Response to Submissions
Petroleum Legislation Amendment Bill (B) 2023

Background

The Department of Mines, Industry Regulation and Safety (DMIRS) is proposing amendments to the *Petroleum and Geothermal Energy Resources Act 1967*, *Petroleum Pipelines Act 1969* and *Petroleum (Submerged Lands) Act 1982* (together referred to as the Petroleum Acts) to provide a legislative framework for the transport and geological storage of greenhouse gases (GHG) in Western Australia (WA).

The Bill aims to provide WA's industrial, mining, LNG and natural gas industries with access to opportunities to decarbonise through carbon capture and storage and supports the Government's commitment to working with all sectors of the economy to achieve net zero emissions by 2050.

The Petroleum Legislation Amendment Bill (B) 2023 has subsequently been combined with the two other Petroleum Bills that are currently being drafted and were open for consultation in late 2022. These are the:

- Petroleum Legislation Amendment Bill (No. 2) 2022 which addresses a number of urgent operational amendments and enables exploration of naturally occurring hydrogen; and
- Petroleum Legislation Amendment Bill 2022 to allow electronic lodgement and electronic signatures.

The combined Petroleum Legislation Amendment Bill 2023 (Draft 20) (the Bill) is targeted for introduction into the WA Legislative Assembly late in 2023.

Stakeholder comments

A consultation draft of the Petroleum Legislation Amendment Bill (B) 2023, in the form of marked-up copies of the three Petroleum Acts, was made available for public consultation from 20 January 2023 until 14 April 2023, with 16 submissions received from the following stakeholders:

- Australian Gas Infrastructure Group (AGIG)
- Australian Geothermal Association (AGA)
- Australian Petroleum Production and Exploration Association (APPEA)
- CarbonCQ
- The Chamber of Minerals and Energy (CME)
- Chevron
- Conservation Council of WA (CCWA)
- Environmental Defenders Office (EDO)
- GeoVault
- Lock the Gate Alliance (LTGA)
- Mitsui E&P Australia (MEPAU)
- Pilot Energy
- Sea-Quester
- Southern Green Gas
- Wesfarmers Chemicals Energy and Fertilisers (WesCEF)
- Woodside Energy

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.

Responses to Submissions

The Responses to Submissions from stakeholder feedback have been structured into three parts:

- Part 1 – Themes/Categories
- Part 2 – General comments
- Part 3 – Comments on specific sections of the three Petroleum Acts

In Part 1, the key themes of this feedback are:

- Expediting the timelines for legislative change
- Adopting carbon capture and storage technology
- Grant of title – acreage release and direct access
- GHG storage formations "wholly situated" within certain blocks
- Overlapping titles as well as competing title applications and operations
- Commonwealth alignment
- Trailing liability and decommissioning
- Import and export of GHG across jurisdictions
- Requirements to specify the source, volume and composition of GHG
- Infrastructure and licence conversion (also transfer of assets)
- Site closure and liability

DMIRS has endeavoured to include the full text of comments in the Response to Submissions. However, where the comments are too detailed a link to the submission has been provided.

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

Drafting approach

To achieve the WA Government's aim of early introduction of GHG storage legislation, DMIRS has expedited the drafting of the legislation. This has required rapid iteration of drafts with the Parliamentary Counsel and has required compression of the usual public consultation processes. It is expected that drafting of the regulations will allow for further consultation.

The Bill has been drafted to closely align with equivalent provisions in the Commonwealth *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGSA) as far as practicable. Decisions to differ from this have only be made for State specific requirements.

This approach recognises that the OPGGSA has successfully operated since 2008 and the importance for consistency with Commonwealth legislation in view of the likely prospect of greenhouse gas storage and transport (GGST) projects operating across the WA and Commonwealth areas.

Amendments to the Petroleum Acts will allow for the work to commence on:

- establishing a GGST titles regime;
- release of acreage and grant of GHG titles; and
- developing GHG storage and injection regulations and broadening the existing the existing Petroleum Environment and Resource Management and Administration Regulations.

Acronyms used in the Responses to Submissions

CO2	Carbon dioxide
DMIRS	Department of Mines, Industry Regulation and Safety
Env Regs	Petroleum and Geothermal Energy Resources (Environment) Regulations 2012, Petroleum (Submerged Lands) (Environment) Regulations 2012, Petroleum Pipeline (Environment Regulations 2012
GGST	Greenhouse gas storage and transport
GHG	Greenhouse gas
OPGGSA	Offshore Petroleum and Greenhouse Gas Storage Act 2006
Petroleum Acts	*Petroleum and Geothermal Energy Resources Act 1967*, *Petroleum Pipelines Act 1969* and *Petroleum (Submerged Lands) Act 1982*
PGERA	Petroleum and Geothermal Energy Resources Act 1967
PSLA	Petroleum (Submerged Lands) Act 1982
RMA Regs	Petroleum and Geothermal Energy Resources (Resource Management and Administration) Regulations 2015 and Petroleum (Submerged Lands) (Resource Management and Administration) Regulations 2015

PART 1 – THEMES/CATEGORIES

Ref #	Stakeholder	Comment	DMIRS Response
EXPEDITING THE TIMELINES FOR LEGISLATIVE CHANGE			
1.	CME	CME urges the Western Australian Government to prioritise the passage of this legislation through the WA Parliament as soon as possible in upcoming sitting weeks and fast-track the development of the regulations and supporting policy frameworks which underpin the Bill. More broadly than this Bill, the timely progression of the legislative and regulatory frameworks necessary to enable the broadest range of decarbonisation pathways for all industries is, and will remain for some time, a priority for the resources sector in WA. Progression of available decarbonisation opportunities at pace is a critical enabler to meet our near-term commitments at the scale required, with future opportunities and technologies continuing to be pursued as they become proven at scale.	Comments noted. DMIRS acknowledges and agrees with the need for early implementation of the legislative and policy frameworks for GGST.
2.	APPEA	**Reaching net zero by 2050 will be "virtually impossible" without carbon capture, utilisation, and storage (CCUS)**. CCUS plays a unique role amongst a portfolio of emissions reductions technologies as it can address emissions from existing facilities, mitigate emissions from hard-to-abate industry including processing for critical minerals, support low-carbon hydrogen production, and underpin large-scale carbon removal. **CCUS needs to be deployed across the Australian economy as a matter of urgency, as emphasised in the ongoing reform of the Safeguard Mechanism**. To achieve the IEA Net Zero Emissions (NZE) scenario, it will require "*more than ten new CCUS equipped facilities to be commissioned each month between* [November 2022] *and 2030".* Similarly, CCUS will be urgently needed by a range of Safeguard Mechanism facilities to achieve the required 4.9% emissions reductions annually, such as cement, iron and steel, chemicals, and liquified natural gas facilities. **The timelines for developing and implementing the Draft Bill and associated regulations as well as the time required to permit CCUS operations will have a direct impact on the emissions reduction trajectory of numerous Western Australian industrial and energy facilities**. APPEA recommends: • The finalisation and promulgation of the Draft Bill and associated regulation should be fast-tracked to reflect the urgent need to commence CCUS deployment. The Department should look to prioritise critical path regulations such as acreage release and the subsequent permitting process to reduce time to CCUS deployment.	Comments noted. DMIRS acknowledges and agrees with the need for early implementation of legislation and processes for GGST. A number of approval timelines are set in legislation to align with equivalent timeframes in the OPGGSA and its associated regulations.

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		• The timelines associated with project permitting should be clearly defined and constrained and all associated departments should be sufficiently resourced to process applications. Delays in permitting will ultimately result in delays in emission reductions. • Amendments to a range of areas where the Draft Bill can be adapted or clarified to ensure the safe, efficient and effective development of CCUS in Western Australia. APPEA extends the offer for further engagement on any of the recommendations provided in this submission or on any other matter relating to the Draft Bill or future regulations. *Timelines for government responses/approvals are vague.* The implementation of the Bill will be critical for the target 2030 net zero ambitions. APPEA notes the urgent demand for CCUS and recommends the WA Government take action to expedite this decarbonising technology. APPEA identifies a significant challenge to decarbonisation in the expected approval delays that all projects face. APPEA recommends that the Department and the broader WA Government provide support and implement policies to 'fast-track' CCUS projects. Improving regulatory approval timelines in legislation for any WA Department with regulatory oversight of CCUS projects is essential to the overall timeline of CCUS projects. APPEA suggests that a '**one window to Government**' strategy be applied for approvals of GHG storage projects, and to **include in legislation a framework which guarantees approval response times**. If guaranteed approval response times cannot be achieved for some reason, APPEA recommends that early proposed CCUS projects be expedited and pushed through an appropriate approval process as an urgent priority. APPEA recommends the drafting of related regulations be prioritized by the Department and started immediately.	
3.	Woodside Energy	**Timeliness** The time required for passage of the Bill, development and enactment of subsidiary instruments and for proponents to secure requisite project permissioning may take until the end of this decade. We encourage the State to consider measures to expedite these timelines to help State Government and other Western Australian organisations to achieve their near team emissions reduction targets.	Comments noted. The WA Government acknowledges and agrees with the need for early implementation of legislation and processes for GGST. A number of approval timelines are set in legislation to align with equivalent timeframes in the OPGGSA and its associated regulations. Outside of these, DMIRS will prioritise assignment of staff resources and systems development to ensure effective and efficient approvals processes.
4.	Chevron	The need to fast-track the finalisation and promulgation of the Draft Bill and associated regulations so that CCS activities in Western Australia can commence as soon as possible. Deploying CCS at scale in Western Australia will support State and Federal emission reduction	Comments noted. The WA Government acknowledges and agrees with the need for early implementation of the legislative frameworks for GGST.

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		targets and have a direct impact on the emissions reduction trajectories of numerous facilities in the energy and other hard-to-abate sectors. This has become even more critical following the Federal Government's recent amendments to the Safeguard Mechanism as facilities seek ways to lower carbon in their existing activities to meet requirements to remain below ever-decreasing emission baselines. Deployment of CCS will also support development of new lower-carbon industries such as hydrogen production.	
5.	CarbonCQ	For existing and future projects, the period from 2030 onwards is critical. GHG Legislation is therefore absolutely critical in that CCS projects take between seven and ten years from inception to first storage. This is increased if there is inadequate exploration in geologic storage capacity added to the typical challenges of the lack of financial support and market stimulus, as well as incomplete regulation framework and risk-sharing mechanism. Kwinana industry, companies operating in the Mid West and gas producers in the North West are all seeking this regulatory certainty. Storage exploration and tenure has been identified as the primary roadblock to progressing the SW Hub with suggestions that Legislation and Regulation could take up to two years before expressions of interest in further exploration is called. The principal issues for CCS in Western Australia are: • The absence of Legislation and associated Regulations for green-house gas (GHG) storage; • The timetable for the introduction and promulgation of the GHG Legislation and Regulations; leading to • The lengthy time frames before the "Declaration of Storage" that allows a sequestration site to be developed.	Comments noted. The WA Government acknowledges and agrees with the need for early implementation of the legislative frameworks for GGST. Timelines for declaration of an GHG storage formation align with equivalent timeframes in the OPGGSA but DMIRS will prioritise assignment of staff resources and systems development to ensure effective and efficient approvals processes.
ADOPTING CARBON CAPTURE AND STORAGE TECHNOLOGY			
6.	APPEA	CCUS is proven technology with over 25 years of experience storing CO2 safely and securely offshore, in the sub-seabed. There are currently more than 30 commercial CCUS projects in operation today, which together store the equivalent of almost 10 per cent of Australia's emissions annually. The Sleipner project in Norway has been storing 1 million tonnes of CO2 per year, in geology deep below the North Sea, continuously since 1996. Recent years have delivered unprecedented momentum in CCUS development globally, with almost 250 commercial projects currently under development (Figure 1). Almost two-thirds of planned investments are in the United States, Canada and Europe, where governments have recognised the critical role of CCUS and introduced strong policy incentives to fast-track investment. In the United States, this includes a tax credit of USD 85/t for CO2 captured and stored from industrial or power generation facilities.	The WA Government has declared a commitment to mitigating climate change and working with all sectors of the Western Australian economy to achieve net zero GHG emissions by 2050. Media statements announcing the commencement of drafting of proposed GGST legislation advised that the legislation: • is one of a number of options the WA Government is targeting to deal with climate change and address emissions reduction; • supports the industrial and resources sectors' transition to net zero emissions; and

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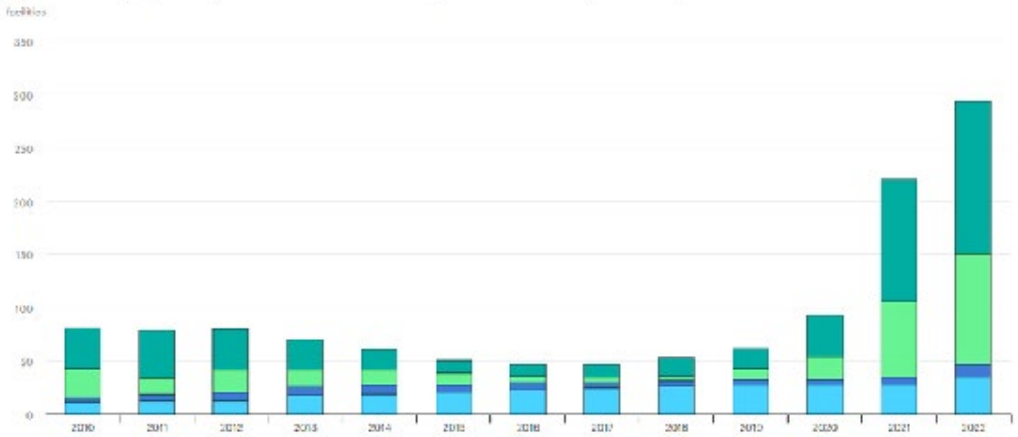
		Figure 1: CCUS project in operation and under development 2010-2022 (Source: IEA)  The Western Australian oil and gas sector is at the forefront of the deployment of CCUS technologies. Chevron's Gorgon CO2 Injection Project is the largest dedicated CO2 storage project globally. World-class CO2 storage resources along with a wealth of CCUS skills and experience within the industry, give WA a comparative advantage on the roll-out of CCUS. A comparative advantage that can deliver large-scale emissions reductions across the state, while attracting investment in the WA economy.	• will provide WA's resources sector with further investment and regulatory certainty as it transitions to a low-carbon future while protecting and creating more jobs in the sector.
7.	EDO	Recommendation 1: 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. The legislation must not promote or encourage the use of CCS to sustain the fossil fuel industry. The starting point for any statutory amendments must be that Western Australia must phase out fossil fuel production to ensure a safe climate. • The urgency of the climate crisis requires the phasing out of fossil fuel extraction. • Carbon capture and storage is not an effective or environmentally sound solution for timely reductions in GHG emissions. • Expanding CCS puts Western Australia's net zero target at risk. Further information on the above points is provided at pages 7 to 14 in the EDO submission. 230414 EDO Submission re Petro	The WA Government has declared a commitment to mitigating climate change and working with all sectors of the Western Australian economy to achieve net zero GHG emissions by 2050. WA is following the approach of the Commonwealth Government in introducing GGST legislation. Media statements announcing the commencement of drafting of proposed GGST legislation advised that the legislation follows: • the WA Government's Western Australian Climate Policy, which sets out the State Government's plan for a climate-resilient community and prosperous low-carbon future, and • the GHG Emissions Policy for Major Projects, which describes the broad approach that will be taken into

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			consideration of new proposals and project expansions that would emit significant additional GHG emissions in WA. The media statements also clearly state the proposed legislation: • is one of a number of options the WA Government is targeting to deal with climate change and address emissions reduction; • supports the industrial and resources sectors' transition to net zero emissions; and • will provide WA's resources sector with further investment and regulatory certainty as it transitions to a low-carbon future while protecting and creating more jobs in the sector. Technologies such as renewable energy, improved energy efficiency and fuel switching are aimed at preventing the creation of CO2 emissions. GGST complements these technologies by addressing emissions that currently cannot be avoided, such as CO2 emissions from industrial processes like steel or cement manufacturing. The development of GGST legislation is necessary to provide the use of this option. Additionally, the future use of direct air capture, which has the potential to directly remove CO2 from the atmosphere and store it permanently deep underground, is also provided for.
8.	CCWA	The legislative amendments to allow for the injection and storage of GHG substances will ease the path for big polluters by presenting this as a carbon pollution reduction strategy, when it is not.	As indicated in the response for comment 7, the proposed GGST legislation is being introduced as part of measures to address climate change and emissions reduction.
9.	CCWA	Recommendation 2: The proposed legislative changes should not promote or encourage the capture, injection and storage of GHG substances as a carbon pollution reduction strategy to sustain the fossil fuel industry and its environmental impacts.	As indicated in the response for comment 7, the proposed GGST legislation is being introduced as part of measures to address climate change and emissions reduction. The legislation also supports the industrial, manufacturing and mining sectors, as well as the LNG and petroleum industries in the transition to net zero emissions.

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10.	LTGA	***CCS is used to justify increased fossil fuel production*** We would like to make it clear, however, that while Carbon Capture and Storage (CCS) should be regulated, especially in terms of long-term liability for environmental impacts, CCS should not be supported by government or enabled through regulatory amendments as a key decarbonisation strategy, or to support/enable the further expansion of fossil fuel mining in WA. A range of claims are made by the fossil fuel industry, including those companies making 'net zero' promises, to justify opening new coal and gas developments. One of the most common justifications is that carbon capture and storage projects, both new and retrofits to existing mines and power plants, will vastly reduce the climate impact of fossil fuels. For example, APPEA regularly refers to CCS as a means of 'decarbonising' a Beetaloo gas industry, the Low Emissions Technology Australia lobby group (formerly called 'Coal21' before its recent rebrand) has focussed on CCS for over 25 years, and Glencore - one of Australia's largest coal producers - cites CCS as a key element of its pathway to net zero. The reason for the fossil fuel industry's enthusiasm for CCS is obvious: it is the only climate 'solution' that would protect profits from coal, oil and gas. As summarised by the IPCC, '*Most mitigation scenarios are associated with reduced revenues from coal and oil trade … The availability of CCS would reduce the adverse effect of mitigation on the value of fossil fuel assets*.'	As indicated in the response for comment 7, the proposed GGST legislation is being introduced as part of measures to address climate change and emissions reduction. The legislation also supports the industrial, manufacturing and mining sectors, as well as the LNG and petroleum industries in the transition to net zero emissions.
GRANT OF TITLE – ACREAGE RELEASE AND DIRECT ACCESS			
11.	Sea-Quester	Sea-Quester encourages the Minister/DMIRS to initiate the regular release of areas (annual or even bi-annual) for both conventional petroleum/mineral exploration and for GHG geo-sequestration activities across Western Australia's onshore and offshore sedimentary basins. Having access to areas suitable for GHG storage is an essential first-step in attracting new investment in CCUS and for Western Australia to achieve its 2050 net-zero target.	Comments noted. DMIRS will commit to early and regular acreage release of prospective GHG storage formations.
12.	Sea-Quester	Future legislation should allow for 'out-of-round' applications from interested parties for both petroleum and GHG geo-sequestration areas. Sea-Quester believes such flexibility would encourage greater investment in the area of CCS by industries with hard-to-abate emissions particularly those outside of the petroleum industry such as mining, mineral extraction & processing, and power generation companies.	Direct access provisions are proposed to allow for a petroleum or geothermal lessee or licensee to request nomination of a potential storage formation within their lease or licence (for example a depleted reservoir) based on their geological knowledge of the formation. Ordinarily, nomination of a potential storage formation would occur prior to a DMIRS public release of GHG acreage. It is proposed to introduce provisions to allow for a more direct nomination of a potential storage formation without the need for an acreage release or the nominee to be a GHG titleholder. If DMIRS declares that the formation is an identified GHG storage formation, a petroleum or geothermal lessee would

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			apply for the grant of a GHG retention lease under section 48BB or the grant of a GHG injection licence under section 50A. Similarly, a petroleum or geothermal licensee or lessee would apply for the grant of a GHG retention lease under section 48CA or the grant of a GHG injection licence under section 50B. Please note that since the release of the consultation draft, amendments have been made to the PLAB 23 to remove the eligibility for petroleum and geothermal permittees and holders of a petroleum and geothermal drilling reservations to make an application for a GHG retention lease or a GHG production licence.
13.	MEPAU	**GHG acreage release** (i) Summary Sections 30 and 30A of the PGERA provide that an acreage release for GHG exploration permits may be made in respect of a block or blocks that are already subject to a petroleum / geothermal exploration permit, petroleum / geothermal drilling reservation, petroleum / geothermal retention lease or petroleum / geothermal production licence. If, at the time of the proposed acreage release, the relevant title holder is entitled to apply for the grant of a GHG retention lease or GHG injection licence, then the Minister must provide 60 days' prior notice of the proposed acreage release. If, during such notice period, the relevant title holder makes an application for a GHG retention lease or GHG injection licence, then the Minister must not proceed with the acreage release until: - the application lapses; - the relevant title holder withdraws the application; or - the Minister refuses to grant the GHG retention lease or GHG injection licence.	Proposed section 30A aligns with equivalent provisions in section 297 in the OPGGSA in allowing a minimum of 60 days for the Minister to notify petroleum and geothermal lessees and licensees of the proposed release of GHG acreage. The requirement to notify an existing petroleum titleholder was introduced as a late Opposition Senate amendment to the OPGGSA in 2008 primarily to deal with the rights of the existing petroleum titleholders and allow the licensees and lessees of oil and gas titles to be able to intercede and stop a geosequestration proposal. The Hansard record did note that the Senate also recognised that the LNG industry on the North-West Shelf would produce substantial portions of CO2 as a by-product and the oil and gas producers in the North-West Shelf would have ready access to their existing tenements for the geosequestration of those GHG in the future. The 60-day timeframe was introduced as part of the Senate amendments and has remained in the OPGGSA since that time. The benefit of maintaining alignment with equivalent provisions in the OPGGSA is considered to outweigh the recommended change especially with the likely prospect of cross-jurisdictional GGST projects in the WA and Commonwealth areas.

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		(ii) MEPAU Submissions Under sections 50AB, 50A and 50B of the PGERA, a person is only entitled to apply for a GHG retention lease or GHG injection licence in respect of blocks that constitute an identified GHG storage formation. Therefore, before being entitled to apply for a GHG retention lease or GHG injection licence, the relevant title holder would first need to apply for (and have approved) a declaration of an identified GHG storage formation under section 69B of the PGERA. As drafted, it appears that the 60 day notice period would only apply in respect of blocks that already constitute an identified GHG storage formation. If this interpretation is correct, then MEPAU considers that this raises serious issues given that it effectively means that an acreage release could occur without prior notice in respect of a block or blocks where there is an existing petroleum production licence (but no identified GHG storage formation). This creates significant uncertainty for industry participants, and there is little guidance in the PGERA or otherwise as to how the competing interests of the GHG exploration permittee and the petroleum production licensee should (or in practice, could) be managed given they will likely be working in the same sub-strata / geological formations. See further comments in section 2. If the intention is that the 60 day notice period would also apply to relevant title holders who are entitled (but have not yet) made an application for an identified GHG storage formation, then it remains unclear as to how that relevant title holder would have sufficient time within that 60 day notice period to: - make an application for an identified GHG storage formation; - have that application assessed and determined by the Minister; and - assuming that a declaration of an identified GHG storage formation is made, then make an application for a GHG retention lease or GHG injection licence. It is also unclear as to whether the Minister would be entitled to proceed with an acreage release if, for example, there is a pending application for a declaration of an identified GHG storage formation within the relevant blocks.	The entitlement for petroleum and geothermal lessees and licensees to apply for the grant of a GHG retention lease or a GHG injection license provides the opportunity to bring forward GHG storage projects that may otherwise be delayed by having to go through the acreage release process of advertising of blocks and the assessment of bids. It is recognised that not all petroleum or geothermal lessees or licensees will be in the advanced position of having either the geological knowledge that would enable them to be able to submit an application for declaration of an identified GHG storage formation or a business case to be able to submit an application for a GHG retention lease or injection licence. In these cases, a lessee or licensee could pursue a GHG title by applying for the grant of a GHG exploration permit GHG title through an acreage release process as this would provide additional time and information to 'prove up' a potential GHG storage formation and develop a strong business case. In regard to competing applications, amendments have been made to section 69A in the PGERA to extend this section to now include equivalent GHG titles and provide that petroleum, geothermal and GHG titles may overlap each other. DMIRS has also prepared a 'Guide note on the management of subsisting petroleum and geothermal titles' which was recently released for stakeholder consultation. The Guide will be updated to include GHG titles and build on the new guidance provided in the proposed legislation. Lastly, under section 30A(5), the Minister must not gazette the acreage release until the application lapses; or the relevant title holder withdraws the application; or the Minister refuses to grant the GHG retention lease or GHG injection licence.
14.	APPEA	APPEA recognizes and supports, in principle, the advantage given to existing petroleum or geothermal title holders in applying for GHG permits, if their title has an identified GHG storage potential, noting that best use and proof of capability remain a priority.	Comments noted.

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		Regard for existing petroleum or geothermal title holders to GHG titles is an effective and efficient regulatory approach for several reasons: • Efficiency: By giving particular consideration to existing petroleum and geothermal title holders, the approvals process can be expedited as these title holders are already familiar with the area and environment under consideration, regulatory requirements, and have demonstrated their ability to comply with them. This can reduce the time and resources required for the regulatory approval process. • Encourages responsible resource management: Existing title holders have an incentive in responsible management of the GHG storage formation as it possibly affects ongoing operations. Granting them access to new GHG titles encourages existing title holder to continue responsible management practices, as they will be more likely to obtain future titles if they can demonstrate that they have managed their existing titles responsibly. • Supports local communities: Existing title holders often have established relationships with local communities and may have developed infrastructure and support systems that benefit these communities. Granting them access to new GHG titles can help support these local communities by providing ongoing economic benefits. Overall, granting consideration to existing resource title holders will be an effective regulatory approach that balances the needs of GHG storage with responsible regulatory oversight. APPEA is broadly supportive of this approach but anticipates there to be extremely high interest in certain regions due to the nature and knowledge of existing geology from previous exploration in close location to existing or proposed large CO2 emitters. APPEA suggests that the Department ensures successful title applicants be demonstrably capable of its work programme with a robust framework to minimise disturbances to existing land users balanced with optimal outcomes for decarbonisation. APPEA requests further information on how the Department will prevent the warehousing of leased areas with GHG storage potential, as well as address any legal challenges relating to the possibility that direct access for existing title holders could be viewed as anti-competitive.	There are many synergies with the petroleum industry that mean that petroleum titleholders can easily move into GGST. The WA Government has followed the approach of the Commonwealth Government in adopting petroleum legislation as the vehicle for the PLAB 23 because GHG storage uses many of the same technologies as the petroleum industry and many of the provisions in the bill follow the existing petroleum legislative regime. Existing petroleum and geothermal retention lessees and licensees have been considered to have sufficient the operational experience and expertise to transition to GGST operations and also enables fast-tracking of projects with the potential use of depleted reservoirs and existing infrastructure. The requirement for an application for a GHG exploration permit or a GHG injection licence to include the source, volume and composition of GHG to be injected and stored is to demonstrate that proponents have a genuine interest in undertaking GGST projects and it is not merely speculative or a means to warehouse suitable storage sites. GHG exploration permits will be subject to the same work program provisions as apply for petroleum and geothermal exploration permits. DMIRS will monitor the permittee's work commitments to ensure compliance with the work program. GHG licences will also align with petroleum and geothermal production licences in providing for the termination of a GHG injection licence if there have been no injection operations carried on for a continuous period of 5 years. GHG retention leases will also be strictly administered to encourage storage operations in suitable storage formations. The direct access provisions introduced by the PLAB 23 follow a similar entitlement in the OPGGSA where section 297 allows for a petroleum lessee or licensee to make an application for the grant of a GHG holding lease, or a GHG injection licence. Any 'anti-competitive' claims would equally apply to the OPGGSA.

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			The PLAB 23 extends the entitlement slightly by allowing petroleum and geothermal lessees and licensees to apply for the declaration of an identified GHG storage formation in their title area and then apply for a GHG retention lease or a GHG injection licence. In these situations, there is no means for anyone to explore for a potential GHG storage formation in that area except by way of an acreage release.
15.	APPEA	APPEA requests the acreage assessment and release process be prioritized and made available as soon as possible. Once acreage for GHG is released and the application process is underway, APPEA recommends immediate consultation with interested parties who are ready and likely to act on GHG sequestration projects. The quicker CCUS projects are up and running, the sooner GHG is removed from, or not emitted into, the environment.	Comments noted. The WA Government acknowledges and agrees with the need for early implementation of the legislative frameworks for GGST to allow for projects to commence. This will be achieved by acreage release, following the same approach as taken for exploration for petroleum but with the addition of direct access provisions. The identification of prospective acreage release will be determined by DMIRS knowledge of the State's geology and through nomination by industry of potential release areas. To assist both, DMIRS is developing a new Western Australia Carbon Dioxide Geological Storage Atlas will provide Government and industry with a clearer understanding of the potential for permanent sequestration of CO2 by providing new data on the reservoir, seal and trap. Compared to the previous 2013 atlas, the new atlas will include: • new geographic areas (e.g., State Waters, Officer Basin) • stratigraphic intervals not included in the first atlas (e.g., early Permian reservoirs in the northern Perth Basin) • new and where feasible, higher resolution depth maps (including major faults) • reservoir and seal information from wireline logs and new analysis in both the new regions as well as those originally investigated.

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16.	APPEA	**Title process and acreage release** Will DMIRS declare a number of GHG graticule blocks be reserved under section 28 of the PGERA and released as acreage? Will 'direct access' be allowed under the new act if there is a section 28 reservation over blocks? And if not, will there be a policy in place for the reservation over blocks to be lifted post application of a GHG lease or licence?	The proposed PLAB 23 aligns with the OPGGSA by not stipulating a maximum number of blocks in section 31 for an application for a GHG permit. The PLAB 23 extends the reservation provisions in section 28 to now include a GHG title along with the petroleum and geothermal titles. There has been no policy decision made on whether a section 28 reservation will be applied to GHG titles following passage of the PLAB 23. This will be considered as part of the work for an acreage release of prospective GHG storage areas.
17.	CME	CME also support the commentary APPEA provides regarding flexibility for sequestration thresholds and access priority for existing title holders.	Comments noted
18.	MEPAU	**'Direct access' pathway** i. Summary Sections 50AB, 50A and 50B of the PGERA provide a 'direct access' pathway to a GHG injection licence for the holder of a petroleum / geothermal exploration permit, petroleum / geothermal drilling reservation, petroleum / geothermal retention lease or petroleum / geothermal production licence. ii. MEPAU submissions MEPAU considers the category of persons that may have 'direct access' to a GHG injection licence to be too broad, and considers that this may result in competing interests between title holders (see further comments in section 2.2). As such, MEPAU submits that only the holder of a petroleum production licence should have 'direct access' to a GHG injection licence or GHG retention lease. MEPAU believes that only the holder of a petroleum production licence should have direct access to a GHG retention lease or GHG injection licence, given that GHG operations are likely to relate to the same or similar strata, including potentially the same geological formations (that is, for example, a hydrocarbon reservoir) as petroleum operations. Therefore, there is a real possibility (from a technical perspective) that GHG operations may directly impact petroleum operations under a petroleum production licence (see further comments in section 2.2). In MEPAU's view, this risk can be addressed through limiting the scope of 'direct access' to the holder of a petroleum production licence.	Proposed direct access provides the opportunity to bring forward GHG storage projects that may otherwise be delayed by having to go through the acreage release process of advertising of blocks and the assessment of bids. Following a review of proposed direct access provisions, the Minister has decided that petroleum and geothermal permittees and holders of a petroleum and geothermal drilling reservations should not be eligible to make an application for a GHG retention lease or a GHG injection licence.

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		MEPAU also submits that a 'direct access' pathway should only be available to the holder of a petroleum production licence as this reflects the significant financial and technical investment of the licensee in that licence area, and the acquired understanding of the geological formations within that licence area. MEPAU does not consider that the holders of a petroleum exploration permit, petroleum drilling reservation, petroleum retention lease or geothermal title have that same level of understanding, or have demonstrated the same level of financial and technical investment in the relevant licence area. Accordingly, MEPAU does not consider that such licence holders should be granted equal priority to petroleum production licence holders in respect of GHG operations under the 'direct access' pathway. Accordingly, MEPAU submits that only petroleum production licence holders should be provided priority in respect of GHG operations under the 'direct access' pathway. If this position is unchanged, then MEPAU considers that this could cause significant disruption and uncertainty to both the petroleum and GHG operations, particularly in the absence of any clear statutory framework for establishing priority of operations).	
19.	AGIG	The drafting provides that the application period for an application under s48CA by a petroleum production licence holder/geothermal production licence holder for the grant of a GHG retention lease over a block or blocks to which a GHG storage formation extends is the period of 5 years from the date on which the production licence/geothermal licence was granted. This would prohibit any entity that holds a licence that was issued before ~2018 from making an application under this section. Such a result would be unfortunate and capricious in practice because many of the older licences could contain depleted petroleum reservoirs, which could be prospective GHG reservoirs, and the holders of the relevant petroleum licence would be perfectly placed to utilise their existing infrastructure for GHG storage. Similarly, section 50B(1) limits the right of a petroleum production licensee to apply for a GHG injection licence such that it only applies to certain production licences, being those that are "in force under section 63(1)(c) or (2)". This limitation would prevent, for example, s50B giving application rights to AGIT, whose production licence L9 was originally granted in 1987 and is currently in the period of its first renewal. We do not consider that the fact that L9 is not currently in force for an indefinite period should disentitle AGIT from applying for a GHG injection licence in the area of L9 and consider that this cannot be the intention of the drafting. There is no proposed requirement that the holder of a GHG injection licence simultaneously and at all times hold an overlapping petroleum production licence so the possibility for expiry of L9 after an application has been made for a GHG injection licence over the same area should not be relevant.	Section 48CA has been extended to now include applications for GHG retention leases from petroleum and geothermal licensees and GHG injection licensees where no GHG injection operation is being carried on under the licence or, an unused area in the licence. This section is required due to amendments to section 64A by clause 70 which enable termination of a GHG injection licence if no GHG injection operations have been carried out for a continuous period of at least five years. However amendments have been made to this section to delete: • 'under section 63(1)(c) or (2)' from (2C) and (2E) to allow for all petroleum and geothermal licences to apply for a GHG retention lease, and • subsection (10) as it is not necessary that the application period for a petroleum or geothermal licensee to apply for a GHG retention lease is tied to the grant of the petroleum or geothermal licence.
20.	Pilot Energy	Pilot generally supports the proposed amendments as existing participants in the oil and gas industry are well positioned to accelerate material reductions in Western Australia's emissions through the deployment of CO2 storage projects which leverage existing infrastructure.	Comments noted. There are many synergies with the petroleum industry that mean that petroleum titleholders can easily move into GGST. The WA petroleum legislation has been adopted as the vehicle for the bill because GHG storage uses many of the same technologies as the

<table>
<tr><th>Ref #</th><th>Stakeholder</th><th>Comment</th><th>DMIRS Response</th></tr>
<tr><td></td><td></td><td></td><td>petroleum industry and many of the provisions in the bill follow the existing petroleum legislative regime.

Existing petroleum and geothermal retention lessees and licensees have been considered to have sufficient operational experience and expertise to transition to GGST operations and also enables fast-tracking of projects with the potential use of depleted reservoirs and existing infrastructure.</td></tr>
<tr><td colspan="4">GHG STORAGE FORMATIONS “WHOLLY SITUATED” WITHIN CERTAIN BLOCKS</td></tr>
<tr><td>21.</td><td>AGIG</td><td>AGIG is concerned that the drafting has the effect that:

a. if a potential GHG storage formation extends into a block beyond a particular existing title, that titleholder cannot seek a declaration that the potential GHG storage formation is an identified GHG storage formation; and

b. if an identified GHG storage formation extends into a block beyond a particular GHG injection licence, neither that GHG injection licensee nor any other person can use that GHG storage formation

because of the requirement that the GHG storage formation be “wholly situated” within the particular title.

AGIG suggests that, to avoid sterilizing both potential and identified GHG storage formations that do not entirely sit within a relevant title, the drafting should provide that a declaration of an identified GHG storage formation and a GHG title can be sought and obtained even if the particular potential or identified (as the case may be) GHG storage formation extends beyond the area of the existing title (and then the resulting GHG title either cover the whole identified GHG formation or allow injection into and storage in the whole identified GHG formation even if beyond the bounds of the GHG title).

2. Inconsistency of geographical areas
Certain sections in the draft amendments refer to a GHG storage formation “wholly situated” within certain blocks, while other related sections refer to a GHG storage formation that “extends” to certain blocks. This potentially undermines the intention that substantive and useful rights are to be granted by a GHG title. We explain the problem by way of a few examples from the draft amended PGERA:

a. The drafting in s62(3) (‘Rights conferred by Licence”) states that a GHG injection licence authorises the holder to inject GHG into “an identified GHG storage formation that is wholly</td><td>The consultation draft for the WA Bill listed that a GHG storage formation must be wholly situated within a title area in the following sections:

<table><tr><th>Sections PGERA/PSLA</th><th>Title</th></tr><tr><td>48A/38A</td><td>Application by permittee or holder of a drilling reservation for lease</td></tr><tr><td>48BB/38BB</td><td>Application by petroleum or geothermal lessee for GHG retention lease</td></tr><tr><td>48CA/38CA</td><td>Grant or refusal of GHG retention lease to relation to application by petroleum or geothermal lessee</td></tr><tr><td>62/52</td><td>Rights conferred by licence</td></tr><tr><td>69B/74AB</td><td>Application for declaration of identified GHG storage formation</td></tr><tr><td>69G/74AG</td><td>Variation of declaration</td></tr><tr><td>69H/74AH</td><td>Revocation of declaration</td></tr><tr><td>69HH/74AP</td><td>Application for site closing certificate may be directed in GHG injection licence tied to ceased petroleum lease or licence</td></tr></table>
Amendments have since been made to sections 48A and 38A to remove the entitlement for a petroleum or geothermal permittee or holder of a drilling reservation to apply for a GHG retention lease or GHG injection licence.

All other references to wholly situated in the above section align with their equivalent OPGGSA sections.</td></tr>
</table>

Ref #	Stakeholder	Comment	DMIRS Response
		situated in the licence area…" and to permanently store GHG in an "*identified GHG storage formation that is wholly situated in the licence area*". However, under section 50B, a petroleum licensee can obtain a GHG injection licence over certain blocks which are within the area of the petroleum licence if the spatial extent of an identified GHG storage formation "extends" to those blocks. That is, the right under s50B appears to be only a right to receive a GHG injection licence over some – but not necessarily a–l - of the blocks in which the identified GHG storage formation is situated and yet (because of the drafting in s62(3)) such a licence could not be used to inject or store in that identified GHG storage formation because the licence does not cover the spatial extent of the formation. While proposed s48CA(2D) does provide that if an identified GHG storage formation merely extends to (and is not wholly within) blocks the subject of a petroleum licence, a GHG retention lease can be granted over the entire identified GHG storage formation, given the overriding terms of s62(3) in order to avoid sterilising the ability to utilise GHG storage formations, an applicant's ability to seek title to adjoining blocks should be strengthened. Further the ability to seek such title should be granted to any petroleum production licence holder (not limited to one in force under s63(1)(c) or (2) for the reasons in paragraph 8(h) below. 1. This apparent inconsistency could be fixed byi. Clarifying s48CA(2D) to strengthen the right of the applicant to be granted title to all of the blocks to which the identified GHG storage formation extends; or ii. extending the area over which the GHG injection licence is granted (i.e. the s50B right could enable the grant of a GHG injection licence over all of the blocks (including outside of the petroleum licence) to which the spatial extent of the identified GHG storage formation extends so as to properly allow the exercise of those rights); and/or iii. extending the area into which the GHG injection licensee may inject and in which the GHG injection licensee may store GHG substance (i.e., modification of the limit in s62(3) that the GHG injection licensee only inject a GHG substance into, and store a GHG substance in, an "*identified GHG storage formation that is wholly situated in the licence area*"). 2. We suggest that the above changes can be implemented without overturning the basic design parameter that, if a party is injecting into a particular identified GHG storage formation, no other person should be allowed to do so. Also under the proposed s69B, a title holder can only apply for a declaration of all or any part of geological formation as an *"identified GHG storage formation*" if the title holder has reasonable grounds to believe that that part of a geological formation is an *eligible GHG storage formation* which is "*wholly situated in the area*" of the permit/licence/retention lease. 3. However (in contrast) the draft s48CA(2C) and (2D) and s50B enable a petroleum licensee/geothermal licensee to apply for a GHG retention lease or GHG injection licence	The main requirement to be wholly situated within a title area is to not extend or go beyond the entitlement of an existing titleholder. Where GHG storage formations go beyond the existing title area, the correct process is for the whole GHG storage formation area to be released for competitive bidding rather than grant an additional entitlement. Existing titleholders would be advantaged in a competitive bidding process by having experience in operating in the area and knowledge of the local geology. Please note amendments have been made to section 48CA to delete 'under section 63(1)(c) or (2)' from (2C) and (2E) to allow for all petroleum and geothermal licences to apply for a GHG retention lease.

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		over the blocks "*to which the identified GHG storage formation extends*" (as opposed to only allowing the licensee to apply for the relevant title if the identified GHG storage formation lies wholly within the relevant petroleum/geothermal licence area). AGIG suggests that section 69B should facilitate a declaration application even where only part of the eligible GHG storage formation is situated in the area, otherwise the rights under s48CA and s50B to apply for a GHG title when the existing title only covers part of the GHG storage formation can never be enlivened by a petroleum licensee or geothermal licensee whose title covers only part of an eligible GHG storage formation. Further to this end, the PGERA should be amended to allow GHG exploration by a petroleum/geothermal titleholder on areas adjoining their existing titles for the purpose of delineating a potential GHG storage formation extending to their existing title, where required in order to obtain a declaration of an identified GHG storage formation which so extends. The petroleum regime works to promote efficiency of exploitation of resources because it applies a statutory law of capture (which promotes efficiency as it allows anyone who has a block over part of a petroleum resource to exploit that whole petroleum resource). The proposed drafting for the GHG storage regime is in part designed in a contrary manner, which could sterilise potential storage formations which extend beyond existing title boundaries. That is, if a GHG storage formation extends into a block beyond a particular GHG injection licence area, the current proposed drafting leads to an inefficient loss of GHG storage potential as neither that GHG injection licensee nor any other person can use that GHG storage formation. In contrast, under the petroleum regime, there is no such inefficiency because of the statutory embodiment of the law of capture (as applied in the petroleum regime contained in the PGERA), which allows a petroleum licensee with a licence over part of the reservoir to exploit that reservoir notwithstanding that the reservoir extends over adjoining blocks which are not subject of that same title. Further, because a potential GHG storage formation may extend into a block beyond a particular title area, the current proposed drafting leads to an inefficient loss of GHG storage potential as that titleholder may not obtain a declaration of an identified GHG storage formation and, if there is another titleholder who can obtain the declaration (by virtue of their different, in part overlapping, title), that other titleholder may decide not to do so if they prefer another location within their title for GHG storage – thereby quarantining that potential GHG storage formation. In contrast, under the petroleum regime, there is no such inefficiency because of the statutory embodiment of the law of capture (as applied in the petroleum regime contained in the PGERA) which allows a petroleum titleholder to seek a declaration of a location over part of the reservoir (so as to allow it to gain title to exploit that whole reservoir) notwithstanding that the reservoir extends over adjoining blocks which are not subject of that same title. d. AGIG also seeks clarification about what is intended by the words "*part of a geological formation*", "*wholly situated*" and "*extends*". AGIG is concerned that, for example, the Mungaroo	

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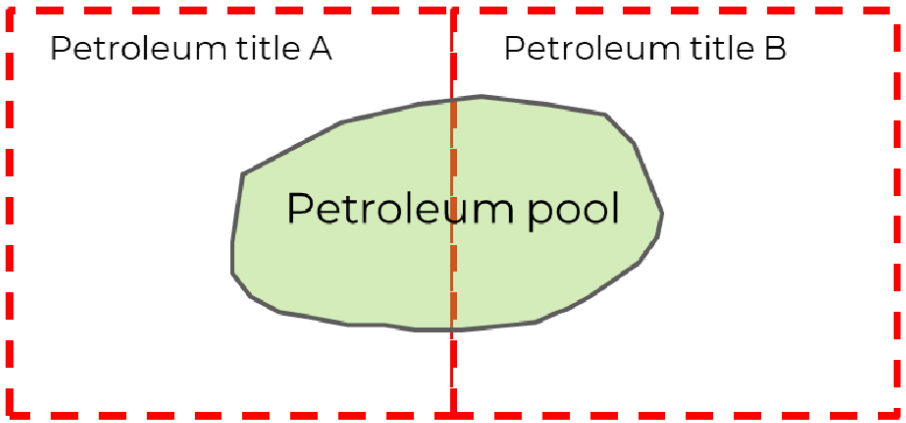
		formation does not sit wholly within L9 (being the production licence held by AGIT) but extends over vast distances and, in such case, AGIT may be able to apply for GHG injection licence over the blocks to which the Mungaroo formation extends within the area of L9 but may not be able to inject or store GHG in the Mungaroo formation under a licence resulting from such application because the Mungaroo formation would not be wholly within such licence area. AGIG believes that the drafting is intended to operate such that whatever part of the Mungaroo formation would receive GHG migration under the test for "spatial extent" could constitute its own identified GHG storage formation but submits that clarification of the drafting on this issue is required. In support of the above, AGIG notes that other parts of the Draft Bill appear to contemplate that a GHG title may not cover all of the blocks that constitute an identified GHG storage formation – for example, s50AA(1) entitles a GHG permittee to apply for a GHG injection licence in respect of "*some of the blocks that constitute the identified GHG storage formation*" (and s50AB provides the same in respect of a petroleum permittee and a geothermal permittee).	
22.	GeoVault	<u>General comments of the use of the term "wholly" in reference to GHG plume migration</u> We note that the term "wholly" is used in several sections of the proposed legislation when referring to an identified GHG storage formation, including Sections 48A, 48BB, 48BC, 62, 69B, 69E, 69G, 69H. There could be an unforeseen consequence of this terminology as shown in the following example.  *Figure 2: Example of a petroleum resource extending across title boundaries.* As shown in Figure 2, a petroleum pool can extend across one or more separate petroleum titles. In this scenario, the holders of titles A and B could be the same entity in which case the resource can be developed in the optimum manner for petroleum extraction across both permits. If the title holders are different, they can enter into an agreement for co-development, unitisation or, in	See response for comment #21.

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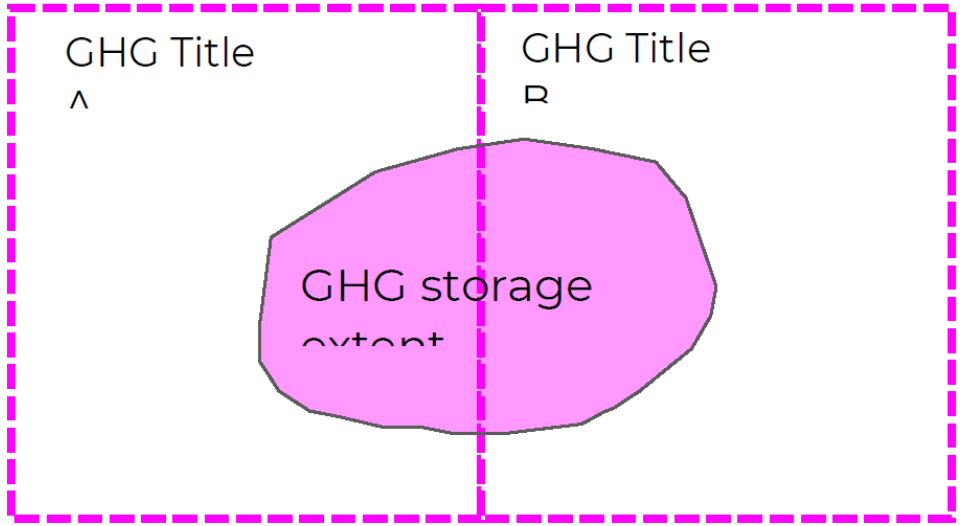
		extreme cases, separately develop the same resource independently in each title. In all scenarios, the geographical surface boundaries are not an impediment to the development of the pool.  *Figure 3: GHG Resource extending across title boundaries.* For GHG injection, the most efficient development of a project to ensure maximum utilisation of pore space and cost reduction may be to allow the GHG plume to migrate across GHG title boundaries as shown in Figure 3. If holders of GHG titles A and B are either the same entity, or entities that agree to co-develop the GHG project, then this is achievable **as long as the legislation allows for the plume to migrate across title boundaries.** Plume migration across a title boundary can still be prevented if parties disagree, or if there is a reason under Section 117 to keep the plume contained within one title. However, the legislation should address the use of the language "wholly situated" to ensure that it is not an impediment to the co-development scenario which will optimise the design of GHG injection projects. Note that migration across title boundaries **is explicitly prohibited** under the Commonwealth offshore GHG legislation OPGGS and this has been widely acknowledged as a failing in the legislation that may need to be amended in future which will require a parliamentary process to do so.	
OVERLAPPING TITLES AS WELL AS COMPETING TITLE APPLICATIONS AND OPERATIONS			

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23.	APPEA	APPEA also requests clarity on how overlapping titles and/or conflicting land use will be addressed and assessed. APPEA emphasizes that the principle of 'best use' be implemented when considering conflicting titles.	The issue of overlapping titles and competing land use currently exists in the PGERA following the introduction of geothermal provisions in 2007. At that time, Division 3A was inserted to provide that petroleum titles and geothermal titles may subsist in respect of the same area. Section 69A describes the types of geothermal or petroleum titles that the provisions cover - that is, exploration permits, drilling reservations, retention leases, production licences, special prospecting authorities or access authorities. The section provides that a title for geothermal energy may overlap a petroleum title and vice versa. It allows for the concept of multipurpose land use by providing that the Minister must write to the registered holder of the first title, allowing at least one month's notice and take into account any matters that the person wishes the Minister to consider before a new title is granted. This process is a consultation mechanism rather than a right to veto an application. Amendments have been made to section 69A in the PGERA to extend this section to now include equivalent GHG titles and provide that petroleum, geothermal and GHG titles may overlap each other. New section 74A has been added to the PSLA to provide for overlapping petroleum and GHG titles. DMIRS has also prepared a 'Guide note on the management of subsisting petroleum and geothermal titles' which was recently released for stakeholder consultation. The Guide will be updated to include GHG titles and build on the new guidance provided in the proposed legislation.
24.	CarbonCQ	Reaching net zero by 2050 requires rapid deployment of available technologies as well as widespread use of technologies that are not on the market yet. Major innovation efforts must occur over this current decade (now one-third through) in order to bring these new technologies to market in time. CCS must remain at the forefront of these technologies and is particularly important to allow major industry to make step change reductions in CO2 emissions rather than gradual and incremental changes.	Comments noted and acknowledged. The intent of the proposed amendments to section is to not establish criteria to determine how subsisting titles would be granted. It was considered that this may be unnecessarily rigid and potentially detrimental to best interests of the WA community.

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		In this regard, the particular status of the Lesueur Formation between Australind and Pinjarra, commonly known as the South West Hub is of particular importance to Kwinana and the Alumina industries between Pinjarra and Collie. This is the major opportunity for step-change emissions reduction for major industry and should not be circumscribed by O&G or Geothermal Permits. This point is elaborated below. **Overlapping tenements on the Legislation** We have previously written to the Minister for Mines, Industry Regulation and Safety regarding overlapping tenements. We believe that it is important to reiterate our previous comments. The issue of overlapping tenements between CCS and existing O&G operations is acknowledged and our points below are not meant to detract from the very real issues that could be faced by conflicting operations within the same geological strata. Rather, our concern is with areas where there have been no O&G operational activities and only Exploration Permits granted to date. On that basis we believe that: • GHG Legislation and Regulations in the South West (Perth Basin between Perth and Bunbury) should be driven by the emitters, not the O&G industry which in the end will be service providers to emitters; Overlapping titles is an O&G issue, not an emissions or sequestration issue – particularly in the South West. Overlapping titles are common in other jurisdictions • ; An O&G reservoir is only one geological form of GHG reservoir with other forms being aquifer based and non-hydrocarbon traps (like the one proposed for Harvey CCS). The technical and regulatory consideration of these non-Oil and Gas GHG reservoirs are very similar to geothermal resources and therefore should be able to co-exist with petroleum title in an overlapping tenure regime like geothermal • ; Here it should be noted that the SW Hub work conducted by the Department of Mines and Industry Regulation at Harvey displayed no evidence of hydrocarbons generated within the formation or, as significant, having passed through from other formations • ; Automatically granting rights of tenure over entire O&G permit areas to incumbent E&P title holders for any GHG activities will prohibit non-O&G players from even considering the development of non-O&G reservoir based GHG repositories within these areas; an • d	Instead, the proposed amendments provide flexibility and discretion for the Minister to make a decision in the grant of a subsisting title within parameters of the legislation and the soon-to-be-revised Guide note on the management of subsisting petroleum and geothermal titles. The legislation and Guide note also provides information to titleholders on the matters that that the Minister must take into account before granting a subsisting title.

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		• The linking of CCS with hydrocarbon exploration and production is counter-productive in the South West, where the State Government has effectively banned hydrocarbon exploration.	
25.	WesCEF	**Avoiding potential defeating action where there is an overlap between a potential GHG title and other titles** Under the current drafting of the Draft Bill, there is a risk that the holders of petroleum or geothermal titles may act to defeat the grant of a GHG title and so undermine the carbon abatement potential of the GHG title system. WesCEF suggests adding priority rule in the case of a GHG title application being made over earlier geothermal or petroleum leases by introducing a 'significant impact test'. Under this test, the Minister may only approve GHG activities if either: 4. the activity does not pose a significant risk of causing a significant adverse impact on a pre-commencement petroleum title, or 5. the two titleholders have made an agreement.	Refer to response for comment #23.
26.	MEPAU	**Dealing with competing applications** (i) Summary The PGERA, as amended by the Bill, creates a number of licensing pathways which, taken together, allow the holder of a petroleum title or geothermal title to apply for a GHG retention lease or GHG injection licence. As petroleum and geothermal titles can subsist, it is theoretically possible for the holder of a petroleum title and the holder of a geothermal title to simultaneously apply for a GHG retention lease and/or GHG injection licence in respect of the same blocks. The PGERA does not address priority between simultaneous applications for a GHG retention lease or GHG injection licence or resolve priority between multiple applications for either a GHG retention lease or GHG injection licence. (ii) MEPAU Submissions As drafted, it is unclear how such simultaneous / multiple applications would be determined under the PGERA, noting that the PGERA specifically addresses multiple applications for a GHG exploration permit or GHG drilling reservation (by applying a merit-based approach to determining which application to approve). This uncertainty is again caused by granting the holder of a petroleum title and the holder of a geothermal title equal application rights in respect of a GHG retention lease and/or GHG injection licence. In order to avoid uncertainty, the PGERA should specifically address how simultaneous / multiple applications will be determined by the Minister, and MEPAU submits that priority in these circumstances should be given to the holder of a petroleum title. **Priority between petroleum operations, geothermal energy operations and GHG operations** (i) Summary	Refer to response for comment #23 for the response to comments on overlapping titles. The possibility of two direct access applications for the same block, that is from overlapping petroleum and geothermal titleholders, is acknowledged. However, these titleholders would be applying through section 69B with an application for declaration of an identified GHG storage formation. Recent amendments to this section have removed the right for petroleum and geothermal permittee to apply leaving only petroleum or geothermal lessees or licensees as being entitled. Section 69B lists a number of requirements that need to be provided in the application. • the reasons that the lessee or licensee has to believe that a part of a geological formation is an eligible GHG storage formation and that part is wholly situated in the lease area or licence area, • the fundamental suitability determinants of the eligible GHG storage formation, • an estimate of the spatial extent of the eligible GHG storage formation, and • any other information that is prescribed by the regulations.

Ref #	Stakeholder	Comment	DMIRS Response
		The PGERA contemplates that petroleum operations, geothermal energy operations and GHG operations may co-exist in respect of the same block(s). In practice, these activities will operate in the same surface area and, in the case of petroleum operations and GHG operations, may operate in, and compete for access to, the same geological formations. Sections 117 and 117A of the PGERA set out a principle of non-interference as between operations being lawfully carried on petroleum titles, geothermal titles and GHG titles, namely that a title holder must carry on their operations in a manner that does not interfere with the lawful operations of other title holders to a greater extent than is necessary for the reasonable exercise of their rights and duties. (ii) MEPAU Submissions MEPAU does not consider that the PGERA, including the principle of non-interference, adequately addresses how competing petroleum and GHG operations should be resolved. MEPAU notes that, as a matter of practice, it may be impossible to carry out both petroleum operations and GHG operations in respect of the same geological formation without some form of mutual interference, and therefore a blanket restriction on petroleum operations that interfere with GHG operations (or vice versa) should be avoided. For example, the holder of a GHG injection licence should demonstrate to adjacent title holders (through Dynamic Reservoir Modelling) that injection will not cause pressure variations within the identified GHG storage formation outside of the GHG injection licence area. There is a significant risk that GHG operations can cause a loss of production from adjacent fields where the identified GHG storage formation is in pressure connection to producing oil, gas and geothermal reservoirs. This risk is not addressed in the PGERA. MEPAU considers that, where such interference cannot reasonably be avoided, the PGERA should establish priority rights as between petroleum and GHG operations, with priority to be granted to petroleum operations.	The Minister may also, under section 69C, request that: • further information be provided with the application, and • further analysis be undertaken and a written report provided of the results of that analysis. It is considered that the above requirements will provide sufficient information to enable the Minister to determine the most suitable application for declaration of an identified GHG storage formation.
27.	AGIG	Where there are competing applications for GHG titles, the PGERA should specify the criteria by which priority will be assigned, including by reference to the type of licence held (where production licences are assigned higher priority than other types of titles), the impact on operational facilities owned by one of the applicants within the relevant block and the economic and technical viability of co-existence of competing activities by unrelated entities within the same block. So that such priority operates fairly and sensibly, each relevant titleholder should be notified promptly and adequately of relevant applications for GHG titles by others so that it has time to lodge a competing application pursuant to any available statutory rights and so that the relevant priority rules can be applied. Further, we note that petroleum, geothermal and GHG activities may not, in some cases, be compatible over the same area. Where activities are incompatible, the PGERA should prioritise the original titleholder's rights over the subsequently overlapping titleholder's rights (unless the	Refer to response for comment #24.

Ref #	Stakeholder	Comment	DMIRS Response
		original titleholder is not developing or using their blocks as envisaged in any work programme established under the PGERA). Further information is provided in section 4 on pages 7 and 8 of the AGIG submission.  230414 EDO Submission re Petro	
28.	AGA	We believe it is important that any amendments to the Act recognise the fact that as the energy transition progresses it is likely that the importance of non-hydrocarbon energy sources will increase. As a result, care should be taken not to prejudice the ability to explore for and produce non-hydrocarbon energy (e.g. geothermal, hydrogen, etc) by subordinating such activities to petroleum exploration and production. We have highlighted an example below from Section 69A. We acknowledge that the rights of existing licensees must be protected, but advocate for an even-handed treatment based on an objective assessment process to evaluate the potential for any interference between the various activities.	Comments noted.
		COMMONWEALTH ALIGNMENT	
29.	APPEA	APPEA notes that the legislation's technical requirements align with Commonwealth legislation and appreciated the Department's efforts in this regard. Notably, APPEA supports the long-term liability framework of transferring liability of a closed CCUS facility to Government after 15 years, unless otherwise required, in alignment with Commonwealth legislation.	Comments noted.
30.	CME	In making this submission, CME also seeks to reinforce the submission and recommendations made by the Australian Petroleum Production & Exploration Association (APPEA) as the national peak body for Australia's upstream oil and gas industry. CME supports the recommendations made by APPEA regarding the need for alignment of State frameworks with existing Commonwealth frameworks from a regulatory and technical perspective.	Comments noted.
31.	Woodside Energy	**Guiding principles** Woodside supports development of a state GGST regime aligned to the Commonwealth's risk-based, outcomes focused legislative framework that advances the following principles: • Protection of public health, safety and the environment. • Community confidence in the use and management of CCS technology. • Timely and predictable regulatory approvals pathway to underpin investor confidence. • Open market competition. • Consistency and efficiency between regulatory regimes. **Consistency** Woodside welcomes efforts to simplify permissioning and compliance for CCS facilities and activities that cross jurisdictional boundaries through the State's intent to replicate the	Comments noted.

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		Commonwealth's Offshore Petroleum Greenhouse Gas Storage (OPGGS) framework. We also support efforts to simplify unnecessarily complex definitions and provisions in the drafting of the Bill. We recommend DMIRS address the omission from the Bill's drafting of detail contained in important OPGGS provisions that provide consistency and confidence for investors and the community including: • Express provisions for the import or export GHG across jurisdictions. • Reference for the responsible Minister to have regard to the Significant Risk of Significant Adverse Impact (SRSAI) of proposed GHG operations on petroleum operations. • Requirements for decommissioning planning and monitoring from the operational phase through to rehabilitation and title relinquishment. In addition, we encourage DMIRS to incorporate into the Bill proposed amendments to the OPGGSA which seek to address impediments identified by the Commonwealth in the process of permissioning first mover CCS proponents. In particular, the inability to apply for a GHG retention lease under the OPGGSA where storage formations are not wholly situated in a single petroleum lease area has challenged some potential CCS projects. This is an issue that could be proactively addressed in the development of the State regime. **Clarity on title interaction**	Comments noted. See responses below The Bill aligns with the OPGGSA in being silent on specifying the import and export of GHG across jurisdictions and, therefore, does not preclude cross-jurisdictional GGST projects. DMIRS considered this approach but decided that the risks to petroleum operations from GHG operations can be managed using the same risk principles and methodology for current petroleum and geothermal operations. That is 'as low as reasonably practicable' (ALARP). The Bill aligns with the OPGGSA in being silent on prescribing decommissioning requirements for GHG titles. Decommissioning is referred to in the Resource Management and Administration Regulations and the Environment Regulations. These Regulations will be broadened to include GHG operations in addition to the current petroleum and geothermal activities. DMIRS will, as far as practicable, aim to keep alignment with the OPGGSA and look to incorporate any future relevant amendments. Comments noted. However, see response for comment #22 The provisions in the OPGGSA simply state that petroleum and GHG titles can coexist. The WA Bill details information that the Minister must take into account before deciding on the grant of a co-existent title.

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		Woodside welcomes greater alignment in the Bill with the clear and predictable mechanisms provided in the OPGGS framework for managing coexisting titles and prioritising conflicting land use. It is essential that proponents are time bound and subject to clear criteria in demonstrating capability and a credible pathway to a CCS project to avoid land-banking and creating inadvertent barriers to new market entrants. Currently, global rates of CCS deployment are far below those in modelled pathways limiting global warming to 1.5°C or 2°C.2 Providing enabling conditions for CCS implementation should be considered when balancing the relative risk of GHG storage and transport operations with alternative land or reservoir uses.	Comment acknowledged. Refer to response for comment #14 for examples of how DMIRS aims to achieve this. The PLAB 23 follows the petroleum and geothermal approach and provides that a GHG exploration permit, GHG retention lease and a GHG injection licence may be granted subject to such conditions as the Minister thinks fit.
TRAILING LIABILITY AND DECOMMISSIONING			
32.	CCWA	Trailing liability for decommissioning should be adopted in alignment with the OPGGSA. *Trailing liability is designed to ensure that the costs and liabilities associated with decommissioning will be borne by the petroleum industry and do not become the responsibility of government or the Australian community.* 1. The Commonwealth OPGGSA currently provides an enhanced framework for decommissioning offshore oil and gas infrastructure. If it is the intent of the proposed amendments to introduce a similar legislative regime as is currently in place in the OPGGSA, CCWA believes this framework to support trailing liability should also be applied to decommissioning for State-based projects to support remedial directions. These provisions should also apply to GHG substance transport, injection and storage infrastructure decommissioning, and storage formation post-closure maintenance and inspections.	Provisions for enhanced remedial directions, commonly referred to as trailing liability provisions, came into effect in the OPGGSA on 2 March 2022. DMIRS acknowledges the importance of these new provisions to ensure that the costs and liabilities associated with decommissioning will be borne by the petroleum industry and, in the future, the GHG storage industry and do not become the responsibility of the government or the Australian community. However, these provisions cannot be introduced without other new provisions and amendments to existing sections in the three Petroleum Acts. This will establish a complete decommissioning package for petroleum, geothermal and GHG titles and is considered to be best achieved by a separate and specific package of decommissioning amendments.
33.	CCWA	Recommendation 5: Trailing liability provisions for decommissioning of infrastructure related to GHG substances transport, injection and storage; and for maintenance and monitoring of storage formations should be adopted. The risks and the liabilities of the GHG substances injection and storage must remain the responsibility of these industries and not be borne by the State.	See response for comment #32
34.	EDO	Recommendation 5: The PLA Bill should adopt trailing liability provisions modelled after the OPGGSA.	See response for comment #32

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		1. The Minister may, by written notice given to a person referred to in subsection (2A), direct the person to do one or more of the following things within the period specified in the notice: (a) to remove, or cause to be removed, from the vacated area all property (the ***relevant property***) brought into that area by any person engaged or concerned in the operations authorised by the title; (b) to make arrangements that are satisfactory to the responsible Commonwealth Minister in relation to the relevant property; (c) to plug or close off, to the satisfaction of the responsible Commonwealth Minister, all wells made in the vacated area by any person engaged or concerned in the operations authorised by the title; (d) to provide, to the satisfaction of the responsible Commonwealth Minister, for the conservation and protection of the natural resources in the vacated area; (e) to make good, to the satisfaction of the responsible Commonwealth Minister, any damage to the seabed or subsoil in the vacated area caused by any person engaged or concerned in the operations authorised by the title; so long as the direction is given for a purpose that relates to: (f) resource management; or (g) resource security; or (h) decommissioning. (2A) The persons are: (a) if the title ceased to be in force in part: (i) the registered holder of the title; or (ii) a related body corporate of the registered holder of the title; or (b) if the title ceased to be in force in whole or in part: (i) any former registered holder of the title; or 6. (ii) a person who was a related body corporate of any former registered holder of the title at the time the title was in force; oi) a person to whom a determination under subsection (2B) applies. 2B) The Minister may make a written determination that this subsection applies to a person if, having regard to the following matters, the responsible Commonwealth Minister is satisfied on reasonable grounds that it is appropriate to do so: (a) whether the person is capable of significantly benefiting financially, or has significantly benefited financially, from the operations authorised by the title; (b) whether the 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;	

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		(c) whether the person acts or acted jointly with the registered holder, or a former holder, of the title in relation to the operations authorised by the title. Further information is provided at pages 16 to 18 in the EDO submission. 230414 EDO Submission re Petro	
		IMPORT AND EXPORT OF GHG ACROSS JURISDICTIONS	
35.	APPEA	APPEA recommends that the Draft Bill allows for CO2 from any jurisdiction, including from Commonwealth, interstate, and international sources, to be stored in WA. Further information is provided at page 3 in the APPEA submission. APPEA Submission - DMIRS - Petroleum L	The Bill aligns with the OPGGSA in being silent on specifying the source of CO2 and, therefore, does not precluding cross-jurisdictional GGST projects. It should be noted that amendments will be required to Commonwealth legislation to allow for the import and export CO2. Amendments to the *Environment Protection (Sea Dumping) Act 1981* are currently before the Australian Parliament.
36.	APPEA	APPEA requests clarification on how the Draft Bill will resolve cross-boundary CCUS permit issues between the Commonwealth and the State, for example, when storage formations cross state water boundaries into the Commonwealth jurisdiction. APPEA recommends DMIRS consider how the Draft Bill aligns with Commonwealth legislation, notably the *Offshore Petroleum and Greenhouse Gas Storage (Compatible Cross-boundary Laws) Declaration 2021*.	Comment acknowledged. DMIRS considered the inclusion of cross-boundary provisions as contained in the OPGGSA but it was decided to leave this until a later amendment Bill in order to simplify the introduction of the PLAB 23.
37.	APPEA	**Transboundary movement of GHG** Source of CO2 should not matter – should keep it simple and easy to import CO2. International and interstate import of CO2 should be permitted.	See response for comment #35.
38.	Chevron	The importance of 'future proofing' the legislation so that it supports storage in Western Australia of CO2 originating from any jurisdiction, including from interstate, Commonwealth waters, or international sources. Providing this flexibility in the Draft Bill, as well as leveraging the skills and expertise of the existing Western Australian oil and gas industry, will create a favourable environment to build a CCS industry in Western Australia.	See response for comment #35.
39.	Pilot Energy	***Petroleum Pipelines Act 1969*** The references to the defined term identified GHG storage formation appear to restrict the use of injection lines to GHG projects within the Western Australia. Consider an amendment to broaden the definition to account for the circumstance where such facilities cross WA State jurisdictional	The WA Bill is only required to address amendments for the regulation of GHG operations in WA so it is unnecessary to include reference to other jurisdictions. GHG operations in those jurisdictions will be regulated by those jurisdictions.

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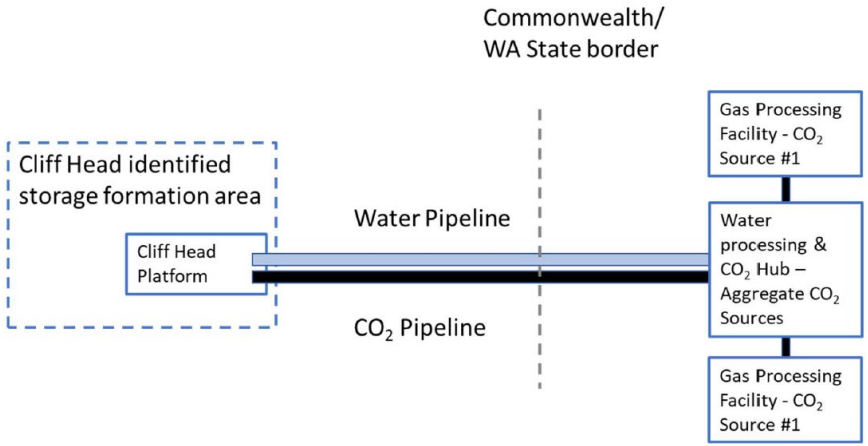
		boundaries into to Commonwealth or other State jurisdictions. For example the circumstance where the CO2 is sourced within Western Australia and the GHG facilities connect to a storage formation in Commonwealth waters or where a WA State Injection line connects with a Commonwealth injection line. Figure 3 provides an example of how infrastructure may be deployed and connect to a storage formation declared under the Commonwealth legislation.  *Figure 3 Cross boundary infrastructure example*	The WA Bill has, as far as practicable, been drafted to align with equivalent provisions in the OPGGSA to allow for cross-jurisdictional transport of GHG by PSLA and PPA pipelines.
40.	Pilot Energy	***Petroleum (Submerged Lands) Act 1982* definitions** *Identified GHG storage formation:* Consider introducing amendments to expand the definition to include storage formations identified under other State or Commonwealth legislation. Identified GHG storage formation is used as the reference in a number of other definitions for the end point of a GHG operation. Under the circumstance where the GHG operation includes a storage formation outside of Western Australian State boundary there appears to be a gap in the drafting. The gap relates to infrastructure or other GHG operations, that are located within Western Australia, that are required to undertake a GHG activity at a storage formation identified under Commonwealth legislation.	See response for comment #39.
41.	Pilot Energy	**CO2 Seaborne movement of CO2 and Ammonia** Proposed … GHG Operations are likely to involve CO2 export/loadout port facilities in regions adjacent to large sources of emissions such as Kwinana and Dampier. This will involve	Comment acknowledged and noted. Future amendments to Commonwealth legislation may allow for transport of CO2 across countries. However, the current scope of the

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		processing, storage and compression facilities in order to transport CO2 … for permanent storage. **Interaction between CO2 seaborne movement of CO2 and Petroleum Acts** The proposed export/loadout facilities may fall within the scope of either the Petroleum and Geothermal Energy Resources Act or the Petroleum (Submerged lands) Act. It appears as though Pilot and/or a third party may be able to undertake these proposed activities under an access authority, however other amendments may be required: • Consider amendments to the Petroleum and Geothermal Energy Resources Act to incorporate the concept of Infrastructure Facilities as set out in section 6(b) of the Petroleum (Submerged lands) Act for GHG operations that are located on WA State land. • The amendments to the Petroleum (Submerged lands) Act for Infrastructure Facilities may need to be expanded to include export/unloading facilitates.	proposed PLAB 23 is only to provide for the transport and geological storage of GHG. Infrastructure licence provisions were inserted into the PSLA in 2010 by way of *the Petroleum and Energy Legislation Amendment Act 2010.* Equivalent provisions were not considered for the PGERA 67 as it was considered, at that time, that there were other forms of land tenure available onshore. In view of this, onshore GHG infrastructure licence provisions were not part of the 2013 Bill which has been re-introduced as the *Petroleum Legislation Amendment Bill (B) 2023*. There are valid reasons to extend infrastructure licence provisions to the PGERA for petroleum, geothermal and GHG purposes. However, in view of the availability of other land tenure types, this will need to be carefully considered to ensure it will not either impinge on existing land tenure or simply duplicate any. This is a separate body of work outside the scope of the GGST amendments. Comment noted. This may be a future amendment to the OPGGSA. However, the benefit in maintaining the same current definition of 'infrastructure facility' with that in the OPGGSA is considered to outweigh the recommended change especially with the likely prospect of cross-jurisdictional GGST project in the WA and Commonwealth areas.
REQUIREMENTS TO SPECIFY THE SOURCE, VOLUME AND COMPOSITION OF GHG			
42.	APPEA	APPEA notes that the legislation is silent on the consideration of the source of GHG. To provide greater regulatory certainty, APPEA recommends that the regulatory framework clarify that the source of GHG be irrelevant to the regulatory treatment.	The consultation draft of the PLAB 23 included the requirement for an application for a GHG exploration permit, GHG drilling reservation or a GHG injection licence to include the source, volume and composition of GHG to be injected and stored. This requirement is to demonstrate that proponents have a genuine interest in undertaking GGST projects and it is not merely speculative or a means to warehouse suitable storage sites.

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			While there is no equivalent provision in the OPGGSA, this provision was included in the WA 2013 Bill. The PLAB 23 is deliberately silent in not specifying the source of CO2 and, therefore, does not impose any restrictions on GGST projects. This aspect will be clarified in explanatory information to be prepared for future advertisement of the acreage release of GHG blocks and in the application forms for GHG explorations permits, GHG drilling reservations and GHG injection licences.
43.	AGIG	Requirement to specify the "source, volume and composition of the GHG to be stored" in an application for: a. GHG exploration permit (s.30(3)) b. GHG drilling reservation (s.43A(4)) c. GHG injection licence (s.51(1)(ca)) AGIG suggests that this requirement should be made flexible rather than absolute by referring to specification of the 'initial' source, volume and composition of the GHG – to allow for developments and new injections by third parties where possible over time to facilitate best use of infrastructure.	Amendments have been made to the PLAB 23 to include 'initial' source, volume and composition to recognise the ability to vary the source and volume of GHG in the title grant process and also during injection operations. This flexibility was seen as important to enable the commencement of long-term GGST projects.
44.	WesCEF	**Potential variation of source of injected GHG substance** In the draft amendments to the PGERA and PSLA in the Draft Bill, a GHG injection licence application must specify the "source", volume and composition of the GHG substance to be injected and stored. It is unclear under the Draft Bill whether it would be practically straightforward or difficult for a GHG title holder to change the "source" of the GHG substance to be injected and stored. In the interests of lowering barriers and administrative impediments to the adoption of CCS and supporting the ongoing emissions benefits it will bring, WesCEF submits it would be appropriate to include an express provision authorising variations of the source and/or volume of a GHG substance where the new source and/or volume of the GHG substance is materially consistent with the composition of GHG substances already approved for injection and storage.	Amendments have been made to the Bill to include 'initial' source, volume and composition to recognise the ability to vary the source and volume of GHG in the title grant process and also during injection operations. This flexibility was seen as important to enable the commencement of long-term GGST projects.
45.	APPEA	APPEA requests further information and understanding on the limitation of GHG sequestration projects to a minimum capacity of 100,000 tons. APPEA requests provisions be included in the regulatory framework to allow for projects with a storage capacity of less than 100,000 tons, with consideration that larger projects be prioritised by the regulator to ensure smaller projects do not slow down the broad regulatory process.	The minimum capacity of 100,000 tonnes aligns with section 21 in the OPGGSA. However, an explanation for this amount could not be found.

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			This amount could have been derived from economic analysis as being the break-even point at which CCS project were considered to become commercial. However, this amount was set when the OPGGSA commenced in 2008 and the setting of a minimum amount may not be needed when considering current factors such as. • increasing decarbonisation needs, • new direct access provisions for petroleum and geothermal lessees and licenses, and • technological advances However, for the purposes of introducing the PLAB 23, the benefit of maintaining alignment with equivalent provisions in the OPGGSA is considered to outweigh any change to the minimum capacity amount especially with the likely prospect of cross-jurisdictional GGST project in the WA and Commonwealth areas.
INFRASTRUCTURE AND LICENCE CONVERSION (ALSO TRANSFER OF ASSETS)			
46.	APPEA	Can an existing PPA Petroleum Pipeline under a PPA licence be 'converted' to a GHG pipeline by simply applying for an overlapping PGGPA GHG licence? Will this be implementation of the Bill automatically authorise this?	The PLAB 23 will amend the PPA and the PSLA to provide for two separate types of pipeline – a petroleum pipeline and a GHG pipeline and for a separate application process for each. A pipeline can only be licensed under one type. A request for the re-use or conversion of a petroleum pipeline for the conveyance of GHG substances will require a new application for GHG pipeline to be submitted. With the pipeline already constructed, the approval may be streamlined. The main regulatory requirement will be that the pipeline is assessed as being fit for the purpose of the conveyance of GHG substances. This assessment will also include compliance with the pipeline safety case provisions in the Work Health and Safety (Petroleum and Geothermal Energy Operations) Regulations 2022 and environmental compliance provisions in the Petroleum Pipeline (Environment) Regulations 2012.

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		Will the PGGPA allow for easements granted pursuant to s.16 of the PPA to be authorised for the conveyance of a GHG under the same licence? APPEA recommends that the legislation allows for this.	This section provides for the Minister for Lands to grant any lease, easement, licence or other authority necessary to enable the licensee to construct, operate, inspect, maintain or repair the pipeline. No amendments are required to this section as the term 'pipeline' has been amended to include the conveyance of GHG substances.
47.	AGA	In addition, we reiterate our suggestion that consideration be given to including a provision in the Bill to facilitate the transfer of assets held by a petroleum licensee to other licensees, including (but not limited to) GHG, hydrogen and geothermal licensees and vice versa. This would provide a mechanism, for example, for utilising an unsuccessful petroleum exploration well (or a depleted petroleum production well) for other purposes. We accept that there may be legal and safety issues that need to be considered, but creating the possibility of such a transfer of assets in the legislation would not circumvent these matters, it would merely create the possibility of transferring the assets where the circumstances are appropriate. Such a provision could perhaps be included in Division 4 using an additional clause to allow for transfer of assets.	The re-use of infrastructure, facilities and equipment should be encouraged where it is appropriate. The Bill aligns with the OPGGSA in being silent on the re-use/conversion of existing petroleum and geothermal wells, infrastructure, facilities and equipment for GHG operations.
48.	Sea-Quester	Petroleum Licences in the initial exploration phase found not to be prospective for hydrocarbons but suitable for GHG injection and storage should be able to convert the licence to a GHG Licence with an approved GHG work program. Currently this is not the case, as the licence must be relinquished and re-applied for in a competitive GHG licencing round increasing the risk of 'loss of ownership' to the licence holder(s). Sea-Quester believes having such flexibility within the legislation would help accelerate the identification of suitable sites for the safe long-term storage of GHG emissions across Western Australia.	The PLAB 23 contains provisions to allow for petroleum and geothermal lessees and licensees to apply for the grant of a GHG lease or licence if there is a suitable GHG storage formation in their title area. This provision does not extend to petroleum or geothermal exploration permittees.
49.	Pilot Energy	Re-use of infrastructure and depleted reservoirs, subject to the proponent demonstrating safe and permanency of the re-use of existing infrastructure and depleted reservoirs, provides an efficient and near term pathway to develop CCS projects.	See response for comment #47
		SITE CLOSURE AND LIABILITY	
50.	APPEA	Existing approval response targets currently exist in DMIRS, and the motivation for these **approval response time targets are needed for all relevant approvals from any and all Government departments or agencies**. Throughout the proposed Bill, communication is required from Government. For example, section 69HJ states *"The Minister must give the applicant notice of receipt of the application"*. APPEA requests that the legislation be specific regarding required response times of Government.	Comments noted. DMIRS agrees with the need for clear approval timeframes both industry and Government. Section 69HJ in the PLAB 23 aligns with the section 389 in the OPGGSA in requiring that the Minister must give an applicant who has lodged an application for a site closing certificate under section 69HE, acknowledgment of receiving the application. Section 389 was introduced as a late Opposition Senate amendment in 2008. Hansard did not provide any

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		APPEA seeks information as to the extended timelines suggested in the proposed Bill. For example, section 69HL lists the response time for a closing certificate "*within 5 years*" which seems excessively long.	explanation but it would appear that it was purely for confirmation purposes to set the date for when the Minister must make a decision on an application for a site closing certificate under section 69HL. Section 69HL aligns with the section 388(8) in the OPGGSA in specifying a timeframe of 5 years after an application for a site closing certificate was made when the Minister must make a decision on the application. The benefit of maintaining alignment with equivalent provisions in the OPGGSA is considered to outweigh the recommended change especially with the likely prospect of cross-jurisdictional GGST project in the WA and Commonwealth areas.
		When a regulatory body commits to a specific response timeframe, it allows the regulated entities to plan and execute their operations with confidence. This not only improves the overall efficiency of the regulatory process but also promotes transparency and accountability. Additionally, guaranteed approval response times will help the regulating bodies prioritize workloads and allocate resources effectively, which ultimately benefits both the regulator, the regulated entities, the economy, and the environment. The longer the approval process, the longer projects will take to begin sequestering GHG.	Comments noted.
51.	EDO	Recommendation 3: The PLA Bill should ensure liability remains with the titleholder or project proponent, rather than providing for adoption of liability by the state. If, which EDO recommends against, the government persists with a scheme whereby the state adopts liability for CCS projects, the proposed closure assurance period should be extended to 100 years. The PLA Bill does not adequately protect the public from shouldering the financial burdens associated with CCS projects. Western Australia's experience with Chevron's Gorgon CCS project should be heeded as a cautionary tale. The state government assumed liability for the project, and the federal government agreed to indemnify the state for 80% of the liability. This indemnification requirement has appeared in every federal budget as an unquantifiable contingent liability for at least the past decade. With increasing efforts to hold GHG polluters liable for their emissions, such a requirement presents a substantial risk to both the state and federal governments. With the state and federal governments being liable for indemnifying the Gorgon joint venture partners against third party claims relating to stored CO2 following closure of the carbon sequestration project, it is possible such liability would include the cost of halting them, which could be an indeterminately expensive effort. Allocating the responsibility of mitigating emissions to the project proponent would allow the government to achieve its climate	Comments noted. These are issues that the Commonwealth and WA Governments have considered in developing GGST legislation. The WA Government has decided that the long-term liability provisions in the PLAB 23 will follow those in sections 399, 400 and 401 of the OPGGSA. WA will assume the long-term liability for the stored GHG only when the Minister is satisfied that: • the GHG injected is behaving as predicted, and • there is no significant risk that the GHG will have a significant adverse impact on geological integrity of the formation, the environment, human health or safety. Long-term liability refers to risks beyond the operational phase of the project; the risks of harm to health, the

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		goals and protect the public from liability. Three key issues with the proposed liability provisions are set out below. **The point in time at which the government may adopt liability for a CCS project is too soon.** The proposed closure assurance period begins on the day the "Minister is satisfied that operations for the injection of a GHG substance into the formation ceased ... (the ***cessation day***)" and ends at least 15 years after the issue of the site closing certificate (the ***decision day***) when the Minister is satisfied the GHGs will behave as predicted, there is no significant risk of "significant adverse impact" to the geological formation integrity, the environment, and human health or safety, and "there have not been any operations for the injection of a GHG substance into the formation." While appreciating that a 15-year closure assurance period is adopted from the OPGGSA, with which the state seeks consistency, the proposed minimum length of the closure assurance period is out of line with the risk profile of CCS projects. Injection of CO2 into subterranean storage (geosequestration) comes with a risk that the GHG is not contained and can escape to the atmosphere, defeating the goal of carbon capture and storage at the final step. The greatest risk of escape is during the initial injection phase. Contributing factors can include failed well integrity, pressurisation during injection fracturing caprock, or increasing fault permeability. Once injected into the storage medium (e.g., depleted oil and gas reservoirs, saline aquifers, coal beds, deep-sea sediments) and retained, the security of containment improves as the retention mechanism shifts from physical obstruction (structural trapping) through capillary and solubility trapping to chemical bonding (i.e., mineralisation). However, this process is only complete in decades to centuries, so the risk profile of injection only improves very gradually. The closure assurance period is also inconsistent with expectations of industry for the lifetime of carbon sequestration projects. For example, because "[c]arbon stored … can be released back into the atmosphere by man-made or natural events, thereby reversing the environmental benefit of the sequestration project," Australia's Emissions Reduction Fund requires area-based carbon sequestration projects to have a permanence period of 25 or 100 years. If, which EDO recommends against, government persists with providing for transfer of liability to the state, and thereby to taxpayers, the closure assurance period should last at a minimum 100 years. This is consistent with the longer permanence period required by the Emissions Reduction Fund, more consistent with the Greenhouse Gas Geological Sequestration Act 2008 (Vic) (which does not provide for assumption of liability for CCS projects by the state) and is consistent with the assurance period for CCS projects in California.	environment, or property due to the leakage or migration of injected CO2. These risks can be minimised by ensuring a rigorous and robust site selection process, and effective monitoring and verification. Long–term liability involves both statutory liability and liability under common law. The issue of liability is complicated by the fact that liabilities for GHG storage projects will run for centuries and extend far beyond the life of most companies and insurance contracts. In this instance, as with other industries, government would assume liability by default. WA will also assume long term liability if the GHG titleholder has ceased to exist. DMIRS acknowledges that there is a need for appropriate mechanisms to deal with long term liability associated with petroleum, geothermal and GHG titles. DMIRS intends to propose a complete decommissioning package for petroleum, geothermal and GHG titles to deal with any associated amendments, including those relating to liabilities.
52.	EDO	Recommendation 4: The security required with a site closing certificate should explicitly cover costs of long-term monitoring post-closure and provide for any necessary remediation. Estimates	Section 69HP details that the security to be provided by the applicant for a site closing certificate, is to cover the total costs and expenses of the monitoring program to be

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		of security should be reviewed by regulators or an independent third-party to ensure their adequacy. The security amount associated with a site closing certificate must cover expenses through site decommissioning and remediation. Proposed s 69HP in the PGER Act requires that "an application for a site closing certificate must … set out an estimate of the total costs and expenses of carrying out the program," and "[t]he amount of the security is to equal the estimate." To the extent the security is intended to protect the public, the "total costs and expense of carrying out the program" should include the costs of monitoring in perpetuity after the closure assurance period expires and any potentially necessary remedial actions. To ensure the estimated costs and expenses are adequate, the legislation should provide for government or independent third-party review of the estimate.	undertaken by the State. An estimate of the total costs and expenses of this monitoring program is to be undertaken by DMIRS as the regulator, as part of the pre-certificate notice given by the Minister under section 69HM along with • a program for monitoring operations to be carried out by the State, and • the form and amount of security required to be lodged within a specified timeframe, and • a statement that the application will lapse if security is not lodged with the Minister within the required timeframe. The purpose of obtaining this security is that the program of monitoring and verification will be carried out over a considerable time, and there is no certainty that the person responsible for payment of the costs and expenses will still be in existence, or still be in a financial position to reimburse the State.
53.	MEPAU	**Site closing process / Indemnity for long-term liability** (i) Summary The PGERA sets out a site closing process for each identified GHG storage formation specified in a GHG injection licence. Relevantly, MEPAU understands that after the issuance of a site closing certificate and before the end of the closure assurance period is declared under section 69HX of the PGERA, there is a period where the State will be responsible for conducting monitoring operations for an identified GHG storage formation. (ii) MEPAU Submissions MEPAU submits that, for so long as a person is the holder of a GHG injection licence, they should be solely responsible for conducting monitoring operations in respect of the relevant identified GHG storage formation(s). This is consistent with the holder of a GHG injection licence being in the best position to conduct these monitoring operations, given their technical and financial resources and understanding of the relevant identified GHG storage formation(s).	MEPAU's understanding is correct. Comments acknowledged. DMIRS' position is that a GHG licensee should be fully responsible for monitoring of the stored GHG substance during the injection operations. This is to ensure that the injection operations conducted are meeting the objectives of the site plan site for the permanent storage of the GHG substance. However, once GHG injection operations have ceased and the WA Government is to ultimately assume long-term liability, on behalf of the people of WA, the measurement, monitoring and verification (MMV) processes of the stored GHG must be undertaken by the WA Government either directly through DMIRS or contractors engaged by DMIRS to

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		Further, the PGERA does not address how potential liabilities that may arise out of the State's monitoring operations will be dealt with (as between the State and the licence holders, and third parties). This comment is directed at acts or omissions of the State (and not to the costs of the monitoring operations). If the State's driver for assuming these monitoring operations is access to information, then MEPAU considers that this can be addressed by other means (for example, periodic reporting requirements). Finally, MEPAU notes that ceding control over monitoring operations carries with it potentially serious reputational and risk-management issues for industry participants. MEPAU suggests that, consistent with existing practice for petroleum operations, any monitoring operations / obligations should at all times remain with the licence holder.	provide public confidence for assuming the liability. In conducting the monitoring program, access to data and information from the injection operations would be needed either from reports submitted to DMIRS or from the licensee. In regard to potential liabilities, the expectation from the WA community would be that the WA Government would assume complete and total liability only when there are no doubts or uncertainties about the stored GHG. If there were unresolved liability issues, the injection licensee will remain responsible for them and continued management of the injection licence as the title cannot be surrendered until the WA Government has assumed liability. DMIRS disagrees for the reasons provided above.
54.	GeoVault	**Section 69HL** Suggestion Change ***within 5 years*** to ***within 6 months*** Reason The application for a pre-certificate notice (under Section 69HI) requires a written report based on dynamic modelling with short term and long-term consequences of the migration of the injected GHG (post injection) and suggestions of the post injection monitoring program. It must be applied for within 30 days of cessation of injection. Current proposed legislation allows for a period of up to 5 years for the issuance of a pre-certificate notice.	The WA Bill aligns with the section 388(8) of the OPGGSA in specifying a maximum timeframe of 5 years after an application for a site closing certificate was made when the responsible Commonwealth Minister must make a decision on the application. The requirement in section 388(8) was a late Opposition Senate amendment to set a timeframe when a decision must be made. Hansard records there was debate on the time required and it was recognised that sufficient time would be needed for the Minister to review all of the data and scientific information available, to take the advice of his department and come to a conclusion whether the site certificate may be granted. Hansard also recognised that the minister may grant that application in less than the five years where a company believes that a site is safe and secure and is able to provide the necessary data and supporting information that can be crosschecked by the department. An application for a site closing certificate is required to be accompanied by a written report that sets out the applicant's assessment of:

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			(i) the behaviour of the GHG substance injected into the identified GHG storage formation; and (ii) the expected migration pathway or pathways of that GHG substance; and (iii) the short-term consequences of the migration of that GHG substance, and (iv) the long-term consequences of the migration of that GHG substance.
		It is only at the point of the issuance of a **pre-certificate notice** that the monitoring program (with associated costs, expenses, and matching security) are agreed and a **site closing certificate** is issued. The inputs to the original application (models, costs etc) will be out of date with potential for 5 years of plume migration since cessation.	It is acknowledged that the information accompanying the application is the licensee's assessment of what is expected. During consideration of the application for a site closing certificate, it would be expected that the GHG licensee will continue to monitor the behaviour and migration of the injected GHG substance and keep DMIRS informed as part of the requirements of the approved site plan.
		It is also unclear who is responsible for monitoring activities during the decision period (once a site closing certificate has been issued the State assumes responsibility under Section 69HW).	The injection licensee will be responsible for ongoing monitoring following an application for a site closing certificate. Once GHG injection operations have ceased, the WA Government will assume long-term liability, either directly through DMIRS or contractors engaged by DMIRS, in order to provide public confidence for assuming the liability.
		It is also feasible that companies waiting up to five years for a pre-certificate notice may go into administration within this period and before security is agreed and in place. This places an additional risk on the State. A shorter period of 6 months will help mitigate this potential risk.	As stated earlier in this response, this provision aligns with the OPGGSA and DMIRS does not consider that the scenario raised does not provide sufficient reason to shorten the timeframe for the Minister to reach the necessary state of confidence about the injected GHG in order to grant the pre-certificate notice and the site closing certificate.
55.	CarbonCQ	**S.69 HX Closure assurance period** We believe that a period of 15 years of monitoring (c) is too long and onerous a period. Regular monitoring and modelling during the GHG injection period will already clearly define the behaviour of the GHG within the formation. A period of at least five (5) years from the issue of the closure certificate is a more realistic proposition, this would still give the Minister the opportunity to extend, via an instrument in writing, should the Minister not be satisfied with GHG's behaviour within the formation.	The Bill aligns with section 399 of the OPGGSA in specifying a timeframe of a minimum of 15 years after issue of a site closing certificate before WA accepts the long-term liability for the stored GHG. Section 399 was a late Opposition Senate amendment in 2008 in recognition that, for a number of reasons, it was better for the Australian Government to assume long-term

Ref #	Stakeholder	Comment	DMIRS Response
			liability instead of companies and as a means to encourage and support investment and commitment to carbon capture and storage. Hansard records there was debate on the length of monitoring time needed but only for a monitoring period of greater than 15 years. The benefit of maintaining alignment with equivalent provisions in the OPGGSA is considered to outweigh the recommended change especially with the likely prospect of cross-jurisdictional GGST project in the WA and Commonwealth areas.
56.	WesCEF	**Ownership of stored substance** The Draft Bill should clarify that the transfer of liability to the State during the post-closure phase also entails transfer of ownership of the stored substances. For example, under the Victoria onshore and offshore CCS legislation the Victorian Government becomes the owner of any GHG substance that has been injected into an underground storage formation where the relevant GHG licence is cancelled or surrendered. In Queensland, the injected GHG stream becomes the property of the Queensland Government after a GHG lease is surrendered or ends.	The different drafting approaches GHG storage in the Queensland and Victorian legislation is noted. While not explicitly stated, the transfer of liability to the WA Government includes the 'ownership' of the stored GHG.

PART 2 – GENERAL COMMENTS

57.	Southern Green Gas	We write to encourage the WA government to draft the Petroleum Legislation Amendment Bill (B) 2023 to allow for the storage of CO2 generated both from point source emissions and from the use of Direct Air Capture (DAC) technology.	The Bill aligns with the OPGGSA in being silent on stipulating the source of CO2 and, therefore, does not preclude DAC storage projects.
58.	LTGA	The problem is that despite decades of public investment, CCS remains a speculative technology that has not successfully been used for the reduction and storage of GHG at any scale relevant to the level of emissions reduction necessary to keep global warming within safe limits by 2030. • No commercial scale CCS project in the coal or gas context has ever managed to meet capture and storage targets and we don't have any more time to wait for it to work. • Even if CCS + fossil fuel projects had worked, they would only avoid a small fraction of the actual emissions profile of fossil fuel extraction and use. • CCS does nothing to address fugitive emissions (which are predominantly methane) from the extraction, processing and transport of fossil fuels. • Unlike other proven emissions reduction technologies, there is very little data to indicate that long-term storage of large scale volumes of CO2 is possible. Full text of the recommendations is provided at pages 27 to 30 in the LTGA submission.  LTGA comment on Petroleum Legislatio	The WA Government has declared a commitment to mitigating climate change and working with all sectors of the Western Australian economy to achieve net zero GHG emissions by 2050. Media statements announcing the commencement of drafting of proposed GGST legislation have openly stated the proposed legislation is one of a number of options the WA Government is dealing with climate change and addressing emissions reduction.
59.	LTGA	Substantial amounts of money and public support given to CCS divert both funds and attention from far more effective, feasible and readily available climate solutions. Australia has the money, research and development capabilities, resources and renewable energy sources to transition now to a clean, sustainable economy. Bulk emissions reductions in the energy sector can and will come from improved energy efficiency, electrification/gas substitution and renewable energy - not from bespoke, unproven and incredibly poor value-for-money CCS projects. Carbon capture and storage technologies do have a role to play in the future clean economy - for example, in capturing emissions from genuinely hard-to-abate industrial processes with no viable alternatives (cement manufacturing, steelmaking), or combined with technologies to remove atmospheric carbon ('direct air CCS' or 'DACCS') as required to deal with the 'overshoot' from historic exploitation of fossil fuels. However, these are clearly different applications than attaching some CCS component to fossil fuel extraction or use in power generation and, critically, the CCS 'demonstration' projects posited by fossil fuel companies actually do very little to improve the economics or knowledge-base of	The WA Government has declared a commitment to mitigating climate change and working with all sectors of the Western Australian economy to achieve net zero GHG emissions by 2050. WA is following the approach of the Commonwealth Government in introducing GGST legislation. WA Government media statements openly state the proposed legislation is one of a number of options the WA Government is dealing with climate change and addressing emissions reduction. Technologies such as renewable energy, improved energy efficiency and fuel switching are aimed at preventing the creation of CO2 emissions. GGST complements these technologies by addressing emissions that currently cannot

		other CCS applications. This is because each CCS project is a very complex, highly bespoke piece of engineering designed specifically for the financial, geological and operational conditions at hand - CTSCo successfully demonstrating that 110kt CO2 can be stored in a specific location in the Precipice Sandstone aquifer in central Queensland does nothing to improve the chances of CO2 being economically or securely stored in the karstic formations of outback NT. As emphasised more clearly than ever in the IPCC's latest report, it is 'now or never' when it comes to reducing emissions: emissions must peak by 2025, and be halved by 2030. We know the key pathways to achieving this goal in Australia: energy efficiency, electrification, and renewable energy + storage. Supporting and enabling CCS projects to reduce emissions will achieve little more than greenwashing fossil fuel expansion, further contributing to climate change.	be avoided, such as CO2 emissions from industrial processes like steel or cement manufacturing. The development of GGST legislation is necessary to provide the use of this option. Additionally, the future use of direct air capture, which has the potential to directly remove CO2 from the atmosphere and store it permanently deep underground, is also provided for.
60.	EDO	Recommendation 2: The PLA Bill should not allow recovery of petroleum incidental to GHG-related exploration, drilling, and injection, even for appraisal purposes. The PLA Bill proposes to allow GHG-related licensees to recover petroleum for purposes of appraisal. The PLA Bill should be amended to prohibit such recovery because it would otherwise encourage the use of CCS to sustain the life of the fossil fuel industry. The PLA Bill proposes to introduce amendments to the PGER Act and PSL Act that would permit the holder of GHG-related authorisations to "recover petroleum" in the relevant GHG licensing area to appraise a discovery of petroleum that was made as an "incidental consequence" of the authorised GHG exploration, drilling, or injection.39 All these sections require written consent from the Minister prior to recovering any petroleum and include the caveat that "the petroleum does not become the property" of the GHG drilling reservation holder or permittee. While seemingly limited on its face, given that the project proponent can only recover petroleum "for the sole purpose of appraising a discovery of petroleum," the objective of such a recovery is typically petroleum production, which would otherwise require an entity to obtain a petroleum exploration permit and production licence under the PGER Act or PSL Act. As such, the PLA Bill appears to provide a loophole for GHG permit holders to engage in steps towards petroleum exploration and production without applying for and obtaining a petroleum exploration licence or a production licence. To the extent the goal of allowing incidental appraisal is to increase knowledge of petroleum reserves in the state to expand production, such a goal is inconsistent with the phase out of fossil fuel production required to meet Western Australia's net zero goal, and to limit global warming to the temperature goals set out in the Paris Agreement.	The PLAB 23 provides the right for a GHG titleholder in sections 38A, 43DAA, 48CAA and 62 in the PGERA to recover, with the written consent of the Minister, petroleum, a regulated substance or geothermal energy for the sole purpose of appraising an incidental discovery. Equivalent sections 28A, 38CAA and 62 in the PSLA provide the same right for a GHG titleholder to recover, with the written consent of the Minister, incidental petroleum or regulated substance discoveries. The WA Bill aligns with equivalent provisions in the OPGGSA. The purpose of these provisions is to increase the geoscientific knowledge, data and information, as part of the role of Geological Survey and Resources Strategy Division to facilitate investment though the provision of geoscience data and products. These provisions also contribute to the responsible use of the State's natural resources and assist in the consideration of subsequent applications for GHG titles and the potential impacts of future GHG activities. These sections clearly state that any petroleum, regulated substance or geothermal energy recovered does not become the property of the GHG titleholder.
61.	CCWA	CCWA's primary objection to the proposed legislative amendments is the inclusion of the injection and storage of GHG substances. CCWA argues that the injection and storage of GHG substances:	Comments noted. See the response for comment #58.

		• is unproven as a long-term strategy to manage increasing industrial GHG emissions within the WA context, and the proposed legislation should not be the mechanism through which GHG injection and storage technologies or processes are trialled; • supports the continuing operations and emissions of industry, producing a reduced obligation to avoid, minimise or abate emissions; and • will ease the path for big polluters by presenting this strategy as a carbon pollution reduction strategy, when it is not. CCWA asserts that the changes proposed are *not* decarbonisation initiatives since the proposed amendments do not restrict the development of more petroleum fields or restrict other polluting industrial processes and end products. Therefore, the proposed strategies do not advance industry emissions reductions or other environmental protections. The industrial emissions will remain and, instead, will be 'managed' in a way that may be ineffective and unreliable within the WA context, and could produce additional environmental risks/impacts (e.g., from transport, pipeline construction, vegetation clearing, storage formation leaks, etc.). Moreover, the injection and storage of GHG substances is not extractive and is incongruent with the current legislative instruments, which are principally for the exploration and exploitation of the petroleum and geothermal energy resources of the State. CCWA questions whether the proposed legislation is the appropriate instrument through which to include GHG substance injection and storage and whether adequate protections exist in the proposed legislative instrument for untested or unreliable technological processes. CCWA argues that a separate legislative instrument should be developed to manage the injection and storage of GHG substances. Recommendation 1: A separate legislative instrument should be developed for the capture, transport, injection, storage and monitoring of GHG substances, which better regulates the range of impacts that could be produced by the emerging technologies and processes.	There are many synergies with the petroleum industry that mean that petroleum titleholders can easily move into GGST. The WA Government has followed the approach of the Commonwealth Government in adopting petroleum legislation as the vehicle for the PLAB 23 because GHG storage uses many of the same technologies as the petroleum industry and many of the provisions in the bill follow the existing petroleum legislative regime. Existing petroleum and geothermal retention lessees and licensees have been considered to have sufficient the operational experience and expertise to transition to GGST operations and also enables fast-tracking of projects with the potential use of depleted reservoirs and existing infrastructure.
62.	CCWA	Under conditions of technology and process uncertainties, it is not appropriate to 'learn by doing' and, therefore, the proposed legislative changes should not precede the creation of viable technologies to address the extent of the problem. CCWA highlights the need to review the assessment and management of environmental risks and emissions in: • the exploration for 'suitable' storage formations; • the development of extra infrastructure, for example, for source carbon capture; • the compression of gases to liquids;	The WA Government has declared a commitment to mitigating climate change and working with all sectors of the Western Australian economy to achieve net zero GHG emissions by 2050. WA is following the approach of the Commonwealth Government in introducing GGST legislation. WA Government media statements clearly state that the proposed legislation is one of a number of options the WA

		• the transportation of captured GHG substances via pipeline, ship and/or road; and • the monitoring for migration or escape of GHG substances from storage formations. Recommendation 3: Legislative changes, which allow for the application of processes and technologies that are yet to consistently yield positive storage of GHG substances, should be delayed until the technologies and processes are shown to be effective under WA conditions and can be safely managed.	Government is targeting to deal with climate change and address emissions reduction. Technologies such as renewable energy, improved energy efficiency and fuel switching are aimed at preventing the creation of CO2 emissions. GGST complements these technologies by addressing emissions that currently cannot be avoided, such as CO2 emissions from industrial processes like steel or cement manufacturing. The development of GGST legislation is necessary to provide the use of this option. Additionally, the future use of direct air capture, which has the potential to directly remove CO2 from the atmosphere and store it permanently deep underground, is also provided for.
63.	CCWA	CCWA also queries whether captured carbon is being used for enhanced oil recovery, which is not a climate solution and only assists in the recovery of more petroleum resources, producing more emissions. Recommendation 4: Legislative changes should explicitly disallow the use of captured carbon for enhanced oil recovery.	The provisions in the PLAB 23 are only for the permanent geological storage of GHG substances. Enhanced oil recovery is currently provided for under the two sets of RMA Regs.
64.	CCWA	There are no public consultative mechanisms built into the proposed legislation. CCWA reiterates the previous concerns it has raised with DMIRS in regard to the reduced opportunities for public consultation with the decision-making body (DMIRS) on industry environmental proposals. CCWA argues that it is the public consultation facility offered by regulatory bodies that best provides the opportunity for the public to influence decision-making and that this aligns with the WA Department of Premier and Cabinet (2003) 'Consulting Citizens' guideline, which argues that consultation inherently must offer "…opportunity to influence the final outcome" (p21). If the proposed changes seek to introduce a similar legislative regime as is currently in place in the OPGGSA, then the public consultative processes detailed under this instrument should also be considered under State legislative changes. Furthermore, the Commonwealth administrative provisions for offshore activities include strong mechanisms for consultation on environmental plans through NOPSEMA, whereby, in addition to proponent body consultations, the regulator publicises proposals in Commonwealth waters and accepts public submissions for these proposals. CCWA submits that consultative mechanisms for all State petroleum, geothermal, and GHG substance injection and storage proposals, where administered by DMIRS, use similar mechanisms	Western Australia has public consultative mechanisms for proposals that are assessed under the *Environmental Protection Act 1986*. Consultation requirements currently exist under the following sets of petroleum and geothermal environment regulations: • the Petroleum and Geothermal Energy Resources (Environment) Regulations 2012 • the Petroleum (Submerged Lands) (Environment) Regulations 2012 • the Petroleum Pipelines (Environment) Regulations 2012 Following commencement of the GGST amendments, these regulations will be amended to include GGST activities.

		to those available through other environmental regulatory agencies, in addition to any consultative mechanisms with proponent bodies. Recommendation 6: Public consultation strategies should be adopted in alignment with the OPGGSA, and DMIRS should support improved opportunities for public consultation in the review of new environmental proposals.	
65.	AGIG	***Transitional Provisions*** AGIG suggests transitional provisions should be included in the Draft Bill to waive penalties that apply under the proposed legislation to exploration for GHG storage formations. Entities may have either deliberately in anticipation of the need for carbon sequestration activities in Western Australia, or inadvertently whilst carrying out other activities under a petroleum or geothermal title, carried out GHG exploration activities that may attract a penalty under the proposed Draft Bill due to the activities occurring without the requisite permit or licence (particularly as such permit or licence did not exist at the time of the activities). Such activities should not be penalised and processing of applications for GHG exploration permits, drilling reservations, retention leases and injection licences should not cause exploration work to stop in the current climate. AGIG suggests a transition of 6 to 12 months from the date the Draft Bill passes for continuation of such activities where: i. the proponent has a petroleum production licence/geothermal licence; provided that: ii. ii. the proponent reports any findings in connection with the existence of potential GHG storage formations to DMIRS made prior to enactment of the Draft Bill within 90 days of the Draft Bill passing; iii. the proponent reports any findings in in connection with the existence of potential GHG storage formations to DMIRS made post enactment of the Bill within 14 days of any such discovery.	The penalty provisions in section 29 for exploring for a potential GHG storage formation or a potential GHG injection site without holding a GHG exploration permit or a GHG drilling reservation cannot be applied until commencement of the Act. Retrospective penalties prior to the commencement of the Act cannot be applied without transitional provisions. This is not being considered in the PLAB 23. In addition to operating in accordance with the three Petroleum Acts, titleholders must also ensure that all activities undertaken are compliant with any approved title grant conditions and relevant management plans approved under the Resource Management and Administration, Environment and Safety Regulations.
66.	EDO	Recommendation 6: All of the proposed penalty provisions should be increased by at least a factor of 10, to reflect the potentially catastrophic consequences of the prohibited activities. The current penalties in the PP Act related to leaks and improper pipeline operation or routing should also be increased. **A. Penalties related to unlawful injections of GHGs and "serious situations" are inadequate.** The penalties in the Petroleum Acts must be increased commensurate to the gravity of environmental impacts and made consistent across the Acts. As proposed, the penalty provisions in the PLA Bill fuel a "pay to pollute" scheme, where the minimal financial consequence of a statutory violation may be considered by operators a reasonable commercial trade-off for engaging in the prohibited activity. This undermines the purposed environmental protective purpose of the PLA Bill. The PLA Bill proposes the following new penalties across the PGER Act and PSL Act. (Refer to pages 20 to 22 in the EDO submission.)	Work has commenced to increase penalty provisions in the PGERA to implement the WA Government's response to the recommendation from the Independent Scientific Inquiry report into hydraulic fracture stimulation in WA. These penalty amendments are intended to be replicated in future amendments of the PSLA and PPA and associated regulations.

		 230414 EDO Submission re Petro The PLA Bill does not propose any new penalties in the PP Act, but existing penalties are similarly inadequate. (Refer to page 22 in the EDO submission.) These penalties are grossly inadequate and unlikely to provide an effective deterrent, especially in light of the significant earnings made by industry players most likely to take advantage of CCS. For example, Chevron reported full-year 2022 earnings of $35.5 billion, and Woodside Energy reported annual net profit after tax of $6.5 billion. The penalties are also inconsistent with those imposed for damaging or interfering with pipelines or petroleum or GHG operations, punishable by imprisonment of up to 10 years (PP Act s 65; PSL Act s 124B). Further, such low penalties are disproportionate to the environmental impacts described in Section I.B that they are meant to disincentivise. Not only are the penalties inconsequential, but they differ across the Petroleum Acts for similar violations in important instances. For example, as noted above, proposed s 49A of the PGER Act would punish unlawful GHG injections by "imprisonment for 5 years **or** a fine of $50,000." By contrast, proposed s 39A of the PSL Act provides that GHG injection operations in an adjacent area without a licence or in contravention of the Act would be punishable by "imprisonment of 5 years **and** a fine of $50,000." GHG operations necessarily include those in an adjacent area. A similar discrepancy exists with regards to unlawful petroleum exploration. The amended s 29(1) in the PGER Act sets a penalty of imprisonment for 5 years or a fine of $50,000 for petroleum exploration that is not in accordance with a petroleum exploration permit or drilling reservation or the Act, removing the option to issue both penalties. Section 19 in the PSL Act was not similarly amended and still allows punishment of petroleum exploration in an adjacent area in contravention of a permit or the Act with both imprisonment of 5 years and a $50,000 fine. There should not be these kinds of inconsistencies in penalties associated with what are essentially the same unlawful conduct across the Petroleum Acts because penalties should be fixed according to gravity of impact. **B. Penalty unit approach would allow penalties to be easily updated.** A 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 across Australia for environmentally protective purposes in the context of regulating petroleum production. A penalty	Comment acknowledged but penalty units are not the general method of setting penalties for offences in Western Australia legislation.

		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.	
67.	EDO	Recommendation 7: The PLA Bill should require the Minister to provide public notice of any applications made under the Petroleum Acts related to GHG exploration, transport, and storage, institute a 60-day comment period for each application, and take into account and respond to all public comments submitted in determining whether to grant such applications. The Minister should be required to take public comment into consideration when making any decision in respect to an application. **A. Public participation in decision-making processes supports transparency, accountability, and trust in decisions.** Public participation is essential to ensure transparency of government decision-making, aid accountability, and support public trust in the institutions of government. The Petroleum Acts should adopt the kinds of rights to participate in decision-making as those enshrined in environmental protection legislation, such as the EP Act. 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. Genuine public participation is a process, not a single event, and it should begin as early as possible in the formulation of the proposal at issue. Engaging in consultation early requires decision-makers to refrain from taking any formal, irreversible decisions prior to the commencement of consultation, such as making large investments in the direction of one option or committing to a certain outcome, including those agreed with another arm of government. Consultation also requires decision-makers to seek meaningful input at key points throughout the lifecycle of the decision-making process, and potentially after a decision has been made and is being implemented. **B. The PLA Bill should be amended to require public notice and comment opportunities throughout the permitting process.** To ensure adequate public participation, the PLA Bill must ensure that any relevant provisions in the Petroleum Acts and their enabling regulations that provide for the grant of a GHG or petroleum authorisation include public notice and comment opportunities. These provisions include ss 32, 37, 37B, 42, 43C, 48B, 48BC, 48CB, 48CD, 48G, 54, 60, 61A, 65, 69E, and 69HQ in the PGER Act, ss 22, 27, 27A, 32, 38B, 38BC, 38CB, 38CD, 38G, 44, 50, 51A, 55, 60E, and 65 in the PSL Act, and ss 9 and10 in the PP Act. The public comment process should involve all interested and affected parties (IAPs), remain open for long enough to allow IAPs to comprehensively review relevant materials and engage with technical documents, and require the decision-maker to take into account and respond to submitted comments. To this end, the Petroleum Acts and any enabling regulations must provide at least 60 days for public comment, clearly explain how submissions can be made, identify	See response for comment 64.

		appropriate ways to notify stakeholders, and require publication of all materials necessary for IAPs to understand the proposed project's impacts, among other details. To ensure that such comments are given appropriate consideration, the Minister should be required to take public comments into consideration when making any decisions in respect of an application.	
68.	EDO	Recommendation 8: The PLA Bill should provide for merits review of authorisations granted under the Petroleum Acts. **C. The PLA Bill should provide for merits review of authorisations granted under the Petroleum Acts.** In addition to third party enforcement rights, the Petroleum Acts should provide for rights of interested and affected parties to seek merits review of authorisations granted under the Acts. Merits review is essential to ensuring that each decision made is correct and appropriate. It also has a "broader, longer-term objective of improving the quality and consistency of the decisions of primary decision makers and ensures that the openness and accountability of decisions made by government are enhanced." Merits review rights are available in other statutory regimes governing titles and land use. The EPBC Act, for example, allows merits review in relation to the grant of certain permits. Victoria's Planning and Environment Act 1987 likewise provides merits review – s 82(1) states that "[a]n objector may apply to the Tribunal for review of a decision of the responsible authority to grant a permit." The Water Management Act 2000 (NSW) lists various decisions made by the minister which can be appealed to the Land and Environment Court, including grants of access licences and designated approvals, provided the appellant objected to the grant of such approvals before appealing. Part VII of Western Australia's own Environmental Protection Act 1986 also provides for appeal to the Minister for the Environment, by any aggrieved person, of a wide range of decisions made under that Act. The PLA Bill should grant the right to bring a merits review action broadly to all aggrieved persons. Every decision to grant or refuse an authorisation under the Petroleum Acts should be subject to merits review. In addition, a merits review application should suspend all activities to be taken under the authorisation while such an application is pending.	Recommendations noted. However, the purpose of the proposed PLAB 23 is to provide for the transport and geological storage of GHG. The recommendation for a merit review cannot be applied in isolation to GHG authorisations and not petroleum and geothermal provisions in the three Petroleum Acts. The recommendation is, therefore, is not within the approved scope of the PLAB 23.

69.	WesCEF	**Interaction with relevant Commonwealth legislation** The Draft Bill could better ensure harmonious operation with the *Carbon Credits (Carbon Farming Initiative) Act 2011* (Cth) (CFI Act) as relevant to carrying out CCS projects as an "eligible offsets project" by incorporating the following: (a) an express recognition on the part of the WA Government that it is intended for the Draft Bill to constitute a "recognised law of a State or Territory" within the meaning of section 5 of the CCS Methodology made under the CFI Act; (b) provisions which recognise that authorisations under the Draft Bill which allow injection and storage of GHGs are intended to be a form of "regulatory approval" within the meaning of the CFI Act that is required for the purpose of carrying out a CCS project as an "eligible offsets project"; and (c) provisions which clarify that the grant of a GHG title under the Draft Bill is not intended to either constitute a requirement for the CCS project to be carried out under the Draft Bill, or a requirement to reduce or offset emissions in a particular manner (so as to ensure that "regulatory additionality" is not foreclosed from being met if the CCS project is intended to be registered under the CFI Act). **Interaction with Commonwealth carbon farming legislation** The Draft Bill should incorporate provisions expressly stating that grant of a CCS title that requires a CCS project to be undertaken in a particular way is not intended to otherwise affect the CCS project's additionality for the purposes of Commonwealth carbon farming legislation. WesCEF submits that the Draft Bill should include express provisions which clarify that there is no intention for the Draft Bill to require a CCS project to be carried out or for the GHG project to reduce or offset emissions in a particular manner.	Based on discussions with the Commonwealth Department of Climate Change, Energy, the Environment and Water, DMIRS understands that: • the proposed PLAB 23 will be a recognised State Law for the purposes of the CFI Act, and • the suggested amendments are not necessary for the issue of Australian carbon credit units in respect of offsets projects provided for by the PLAB 23.
70.	APPEA	APPEA notes there are two key areas in WA that are obvious areas where decarbonisation through CCUS will be needed. These two areas are the South Perth/Kwinana industrial area, and the Burrup peninsula. These two regions comprise a significant proportion of all Western Australia's Safeguard Facilities. By developing the key building blocks of decarbonisation in these regions – firmed renewable energy, natural gas, low-carbon hydrogen and CO2 transport and storage infrastructure – not only are existing facilities supported in their decarbonisation efforts but these regions can act as a magnet for future net zero energy and industrial investment, building a diversified and sustainable economy in Western Australia. APPEA recommends the Government consider facilitating common user infrastructure that will enable these areas of significant industrial importance to decarbonise quicker than would otherwise be possible. Such activities could include cooperation of Government and industry in making easements within the Kwinana industrial area available for common use for CCUS infrastructure.	Comments acknowledged. However, these are outside the approved scope of the proposed PLAB 23 which is to provide for the transport and geological storage of GHG.

71.	Chevron	Further to the points made in the APPEA submission, Chevron would also like to take this opportunity to highlight that deployment of CCS activities in Western Australia will be further facilitated if the State Government puts in place complementary policies for the entire CCS value chain. For example, providing policies that support the development of CCS hubs in the State and streamlining of permitting and approvals for CO2 gathering and processing activities.	See response for comment #70.
72.	APPEA	**Technical requirements in the legislation** Detail on pending guidelines and regulations are needed from DMIRS on the composition and storage requirements for GHG.	Comments noted. Following assent of the PLAB 23, a secondary stage of legislative amendments will be required to give effect to the Bill and allow for commencement of the amendments. These include: • development of new GGST regulations, modelled on the Commonwealth Offshore Petroleum and Greenhouse Gas Storage (Greenhouse Gas Injection and Storage) Regulations 2011, and supporting Guidelines; and • broadening the existing Petroleum Environment and Resource Management and Administration Regulations, modelled on the equivalent OPGGSA Regulations, and their Guidelines to include greenhouse storage and transport. Consultation on the Regulations and Guidelines will be undertaken when these are available. In the meantime, it is suggested that the equivalent OPGGSA Regulations, and their Guidelines would provide a good information guide.
73.	APPEA	**GHG EP** Will the grant of GHG EP's be treated like a petroleum EP or a geothermal EP: 1. Petroleum EPs are processed as a future act under the expedited procedure of the NTA. 2. Geothermal EPs are currently not considered a future act currently.	The future act issue has been taken into account by the State in connection with the Bill and the State will of course continue to comply with any requirements of the NTA.
74.	APPEA	**Safety** Consider whether the WHS PAGEO Regs will require updating for GHG operations and there will be safety case requirements. Can DMIRS provide more information on this?	No amendments are required to the Work Health and Safety Act 2020 and the associated regulations. The transport of CO2 is covered under the Dangerous Goods Safety (Storage and Handling of Non-Explosives) Regulations 2007. Injection of CO2 activities are currently able to be regulated by DMIRS by the term 'petroleum operation' through a series of convoluted definitions. The term 'petroleum operation'

			relies on the meaning in the *Petroleum and Geothermal Safety Levies Act 2011* and one of the meanings is a 'prescribed activity'. The definition of 'prescribed activity' in the Petroleum and Geothermal Safety Levies Regulations 2022 includes the injection of CO2 into an underground reservoir or other subsurface formation.
75.	Pilot Energy	**Infrastructure Facilities** Consider an amendment to the *Petroleum and Geothermal Energy Resources Act* to incorporate the concept of Infrastructure Facilities as set out in section 6(b) of the Petroleum (Submerged Lands) Act for GHG operations that are located within Western Australia.	Infrastructure licence provisions were inserted into the PSLA in 2010 by way of *the Petroleum and Energy Legislation Amendment Act 2010.* Equivalent provisions were not considered for the PGERA 67 as it was considered, at that time, that there were other forms of land tenure available onshore. In view of this, onshore GHG infrastructure licence provisions were not part of the 2013 Bill which has been re-introduced as the *Petroleum Legislation Amendment Bill (B) 2023*. There are valid reasons to extend infrastructure licence provisions to the PGERA for petroleum, geothermal and GHG purposes. However, in view of the availability of other land tenure types, this will need to be carefully considered to ensure it will not either impinge on existing land tenure or simply duplicate any. This is a separate body of work outside the approved scope of the GGST amendments.
76.	MEPAU	MEPAU also notes that the Bill contemplates that certain key details and features of the CCS regulatory regime will be addressed in regulations. MEPAU strongly advocates for industry participation in the development of these regulations and would welcome the opportunity to discuss such industry collaboration in further detail with the DMIRS.	Following assent of the PLAB 23, a secondary stage of legislative amendments will be required to give effect to the Bill and allow for commencement of the amendments. These include: • development of new GGST regulations, modelled on the Commonwealth Offshore Petroleum and Greenhouse Gas Storage (Greenhouse Gas Injection and Storage) Regulations 2011, and supporting Guidelines; and • broadening the existing Petroleum Environment and Resource Management and Administration Regulations, modelled on the equivalent OPGGSA Regulations, and their Guidelines to include greenhouse storage and transport. Stakeholder consultation on the Regulations and Guidelines will be undertaken when these are available. In advance of

			this, it would be beneficial for industry to analyse and review the equivalent OPGGSA Regulations and their Guidelines.
77.	CCWA	The expertise of GHG exploration proponents should be sufficient to control any environmental risk/impact events. CCWA requires assurances that the technical expertise of proponents involved in the exploration for storage formations, and in the transport and injection of GHG substances, should be sufficient to manage any possible environmental impact events. For example, if an oil or gas reservoir is breached in the course of GHG exploration or injection activities, CCWA expects that controls and environmental management strategies are in place, as they would be for petroleum exploration and extraction activities, and that these strategies are implemented by highly trained and experienced personnel. Recommendation 10: The expertise and capacity of GHG exploration and injection personnel should extend to the environmental management of oil/gas, in the event of an oil/gas reservoir breach.	Comment noted and agreed. The new GHG provisions align with existing petroleum legislation in putting the responsibility for all operations under a petroleum, geothermal or GHG title on the titleholder.
78.	APPEA	APPEA recommends that CCUS projects, and hydrogen projects produced from natural gas, supported by CCUS, be included in the Government's $22.5 million commitment to streamline approvals process using a "Green Energy Assessment Unit". The purpose of this initiative is to "*help Western Australian industry be a major contributor to global efforts to decarbonise the economy*", and CCUS projects utilise existing technology to begin the decarbonisation process immediately.	On 3 July 2023, the WA Government announced the formation of a new green energy approvals team to provide a streamlined pathway for environmental assessments that will reduce project approval timeframes. The media statement advised that the Green Energy Approvals Initiative is driving investment in wind and solar power generators, renewable hydrogen industries, lithium mining, critical minerals processing as well as manufacturing green energy products such as batteries, electrolysers, solar panels and wind turbines. It is noted that CCS is not included but this could be because it is not a direct energy source. The media statement further advised that a Green Energy Major Projects Group is being established within the Department of Jobs, Tourism, Science and Innovation as a first point of contact to help steer projects and investors through government processes.
79.	Woodside Energy	In this regard, Woodside Energy would welcome major project facilitation and the inclusion of CCS projects within the scope of the State Government's approach to fast-track green energy approvals. The State Government's omission of CCS from this policy initiative contrasts the technology agnostic approach being taken in other jurisdictions.	See response for comment #78.
80.	CCWA	**Compliance** CCWA seeks further information on the management of compliance for GHG substances transport, injection and storage when dealing with the leak of a possibly invisible and odourless gas, on land or in remote areas onshore and offshore.	A suite of techniques can be used to monitor the extent of the GHG plume and detect any migration outside the storage

		The findings of the Office of the Auditor General's 'Performance Audit into Compliance with Mining Environmental Conditions' are pertinent to this context. The OAG found that: *Despite growth in the mining sector, the entities [being DWER and DMIRS] have reduced their scheduled monitoring activities. Planned inspection programs have shrunk by 60% or more over the last five years and neither has completed these programs since 2018-19.* Furthermore, the OAG determined that both entities needed to improve their responses to non-compliance issues and highlighted: *…extraction of resources brings with it significant environmental risks that the community expects the State's regulators to balance against the need for ongoing economic and community development. WA has previously experienced considerable environmental impacts from poor mining practices and failings in the State's regulation of environmental compliance…past disasters in our State and overseas show good regulation is critically important to preventing damaging and expensive incidents. This is particularly true in an operating context where many sites are in remote areas and out of sight, and therefore potentially out of mind.* The OAG concluded: *DMIRS and DWER are not fully effective in ensuring mining projects comply with conditions to limit environmental harm and financial risks to the State. Their monitoring and enforcement currently provide a narrow view of operator compliance and do little to deter operators from breaching conditions….Entities also rely heavily on operator self-reported information with minimal independent verification and records are not centrally managed. As a result, entities have a limited and siloed understanding of operator compliance and are less likely to identify potential environmental risks to constructively target their regulatory efforts.* CCWA seeks assurances from DMIRS that serious and residual environmental impact will not be the first indicator of a pollution event, or the stimulus for regulatory action. Recommendation 12: Regulatory overview for compliance requires further review and improvement.	formation and any leakage from an operating or decommissioned injection well. The selection of monitoring technologies is largely dependent on technological feasibility, land requirements and cost. These commonly include time lapse 3D seismic surveys combined with monitoring of suitably located wells in the storage formation for presence of GHG adjacent to the well. Geochemical changes in groundwater and soil gas monitoring near operating or decommissioned well sites can also detect any leakage of injected GHG. Comment noted. DMIRS' Resource and Environmental Regulation Group provides regulatory and policy oversight of the resources sector, in all areas apart from worker safety and plays a critical role in building and strengthening Western Australia's economy, while ensuring the State's resources are developed in a sustainable and responsible manner. DMIRS aims for continuous improvement to ensure improved regulation and regulatory practice, reduced timeframes for approval pathways, streamlined processes and improved transparency.

81.	CCWA	**Application of the *Environmental Protection Act 1986*** CCWA seeks further information on the application of the EP Act for GHG substance injection proposals. Will the handling of large volumes of GHG substances routinely be assessed under Part IV of the EP Act?	DMIRS expects that the Environmental Protection Authority (EPA) will consider GHG injection and storage projects as 'development projects' similar to mining, petroleum and pipelines proposals. Ordinarily these proposals are assessed under Part IV of the *Environmental Protection Act 1986,* but this is at the discretion of the Chair of the EPA.
82.	AGA	**Geothermal Energy** As discussed in our previous submission, 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)	Comments noted. However, the scope of the proposed PLAB 23 is only to provide for the transport and geological storage of GHG. As advised in the response to submissions on the Petroleum Legislation Amendment Bill (No. 2) 2022, DMIRS acknowledges AGA's suggestion and this comment has been noted for future consideration where there is scope for amendments relating geothermal energy.
83.	WesCEF	**Mandatory consideration in granting of GHG permits or titles** The Draft Bill does not prescribe matters that the Minister must consider in granting permits or titles for CCS projects. WesCEF sees merit in prescribing that it is mandatory for the Minister, in considering the granting of permits or titles for CCS projects, to consider the emissions reductions that are anticipated to be achieved by the applicant for the GHG title and whether granting the permit or title to the applicant will help achieve carbon emission abatement that may not otherwise be able to be achieved. The achievement of meaningful carbon abatement must be the primary focus of the Draft Bill and any CCS activities facilitated by it.	The PLAB 23 provides that grant of a GHG exploration permit will occur by way of an acreage release and that it will follow the same approach as for petroleum exploration permits and geothermal exploration permits. An application for a GHG exploration permit also has the requirement for information concerning the source, volume and composition of the GHG substance that is proposed to be injected to be included. The PLAB 23 has also aligned the process and criteria for the grant of an application for all three types of exploration permit to be the same in taking into account work programs relative to the whole of the area applied for, the adequacy of the work program and the applicant's technical and financial ability to undertake the work. The suggestion that the grant of a GHG exploration permit should consider anticipated emissions reduction to be achieved is agreed to have merit for situations where there is more than one application for the same block or blocks. As set out in section 32A, in these situations the Minister may grant the permit to whichever applicant, in the Minister's opinion, is most deserving of the grant of the permit, having regard to criteria made publicly available.

			DMIRS will consider whether the anticipated emissions reduction to be achieved should be included as part of the package of information provided as part of the public release to in the acreage release criteria for the grant of a GHG exploration permit.
84.	EDO	Recommendation 9: The PLA Bill should amend the Petroleum Acts to allow third party enforcement, modelled on s 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 10: Alternatively, the PLA Bill should provide expanded standing for enforcement of the Petroleum Acts, modelled on sections 475 and 487 of the EPBC Act: 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. Further information on these recommendations is provided at pages 25 to 27 in the EDO submission.  230414 EDO Submission re Petro	Recommendations to amend the three Petroleum Acts noted. However, the approved scope of the proposed PLAB 23 is to provide for the transport and geological storage of GHG and it would not be appropriate to apply this amendment to GHG provisions and not to the petroleum and geothermal provisions. DMIRS acknowledges EDO's recommendation and has noted this for future consideration where there is scope for future amendments to the three Petroleum Acts.
85.	EDO	Recommendation 11: The Minister should not be granted discretion to overlook non-compliance with approval conditions and/or the Petroleum Acts in determining whether to grant additional authorisations or renewals. Alternatively, if the PLA Bill maintains such an exception, there must at the very least be regulations setting out what "special circumstances" might entail; providing the opportunity for public comment before any the discretion to overlook non-compliance is exercised; and requiring the Minister to give reasons for their decision. **The PLA Bill must be accompanied by implementing regulations.**	Recommendation noted. There is no current provision in the three Petroleum Acts that provides discretion for the Minister to overlook or ignore breaches or non-compliance with approval conditions or requirements in the Acts or Regulations.

		The application requirements for authorisations in the Petroleum Acts are not comprehensive enough to ensure that the lifecycle impacts of CCS projects will be adequately evaluated and managed. The government must issue regulations to address the lack of detailed instructions in the overarching statutes on application requirements as "necessary" to managing GHG operations under the Petroleum Acts. Proposed s 51 of the PGER Act and proposed s 41 of the PSL Act list the requirements for GHG injection licence applications. These applications (c) shall be accompanied by **particulars of the proposals of the applicant for work and expenditure** in respect of the area comprised in the blocks specified in the application; and (ca) must, in the case of an application for the grant of a GHG injection licence, **specify the source, volume and composition of the GHG substance to be injected and stored**; and (d) may set out any other matters that the applicant wishes the Minister to consider. This section provides very limited guidance on what the "particulars of the proposals" entail and, without more detailed implementing regulations, affords the Minister excessive discretion in approving applications. Regulations would ensure that any approvals are predicated on complete information about the project's risks. To that end, they should clearly and comprehensively instruct applicants on what they need to submit in relation to the different phases of the CCS project – that is, capture, transport, injection, storage, and closure. Moreover, proposed s 64 of the PSL Act lists the application requirements for a pipeline licence, but they are focused on logistical details, such as the design and route of the pipeline and accompanying infrastructure. Applicants are not explicitly required to provide information related to, for example, how environmental risks will be systematically evaluated or identify feasible control measures to eliminate or at least minimise the likelihood or impacts of accident events. Instead, it would seem these key details would only be disclosed if the applicant considers them among "other matters that the applicant wishes the Minister to consider." Such crucial information about a CCS project should be explicitly required through regulation rather than left as a voluntary part of the application. The Petroleum Pipelines (Management of Safety of Pipeline Operations) Regulations 2010 were repealed last March, and the Petroleum (Submerged Lands) (Pipelines) Regulations 2022 do not currently address GHG emissions. To avoid a Satartia incident in Western Australia, regulations must be issued pursuant to amended s 152 of the PSL Act and amended s 153 of the PGER Act that ensure pipelines transporting CO2 can withstand the high pressure, low temperatures, and potential corrosiveness to which they will be subjected and that pipeline operators have plans in place for ruptures. **The Minister should not be permitted to approve or renew authorisations where the proponent has demonstrated previous non-compliance with the Petroleum Acts.**	However, as for the response for comment #85, the approved scope of the proposed PLAB 23 is to provide for the transport and geological storage of GHG and it would not be appropriate to make this amendment to GHG authorisations and not to the petroleum and geothermal authorisations. DMIRS acknowledges EDO's recommendation and has noted this for future consideration where there is scope for future amendments to the three Petroleum Acts.

		The PLA Bill would permit the Minister to grant authorisations and renewals under "special circumstances" even where the applicant has not complied with the Petroleum Acts. For example, proposed s 64P(2)(b) of the PSL Act seems to give the Minister the ability to grant a pipeline licence even if the applicant has not complied with GHG injection license conditions and/or the Act or regulations where the Minister considers "special circumstances" exist. Similarly, proposed s 64G of the PSL Act gives the Minister the ability to grant a pipeline licence to a petroleum licensee "in relation to the construction, in the adjacent area, of a petroleum pipeline for the conveyance of petroleum recovered in the petroleum area," even where the licensee has not complied with conditions in the petroleum production licence or the Act or regulations. Proposed s 64I provides the same exception for an application for a pipeline licence by a petroleum licensee in relation to construction of a GHG pipeline in the adjacent area for conveyance of GHGs within a petroleum licence area or conveyance of GHGs from outside the petroleum licence area to inside the area. Proposed s 48G of the PGER Act allows the Minister to grant a renewal of a GHG retention lease under "special circumstances" that justify overlooking non-compliance with lease conditions. Other provisions granting the Minister discretion to overlook non-compliance include PGER Act ss 42(1)(b)(ii) and 65(2)(b), PSL Act s 32(1)(b), proposed s 38G(1B)(b) and (2)(c), s 55(2)(b), proposed s 64J(3)(b), proposed s 64N(2)(b), and proposed s 64O(2)(b), and PP Act s 23(3). Full text of the recommendations is provided at pages 27 to 30 in the EDO submission. 230414 EDO Submission re Petro	
86.	AGA	We have read the draft Petroleum Legislation Amendment Bill (No. 2) 2022 and note that the primary purpose of the draft Bill is to provide a legislative framework for the transport and geological storage of GHG in Western Australia. As with the previous AGA submission regarding the Petroleum Legislation Amendment Bill (No. 2) 2022, we note that a number of changes are also included that have a significant effect on the exploration and production of geothermal energy. Many of these previously submitted comments are also relevant to the Petroleum Legislation Amendment Bill (B) 2023 and we request that comments in our previous submission are also considered in regard to this submission. A copy of the previous submission is included for your reference.	DMIRS has published responses to the submissions received on the Petroleum Legislation Amendment Bill (B) 2023 http://www.dmp.wa.gov.au/Documents/petroleum/Response-to-Submissions-Petroleum.pdf The only additional response to those provided for the comments from AGA is in regard to the following comment: *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?*

			Response ref#76 advised '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.' Further to this response, the PLAB 23 does not propose that a GHG substance will be a regulated substance. Additionally, the PLAB 23 only provides for the permanent geological storage of GHG substances and not to assist with recovery of petroleum or extraction of geothermal energy products.
87.	APPEA	Australia has one of the most comprehensive national CCUS legal and regulatory frameworks globally, but gaps and inconsistencies between states may slow investment. That is why APPEA has called on the Federal Government to establish a CCUS road map to provide policy direction, progress priority carbon management hubs, and promote Australia as a regional CO2 storage leader.3 APPEA recommends the WA Government to also clarify its support of CCUS with the development of a road map, ideally cooperatively with the Commonwealth Government.	Comment noted. However, the approved scope of the proposed PLAB 23 is only to provide for the transport and geological storage of GHG.
88.	CCWA	Recommendation 12: Regulatory overview for compliance requires further review and improvement.	Comment noted. DMIRS' Resource and Environmental Regulation Group provides regulatory and policy oversight of the resources sector, in all areas apart from worker safety and plays a critical role in building and strengthening Western Australia's economy, while ensuring the State's resources are developed in a sustainable and responsible manner. DMIRS aims for continuous improvement to ensure improved regulation and regulatory practice, reduced timeframes for approval pathways, streamlined processes and improved transparency.
89.	APPEA	Additionally, APPEA requests DMIRS clarify that CCUS projects are eligible for inclusion in the Department's Exploration Incentive Scheme and Energy Analysis Program.	CCS and CCUS projects will be eligible for inclusion following commencement of the PLAB 23 and regulations, the grant of GHG titles and the amendment of the Exploration Incentive Scheme guidelines and legal agreements.

PART 3 – COMMENTS ON SPECIFIC SECTIONS OF THE THREE PETROLEUM ACTS

			Petroleum and Geothermal Energy Resources Act 1967	
	STAKEHOLDER	**SECTION**	**COMMENTS**	**DMIRS RESPONSE**
90	APPEA	Objects clause	Title of the Act states the act is relating to 'certain other resources' and 'certain lands'. What are certain lands vs all lands?	'Certain lands' are areas where the Act can't apply such as Commonwealth lands and private lands. The PSLA aligns by referring to 'certain submerged lands'.
91	APPEA	s.5	**Closure assurance period** Under section 69HX(2) Clarity is needed to ensure section provides for temporal and discretionary consideration.	The wording in section 69HX(2) is the same as that in equivalent section 399(1) in the OPGGSA. DMIRS considers there are benefits in maintaining alignment with equivalent provisions in the OPGGSA especially with the likely prospect of cross-jurisdictional GGST projects in the WA and Commonwealth areas. Clarity and explanation can be provided in Guidelines that will be prepared to accompany proposed Greenhouse Gas Injection and Storage Regulations.
92	AGIG	S5	Section 5 (Definitions) – there is a typo in table of contents (6AA, 6AB, 6AC, 6AD etc aren't reflected in the draft amendments – just 6A, 6B, 6C, 6D etc).	Thank you. This was an error that has been subsequently corrected.
93	CarbonCQ	s.5	**Geological formation** includes – any seal or containment forming the reservoir of a geological formation; GHG storage is about containment, not just a seal as there are other forms of containment that ensure the GHG remains within the formation. "Seal" is an O&G term for the gas trapping part of the geological formation.	The wording in the definition of the term 'geological formation' is the same as that for this term in section 7 in the OPGGSA. DMIRS considers there are benefits in maintaining alignment with equivalent provisions in the OPGGSA especially with the likely prospect of cross-jurisdictional GGST projects in the WA and Commonwealth areas.
94	GeoVault	s.5	**Geological formation** includes – *(a) any **seal** or reservoir of a geological formation; and* *(b) any associated geological attributes or features of a geological formation;* Suggestion: Replace "seal" with "effective sealing feature or attribute" to reflect that geological formations are not	The wording in the definition of the term 'geological formation' is the same as that for this term in section 7 in the OPGGSA. DMIRS considers there are benefits in maintaining alignment with equivalent provisions in the OPGGSA especially with the likely prospect of cross-jurisdictional GGST projects in the WA and Commonwealth areas.

			necessarily either a reservoir or a seal. This terminology is adopted under Section 6C. Reason: For GHG storage purposes, it is possible to store a GHG without the need for a traditional seal. As we have seen from analysis and modelling of the SW Hub, CO2 can be trapped within a sufficiently thick reservoir interval by migration assisted and dissolution trapping mechanisms. Similarly, a formation may act as a waste zone to slow the GHG migration and might not be termed either a reservoir or a seal under tradition classification.	
95	CarbonCQ	s.5	**Potential GHG injection site** means a ~~place~~ surface location that is a suitable place to ~~make~~ drill (or establish) a well or wells to inject a GHG substance into a part of a geological formation; See also P.11 Submerged Lands Act 4. Terms used – Same wording for potential GHG injection site.	The wording in definition of the term 'Potential GHG injection site' aligns with that for this term in section 20 in the OPGGSA. DMIRS considers there are benefits in maintaining alignment with equivalent provisions in the OPGGSA especially with the likely prospect of cross-jurisdictional GGST projects in the WA and Commonwealth areas.
96	MEPAU	s.5(1)	MEPAU considers that the definition of **'GHG injection operation'** should be narrowed by proposing that paragraph (b) of this definition be moved to the definition of 'GHG operation'. The inclusion of monitoring operations in 'GHG injection operation' has implications for the grant of a GHG retention lease, given an applicant will need to prove that they are not currently in a position to conduct those operations, but may be in that position within 10 years.	Comment noted. The intent for including monitoring in the definition of GHG injection operations is to require the GHG injection licensee to monitor the injection operations to ensure the GHG injection is being conducted as planned and to allow for remedial action to be undertaken if necessary.
97	AGIG	s.5	It is important to ensure that saline aquifers that have the benefit of a regional seal in Western Australia are clearly identified in the PGERA as geological formations that can be classified as potential GHG storage formations and we suggest that "saline aquifers" be added as a particular listed example in the definition of "geological formation" in section 5 of PGERA. Further information is provided on page 4 of the AGIG submission.  Submission to DMIRS (Bill B) 13042	The Bill aligns with the OPGGSA in the definition of the term 'geological formation' by not specifying the type of geological formation. This example could be provided in Guidelines that will be prepared to accompany proposed Greenhouse Gas Injection and Storage Regulations.

98	Pilot Energy	S5	Pilot proposes an amendment to the GHG operation definition be made to incorporate the use of the innovative low impact CO2 based long duration energy storage technology.	Comment noted. However, the definition has been framed to facilitate the purpose of the PLAB 23 to provide for the permanent geological storage of GHG. Energy storage is not provided for under the PLAB 23 amendments.
99	MEPAU	ss.5(1) and 69B(1)(b)	MEPAU considers that the definition of **'geological formation'** suffices for oil and gas reservoirs, but it is not clear that it applies to a saline aquifer. These are more regionally extensive, and are likely to extend beyond the area of a GHG exploration permit, GHG drilling reservation, GHG retention lease or GHG injection licence.	The Bill aligns with the OPGGSA in the definition of the term 'geological formation' by not specifying the type of geological formation. This example could be provided in Guidelines that will be prepared to accompany proposed Greenhouse Gas Injection and Storage Regulations.
100	APPEA	Suite of GHG definitions from pages 18-20	Clarification required regarding the interaction between the new infrastructure types for both the PGERA and the PPA.	Clarification is not able to be provided in regard to this comment. There are no 'infrastructure types' in the PGERA and the PPA. The reference to GHG definitions on pages 18-20 does not provide any guidance.
101	GeoVault	s.6B	"For the purposes of this Act, a potential GHG storage formation is a part of a geological formation that is suitable for the **permanent** storage of a GHG substance injected into that part." Suggestion: In this and other section of the legislation, we suggest replacing "permanent" with "long term". Reason: With reference to the work of CCS expert Philip Ringrose (Norwegian University of Science and Technology, Trondheim, Norway): "CO2 Storage means long-term geological storage so as to isolate the CO2 from the atmosphere for 1000's of years. This process is not usually referred to as permanent disposal for several reasons: • CO2 is not a simple waste product (it is also an essential part of the carbon cycle). • Undesirable emissions of CO2 to the atmosphere only need, in principle, to be isolated from the atmosphere for a period of a few thousand years;	The PLAB 23 aligns with the OPGGSA in specifying permanent storage. DMIRS does not support the proposed suggestions in view of the benefits in maintaining alignment with equivalent provisions in the OPGGSA with the likely prospect of cross-jurisdictional GGST project in the WA and Commonwealth areas.

			• Permanent disposal is very difficult to ensure, while it is possible to demonstrate and verify safe long-term geological storage of CO2."	
102	GeoVault	ss.6B, 6C, 69E	Definitions of potential, eligible and identified GHG storage formations We support these definitions and the linked definitions of **spatial extent** and **fundamental suitability determinants**.	Comment noted. These terms align with the same terms in section 20, 21 and 312(11) to (14) in the OPGGSA.
103	CarbonCQ	s.6C(2)	Whilst having no objection to this wording, a 100,000 tonne site will not be commercially viable. However, also see comments on 62. (3) (e) and (f) below. See also P.15 4b (2) Submerged lands Act – Same wording.	The PLAB 23 aligns with the OPGGSA in setting a minimum amount of 100,000 tonne of a GHG substance quantity for determining an eligible GHG storage formation. The reason for choosing this amount, however, is not known. It is noted that this is also the amount recently chosen for the Safeguard Mechanism, administered through the National Greenhouse and Energy Reporting Scheme, which applies to facilities that emit more than 100,000 tCO_2-e of covered emissions in a financial year across a broad range of industry sectors, including electricity generation, mining, oil and gas extraction, manufacturing, transport, and waste.
104	CarbonCQ	s.6C(3)	This wording is acceptable. However, for (b) see comments below on closing certificate 69(HX). See also P.15 4b(3) Submerged lands Act – Same wording.	In regard to the timeframe for the term 'spatial extent', see response for comment #55.
105	GeoVault	ss.6D, 6E	Definitions of incidental and primary GHG We support these definitions but would suggest adding a clause to allow for the regulations to include other agents alongside detection agents as there may be technological breakthroughs for agents not yet identified that could aid GHG injection and trapping (e.g. surfactants).	Comments noted. DMIRS is cognisant that rapid technological advances occur in the petroleum industry and that legislation should be drafted to allow for these advances without the need for continual need to amend the legislation. However, to achieve the WA Government's aim of early introduction of GHG storage legislation it is considered important to maintain alignment with the OPGGSA and keep the definitions of primary GHG substance' in section 5(1), 'greenhouse gas substance' as detailed in section 6E(1) and 'incidental greenhouse gas-related substance' in section 6D of the PGERA and sections 4(1), 4D and 4C(2) respectively in the PSLA.
106	MEPAU	s.6E	MEPAU seeks confirmation that, as currently defined, the definition of GHG substance or GHG would allow (as part of a mixture of a primary greenhouse gas substance with an incidental greenhouse gas-related substance) for additives necessary for the proper management of injection facilities	The definitions of primary GHG substance' in section 5(1), 'greenhouse gas substance' as detailed in section 6E(1) and 'incidental greenhouse gas-related substance' in section 6D of the PGERA and sections 4(1), 4D and 4C(2) respectively in the PSLA

			and the injection process to be included in the GHG injection stream (i.e., not solely detection agents). If that is not the case, then MEPAU believes that the inclusion of such additives in the GHG injection stream should be specifically contemplated and permitted in the definition of GHG substance or GHG.	align with the OPGGSA in not listing 'additives' apart from detection agents.
107	AGIG	s6E	Section 6E (definition of **greenhouse gas substance**): • s 6E may contain a typo: Sub-section (2) provides that "*Sub-section (1) applies only if….*" However only ss6E(1)(b) is stated to be subject to ss(2). Sub-section (2) should refer to ss(1)(b). • s 6E(2) provides that incidental GHG or detection agents are only considered to be GHGs if the mix is predominantly a primary GHG and where the mix includes a detection agent, *the concentration of the detection agent in the mix is not greater than the prescribed concentration*. The carve-out in relation to "detection agents" in s6E(2)(b) (underlined in italics above) could inadvertently stop GHG being correctly categorised if there is an accidental overdose of a detection agent into GHG being ed. AGIG suggests that s6E(2)(b) is deleted and a slightly more flexible provision is inserted to the effect that: if an added detection agent concentration is materially greater than the prescribed level, GHG operator must take steps to remedy. • Section 6E (definition of 'incidental greenhouse gas-related substance'): AGIG suggests that examples of incidental GHG be provided for transportation, injection or storage to clarify what is intended to be captured in the definition.	Thank you. This was an error that has been subsequently corrected. Comments acknowledged. However, the wording in section 6E(2)(b) is the same as in the definition in the OPGGSA. The benefit in maintaining the same wording in section 6E(2)(b) with that in the OPGGSA is considered necessary to assist the WA Government's aim of early introduction of GHG storage legislation and with the likely prospect of cross-jurisdictional GGST project in the WA and Commonwealth areas. Agreed. This example could be provided in Guidelines that will be prepared to accompany proposed Greenhouse Gas Injection and Storage Regulations.
108	CCWA		'GHG substances' is inadequately defined. The proposed legislative changes do not adequately define a GHG substance, and s6E(1)5, for example, only specifies that a GHG substance or GHG be a 'primary greenhouse gas substance'6, in a gaseous or liquid state, and can include a mixture of GHG substances, or a greenhouse gas-related substance. This definition does not explicitly exclude halogenated gases, which include powerful GHGs (such as refrigerants,	The PLAB 23 Bill provides for transport and permanent geological storage of GHG substances. The PLAB 23 aligns with the OPGGSA in the definitions of the terms 'primary greenhouse gas substance' in section 5(1), 'greenhouse gas substance' as detailed in section 6E(1) and 'incidental greenhouse gas-related substance' in section 6D of the PGERA and sections 4(1), 4D and 4C(2) respectively in the PSLA. The Explanatory Memorandum for the Bill that became the OPGGSA provided the following information on the definition of

			persistent organic pollutants and other ozone depleting substances), or even other industrially derived hazardous materials that are not in themselves GHG substances but could fall within the definition of a greenhouse gas-related substance. While CCWA acknowledges that CO2 makes up the bulk of industrial GHG emissions, methane, nitrous oxide, halogenated gases, metals, and other hazardous or persistent compounds, are contained within industrial emissions and should be considered for their potential for environmental harm in scenarios of injection and storage, and failure of these processes. CCWA believes there should be explicit exclusions to prevent any of the halogenated gases from being injected and stored, as means of waste disposal, or as part of a mixture with other industrially derived GHG substances. CCWA also believes that other industrially derived hazardous substances that are GHG-related should be carefully evaluated for their environmental impact under conditions of injection and storage. These evaluations necessarily require testing of GHG substances to establish their content. In addition to the provisions of s6E(1), s6B7 does not require a GHG substance to be identified as part of investigations into *potential GHG storage formations*. CCWA argues that it is critical that the storage provisions for GHG substances explicitly direct investigations to match the GHG substance to be injected and stored against any potential environmental impact pathways associated with that GHG substance. Again, this is particularly pertinent for the injection and storage of halogenated gases and other hazardous emissions that may be incidentally captured together with GHG substances. Furthermore, Australia has obligations under the Stockholm Convention concerning the disposal of wastes containing persistent organic pollutants (POPs). Therefore, it is important that all industrial wastes/emissions proposed for injection are tested for the presence of POPs and other hazardous pollutants that could feasibly be contained in the emissions stream of industry (including mercury and lead containing compounds, dioxins and furans) or which may be considered for disposal via injection and storage, for example, some ozone depleting substances that may meet	GHG substance to clearly state that storage of pollutants, hazardous waste and materials is not permitted. *'For practical purposes, when the amendments made by this Bill commence, greenhouse gas substance will mean carbon dioxide, together with any substances incidentally derived from the capture, transportation, injection or storage processes, with the permitted or required addition of chemical detection agents to assist the tracing of the injected greenhouse gas substance.* *There is a power by regulation to extend the meaning of greenhouse gas substance to include other greenhouse gases. This regulation-making power is not expected to be used until such time as the Protocol to the London Dumping Convention is amended to permit geological storage of those other greenhouse gases. In accordance with that Protocol, it will be an offence to add a waste substance or other matter to a greenhouse gas substance for the purposes of disposal.*

			the GHG substances definition in the proposed legislative instrument/s. Recommendation 7: A GHG substance must be more clearly defined and must explicitly exclude substances listed as environmentally persistent under the Stockholm Convention. Recommendation 8: Injection and storage of GHG substances must explicitly exclude the injection and storage of hazardous waste that also meets the proposed definition of a GHG substance Recommendation 9: Hazardous materials included in industrial emissions must be identified and removed from captured GHG substances.	
109	AGA	s.7	In the first line, insert the word “net” between “The” and “taking” to say “The net taking or use of any water for the purposes of any operations…” Water that is produced and then reinjected into the same formation should be excluded from this definition – it is the net amount of water extracted from a given formation that is relevant.	Section 7 is not being amended by the PLAB 23. This recommended amendment is not related to GGST and, therefore, is not within the approved scope of the PLAB 23. This comment has been noted for consideration in a future Bill which would allow for amendments relating geothermal energy.
110	CarbonCQ	s.11	Highly commended. This gives the Minister the power to conduct work as part of pre-feasibility studies. This is similar to the work that was undertaken by DMIRS at the SW Hub which utilised the Mines Act as part of the initial data gathering. Additional work on pre-competitive data is a matter that the Government should give further consideration to as GHG storage formations are likely to lack sufficient data for commercial consideration prior to release for exploration.	Comment noted.
111	AGIG	s.15	d. Section 15 does not contain the full list of title references – at least s48CAA and s43DAA should also be listed.	Thank you. There have been subsequent changes made to the section references in section 15 following changes made to the sections that detail the ‘rights conferred’ by titles under the PGERA.
112	APPEA	s.15A	This section is problematic to apply – on grant vs activity. Consistent application of this section is needed and this should distinguish between exploration, access and other low impact activities. I.e. for the purposes of carrying out activities that approved by the Minister (Seismic, wells, facilities) within Reserves,	The PLAB 23 extends the existing provisions that require the Minister’s consent for entry onto reserves for the purposes of exploration for petroleum or geothermal energy resources or for carrying out operations for the recovery of petroleum or geothermal energy resources, to now include carrying out GHG operations.

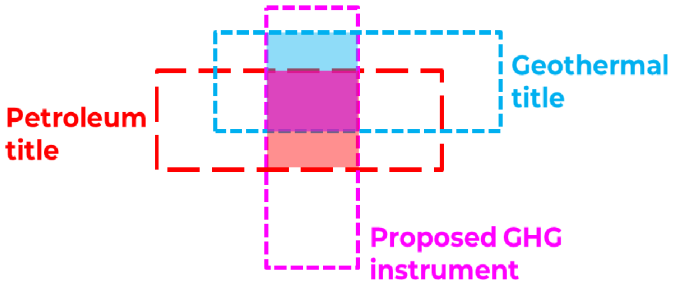
			then apply s.15A. Where the actual exploration activity is the impact and not associated access.	The comment received is a general comment on the application of this provision rather than the amendment in the PLAB 23.
113	MEPAU	s.17	MEPAU considers that it would assist industry if this section explicitly allows an application to the District Court of Western Australia or the Supreme Court of Western Australia if the parties cannot agree the amount of compensation within the prescribed time and the amount of compensation is likely to exceed the jurisdictional limits of the Magistrates Court of Western Australia or District Court of Western Australia.	The PLAB 23 extends the existing provisions that provide that no compensation is to be paid to the owners and occupiers of private land for any gold, minerals, petroleum, geothermal energy resources or geothermal energy known, or supposed to be on or under the land, to now include potential GHG storage formations or potential GHG injection sites. GHG applies to this section by virtue of definition of permit, drilling reservation, lease, licence, special prospecting authority or access authority including GHG. The amendment proposed is a general comment on the application of this section, rather than the PLAB 23 amendment, and has been noted for consideration in a future Bill which would allow for amendments relating to the petroleum and geothermal energy provisions of this section.
114	GeoVault	s.27	Change the graticulation from 5 minutes to 1 minute. Reason: Reducing the graticulation from 5 minutes to 1 minute for GHG storage blocks will provide better resolution when designing permits. This will provide more flexibility to the government and GHG storage proponents to propose GHG permits that avoid sensitive cultural, environmental and Native Title areas. The practical outcome of reducing overlap with sensitive areas is that community and stakeholder perceptions about GHG storage impacting on sensitive areas can be mitigated up front via avoidance which will support the GHG storage industry's social licence to operate.	Recommendation noted. However, the purpose of the proposed PLAB 23 is to provide for the transport and geological storage of GHG. The recommended change to the graticulation of the earth's surface will also impact on petroleum and geothermal titles and is, therefore, not within the approved scope of the PLAB 23.
115	AGIG	s.29(3)	A petroleum licensee should be entitled to explore for potential GHG storage formations within the area of its licence. The changes to section 29(3) may prevent the holder of a petroleum production licence acquiring the information necessary to allow it to apply for a declaration of an identified GHG storage formation extending to the area of its petroleum licence. We are concerned that, if the changes to section 29(3) are made (so as to limit rights to explore for "potential GHG storage formations"), the holder of a petroleum production	The GHG amendments proposed by the PLAB 23 to the rights of a licensee in section 62 follow the current approach in the PGERA in regard to rights to explore. Currently, in section 62(1)(b) a petroleum production licensee is only entitled to explore for petroleum and in section 62(2)(b) a geothermal production licensee is only entitled to explore for geothermal energy resources. The PLAB 23 maintains this approach, although the geothermal reference is now section 62(3)(b), and also provides in section

			licence may not be able to acquire the information necessary to allow it to apply for a declaration of an identified GHG storage formation within its existing title. It seems incompatible with the intention that existing titleholders be given application rights with respect to GHG titles in areas with which they are already operating and familiar (and in which they likely have infrastructure already situated which may be used for GHG operations) but then could be precluded from exercising those rights if not first granted GHG exploration rights that enable exploration of the relevant formation. As already noted above, we are generally concerned that, if the changes to section 29(3) are made (so as to limit rights to explore for "potential GHG storage formations"), the holder of a production licence may not be able to acquire the information necessary to allow it to apply for a declaration of an identified GHG storage formation. This concern is heightened by the fact that we cannot see a right for an existing petroleum licensee to apply for and obtain a GHG exploration permit over the area of its production licence (at all or on a priority basis).	62(4)(c) and (d) that a GHG injection licensee is only entitled to explore for a potential GHG storage formation or for a potential GHG injection site. New section 29(3) aligns with section 29 (1) and (2) in requiring that only a GHG exploration permittee or the holder of a GHG drilling reservation can explore for a potential GHG storage formation or for a potential GHG injection site. The direct access entitlement for petroleum and geothermal lessees and licensees to apply for a declaration of an identified GHG storage formation and the grant of a GHG retention lease or a GHG injection license provides the opportunity to bring forward GHG storage projects that may otherwise be delayed by having to go through the acreage release process of advertising of blocks and the assessment of bids. It is recognised that not all petroleum or geothermal lessees or licensees will be in the advanced position of having either the geological knowledge that would enable them to be able to submit an application for declaration of an identified GHG storage formation or a business case to be able to submit an application for a GHG retention lease or injection licence. In these cases, a petroleum or geothermal lessee or licensee could pursue exploration for a for a potential GHG storage formation or for a potential GHG injection site by applying for the grant of a GHG exploration permit GHG title through an acreage release process.
116	GeoVault	s.30	We support the inclusion of proposed GHG source, volume and composition information in the legislation on the assumption that the accompanying regulations will specify the specific information required.	Comment noted. This will be considered as part of drafting the proposed Greenhouse Gas Injection and Storage Regulations. If not in regulations, the specific information will be provided in Guidelines.

117	MEPAU	s.30A(4)-(5)	MEPAU notes that the reference to '(3)' in this subsection should be a reference to '(5)'. MEPAU would like to clarify with the DMIRS whether, in the case of multiple registered title holders, it is possible for one of those registered title holders to apply for a GHG retention lease or GHG injection licence in their own name (or whether all title holders must apply together). If the latter, then MEPAU submits that this section should be amended to allow a person to apply for a GHG retention lease or GHG injection licence even if not all registered holders of the specified titles consent (i.e., where there are multiple registered holders of the specified titles).	Thank you. This was an error that has been subsequently corrected. DMIRS will require that all the registered titleholders must apply for a GHG retention lease or GHG injection licence in the same manner as currently required for petroleum and geothermal titles. However, DMIRS will consider this as a future amendment if it considered necessary to facilitate GHG storage activities.
118	AGIG	s.30A	AGIG has some suggestions around the notice to relevant titleholders provided for in proposed s30A. In particular, to avoid uncertainty for DMIRS in determining who to notify, and arguments from titleholders with respect to whether they should have been notified, the drafting should be amended so that: (a) the notice is given to all titleholders with existing titles over the relevant blocks; and (b) the stay referred to in s30A(4) applies to any application for a GHG retention lease or a GHG injection licence by a relevant title holder made prior to the end of the day before the day of the proposed Gazettal. Further information is provided in section 3 on pages 6 and 7 of the AGIG submission.  Submission to DMIRS (Bill B) 13042:	In regard to suggested amendment (a), DMIRS will consider this as a future amendment. In regard to suggested amendment (b), DMIRS considers that provisions in 30(4) (a) should not change and that (4)(a) remains as the entitlement to apply for a GHG retention lease or a GHG injection licence is only for a relevant titleholder that has been notified by the Minister in 30(3).
119	APPEA	s.30A (s.69A)	GHG titles do not overlap. Section 69A Petroleum titles, geothermal titles and GHG titles may subsist in respect of same blocks. These title types can co-exist, provided the Minister complies with the existing provisions of section 69(A). The new additional information must be provided to the existing title holders: (a) the reasons put forward by the applicant for the grant of the relevant title;	Comments noted. However, for the purposes of section 30A, DMIRS has decided that the PLAB 23 will align with the equivalent section 297 in the OPGGSA and notify lessees and licensees of the proposed advertisement of GHG blocks. Please note that since the release of the consultation draft, amendments have been made to the PLAB 23 to remove the eligibility for petroleum and geothermal permittees and holders of a petroleum and geothermal drilling reservations to make an application for a GHG retention lease or a GHG production licence.

			(b) the legitimate business interests of the holder of the existing title; (c) the effect of the operations to be carried out under the proposed title on the operations carried out under the existing title; (d) the operational and technical requirements for the safe, efficient and reliable conduct of operations under both titles; information about any other matters the Minister considers relevant. **APPEA heavily suggests guidance be prepared and issued by DMIRS in their expectation of these co-existing land uses.** At present, the Petroleum Act does not contain a comprehensive regime for managing overlapping title interests. DMIRS' practice to date has been to issue an endorsement on the grant of both petroleum and geothermal titles requiring holders to consult and develop constructive working relationships. A guide note has not yet been published and no consultation has yet occurred on this particular issue. APPEA is concerned that this leaves both the petroleum and geothermal industries uncertain as to how DMIRS will administer any issues should they arise between overlapping petroleum and geothermal titles. Furthermore, the powers under section 153 of the Petroleum Act to make regulations for the control and regulation of the following could be enacted to provide for such a regime: section 153(2)(a) – the exploration for petroleum or geothermal energy and the carrying on of operations, and the execution of works, for that purpose; section 153(2)(b) - the recovery of petroleum or geothermal energy and the carrying on of operations, and the execution of works, for that purpose; section 153(2)(h) the keeping separate of — (i) each petroleum pool discovered in a permit area, drilling reservation, lease area or licence area; and (ii) each source of water discovered in a permit area, drilling reservation, lease area or licence area; and section 153(i) - the prevention of water or other matter from entering a petroleum pool through wells.	Section 69A describes the types of petroleum and geothermal titles that can subsist on the same block. That is, exploration permits, drilling reservations, retention leases, production licences, special prospecting authorities or access authorities. The PLAB 23 extends this section to now include equivalent GHG titles. The section provides that petroleum, geothermal and GHG titles may overlap each other. It allows for the concept of multipurpose land use by providing that the Minister must write to the registered holder of the existing title, giving at least one month's notice of the Minister's intention to grant a new title and requesting information for the Minister to consider before a new title is granted. This process is a consultation mechanism rather than a right to veto an application. DMIRS has recently sought public comment on a proposed draft – Guide note on the management of subsisting petroleum and geothermal titles. The draft guide note addresses the principles and considerations to guide DMIRS officers in the management of petroleum and geothermal titles which subsist with respect of the same blocks. The guide also seeks to assist applicants in identifying the information that DMIRS considers relevant to the assessment of an application for subsisting tenure. Submissions closed on 8 September 2023 and feedback received may mean amendments to either the Guide or section 69A. The Guide will need to be amended, in any case, due to the need to include GHG titles following passage of the PLAB 23.
120	CarbonCQ	s.30A	GHG permit holders should also be advised if the reverse (Petroleum and Geothermal advertising) is applied.	There are many synergies with the petroleum industry that mean that petroleum titleholders can easily move into GGST operations. The WA petroleum legislation has been adopted as the vehicle for

				the Bill because GHG storage uses many of the same technologies as the petroleum industry and many of the provisions in the bill follow the existing petroleum legislative regime. Existing petroleum and geothermal retention lessees and licensees have been considered to have sufficient operational experience and expertise to transition to GGST operations. The same could not be said for all petroleum and geothermal permittees or holders of a petroleum or geothermal DR despite some permits being in existence for as long as some licences. Providing eligibility to petroleum and geothermal retention lessees and licensees also enables fast-tracking of projects with the potential use of depleted reservoirs and existing infrastructure. With the GHG industry in its infancy, the WA Government does not have the same confidence that reciprocity provisions can be applied at this stage.
121	GeoVault	s.30A	"(2) This section applies if — (a) the Minister proposes to publish an instrument under section 30(1) inviting applications for the grant of a GHG exploration **permit in respect of a block or blocks** that is or are the subject of — (i) a petroleum exploration permit; or (ii) a geothermal exploration permit; or (iii) a petroleum drilling reservation; or (iv) a geothermal drilling reservation; or (v) a petroleum retention lease; or (vi) a geothermal retention lease; or (vii) a petroleum production licence; or (viii) a geothermal production licence; and (b) at the time of the proposal, the relevant title holder is entitled to apply for the grant of a **GHG retention lease or GHG injection licence** over the block or blocks." Suggestion: It is suggested that this section is reworded since there are difficulties in the practical application of the legislation as currently proposed. We assume the intention of this section is to allow existing title holders to leverage existing sub-surface knowledge	Suggested changes noted. However, DMIRS has decided that proposed section 30A will align with the equivalent section 297 in the OPGGSA and allow for petroleum and geothermal lessees and licensees to apply for a GHG retention lease or a GHG production licence. The option to apply for a GHG exploration permit or a GHG drilling reservation is not included in section 30A(2)(b) as these title types relate to exploring for potential GHG storage formations. The direct access entitlement to apply for the grant of a GHG retention lease or a GHG injection license provides the opportunity for petroleum and geothermal lessees and licensees that possess sufficient geological knowledge to bring forward GHG storage projects that may otherwise be delayed by having to go through the acreage release process of advertising of blocks and the assessment of bids. It is recognised that not all petroleum or geothermal lessees or licensees will be in the advanced position of having the necessary geological knowledge that would enable them to be able to submit an application for declaration of an identified GHG storage formation or a business case to be able to submit an application for a GHG retention lease or injection licence.

			which will expedite a GHG work program so that timeframes to first injection are reduced and to support the co-location of potential GHG emissions and/or geothermal energy generation within GHG storage.  *Figure 1: Illustration of overlapping titles* As shown in Figure 1, existing geothermal and petroleum titles are overlapping but not congruent in most cases. In the scenario given in Section 30A, a proposed GHG instrument will overlap one or more blocks of an existing title, but this could be different for each. In the illustration shown by Figure 1, there is an area where both the existing titles and the GHG instrument all overlap (shown in purple), and there are areas where only one title and the GHG instrument will overlap (shown in red and blue). In this scenario, both the geothermal and petroleum title holders will be given the option to make an application for a GHG retention lease or GHG injection licence only, and only over the blocks that overlap. Title holders will have 60 days to apply before the area is advertised. The section of the draft legislation does not allow for the existing title holders to make an application for a GHG exploration permit. Proposed changes: From: b) at the time of the proposal, the relevant title holder is entitled to apply for the grant of a **GHG retention lease or GHG injection licence over the block or blocks.**” To: b) at the time of the proposal, the relevant title holder is entitled to apply for the grant of **a GHG exploration permit or GHG drilling reservation or GHG retention lease or**	In these cases, a petroleum or geothermal lessee or licensee could pursue exploration for a for a potential GHG storage formation or for a potential GHG injection site by applying for the grant of a GHG exploration permit GHG title through an acreage release process. Please note that since the release of the consultation draft, amendments have been made to the PLAB 23 to remove the eligibility for petroleum and geothermal permittees and holders of a petroleum and geothermal drilling reservations to make an application.

			GHG injection licence <u>over the extent of the existing title. If the application is for a GHG exploration licence, then the permittee must convert this licence into a GHG retention lease or GHG injection licence within 12 months of the exploration licence being granted.'</u> Reason: This change would allow the existing title holder to build upon current knowledge of the geology of the title and to leverage co-existing activity. If the government is concerned with 'land banking' by the issuance of an GHG exploration title, we suggest the introduction of a time limit of 12 months to make an application for an identified GHG storage formation over the granted GHG exploration title. Since Section 48A requires that application for a GHG Retention Lease must be within 12 months of the declaration of an identified GHG storage formation, this will ensure that the right dynamic models are developed to support applications over a large enough area to ensure a developable and timely GHG injection project. Even existing title areas may not be large enough and we advocate for a mechanism to extend the title area if the results of a GHG exploration permit work program show that a larger area is necessary. (See later in this submission on the topic of "wholly" situated identified GHG storage formations). *Issues with ranking applications* If there are multiple applications from existing title holders (e.g., petroleum and geothermal), they will be ranked against each other. However, since the existing title holders are unlikely to be applying for the same acreage, this immediately poses a problem. The determination of the "most deserving" application is relatively straightforward when assessing competing bids for petroleum and geothermal titles for the same areas. But complications may arise when comparing two applications for different but overlapping areas for a GHG title *Issues with GHG Retention Lease / Injection Licence only provisions* In Section 48A of the draft legislation, it is stated that the holder of a petroleum or geothermal exploration permit or drilling reservation may apply for the grant of a GHG	Existing petroleum and geothermal lessees and licensees are only entitled to apply for the grant a GHG retention lease or a GHG production licence over a block or blocks that are the subject of their title. A response for managing the possibility of having two direct access applications for the same block, from overlapping petroleum and geothermal titleholders has been provided at comment #26. Please note that since the release of the consultation draft, amendments have been made to section 48A to remove the eligibility for petroleum and geothermal permittees and holders of

			Retention Lease as long there is an identified GHG storage formation. In Section 50AB of the draft legislation, it is stated that the holder of petroleum or geothermal exploration permit or drilling reservation may apply for the grant of a GHG injection Licence, as long there is an identified GHG storage formation. In Section 69B of the draft legislation, the requirements for the grant of a declaration of identified GHG storage formation requires information that can only be derived from a mature dynamic reservoir model, to support the prediction of amount, extent etc of injected GHG. Section 30A of the draft legislation states that the Minister must, at least 60 days before the proposed publication of the instrument, notify the relevant title holder of the proposed publication. The holder of an existing geothermal exploration permit, petroleum exploration permit or drilling reservation may apply for the grant of a GHG retention lease of GHG injection licence, which will require an identified GHG storage formation. The modelling required to support an application for an identified GHG storage formation will take longer than 60 days to complete as it will require the gathering of the correct data, creation of static models to test impact of relevant inputs, and then allow time to create and run various dynamic models to show plume migration under different scenarios such as varied injection rate, time, number of injection sites etc. Section 69B also states that the part of the eligible GHG storage formation deemed to have been "identified" must be wholly situated within the existing permit/ reservation/ lease/licence area. In the scenario shown in Figure 1, even if there was an existing and appropriate model developed by the existing title holder, it would have to be relevant to the overlapping area only, which may not be the case at this stage. As currently written under Section 30A, an existing title holder would be required to have a declared identified GHG storage formation over exactly the overlapping area, or to	a petroleum and geothermal drilling reservations to make an application. Please note that since the release of the consultation draft, amendments have been made to delete section 50AB and move the provisions to section 50AA. Subsequent to this, amendments were made to section 50AA to remove the eligibility for petroleum and geothermal permittees and holders of a petroleum and geothermal drilling reservations to make an application for a GHG injection licence. Proposed section 30A aligns with equivalent provisions in section 297 of the OPGGSA in allowing a minimum of 60 days for the Minister to notify petroleum and geothermal lessees and licensees of the proposed release of GHG acreage. The requirement to notify an existing petroleum titleholder was introduced as a late Opposition Senate amendment to the OPGGSA in 2008 primarily to deal with the rights of the existing petroleum titleholders and allow the licensees and lessees of oil and gas titles to be able to intercede and stop a geosequestration proposal. The Hansard record did note that the Senate also recognised that the LNG industry on the North-West Shelf would produce substantial portions of CO2 as a by-product and the oil and gas producers in the North-West Shelf would have ready access to their existing tenements for the geosequestration of those GHG into the future. The 60-day timeframe was introduced as part of the Senate amendments and has remained in the OPGGSA since that time. The benefit of maintaining alignment with equivalent provisions in the OPGGSA is considered to outweigh the recommended change especially with the likely prospect of cross-jurisdictional GGST project in the WA and Commonwealth areas.

			achieve this within 60 days, which is not practically achievable. *Issues with applications over overlapping block(s) only* It is desirable for GHG storage projects to be situated in areas where there are options to scale the project through time with the addition of new injection sites to most efficiently store CO2 within the available pore space. The scope of a project will be limited at the very start of the development cycle if it is commenced within a small area (such as one graticular block). In line with the global trend towards the development of GHG storage hubs, we suggest that a larger initial title is most suitable to achieve the necessary economies of scale, especially given the remote location of many of WA's suitable onshore GHG storage basins.	The comment for the need for a larger initial title is understood but it is considered that the proposed Bill provides for this by not stipulating a maximum number of blocks in section 31 for an application for a GHG permit. The only restriction on the number of blocks is in the direct access provisions where existing petroleum and geothermal lessees and licensees are only entitled to apply for the grant a GHG retention lease or a GHG production licence over a block or blocks that are the subject of their title. If this restricted number of blocks is not suitable, the existing petroleum and geothermal lessees and licensees could nominate the blocks and the larger surrounding areas as being suitable for a future acreage release.
122	CarbonCQ	s.30A(3)	This is a major issue for potential GHG explorers such as in the South West where EP's have been held for a long time and are subject to certain exploration limits (Government Policy – Fracking ban). This part of the act is not suitable for Greenfield sites and is more suited to areas where existing Petroleum or Geothermal activity is being undertaken.	Comment noted. Section 30A is specifically for areas where petroleum and geothermal retention leases and production licences exist and is to provide the entitlement for lessee or licensee to have priority in the grant of the GHG retention lease or a GHG injection licence without having to apply through the advertisement process. Please note that since the release of the consultation draft, amendments have been made to the PLAB 23 to remove the eligibility for petroleum and geothermal permittees and holders of a petroleum and geothermal drilling reservations to make an application for the grant of a GHG retention lease or a GHG injection licence.
123	AGIG	S30A – s32A	AGIG suggests the following drafting changes to s30A through to s32A to clarify the process and the definitions applicable to that section: i. s30(1) should insert the words "Subject to the process under s30A…" at the start of the section to avoid confusion. ii. s30A(1) or s30A(2) should clarify that a "relevant title holder" is limited to the holder of a pre-existing petroleum/geothermal title that overlaps the blocks that the Minister is proposing to invite applications for a GHG exploration permit over.	Section 30A has been re-drafted by the Parliamentary Counsel's Office (PCO) from the previously proposed section 31A in the 2013 Bill. In developing the GGST amendments, DMIRS provided instructions on the policy intent of the proposed amendments but PCO is responsible for the drafting to ensure that legislation gives effect to the policy. This responsibility also involves reviewing associated sections to ensure that provisions connect effectively. DMIRS considers that the wording in sections in sections 30 and 30A is sufficiently clear.

			iii. the opening words of s30A(4) should refer to subsection (5) not subsection (3)	Thank you. This was an error that has been subsequently corrected.
124	MEPAU	s.31(1)(c)	MEPAU queries whether a maximum number of blocks for a GHG exploration permit will be imposed. If so, MEPAU notes that the maximum number of blocks should be sufficient to allow the grant of a GHG exploration permit over a saline aquifer.	The proposed PLAB 23 aligns with the OPGGSA by not stipulating a maximum number of blocks in section 31 for an application for a GHG permit.
125	GeoVault	s.32A(2)	*"(2) The Minister may grant the permit whichever applicant, in the Minister's opinion, is **most deserving** of the grant of the permit, having regard to criteria made publicly available by the Minister."* We propose that criteria include a timeline to first injection. We foresee a scenario where an applicant could be successful in obtaining a title based on a large work program and expenditure commitment, resulting in a delayed timeline to injections, whereas another applicant could propose a sensible program of activity which would support an earlier first injection date.	Comment noted. This is a scenario that could equally apply where more than one application may be received for the same petroleum or geothermal block or blocks. The amendment to section 32A in the PLAB 23 is to extend the existing provisions to now include GHG exploration permits in addition to petroleum and geothermal exploration permits. The proposed criteria change cannot be applied to only GHG exploration permits and not petroleum and geothermal permits. However, this is outside the approved scope of the proposed PLAB 23 which is to provide for the transport and geological storage of GHG.
126	MEPAU	s.32A(2)	MEPAU suggests that the DMIRS clarify that the 'criteria made publicly available by the Minister' is the criteria that is published by the Minister in the invitation published in the Government Gazette that invites applications for the grant of a permit.	Suggestion noted. However, DMIRS considers that 'criteria' referred to in subsection (2) would be understood by the applicants after they have followed the earlier steps of applying for a permit under section 31 which, in turn, follows the advertisement of blocks in section 30.
127	APPEA	s.38A	Support the references to incidental consequence – these are sensible / pragmatic. With consent of Minister, title holder may (on an appraisal basis) inject/store GHG or inject/store air, petroleum or water in a part of a geological formation. What happens if the geological formation is on the boundary of a title? No apportionment provisions (such as 7A or 7B for geothermal and petroleum respectively).	Comment noted. Comment noted. Section 7A provides for a geothermal resource area to extend into two geothermal production licences and section 7B provides for various situations of petroleum pools extending into two petroleum licence areas or other jurisdictional areas. These provisions are to determine property rights and apportionment agreements for royalty purposes. The same situation does not exist for GHG storage and the PLAB 23 aligns

			Question also applies to: • Drilling Reservations • application for/ grant of GHG retention leases or GHG injection licences over some of the blocks that constitute an identified geological formation only. • Contradiction in the Act? Rights under a GHG injection licence require the identified GHG storage formation to be wholly situated in the licence area (for example – see s 62(a) and 62(b)). What happens to the recovered petroleum or geothermal energy that is not the property of the GHG permittee? How is it transferred to the State? Or is it required to be disposed of?	with the OPGGSA in not making any GHG amendments to these sections. Similarly, there are no GHG amendments to section 69 for unit development. The rights conferred by a GHG drilling reservation are detailed in section 43DAA and are equivalent to those for a GHG exploration permit in section 38A. Under section 50AA(1)(c) a GHG permittee may apply for the grant of an injection licence over the block, all of the block or some of the blocks that constitute the 1 or more identified GHG storage formations. One a licence is granted, the rights under section 62(6)(a) and (b) stipulate that the identified GHG storage formation must be wholly situated withing the licence area, The destination of the recovered petroleum or geothermal energy is something the Minster may consider in granting approval for the recovery on an appraisal basis. The recovered petroleum or geothermal energy would not become the property of the GHG title holder.
128	AGA	s.38A	The provisions to allow the assessment of petroleum or geothermal resources encountered incidentally during GHG operations in an exploration permit ((g) and (h)) should also be included in S.38(1) for to allow similar testing of geothermal or GHG resource potential encountered incidentally during petroleum operations in a petroleum exploration permit, and S.38(3) to allow similar testing of petroleum or GHG resources encountered incidentally during geothermal operations in a geothermal exploration permit. Similar caveats to those included in S.38A(3) and (4) regarding exclusion of property rights should also be included in regard to both petroleum and geothermal licenses.	Comments noted. DMIRS will consider this as a future amendment.
129	CCWA	S38A	GHG exploration permits should preclude petroleum and geothermal exploration. Under s38A(2)8 ‘rights conferred by GHG exploration permit’; s43DAA ‘rights conferred by GHG drilling reservation’; and in other sections, there is the provision for the recovery of petroleum and/or geothermal energy where	The rights under a GHG exploration permit in section 38A in the PGERA do not include the right to undertake petroleum and geothermal exploration. The provisions as to the recovery of petroleum and/or geothermal energy are for incidental purposes, that is, where a GHG permit

			discovery is incidental to drilling or injection. CCWA expects that if there is any intention or prospect of petroleum and/or geothermal energy being discovered/recovered, an exploration/recovery licence for the specific resource be sought, and an environmental impact assessment for that activity be undertaken. Under the current proposal, a proponent could use a GHG exploration permit to avoid environmental assessments or additional approvals for a potentially higher-risk activity that is different to the original proposal (being for GHG exploration or injection). Recommendation 11: GHG exploration permits should preclude petroleum and geothermal exploration/recovery to ensure that separate environmental assessments and approvals are carried out for these purposes.	holder is exploring and discovers (intersects) petroleum or geothermal energy resources during the exploration process. The GHG exploration permittee requires these rights in order that they can continue exploring (e.g., drilling) for the GHG purpose. Without these rights, if a GHG exploration permittee encountered petroleum and/or geothermal energy while they were drilling, they would be unable to proceed immediately upon intersecting petroleum or geothermal energy resources. In this regard, they may need to 'recover' small quantities of petroleum or geothermal energy resources during the drilling process, so that they can continue their GHG exploration activity (e.g., in deeper geological formations). Exploration activities that may occur under a GHG exploration permit will require approvals, including environmental assessments. The regulatory framework which currently applies to the regulation of petroleum and geothermal energy activities in WA will apply to GHG activities following amendments to current regulations. The existing regulatory framework for petroleum and geothermal energy requires that the operator include details of all environmental impacts and environmental risks of the activity, including those arising directly or indirectly from all aspects of the activity, and from potential emergency conditions whether resulting from accidents or any other cause. In this regard, the incidental discovery of petroleum and/or geothermal energy resources and any associated environmental risks and impacts, would reasonably be expected to be addressed in an environment plan for a GHG activity. Notwithstanding the above, the provisions of the *Environmental Protection Act 1986* will continue to apply to proposals, including GHG activities that may occur on exploration permits.
130	CarbonCQ	s.38A	This is significant in that it allows appraisal. The question is what the appraisal volume would be as earlier in (P.19) 6C (2) the amount referred to in subsection (1) of eligible GHG storage formation is greater than 100,000 tonnes. **The appraisal volume should allow up to 100,000 tons.**	As advised in the response for comment #106, the OPGGSA sets a minimum amount of 100,000 tonne of a GHG substance quantity for determining the eligibility of a potential GHG storage formation. The reason for this amount is not known. However, it is noted that this is also the amount recently chosen for the Safeguard Mechanism, administered through the National Greenhouse and Energy Reporting Scheme, which applies to

			See also 43DAA (1) 9c) and (d) on page 85. Similar wording on P.52 Submerged Land Act S28 A (c) (d) (e) (f).	facilities that emit more than 100,000 tCO_2-e of covered emissions in a financial year across a broad range of industry sectors, including electricity generation, mining, oil and gas extraction, manufacturing, transport, and waste. Regarding suggested maximum storage capacity for appraisal purposes, the purpose of appraisal is to test the suitability of the storage formation to permanently store GHG. DMIRS therefore believes that there should be no maximum storage capacity amount for appraisal as it would not lead to confirming that an eligible storage formation is suitable for the permanent storage of GHG.
131	GeoVault	ss.38A, 43DAA, 48CAA, s.62	We support the wording of these sections to include activities necessary to explore, appraise and inject for the purposes for understanding the suitability of a potential GHG storage formation and conducting GHG injection for the purposes of long-term storage.	Comment noted
132	MEPAU	ss.38A(1), 48DAA(1), 48CAA(1) and 62(3)	MEPAU considers that the references to 'the relevant well' should be to 'a relevant well', so that it is clear that the holder of these titles may have multiple wells in a title area.	The PLAB 23 aligns with the OPGGSA in using ‘the’ relevant well.
133	MEPAU	s.38A(1)(d), 48DAA(1)(d), 48CAA(1)(d) and 62(3)(f)	MEPAU queries the extent to which an injected GHG substance must stay within an identified GHG storage formation in circumstances where a person is appraising a geological formation under a GHG exploration permit, GHG drilling reservation, GHG retention lease or GHG injection licence.	The objective of undertaking injection on an appraisal basis is that the GHG substance remains stored within the identified GHG storage formation. The purpose of providing the right under a GHG exploration to inject and store a GHG substance on an appraisal basis under subsections (c) and (d) is to test proposed injection and storage operations. The aim should always be for total (100%) storage within the identified GHG storage formation; however, it is understood that testing may not always be a complete success. The proposed PLAB 23 aligns with the OPGGSA in not attempting to provide an acceptable non-compliance ‘tolerance’ amount.
134	MEPAU	ss.38A(1)(e)-(f), 43DAA(1)(e)-(f), 48CAA(1)(e)-(f) and 62(3)(g)-(h)	MEPAU notes that these sections permit the injection and storage of air, petroleum and water for the authorised purposes. However, MEPAU suggests that, on an appraisal basis, other substances be included, for example, nitrogen, detection agents or other inert gases (additives).	Comments noted. To achieve the WA Government’s aim of early introduction of GHG storage legislation it is considered important to maintain alignment with the OPGGSA. The PLAB 23 aligns with the OPGGSA in providing for the injection, on an appraisal basis of air, petroleum and water in addition to GHG substances.

				This will be considered for the first amendment of the GGST legislation.
135	MEPAU	ss.38A(1)(g) and 38A(2) ss.43DAA(1)(g) and 43DAA(2) ss.48CAA(1)(g) and 48CAA(2) ss.62(3)(i) and 62(4)	MEPAU notes that these sections declare that any petroleum that is recovered by the holder of a GHG exploration permit, GHG drilling reservation, GHG retention lease or GHG injection licence, in circumstances authorised by the Minister, does not become the property of that person. The circumstances (and manner) in which the holder of a GHG title would then safely manage and dispose of this petroleum are unclear. MEPAU also notes that the technical reality of authorised operations under a GHG title is that there may be some incidental extraction of petroleum. Similar to the above comment, the rights of the holder of a GHG title to own, and deal with, this petroleum is unclear. These circumstances do not seem to be contemplated by these sections.	The destination of the recovered petroleum is something the Minister may consider in granting approval for the recovery on an appraisal basis. The recovered petroleum would not become the property of the GHG title holder.
136	MEPAU	ss.40(4) and 40(2)-(3)	MEPAU queries why an application for renewal of a GHG exploration permit must be made so much earlier than an application for renewal of a petroleum exploration permit or geothermal exploration permit.	The PLAB 23 aligns with the OPGGSA in having different timeframes for the renewal of a GHG exploration permit compared to a petroleum exploration permit. However, these timeframes are the same as in the equivalent sections 119 and 308 respectively in the OPGGSA.
137	CarbonCQ	s.43A	(4) The Minister ~~may~~ will, in an instrument under subsection (1) inviting applications… It is important that GHG source and sink be linked at the earliest time. This will prevent potential GHG licensees from squatting on blocks.	The use of 'may' is standard drafting practice to provide that the requirement is at the discretion of the Minister. As detailed in the Interpretation Act 1984, where '*the word 'may' is used in conferring a power, such word shall be interpreted to imply that the power so conferred may be exercised or not, at discretion*.' Conversely, where '*the word 'shall' is used in conferring a function, such word shall be interpreted to mean that the function so conferred must be performed.'* The use of 'may' follows the same wording in section 43A(1) where the Minister may invite applications for the grant of a GHG drilling reservation permit following advertising of blocks. There are non-legislative processes in place to prevent 'squatting on blocks'. An application for a GHG drilling reservation under section 43B must include a work program for the drilling of a well or wells and other work and a statement of the approximate time of the completion of the well.

				DMIRS will ensure the successful holder of a drilling reservation adheres to the work program and time frames in the application. There is also significant fee for an application for a GHG drilling reservation and also for annual fees following grant of the title.
138	APPEA	s.43B	Any consideration to including definition of “petroleum deposit”? Comparable definitions included for geothermal (“geothermal energy resources”) and GHG (“potential GHG storage formation” and “potential GHG injection site”).	It is not considered that a definition is required. “Petroleum deposit’ is a term unique to section 43B but is currently used only twice. While the PLAB 23 amends this section, the use of the term has not increased.
139	AGA	s.43DAA	The provisions to allow the assessment of petroleum or geothermal resources encountered incidentally during GHG operations in an drilling reservation ((g) and (h)) should also be included in S.43D(1) for to allow similar testing of geothermal or GHG resource potential encountered incidentally during petroleum operations in a petroleum drilling reservation, and S43D(2) to allow similar testing of petroleum or GHG resources encountered incidentally during geothermal operations in a geothermal drilling reservation. Similar caveats to those included in S.43DAA(3) and (4) regarding exclusion of property rights should also be included in regard to both petroleum and geothermal drilling reservations.	Comments noted. DMIRS will consider this as a future amendment.
140	MEPAU	s.43DAA(1)(a)	MEPAU acknowledges that 'drilling reservation area' is defined, but, given the use of the term 'GHG drilling reservation area' in several sections, this term should also be defined.	Please note that since the release of the consultation draft, amendments have been made to add definitions for the terms: • Geothermal drilling reservation area, • GHG drilling reservation area, and • Petroleum drilling reservation area.
141	CarbonCQ	s.44	3 (a) and (b) refer to Petroleum and Geothermal discoveries. GHG locations are not about discovery, but rather about exploration, analysis, testing, extensive modelling and reviewing and are therefore entirely different to a new gas flow. The Section 44 (3) (c) section should not apply or will require extensive rewording. Preferred wording would be: “The Minister to be immediately advised after completion of static and dynamic modelling and also after any scheduled peer reviews.” See also Section 34 of the Submerged Lands Act.	Comment noted. DMIRS acknowledges the differences. However, DMIRS has elected to align the notification process and timeframe for a GHG permittee or the holder of a GHG drilling reservation to inform the Minister of a potential GHG storage formation or a potential GHG injection site to the current provisions for a petroleum and geothermal energy resources discovery in section 44. Equivalent section 451 in the OPGGSA requires notification within 30 days where a GHG permittee, lessee or licensee has

				reasonable grounds to suspect that that part could be an eligible GHG storage formation. However, DMIRS does not consider that the notification provision needs to apply to lessees and licensees due to the need for prior discovery of a GHG storage formation to progress to these titles. In addition, DMIRS takes a different view on the 30-day timeframe in the OPGGSA for notification of both a petroleum discovery and a GHG storage formation. Section 44 in the PGERA has always had Immediate verbal notification of a petroleum or geothermal discovery, followed by written notification after 3 days then submission of a discovery assessment report after 90 days. The shorter timeframe allows for early assessment of the discovery and enables advice and direction on the Minister's expectations for recovery if necessary. The same early interaction by DMIRS/Minister following notification of a potential GHG storage formation or a potential GHG injection site is considered necessary.
142	MEPAU	s.44(1)(c)	MEPAU queries how a potential GHG storage formation or potential GHG injection site is 'discovered'. MEPAU requests clarity about how a person should assess whether a discovery has been made and the time at which this notification obligation arises.	DMIRS will follow the Commonwealth and prepare Guidelines to assist with application of the legislation. For your information, a link is provided below to NOPTA's '*Offshore Greenhouse Gas Guideline for Declaration of Identified Greenhouse Gas Storage Formation and Notification of an Eligible Greenhouse Gas Storage Formation'* https://www.nopta.gov.au/_documents/guidelines/GHG-Guideline-Declaration-of-Storage-Formation.pdf
143	MEPAU	ss.44(2) and 48J(2)	MEPAU requests that the applicable discovery obligation should be substituted for 'permittee or holder of the drilling reservation'. MEPAU notes that, otherwise, it is unclear whether, for example, the holder of a GHG exploration permit is subject to an obligation to notify the Minister of petroleum if the GHG exploration permit includes any area within a petroleum permit area. MEPAU also notes that it may assist if 'discovery' is defined.	DMIRS considers that sections 44(2) and 48J(2) are sufficiently clear and do not require amendment. Titleholders only have obligations for the titles they have been granted. Sections 44(2) and 48J(2) relate to discoveries that titleholders are entitled to explore for. Sections 44(3) and 48J(3) relate to incidental discoveries of another 'resource'. The PLAB 23 aligns with the OPGGSA in not defining the term 'discovery'. The term is considered to be well understood and has been in the PGERA since commencement in 1967.

144	GeoVault	ss.44 and 48J	Suggestion: Change ***within the period of 3 days after the date of the discovery*** to ***within 90 days of rig release.*** Reason: Any formation could be deemed as a potential GHG storage formation. All of the overburden intervals as well as primary target intervals for GHG, petroleum and geothermal wells *could* have GHG storage potential. To impose a 3-day limit during active drilling is impractical and could lead to all intervals being declared a discovery to comply with the legislation. It could also require a level of understanding of GHG storage suitability outside of the experience level of some petroleum and geothermal title holders. If the intent is for the communication of knowledge derived from the drilling activity, then a report delivered within 90 days which is focussed on GHG potential would be more practical and useful.	The current notification provisions for petroleum and geothermal discoveries in sections 44 and 48J in the PGERA involve a three-step process: • immediate verbal notification, • written notification after 3 days, and • submission of a discovery assessment report after 90 days. The submission of a discovery assessment report is required under part 4 of the PGE (RMA) Regs 2015 in sections 34, 35 and 36. The discovery notification provisions for a potential GHG storage formation, or a potential GHG injection site follows the current timeframes for petroleum and geothermal discoveries.
145	CarbonCQ	s.48A	Similar to our comments on 30A above, this should not limit GHG exploration in Greenfields sites. We acknowledge that where there is existing Petroleum or Geothermal production that this may apply. This is a major issue for potential GHG explorers such as in the South-West where EP's have been held for a long time and are subject to certain exploration limits (e.g. no Fracking). This part of the act is not suitable for Greenfield sites and is more suited to areas where existing Petroleum or Geothermal activity is being undertaken. See also 48BBand 48BC.	Comment noted. However, please note that since the release of the consultation draft, amendments have been made to section 48A in the PLAB 23 to remove the eligibility for petroleum and geothermal permittees and holders of a petroleum and geothermal drilling reservations to make an application for a GHG retention lease.
146	GeoVault	s.48A	We support the proposed legislation that requires an application for a GHG retention lease within 12 months of the declaration of an identified GHG storage formation (equivalent to a Declaration of Location under petroleum and geothermal legislation). We also support the renewal terms (one renewal only and with an assessment that the applicant will be in a position to carry on injection operations within ten years).	Comment noted.
147	APPEA	ss.48B, 48BB, 48BC	Minister must be satisfied that the area in the block/s contains an identified GHG storage formation and applicant is not currently in a position to carry on a GHG injection operation, but likely to be so within 10 years. Will this be linked to commerciality like for petroleum and geothermal retention leases? What will be suitable grounds for not being in a position to carry on a GHG injection operation?	The purpose of the proposed PLAB 23 is to provide for the transport and permanent geological storage of GHG. In making application for GHG titles, the intent of the applicable titleholder is to ultimately conduct GHG injection operations. A GHG retention lease provides security of title where a GHG permittee or GHG licensee may not in a position to inject and permanently store a GHG substance.

				The key requirement for the Minister to consider for the grant of a GHG retention lease is whether the applicant is not, at the time of submitting the application, in a position to carry on a GHG injection operation but is likely to be in that position within the period of 10 years after that time. To be granted a GHG retention lease, the applicant must be able to demonstrate why they are not able to undertake GHG injection operations at the time of application and how they will be able to successfully do so within 10 years. The grounds for granting of a GHG retention lease are, therefore, operational and timing based and not connected to commerciality. Under section 48H, the grant of a GHG retention lease is taken to contain a condition that the Minister can provide 2 written notices requesting the lessee to provide a re-evaluation of whether the lessee is in a position to carry on a GHG injection operation.
148	MEPAU	ss.48B(7), 48BC(9), 48CB(9) and 54(5)	If these sections remain unamended by the Bill, relevantly, it appears that these sections may inadvertently cause any holder of a petroleum / geothermal exploration permit, petroleum / geothermal drilling reservation, petroleum / geothermal retention lease and petroleum / geothermal injection licence that applies for a GHG retention lease or GHG injection licence to lose the relevant petroleum / geothermal title upon the GHG retention lease or GHG injection licence being granted (as applicable). MEPAU assumes that this effect is an unintentional drafting error that should be corrected.	Separate responses are provided for each of the sections referred to. It should also be noted that since the release of the consultation draft, amendments have been made to section 48A in the PLAB 23 to remove the eligibility for petroleum and geothermal permittees and holders of a petroleum and geothermal drilling reservations to make an application for a GHG retention lease. **48B(7)** Section 48B relates to the grant or refusal of an application made under section 48A and the consultation draft listed the following: • Subsection (1) for a petroleum exploration permittee or holder of a petroleum drilling reservation applying for a petroleum retention lease, • Subsection (1a) for a geotherm exploration permittee or holder of a geothermal drilling reservation applying for a geothermal retention lease, • Subsection 1B for a GHG exploration permittee or holder of a GHG drilling reservation applying for a GHG retention lease, • Subsection 1C for a petroleum exploration permittee or holder of a petroleum drilling reservation applying for a GHG retention lease,

				• Subsection 1D for a geothermal exploration permittee or holder of a geothermal drilling reservation applying for a GHG retention lease. Subsections 1C and 1D have been subsequently deleted as a result of amendments made to section 48A in the PLAB 23 to remove the eligibility for petroleum and geothermal permittees and holders of a petroleum and geothermal drilling reservations to make an application for a GHG retention lease. Given these amendments, 48B(7) can remain as it correctly provides that a permit or a drilling reservation will cease to be in force on the grant of a • petroleum retention lease from an application from a petroleum exploration permittee or holder of a petroleum drilling reservation in (1), • geothermal retention lease from an application from a geothermal exploration permittee or holder of a geothermal drilling reservation in (2A), and • GHG retention lease from an application from a GHG exploration permittee or holder of a GHG drilling reservation in (2B). **48BC(9)** Section 48BC relates to the grant or refusal of an application made under section 48BB and the consultation draft listed the following: • Subsection 1 for a petroleum lessee applying for a GHG retention lease, and • Subsection 2 a geothermal lessee applying for a GHG retention lease. For this section, the former title should not cease on the grant of the GHG retention lease and previous subsection (9) has been deleted. **48CB(9)** Section 48CB relates to the grant or refusal of an application made under section 48CA and the consultation draft listed the following:

				• Subsection 1 for a petroleum licensee applying for a petroleum retention lease, • Subsection 2 for a geothermal licensee applying for a geothermal retention lease, • Subsection 2B for a GHG injection licensee applying for a GHG retention lease, • Subsection 2D for a petroleum licensee applying for a GHG retention lease, and • Subsection 2F for a geothermal licensee applying for a GHG retention lease. Amendments have been made to 48CB(9) and new subsection (10) added to correctly provides that a licence will cease to be in force on the grant of a • petroleum retention lease from an application from a petroleum licensee, • geothermal retention lease from an application from a geothermal licence, and • GHG retention lease from an application from a GHG injection licence. **54(5)** Section 48B relates to notices served under sections 53(1), 53(2A) and 53(2B). Section 53(1) relates to the grant of a petroleum production licence from application under • 50(1) from a petroleum exploration permittee or the holder of a petroleum drilling reservation, and • 50(A)1 from a petroleum lessee. Section 53(2A) relates to the grant of a geothermal production licence from an application under • 50(1a) from a geothermal permittee or the holder of a geothermal drilling reservation • 50(A)1A from a geothermal lessee. Section 53(2B) relates to the grant of a GHG injection licence roman application under:

				• 50AA from a GHG exploration permittee or the holder of a GHG drilling reservation • 50AB(1) from a petroleum exploration permittee or holder of a petroleum drilling reservation • 50AB(2) from a geothermal exploration permittee or holder of a geothermal drilling reservation • 50A(1B) from a GHG lessee • 50A(1C) from a petroleum lessee • 50A(1D) from a geothermal lessee • 50B(1) from a petroleum production licensee • 50B(2) from a geothermal production licensee. Section 50AB has been subsequently deleted due to the decision made to remove the eligibility for petroleum and geothermal permittees and holders of a petroleum and geothermal drilling reservations to make an application for a GHG retention lease. Given this, section 54(5) is correct to remain but only for sections: • for a petroleum production licence from a petroleum exploration permittee or the holder of a petroleum drilling reservation under 50(1) and from a petroleum lessee under 50(A)1, • for a geothermal production licence from a geothermal permittee or the holder of a geothermal drilling reservation under 50(1a) and from a geothermal lessee under 50(A)1A, and • for a GHG injection licence from a GHG exploration permittee or the holder of a GHG drilling reservation under section 50AA and a GHG lessee under 50A(1B). The inclusion of the following applications for a GHG injection licence was an oversight: • 50A(1C) from a petroleum lessee • 50A(1D) from a geothermal lessee • 50B(1) from a petroleum production licensee • 50B(2) from a geothermal production licensee. Section 54(5) has been amended to remove the these from the requirement for the former lease or licence to cease on the grant of the GHG injection licence.

149	AGIG	s.48BC(9)	When a GHG retention lease comes into force in respect of a block or blocks, s.48BC(9) provides that *"the petroleum retention lease or geothermal retention lease in respect of the block or blocks ceases to be in force in respect of that block or those blocks"*. We do not understand why coexistence is precluded in this case and suggest that this will prevent holders of existing retention leases from pursuing GHG storage operations Further information is provided in section 8(g) on page 10 of the AGIG submission.  Submission to DMIRS (Bill B) 13042	**48BC(9)** Section 48BC relates to the grant or refusal of an application made under section 48BB and the consultation draft listed the following: • Subsection 1 for a petroleum lessee applying for a GHG retention lease, and • Subsection 2 a geothermal lessee applying for a GHG retention lease. For this section, the former title should not cease on the grant of the GHG retention lease and previous subsection (9) has been deleted.
150	MEPAU	ss.48B(2B)(b)(ii) and 48BC(1)(b)(ii)	MEPAU queries the basis for assessing whether an applicant is not, at the time of the application, in a position to carry on a GHG injection operation, but is likely to be in that position within the period of 10 years after the application. Is this test directed at GHG injection operations (for example, assuming other requirements are satisfied, a GHG retention lease may be granted if an applicant is not in a position to conduct any operation to inject a GHG substance) or is this test assessing whether or not an applicant is in a position to apply for a GHG injection licence.	As stated in the response for comment # 151, the key requirement for the Minister to consider for the grant of a GHG retention lease is whether the applicant is not, at the time of submitting the application, in a position to carry on a GHG injection operation but is likely to be in that position within the period of 10 years after that time. It is not connected with the ability to apply for a GHG Injection Licence as GHG injection licensees are entitled to apply for a GHG retention lease for areas within their licence not required for injection purposes.
151	GeoVault	s.48BC(9)	Suggestion: This clause be removed for the granting of a GHG retention lease. Reason: We believe this proposed section of the legislation is a legacy of the usual journey from a petroleum or geothermal exploration permit to retention lease, where it is necessary for title to change rather than to run concurrently. However, it is appropriate that activities can continue concurrently if a GHG retention lease is granted over an existing petroleum or geothermal title. We can foresee a situation where the maturation of a petroleum extraction development, under a petroleum retention lease, is developed in tandem with a plan to capture and store GHG within the same block or block(s) under a GHG retention lease. The activity could occur alongside, above or below the petroleum-bearing intervals. The proposed legislation	**48BC(9)** Section 48BC relates to the grant or refusal of an application made under section 48BB and the consultation draft listed the following: • Subsection 1 for a petroleum lessee applying for a GHG retention lease, and • Subsection 2 a geothermal lessee applying for a GHG retention lease. For this section, the former title should not cease on the grant of the GHG retention lease and previous subsection (9) has been deleted.

			would prevent this from occurring. We also suggest that whenever a GHG permit, reservation lease or licence is granted, any existing titles (petroleum or geothermal) do not cease over the relevant block(s).	
152	CarbonCQ	s.48CAA	See comments on Pp. 67-68 3 8A. Rights conferred by GHG exploration permit: This should be specified as up to 100,000 tonnes.	Refer to response for earlier comments from Carbon CQ at #130.
153	AGA	s.48CAA	The provisions to allow the assessment of petroleum or geothermal resources encountered incidentally during GHG operations in a retention lease ((g) and (h)) should also be included in S.48C(1) for to allow similar testing of geothermal or GHG resource potential encountered incidentally during petroleum operations, and S48C(2) to allow similar testing of petroleum or GHG resources encountered incidentally during geothermal operations. Similar caveats to those included in S.48CAA(2) and (3) regarding exclusion of property rights should also be included in regard to both petroleum and geothermal retention leases.	Comments noted. DMIRS will consider this as a future amendment.
154	AGIG	S48CA	Proposed section 48CA(10) provides that the application period for an application under s48CA by a petroleum production licence holder/geothermal production licence holder for the grant of a GHG retention lease over a block or blocks to which a GHG storage formation extends is the period of 5 years from the date on which the production licence/geothermal licence was granted. This effectively eliminates AGIT from being able to apply on the basis of L9, as L9 was granted in 1987. AGIG suggests that the time limit be set from the date of enactment of the proposed amendments in the Draft Bill. But note that even such adjusted time limitation is only fair if, under the proposed amendments, a production licensee is given the opportunity to explore for “potential GHG storage formations”, either via its production license or pursuant to a right to obtain a GHG exploration permit (or other title), on a priority basis, over the area of the relevant “potential GHG storage formations” so that it may acquire the information necessary to allow it to apply for a declaration of identified GHG storage formation and a GHG retention or injection title within time.	Refer to response for comment 19.
155	GeoVault	s.48CA(10)	We support the provision for application for a GHG retention lease within the area of an existing production license for petroleum or geothermal resources as long as this does not	Refer to response for comment 19.

			extinguish the existing licence (as already addressed in this submission). We question the timeframe of 5 years for an existing licence as many production licences already exceed this timeframe from the date of first grant. If the intention of this time limit is to expedite the development of GHG storage via grant of retention lease in unused areas, we suggest that the 5-year period be for all new licences granted after the legislation has been passed. We also reiterate our comments on the co-existence of activities such as petroleum extraction and GHG storage in the same location under suitable circumstances, which would not need the area to be classified as "unused".	
156	CarbonCQ	s.48J	See comments above on: **44. Certain discoveries in permit area or drilling reservation area to be notified.** GHG locations are not about discovery, but rather about exploration, analysis, testing and extensive modelling and reviewing and are therefore entirely different to a new gas flow. This section does not apply or will require extensive rewording. Preferred wording would be: "The Minister to be immediately advised after completion of static and dynamic modelling and also after any scheduled peer reviews."	Refer to response for comment #141.
157	GeoVault	s.50A	The proposed legislation suggests that a petroleum or geothermal lessee could be granted a GHG injection licence if there is an existing GHG exploration permit or drilling reservation but not if there is an existing GHG retention lease or injection licence. An unintended consequence of this legislation could be that an entity has been awarded a GHG exploration permit, and has been following the agreed work program, but may have their area of GHG exploration awarded to another entity. It is suggested to replace ***neither a GHG injection licence nor a GHG retention lease exists*** with **neither a GHG injection licence nor a GHG retention lease exists <u>nor a GHG exploration permit nor a GHG drilling reservation</u>** This suggestion is repeated for Section 50B, Application by petroleum or geothermal licensee for GHG injection licence.	A GHG exploration permit or drilling reservation could exist over the same area as a petroleum or geothermal lease in force under s 50A. This would be through an acreage release and the petroleum or geothermal lessees would have the prior right to make an application for a GHG retention lease or injection licence under section 30A. If this option is not taken up and a GHG exploration permit or drilling reservation is granted, the petroleum or geothermal lessees cannot subsequently apply for a GHG lease or injection licence. The same situation would also apply in the case of a petroleum or geothermal licence under section 50B.
158	APPEA	s.50AB	Supported	Following a review of proposed direct access provisions, the Minister has decided that petroleum and geothermal permittees and holders of a petroleum and geothermal drilling reservations

				should not be eligible to make an application for a GHG retention lease or a GHG injection licence. Section 50A has therefore been deleted.
159	APPEA	s.50B	Supported See - 69A Petroleum titles, geothermal titles and GHG titles may subsist in respect of same blocks. Priority of projects should be considered. Guidelines/ policy by DMIRS for all overlapping titles are needed as a matter of some urgency. GHG Injection Licence The application must have an identified GHG storage formation, and the following: Details on the source of the GHG how much and how long? Do you have to have a commercial agreement in place or just a MoU and can it just be for 1 year etc? Volume of the formation; and – Does the volume have to be independently assessed?	Comments acknowledged. The proposed GHG provisions in subsections (6) and (7) (formerly (5A) and (5B)) align with equivalent provisions for subsisting petroleum and geothermal titles. DMIRS does not consider that the provisions in section 69A should advantage one title over another. The intent of the proposed amendments to section 69A is not to establish criteria to determine how subsisting titles would be granted. It was considered that this may be unnecessarily rigid and potentially detrimental to best interests of the WA community. Instead, the proposed amendments provide flexibility and discretion for the Minister to make a decision in the grant of a subsisting title within parameters of the legislation and the soon to be revised Guide note on the management of subsisting petroleum and geothermal titles. The consultation draft of the PLAB 23 included the requirement for an application for a GHG exploration permit, GHG drilling reservation or a GHG injection licence to include the source, volume, and composition of GHG to be injected and stored. This requirement is to demonstrate that proponents have a genuine interest in undertaking GGST projects, and it is not merely speculative or a means to warehouse suitable storage sites. While there is no equivalent provision in the Commonwealth OPGGSA, this provision was included in the WA 2013 Bill. The PLAB 23 is deliberately silent in not specifying the source of CO2 and, therefore, does not impose any restrictions on GGST projects. This aspect will be clarified in explanatory information to be prepared for future advertisement of the acreage release of GHG blocks and in the application forms for GHG explorations permits, GHG drilling reservations and GHG injection licences. Amendments have been made to the Bill to include 'initial' source, volume and composition to recognise the ability to vary the source and volume of GHG in the title grant process and also during

			composition of the GHG substance to be injected and stored – What if this changes over time and as the source changes?	injection operations. This flexibility was seen as important to enable the commencement of long-term GGST projects.
160	AGIG	s50B	Proposed section 50B(1) limits the right of a petroleum production licensee to apply for a GHG injection licence such that it only applies to certain production licences, being those that are "*in force under section 63(1)(c) or (2)*". This limitation would prevent s50B giving application rights to AGIT, whose production licence L9 was originally granted in 1987 and is currently in the period of its first renewal. L9 expires in 2029 and is therefore not in force under section 63(1)(c) or (2). AGIG submits that this limitation should be removed and s50B(1) ought apply to any licensee whose production licence is in force at the time of the application. AGIT has had many years of experience conducting operations and activities in the area of L9 and operates multiple significant facilities in the area of L9, therefore is in a better position to manage co-existing GHG activities and facilities in that area than another entity without that experience and access to facilities. We do not consider that the fact that L9 is not currently in force for an indefinite period should disentitle AGIT from applying for a GHG injection licence in the area of L9 and consider that this cannot be the intention of the drafting. There is no proposed requirement that the holder of a GHG injection licence simultaneously and at all times hold an overlapping petroleum production licence so the possibility for expiry of L9 after an application has been made for a GHG injection licence over the same area should not be relevant.	Refer to response for comment 19.
161	GeoVault	s.50B	Refer to comment for #157	Refer to response for comment #157.
162	CarbonCQ	s.62	Whilst this wording is similar to previous sections regarding appraisal, we have no objection to this wording, previously we have suggested up to 100,000 tonnes for appraisal, as we believe that the injection licence gives an automatic right to inject. However, this needs to be reviewed in the light of the minimum injection as per 19.6.(2) (c) being 100,000 tonnes. See Also P. 82 Section 38CAA of the Submerged Lands Act Amendments See also P. 93 Section 38J of the Submerged Lands Act Amendments. See also P. 115 Section 52 (2) of the Submerged Lands Act Amendments.	See response for comment #134.

163	AGA	s.62	The provisions to allow the assessment of petroleum or geothermal resources encountered incidentally during GHG operations in a injection license ((i) and (j)) should also be included in S.62(1) for to allow similar testing of geothermal or GHG resource potential encountered incidentally during petroleum operations in a petroleum production license, and S.62(2) to allow similar testing of petroleum or GHG resources encountered incidentally during geothermal operations in a geothermal production license. Similar caveats to those included in S.62(4) and (5) regarding exclusion of property rights should also be included in regard to both petroleum and geothermal production licenses.	Comments noted. DMIRS will consider this as a future amendment.
164	MEPAU	s.62(3)(a)–(b), 69B(1)(b)(ii) and 6C(1) See also, for example, ss.38A(1)(c)–(d), 43DAA(1)(c)–(d) and 48CAA(1)(c)–(d)	Is the intent of these sections to prevent the plume of a GHG substance from moving across contiguous GHG injection licences (including where held by the same registered title holder)? In MEPAU's view, this is the effect of the various sections when taken together. MEPAU considers this restriction to be limiting for conducting GHG operations, in particular in respect of any injection into a saline aquifer. The extent of the plume of a GHG substance is, among other things, a result of the volume of a GHG substance that is injected. Accordingly, if the plume of a GHG substance cannot extend across contiguous GHG injection licences, at a certain point, it may be challenging to inject additional volumes of a GHG substance into the identified GHG storage formation.	The PLAB 23 aligns with equivalent provisions in the OPGGSA to require that an identified GHG storage formation must be wholly situated within the relevant title area. This policy position has been made to achieve the WA Government's aim of early introduction of GHG storage legislation. It also recognises that the OPGGSA has successfully operated since 2008 and the need for consistency with Commonwealth legislation in view of the likely prospect of GGST projects operating across the WA and Commonwealth areas.
165	CCWA	S63	**A GHG licence remains in place indefinitely** Under the proposed changes to s63(4) of the *PGERA*, the 'Term of licence' allows for a GHG injection licence to remain in-force indefinitely, unless GHG injection operations cease to have been carried out for a continuous period of at least 5 years. While CCWA recognises that this provision is necessary to maintain ongoing overview of the injection site for a period following injection, it also presumably allows for ongoing injection of other allowable materials and the exploration/recovery of petroleum without a licence for that purpose (see point (6) above) for an indefinite period, if GHG injection operations are also maintained indefinitely. This licence provision requires review.	The indefinite term for a GHG injection licence aligns with the indefinite term for a petroleum and geothermal production licence in section 63 of the PGERA. The same change was also made for petroleum production licences in section 53 of the PSLA. Previously, production licences were for terms of 21 years but were changed to indefinite terms in 2010 to follow changes made in the Commonwealth petroleum legislation in 1998. The amendments to section 63 made the term of the licence to be for the life of the project and were in recognition that petroleum production projects are usually long-term and greater than 21 years. These amendments were complemented by introduction of a new section 64A where a licence may be terminated if there were no petroleum or geothermal production operations during a continuous period of 5 years.

				The proposed indefinite term for GHG injection licences follows equivalent provisions in the OPGGSA and also includes the termination of an injection licence if there has been no injection operation carried on for a continuous period of 5 years. A GHG Injection Licence will remain in force until injection operations have ceased, the site closing work program has been completed by the licensee, the licensee has lodged any required security for the ongoing monitoring program and the Minister has granted a site closing certificate. While a GHG injection licence is in force, the licensee is entitled to the other rights as listed in section 62 of the PGERA and section 52 in the PSLA. These indefinite term rights are the same as for a petroleum and geothermal licensee. The rights in section 62 of the PGERA and section 52 of the PSLA are also the same as those in equivalent section 357 of the OPGGSA for a Commonwealth GHG licensee.
166	APPEA	s.66	Supported. Clarify on third party access could be useful. Some may read this as agents rather than what I believe intent is – that GHG is an offset that third parties may wish to utilise. This reads like a hub / tolling arrangement – this is supported. Could be different ways to implement this – condition on a licence, reference to a prescriptive schedule of requirements, commercial / operating agreement, or new regulations made. Supported. Reads as though there will be allowance for third parties to access the equipment and storage to be injected into the formation.	The PLAB 23 extends the provisions of section 66, which provides that petroleum and geothermal production licences may be granted subject to such conditions as the Minister thinks fit, to also include GHG injection licences. The clause introduces provisions for regulations which may establish a regime for third party access to services provided by means of the use of (a) identified GHG storage formations; or (b) wells, equipment or structures for use in injecting GHG substances into identified GHG storage formations; or (c) equipment or structures for use in the processing, compressing or storing of GHG substances prior to the injection of the substances into identified GHG storage formations. The new GHG conditions in section 66(2A) and (2B) align with equivalent sections 358(12) and (13) in the OPGGSA. The Explanatory Memorandum for the Bill that became the OPGGSA provided the following information on subsections (12) and (13) *Part IIIA of the Trade Practices Act 1974 establishes a regime of compulsory third party access to services provided by means of infrastructure facilities. The question whether that regime was applicable to a particular identified greenhouse gas storage formation, or infrastructure used for injection and storage*

				operations or related operations, would have to be answered in light of the particular circumstances of the injection and storage project. If, for any reason, Part IIIA of the Trade Practices Act did not apply to injection and storage infrastructure, it might be considered desirable to establish a specialised third-party access regime by regulations under the Offshore Petroleum Act.' Subsections (12) and (13) make it a statutory condition of a GHG injection licence that the licensee will comply with such a regime.
167	CarbonCQ	s.66	We believe that GHG storage will need to operate within a normal regulatory environment and that a storage formation is a community asset. However, the regulations must take into account the commercial risk and costs incurred by the initial licensee and the ongoing viability of the project	Comment noted
168	GeoVault	s.66	We assume that the intention of this proposed legislation is to allow for the development of a hub with multiple sources of GHG. Although we support this concept, we would seek clarity on the feasibility of the regulations to overrule the legislation with regard to stipulations on source, composition and volume of GHG required for the grant of a licence as stated in Section 51. Could this be covered by an application for a variation to the GHG licence, and if so under which section?	The intention for the insertion of new subsections 2A and 2B is provided in the response for comment # 166.
169	APPEA	s.69A	Supported See the comment for section 30A	Comments noted. However, for the purposes of section 30A, DMIRS has decided that the PLAB 23 will align with the equivalent section 297 in the OPGGSA and notify lessees and licensees of the proposed advertisement of GHG blocks. Please note that since the release of the consultation draft, amendments have been made to the PLAB 23 to remove the eligibility for petroleum and geothermal permittees and holders of a petroleum and geothermal drilling reservations to make an application for a GHG retention lease or a GHG production licence. Section 69A describes the types of petroleum and geothermal titles that can subsist on the same block. That is, exploration permits, drilling reservations, retention leases, production licences, special prospecting authorities or access authorities. The PLAB 23 extends this section to now include equivalent GHG titles. The section provides that petroleum, geothermal and GHG titles may overlap each other.

				It allows for the concept of multipurpose land use by providing that the Minister must write to the registered holder of the existing title, giving at least one month's notice of the Minister's intention to grant a new title and requesting information for the Minister to consider before a new title is granted. This process is a consultation mechanism rather than a right to veto an application. DMIRS has recently sought public comment on a proposed draft – Guide note on the management of subsisting petroleum and geothermal titles. The draft guide note addresses the principles and considerations to guide DMIRS officers in the management of petroleum and geothermal titles which subsist with respect of the same blocks. The guide also seeks to assist applicants in identifying the information that DMIRS considers relevant to the assessment of an application for subsisting tenure. Submissions closed on 8 September 2023 and feedback received may mean amendments to either the Guide or section 69A. The Guide will need to be amended, in any case, due to the need to include GHG titles following passage of the PLAB 23.
170	AGA	s.69A	The premise of this provision is that petroleum permits will always take priority over geothermal permits. As the energy transition proceeds, this is increasingly unlikely to be the case. Consequently, any amendments to the Act should anticipate this situation and provide for equal treatment of different sorts of permits and licenses. Specifically, the wording of this clause should require a similar process for the grant of petroleum or GHG rights where a geothermal permit is already in place. Likewise, it implies that geothermal operations are inherently more likely to negatively impact petroleum or GHG operations than for petroleum or GHG operations to negatively impact on geothermal operations. This premise is fundamentally flawed due to the practice of geothermal operations to reinject the fluid that is removed from the formation resulting in minimal regional impact on the reservoir pressure. In addition, negative impacts can only occur during production operations of a project, so this provision should apply only to the grant of a production license.	The issue of overlapping titles and competing land use currently exists in the PGERA following the introduction of geothermal provisions in 2007. At that time, Division 3A was inserted to provide that petroleum titles and geothermal titles may subsist in respect of the same area. Section 69A describes the types of geothermal or petroleum titles that the provisions cover - that is, exploration permits, drilling reservations, retention leases, production licences, special prospecting authorities or access authorities. The section provides that a title for geothermal energy may overlap a petroleum title and visa versa. It allows for the concept of multipurpose land use by providing that the Minister must write to the registered holder of the first title, allowing at least one month's notice and take into account any matters that the person wishes the Minister to consider before a new title is granted. This process is a consultation mechanism rather than a right to veto an application.

				DMIRS has also prepared a 'Guide note on the management of subsisting petroleum and geothermal titles' which was recently released for stakeholder consultation. The Guide will be updated to include GHG titles and build on the new guidance provided in the proposed legislation.
171	CarbonCQ	s.69A	5A)-(5B) P.173 (5A) The Minister must not grant a GHG title on an application under this Act in respect of a block that is the subject of a petroleum title or geothermal title the registered holder of which is a person other than the applicant, unless the Minister has complied with subsection (5B). (5B) The Minister has complied with this subsection if the Minister — (a) has, by instrument in writing served on the registered holder of the petroleum title or geothermal title, given not less than 1 month's notice of the Minister's intention to grant the GHG title; and [etc.] Where a petroleum or geothermal title exists, but where there is no production such as in a greenfield location, or where specific State Government policy bans apply to extraction methods, this notice should not apply.	Comments acknowledged. The proposed GHG provisions in subsections (6) and (7) (formerly (5A) and (5B)) align with equivalent provisions for subsisting petroleum and geothermal titles. DMIRS does not consider that the provisions in section 69A should advantage one particular title over another. The intent of the proposed amendments to section 69A is not to establish criteria to determine how subsisting titles would be granted. It was considered that this may be unnecessarily rigid and potentially detrimental to best interests of the WA community. Instead, the proposed amendments provide flexibility and discretion for the Minister to make a decision in the grant of a subsisting title within parameters of the legislation and the soon to be revised Guide note on the management of subsisting petroleum and geothermal titles.
172	CarbonCQ	s.69B	69B is a very detailed and lengthy Section dealing with all aspects of the Application for an identified GHG storage formation. We have no issues with this Section but request notice of the comments made for section 69A:	Comments noted.
173	MEPAU	s.69B	Various persons may apply for a declaration of an identified GHG storage formation, which is, effectively, the means through which the Minister will approve a part of a geological formation as a geological formation that is suitable for the permanent storage of a GHG substance. Sections of the PGERA (for example, sections 50AA(1) and 50B(1)) then entitle certain persons to apply for a GHG retention lease or GHG injection licence if an identified GHG storage formation extends to a block. In circumstances where petroleum titles, geothermal titles and GHG titles overlap, the manner in which these sections operate together does not, in MEPAU's view, protect the interests of a person that may have deployed significant capital, including time and expenditure, to obtain a declaration of an	An application for the declaration of an identified GHG storage formation can be made by: • a GHG permittee, following successful bid from an acreage release, or • through direct access from a petroleum or geothermal lessee or licensee. The direct access right can be initiated either a) prior to the release of acreage through notification by the Minister under section 30A or

			identified GHG storage formation. MEPAU queries whether some form of priority right should be included for the person that applied for the declaration of an identified GHG storage formation.	b) at another time based on when the lessee or license has the geological knowledge of the storage formation to make an application. In either case, the right to make an application is only where the storage formation is wholly situated in the title area. If the lessee or licensee does not elect to make an application under situation a) and acreage for a GHG exploration permit is released, any overlap with an existing title will be managed through the proposed provisions in section 69A. If a GHG exploration permit is granted and the existing lessee or licensee then lodges a subsequent application for either a declaration of an identified GHG storage formation or a GHG lease or a GHG licence, this is also managed under section 69A. The intent of the proposed amendments to section 69A is not to establish criteria to determine how subsisting titles would be granted. It was considered that this may be unnecessarily rigid and potentially detrimental to best interests of the WA community. Instead, the proposed amendments provide flexibility and discretion for the Minister to make a decision in the grant of a subsisting title within parameters of the legislation and the soon to be revised Guide note on the management of subsisting petroleum and geothermal titles.
174	APPEA	s.69HA	Supported. References to Regulations Is the intent to amend the Resource Management and Administration Regulations (RMAR)? Will Site Plans operate like FMP? Why introduce s.69HA rather than amend s.153 regarding regulation making powers for site plans (such as for FMPs under RMA Regulations – see 153(2)(b) and presumably 153(2)(ba)).	Following assent of the PLAB 23, a secondary stage of legislative amendments will be required to give effect to the Bill and allow for commencement of the amendments. These include: • development of new GGST regulations, modelled on the Commonwealth Offshore Petroleum and Greenhouse Gas Storage (Greenhouse Gas Injection and Storage) Regulations 2011, and supporting Guidelines; and • broadening the existing Petroleum Environment and Resource Management and Administration Regulations, modelled on the equivalent OPGGSA Regulations, and their Guidelines to include greenhouse storage and transport. The site plan is the core document for each GHG injection and storage project and will form the basis for the day-to-day regulatory interaction between the injection licensee and the Minister. A site

				plan will operate in the same way that a field management plan does for petroleum recovery operations. Section 69HA follows the same wording as currently in equivalent section 457 of the OPGGSA and also follows the same approach for data management in section 116A and the recently deleted OSH provisions that were in section 149B.
175	APPEA	Subdivision 3 – serious situations	Consistent with OPGGS Act construct. Probably not required in such explicit detail given regulations will be amended and section 91 has also been amended. Section 95 has also been amended (Directions). Is DMIRS making sections that will ultimately be repealed under a consolidated act?	Subdivision 3 provides for the Minister to be able to deal with circumstances where injection and storage operations do not go as planned and there are, or may be, serious consequences. DMIRS has considered that a separate subdivision is necessary to: • demonstrate that serious situations will be addressed and that the Minister is able to direct the licensee to cease operations, if necessary, as well as taking any precautionary or remedial action, and • provide confidence and reassurance to WA public and local communities. It is agreed that section 69HC does duplicate the direction making provisions in section 95 which have been broadened to include GHG operations. DMIRS has no plans to repeal sections in subdivision 3.
176	MEPAU	s.69HB(a)	MEPAU queries the definition of 'leak' and its other grammatical forms. For example, is this directed at: - the movement of a GHG substance in the subsurface beyond the boundary of a title area; - the movement of a GHG substance between secondary containment layers or is it only directed at leakage from the primary containment layer; or - the surface or subsurface? MEPAU also requests clarity about the amount of a GHG substance that is necessary for it to constitute a 'leak' and the unit of measurement for that amount.	The wordings in section 69HB (a) and (b) aligns with OPGGSA section 379(1) (a) and (b). The Explanatory Memorandum for the Bill that became the OPGGSA details that a serious situation' under paragraphs (1)(a) and (b), includes that an injected GHG substance has leaked or is leaking or that there is a significant risk that it will leak, from the identified GHG storage formation. This refers to the injected GHG substance migrating outside the expected migration path. It does not necessarily mean that there is a risk of leakage into the atmosphere or into a place where there is potential damage to a resource, although these would of course be included. The WA Bill follows the OPGGSA in not specifying an amount or unit measurement for GHG substance leaks under subsections(a)

				and (b). It is also noted that this is not specified in the Offshore Petroleum and Greenhouse Gas (Environment) Regulations 2009. It should, therefore, be taken that any migration outside of the expected migration path is a leak and that the GHG licensee has discretion to determine how to quantify the amount.
177	GeoVault	s.69HB	Suggestion: Change ***has behaved or will behave otherwise than as predicted.*** to ***has behaved or will behave otherwise than as predicted and which poses a risk to containment within the title or to other concurrent operations.*** Reason: At the time of the application for an approved site plan, prediction of plume behaviour will be based on pre-injection models. The actual behaviour of the injected GHG substance will never completely match prediction, though the variation can be managed within an adaptive management framework with variation limits imposed based on defined risks (e.g., migration towards a potential leakage area, migration outside of title). GHG storage best practice means there will be regular model updates during the pre-injection, injection, and post-injection phases of operations to incorporate the latest available information. Under the proposed legislation, any variation outside of that predicted will be deemed a serious situation requiring reporting within 3 days and will result in the need for the Minister to consider issuance of directions and for injection to cease during this period. The proposed wording better accounts for any variations in plume behaviour that are not as predicted but does not pose a risk to containment or other operations. This is proposed to better align with the intent of this section which is responding to a 'serious situation.'	The wording in section 69HB (c) aligns with section 379(1)(e) in the OPGGSA. DMIRS considers there are benefits in maintaining alignment with equivalent provisions in the OPGGSA especially with the likely prospect of cross-jurisdictional GGST projects in the WA and Commonwealth areas.
178	MEPAU	s.69HC	MEPAU suggests that 'immediately inform' be substituted with 'as soon as reasonably practical'.	This section provides for the Minister to be able to deal with circumstances where injection and storage operations do not go as planned and there are, or may be, serious consequences. DMIRS has considered that the notification of a serious situation that has or may occur in relation to an identified GHG storage formation in a licence area should be immediate. This timeframe of immediate verbal notification then written advice after 3 days

				has been based on the timeframe for discoveries in sections 44 and 48J. The occurrence, or potential occurrence, may be such as to indicate that the storage formation is not in fact suitable as a site for the licensee's injection and storage operations, and enables the Minister to direct the licensee to cease operations, as well as taking any precautionary or remedial action.
179	APPEA	Subdivision 4 – Site closing certificates	Penalties seem high for administrative non-compliance. 69HI – should contemplate that there will be dynamic modelling / and surveillance monitoring over the life of the GHG injection licence.	There are three penalties in Subdivision 4 in sections: • 69HF(2) – for not submitting an application for a site closing certificate within 30 to 90 days from when injection operations have ceased, and • 69HG(4) and 69HH(4) – for non-compliance with a direction. $10,000 is the lowest amount of the new penalties inserted by the PLAB 23. For section 69HF(2), the penalty of $10,000 is considerably less than that for the equivalent section in the OPGGSA of 100 penalty units or $31,300. For sections HG(4) and HH(4), the penalty provisions are the same as the current non-compliance with a direction penalty in section 95(6) of the PGERA. It is also considered that the above penalties are not administrative non-compliance. A GHG injection licence remains in force until injection operations have ceased, the site closing work program has been completed by the licensee, the licensee has lodged any required security for the ongoing monitoring program and the Minister has granted a site closing certificate. At that point, the licensee has no further statutory responsibility in relation to the stored GHG substance. The requirements listed in section 69HI address the modelling requirements over the whole life of the GHG licence.
180	MEPAU	s.69HF(3)(a)	MEPAU notes that it does not seem that 30 days is a sufficient period for the holder a GHG injection licence to finalise an application for a site closing certificate.	Comment noted. This is why subsection (3)(b) allows for up to 90 days with the Minister's approval.

				DMIRS expects that GHG licensee should be doing preliminary work on an application for a site closing certificate well before injections operations cease.
181	GeoVault	s.69HH	Suggestion: Remove the necessity of the automatic cessation of injection operations (and site closure) if the GHG injection licence was derived from a previous petroleum title which ceases to be in force. Reason: An existing title may have petroleum operations that are entirely independent of GHG injection with their own timeframe (e.g., end of field life is reached). GHG injection could be in operation above, below or alongside the petroleum and geothermal resource intervals and include the injection of third-party CO2 emissions. A GHG injection licence is tied to an existing petroleum title only if one or more identified GHG storage formations are wholly situated in the existing lease or licence area, but **activities** are not assumed to be tied.	Section HH aligns with section 386(13) in the OPGGSA. DMIRS considers there are benefits in maintaining alignment with equivalent provisions in the OPGGSA especially with the likely prospect of cross-jurisdictional GGST projects in the WA and Commonwealth areas.
182	APPEA	s.69HL	A 5-year timeline for Ministerial response seems excessive and unnecessary considering there will then be a 15 year liability period.	See response for comment #54
183	APPEA	s.69HL	5 years for consent to surrender, based on decision on a site closing certificate – will have holding cost implications – based on DMIRS cost recovery model.	Comment noted.
184	MEPAU	s.69HL	MEPAU queries whether the statutory time limit of five years is appropriate for a decision by the Minister on a pre-certificate notice and site closing certificate. This period poses some risk of knowledge loss, given the potential turnover of people advising the Minister and the Minister themselves.	See response for comment #54.
185	APPEA	s.69HP and s.69HW	Full cost security – seems punitive and would tie up capital for required works – can we have further detail? Full cost security is likely disproportionate to the risk being managed and imposes unnecessary regulatory burden. Allowing the state to impose financial security can be acceptable where judged appropriate in particular circumstances but it should be optional with criteria, and not mandatory and overly prescribed in an Act. Commonwealth are moving towards a different model for petroleum decommissioning (Security Agreement /	Section 69HP describes the security to be provided by the applicant for a site closing certificate, is to cover the total costs and expenses of the monitoring program to be undertaken by the State. An estimate of the total costs and expenses of this monitoring program is to be undertaken by DMIRS as the regulator, as part of the pre-certificate notice given by the Minister under section 69HM along with • a program for monitoring operations to be carried out by the State, and • the form and amount of security required to be lodged within a specified timeframe, and

			Assurance Agreement – this is a standardised commercial agreement that ensures funds are held separately in trust). Indicative vs actual – costs / security.	• a statement that the application will lapse if security is not lodged with the Minister within the required timeframe. The purpose of obtaining this security is that the program of monitoring and verification will be carried out over a considerable time, and there is no certainty that the person responsible for payment of the costs and expenses will still be in existence.
186	APPEA	s.69HV	The regulations may make provision in relation to the discharge, in whole or in part, by the Minister of securities in force in relation to site closing certificates. Compare with Mining Act 1978 framework – see section 126	The securities under section 126 of the Mining Act are required for compliance with the conditions imposed on the tenement. In this regard, securities are similar to the requirement for a petroleum, geothermal or GHG permittee, holder of a drilling reservation, lessee or licensee to maintain insurance where directed by the Minister. The Mining Act does not have insurance requirements. The security required to be provided by the applicant for a site closing certificate under section 69HP, is to cover the total costs and expenses of the monitoring program to be undertaken by the State. An estimate of the total costs and expenses of this monitoring program is to be undertaken by DMIRS as the regulator, as part of the pre-certificate notice given by the Minister under section 69HM along with: • a program for monitoring operations to be carried out by the State, and • the form and amount of security required to be lodged within a specified timeframe, and • a statement that the application will lapse if security is not lodged with the Minister within the required timeframe. The purpose of obtaining this security is that the program of monitoring and verification will be carried out over a considerable time, and there is no certainty that the person responsible for payment of the costs and expenses will still be in existence. Section 69HV provides that the regulations may make provision in relation to the discharge, in whole or in part, by the Minister of securities lodged in relation to site closing certificates. Following assent of the PLAB 23, a secondary stage of legislative amendments will be required to give effect to the Bill and allow for commencement of the amendments. This includes the

				development of new GGST regulations, modelled on the Commonwealth Offshore Petroleum and Greenhouse Gas Storage (Greenhouse Gas Injection and Storage) Regulations 2011. Regulation 4.8 of these regulations provides for the discharge of securities in relation to GHG assessment permits, GHG holding leases and GHG injection licences.
187	WesCEF	s.69HX(1)(c)	**Adding certainty to the closure assurance period** For certainty, there is a need for greater use of objective criteria (rather than relying on the subjective satisfaction of the Minister) in determining commencement of the closure assurance period and to provide a hard timeframe for the closure assurance period. WesCEF suggests amending the draft wording of s.69HX(1)(c) of the PGERA to: (a) delete “at least 15 years” and substitute “no later than 15 years”; and (b) delete “the Minister is satisfied that” and replace it with “the following conditions are satisfied”.	The Bill aligns with section 399 of the OPGGSA in specifying a timeframe of a minimum of 15 years after issue of a site closing certificate before WA accepts the long-term liability for the stored GHG. Section 399 was a late Opposition Senate inclusion amendment in recognition that, for a number of reasons, it was better for the Australian Government to assume long-term liability instead of companies and as a means to encourage and support investment and commitment to carbon capture and storage. Hansard records there was debate on the length of monitoring time needed but the debate was only on a monitoring period of greater than 15 years. The benefit of maintaining alignment with equivalent provisions in the OPGGSA is considered to outweigh the recommended change especially with the likely prospect of cross-jurisdictional GGST project in the WA and Commonwealth areas.
188	MEPAU	ss.69HX(1)(c)(iii) and 69HX(1)(c)(iv)	MEPAU requests that the PGERA provide additional information about how a 'significant risk' or 'significant adverse impact' will be assessed.	Declaration of the closure assurance period is a major step in the WA Government assuming long-term liability for the stored GHG substance. It establishes the minimum of 15-year period whereby the Minister, through the DMIRS and the licensee, monitor the site prior to allow the proponent to formally confirm that the storage site is secure, and the long-term liability shifts to the Commonwealth. In terms of a risk assessment for this section, the Minister needs to be satisfied that there is no significant risk to storage formation, the environment or to human health and safety. Under objective-based regulation, DMIRS will undertake a risk assessment using international best practice such as ISO Standards in the same manner as undertaking risk assessment of: • well integrity through the well management plan.

				• worker safety through the safety case • environment through an environment plan. Further information on risk assessment for the declaration of the closure assurance period will be contained in proposed Injection and Storage Regulations modelled on the Offshore Greenhouse Gas Storage (Greenhouse Gas Injection and Storage) Regulations 2011 and associated guidelines.
189	MEPAU	s.69HY(1)(d)(iv)	MEPAU requests clarity regarding any additional conditions that will be imposed on the statutory indemnity in section 69HY of the PGERA. notes that an ability for the Minister to specify additional conditions in the future reduces clarity / certainty for industry participants.	The Bill aligns with section 400 of the OPGGSA to provide that the State will, subject to conditions which may be specified in the regulations, indemnify the GHG title holder for liability for damages for any act or omission done in the carrying out of operations authorised by the GHG title incurred or accrued after the end of the closure assurance period. Section 400 was a late Opposition Senate amendment, but Hansard did not record any discussion on the conditions. The benefit of maintaining alignment with equivalent provisions in the OPGGSA is considered to outweigh the recommended change especially with the likely prospect of cross-jurisdictional GGST project in the WA and Commonwealth areas. It is also considered that the authority for the Minister to impose unspecified conditions currently exists in the following PGERA sections: 43 – Conditions of permit 48H – Conditions of lease 66 – Conditions of licence 67 – Storage of petroleum underground 105 – Special prospecting authorities 106 – Access authorities 116 – Scientific investigations
190	GEOVault	s.90	Suggestion: Remove the exception for GHG titles. Reason: This allows a large speculative work program to be proposed as part of the application for a GHG title, which is then indefinitely postponed leading to land banking.	The PLAB 23 aligns with equivalent section 568 in the OPGGSA in excluding GHG exploration permits, drilling reservations, retention leases and injection licences from the requirements to commence works or operations within 6 months.
191	AGIG	s.91	AGIG submits that, as drafted, subsections 91(2), (2a) and (3) together potentially create a deadlock on use of areas where there is a potential dual use over time.	Section 91 imposes a series of general and specific requirements or work practices on titleholders. The work practices are in accordance with good oil-field practice and ensure good reservoir

			Section 91(2) prohibits certain activities by a petroleum licensee in respect of areas which may be used for geothermal or GHG purposes. But the section does not allow for the fact that the same area may be used for alternative purposes – that is, a reservoir from which petroleum was recovered under a petroleum production licence could, once it is commercially depleted, be used for GHG storage. Paragraphs (c), (d) and (e) of subsections 91(2), (2a) and (3) in particular present a problem. For example, a licensee cannot "*keep separate*" a petroleum pool that could also be used as a GHG storage formation once it has been commercially depleted. As another example, if the holder of a petroleum production licence who also holds a GHG injection licence injected GHG into a commercially depleted petroleum pool, they would, the proposed drafting, breach the obligation in s91(2)(e) to "*prevent… matter entering any…potential GHG injection site through wells in the …licence area*", as they would be actively injecting GHG matter (and the definition of "*good oil-field practice*" does not capture GHG operations). The defence in section 91(4) is not sufficient to protect the titleholder in such case, because it is only a defence if the titleholder took reasonable steps to comply with the obligation and it is not (although we suggest it should be) a defence if the titleholder was acting reasonably in the exercise of its rights and the relevant breach would not have been avoided by the exercise of good practice. As drafted, subsections 91(2), (2a) and (3) together potentially create a deadlock on use of areas where there is a potential dual use over time.	engineering practices are followed at all times to ensure the conservation of petroleum, geothermal energy resources and water resources. The purpose of the amendments to this section in the PLAB 23 is to extend these work practice requirements to include all GHG operations. The potential for deadlock because of potential dual use currently exists in the PGERA with petroleum and geothermal energy operations. It is not considered that broadening the PGERA to include GHG operations will create any further potential deadlock on the use of areas where more than one title may exist over the area.
192	APPEA	s.91A	91A(1) expanded to include GHG substances Need to reconcile insurance vs security construct; or insurance plus security construct for GHG.	The WA Bill follows the OPGGSA to include the requirement for GHG titleholder, where directed by the Minister, to take out adequate insurance against expenses and liabilities including cleaning up or remedying the effects of the escape of petroleum or geothermal energy resources. Section 571 of the OPGGSA was amended by the Offshore Petroleum and Greenhouse Gas Storage Amendment (Compliance Measures No. 2) Act 2013 to require financial assurance for petroleum. The Explanatory Memorandum for this Bill explains that petroleum provisions were changed to address matters raised in the Montara report and that GHG provisions were 'relocated without any material change to section 571A'

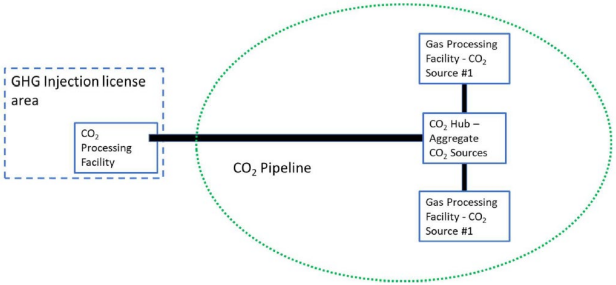
193	WesCEF	S91A	**Ability to provide alternative security in place of insurance** Under the amendments in the Draft Bill there are no permitted forms of security other than insurance. As this is an emerging industry and category of risk, there is a possibility that there will be no insurance market for risks pertaining to GHG sequestration or that the insurance market may be so illiquid that insuring these risks is prohibitively expensive when compared with other mechanisms that provide appropriate security for the risk (such as bonds or security deposits). WesCEF therefore suggests that the Draft Bill incorporate greater flexibility to provide alternative forms of security in place of insurance.	The PLAB 23 extends section 91A to include the requirement for GHG titleholder, where directed by the Minister, to take out adequate insurance against expenses and liabilities including cleaning up or remedying the effects of the escape of GHG substances. This aligns with section 571A of the OPGGSA. The OPGGSA has, however, amended the insurance provisions for petroleum titleholders. Section 571 of the OPGGSA was amended by the Offshore Petroleum and Greenhouse Gas Storage Amendment (Compliance Measures No. 2) Act 2013 to require financial assurance for petroleum. The Explanatory Memorandum for this Bill explains that petroleum provisions were changed to address matters raised in the Montara report and that GHG provisions were 'relocated without any material change to section 571A' WA is intending to adopt the same financial assurance provisions for petroleum titleholders through a separate Bill.
194	CarbonCQ	s.105(4B)	We encourage the State to utilise this Section in order to encourage exploration and appraisal by the private sector, that can verify emitter links through commitment or support from emitters with identified volumes of CO2, for geological storage areas.	Comments acknowledged. An application for a GHG special prospecting authority is required to specify the operations that the applicant proposes to carry on and the block or blocks in respect of which the applicant proposes to carry on those operations. It is agreed that an applicant for a GHG SPA, as a precursor to the grant of an exploration permit, should be able to demonstrate the capacity to meet the technical and financial capabilities for the transport and storage of GHG substances. An application for a GHG exploration permit under section 31(1)(da) is required to be accompanied by information in section 30(3) regarding the source, volume and composition of the GHG substance to be injected. It would be also reasonable to expect that an application for a GHG SPA should be addressing this requirement.
195	Pilot Energy	S106	Draft legislation doesn't appear to facilitate the conversion from a Petroleum Access Authority to a GHG Access Authority including the transfer of rehabilitation obligations. Under current Petroleum Access Authority (AA 3T) all infrastructure must be removed before the authority is surrendered.	The PLAB 23 aligns with the OPGGSA is not providing for the conversion of <u>any</u> petroleum or geothermal title to a GHG title. However, the PLAB 23 also does not require that an existing access authority (AA) must be relinquished on the grant of a GHG access authority.

				Otherwise, as correctly commented, section 106(9) requires that where an access authority (AA) has been surrendered, cancelled, or expired, the holder of the AA must: • remove all property brought into the AA area, • make provision for the conservation and protection of the natural resources in that area, and • make good any damage to the Earth's crust.
196	CarbonCQ	s.116	We strongly endorse the ability to conduct GHG scientific exploration. Our suggestion is that this be up to 100,000 tonnes. This would then fit in with (P.19) 6C (2) where the geological storage formation is at least 100,000 tonnes. This setting of an upper limit clearly separates scientific investigation from commercial operation. See also P.238 19 6C (2) of the Petroleum (Submerged Lands) Act amendments.	Clause 128 amends section 116, which provides for the Minister to consent to petroleum exploration and geothermal exploration in the course of a scientific investigation, to include GHG exploration operations. A GHG exploration operation, as defined in the WA Bill, mean an operation to explore for potential GHG storage formations or potential GHG injection sites, and the carrying on of such operations and the execution of such works as are necessary for that purpose. It is not considered necessary to impose a maximum storage capacity as a scientific investigation consent is only to explore for and not appraise potential GHG storage formations. Once a potential GHG storage formation has been identified, the scientific investigation consent should cease, and the area released for bidding under a GHG exploration permit.
197	APPEA	s.142	Separated petroleum and geothermal –because there are different prescribed royalty rates. Will there be any other forms for "compensation" to the state for GHG titles as a result? I.e., a higher annual rental for GHG titles or other associated fees.	Existing subsection 142(1) currently refers to 'permit, drilling reservation, lease and licence' and 'permittee, holder of a drilling reservation, lessee and licensee'. With the amendments in the WA Bill, these terms now include GHG titles and title holders. Subsection (1) has been separated into petroleum and geothermal sub-sections to make it clear that there are no royalties paid on GHG titles. DMIRS is still to consider the scale of future fees for GHG titles.
198	APPEA	s.153	Subsections under 153 have been combined to include petroleum, geothermal and GHG in some instances then separated in others.	Comment noted.

			Maintenance and removal of property could realistically be combined.	However, drafting of the provisions in the Bill is undertaken by the Parliamentary Counsel's Office in accordance with their drafting protocols.
			Petroleum Pipelines Act 1969	
199	APPEA	s.4	Is it the intention for the GHG facility lines, injection lines and facilities under the PGGPA to be the mechanics for the physical injection of a GHG operation? Or will there be a requirement for a Field Management Plan (or equivalent) to be in place as well that will describe and authorise the GHG operation?	The PPA only provides for the onshore conveyance of GHG substances. The terms GHG facility line and GHG injection line clearly refer to conveying a GHG substance. The term GHG facility refers to a structure for or in connection with a GHG operation and, therefore, can include GHG injection operations. The term is included in section 4 of the PPA due to it being referenced in the term 'GHG facility line'. The site plan is the core document for each GHG injection and storage project and will form the basis for the day-to-day regulatory interaction between the injection licensee and the Minister. The site plan will keep the Minister informed, at an appropriate level of detail, of the geological attributes or features of the storage formation, as they are currently known, current and proposed injection and storage operations, the results of ongoing monitoring and verification programs and predictions as to the short, medium and long-term behaviour and fate of the GHG in the identified storage formation and associated geological formation(s).
200	Pilot Energy	s.4	***Terminal point***: The objective and implication of the terminal point reference needs further assessment and explanation. It is not clear from the draft what the intent of the terminal point is and why the Minister would make a decision to declare a terminal point. The definition for this term in the draft legislation, appears currently circular and consequently undefined.	A new term of 'terminal point' has been inserted in the definition of GHG injection line, which is used in the definition of GHG pipeline, to align with the equivalent term in the OPGGSA. As detailed in 63AA in using 'terminal point' only for as GHG pipeline is the point where GHG pipeline ceases and GHG injection operations commence.
201	Pilot Energy	s.15	**Variation of licence on application by licensee:** Consider amendments to allow the Minster to accept a proposal to vary a licence to allow the re-use of existing petroleum infrastructure for GHG operations.	The PLAB 23 aligns with the OPGGSA in being silent on the use of existing infrastructure thereby not precluding the reuse of existing petroleum and geothermal infrastructure, facilities, and equipment for GHG operations provided that they meet the required compliance provisions in the RMA Regs, Env Regs and Safety Regs. To enable assessment, a new application for a GHG pipeline would be required to be submitted.

202	Pilot Energy	s.21	**Directions as to conveyance of petroleum or GHG substances part (5):** This clause provides infrastructure owners some certainty regarding future access under a third party access rights regime, however Pilot recommends considering further amendments to ensure the rights of existing customers and project owners/joint venture partners to convey GHG are given priority over the new customer.	The purpose of this section, once amended, is to provide for a person to apply to the Minister for a direction if agreement has not been reached with a pipeline licensee for the conveyance of petroleum or GHG substances through the pipeline specified in the licensee's licence within a period of three months. This is a long-established process for petroleum pipelines and the purpose is not to provide any form of priority for operations of existing customers over new proponents.
			Petroleum (Submerged Lands) Act 1982	
203	CarbonCQ	s.4	***geological formation*** includes – any seal or containment forming the reservoir of a geological formation… Same wording suggested as in PGERA Amendments: GHG storage is about containment, not just a seal as there are other forms of containment that ensure the GHG remains within the formation.	Comment noted. The WA Bill has adopted the same meaning for the term 'geological formation' as in the OPGGSA. The WA Bill has, as far as practicable, been drafted to align with equivalent provisions in the OPGGSA to allow for cross-jurisdictional transport of GHG by pipelines.
204	Pilot Energy	s.4	***Good oil field practice***: consider extending this concept to GHG operations.	The term 'good oilfield practice' is used in the PSLA in section 58 'Directions as to recovery of petroleum' and section 97 'Work practices' to set an expected standard for compliance with these sections. The WA Bill has aligned with the OPGGSA in adopting the term 'proper and workmanlike manner' in section 97 for GHG operations.
205	Pilot Energy	s.4	***GHG injection line***: The objective and implication of the terminal point reference needs further assessment and explanation. It is not clear from the draft what the intent of the terminal point is and why the Minister would make a decision to declare a terminal point. The definition for this term in the draft legislation, appears circular and is consequently undefined. The references to the defined term identified GHG storage formation appear to restrict the use of an GHG injection line to GHG projects within Western Australia. Consider an amendment to broaden the definition to facilitate the injection line being connected to a storage formation in	A new term of 'terminal point' has been inserted in the definition of GHG injection line, which is used in the definition of GHG pipeline, to align with the equivalent term in the OPGGSA. As detailed in 63AA, in using 'terminal point' only for a GHG pipeline is to set the point where GHG pipeline ceases and GHG injection operations commence. The WA Bill is only required to address amendments for the regulation of GHG operations in WA, so it is unnecessary to include reference to other jurisdictions. GHG operations in those jurisdictions will be regulated by those jurisdictions.

			Commonwealth waters and land and/or the connection between a Western Australian injection line and a Commonwealth injection line.	The WA Bill has, as far as practicable, been drafted to align with equivalent provisions in the OPGGSA to allow for cross-jurisdictional transport of GHG by pipelines.
206	Pilot Energy	s.4	***GHG Operation***: Reference to adjacent area may have the effect of limiting the use of this definition in s.112 - Access authorities. Consider widening the definition to include the Commonwealth jurisdiction.	Section 5 details the submerged lands areas in the adjacent area covered by the PSLA. The access authority provisions in the PSLA cover petroleum exploration and recovery operations and GHG operations in the adjacent area. For cross-jurisdictional projects that extend into Commonwealth waters, the access provisions in the OPGGSA will apply.
207	Pilot Energy	s.4	***GHG pipeline***: part a) appears to incorrectly refer to conveying petroleum. Consider if this should reference conveying GHG.	Thank you. This was an error that has been subsequently corrected.
208	Pilot Energy	s.4	***Identified GHG storage formation***: Consider introducing amendments to expand the definition to include storage formations identified under other State or Commonwealth legislation. Identified GHG storage formation is used as the reference in a number of other definitions for the end point of a GHG operation. Under the circumstance where the GHG operation includes a storage formation outside of Western Australian State boundary there appears to be a gap in the drafting. The gap relates to infrastructure or other GHG operations, that are located within Western Australia, that are required to undertake a GHG activity at a storage formation identified under Commonwealth legislation.	The WA Bill is only required to address amendments for the regulation of GHG operations in WA so it is unnecessary to include reference to other jurisdictions as GHG operations in those jurisdictions will be regulated by those jurisdictions. The WA Bill has, as far as practicable, been drafted to align with equivalent provisions in the OPGGSA to allow for cross-jurisdictional transport of GHG by pipelines.
209	Pilot Energy	s.4	***Secondary line***: Consider expanding the definition to include conveying GHG.	Secondary line is a term that is only related to petroleum. Due to the complexities of petroleum recovery operations, the term is required to separate these from pipelines that require a pipeline licence. The WA Bill aligns with the OPGGSA.
210	Pilot Energy	s.6B	**Infrastructure facilities:** Consider replicating this section in the PGERA to facilitate CO2 hubs, CO2 receipt points or processing and other related infrastructure that are not located within a block. Aggregation of CO2 is a key aspect of developing a robust carbon management industry and it is likely that infrastructure providers and/or operators of CO2 storage projects will seek to aggregate CO2 from a number of sources. Given the distances between emission sources and CO2 storage sites, it is not likely that the CO2	Infrastructure licence provisions were inserted into the PSLA in 2010 by way of *the Petroleum and Energy Legislation Amendment Act 2010.* Equivalent provisions were not considered for the PGERA 67 as it was considered, at that time, that there were other forms of land tenure available onshore. In view of this, onshore GHG infrastructure licence provisions were not part of the 2013 Bill which has been re-introduced as the *Petroleum Legislation Amendment Bill (B) 2023*.

			compression and transportation infrastructure associated with a GHG operation or storage site will be located within existing blocks. Refer to Figure 2 which illustrates the CO2 related infrastructure (within the green dashed circle) which is likely to be located away from the main GHG Injection licence area.  *Figure 2 CO_2 infrastructure example*	There are valid reasons to extend infrastructure licence provisions to the PGERA for petroleum, geothermal and GHG purposes. However, in view of the availability of other land tenure types, this will need to be carefully considered to ensure it will not either impinge on existing land tenure or simply duplicate any. This is a separate body of work outside the scope of the GGST amendments.
211	Pilot Energy	s.6B	**Insert the following new sub-sections** 3. The activities mentioned in subsection (1) are the following — a) activities preparatory to injecting a GHG substance into an identified GHG storage formation (for example, controlling the flow of a GHG substance into the relevant well); b) preparing a GHG substance for injection into an identified GHG storage formation (for example, pumping, processing or compressing); c) preparing a GHG substance for transport to another place (for example, pumping or compressing); d) storing a GHG substance before it is — (i) transported to another place; or (ii) ii. injected into an identified GHG storage formation; or (iii) subjected to any other activity at a facility, structure or installation; e) monitoring the behaviour of a GHG substance stored in an identified GHG storage formation; f) remote control of facilities, structures or installations used to — (i) inject a GHG substance into an identified GHG storage formation; or	The provisions requested to be inserted are new amendments to the term ‘infrastructure facilities’ in section 6B of the PSLA.

			(ii) store a GHG substance in an identified GHG storage formation; or (iii) do anything mentioned in paragraphs (a) to (e); g) activities related to any of the above. 4. For the purposes of subsection (3), the injection of a GHG substance into an identified GHG storage formation is taken to take place at the top of the relevant well.	
212	Pilot Energy	s.9	**Petroleum pool extending into 2 licence areas or other areas:** Consider if this concept should be replicated for GHG operations and storage sites. For example, Section 9 Part (8) and Part (8A) could apply to GHG.	Section 9 provides for various situations of petroleum pools extending into two petroleum licence areas or other jurisdictional areas Section 9 was inserted in the PSLA in 2019 by the Petroleum Legislation Amendment Bill 2016 to provide a practical mechanism for apportioning petroleum from a resource that is shared between the State jurisdictions and the jurisdiction of the Commonwealth or another State or Territory. The WA Bill aligns with the OPGGSA in this section only applying to the recovery of petroleum.
213	Pilot Energy	s.23	**Application for permit in respect of Surrendered etc. blocks:** Consider if amendments are required to incorporate GHG.	The WA Bill aligns with the OPGGSA in not providing for the grant or refusal of a petroleum and geothermal exploration permit in respect to surrendered, cancelled, or determined blocks.
214	Pilot Energy	s.28	**Rights conferred by petroleum exploration permit:** Consider if s.28A (g) should apply for the discovery of a GHG resource incidental to petroleum exploration activities.	Following a review of proposed direct access provisions, the Minister has decided that petroleum permittees should not be eligible to make an application for a GHG retention lease or a GHG injection licence. In view of this, there is no need to include a provision to allow for a petroleum permittee to appraise the discovery of o GHG storage formation.
215	CarbonCQ	s.28A(g)	A good time to introduce discussion/Legislative Amendments on Enhanced Oil Recovery (EOR).	The WA Bill does not provide for enhanced oil/petroleum recovery as the injection of GHG is for permanent storage only. Enhanced oil/petroleum recovery is already provided for in the field management plan provisions in the RMA Regs.
216	Pilot Energy	Division 2A	**Retention leases for petroleum:**	The title of Division 2A is 'Retention leases' thereby being applicable to petroleum, geothermal and GHG retention leases.

			Consider if appropriate to update title to include a reference to GHG.	
217	Pilot Energy	s.38A	**Application for lease and Section 40AB Application by petroleum permittee for GHG injection licence:** Consider if amendments are required to allow a permittee to undertake incidental GHG operations, in order to acquire the information and data required to support applications to declare an identified GHG storage resource and or a GHG retention lease under Section 38A.	Following a review of proposed direct access provisions, the Minister has decided that petroleum and geothermal permittees and holders of a petroleum and geothermal drilling reservations should not be eligible to make an application for a GHG retention lease or a GHG injection licence. It is therefore not necessary to consider the suggested amendments to section 38A.
218	Pilot Energy	s.56 (1B)	**Conditions of licence:** Section 56 (1B) provides flexibility to establish a third-party rights regime. Consider how the legislation and regulation will provide project owners sufficient certainty with respect to access and project returns in the context of a third-party access rights regime. For example, this regime needs to consider other contractual rights granted by the project owners to its customers or the access rights of project owners in priority to a new customer that proposes access infrastructure under the third party access rights regime. Also give consideration to restrictions on the quality, and specifications of CO2.	Section 56 provides that petroleum production licences may be granted subject to such conditions as the Minister thinks fit, to also include GHG injection licences. The Bill introduces provisions for regulations which may establish a regime for third party access to services provided by means of the use of (a) identified GHG storage formations; or (b) wells, equipment or structures for use in injecting GHG substances into identified GHG storage formations; or (c) equipment or structures for use in the processing, compressing or storing of GHG substances prior to the injection of the substances into identified GHG storage formations. Comments noted and will be considered in the second stage development of GHG injection and storage regulations. It is noted that regulation 4.07(1)(j) of the OPGGS(RMA) Regs provides for a field management plan to include: • the arrangements (if any) for the transport, injection and storage of GHG substances that have been obtained from a third party or other external source.
219	CarbonCQ	s.64C	Enhancing Petroleum Recovery not mentioned elsewhere in PGERA amendments	The WA Bill does not provide for enhance oil/petroleum recovery as the injection of GHG is for permanent storage only. Enhanced oil/petroleum recovery is provided for in the field management plan provisions in the RMA Regs.
220	Pilot Energy	s.112	**Access Authorities:** The proposed … project includes the re-use of existing offshore pipelines, which are covered by an Access Authority within WA State waters.	There are no provisions in the Bill to allow for the transfer or conversion from an existing petroleum or geothermal title to ta GHG title.

			The proposed amendments appear to provide for a similar authority for GHG operations under the GHG access authority, however the legislation does not appear to provide for an existing access authority to be transferred. Pilot recommends the petroleum and GHG access authority related amendments be expanded to enable re-use of existing infrastructure covered by a Petroleum Access Authority to be covered under a new GHG Access Authority. This could be achieved by introducing drafting covering: i. Transfer of an access authority from one operation (e.g. petroleum) to other operations (e.g. GHG). ii. Transfers to include the obligation to rehabilitate such that obligation to rehabilitate is triggered by the completion of the subsequent operation. For example, if a petroleum access authority transfers to a GHG access authority the obligation to rehabilitate is triggered by completion of GHG operations.	A GHG title can only be granted following submission and assessment an application. The Bill aligns with the OPGGSA in being silent on the use of existing infrastructure thereby not precluding the reuse of existing petroleum and geothermal infrastructure, facilities, and equipment for GHG operations provided that they meet the required compliance provisions in the RMA, Env and Safety regulations.

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