three years of concerns about its safety and environmental performance, the federal government was faced with more than $300 million in decommissioning and remediation of the Northern Endeavour Floating Production Storage and Offtake facility, and the Laminaria-Corralina oil fields, and consequently introduced levies on offshore oil and gas production to recover the costs. The subsequent federal government inquiry into the collapse recommended regulators ensure titleholders provide financial surety for their decommissioning liabilities in a form available to the government in case of a titleholder going into liquidation. In the United States, where abandonment of wells is an increasing problem, Congress allocated more than USD$4.7 billion of taxpayer money in 2021 to go toward plugging of abandoned petroleum wells. In New Zealand, decommissioning of the Tui oil field off Taranaki has cost taxpayers more than $300 million following operator Tamarind Taranaki going into liquidation before undertaking decommissioning. The Tamarind Taranaki scandal resulted in amendment of the *Crown Minerals Act 1991* (NZ) to not only impose a statutory obligation on petroleum permit and licence holders to decommission wells and infrastructure, but to require permit and licence holders to maintain adequate financial security to carry out their obligations. In light of lessons from Australian federal and New Zealand jurisdictions, EDO recommends that the State should expand the scope of the "polluter pays" provisions to include not only "escape of petroleum", but also decommissioning and rehabilitation of petroleum operations, pipeline operations and offshore resource operations, and to require sufficient financial assurances to ensure those obligations will be met. **RECOMMENDATION:** The PLA Bill should amend the Petroleum Acts to reflect the scheme established under the OPGGS Act being that: (a) a titleholder must, at all times while the title is in force, maintain financial assurance sufficient to give the titleholder the capacity to meet costs, expenses and liabilities arising in connection with, or as a result of: i. the carrying out of petroleum operations, pipeline operations or offshore resource operations; or ii. the doing of any other thing for the purposes of the petroleum operations, pipeline operations or offshore resource operations; or iii. complying (or failing to comply) with a requirement under the Petroleum Acts, or a legislative instrument under any of the Petroleum Acts, in relation to the petroleum operations, pipeline operations or offshore resource operations. (b) The following forms of financial assurance are acceptable to meet the requirement to maintain financial assurances: i. Insurance; ii. A bond; iii. The deposit of an amount as security with a financial institution; iv. An indemnity or other surety; v. A mortgage. (c) Demonstration of compliance with the financial assurance requirements is a precondition to approval of an environment plan.	DMIRS acknowledges EDO's comments. To clarify, the proposed polluter pays amendment is for the escape of petroleum (or a regulated substance) and applies across each phase of a petroleum operation, including decommissioning and rehabilitation of petroleum operations, pipeline operations and offshore resource operations. There are existing financial insurance conditions within the Petroleum Acts whereby registered holders are required to maintain, as directed by the Minister, insurance against expenses and liabilities associated with petroleum and geothermal activities. While the matter of financial assurances is beyond the scope of this amendment Bill, DMIRS advises that it intends for the existing requirements to be broadened through a forthcoming Bill in response to the Independent Scientific Inquiry into Hydraulic Fracture Stimulation. That specific Bill, which is being developed separately to the Petroleum Legislation Amendment Bill (No. 2) 2022, intends to amend the PGERA to broaden financial assurance mechanisms and the State's ability to investigate, audit and enforce compliance. Failure to maintain financial insurance would be grounds for withdrawal of acceptance of an environment plan.

Ref #	Stakeholder	Comment	DMIRS Response
Environmental amendments: Polluter pays			
19.	The Environment Institute of Australia and New Zealand (EIANZ)	In addition, EIANZ is supportive of the introduction of the "polluter pays" principle to Division 4A of the *Petroleum and Geothermal Resources Act 1967*, Part4A of the *Petroleum Pipelines Act 1969*, and under Division 4AA of the *Petroleum (Submerged Lands) Act 1982*. As they related to: • "clean up the escaped petroleum and remediate any resulting damage to the environment", • "carry out environmental monitoring of the impact of the escape on the environment and anything done by the registered holder of the title", and • "carry out environmental monitoring of the impact of the escape and clean-up of the environment" under these Divisions/Parts of the amended Acts	DMIRS acknowledges EIANZ and thanks EIANZ for its support for the proposed amendment.
20.	The Environment Institute of Australia and New Zealand (EIANZ)	EIANZ recommends: 1. defining what is "damage to the environment" and suggests the definition could be aligned with the definition of "environmental harm" in the *Environmental Protection Act 1986*.	DMIRS acknowledges EIANZ's recommendation. The term 'damage' is not defined and occurs throughout the various Petroleum Acts and operates without any encumbrances. DMIRS notes that the definition of 'environmental harm' as contained within the *Environmental Protection Act 1986* (EP Act) is a bespoke and specific definition for the purposes of that Act. Given the purposes of the Petroleum Acts differ to the EP Act, DMIRS does not consider for there to be a need to replicate that definition in the Petroleum Acts.
21.	The Environment Institute of Australia and New Zealand (EIANZ)	EIANZ recommends: 2. including a clause by which the Minister may specific a period over which the clean-up, remediation of damage to the environment, and monitoring should be completed.	DMIRS acknowledges EIANZ's suggestion and clarifies the polluter pays provision has been drafted to specify that the provision applies as soon as possible after a registered holder becomes aware of an escape of petroleum or regulated substance.
22.	The Environment Institute of Australia and New Zealand (EIANZ)	EIANZ recommends: 3. that a penalty should be specified for the monitoring and clean-up not being completed to the satisfaction of the Minister.	DMIRS acknowledges EIANZ's suggestion. In the event that monitoring and clean up actions are not carried out to the satisfaction of the Minister, the Minister may undertake these actions as deemed necessary and recoup costs and expenses incurred from the registered holder. The purpose of the polluter pays amendment is to ensure registered holders are financially responsible for the costs of an escape of petroleum.
23.	The Environment Institute of Australia and New Zealand (EIANZ)	We also note: 4. that activities under these Acts require the preparation, submission and approval of environment plans, which may be a suitable mechanism for specifying actions as related to any damage to the environment. 5. that it is an offence to cause or allow certain materials (including hydrocarbons) to enter into the environmental in connection with a commercial or business activity, under the *Environmental Protection (Unauthorised Discharges) Regulations 2004*.	DMIRS acknowledges EIANZ's comments.
24.	Mitsui E&P Australia (MEPAU)	**2 Operational amendments** **2.1 Inclusion of polluter-pays principle** (a) *Summary* The Bill introduces a 'polluter pays' regime, broadly similar to that contained in the Offshore Petroleum Greenhouse Gas Storage Act 2006 (Cth). However, unlike the Commonwealth regime, the Bill does not specify that the titleholder's actions must be carried out in accordance with the applicable environmental plan for that activity. (b) *MEPAU submission* MEPAU notes that, under the existing Petroleum and Geothermal Energy Resources (Environment) Regulations 2012 (WA), the operator of an activity is required to, among other things, put in place an environmental plan for any activity it carries out. MEPAU would like to understand from the DMIRS how the 'polluter pays' provisions of the Bill are intended to operate with these existing obligations under the Petroleum and Geothermal Energy Resources (Environment) Regulations 2012 (WA)? In particular, whether an operator's obligations under the 'polluter pays' provisions are intended to be limited by reference to the existing environmental plan?	DMIRS clarifies that the obligations contained within an environment plan, including how to address a petroleum incident, will in most instances be applicable and be the appropriate action to address a petroleum incident. Notwithstanding, DMIRS recognises that there may be some instances whereby a situation involving an escape of petroleum could contain unusual or unforeseen circumstances that were not contemplated in the actions outlined in an environment plan. In these situations, it may be more appropriate to implement an action that was not captured in an environment plan. The ability to have additional flexibility is the reason why the Minister's ability to direct actions under the polluter pays provision is not inherently linked to obligations contained within an environment plan. DMIRS envisages that in most instances, the action outlined in an environment plan will likely be appropriate.

Ref #	Stakeholder	Comment	DMIRS Response
25.	Environmental Defenders Office (EDO)	**II. Adoption of "polluter pays" principle is to be commended, but further provisions are necessary to ensure obligations are meaningful** **A. Financial assurances are an essential aspect of the "polluter pays" principle** We commend DMIRS' intention that the companies that stand to profit from fossil fuel extraction should be liable for harm caused by "escape of petroleum", rather than the taxpayers of the state. We support the amendment of the Petroleum Acts to make clear that the registered titleholder carries a legal obligation to control, eliminate, clean up, and monitor the impact of any escape of petroleum; and that where efforts are inadequate, the Minister may recover from the titleholder the cost of the State fulfilling the obligations. However, the amendments DMIRS proposes are inadequate for ensuring that the obligation is meaningful. Although the Information Sheet for the PLA Bill states that the "polluter pays" principle "has been adapted from the *Offshore Petroleum Greenhouse Gas Storage Act 2006* (Cth)", the PLA Bill fails to mirror the federal provisions that ensure that titleholders have sufficient funds to carry out their clean-up obligations, or that the costs can be recovered. Section 571 of the OPGGS Act requires a titleholder to maintain financial assurances sufficient to give the titleholder the capacity to meet costs, expenses and liabilities in connection with its activities, including the costs of complying with, or failing to comply with, any requirements of the OPGGS Act. Regulations made pursuant to the OPGGS Act provide that an environment plan may not be approved unless the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) is reasonably satisfied that the titleholder is compliant with its obligations under section 571, in a form that is acceptable to NOPSEMA. The PLA Bill does not include any equivalent requirement that would ensure that an interest-holder actually has the financial capacity to either carry out clean-up obligations, or reimburse the State for such costs incurred. Experience with taxpayers bearing the cost of decommissioning and remediating petroleum extraction projects (described further below) demonstrates the importance of ensuring that liabilities can be met, if the commendable "polluter pays" provisions are to fulfil their purpose. **RECOMMENDATION:** The proposed "polluter pays" principle must make explicit that a titleholder is also liable for care and maintenance of the title area, decommissioning of operations, and rehabilitation of the title area.	DMIRS acknowledges EDO's comments. To clarify, the proposed polluter pays amendment applies across all phases of a petroleum operation including care and maintenance, decommissioning and rehabilitation whenever there is an escape of petroleum (or regulated substance). There are existing financial insurance conditions within the Petroleum Acts whereby registered holders are required to maintain, as directed by the Minister, insurance against expenses and liabilities associated with petroleum and geothermal activities. While the matter of financial assurances is beyond the scope of this amendment Bill, DMIRS advises that it intends for the existing requirements to be broadened through a forthcoming Bill in response to the Independent Scientific Inquiry into Hydraulic Fracture Stimulation. That specific Bill, which is being developed separately to the Petroleum Legislation Amendment Bill (No. 2) 2022, intends to amend the PGERA to broaden financial assurance mechanisms and the State's ability to investigate, audit and enforce compliance. Failure to maintain financial insurance would be grounds for withdrawal of acceptance of an environment plan.

Ref #	Stakeholder	Comment	DMIRS Response
26.	Australian Gas Infrastructure Group (AGIG)	**ENVIRONMENTAL AMENDMENTS** 1. The environmental amendments proposed to the PPA and PGERA incorporate the "polluter pays" principle in a new Part 4A (PPA)/Div 4A (PGERA) and formal recognition of care and maintenance, decommissioning and rehabilitation as petroleum operations in the definition of pipeline/petroleum operations respectively. 2. AGIG considers that the new definitions of "pipeline operation" and "petroleum operation" encompass what is in reality required of pipeline/ petroleum operators under their licence conditions, as well as various environmental laws. 3. However in respect of the new Part 4A in the PPA AGIG has some concerns. The proposed changes require that in the event of any 'escape of petroleum occurring as a result of, or in connection with, a pipeline operation under a licence…',1 the licence holder is required to take all reasonably practicable steps to minimise or control it, clean up the escaped petroleum and remediate any resulting damage to the environment and carry out environmental monitoring of the impact of the escape on the environment and anything done by the registered title holder (and in the event that they fail to do so, the Minister may step in and do this and claim the cost back from the title holder). The proposed changes also require the title holder to carry out these actions if the escaped petroleum has migrated to interstate land or waters. 4. AGIG considers that the changes to Part 4/Div 4 duplicate other legislation and regulatory oversight. Whist the changes may be manageable in terms of escape of liquids or solids from a pipeline or a petroleum operation, they are more problematic in relation to escape of gas. 5. AGIG notes that an inescapable part of pipeline operations and petroleum production operations is occasional venting and flaring of gas. Further all gas facilities/pipelines leak to some extent – both venting and fugitive emissions are concepts captured by the NGER legislation and all pipelines/petroleum operations are required to report/estimate a % of fugitive gas emissions as part of their NGER reporting. 6. AGIG is also required to report under the National Pollutant Inventory (NPI) National Environment Protection Measure, which is an internet database designed to provide publicly available information on the types and amounts of certain substances that are emitted to the air, land and water. This is administered by the WA pursuant to the *Environment Protection (NEPM NPI) Regulations* 1998, under the *Environmental Protection Act 1986* (NEPM NPI). The Department of Water and Environmental Regulation has responsibility for implementation of the NEPM NPI. 7. In relation to petroleum pipeline operations, s37 of the PPA already deals with escape or waste from a pipeline, imposing a penalty for such occurrences. 8. To the extent that DMIRS is concerned that gas emissions are not captured in s37 of the PPA or the environmental regulations or by the EPA's amendments, the NGER amendments require entities within the safeguard mechanism (which includes all of the large oil and gas producers in WA as well as AGIG) to report on all emissions associated with their operations. Reforms currently being developed will likely require a 5% reduction in benchmarked emissions on an annual basis. Where these companies fail to achieve this, they will be required to acquire ACCUs or similar offsets equivalent to the carbon dioxide equivalent emissions to the extent that they exceed the set benchmark for the relevant company. It is not clear to AGIG what the new Part 4A/Div 4 will add to these requirements under the NGER Act and existing legislation. 9. Under the PPA and the PGERA environment regulations, a licence holder is required to have an environmental management plan that addresses environmental risks associated with the relevant operations, which (under both sets of regulations) requires that specified emissions and discharges (whether occurring during normal operations or otherwise) to any land, air, marine, seabed, sub-seabed, groundwater, sub-surface or inland waters environment to be continuously monitored and recorded in a way that — a . is accurate; and b. can be audited against the environmental performance standards and measurement criteria in the environment plan. 10. Any environmental management plan approved by DMIRS includes specific requirements regarding clean up and rehabilitation of petroleum spills. 11. The EPA is in the process of re-defining the activities that are categorised as Part V activities under the EPA (requiring a licence and resulting in application of all of the polluter pays and statutory safeguard and reporting mechanisms under that statutory regime). One of the new categories in Part V of the EPA will be "Energy and combustion activities such as fuel burning; electric power generation; and oil and gas production." The EPA in its discussion paper states that it is seeking to streamline regulatory burden in connection with oversight and licencing of such activities. 12. Accordingly AGIG submits that: a. the new Part 4A s56A in the PPA and Division 4A s86A in the PGERA duplicate applicable provisions in the Environmental Protection Act (EPA) (and foreshadowed amendments to the EPA), requirements under the NGER, requirements under NEPM NPI, provisions in the Petroleum Pipelines (Environment) Regulations 2012 and provisions in the Petroleum Geothermal Energy Resources (Environment) Regulations 2012; b. s37 of the PPA already imposes a penalty on a pipeline licensee for escape or waste of any substance from a pipeline specified in the licence so regulations can be made to govern we question the need for the new Part 4A in the PPA; and i. it has difficulty understanding how the provisions will be applied in practice in relation to gaseous emissions (as opposed to liquids or solids).	AGIG's comments and questions are acknowledged. DMIRS asserts that while s.37 of the PPA renders a registered holder liable for a $10,000 penalty for the escape or waste of any substance from a pipeline, a penalty for failure to comply does not equate to ensuring financial responsibility for remedying an escape of petroleum (or regulated substance). The proposed polluter pays provision seeks to ensure registered holders bear the financial responsibility for remedying an escape of petroleum they are responsible for as opposed to financially penalising the registered holder for the failure to comply. The two concepts do not necessarily produce corresponding monetary values. It is correct that there is a requirement for environment plans to include contingency plans to address an escape of petroleum, including clean up and rehabilitation. However, currently neither the Petroleum Acts nor Petroleum Environment Regulations place an express obligation for registered holders or operators to bear the financial responsibility for remedying an escape of petroleum. Many registered holders/ operators make an express commitment to bear the financial cost, however this commitment is not expressly provided for in the existing Acts nor Regulations. In this sense, the proposed polluter pays provision is not duplicating any existing requirement, as it seeks to ensure registered holders/ operators are expressly financially responsible for an escape of petroleum. DMIRS clarifies that intentional venting or flaring of gas is distinct from the meaning of 'escape' (of petroleum). Similarly, fugitive emissions that may occur due to the design tolerances or limitations of plant, equipment or machinery used during the normal operation of a pipeline or a production facility, are also distinct from the meaning of 'escape' (of petroleum). The proposed amendments are not related to greenhouse and energy reporting schemes, pollutant inventories or emissions reduction initiatives. The proposed amendments are explicitly for the purpose of ensuring that registered holders bear the financial responsibility for remedying an escape of petroleum they are responsible for.

Ref #	Stakeholder	Comment	DMIRS Response
27.	Australian Gas Infrastructure Group (AGIG)	13. AGIG also has the following comments and questions: a. Are the Part 4A requirements intended to attach to emissions of gas through venting or flaring as part of standard petroleum operations? b. If gas is intended to be captured, in practice, how does the State consider that a title holder should clean up/remediate emissions of gas? c. How should "resulting damage to the environment" be measured in relation to escape of escaped gas? How should a title holder measure the impact on the environment – should it be limited to the locality of the escaped petroleum or should it extend globally? d. If a clean up is possible in relation to escaped gas, how can the effectiveness of that clean up be monitored – again is the monitoring to be undertaken to be local or global? e. In connection with spread of petroleum to interstate land or waters, how would this be assessed if the escaped petroleum is a gas? 14. AGIG submits that the amendments should be limited to liquid and solid substances emitted from the pipeline or petroleum operation. 15. If AGIG's suggestion in paragraph 14 is not acceptable, then: a. the amendments should exclude petroleum or a regulated substance that is vented or flared in connection with standard petroleum operating practice; and b. the Minister should provide guidance about how in practice pipeline or petroleum operators are to clean up gas emissions and should give consideration to cross over of these types of obligations under the NGER Act.	AGIG's comments and questions are acknowledged. DMIRS clarifies that the Part 4A requirements are not related to the intentional venting or flaring of gas. Matters such as the measurement of escaped gases, measurement of the impact on the environment and monitoring of clean-up efforts, are expected to be addressed in environment plans. Further guidance may be developed in consultation with the WA community and industry, where necessary, in relation to such matters.
28.	Australian Gas Infrastructure Group (AGIG)	f. How do these provisions interact with the proposed CCS Bill provisions – will they apply to storage and transportation of GHGs? Will they impact upon the State indemnity that is encompassed in the CCS Bill where after the closing certificate is issued for a CCS project, the State assumes liability (providing the relevant requirements are met)?	DMIRS acknowledges this point for consideration as part of the amendments addressing greenhouse gas storage and transport.
29.	Australian Gas Infrastructure Group (AGIG)	16. AGIG has the following comments in relation to the drafting in Div4A of the PGERA in the Draft Bill: a. Division 4A s86A(2)(n) of the proposed changes to PGERA refers to a licence as defined in s4(1) of the PPA as a title that is subject to the PGERA's "Polluter Pays" amendments. b. AGIG suggests that as the same amendments are proposed in Part 4A of the PPA, s86A(2)(n) should be deleted. That is, the scope of the PGERA's polluter pay clauses should not include licence holders under the PPA given this clause is mirrored in the proposed amendments to the PPA.	DMIRS thanks AGIG for its observation. DMIRS agrees with AGIG; this will be addressed in the finalised version of the Bill.

Ref #	Stakeholder	Comment	DMIRS Response
30.	Australian Petroleum Production & Exploration Association (APPEA)	Redundant Environmental Amendments Regulatory duplication poses a risk of redundant regulatory oversight and additional complications and compliance costs. Many of the proposed environmental amendments appear duplicative as they are already covered in the general/remedial direction in the primary Petroleum Acts and the activity based environmental regulations. The key inclusion of the 'polluter pays principle' is a prime example of regulatory redundancy and risk. The purpose and intent of the 'polluter pays principle' is to ensure the financial responsibility of environmental damage in the event of an escape of petroleum, and this is already managed under the oil spill contingency plan (OSCP). Below are additional select examples, though not an exhaustive list, of regulatory duplication: • The concept of good oil field practice – specifically to control the flow and to prevent escape of petroleum has resided in petroleum legislation in WA since the *Petroleum Act 1936*. • More recently section 91 of the *Petroleum and Geothermal Energy Resources Act 1967* (PGERA) applies and there is a penalty for noncompliance. • The proposed amendments to ensure financial compliance appear to be defined under section 3A of the *Environment Protection Act 1986* (EP Act) which set out required incidents, reports, and records. • Regulations 28-30 of the PGERA (Environment) Regulations 2012 prescribe recordable and reportable incidents and administrative penalties for noncompliance. **APPEA seeks clarification on the need to add the 'polluter pays' principle when this is included in existing regulation.** APPEA requests that all reasonable measures to identify and resolve duplication be undertaken and to simplify the Draft Bill more broadly. APPEA seeks clarification as to the reasoning and necessity of adding the proposed environmental amendments to the Draft Bill, given the EP Act is WA's primary environmental statute and already offers sufficient protection against material and serious environmental harm. APPEA requests greater harmonisation between the acts and subsidiary legislation in order to reduce duplication and unnecessary regulatory burden.	APPEA's comments are acknowledged. There is currently no express requirement in the Petroleum Acts or the Petroleum Environment Regulations that registered holders or operators must bear the financial responsibility associated with remedying the effects of an escape of petroleum. Some operators have committed to bearing this financial responsibility (voluntarily) within Oil Spill Contingency Plans contained within Environment Plans. The proposed amendments codify this expectation and also provide for circumstances where an escape of petroleum may occur in the absence of an approved environment plan (including OSCP). DMIRS does not agree with APPEA's characterisation of these amendments as redundant. DMIRS considers that the amendments are prudent and reflect the expected standards of conduct by registered holders operating in WA's unique environment. DMIRS clarifies that the existing s.91A of the PGERA is written in the express terms that the registered holder is to <u>prevent</u> the escape of petroleum, prevent damage etc. The existing provision doesn't impose any express obligation to <u>remedy</u> an escape of petroleum or damage caused by an escape. While failure to comply with s.91A PGERA creates an offence, i.e. a $10,000 penalty, this does not extend to the recovery of costs expended in circumstances necessitating Government intervention to remedy an escape of petroleum. The concept of good oil field practice does not create an express or implied obligation to bear the financial responsibility associated with remedying the effects of an escape of petroleum. With respect to reportable incidents in regulations 28-30 of the PGERA (Environment) Regulations 2012, the failure to record and report incidents and the associated $5,000 penalty does not amount to an express obligation to <u>remedy</u> an escape of petroleum or damage caused by an escape. The existing provisions in regulations 28-30 reflect the administrative penalties associated with failing to record and/or report incidents. DMIRS considers a penalty for non-compliance is distinct from bearing the financial cost of remedying the effects of and cost of a non-compliance. DMIRS does not consider holding registered holders financially responsible for remedying escape of petroleum as constituting duplication.
31.	Australian Petroleum Production & Exploration Association (APPEA)	Safeguard Mechanism Clarification In the summary of the proposed Bill, the 'polluter pays principle' is referenced as a provision which will "complement existing safeguard mechanisms within the Petroleum Acts". Reference to 'safeguard mechanisms' could be viewed colloquially or more specifically referencing the Federal Government's regulatory framework for emissions reduction. APPEA requests further clarification as to what specific 'safeguard mechanisms' this is referencing, and any related implications this may have on the proposed bill.	The reference to the proposed polluter pays principle 'complementing existing safeguard mechanisms' contained in the Summary document accompanying the Bill refers to existing regulatory controls contained within the various Petroleum Acts with respect to environmental and financial assurance matters such as s.91A of the PGERA (conditions for financial assurance) and s.95 PGERA (directions). It was not a reference to any Commonwealth provision or forthcoming amendment.

Ref #	Stakeholder	Comment	DMIRS Response
32.	Lock the Gate Alliance (LTGA)	5) The proposed "polluter pays" principle must ensure that the titleholder is fully liable for the care and maintenance, decommissioning of operations, and rehabilitation of the title area.	The proposed polluter pays principle will ensure that registered holders are fully financially liable for the care and maintenance, decommissioning of operations, and rehabilitation of the title area where an escape of petroleum (or regulated substance) occurs.
33.	Lock the Gate Alliance (LTGA)	7) In regard to the clean-up of 'escaped petroleum', the precautionary principle must be employed. Likewise with the proposed provision of 'Environmental monitoring of the impact of the escape on the environment'; ie. it is generally a case of too little too late. Escaped petroleum in the form of gas is of additional concern and difficult to 'clean up'. As such we refer back to Recommendation 1 to emphasise the importance of the Acts to stop the opening up of new petroleum reserves and to rapidly phase out oil and gas production, not only for climate purposes but also to reduce other harm caused by escaped petroleum.	LTGA's suggestions are acknowledged. The proposed amendments reflect that the risk of an escape of petroleum cannot currently be eliminated entirely. The amendments will ensure, notwithstanding WA's stringent regulatory regime, that if an escape of petroleum occurred, the registered holder would be duty-bound to bear the financial responsibility to remedy the effects of that escape. This is an important initiative to ensure that the WA community would not bear the costs, and that the WA Government is able to recover such costs if intervention is necessary. The inclusion or application of the precautionary principle is beyond the scope of the proposed amendments and would require broader legislative reform. The requirement to monitor the impact of the escape on the environment is designed to ensure that financial responsibility for an escape, if it occurred, is held in full by the registered holder or operator, and until such time as the impact/effects are remedied in full. DMIRS' role is to regulate the industry and ensure that it complies with the laws in WA that the Department administers. The proposed amendments play an important role in reducing potential harms associated with an escape of petroleum.

Ref #	Stakeholder	Comment	DMIRS Response
Calculation of Royalties			
34.	Australian Gas Infrastructure Group (AGIG)	**CALCULATION OF ROYALTIES** 17. The proposed changes to PPA enable the Minister to direct a pipeline operator to install a royalty metering station for the purposes of calculation of royalties under the PGERA (PPA ss12(2A), 12(2B) and 12(2C)). The proposed changes to PGERA allow inspectors to access, inspect and test any meter installed under s12(2A) of the PPA (ie a royalty meter) (s119(1)(b) PGERA). 18. Ordinarily royalty metering stations are situated at the well-head for a producer or inside a gas processing plant, pursuant to the terms of the relevant petroleum production licence. The State has a financial interest in the measurements taken from the royalty metering station – i.e. its royalty calculations are based upon these measurements. The Draft Bill proposes amendments to enable installation of royalty meters on third party infrastructure to facilitate assessment of third party royalties where the third party's gas is to be transported via a gas pipeline to a gas processing plant. 19. Currently in respect of AGIG's operations: a. high pressure gas pipelines (such as the DBNGP) are licenced and regulated under the PPA and are not subject to the operation of the PGERA or petroleum licences issued under the PGERA. b. there is little or no oversight of standard pipeline metering by the State under the PPA (other than verification of the metering at the time that the Minister issues consent to operate or under specific contractual arrangements). This is because the State has no financial interest in gas flows through a standard meter operated under the PPA – any financial interest is purely between the pipeline operator and their customer and metering accuracy is dealt with contractually between these parties. 20. The DBNGP, as the main high pressure gas pipeline connecting into the Karratha Gas Plant, is likely to be the third party infrastructure primarily impacted by the ability of the State to require installation of a royalty metering stations on third party infrastructure. 21. AGIG has some concerns that the proposed changes: a. seek to impose petroleum production licence obligations onto an asset that is not regulated by a petroleum production licence; b. duplicate existing legislation; and c. could unfairly operate to impose costs on pipeline operators that are not recoverable from the beneficiaries of the royalty meter (particularly a direction to retrospectively install a royalty metering station). Licence Conditions 22. Proposed clauses 12(2A), (2B) and (2C) of the PPA empower the Minister to impose conditions upon the grant of a licence to require the pipeline licensee to install royalty metering equipment at one or more points on the pipeline as directed by the Minister. Clause 12(2C) empowers the Minister to retrospectively impose such conditions upon a pipeline licensee engaged in an existing pipeline operation. 23. If a pipeline licensee breaches a condition of their licence, they are exposed to loss of the licence (PPA s24(1)). 24. Typically if a new pipeline is being constructed, it will be for a specific customer or group of customers and the capital costs of construction and operational costs will be negotiated by the customer(s) with the pipeline licensee. Where conditions are known, the costs can be factored in and covered by the customer(s) who benefit from the pipeline's construction. 25. However the ability of the Minister to retrospectively insert conditions into a pipeline licence to install a royalty meter for the benefit of a third party is grossly inequitable in that: a. It requires additional capital and operational cost without any provision for recompense to the pipeline operator/licensee; b. It is for the benefit of a third party and the State – there is absolutely no benefit to the pipeline operator in installation of a royalty meter; c. It greatly increases the risk profile of the pipeline operator to both the third party and the State due to risks associated with potential mismeasurement of gas flows having a financial impact upon the State and the third party, without standard contractual protections in place to protect the pipeline operator in such circumstances; d. a breach of the licence conditions (including in relation to operation of a royalty metering station) could potentially result in the loss of a pipeline licence. 26. Metering for the purpose of calculating royalties owing to the State by third party petroleum producers under the PGERA is not the normal business of the DBNGP. Metering stations established for calculation of petroleum royalties have different requirements to standard metering stations on the DBNGP, including different built in redundancy and operational requirements (e.g. requirements to send the meter overseas for recalibration every 5 years) as well as a State approved Gas Measurement Plan.	DMIRS acknowledges AGIG's concerns and accepts the merits of AGIG's suggestion. The proposed amendment will be revised to include an agreement component whereby the pipeline licence holder would be required to submit a written request to the Minister to impose a condition requiring the installation of a royalty meter. The application would need to contain evidence of an agreement with the production licence holder. This approach empowers the pipeline licence holder (as the relevant affected party) to determine whether to enter into an agreement with the production licence holder. Under the revised approach, it will be implicit that the production licence holder engage with and procure agreement from the pipeline licence holder, before any request could be made to the Minister. Any contractual or monetary matters would then be dealt with by the two parties in the private sense before any actual actions could be undertaken. DMIRS thanks AGIG for its input to this proposed amendment.

Ref #	Stakeholder	Comment	DMIRS Response
34 Continues		27. The proposed amendments to clause 12 of the PPA result in the Minister being able direct AGIG to install a royalty metering station. Presumably the Minister would make such a direction at the request of a petroleum producer. No agreement from AGIG is required or allowed for. Such a direction can be provided for if done prior to construction, however it creates problems if directed retrospectively. A retrospective direction absent an undertaking from the relevant producer of gas would cause AGIG to incur capital costs and increased operational costs without the ability to require that producer of gas to pay for the installation. 28. AGIG considers that the Minister should ensure that the entity who requires the royalty meter to be installed on third party assets (either the producer or the processor) pays for its installation and operation, rather than these costs being lumped into the general tariff paid by all gas transportation shippers on the DBNGP. 29. AGIG notes that it has demonstrated a willingness to assist its customers and producers on the DBNGP to retrospectively install royalty metering station and so s12(2C) is not in fact necessary. Summary regarding retrospective licence condition to install a royalty metering station 30. In summary, AGIG opposes the inclusion of s12(2C) in the PPA as drafted. 31. AGIG submits that as a matter of principle, any direction to retrospectively install a royalty metering station should be: a. subject to agreement from AGIG; and b. paid for by the producer who is requesting the royalty metering station be installed on third party infrastructure. 32. AGIG suggests that if the Minister decides to retain a right to require a pipeline operator to retrospectively install a royalty metering station on third party infrastructure, any direction of the Minister should only be made after a producer nominates the site for the royalty metering station in its application for a production licence. This would mean that the relevant producer would have had to discuss and agree the location with a third party infrastructure owner prior to its application to the Minister. 33. Alternatively, the right of the Minister to require a pipeline operator to retrospectively install a royalty metering station should be dealt with procedurally in the same manner as set out in s25 of the PPA. Section 25 of the PPA governs the Minister's ability to require a pipeline licence holder to change the position of a pipeline route. Under that section, the pipeline licence holder must comply with the direction however the Minister is able to require that the person who is seeking relocation has given security for the payment of any amount payable to a licensee; the licensee is able to bring an action in the Supreme Court to determine whether the cost incurred ought be paid to the licensee by the State/body making the request.	
35.	Australian Gas Infrastructure Group (AGIG)	Inspection Rights 34. Under s63 of the PPA, the Minister can already enter into any licence area, inspect and test any pipeline, take samples and require any person to produce to the Minister or to make available to for inspection by the Minister any documents in the possession or control of that person and relating to transfers of ownership. The proposed amendments to s119 of PGERA sets out almost identical powers. 35. AGIG submits that the words "including a meter installed under the Petroleum Pipelines Act 1969 s12(2A)" proposed to be inserted into s119(1)(b) of PGERA are unnecessary given that: a. s12(2A) of the PPA enables the Minister to direct installation of a royalty metering station under the PPA for the purpose of calculating royalties under the PGERA; b. The preamble in s63 states that inspection powers are "for the purposes of this Act", and AGIG's view is that it can be used for inspection and production of documents for the purpose of the PGERA because the wording in clause 12(2A) expands the purpose of the PPA to include installation of a royalty meter for the purpose of calculating royalties under PGERA; c. Potential confusion is caused by duplicating obligations creeping in under PGERA in relation to operation of a pipeline under the PPA.	DMIRS acknowledges AGIG's comment and clarifies the proposed amendments to s.119 of the PGERA seek to remove any ambiguity that an inspector authorised under the PGERA and undertaking an inspection in relation to production matters is able to inspect meters installed on a third party asset pursuant to the PPA. That is, this amendment seeks to clarify the situation that PGERA-authorised inspectors may also inspect PPA condition-installed meters and seeks to avoid the potential for the occurrence of jurisdictional errors with respect to inspections. S12(2A) PPA does not apply to the powers of what an inspector can inspect but rather that a meter may be required to be installed as part of a condition on title. Whether or not an inspector can then inspect this meter is addressed under s63 PPA.

Ref #	Stakeholder	Comment	DMIRS Response
36.	Australian Petroleum Production & Exploration Association (APPEA)	Clarification of the Calculation of Royalties on Third Party Infrastructure APPEA supports in principle the proposed amendments to modernise the Petroleum Acts to facilitate tolling for the calculation of royalties on third-party infrastructure. Tolling maximises efficiency – and therefore tax revenues for Government. APPEA appreciates the Department's understanding and willingness to update and modernise legislation through these amendments. Currently, the PGERA and the *Petroleum and Submerged Lands Act 1982* (PSLA) calculate royalty at the wellhead in relation to petroleum recovered in the licence area (e.g. production licences), which is not conducive to permitting the third party tolling of petroleum. APPEA understands that the proposed system will determine how much saleable gas is to be processed separately. Any cost paid to a third-party to process gas would be deducted from the sale price (with other amounts) to derive a wellhead value to which a royalty would be payable. In effect, costs will be included to get back to the wellhead value. **APPEA requests clarification on installation requirements and how these arrangements will be practically enforced, and the order and calculation method of royalties from third-party metering.** Has the Department considered amending the PPA to introduce an infrastructure licence title type in the PGERA (as exists in the PSLA and Offshore Petroleum and Greenhouse Gas Storage Act 2006)? This may simplify the regulatory approvals required by an operator and ensure DMIRS remains the main approvals agency for the development and conveyance of petroleum. APPEA recommends that DMIRS be in close contact with Commonwealth Treasury as proposed changes to the Petroleum Resource Rent Tax (PRRT) will possibly have significant impact on WA tax revenue and implications to these amendments.	Any specific installation requirements will be established and provided for in the condition imposed by the Minister to require the installation of a metering device on third party infrastructure for the purposes of royalty calculation. Practically, this power will only be utilised whereby the relevant production licence holder and pipeline licence holder are in agreement and evidence of such an agreement is provided to the Minister. This agreement component represents an opportunity for the relevant registered holders to negotiate commercial, financial and contractual terms to ensure their interests are protected. Where the Minister is satisfied that both parties are in agreement, the condition-setting power will be utilised. This Bill does not contain any proposed amendment to introduce infrastructure licences as a title type to the PGERA. DMIRS appreciates APPEA's suggestion; however, DMIRS does not consider the application of infrastructure licences to be appropriate in this instance, as royalty-based meters are required to be installed on pipelines as opposed to parallel or separate infrastructure alongside a pipeline.
Underground storage of Petroleum			
37.	Environmental Defenders Office (EDO)	**IV. Penalty provisions must reflect the serious consequences of offences and should be modernised** **A. Penalty for unlawful underground injection is inadequate** Section 67 of the PLA Bill proposes to amend s 67 of the PGER Act to permit the making of regulations for underground storage of petroleum, replacing the existing system of permitting the Minister to enter into an agreement for the underground storage of petroleum. While we commend a move toward regulatory oversight of petroleum activities in place of individual agreements with the Minister, the failure to amend the penalty for underground storage of petroleum in violation of the Act is a grave oversight. Underground storage of petroleum is a dangerous practice, and has been subject to catastrophic failures. For instance, in 2015-2016, the failure of the Aliso Canyon Underground Gas Storage Facility in southern California resulted in the largest natural gas blowout in the United States. Over the 111 days that it took for operators to successfully seal the blown-out well, an estimated 109,000 metric tons of methane flowed uncontrolled, requiring the relocation of nearly 10,000 families and temporary school closures. Ongoing studies are assessing the health impacts from the underground storage failure to the nearby community. In Spain, the Castor Underground Gas Storage Project had to be discontinued after it triggered three M4 earthquakes, which were felt by residents in coastal towns despite the storage facility being 20km offshore. In light of the severe consequences of underground storage failures, the existing $10,000 maximum penalty is inadequate. The provision was last updated in 2010. Given the approximate 24% inflation over the period 2010-2021, the penalty has significantly decreased in value in real terms. Despite extensively amending s 67, the PLA Bill does not propose to amend this existing penalty. It therefore risks becoming a "pay to pollute" provision, where the financial consequence of statutory violation is considered by operators as a reasonable commercial trade-off. This undermines the purposed environmental protective purpose of the PLA Bill. **RECOMMENDATION:** The PLA Bill should prohibit, rather than authorise, injection of petroleum into a natural underground reservoir. **RECOMMENDATION:** Alternatively, the penalty set out in proposed s 67 for unlawful injection should be increased by at least a factor of 10, to reflect the potentially catastrophic consequences of the prohibited activity.	DMIRS acknowledges EDO's comments. The injection of petroleum underground for storage will be regulated through specific requirements and processes to be established in ensuing amendments to the PGERA Regulations. This amendment does not contain amendments for penalties. A forthcoming amendment to the PGERA in response to the Independent Scientific Panel on Hydraulic Fracture Stimulation will address penalties.

Ref #	Stakeholder	Comment	DMIRS Response
38.	Environmental Defenders Office (EDO)	**B. Regulations for underground storage of petroleum should include public notice and comment opportunities** While maintaining that the preferable approach to regulation of underground storage of petroleum is to prohibit the practice, we commend the move away from agreements with the Minister to a modern system of authorisations. Because of the benefits of public participation in decision-making processes, we recommend that, if underground storage is to be allowed, the PLA Bill direct that the regulations providing for grant of an authorisation must include publication of applications for authorisation and the opportunity for the public to comment on those applications. **RECOMMENDATION:** The PLA Bill should be amended to ensure that power to make regulations for grant of an authorisation to inject petroleum include publication of applications for an authorisation and the opportunity for public comment.	DMIRS acknowledges EDO's position. The proposed amendment for authorising the underground storage of petroleum does not include publication of applications for underground storage nor an opportunity for public comments. DMIRS undertakes rigorous regulation for underground storage operations to ensure they are undertaken in a responsible and safe manner. Further to this, any activities in the State that have the potential for causing significant environmental harm will be referred to the Environmental Protection Authority for assessment pursuant to the EP Act. This process ensures significant environmental matters will be considered as part of any assessment process. The EP Act assessment process includes opportunities for stakeholder consultation. DMIRS considers this approach to be appropriate to manage projects with the potential to cause significant environmental harm.
39.	Australian Gas Infrastructure Group (AGIG)	**UNDERGROUND STORAGE OF PETROLEUM (PGREA S67 AND S144)** 36. AGIG's underground gas storage facility at Tubridgi near Onslow in Western Australia operates under the Petroleum Injection, Storage and Recovery Deed entered into between the State of Western Australia, the Minister for Mines and Petroleum and AGI Tubridgi Pty Limited, as amended and restated under the Deed of Amendment and Restatement dated 23 March 2022. 37. AGIG has no comments about the drafting proposed in the PGERA but requests that it be consulted on the drafting of the Regulations so that it can ensure that so far as possible the regulations mirror its existing arrangements and so that AGIG can feed in any 'lessons learned' from its existing arrangements at TGS.	DMIRS acknowledges AGIG's comments and welcomes future opportunities to engage with AGIG on the development of the ensuing regulatory amendments and the establishment of the Petroleum Storage Management Plan.
40.	Australian Pipeline Limited (APA)	**2.4 APA supports revising the technical approval process for underground storage of petroleum** APA supports the Bill's intention to revise the technical and approvals process for the underground storage of petroleum, as it will ensure a streamlined and more efficient manner of approval. We welcome the opportunity to be further involved in the development of subsequent regulation amendments, including the establishment of the Petroleum Storage Management Plan. The Mondarra Field is a depleted gas reservoir that has been operating as a gas storage facility since 1994. Located in the North Perth basin, this facility has been owned and operated by APT Parmelia Pty (APA) since 2004 and currently provides storage capacity for the supply of domestic gas. Gas injection into or gas withdrawal from the reservoir is determined by the customers that have contracted APT Parmelia Pty Ltd for the use of the gas storage facilities. These requirements change on a day-to-day basis as the market demands. APA has developed a comprehensive reservoir management system (RMS) for the Mondarra Gas Storage Facility, including a Field Management Plan and Well Management Plans. The objective of the management plans is to ensure that the facility is operated within regulatory compliance and can reliably inject or withdraw pipeline quality gas, from and into, the nearby natural gas transmission pipelines (Parmelia and DBNGPL) in order to fulfil its contract requirements in a safe manner.	DMIRS acknowledges APA's comments and thanks APA for its support for the intention of the proposed amendments. DMIRS welcomes future opportunities to engage with APA on the development of the ensuing regulatory amendments and the establishment of the Petroleum Storage Management Plan.
41.	Lock the Gate Alliance (LTGA)	3) The PLA Bill should prohibit, rather than authorise, the injection of petroleum into a natural underground reservoir. The practice has had catastrophic consequences around the world. For example, the failure of underground gas storage at the Aliso Canyon Underground Gas Storage Facility in California resulted in the largest gas blowout in the US, requiring the relocation of 10,000 families, amongst other disastrous impacts.	DMIRS acknowledges LTGA's comments and position. The PGERA currently contains an ability for the Minister to authorise the underground storage of petroleum. This proposed amendment (together with ensuing amendments to the PGERA Regulations) seeks to revise the manner in which underground storage activities are approved, and will also provide an enhanced level of regulatory oversight to ensure such activities are appropriately regulated.

Ref #	Stakeholder	Comment	DMIRS Response
Permitting addtives to Petroleum			
42.	Australian Gas Infrastructure Group (AGIG)	**ADDITIVES TO PETROLEUM** 38. AGIG is keen to ensure that the DBNGP can be utilised to facilitate transportation of either naturally occurring hydrogen or manufactured hydrogen and other renewable fuel gases from production areas to industrial areas in a safe and reliable manner. 39. AGIG is concerned that the proposed draft will not enable manufactured hydrogen (or other fuel gases that are not naturally occurring) to be captured by the PPA. 40. The Draft Bill's definition of "petroleum" (in both the PPA and PGERA) limit it to naturally occurring hydrocarbon (or mix of hydrocarbon together with other common chemical substances found in methane) and: *a includes the following:* *i. any petroleum as defined by paragraph (a) that has been returned to a natural reservoir, except oil shale;* *ii. any petroleum as defined by paragraph (a) or (b)(i) <u>to which 1 or more things prescribed by the regulations for the purposes of this definition have been added.</u>* The commentary on the Draft Bill implies that the underlined words give the Minister the power to prescribe additives to petroleum for purposes of transportation. 41. This is excellent for the purposes of odorant added to petroleum and it potentially enables a mix of hydrogen and petroleum to be transported if hydrogen is a prescribed substance, however it precludes pipelines that are purely dedicated to hydrogen or some other alternative manufactured fuel gas (for example bio gas) from being regulated under the PPA. 42. The PGERA also captures "regulated substances", defined as "a naturally occurring substance that (a) occurs in a natural geological formation; and (b) is prescribed by the regulations for the purposes of this definition." This definition excludes hydrogen (unless hydrogen is found in a natural geological formation). For the purposes of the PGERA, this is logical given that the purpose of this Act is regulation of exploration for, extraction of and royalties payable in respect of petroleum and geothermal energy, and these activities and payments are not applicable to manufactured hydrogen or other manufactured fuel gas.	DMIRS clarifies that the proposed amendments in the Bill are limited to allowing certain additives to be added to petroleum, which are then able to be conveyed through a PPA pipeline. Additives that are able to be conveyed will be those substances that are prescribed through Regulations such as ordorants or other safety-related substances used in the recovery or production phases. This amendment would also allow for the potential for hydrogen to be prescribed in Regulations as an additive, which is then able to be blended with petroleum and conveyed through a PPA pipeline. This amendment, and the PPA, is limited to the conveyance of petroleum as well as additives i.e. up to 49 per cent of the total contents in a pipeline. It does not capture or provide for the conveyance of pure hydrogen (in any form whether naturally occurring or renewable), nor any other substance, such as biogas or methane. While hydrogen has similar properties to petroleum, it also has distinguishable properties which result in safety implications and a need to treat it differently in certain matters. In this instance, its corrosive nature and small molecular size in comparison to petroleum (and therefore, permeability) indicate that conveyance of pure hydrogen is not appropriate through a standard PPA pipeline. DMIRS considers that the *Dangerous Goods Safety Act 2004* (DGSA) provides an adequate framework for the regulation of transmission of hydrogen. If hydrogen is prescribed as an additive, a maximum of 49 per cent may be blended and conveyed with petroleum. However, in practice, the amount of hydrogen that is able to be conveyed would be controlled by Regulations and set at a conservative amount for safety purposes. DMIRS acknowledges AGIG's comments, however clarifies this Bill is limited to petroleum-operational amendments and amendments to enable for the exploration and production of naturally occurring hydrogen. This is the ambit of the Bill and the scope of the Petroleum Acts relate to the State's natural resources. The Petroleum Acts do not relate to renewable or manufactured resources. Separately to DMIRS and this amendment Bill, the Department of Jobs, Tourism, Science and Innovation (JTSI) is the lead agency considering a number of initiatives to support the emerging hydrogen industry in Western Australia, including renewable and manufactured hydrogen.

Ref #	Stakeholder	Comment	DMIRS Response
Amendments for naturally occurring Hydrogen: Introducing prescribed regulated substances			
43.	Mitsui E&P Australia (MEPAU)	1 Extending the application of PGERA and PSLA to a 'regulated substance' **1.1 Changing 'petroleum' to 'petroleum or a regulated substance'** (a) *Summary* The Bill provides for references to 'petroleum' in the PGERA and PSLA to be expanded to include a 'regulated substance'. The ability to prescribe a regulated substance is subordinated to regulations, and will be a power exercisable by the Minister. MEPAU understands that it is envisaged by the DMIRS that naturally occurring hydrogen would be prescribed as a regulated substance following passage of the Bill. (b) *MEPAU submission* MEPAU is broadly supportive of this change and recognises that inclusion of the term 'regulated substance', combined with the ability for the Minister to prescribe a regulated substance under the regulations, provides an efficient pathway for including other substances within this definition in the future without the need for further legislative amendment to the PGERA or PSLA. MEPAU is concerned, however, that the blanket approach adopted in making this change (ie, by simply changing all references to 'petroleum' to 'petroleum or a regulated substance') has resulted in certain provisions being ambiguous, notably in circumstances where it is unclear as to whether the intention is for the relevant provision to capture: • only petroleum, or only a regulated substance (as the case may be); or • both petroleum and a regulated substance. For example, the proposed amendments to s. 68 of the PGERA / s. 58 of the PSLA provide that, where petroleum or a regulated substance is not being recovered and the Minister is satisfied that there is recoverable petroleum or a regulated substance in that area, the Minister may issue a direction to the licensee to take all necessary and practicable steps to recover that petroleum or regulated substance. As drafted, it is unclear as to whether the Minister may only issue a direction to a licensee in respect of the relevant product being produced from the licence area at that time (ie, petroleum or a regulated substance), or whether the Minister could in fact require a licensee that is producing petroleum to commence production of a regulated substance (or vice versa). Further, the proposed amendments to s. 7B of the PGERA / s. 9 of the PSLA provide for petroleum or any regulated substance to be recovered from a resources pool within the licenced area, again without clarifying the relevant product being produced in respect of that licence area. MEPAU considers that this should be clarified in the Bill. Accordingly, MEPAU would suggest that each use of the term 'petroleum or a regulated substance' in the Bill be confirmed by DMIRS to ensure that: • it is appropriate in that context; and • that, where necessary, it is clarified whether the provision operates in respect of one only, or both, substances.	DMIRS acknowledges MEPAU's comments and advises it will review the amendment Bill with the objective of clarifying the operation of each section as to whether it applies to petroleum, regulated substances or both etc. With respect to the example provided by MEPAU, only petroleum will be recoverable in the ordinary instance, however, the provision is applicable with respect to a regulated substance (as well as petroleum) where the registered holder has obtained additional rights for a regulated substance (meaning it has the ability to explore for/ recover both petroleum and a regulated substance).
44.	Australian Gas Infrastructure Group (AGIG)	**AMENDMENTS REGARDING NATURALLY OCCURRING HYDROGEN** 48. AGIG has no comments regarding the proposed changes to the PGERA or the PSLA regarding application of the regulatory framework in those acts to exploration for and extraction of naturally occurring hydrogen.	DMIRS acknowledges AGIG's comment.
45.	Natural Hydrogen Association of Australia (NH2A)	**Regulated substances:** Under the proposed amendments to the Petroleum Legislation, there is new category called 'regulated substances'. It is not clear if natural hydrogen will be the only regulated substance that will be included under the amendments. For clarity, it would be helpful for the list of prescribed substances to be issued ahead of the implementation of the legislative amendments.	At this point in time, naturally occurring hydrogen is the only substance that is intended to be prescribed as a regulated substance in ensuing amendments to the Petroleum Regulations.
46.	Natural Hydrogen Association of Australia (NH2A)	**Existing Petroleum Permits:** The proposed legislative amendments suggest that approval to include rights to a prescribed regulated substance from the Minister could come with either new conditions, a variation to the existing conditions, or the removal of existing conditions. It is unclear if these new, varied or removed conditions will relate to the prescribed regulated substance only or if those new, varied or removed conditions will also involve the other petroleum activities. This should be clarified.	DMIRS clarifies the Minister's power to impose new, vary existing or remove existing conditions, which arises from the grant of additional rights for a prescribed regulated substance, is in relation to all substances i.e. both petroleum and prescribed regulated substances. Accordingly, this condition-setting power has the ability to impact conditions relating to petroleum. The rationale is to allow for additional flexibility in the regulation of regulated substances which may result in the need to vary the operation of petroleum activities.

Ref #	Stakeholder	Comment	DMIRS Response
47.	National Hydrogen Association of Australia (NH2A)	**Definition and extent of a discovery (Resources pool):** It is possible that natural hydrogen will be detectable at small concentrations at some locations in the soil or in the shallow subsurface. The definition of a resource pool or the discovery of a regulated substance(s) will require some clarification as it refers to a discrete accumulation, whereas it is possible that a natural hydrogen pool occurs as areas of increased flux and are subject to recharge. It is noted that the proposed amendments of the Petroleum Legislation only cover static recoverable resources pools and make no provisions for dynamically charged accumulations.	The proposed amendment is not prescriptive on how the areal extent is determined. DMIRS will assesses the areal extent of Resource Pools on recognised technical geoscientific and engineering principles. Naturally occurring hydrogen may accumulate in an underground pool/ accumulation in a comparable geometry to petroleum, but may also occur as an area of increased flux. Identified factors that control and isolate the area of increased flux would be considered in the definition of the areal extent. These may include shallow or deep geological factors such as faults or the presence of permeable rock.
48.	National Hydrogen Association of Australia (NH2A)	**Petroleum operations:** The definition of petroleum operations is defined as 'operations to explore for petroleum or a regulated substance'. It is unclear whether operations such as an extensive soil gas sampling program or near surface semi-regional lidar or air composition measurements will fall under the legislative amendments as a petroleum operation or will be excluded from this definition.	DMIRS advises that activities that are in pursuit of or progress the exploration of petroleum or a regulated substance, such as extensive soil gas sampling, near surface semi-regional lidar or air composition measurements fall within the scope of 'petroleum operations'. This is consistent with the existing approach for petroleum, which also includes activities such as aerial surveys.
49.	Fortescue Future Industries (FFI)	FFI is supportive of the approach to: - amend the Petroleum Legislation to include a licencing regime for naturally occurring hydrogen; and	DMIRS acknowledges FFI's comment.

Ref #	Stakeholder	Comment	DMIRS Response
50.	Australian Petroleum Production & Exploration Association (APPEA)	Definitions and Treatment of Regulated Substances The definition of petroleum and regulated substances seems unnecessarily complicated which has consequential affects throughout the Draft Bill. APPEA requests information relating to the decision to separate the definitions of 'petroleum' and 'regulated substances' and require separate regulatory treatment of the two materials. **APPEA recommends that the definition of 'petroleum' and 'regulated substance' be simplified under a single definition which would allow for a single regulatory treatment.** Hydrogen and other listed regulated substances are then regulated in the same or similar manner as petroleum with differences in treatment being addressed in WA's dangerous good safety legislation and regulations. By simplifying the Draft Bill with a broader definition of petroleum and regulated substances, many regulatory complications could possibly be addressed. Having a definition and treatment that can be used for both petroleum and other materials such as hydrogen, nitrogen, helium, and others will simplify the regulations and provide a more robust and future-proof structure. Many potential issues relating to the different treatment of petroleum and regulated substances are found throughout the proposed amendments. One example of these unnecessary and avoidable complications is found in the treatment required with incidental discoveries. When incidental discoveries of hydrogen occur, instead of an entirely separate category and regulatory treatment, a single regulatory framework and treatment would address the change. APPEA requests that DMIRS consider how incidental discoveries of hydrogen be treated, considering that incidental discoveries of hydrogen regularly take place in petroleum operations. A separate definition and regulatory treatment of these materials is unnecessary complex and simplifying the Draft Bill in this manner will enhance transparency, understanding, and compliance and will allow greater flexibility in the regulatory structure. APPEA notes that the licencing and title processes for underground storage of petroleum through the existing petroleum title structure is not fit for this purpose. PGERA section 67(1) states that only petroleum title holders will be permitted to inject petroleum for storage. It is recommended that further details and forward-looking options be considered and clarified. This is due to holders of geothermal titles or an entity who have not previously held a petroleum title (whether that be from the cancellation of a previous title or simply not possessing a title) could pursue underground storage. Additionally, section 5 includes 'petroleum exploration permit' or 'geothermal exploration permit' in the definition of 'permit', yet in section 91(C)1, the conditions on petroleum titles for regulated substances refers only to 'a permit' which includes more than petroleum permits. The separation of definitions of petroleum and regulated substances and then identical title and licencing between these different materials is confusing and could be simplified. **APPEA recommends that clarity and consistency of titles and licencing be reviewed and queries if the Department has considered a separate title system for underground storage of petroleum and regulated substances.** APPEA, in its review of the Draft Bill, identified that South Australian petroleum legislation defines 'regulated substance' in the manner described above – petroleum, hydrogen, and other materials all fall under the definition of 'regulated substance'. This approach makes for a substantially simpler regulatory framework that is easier to manage and navigate, both for government and industry. APPEA recommends that WA adopt a similar approach to that of South Australia. APPEA understands that one possible reason for the separation of the definitions of petroleum and regulated substances is due to Native Title implications. If regulated substances are added to the definition of petroleum, there could be unintended ramifications to existing petroleum lease holders. The 'opt-in process,' which will allow additional rights to explore for or produce naturally occurring hydrogen, is proposed to avoid interference with existing petroleum leases. It is APPEA's position that Native Title implications being considered for this proposed regulatory strategy will likely still present themselves regardless of separate definitions, regulatory treatment, and the proposed opt-in process. APPEA emphasises that more information and practical examples are required to access the relevant merits of the opt in process and ensure that existing petroleum titles and projects are not negatively impacted. Further modelling and/or legal advice will assist to fully understand the possible implications of this proposed regulatory process, the implications on Native Title, and existing petroleum leases. APPEA supports the proposed allowance of additives in petroleum, but also notes that broadening of the definition and treatment to include regulated substances would better future proof any possible need to include additives in regulated substances. Additionally, the treatment of regulated substances such as natural hydrogen should not be separate to that of renewable and manufactured hydrogen as far as practicable. Separating the treatment of these materials is not necessary and the definition and treatment of these materials should be identical in terms of handling, storage, and transportation.	DMIRS' rationale in separating the definitions of 'petroleum' and 'regulated substances' is because petroleum and naturally occurring hydrogen are distinct substances i.e. naturally occurring hydrogen is not a hydrocarbon. This approach would also allow flexibility for other potential substances to be prescribed as a regulated substance without having to be a hydrocarbon. DMIRS notes that petroleum and regulated substances/ naturally occurring hydrogen are similar in nature but are still distinct and therefore must be treated differently in certain aspects. For example, hydrogen is more corrosive and volatile as compared to petroleum and accordingly, a higher standard of safety ought to be applicable. DMIRS asserts that the primary intent of the Petroleum Acts is to regulate the exploration and production of petroleum resources. That is, the Petroleum Acts are not being revised to become a bespoke Energy Resources Act and therefore, the primary focus of these Acts must remain focused on petroleum resources. Allowing a broad definition of petroleum to also include other potential regulated substances risks diluting the Petroleum Acts beyond their intended object and purpose. With respect to incidental discoveries of hydrogen, DMIRS advises that petroleum registered holders will have an obligation to report the incidental discovery of hydrogen pursuant to the Petroleum Acts regardless of whether they have elected to pursue regulated substances. If registered holders do not seek to produce any incidentally discovered hydrogen, then no further action may be required. In any event, where hydrogen is discovered, registered holders may have an obligation to notify DMIRS pursuant to the DGSA. DMIRS acknowledges the permitting of underground storage of petroleum and the prohibition of underground storage of hydrogen and clarifies this difference is due to safety considerations with respect to hydrogen (i.e. volatility and combustibility). DMIRS acknowledges that third parties may be interested in pursuing underground storage of petroleum however, such an activity would be problematic where that third party does not have land access rights to a depleted underground reservoir. Accordingly, it is logical that a petroleum title is first required for the underground storage of petroleum so as to secure land access rights, and secondly, to ensure the proponent has the requisite experience, technical knowledge and capacity to undertake such activities. DMIRS notes APPEA's comment seeking uniform treatment of naturally occurring hydrogen with renewable hydrogen. DMIRS clarifies that the Petroleum Acts (and DMIRS' ambit) relates to the exploration and production of natural resources. Renewable hydrogen does not have any exploration requirements and is produced through industrial processes. Naturally occurring hydrogen relates to hydrogen that is occurring within the Earth, which must be explored for and found in order to be produced. Therefore, the production of the two substances are unique. While this is the case, DMIRS agrees, where possible, the treatment of various types of hydrogen should be consistent where possible. Separate to this amendment Bill, JTSI is currently reviewing relevant existing legislation, regulations and standards affecting the hydrogen industry in Western Australia to reduce the barriers for the renewable hydrogen industry. The scope of JTSI's work includes the conveyance of hydrogen.

Ref #	Stakeholder	Comment	DMIRS Response
51.	H2EX Ltd (H2EX)	**H2EX Feedback on Petroleum Legislation Amendment Bill (No.2) 2022** H2EX supports the amendments proposed in the Petroleum Legislation Amendment Bill (No.2) 2022.	DMIRS acknowledges H2EX's comment.
52.	Lock the Gate Alliance (LTGA)	Additionally, only a small percentage of hydrogen can be mixed safely into existing gas pipelines. Hydrogen will ultimately require new pipeline infrastructure, which industrialises landscapes, requiring investment and resources that could otherwise be directed to renewable energy. As such, the PLA Bill should be amended to remove provisions enabling the exploration and production of naturally occurring hydrogen through petroleum titles.	DMIRS clarifies that only a minor portion of hydrogen would be able to be added to petroleum and conveyed through existing pipelines – the specific amount would be controlled by Regulations and set at a conservative amount. DMIRS also acknowledges that the conveyance of pure hydrogen would require greater industrial specifications and safety standards than existing pipelines, which is why this amendment Bill does not seek to enable the conveyance of regulated substances/ hydrogen in isolation. The intent of the amendments includes identification and development of utilise alternative sources of energy to collectively assist achieving net zero carbon emissions by 2050.

Ref #	Stakeholder	Comment	DMIRS Response
Amendments for naturally cccurring Hydrogen: Opting in			
53.	Mitsui E&P Australia (MEPAU)	**1.2 Requirement for existing title-holders to opt-in to a regulated substance** (a) *Summary* The new concept of a 'regulated substance' provides a framework for the exploration and production of naturally occurring hydrogen in Western Australia (subject to the Minister exercising the power to prescribe naturally occurring hydrogen as a regulated substance).However, before a party can obtain rights to explore / drill for / produce (as applicable)naturally occurring hydrogen, the following must occur: • the Minister must decide, at the Minister's discretion, to prescribe naturally occurring hydrogen as a "regulated substance"; • applicants must then apply to the Minister to explore / drill for / produce (as applicable) the regulated substance (and declare to the Minister that such a regulated substance has been discovered); and • the Minister must then grant approval (in writing), subject to such conditions as the Minister thinks fit, and endorse the Relevant title. This means that a petroleum exploration permit, petroleum drilling reservation, petroleum special prospecting authority, access authority, petroleum production licence and/or petroleum retention lease does not, of itself, grant the licensee / permit holder (as applicable) with any rights in respect of a regulated substance – and a party granted any such permit or licence would have no certainty as to its future ability to explore / drill for / produce (as applicable) a regulated substance. The Bill also proposes to give the Minister the power to impose new conditions in relation to regulated substances, as well as vary or remove existing conditions. (b) *MEPAU submission* MEPAU considers the Bill to be an important and necessary step in reducing regulatory barriers for Western Australia's emerging hydrogen industry, and is supportive of proposed amendments that seek to facilitate (and reduce regulatory uncertainty in respect of) the development of what will be a future key industry in Western Australia. In light of that, MEPAU is concerned that the 'opt-in' model proposed by the Bill potentially creates increased regulatory burden to industry, whilst reducing clarity with respect to the exploration for, and development of, regulated substances. As a threshold issue, MEPAU queries the merit in imposing additional regulatory hurdles on regulated substances when the DMIRS has itself stated that naturally occurring hydrogen (ie, a regulated substance) shares a number of similarities with petroleum (and indeed it was on that basis that DMIRS considered that the PGERA and PSLA were the appropriate the legislative framework to regulate the exploration and production of naturally occurring hydrogen). MEPAU does not believe that there is a clear and logical rationale for this bifurcation of rights to petroleum and regulated substances under a single title, and notes that this approach suggests that, in DMIRS' view at least, petroleum and regulated substances are to be treated separately under each licence, with the associated implications that follow from that conclusion (e.g., separate and distinct work commitments). MEPAU also believes that the 'opt-in' model raises the following fundamental issues that are not addressed by the Bill: • If an existing title holder does not "opt-in", are the rights to explore / drill for / produce (as applicable) regulated substances available to another party in respect of that same licence area? • If so, then how would the rights to explore / drill for / produce (as applicable) petroleum and regulated substances be prioritised? • What will the Minister take into account when deciding whether to grant rights for a regulated substance noting that, as drafted, a separate application would be required when applying for each permit, lease or licence (as applicable)? DMIRS' current statement that 'additional rights for a prescribed regulated substance may be granted on a petroleum title', 'when the Minister is satisfied with an application' (emphasis added) provides no clarity or certainty to industry participants. It is also unclear whether this Ministerial determination would operate in addition to, or as part of, the ordinary assessment of an application for a permit, licence or lease (as applicable). • The conditions (including work commitments) that are likely to be imposed upon a permittee, lessee or licensee (as applicable) related to that regulated substance. MEPAU is also concerned that there are inadequate guard rails to protect an existing title holder from the Minister imposing additional work commitments in respect of regulated substances over an existing title area. Given that there is significant overlap in the processes for exploring for petroleum and naturally occurring hydrogen, MEPAU does not expect that an existing titleholder will be required to undertake work commitments in respect of a regulated substance that have already been satisfied in respect of petroleum for the same licence area. MEPAU considers that this would present an unreasonable regulatory barrier to the development of naturally occurring hydrogen in Western Australia, and could also have associated impacts on future exploration and development of petroleum resources.	While naturally occurring hydrogen shares a number of similarities with petroleum, there are a number of key differences (i.e. combustibility and volatility) that determine that in some respects, it must be treated differently as compared to petroleum. This is envisaged to occur through the condition-setting power available when additional rights for regulated substances are granted, and will assist in ensuring the overall safety of operations e.g. to ensure the new activities do not compromise the safety of existing petroleum operations. By extension, the Minister will consider all relevant information in determining whether to grant additional rights for hydrogen including safety aspects, whether there are any impediments to producing naturally occurring hydrogen in that area. A significant factor in these determinations with respect to regulated substances is safety. DMIRS asserts that the primary intent of the Petroleum Acts is to regulate the exploration and production of petroleum and geothermal energy resources. That is, the Petroleum Acts are not being revised to become a bespoke Energy Resources Act and therefore, the primary focus of these Acts must remain focused on petroleum and geothermal energy resources. DMIRS clarifies the rights to explore for a regulated substance for a specific location are tied to the titles (or lack thereof) over that part of land. Where there is an existing petroleum title, and that registered holder does not elect to pursue regulated substances; third parties are prevented from pursuing regulated substances over that part of land. DMIRS does not envision that another proponent could secure a title for 'regulated substances' over a petroleum Exploration Permit, Retention Lease, or Production Licence. This is based on the fact that additional rights for a regulated substance are being added to the existing petroleum licence system and not being added as a standalone licence framework. The conditions (including work commitments) that are likely to be imposed upon a permittee, lessee or licensee (as applicable) in relation to a regulated substance will be determined in due course as applications are received and as part of the ensuing amendments to the Petroleum Regulations. Work commitments are established through the application/ renewal process, DMIRS has not conceived of adding new work commitments to a title just because it has regulated substances added to it. A proponent could certainly apply for a variation or recognition of work done in the regulated substance area, something which is available under the current system. Prospective registered holders may apply for a petroleum title with additional rights for a regulated substance in the same application, however only the Minister (or their delegate) is able to grant additional rights for a regulated substance.

Ref #	Stakeholder	Comment	DMIRS Response
54.	National Hydrogen Association of Australia (NH2A)	**License split:** As the inclusion of prescribed regulated substances is based on "opt-in", it is unclear whether the JV participants in a petroleum license could be split into separate groups for the exploration and production of petroleum and for the exploration and production of the prescribed substance. It would be helpful to supply some clarification as to whether this split is allowable under the proposed amendment.	DMIRS advises that the rights for petroleum and the rights for a regulated substance would be granted to the registered holder. While DMIRS recognises that registered holders may be a single entity or occur in the form of a joint venture, the rights granted are to the registered holder and it is not possible to split these rights between the different parties in a joint venture. DMIRS notes however, that some titles can be split into two titles, however, that is a split of area not of rights i.e. they would each get a portion of the area in a separate title but neither title would overlap.
55.	National Hydrogen Association of Australia (NH2A)	**Incidental discovery:** Further clarification is required for the situation where a regulated substance is encountered during the drilling of a petroleum well in a permit without the rights to explore for that regulated substances (i.e. the substance has not been 'opted in'). Does this measurement of the regulated substance need to be reported as a discovery if detected in a petroleum well in a permit without the rights to explore for, or produce, the regulated substance?	DMIRS clarifies that if a registered holder (of a petroleum title or another title e.g. geothermal energy title), who has not opted in to explore for regulated substances, discovers or otherwise detects the occurrence of a regulated substance, such as naturally occurring hydrogen, that registered holder will have an obligation to report the discovery to the Minister/ DMIRS. The Minister will also be empowered to make directions with respect to the incidental discovery (to determine the chemical composition, physical properties and quantity which replicates existing petroleum provisions). The obligation to report a discovery or incidental discovery of a regulated substance occurs regardless of whether the registered holder has rights to explore for a regulated substance. Notwithstanding the incidental discovery, the registered holder is prevented from exploring for or extracting the regulated substance until the appropriate title/ additional rights are obtained. In addition to obligations to report the discovery pursuant to the Petroleum Acts, DMIRS advises there may be a need to report the discovery of or interaction with a regulated substance, such as hydrogen, pursuant to the DGSA.
56.	H2EX Ltd (H2EX)	**Clarification question:** H2EX seeks clarification in a situation whereby an existing permit holder does not opt-in to explore for the newly introduced Regulated Substances (i.e. natural occurring hydrogen) within a period of time or in perpetuity, what happens to the rights to explore? May qualified third parties seek or apply for these rights or will they effectively remain dormant if the titleholder does not opt-in?	DMIRS clarifies the rights to explore for a regulated substance for a specific location are tied to the titles (or lack thereof) over that part of land. Where there is an existing petroleum title and that registered holder does not elect to pursue regulated substances; third parties are prevented from pursuing regulated substances over that part of land. A 'regulated substance' title will not coexist with a petroleum title.
57.	H2EX Ltd (H2EX)	Natural hydrogen is in its infancy and the most appropriate title instrument for this highly speculative pursuit is the Special Prospecting Authority with Acreage Option ("SPA/AO"). H2EX's understanding is that a reservation is in place and as a result that the SPA/AO application is not available for companies wishing to explore for natural occurring hydrogen in areas unlikely to be gazetted (assuming the Bill is passed). Further, as per in South Australia the ability to study and apply for acreage in basins that are unlikely to be hydrocarbon prone but perhaps more likely to have naturally occurring helium and hydrogen plays would be advanced by lifting the reservation and allowing companies like H2EX to propose work programmes via the SPA/AO mechanism. H2EX would be able to apply its IP and methodologies to the rapid pursuit of commercialising naturally occurring hydrogen. Naturally occurring hydrogen is a theoretical and speculative, unlikely to be pursued by mainstream E&P companies at this time. As with many new industries these are best pursued by dedicated companies singularly focused on the exploration of naturally occurring hydrogen. We look forward to receiving clarification on how H2EX can add value to West Australia's hydrogen economy by exploring for natural hydrogen ASAP. It is not evident to our company how these amendments will result in any additional pursuit of natural hydrogen as it is unlikely that companies in the midst for exploring or developing oil and gas will repurpose or shift their business model. They have an ability to opt-in and aggregate the rights without necessarily having to undertake additional work programme commitments.	The State is intending to lift the current reservation on petroleum applications in areas outside of those to be quarantined for future acreage releases. It is intended that the lifting of this reservation will occur in parallel to the announcement of the 2023 Petroleum Acreage Release. Once the reservation has been lifted, applications for special prospecting authorities will be able to be lodged.

Ref #	Stakeholder	Comment	DMIRS Response
Amendments for naturally occurring Hydrogen: hydrogen in pipelines			
58.	Mitsui E&P Australia (MEPAU)	**1.3 Potential to blend hydrogen with petroleum in a PPA or PSLA petroleum pipeline** (a) *Summary* The Bill proposes to amend the definition of 'petroleum' to include, relevantly, any petroleum to which one or more things prescribed in the regulations have been added. DMIRS has indicated1 that this amendment could be used to enable the blending of hydrogen and petroleum through PPA and PSLA pipelines (presumably through the regulations prescribing hydrogen as an additive for the purposes of this definition). (b) *MEPAU submission* MEPAU supports establishing a legislative framework that allows for the development of a hydrogen industry in Western Australia, and recognises the key challenges associated with the transport of hydrogen (whether naturally occurring or otherwise) that will need to be resolved by stakeholders, including Government and industry. MEPAU is concerned, however, that the approach suggested by DMIRS is overly simplistic, and risks uncertainty given that the regulatory regime under the PPA and PSLA is structured around the transport of 'petroleum' (as that term is defined in the PPA and PSLA). If this amendment was used to regulate the transport of hydrogen by petroleum pipeline, it would effectively require a regulated substance (eg, naturally occurring hydrogen) to be considered 'petroleum' for the purposes of the transport of petroleum by pipeline. In all other circumstances, however, naturally occurring hydrogen would be considered a regulated substance, and not petroleum. Given the importance of establishing a clear, fit for purpose regulatory regime to the development of Western Australia's hydrogen industry, MEPAU considers that any arrangement for the transport of hydrogen (whether naturally occurring or otherwise) should be specifically legislated. MEPAU also notes that relying on the proposed amendments to the PPA and PSLA would still, as DMIRS notes, require petroleum (excluding any additives) to be the primary substance being transported within the pipeline. MEPAU believes that any regulatory framework for the transport of hydrogen should provide for a situation in which hydrogen is the primary substance being conveyed, and not merely an additive.	DMIRS acknowledges and agrees with MEPAU's comments. DMIRS holds the view that the conveyance of hydrogen ought to be provided for in separate legislation, either in a bespoke Act or through the DGSA. This is why this amendment Bill only permits the blending of a regulated substance to petroleum as an additive (i.e. a minor portion). The proposed amendments ensure that petroleum is still the dominant substance being conveyed, ensuring that the PPA is fit to regulate the activity. The amount of a prescribed regulated substance that is able to be blended and conveyed will be established in Regulations and will be conservative. Separate to this amendment Bill, JTSI is currently reviewing relevant existing legislation, regulations and standards affecting the hydrogen industry in Western Australia to reduce the barriers for the renewable hydrogen industry. The scope of JTSI's work includes the conveyance of hydrogen.
59.	Environmental Defenders Office (EDO)	**B. Any future decision to permit blending of hydrogen with petroleum for transportation must take into account the particular properties and risks of hydrogen** The blending of increasingly greater concentrations of hydrogen with natural gas has been recommended as part of the transition away from fossil fuels, but there are significant constraints and pitfalls associated with hydrogen blending. Extant expert advice in Australia appears to settle on a blend of up to 10% hydrogen by volume in natural gas as being acceptable without any impact on pipeline infrastructure, gas safety or end uses. In a detailed investigation of hydrogen impacts on downstream installations and appliances, it was revealed that in a few instances negative effects were evident at hydrogen concentrations <10%. For higher hydrogen concentrations, risks compound with potential damage to pipelines, compressors and other infrastructure; unacceptable gas performance for commercial and industrial users; and the need for residential users to replace gas appliances. The very small size of the H2 molecule and its low viscosity make it very difficult to contain. Pipelines, flanges, valves and other fittings that function adequately for natural gas and other gases are prone to suffer leaks throughout with hydrogen. Another insidious and unique characteristic of hydrogen is that it can diffuse into metals to cause corrosion. With the high-strength steel used in the oil and gas industry for pipelines and storage vessels, it manifests as 'hydrogen embrittlement' causing loss of strength and ductility and leading to brittle fracture. It is hydrogen atoms, rather than molecular hydrogen H2, that diffuse into the metal lattice; the H atoms can be produced naturally in high-pressure H2, or chemically by reaction of H2 with impurities at the steel surface or in the gas stream. Hydrogen, like methane and propane, is colourless, odourless and tasteless, and although non-toxic is an asphyxiant. However, it differs in being the lightest and most flammable of gases, often burning with an invisible flame at high temperature, and forming explosive mixtures with air. Its mixture with air has a wide flammability range (4–75% volume per volume), far exceeding that of other gas fuels, and it readily ignites (~13 times lower ignition energy than liquefied petroleum gas). These properties impose special safety precautions differing from those of gas (including liquefied natural gas and liquefied petroleum gas) at all stages—production, processing, transport, storage and use. Before any decision is made to permit hydrogen blending for conveyance, pipelines, compressors and other infrastructure must be tested, trialled and monitored to establish that they are suitable for transporting hydrogen. If blending is allowed at all, limits on proportions of hydrogen to be blended must be informed by science, with an adequate margin for safety. **RECOMMENDATION:** The PLA Bill should be amended to remove provisions enabling the exploration and production of naturally occurring hydrogen through petroleum titles. **RECOMMENDATION:** Any future decision about whether to prescribe hydrogen as a substance that may be blended and conveyed through a petroleum pipeline must be made with consideration of the different properties of hydrogen; adequate testing, trialing and monitoring of the pipeline network, and set limits based on science with an adequate margin for safety.	DMIRS agrees with EDO's comments that any decision permitting the blending of hydrogen with petroleum in a petroleum pipeline ought to consider all the relevant safety implications. DMIRS has considered the various safety implications and this is the basis for which this amendment Bill only proposes the blending of a minor portion of hydrogen for conveyance – this Bill does not authorise the 100 per cent conveyance of pure hydrogen in isolation. The amount of hydrogen that is able to be blended with petroleum in a petroleum pipeline will be established in Regulations and will be conservative.

<table>
<tr><th>Ref #</th><th>Stakeholder</th><th>Comment</th><th>DMIRS Response</th></tr>
<tr><td>60.</td><td>Australian Gas Infrastructure Group (AGIG)</td><td>
TRANSPORTATION OF HYDROGEN IN PIPELINES
49. Where possible existing infrastructure should be utilised to minimise the cost to end consumers of the move from traditional methane as a fuel to either naturally occurring or manufactured hydrogen. The most likely location of large scale green hydrogen production is along the coast in the State's north west (via use of solar and wind power) and the most efficient method of transportation of hydrogen to multiple industrial users would be by blending hydrogen with natural gas in the DBNGP or a purpose built hydrogen transportation pipeline from hydrogen generation hubs to industrial users.
50. AGIG considers that the PPA is the appropriate mechanism for regulating conveyance of hydrogen in isolation through a pipeline, or blended with other substances in a pipeline. The PPA has well understood system for licensing and safety management which with relatively few changes can be made applicable to conveyance of hydrogen.
51. Incorporation of transportation of hydrogen in WA's existing pipeline legislation is consistent with the approach taken by the Commonwealth in their review of the National Gas Regulatory Framework, recently amended to enable renewable generated gases to be transported and sold using existing pipeline infrastructure.
52. Other States have already facilitated future development in an efficient way by amending their existing regulatory schemes for petroleum to include hydrogen and other renewable fuel gases. For example:
a. In Victoria, s9 of the Pipelines Act 2005 (Vic) incorporates hydrogen as follows:
This Act applies to—
i. a pipeline for the conveyance of petroleum, oxygen, carbon dioxide, hydrogen, nitrogen, compressed air, sulphuric acid or methanol through the pipeline; and
ii. any pipeline declared under section 11 to be a pipeline to which this Act applies.
b. In NSW, the Pipelines Act 1967 defines a 'pipeline' as "a pipe or system of pipes for the conveyance of any substance, whether in a gaseous, liquid or solid state…".
c. In Queensland, the Petroleum and Gas (Production and Safety) Act 2004 regulates exploring for, recovering and transporting by pipeline, petroleum and fuel gas and ensuring the safe and efficient carrying out of these activities". "Fuel gas" is defined in s11(2) as (a) LPG; or (b) processed natural gas; or (c) another substance prescribed under a regulation that is similar to LPG or processed natural gas." Regulation 6 of the Petroleum and Gas (Production and Safety) Regulation 2004 prescribes that the following substances are "fuel gas":
• hydrogen used or intended to be used as fuel;
• biogas;
• gas produced from a waste disposal tip;
• gas produced during the treatment of sewage;
• a substance that is a mixture of LPG and air, known as 'synthetic natural gas'.
d. In South Australia, the Petroleum & Geothermal Energy Act 2000 SA regulates (amongst other things) licences for gas transmission pipelines in South Australia. A pipeline is defined as a pipe or system of pipes for conveying petroleum or other regulated substances from place to place and regulated substance is defined to include "any substance declared by regulation to be a substance to which this Act applies." The Petroleum & Geothermal Energy Regulations provide in Part 1 paragraph (2) that:
For the purposes of paragraph (f) of the definition of regulated substance in section 4(1) of the Act, the following are declared to be regulated substances to which the Act applies:
• hydrogen;
• a hydrogen compound or other substance that is a by-product of the production of hydrogen.
53. In summary, AGIG repeats its' submission regarding "additives to petroleum" above and suggests that the definition section of the PPA is amended as per our submission in paragraph 46 and 47.
</td><td>
As specified in the PPA and PSLA, a pipeline is used for the conveyance of petroleum. This amendment Bill would permit the blending of a minor portion of additive (e.g. hydrogen) to petroleum (i.e. being 49 per cent or less of the total volume of content in a pipeline, meaning the primary substance being conveyed is still petroleum. The amount of additive that is able to be blended and conveyed with petroleum in a pipeline will be established in ensuing amendments to the Petroleum Regulations and will be set at a conservative rate. The amendments do not limit the type of additives that may be prescribed, meaning it is open for any type of hydrogen to be blended (whether naturally occurring, renewable or manufactured) and conveyed with petroleum. Existing infrastructure may be utilised to convey blended petroleum as long as safety and other regulations are observed.

The transportation of hydrogen using pipelines and other methods is currently legislated through the DGSA which provides for a higher standard of safety that it appropriate to regulate hydrogen (due to its volatile and combustible properties). It is not the intent of DMIRS to change or duplicate this strict approach.

DMIRS advises that current infrastructure owners can upgrade their existing pipelines to handle the transportation of 100 per cent hydrogen, however the pipeline would then need to be licensed under DGSA given the volatility of hydrogen.

In parallel, Energy Policy WA is engaged at the National Level in making amendments to extend the national gas regulatory framework to hydrogen and other renewable gases, which will allow for economic regulation of and third party access to pipelines carrying these gases.

Separate to this amendment Bill, JTSI is currently reviewing relevant existing legislation, regulations and standards affecting the hydrogen industry in Western Australia to reduce the barriers for the renewable hydrogen industry. JTSI's work encapsulates the transmission of 100 per cent hydrogen.
</td></tr>
</table>

Ref #	Stakeholder	Comment	DMIRS Response
61.	Australian Gas Infrastructure Group (AGIG)	43. For the purposes of the PPA, AGIG suggests that: a. the concept of "fuel gas" or "regulated substance" be incorporated into the PPA's definition of "pipeline" such that this definition reads: "pipeline means a pipe or system of pipes used or intended to be used for the conveyance of petroleum or [other fuel gas]/ [regulated substances]…" b. a definition of fuel gas/regulated substance be incorporated into the PPA, with the definition being: "a substance prescribed under a regulation that is similar to or used for purposes similar to LPG or processed natural gas" 44. Types of fuel gas/regulated substances to be prescribed by the regulations include: a. hydrogen used or intended to be used as fuel; b. biogas; c. gas produced from a waste disposal tip; d. gas produced during the treatment of sewage; e. a substance that is a mixture of LPG and air, known as 'synthetic natural gas similar to the Petroleum and Gas (Production and Safety) Act 2004 (Qld). 45. These changes would be a sensible and efficient mechanism for future proofing the PPA by bringing alternative energy sources within the existing licencing and regulatory structure (and importantly the safety mechanisms) prescribed by the PPA. 46. Relevant to future proofing the PPA: a. We note that the CCS Bill contains amendments to the PPA to facilitate use of PPA pipelines for conveyance of greenhouse gases (GHGs) separately to hydrocarbons, excluding pipelines defined as GHG injection lines, GHG facility lines or a pipe specified in the regulations. b. The PPA already caters for transportation of GHGs mixed with hydrocarbons in the definition of "petroleum". 47. To facilitate (i) use of the DBNGP for transportation of GHGs and hydrogen in the future (whether mixed with petroleum or not) and (ii) the construction of purpose built pipelines for transportation of GHGs or hydrogen within the existing DBNGP Corridor, we suggest that the Draft Bill include a consequential amendment to the DBPA to clarify that "gas" as referred to in s34 of the DBPA includes GHGs, hydrogen and other types of fuel gas. We note that: a. Section 34 of the DBPA confers rights on pipeline operators to utilise the pipeline corridor for the purpose of: "(i) having, constructing or operating, on the DBNGP corridor any pipeline for transporting gas; (ii) or enhancing any pipeline referred to in subparagraph (i); or (iii) any incidental purpose." b. "Gas" is not defined in the DBPA. c. The original easements granted to the State government in 1985 for construction of the original DBNGP granted the State the right to enter upon the relevant land to construct use and maintain a pipeline for the carriage of natural or other gas. d. The State may even contemplate broadening the scope of s34 of the DBPA to include pipelines for conveyance of water (although this would go beyond the terms of the underlying easements and may create issues with compensation claims). e. Removing any ambiguity about the ability to use the existing DBNGP corridor for such infrastructure would significantly improve the ease of approvals and consents from landholders and native titleholders in connection with construction of pipelines for transportation of these substances.	DMIRS recognises the merits of AGIG's comment, however, notes the purpose of the amendments is to enable the exploration and production of naturally occurring hydrogen. Naturally occurring hydrogen is the only substance that is being considered to be prescribed as a regulated substance. Further, the amendments to the PPA are to enable the blending of a minor portion of a prescribed regulated substance as opposed to the 100 per cent conveyance of hydrogen, biogas or another substance in isolation. While DMIRS acknowledges the merits of AGIG's suggestion, AGIG's proposal goes beyond the scope of the proposed amendments. DMIRS recognises AGIG's comments with respect to the conveyance of greenhouse gases as proposed in the Petroleum Legislation Amendment Bill (B) 2023. While AGIG's comment includes a linkage to hydrogen, DMIRS confirms the Petroleum Legislation Amendment Bill (No. 2) 2022 does not provide for the conveyance of hydrogen in a petroleum pipeline in isolation. Further, the Petroleum Legislation Amendment Bill (No. 2) 2022 does not include any amendments to the *Dampier to Bunbury Pipeline Act 1997*.
62.	Australian Pipeline Limited (APA)	**2 Submission** **2.1 APA supports the Bill and policies which encourage growth of the renewable gases industry** APA supports policy developments which help drive the establishment of the renewable energy industries. We are actively leading efforts to unlock the innovation and capabilities needed to establish a new hydrogen industry in Australia. Governments have set net zero emissions targets which will play a key role in the decarbonisation of the economy. Recently, it was announced that the WA Government will introduce climate change legislation this year that formalises the State's goal of net zero by 2050. Businesses like APA wish to invest in energy projects that support this transition to net zero. We support the approach set out in the Bill which accommodates the introduction of additives such as hydrogen and other future fuels in petroleum pipelines. The proposed amendment to WA Petroleum legislation to enable substances like hydrogen to be blended with petroleum and conveyed through petroleum pipelines, offers the opportunity to capitalise on existing gas infrastructure, and create an environment that is attractive to investors.	DMIRS acknowledges APA's comments.

Ref #	Stakeholder	Comment	DMIRS Response
63.	Australian Pipeline Limited (APA)	**2.1.2 Repurposing existing gas infrastructure** Energy Ministers recognise that gas will play a crucial role in the energy transition, and that the continuing use or repurposing of gas infrastructure could therefore be important for both gas and electricity users. Gas infrastructure has an essential role to play in helping Australia achieve least cost gas decarbonisation. Repurposing natural gas pipelines to transport hydrogen as energy is considered to have significant advantages: • Converting existing gas networks is more cost-efficient in comparison to constructing new, dedicated hydrogen pipelines. • Gas pipeline networks are already available and socially accepted (routes, including rights of way and use). • Technologies for converting the natural gas infrastructure to hydrogen operation are already being applied. Regardless of which renewable gas proves most effective, renewable gas providers can utilise pre-existing gas infrastructure like distribution networks, pipelines, metering equipment, and human expertise. An Oakley Greenwood report recently commissioned by the Tasmanian government in the development of their gas strategy supports this approach. Frontier Economics has also investigated the potential for gas infrastructure to decarbonise the economy. In its September 2020 report, Frontier concluded that making continued use of existing gas assets wherever possible, including for the transport of hydrogen or biogas, can help avoid the material costs of investing in new assets to deliver energy. The main reason Frontier came to this conclusion was due to the significant cost of the electrification pathway, particularly for industrial energy load. It was recognised that gaseous fuels are essential as industrial feedstock and high heat applications, and if gaseous fuels are not available, the industries that rely on this fuel will not be viable. The cost-effectiveness of pipeline infrastructure has also been considered in the Pipelines vs Powerlines: A Technoeconomic Analysis in the Australian Context report, produced by GPA Engineering and commissioned by the Australian Pipelines & Gas Association (APGA). The report indicates that hydrogen pipelines are likely to play a central role in Australia's net zero energy market. Hydrogen pipelines, for the purpose of energy transport and storage, were found to be up to four times more cost-competitive when compared to electricity transmission infrastructure, in the context of like distance and capacity scenarios. The ability of pipelines to store large amounts of energy is another factor supporting the repurposing of gas pipelines. The gas network is a flexible, affordable and safe store of energy, making it ideal to help support energy supply during extreme weather or periods of reduced supply. The ability of gas turbines to quickly ramp up and provide long term dispatchable generation shows gas pipelines will be a critical part of the energy system for many years to come. While gas pipelines are currently used for storing natural gas, it is likely that they will be repurposed and used as a hydrogen store in the years to come. Recommendation We recommend that WA Government consider legislative amendments which ensure there is a regulatory pathway for the transport of hydrogen or other future fuels within easements, licences, leases or other tenures to be permitted. The *Petroleum Pipelines Act 1969* (WA) (PPA) and other relevant Acts could make allowance for all existing easements and access rights to permit the transportation of hydrogen and future fuels. APA notes that a change such as this will need to be supported by a hydrogen safety and awareness campaign for landholders with petroleum pipeline tenure and the general public prior to commencing the transportation of hydrogen or future fuels, to ensure that pipeline operators maintain social licence. Ultimately, jurisdictions should work together on the conversion of existing easements to carry alternative gases, including, but not limited to, pure hydrogen and hydrogen blends.	DMIRS recognises APA's desire for repurposing existing gas infrastructure. DMIRS shares the view that where appropriate, existing infrastructure should be repurposed to allow for greater time and cost efficiencies. However, DMIRS asserts that hydrogen, although similar to petroleum, has distinct properties that dictate that it must be treated differently. Hydrogen is more volatile and combustible and accordingly, ought to be treated with a higher standard of safety. DMIRS' view is that the conveyance of pure hydrogen in isolation should be regulated by the DGSA. Neither this amendment Bill, nor the Petroleum Acts provide for the regulation of renewable resources. While DMIRS appreciates APA's view, there are distinct limitations as to what the Petroleum Act and this amendment Bill can provide for. Current infrastructure owners can upgrade their existing pipelines to handle the transportation of 100 per cent hydrogen, however the pipeline would then need to be licensed under the DGSA given the volatility of hydrogen. The PPA and PSLA limit the use of pipelines to the conveyance of petroleum. In parallel, Energy Policy WA is engaged at the National Level in making amendments to extend the national gas regulatory framework to hydrogen and other renewable gases, which will allow for economic regulation of and third party access to pipelines carrying these gases. Separate to this amendment Bill, JTSI is currently reviewing relevant existing legislation, regulations and standards affecting the hydrogen industry in Western Australia to reduce the barriers for the renewable hydrogen industry. JTSI's work encapsulates the transmission of 100 per cent hydrogen. The rights provided by easements are derived from the *Land Administration Act 1997*, and therefore would require separate consideration to the proposed amendments. DMIRS' concerns regarding changes to existing licences issued pursuant to the *Petroleum Pipelines Act 1969* are articulated above.

Ref #	Stakeholder	Comment	DMIRS Response
64.	Australian Pipeline Limited (APA)	**2.3 Policy developments should encourage 100 percent hydrogen/future fuel pipeline transport** While we appreciate the Government's gradual approach to introducing future fuels into the market, the Bill should not be constructed in a way that provides an unintended disadvantage to projects striving for 100 percent hydrogen/future fuel pipeline transport. As discussed below, there are projects on foot which are investigating ways for gas pipelines to transport 100 percent hydrogen or other future fuels. Policy and legislative developments should not discourage progression of these projects and ensure they are incorporated into a consistent regulatory framework. To encourage the growth of hydrogen and other future fuel industries, policies should regulate natural gases and future fuels together. The WA Government should be taking active steps now to ensure there is a pathway through the existing regulatory framework that enables petroleum pipelines to transport 100 percent future fuels. The capacity to reuse existing pipeline infrastructure under the same regulatory framework will reduce red tape and support investment in future fuels. This is important given the existing challenges to hydrogen projects and the need to accelerate decarbonisation. Pipeline customers are facing similar challenges with accelerating their emissions reduction efforts. Limiting future fuel blending in pipelines may not support customers' decarbonisation targets. Some very large industrial customers are more focused on 100 percent future fuel usage and transport, rather than blends. **2.3.1 Case study: APA's Parmelia Gas Pipeline** Much of APA's gas pipeline infrastructure is adjacent to some of the best geographical areas for hydrogen production in Australia. Our first Pathfinder Program project is seeking to enable the conversion of around 43-kilometres of the Parmelia Gas Pipeline (PGP) in WA into Australia's first 100 per cent hydrogen-ready transmission pipeline. In May 2022, APA and Wesfarmers Chemicals, Energy and Fertilisers (WesCEF) (part of Wesfarmers Ltd) executed a Memorandum of Understanding (MoU) to undertake a pre-feasibility study to assess the viability to produce and transport renewables-based hydrogen using this section of APA's PGP. In Phase One of the PGP Conversion Project, the pipeline was assessed as suitable for 100 per cent hydrogen service without any requirement to reduce operating pressure of the pipeline. Phase Two testing, supported by a $300,000 grant under the Renewable Hydrogen Fund (WA), is completed and involved testing the pipeline material in a gaseous hydrogen environment. The findings are promising and will be released publicly in the near future. Relevant sections of the Bill The PPA only applies to pipelines for the conveyance of 'petroleum' which does not include hydrogen and other future fuels. The Bill proposes amending the PPA and other Acts to allow for substances such as hydrogen and other future fuels to be transported through petroleum pipelines. Following the Bill's commencement, the Minister can prescribe up to 49 per cent of additives to petroleum for conveyance through petroleum pipelines. Currently, persons seeking to transport hydrogen must do so by obtaining a dangerous goods licence. It is unclear at this stage how the two regulatory frameworks will interact, given that under the proposed legislative amendments: • pipelines transporting up to 49 percent additives like hydrogen to petroleum would be subject to the PPA • pipelines transporting 50 percent or more hydrogen and other future fuels would be subject to the *Dangerous Goods Safety Act 2004* (WA) (DGSA).	DMIRS agrees with the merits of APA's submission, however, asserts that a critical consideration is the safe operation of pipelines commensurate to the substance(s) being conveyed. While DMIRS agrees there is merit in promoting the 100 per cent conveyance of hydrogen/ future fuels in isolation, DMIRS does not consider the PPA to be the appropriate regulatory framework to regulate this activity. Instead, DMIRS considers the DGSA is the appropriate framework to regulate the 100 per cent conveyance of hydrogen/ future fuels. The DGSA is more readily able to regulate the safety and technical considerations to safely convey the transmission of hydrogen as hydrogen is more volatile than petroleum, is corrosive and has the potential to permeate through existing pipeline standards. This is the basis for which this amendment Bill only permits the blending of a minor amount of hydrogen with petroleum for conveyance. Separate to this amendment Bill, JTSI is currently reviewing relevant existing legislation, regulations and standards affecting the hydrogen industry in Western Australia to reduce the barriers for the renewable hydrogen industry. JTSI's work encapsulates the transmission of 100 per cent hydrogen.

Ref #	Stakeholder	Comment	DMIRS Response
64. Continues		Applying the Bill to the PGP In the event that the 43-kilometres of the PGP becomes 100 percent hydrogen ready, APA would need to obtain a dangerous goods licence pursuant to the DGSA to transport hydrogen. Also, if the Minister prescribes the conveyance of blends up to 49 percent through other parts of the PGP, or if APA elects to introduce such blends to other sections of the PGP, regulatory arrangements under the PPA and other Acts will also apply to the PGP. These arrangements would create uncertainty, additional red tape, and very likely impact investment decisions, given the additional burdens under the DGSA. Obtaining and maintaining a dangerous goods licence under the DGSA would involve: • significant increase in compliance costs and civil penalties for noncompliance • additional risk management obligations that would otherwise not apply under the Bill for blends up to 49 percent • regulatory uncertainty and potential duplication arising when an asset is regulated under two frameworks. Enabling 100 percent future fuel pipeline transport may also help PGP customers and their emissions reduction journey. For example, a 10 percent hydrogen/future fuel blend in a customer business' natural gas supply may not result in any material reductions to their total carbon emissions. Maximising the potential to transport future fuels up to 100 percent in petroleum pipelines may result in more appetite to invest in blending/future fuel projects. This is especially the case considering there currently is no substantive reward for the business' emissions reduction ambitions for the short and long term. Recommendation To encourage the growth of hydrogen and other renewable gas industries, policies should aim to provide a consistent, balanced regulatory framework for natural gas and future fuels. An unintended advantage should not be afforded to projects exploring blends only up to 49 percent. In our view, the Bill should contain a regulatory pathway that enables petroleum pipelines to transport 100 percent future fuels in the next two calendar years. Hydrogen and other future fuels above 49 percent should eventually be regulated under the Petroleum Pipeline legislation and not require a dangerous goods licence. We appreciate that this process may trigger the review of other legislation including the DGSA. We encourage WA Government to proactively engage in this review process to help lead the development of a thriving WA economy for hydrogen and other future fuels.	
65.	Fortescue Future Industries (FFI)	FFI is supportive of the approach to: - permit Hydrogen, whether naturally occurring, renewable or manufactured, to be blended in pipelines using the Petroleum Legislation Amendments proposed.	DMIRS acknowledges FFI's comment.
66.	Australian Petroleum Production & Exploration Association (APPEA)	Pipelines APPEA supports the allowance of regulated substances such as hydrogen to be blended into petroleum pipelines. However, APPEA recommends that petroleum and regulated substances be given equal access to petroleum pipelines. The Draft Bill should not be prescriptive of what percentage of a regulated substance in allowed in petroleum pipelines, and any difference or requirements in safety standard can be specified in dangerous goods safety legislation and regulations. If a blended mix of petroleum and regulated substances is to be used, has the Department considered amending the PPA to allow for the transportation of hydrogen?	DMIRS asserts it is critical that the amount of prescribed substances (i.e. hydrogen) is limited in its use in PPA pipelines. This is primarily due to safety considerations as hydrogen is more volatile than petroleum, has corrosive properties and the small size of hydrogen molecules lends itself to the possibility of permeation through existing pipelines. For these reasons, DMIRS considers there is an inherent need to limit the amount of hydrogen being put through PPA pipelines. DMIRS considers the appropriate regulatory framework to regulate the conveyance of hydrogen is the DGSA which appropriately deals with safety and technical requirements. .
Amendments for naturally occurring Hydrogen: Native Title			
67.	Mitsui E&P Australia (MEPAU)	MEPAU also queries whether native title implications of the Minister's further approval have been considered and how this will be addressed by the DMIRS. MEPAU is concerned that separate consent from the Minister may trigger 'future act' requirements under the *Native Title Act 1993*. MEPAU is similarly concerned that there is insufficient clarity as to how the changes proposed in the Bill will interact with existing Indigenous Land Use Agreements (such as the Yamatji Nation ILUA and the Yued ILUA), and how these changes may impact on obligations required of proponents. For example, the Department of Mines, Industry Regulation and Safety (DMIRS) are bound to apply the heritage conditions prescribed in Clause 22.5 of the Yamatji Nation ILUA upon grant of mining tenements, titles under the *Petroleum and Geothermal Energy Resources Act 1967* and pipeline licences under the *Petroleum Pipelines Act 1969*. For these reasons, MEPAU considers that the opt-in model as currently envisaged presents a potential regulatory barrier to development of naturally occurring hydrogen, and encourages the DMIRS to reconsider further the practical implications of, and need for, this model.	DMIRS acknowledges MEPAU's comment and advises that it has and will continue to consider native title matters in the context of the progression of the Petroleum Legislation Amendment Bill (No. 2) 2022.

Ref #	Stakeholder	Comment	DMIRS Response
68.	National Hydrogen Association of Australia (NH2A)	**Native Title agreements:** The inclusion of a prescribed regulated substance in the petroleum permit could require the existing petroleum exploration and production permit holders to revisit their agreement with Traditional Owner groups. It is unclear if the applicant for the inclusion of a prescribed regulated substance needs to demonstrate an agreement with Traditional Owners that covers the additional regulated substance before the additional rights are granted by the Minister.	DMIRS acknowledges MEPAU's comment and advises that it is unable to make any comments on individual agreements with Traditional Owner groups. DMIRS has and will continue to consider native title matters in the context of the progression of the Petroleum Legislation Amendment Bill (No. 2) 2022.
Storage of regulated sustances underground			
69.	Mitsui E&P Australia (MEPAU)	**1.4 Ability to inject and store regulated substances underground** (a) *Summary* The amendments to those provisions of the PGERA and PSLA regarding injection and underground storage of petroleum appear to be inconsistent in their treatment of regulated substances. In respect of the PGERA, the Bill clarifies that a person must not inject a regulated substance into a natural underground reservoir. However, changes to the definition of 'offshore resource operation' under the PSLA contemplate injecting petroleum or a regulated substance into a natural underground reservoir. (b) *MEPAU submission* MEPAU is concerned with this apparent inconsistency, and seeks guidance from the DMIRS on its position with respect to the injection and storage of regulated substances. MEPAU also notes that the Bill may present an opportunity to establish a regime for the injection and storage of naturally occurring hydrogen, and therefore queries whether a blanket restriction on the injection and storage of regulated substances is necessary or appropriate at this stage.	DMIRS acknowledges MEPAU's observation and clarifies that this amendment does not seek to permit the underground storage of regulated substances in the PGERA nor PSLA. In reviewing MEPAU's comment, DMIRS acknowledges the proposed definition of 'offshore resource operation' in s.4A(d) of the PSLA includes a reference to 'injecting petroleum or a regulated substance into a natural underground reservoir'. This will be corrected in a revised consolidated draft of this Bill. For clarity, neither the PGERA nor PSLA are intended to permit the storage of regulated substances underground. DMIRS advises that the underground storage of regulated substances is not contemplated at this time due to the distinct properties of naturally occurring hydrogen (i.e. volatility and combustibility). The underground storage of regulated substances will be considered at such time as when the level of production warrants underground storage and relevant safety considerations have been appropriately addressed.
70.	National Hydrogen Association of Australia (NH2A)	**Underground storage of a regulated substance:** Under the proposed legislative amendments, the storage of a regulated substance will not be allowed underground. Furthermore, there is no means to obtain permission for the underground storage of natural hydrogen or any regulated substance. Our view is that this will create an incongruous situation. This should be considered in the final drafting of the legislation.	DMIRS acknowledges NH2A's comment and desire for storage of regulated substances underground. The ability to store regulated substances underground will be considered at such time as when discoveries and production of regulated substances give rise to the need for underground storage. In the interim, there are a variety of safety-related matters that need to be addressed before underground storage of regulated substances may be permitted.
71.	Australian Petroleum Production & Exploration Association (APPEA)	Underground Storage of Hydrogen The underground storage of regulated substances is prohibited in the Draft Bill. After consultation with DMIRS, it is APPEA's understanding that underground storage of hydrogen will be permitted once other proposed legislation is implemented. APPEA requests further information on the regulatory framework for the underground storage of regulated substances. **APPEA confirms that underground storage of hydrogen, including reinjecting regulated substances, is an area of particular interest for its members and should be permitted and regulated in a similar manner to petroleum.**	DMIRS acknowledges APPEA's interest in the underground storage of regulated substances. In the current context, the exploration, discovery and production of regulated substances has not yet commenced, nor has the regulatory framework. The underground storage of regulated substances is not provided for in this amendment Bill. The need for the underground storage of regulated substances and an appropriate regulatory framework will be considered at such time as when the discovery and production of regulated substances give rise to the need for underground storage. There are a variety of safety matters that need to be addressed before storage of regulated substances may be permitted.
Goethermal Energy			
72.	Australian Petroleum Production & Exploration Association (APPEA)	Geothermal Energy Operation Definition APPEA requests the review of the new definitions and use of the term "geothermal energy resources exploration operation" as amended by the proposed amendments, particularly in consideration of the proposed definition of "geothermal exploration operation". The definition of "geothermal energy resources exploration operation" appears duplicative and purpose is unclear (reference to titles authorising geothermal energy operations may cause confusion).	DMIRS acknowledges APPEA's observation, however clarifies that the term 'geothermal energy resources exploration operation' is an existing term within the PGERA that was not previously defined. In reviewing the PGERA, DMIRS has taken an opportunity to provide a definition for this term so as to ensure its meaning is clear.

Ref #	Stakeholder	Comment	DMIRS Response
73.	Australian Geothermal Association (AGA)	An overarching consideration is the way geothermal energy is defined. It is important to distinguish between the rocks (and contained and associated fluids) and the energy they contain. The de facto global standard for geothermal resource reporting is now the Specifications for the Application of the United Nations Framework Classification to Geothermal Energy Resources ('UNFC Geothermal Specifications.') and the recently published Supplementary Specifications (2022). Note that the Australian Geothermal Reporting Code was inherited by the AGA as legacy material from AGEA/AGEG but it no longer maintains or endorses the Code; the Australian Geothermal Reporting Code Committee was disbanded in 2015. The AGA, which is affiliated with the International Geothermal Association, now endorses the UNFC Code and recommends that it be adopted as the standard as has now happened by Queensland.	DMIRS appreciates AGA's comment, however this Bill does not provide for amendments relating to geothermal energy. DMIRS acknowledges AGA's suggestion and this comment has been noted for future consideration where there is scope for amendments relating geothermal energy.
74.	Australian Geothermal Association (AGA)	In addition, we suggest that consideration be given to including a provision in the Bill to facilitate the transfer of assets held by a petroleum licensee to a geothermal licensee and vice versa. This would provide the benefit and a mechanism, for example, for converting an unsuccessful petroleum exploration well (or a depleted petroleum production well) into a well that produces geothermal energy products. Without such a provision, a new well would need to be drilled to access the geothermal energy source, which would not only be inefficient but significantly reduce the economically viability. Such a provision could perhaps be included in Division 4 using an additional clause to allow for transfer of assets.	DMIRS appreciates AGA's comment, however this Bill does not provide for amendments relating to geothermal energy. DMIRS acknowledges AGA's suggestion and this comment has been noted for future consideration where there is scope for amendments relating geothermal energy.
75.	Australian Geothermal Association (AGA)	All of the following comments apply to proposed amendments to the ***Petroleum and Geothermal Energy Resources Act 1967*** • s5.pg5.line 33 – 'geothermal energy' and s5.pg6.20 'geothermal energy resources'. These definitions conflate the thermal energy with the rocks themselves. The UNFC defines: **a.** **Geothermal Energy Source:** *The thermal energy contained in rocks, sediments and/or soils, including any fluid contained in the underground, or naturally discharging at the ground surface, which is available for extraction and/or conversion into energy products. This source is termed the Geothermal Energy Source. The Geothermal Energy Source might change over time due to influx to, outflux from, or internal generation of energy within the underground by natural processes or production. In Cascaded Projects, the Geothermal Energy Source may be the thermal energy output (wholly or in part) from an upstream Project drawing on the same original Geothermal Energy Source.* **b.** ***Geothermal Energy Product:*** *An energy product that is sold, used, or otherwise delivered by a Project associated with (at least) one Geothermal Energy Source. Examples of Geothermal Energy Products are electricity and heat. Other products, such as contained inorganic materials (e.g., silica, lithium, manganese, zinc, sulphur), gases (e.g., carbon dioxide) or water without surplus energy content, which are delivered by the same Project do not qualify as Geothermal Energy Products.* **c.** **Geothermal Energy Resource:** *The cumulative quantities of Geothermal Energy Products that will be permanently extracted from the Geothermal Energy Source, from the Effective Date of the evaluation forward (until the end of the Project Lifetime/Limit), measured or evaluated at the declared Reference Point(s).* This allows and accounts for when a significant proportion of heat recovered from the geothermal resource is not used for commercial purposes (e.g. generating electricity for sale or for direct heat use by piping it to market) but is reinjected into the reservoir for possible later extraction. • s5.pg7.line 7 – 'geothermal resources area' can be used as defined if the definition of Geothermal Energy Resource shown above is adopted. Without that definition of how the Geothermal Energy Resource is determined it becomes ambiguous and essentially meaningless. The earth contains thermal energy everywhere. It is only when this energy can be extracted as a Geothermal Energy Product that it becomes a Resource. Note that this definition can also accommodate closed loop conduction systems. Using such systems it is now technically viable to extract geothermal energy from solid, impermeable rock.	DMIRS appreciates AGA's comment, however this Bill does not provide for amendments relating to geothermal energy. DMIRS acknowledges AGA's suggestion and this comment has been noted for future consideration where there is scope for amendments relating geothermal energy.
76.	Australian Geothermal Association (AGA)	"Geothermal Energy' should be replaced with 'Geothermal Energy Product' throughout the document. • S5.pg13, line 13: A 'regulated substance' appears to exclude geothermal energy. It may be worth considering how the thermal energy contained within or comingled with a regulated substance would be treated. For example, CO2 could be utilised as a vehicle to extract geothermal energy products. If CCS results in CO2 becoming a regulated substance, could the thermal energy be extracted if all the CO2 produced was reinjected?	DMIRS appreciates AGA's comment, however this Bill does not provide for amendments relating to geothermal energy. DMIRS acknowledges AGA's suggestion and this comment has been noted for future consideration where there is scope for amendments relating geothermal energy.
77.	Australian Geothermal Association (AGA)	S7A.pg19, line 2 – An agreed mechanism should be put in place to provide a basis for determining the source of a Geothermal Energy Product that is produced as part of a Geothermal Energy Resource. One possibility would be specifying that a **'geothermal resource assessment'** (defined as an estimate of the future production of geothermal energy from the geothermal reservoir) should be undertaken using "**numerical reservoir modelling study**" (defined as a study of the likely performance of the geothermal reservoir using a numerical simulation model). This would be consistent with the UNFC code and provide an objective basis for the determination.	DMIRS appreciates AGA's comment, however this Bill does not provide for amendments relating to geothermal energy. DMIRS acknowledges AGA's suggestion and this comment has been noted for future consideration where there is scope for amendments relating geothermal energy.

Ref #	Stakeholder	Comment	DMIRS Response
78.	Australian Geothermal Association (AGA)	S30.pg44, lines 12-13 – include geothermal special prospecting authorities and geothermal production licenses.	DMIRS appreciates AGA's comment, however this Bill does not provide for amendments relating to geothermal energy. DMIRS acknowledges AGA's suggestion and this comment has been noted for future consideration where there is scope for amendments relating geothermal energy.
79.	Australian Geothermal Association (AGA)	S31.pg45, line 9 – Geothermal resources may cover a large area laterally. It would make sense to have the size limit for geothermal applications similar to that for petroleum applications (400 blocks).	DMIRS appreciates AGA's comment, however this Bill does not provide for amendments relating to geothermal energy. DMIRS acknowledges AGA's suggestion and this comment has been noted for future consideration where there is scope for amendments relating geothermal energy.
80.	Australian Geothermal Association (AGA)	S39.p58, line 1 – Given that there are now projects that combine geothermal energy production with extraction of minerals from the geothermal brine (such as lithium), this may have an unintended effect of preventing such a project from occurring in Western Australia. Consideration should be given to allowing geothermal exploration permitees to also apply for approval to explore for, produce and own contained regulated substances.	DMIRS appreciates AGA's comment, however this Bill does not provide for amendments relating to geothermal energy. Petroleum titles are considered to be appropriate titles to regulate regulated substances due to the similarities between petroleum and hydrogen. DMIRS does not consider for there to be sufficient similarity nor demand to warrant geothermal energy exploration and production titles to be available for regulated substances.
81.	Australian Geothermal Association (AGA)	S44.pg76, line 22-26. Under the current definition of 'geothermal energy resource' this is too vague to be useful – there will always be some thermal energy in the ground. Adopting the UNFC definition, however, would add an objective way to quantify the discovery and determine if it constituted a Geothermal Energy Resource.	DMIRS appreciates AGA's comment, however this Bill does not provide for amendments relating to geothermal energy. DMIRS acknowledges AGA's suggestion and this comment has been noted for future consideration where there is scope for amendments relating geothermal energy.
82.	Australian Geothermal Association (AGA)	S69.pg137, line 11-12 and S69.pg138, line4-5 – These sections should offer the applicant the opportunity to address any matters submitted or concerns raised. There should also be an objective mechanism for quantifying how the two operations (petroleum and geothermal) could impact each other and some pre-defined criteria be established to allow any concerns or issues or claims to be assessed. For example, a petroleum operator may be concerned by the potential for pressure depletion from a geothermal production operation on their petroleum production operations. This is a valid concern, but a definition is required to determine what constitutes an acceptable impact and a basis for assessing the impact and its likelihood should be put in place. As suggested above under S7A.pg19.2, a numerical reservoir modelling study could be utilised for such an assessment. Regulatory regimes in, for example, France and the Netherlands have well established criteria for what constitutes an unacceptable degree of interference. Both parties should be required to provide adequate background on their modelling results so that the Minister may objectively assess any claim.	DMIRS appreciates AGA's comment, however this Bill does not provide for amendments relating to geothermal energy. DMIRS acknowledges AGA's suggestion and this comment has been noted for future consideration where there is scope for amendments relating geothermal energy.
83.	Australian Geothermal Association (AGA)	S142, pg209, change 'geothermal energy' to "Geothermal Energy Product" throughout this section. • S143, pg211, change 'geothermal energy' to "Geothermal Energy Product" throughout this section. • S144, pg212, change 'geothermal energy' to "Geothermal Energy Product" throughout this section. • S144A, pg213, change 'geothermal energy' to "Geothermal Energy Product" throughout this section. • S145, pg214, change 'geothermal energy' to "Geothermal Energy Product" throughout this section. • S146, pg214, change 'geothermal energy' to "Geothermal Energy Product" throughout this section. • S147, pg214, change 'geothermal energy' to "Geothermal Energy Product" throughout this section.	DMIRS appreciates AGA's comment, however this Bill does not provide for amendments relating to geothermal energy. DMIRS acknowledges AGA's suggestion and this comment has been noted for future consideration where there is scope for amendments relating geothermal energy.
84.	Australian Geothermal Association (AGA)	S144A, pg213, line24, the value of a Geothermal Energy Product cannot be determined from a single measurement at the well head. A separate definition for calculating the value of the Geothermal Energy Product is needed. 1) In the first instance, the maximum amount of Geothermal Energy Product produced is the difference between the enthalpy of the geothermal energy produced less the enthalpy of what is reinjected. (Where the geothermal energy is contained in a single, liquid phase (as is likely to be the case in Western Australia), temperature is an adequate proxy for enthalpy.) Therefore, at least two measurements are required, the well head temperature at the production well and the temperature at the point of reinjection (or discharge if the fluid is not reinjected). 2) Another important consideration is whether the end product is heat or electricity. If it is the latter then the value of the Geothermal Energy Product should be determined based on the net electricity exported for sale. 3) Finally, for a direct use project where heat is the Geothermal Energy Product it should be what is actually available for sale to a third party by deducting from the heat recovered at the surface of the heat reinjected. Depending on how the heat energy is provided it may be appropriate to use an alternative measurement. For example, if heat is recovered at the surface using a heat exchanger, then the value would be most accurately based on the increase in temperature between the inlet and outlet sides of the heat exchanger in the secondary loop.	DMIRS appreciates AGA's comment, however this Bill does not provide for amendments relating to geothermal energy. DMIRS acknowledges AGA's suggestion and this comment has been noted for future consideration where there is scope for amendments relating geothermal energy.

Ref #	Stakeholder	Comment	DMIRS Response
85.	Australian Geothermal Association (AGA)	• S145, pg214, line8 – as per preceding comment, 'value at the well head' is an inadequate and inappropriate measure; however, the opportunity of the permittee to represent to and negotiate with the Minster about the assessable sales value should be retained.	DMIRS appreciates AGA's comment, however this Bill does not provide for amendments relating to geothermal energy. DMIRS acknowledges AGA's suggestion and this comment has been noted for future consideration where there is scope for amendments relating geothermal energy.
86.	Australian Geothermal Association (AGA)	• S146, p214, this definition needs to be expanded with regard to Geothermal Energy Products to incorporate additional measurement points as appropriate to the particular Geothermal energy Product.	DMIRS appreciates AGA's comment, however this Bill does not provide for amendments relating to geothermal energy. DMIRS acknowledges AGA's suggestion and this comment has been noted for future consideration where there is scope for amendments relating geothermal energy.
Other stakeholder comments			
87.	Mitsui E&P Australia (MEPAU)	**2.3. Application for pipeline licence under section 8 of the PPA** (a) *Summary* Whilst not currently the subject of proposed amendments under the Bill, MEPAU notes that there is an inconsistency between the requirements of section 8 of the PPA, and the corresponding online application form available through the DMIRS online portal. This inconsistency means that the online application form can be completed in full, without all requirements of section 8 of the PPA being met. (b) *MEPAU submission* MEPAU would encourage the DMIRS to use this opportunity to address and rectify this inconsistency (either through the Bill, or through one of the other legislative amendments being proposed in parallel).	DMIRS thanks MEPAU for its feedback on its online system and will review the pipeline licence application process for any inconsistencies.

Ref #	Stakeholder	Comment	DMIRS Response
88.	Environmental Defenders Office (EDO)	**I. The starting point for any statutory amendments must be that Western Australia must phase out petroleum production to ensure a safe climate** At the outset, we remind the government of Western Australia that it is a component of the Earth System. It is an institution of the anthroposphere with the ability to affect future outcomes. The decisions the government makes today will affect the level of risk that the environment and people of WA face in the future. The time has come for the Department of Mines, Industry Regulation and Safety (DMIRS) and the Minister for Petroleum and Energy (Minister) to stop recommending and approving petroleum activities that will add to the climate crisis. The Minister and DMIRS must accept that the decisions they make under the Petroleum Acts have real and direct consequences for the global climate and in turn the people of WA. It is a moral imperative that decision-makers at all levels of government apply the law in ways that will ensure the safety and survival of the people and ecosystems affected by those decisions. Indeed, this is the very obligation imposed on the Western Australian Environmental Protection Authority (EPA) by s 4A of the *Environmental Protection Act 1986* (WA) (EP Act). Any amendments to the Petroleum Acts must be made with acknowledgement that the continued approval of new petroleum activities is no less than a matter of life and death for the ecosystems and people of WA. As courts in Australia have already concluded, in considering the potential impacts of climate change upon future generations in Australia: *It is difficult to characterise in a single phrase the devastation that the plausible evidence presented in this proceeding [about the impacts of climate change] forecasts for the Children. As Australian adults know their country, Australia will be lost and the World as we know it gone as well. The physical environment will be harsher, far more extreme and devastatingly brutal when angry. As for the human experience – quality of life, opportunities to partake in nature's treasures, the capacity to grow and prosper – all will be greatly diminished. Lives will be cut short. Trauma will be far more common and good health harder to hold and maintain. None of this will be the fault of nature itself. It will largely be inflicted by the inaction of this generation of adults, in what might fairly be described as the greatest inter-generational injustice ever inflicted by one generation of humans upon the next.* In *Sharma v Minister for the Environment* [2021] FCA 560 (Sharma), the Court relevantly made the following findings (which were not disturbed on appeal in Minister for the *Environment v Sharma* [2022] FCFCA 35): a. if the global average surface temperature increases beyond 2°C, there is a risk, moving from very small (at about 2°C) to very substantial (at about 3°C), that Earth's natural systems will propel global surface temperatures into an irreversible 4°C trajectory, resulting in global average surface temperature reaching about 4°C above the pre-industrial level by about 2100. That is, given the gravity of our current circumstances and the potentially catastrophic outcomes, the scale at which emissions reductions (or increases) are material is much lower. b. The risk of harm from climatic hazards brought about by increased global average surface temperatures is on a continuum in which both the degree of risk and magnitude of the potential harm will increase exponentially if the Earth moves beyond a global average surface temperature of 2°C, towards 3°C and then to 4°C above the pre-industrial level. c. Exceeding the carbon budget for 2°C or even 1.5°C will lead to severe, irreversible and potentially cascading climate change harm. In *Bushfire Survivors for Climate Action v Environment Protection Authority* [2021] NSWLEC 92, in which the Court ordered the NSW Environment Protection Authority to develop environmental quality objectives, guidelines and policies to ensure environment protection from climate change, the court referred approvingly to evidence that: a The State's emissions trajectory was incompatible with holding global warming to 1.5°C; b. The State was outside its population share of the 1.5°C carbon budget; and c. The State was a major contributor to the production gap, being the discrepancy between planned fossil fuel production and global production levels consistent with limiting warming to 1.5°C. Yet, in direct contrast to those findings, and at a time when:	DMIRS acknowledges EDO's comments, however the expansion of existing, or prohibition of new petroleum projects is beyond the scope of this amendment Bill.

Ref #	Stakeholder	Comment	DMIRS Response
88. Continues	Environmental Defenders Office (EDO)	a. the United Nations Secretary-General has warned that "[i]nvesting in new fossil fuel infrastructure is moral and economic madness," b. the EPA itself acknowledges the scientific consensus that allowing the world to heat by more than 1.5°C degrees will cause 'catastrophic consequences,' c. WA ecosystems 'are already at critical thresholds and further warming will result in damage and loss that is irreversible,' d. Best-practice measures to avoid and reduce greenhouse gas emissions can include facility closure; and e. the scientifically credible pathway to limiting warming to EPA's goal of 1.5°C requires that no new gas and oil fields be approved for development after 2021; the PLA Bill nonetheless is countenanced not only upon continued production of existing petroleum projects, but future approval and implementation of new petroleum projects. The urgency of the climate crisis now dictates that governments move beyond a "polluter pays" philosophy that completely ignores the magnitude of harm caused by continued production of fossil fuels. The only approach to petroleum pollution that is consistent with science is to move rapidly to phase out petroleum activities (other than decommissioning and rehabilitation) in Western Australia. To pretend, or allow otherwise, is contrary to scientific consensus, and the moral obligation owed by this generation to future generations. **RECOMMENDATION:** The PLA Bill must proceed from a science-based position, being that petroleum activities are to be phased out, and no new petroleum fields will be developed.	DMIRS acknowledges EDO's comments, however trailing liability is beyond the scope of this amendment Bill.
89.		**C. PLA Bill should introduce trailing liability provisions to ensure decommissioning and rehabilitation occurs without expense to the taxpayer** The independent investigation into NOPSEMA's experience with the Northern Endeavour clean-up recommended consideration of trailing liability, whereby a titleholder remains liable for decommissioning and removal of its infrastructure even where its interests in a title are transferred to another party. Following that recommendation, amendments to the OPGGS Act granted NOPSEMA the power to issue remedial directions—written notices directing a person to, among other things, remove property brought into a title area for the purpose of operations, to plug or close off wells, to provide for conservation and protection of natural resources in the area, and to make good any damage to seabed or topsoil. Notices may be directed not only to an existing permit holder, but also to: (a) related body corporate of the registered holder of the permit, lease or licence; or (b) any former registered holder of the permit, lease or licence; or (c) a person who was a related body corporate of any former registered holder of the permit, lease or licence at the time the permit, lease or licence was in force; (d) any other person the Commonwealth Minister determines, having regard to: a. whether a person is capable of significantly benefiting financially, or has significantly benefited financially, from the operations authorised by the permit, lease or licence; b. whether a person is, or has been at any time, in a position to influence the way in which, or the extent to which, a person is complying, or has complied, with the person's obligations under this Act; and c. whether the person acts or acted jointly with the registered holder, or a former holder, of the permit, lease or licence in relation to the operations authorised by the permit, lease or licence. The experience of the Northern Endeavour scandal demonstrates the importance of trailing liability to ensure that persons in positions of control and influence make decisions with an eye to the financial obligations associated with petroleum spill cleanup, decommissioning and rehabilitation. Again, in the absence of statutory mechanisms to ensure that prior or related interest-holders and the persons who control or influence them, can be held liable where an interest-holder is incapable of fulfilling its decommissioning and cleanup obligations, the proposed "polluter pays" principle is unlikely to fulfil its intended purpose. **RECOMMENDATION:** The PLA Bill should give the Ministers the power to direct a person to take action to clean up escaped petroleum, remove property from a title area, decommission operations and rehabilitate a petroleum operation area. Reflecting the scheme established under the OPGGS Act, persons who may be directed should include not only the existing interest-holder, but also any related body corporate, any former interest-holder, a related body corporate of a former interest-holder, any person capable of significantly benefiting financially or who has significantly benefited financially, from the operations authorised, and any person who is or has been at any time, in a position to influence the way in which a person complies, or has complied, with their obligations to care for and maintain an area, decommission and remediate a site, and maintain adequate financial assurances.	

Ref #	Stakeholder	Comment	DMIRS Response
90.	Australian Gas Infrastructure Group (AGIG)	**ADDITIONAL SUGGESTION FOR AMENDMENT OF THE PPA** 54. Section 15 of the PPA provides for the Minister to vary conditions of a licence but not the licence area. This was one provision AGIG had hoped would be addressed when amendments to the PPA were proposed. 55. Under the PPA, the licence and licence area is set prior to construction of the pipeline. Despite best efforts and intentions, sometimes the pipeline route needs to change during construction (as we found during construction of WAWP), which in turn necessitates a change in licence area. AGIG submits that provided there is no further compensation payable to a landholder in respect of the relevant land and the area has been cleared for construction by the relevant native title owners (if applicable), then the Minister should be able to amend the licence area after the issue of a licence. 56. This is also pertinent to additions of land into the DBNGP corridor for new laterals or above ground meter stations or other relevant facilities (for example, the Wellesley lateral). As currently drafted, such additions to the DBNGP cannot be added to the DBNGP's primary licence (PL40), but require the issue of a new PL. A variation to PL 40 would be simpler and more efficient administratively for the State and for DBP than the issue of a new PL. 57. "Licence area" means, in relation to a licence, the lands specified in the licence as being that area. 58. AGIG submits that s15 of the PPA be amended as follows: a. Addition of the words "or licence area" after the word "licence" in the title. b. Delete the words "other than a variation with respect to the licence area" in ss15(1). c Insert a new section 15(1A) that provides that: "Provided that a licensee can demonstrate that (i) land outside the licence area is connected with a pipeline the subject of a licence; (ii) no additional payment is required to be made to a landholder in respect of that land; and (iii) all necessary heritage and environmental approvals have been obtained in respect of that land, the licensee may, at any time, by instrument in writing served on the Minister, apply for variation of a licence to include the land as specified land for the purpose of the licence."	DMIRS acknowledges AGIG's comment, however amendments for the variation of a licence area is beyond the scope of this amendment Bill. DMIRS notes AGIG's suggestion and will look into this matter in the future.
91.	Environmental Defenders Office (EDO)	**III Extraction of naturally occurring hydrogen is a false solution to the climate crisis** **A. Hydrogen extraction is not a mechanism for transitioning away from fossil fuels** The supporting information and bill summary do not make clear the motivation for enabling exploration and production of naturally occurring hydrogen. Enabling extraction of naturally occurring hydrogen is not consistent with the government's intention to review "existing legislation, regulations, and standards affecting the hydrogen industry in Western Australia to reduce barriers for the renewable hydrogen industry". The assumption appears to be that hydrogen gas (H2, dihydrogen) is an energy resource that does not exact climate penalties, no matter its source. However, this is an inaccurate perception; alternatives are often better for the climate. Production of naturally occurring hydrogen in particular will almost inevitably result in production of fossil fuels in greater proportions than any hydrogen extracted. Hydrogen in the naturally occurring form extracted from geological formations underground is widespread across continental Australia, Tasmania and the adjoining continental shelf. Origins of naturally occurring hydrogen are many—biogenic and abiogenic—but it is usually a minor fraction with natural gas. Most naturally occurring hydrogen in Australia occurs in gas at <10%, only exceptional finds have >10%. The result is that any effort to produce naturally occurring hydrogen will likely produce significantly more fossil fuels than hydrogen, and inevitably produce some fossil fuels. Because the extraction of naturally occurring hydrogen cannot avoid the extraction of fossil gas, its extraction cannot avoid significant greenhouse gas emissions. Enabling natural hydrogen extraction therefore entrenches and encourages production of fossil fuel, contrary to the science-informed conclusion that it is necessary to rapidly phase out fossil fuel production and consumption. The proposed amendments to allow petroleum titleholders to explore for and produce hydrogen is not a mechanism for transitioning away from fossil fuels, and for that reason should be abandoned.	DMIRS clarifies that JTSI is the lead agency for reviewing existing legislation, regulations, and standards affecting the hydrogen industry in Western Australia to reduce barriers for the renewable hydrogen industry. DMIRS is responsible for the development of the State's natural resources, which is why this amendment Bill is focused on the exploration and production of naturally occurring hydrogen as opposed to renewable hydrogen (which is JTSI's ambit). DMIRS proposes amendments to the Petroleum Acts to enable the exploration and production of naturally occurring hydrogen as the State, and the world, transitions away from fossil fuels to alternative energy sources. Hydrogen can occur in a variety of forms, from black and brown hydrogen to green, and white hydrogen – each hydrogen type and methodology of production comes with a different degree of carbon emission. For instance, naturally occurring hydrogen in Mali, has been shown to be a reliable source of energy as compared to initiatives for gasification processes to produce hydrogen which are more carbon intensive. Notwithstanding, it is clear there is a need to explore for alternative sources of energy as the State transitions away from a dependence on fossil fuels.
92.	Environmental Defenders Office (EDO)	**B. Penalty unit approach would allow penalties to be easily updated** An alternative and preferable mechanism for avoiding a decrease in the real value of penalty provisions would be to amend the Petroleum Acts to introduce a penalty unit system. Penalty unit systems are used in other offence regimes in Western Australia, and are widely used in Australia for environmentally protective purposes in the context of regulating petroleum production. A penalty unit scheme allows for all penalties to be swiftly and easily updated, ensuring the legislation to which the scheme applies remains effective and current while minimising the work required. **RECOMMENDATION:** The PLA Bill should increase all penalty provisions throughout the Petroleum Acts to appropriately reflect the seriousness of the offence being punished, which must be at least in line with inflation since each penalty provision was introduced. **RECOMMENDATION:** The PLA Bill should introduce a penalty unit system to replace the outdated existing specific financial penalty provisions throughout the Petroleum Acts.	DMIRS acknowledges EDO's comment, however the concept of increased penalties across the Petroleum Acts is beyond the scope of this amendment Bill. DMIRS notes that a separate forthcoming amendment to the PGERA in response to the Independent Scientific Panel on Hydraulic Fracture Stimulation will enable the increase of penalties to an amount more proportional to the offence.

Ref #	Stakeholder	Comment	DMIRS Response
93.	Environmental Defenders Office (EDO)	**V. PLA Bill should enable public participation** **A. Public participation in decision-making processes supports transparency, accountability, and trust in decisions** Public participation is important to ensure transparency of government decision-making, aid accountability and support public trust in the institutions of government. Though not as extensive as the rights to participate in decision-making that are enshrined in environmental protection legislation, such as the EP Act, the Petroleum Acts do make provision for public participation in the environment plan process (which require consultation with relevant interested persons). In considering reforms to the Petroleum Acts to modernise the manner in which the right or licence to undertake activities is granted, opportunities for public notice of applications and participation in the decision-making process should be included. **RECOMMENDATION:** The Petroleum Acts should be reviewed for the opportunity to amend decision-making processes to require public notice of applications for titles, permits, authorisations and licences, and to provide opportunities for public comment on those applications.	DMIRS acknowledges EDO's comment, however the concept of public participation in decision-making processes beyond the scope of this amendment Bill.

Ref #	Stakeholder	Comment	DMIRS Response
94.	Environmental Defenders Office (EDO)	**VI. Third party enforcement rights would assist with DMIRS' regulatory burden and ensure accountability** The current system of enforcement under Petroleum Acts precludes third parties from initiating proceedings for breach of the provisions of Acts, despite many offences concerning injury to the environment and natural resources of WA, which are public assets. This option should be available where community groups and members of the public are prepared to undertake enforcement proceedings in the public interest where proponents have breached the Petroleum Acts or associated regulations, and authorities responsible for compliance and enforcement, such as DMIRS, fail or refuse to act. The EPBC Act and environmental protection legislation in New South Wales, Victoria and South Australia contain provisions that provide for third party enforcement with either open standing or expanded standing for particular proceedings. In EDO's view, there are many benefits associated with the inclusion of a third party enforcement provision in the Petroleum Acts that provides an avenue for private parties to commence court proceedings for breaches. These include: a. Sharing the regulatory burden: removing the burden on the Minister and DMIRS to bring enforcement action; b. Public participation and access to justice: providing a pathway for the public to access justice and ensure statutory and regulatory compliance; c. Accountability: ensuring that regulators and decision-makers discharge their functions according to legislative requirements, as well as holding them accountable. In addition, providing an important safeguard in the event that a regulator or decision-making authority fails to act. d. Transparency: ensuring actions and decisions of regulators, decision-making authorities and proponents are transparent. EDO recommends that provisions providing for third party enforcement should be included in the PLA Bill. In particular, provisions should be included that enable eligible third parties to trigger investigations by regulators into compliance with conditions on titles, licences, permits, authorisations and approved environment plans; and investigations into the commission of offences under the Petroleum Acts; and to commence enforcement action for violations and inaction on the part of the Minister or DMIRS. Such a provision would also provide the public with the opportunity to pursue court proceedings for a breach of the Petroleum Acts, such as for pollution or environmental harm offences. We note that existing procedural safeguards, including for striking out claims, as well as the inherent expenses and costs of litigation, are sufficient to avoid any misplaced concerns that such an amendment would "open the floodgates" to third party enforcement efforts. The experience with third party enforcement under the EPBC Act and similar state legislation has proven such concerns unfounded. **RECOMMENDATION:** The PLA Bill should amend the Petroleum Acts to allow third party enforcement, modelled on section 9.45 of the *Environmental Planning and Assessment Act 1979* (NSW): (1) Any person may bring proceedings in the Court for an order to remedy or restrain a breach of this Act, whether or not any right of that person has been or may be infringed by or as a consequence of that breach (2) Proceedings under this section may be brought by a person on his or her own behalf or on behalf of himself and on behalf of other persons (with their consent), or a body corporate or unincorporated (with the consent of its committee or other controlling or governing body), having like or common interests in those proceedings. (3) Any person on whose behalf proceedings are brought is entitled to contribute to or provide for the payment of legal costs and expenses incurred by the person bringing the proceedings. **RECOMMENDATION:** Alternatively, the PLA Bill should provide expanded standing for enforcement of the Petroleum Acts, modelled on sections 475 and 487 of the EPBC Act: (1) A person has standing to bring a proceeding to Court for an order to remedy or restrain a breach of this Act if: (a) the person is an Australian citizen or ordinarily resident in Western Australia; and (b) at any time in the two years immediately before the breach, the person engaged in a series of activities in Western Australia for protection or conservation of, or research into, the environment.	DMIRS acknowledges EDO's comment, however the concept of third party enforcement is beyond the scope of this amendment Bill.

Ref #	Stakeholder	Comment	DMIRS Response
95.	Australian Pipeline Limited (APA)	**2.2 Resolving legal and regulatory issues across jurisdictions** National harmony across regulatory frameworks and jurisdictional collaboration will help reduce administrative costs and red tape for national energy businesses like APA. To achieve this, a working group of the Commonwealth, State, Territory and industry representatives could be established to consider and progress harmonisation of hydrogen and renewable gas regulations and the timing of their introduction. Such a working group could also work together to solve legal and regulatory issues that are likely to arise as hydrogen and future fuel projects are developed. **2.2.1 Example of legal issue: Implications for easements in WA for pipelines** A good example of the type of issue that will need to be resolved is the conversion of existing property easements to carry gases other than petroleum or hydrocarbons. Property easements allow a person access to land that they do not own for a specific non-exclusive purpose. In this context, easements are usually negotiated when a petroleum pipeline is first built so that the pipeline operator can access the land and transport petroleum across the landowner's property. The Bill contains a mechanism that permits the conveyance of hydrogen blended petroleum through petroleum pipelines. This mechanism allows Government to prescribe hydrogen (up to 49 percent) to be added to petroleum for conveyance through a petroleum pipeline. Easements (and other land access rights) generally reflect what was negotiated between the parties and are naturally inconsistent in drafting. Some easements in their current form may only permit the transportation of natural gas/hydrocarbons. This means transporting hydrogen and other future fuels either as additives to, or instead of, natural gas may constitute a new permitted purpose. If this is the case, all easements in WA would need to be reviewed and potentially varied individually through negotiation with a freehold landowner, or re-application to the Minister for Crown land. This would be a very costly and drawn out process for industry and governments and could present challenges for meeting the State's clean energy targets. This process also involves risks that one landholder (or a minority of landholders) could prevent a whole pipeline from being able to transport hydrogen or other future fuels and delay or severely impact a project.	DMIRS acknowledges APA's comment. DMIRS advises that it and the broader Western Australian Government is participating in a number of forums discussing the regulation of hydrogen. In preparing this proposed Bill, DMIRS has reviewed legislative amendments progressed across Australia to determine an appropriate regulatory regime for Western Australia. DMIRS agrees that a harmonised regulatory framework for hydrogen is the ideal outcome but recognises each jurisdiction will have its own needs and constraints which will contribute towards their own regulatory path. The rights provided by easements are derived from the *Land Administration Act 1997*, and therefore would require separate consideration to the proposed amendments. DMIRS' concerns regarding changes to existing licences issued pursuant to the *Petroleum Pipelines Act 1969* are articulated above.
96.	Fortescue Future Industries (FFI)	FFI is very interested to understand what current or proposed legislation relating to manufactured hydrogen the Government will be considering as part of its broader regulation of hydrogen. We welcome further discussion on this critical element of Western Australia's Renewable Hydrogen Industry.	DMIRS acknowledges FFI's comment and advises that JTSI is the lead agency considering initiatives to support the hydrogen industry in Western Australia, including renewable and manufactured hydrogen. DMIRS encourages FFI to contact JTSI for any queries relating to manufactured hydrogen.
97.	Australian Petroleum Production & Exploration Association (APPEA)	**Amalgamation and Update of Petroleum Acts** APPEA recommends that the Department reinitiates the "Petroleum 2020" initiative to amalgamate the three existing petroleum acts into one bill. There are substantial benefits to having a single act regulatory framework. Having fewer acts to contend with allows industry to best utilise and comply with legislation and simplifying the regulatory framework in this way would reduce misinterpretation, inconsistencies, and conflicting terms. One consolidated piece of legislation will also make for a more efficient and cost-effective framework. It will reduce the need for repeated revisions or amendments and streamline the entire legislative process. A single piece of legislation will be clearer, more efficient, and more effective. Also, due to the age of the existing Petroleum Acts, having a total refresh of legislation would be advantageous and an opportunity to further improve and update the entire regulatory process.	DMIRS acknowledges APPEA's comment and clarifies that this amendment Bill forms 'tranche 1' of a multi-year staggered approach to progressively revise the State's Petroleum Acts. Tranche 1 represents urgently required amendments and future amendments will address more complex amendments.
98.	Lock the Gate Alliance (LTGA)	**Recommendations:** 1) The WA Government's commitment to achieve net zero emissions by 2050 along with Australia's commitments under the Paris Agreement, require the trend of WA's increasing greenhouse gas emissions to be reversed. As such, the PLA Bill must adhere to a science-based approach and recommendations from the International Energy Agency and the IPCC. Therefore, the PLA Bill must not enable the opening of new petroleum reserves, or the expansion of any petroleum activities. Bold and urgent action to address climate change is essential and a rapid phase out of petroleum activities is required.	DMIRS acknowledges LTGA's comment, however, notes this comment is beyond the scope of this amendment Bill. Separate to this amendment Bill, the WA Government is progressing petroleum-related amendments to assist in achieving net zero emissions in the form of the Petroleum Legislation Amendment Bill (B) 2023, which seeks to enable the transport and geological storage of greenhouse gases in Western Australia.

Ref #	Stakeholder	Comment	DMIRS Response
99.	Lock the Gate Alliance (LTGA)	2) The PLA Bill should not enable the exploration or production of naturally occurring hydrogen. A focus on, investment in and enabling of hydrogen exploration and production further delays the necessary rapid transition to renewable energy away from fossil fuels. In Australia, naturally occurring hydrogen is generally of a low percentage (less than 10%) in gas, and so, mostly methane gas (ie. a potent greenhouse gas) is mobilised. Producing naturally occurring hydrogen will ultimately result in more fossil fuel production, further contributing to the climate crisis.	While the world is undergoing a shift away from fossil fuels, petroleum resources and naturally occurring hydrogen, as well as other alternative sources, will continue to have a role to play to ensure continued supply until such time as renewable sources of energy achieve large-scale capacity and consistent reliability. The exploration (and discovery) of naturally occurring hydrogen provides for the potential availability of an alternative to assist in reaching net zero carbon emissions. Accordingly, the development and use of alternative energy sources is critical towards reaching net zero carbon emissions by 2050.
100.	Lock the Gate Alliance (LTGA)	4) The PLA Bill should incorporate a substantial increase in all penalty provisions to better reflect the consequences and seriousness of the offence and to actually serve as a deterrent, which the current penalties do not. The minimal and ineffectual $10,000 penalty in s67 for the unlawful injection of petroleum is a clear example. Such a small penalty is more likely to be seen as a worthwhile expense by the titleholder/operator.	DMIRS acknowledges LTGA's comment, however the concept of increased penalties across the Petroleum Acts is beyond the scope of this amendment Bill. DMIRS notes that a separate forthcoming amendment to the PGERA in response to the Independent Scientific Inquiry on Hydraulic Fracture Stimulation will enable the increase of penalties to an amount more proportional to the offence and amendments for increased penalties.
101.	Lock the Gate Alliance (LTGA)	6) The PLA Bill must include provisions for the establishment of a rehabilitation fund relating to petroleum activities. The assurance of sufficient financial resources by title holders/companies profiting from the petroleum activities must be a requirement from the outset, before any approvals, and well before any petroleum related activities are carried out. Sufficient financial resources must, at a minimum, cover care and maintenance costs, and decommissioning and rehabilitation. The failings of New Standard Energy, and the State Government to act in a timely and appropriate manner to hold the company to account, is just one example of the need for a rehabilitation fund (or other financial assurances) so that the burden of rehabilitation and other reparations doesn't fall onto taxpayers, or worse, is left incomplete. New Standard Energy went into liquidation, leaving behind one gas well that has not been plugged, and three others that have not been rehabilitated in the Kimberley. The government acknowledges this rehabilitation work could cost up to $1.9 million.	DMIRS acknowledges LTGA's comment. A rehabilitation fund for petroleum activities is beyond the scope of this Bill. DMIRS remains committed to an industry-wide approach to address the issue of rehabilitation liabilities for petroleum, geothermal and pipeline activities in WA. DMIRS remains committed to safeguarding the interests of all Western Australians and to ensuring that the State's natural resources are developed in a safe and responsible manner.
102.	Lock The Gate Alliance (LTGA)	8) The PLA Bill must, in relation to financial assurances and covering costs for escaped petroleum, care and maintenance, and decommissioning and rehabilitation, relate not only to the current title holder, but to any person/body/interest-holder that is or has received significant financial benefits from the petroleum activities.	DMIRS acknowledges LTGA's comment, however the concept of trailing liability for previous registered holders or related parties is beyond the scope of this amendment Bill.
103.	Lock The Gate Alliance (LTGA)	9) The Petroleum Acts should be amended to require the public notice of applications for titles, permits, authorisations and licences, and to provide opportunities for public comment on those applications. Likewise, if underground storage is proposed, the opportunity for public comment should be included.	DMIRS acknowledges LTGA's comment, however the concept of public notices of applications and opportunities for comment are beyond the scope of this amendment Bill.
104.	Lock The Gate Alliance (LTGA)	10) The PLA Bill should include amendments to the Acts to allow third party enforcement.	DMIRS acknowledges LTGA's comment, however the concept of third party enforcement is beyond the scope of this amendment Bill.
Closing comments			
105.	The Environment Institute of Australia and New Zealand (EIANZ)	Conclusion The EIANZ WA Division is pleased to make comments on the Petroleum Legislation Amendment Bill (No.2) 2022.	DMIRS acknowledges and thanks EIANZ for taking the time to provide a submission.
106.	National Hydrogen Association of Australia (NH2A)	It is hoped that these comments and requests for clarifications will support the efficient implementation of legislation to facilitate the exploration for and exploitation of naturally occurring hydrogen in Western Australia. The NH2A fully supports the proposed changes and is available for further consultation as the legislative amendments proceed and implementation commences.	DMIRS thanks NH2A for providing its support for the proposed amendments and taking the time to provide a submission. DMIRS welcomes future opportunities for continued engagement with NH2A as the proposed amendments progress.
107.	Fortescue Future Industries (FFI)	Fortescue thanks the Department of Mines, Industry Regulation and Safety for the opportunity to provide feedback on Petroleum legislation Amendment Bill (No. 2) 2022 and looks forward to continuing the consultation process for the regulation of Western Australia's Renewable Hydrogen Industry.	DMIRS thanks FFI for providing its support for the proposed amendments and taking the time to provide a submission. DMIRS welcomes future opportunities for continued engagement with FFI as the proposed amendments progress.

Ref #	Stakeholder	Comment	DMIRS Response
108.	Australian Petroleum Production & Exploration Association (APPEA)	Conclusion APPEA supports the intent of the draft Bill to amend and improve petroleum operational matters and to enable the exploration of naturally occurring hydrogen to ensure that the regulation of the petroleum and geothermal industry is fit for purpose, and we look forward to ongoing consultation on the reform process.	DMIRS acknowledges and thanks APPEA for taking the time to provide a submission. DMIRS notes APPEA's support for the intent of the proposed amendments. DMIRS welcomes future opportunities for continued engagement with APPEA as the proposed amendments progress.
109.	Australian Geothermal Association (AGA)	Specific comments and suggested amendments are provided in dot-point form on the following pages. These comments and suggestions aim to ensure the revised Regulations reflect present and emerging geothermal concepts and technology, and that they might remain appropriate for the next ten years. AGA is available to provide further details or clarification upon request from the DMIRS.	DMIRS thanks AGA for taking the time to provide a submission and appreciates the input with respect to geothermal energy-specific provisions in the PGERA. DMIRS welcomes future opportunities for continued engagement with AGA.
110.	H2EX Ltd (H2EX)	**Summary** In summary, H2EX: 1. support the introduction of a new class of Regulated Substance. 2. seek to apply for the rights of existing titles to explore for natural hydrogen if existing title holder do not wish to opt in for its exploration. 3. seek the ability to use SPA/AO applications to propose work programs and in due course securing title for hydrogen and helium exploration in basins and locations that are not likely to be gazetted. In short, although the amendment bill is useful it is not clear given the inability to use the SPA/AO application, how the proposed amendment will result in a rapid increase in hydrogen exploration. H2EX seeks to do this in its home state.	DMIRS acknowledges and thanks H2EX for taking the time to provide a submission. DMIRS notes H2EX's support for proposed amendments and its desire for additional amendments to accommodate its future endeavours. DMIRS welcomes future opportunities for continued engagement with H2EX as the proposed amendments progress.
111.	Lock the Gate Alliance (LTGA)	LTGA appreciates the opportunity to comment on the Petroleum Legislation Amendment Bill (No.2) 2022.	DMIRS acknowledges and thanks LTGA for taking the time to provide a submission.

Government of Western Australia

Department of Mines, Industry Regulation and Safety

8.30am – 4.30pm

Mineral House, 100 Plain Street
East Perth, Western Australia 6004
Tel: +61 8 9222 3333
Fax: +61 8 9222 3862

Online
Website: www.dmirs.wa.gov.au
Email: REC.Consultation@dmirs.wa.gov.au

Mailing address
Locked Bag 100
East Perth WA 6892

National Relay Service: 13 36 77
Translating and Interpreting Service (TIS) 13 14 50
This publication is available in other formats on request to assist people with special needs.

DMIRS_JUL_23_8292