

Victorian Parliament Inquiry into Decommissioning Oil and Gas Infrastructure

Centre of Decommissioning Australia (CODA)

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Introduction

Centre of Decommissioning Australia (CODA)

First established in 2019 and becoming wholly independent in December 2021, CODA is Australia's peak body for the decommissioning industry. CODA works with a network of partners spanning Australian oil and gas producers, members of the domestic and international decommissioning service sector, regulators and domestic and international research and peer peak bodies to pursue its objectives of; supporting the establishment and growth of Australia's decommissioning sector; promoting the local execution of work and employment of Australian personnel; promoting the maximum recycling and reuse of recovered materials and; establishing Australia as a global leader in decommissioning.

Operating as a partner (member) based organisation, where the majority of partners pay an annual fee which covers their access to CODA's products and services. CODA operates several different partner tiers that collectively enable CODA to operate as an independent entity, representing the industry as a whole, rather than any one segment of the industry. This partner network has rapidly grown from the first sign up in mid 2022 to around 150 partners at time of writing.

CODA constantly consults with its network of formal and informal partners and connections both within Australia and internationally to ensure it has access to current ideas and practices as well as emerging trends, barriers and opportunities in decommissioning. Additionally, CODA personnel are regularly invited to speak at domestic and international conferences on decommissioning, both to share to the rest of the world the size and scale of opportunities in Australia as well as to remain current on global trends.

Since its establishment, CODA has additionally worked to establish and raise the profile of Australian decommissioning through a series of carefully considered and targeted initiatives, namely:

Reports

- 2020 – release of the decommissioning liability study¹, the first quantification of the total volume and timeline of decommissioning in Australian waters. This report has been widely quoted and referenced and was pivotal in energising the global supply chain to consider Australia as a meaningful destination for investment.
- 2022 – release of three reports:
 - Global Review of Decommissioning Planning and Execution Learnings². This study looked at best practice in decommissioning in established jurisdictions such as the USA,

¹ <https://www.decommissioning.org.au/work/offshore-oil-and-gas-decommissioning-liability-australia/>

² <https://www.decommissioning.org.au/work/global-review-of-decommissioning-planning-and-execution-learnings/>

UK and Norway and considered how those learnings could be translated to Australia's specific needs.

- Decommissioning Innovation and Technology Roadmap³. This work looked at gaps and emerging technologies across the entire offshore decommissioning work breakdown structure to highlight areas of focus.
- Disposal and Recycling Pathways report⁴. This report for the first time attempted to quantify the volumes of materials being recovered through decommissioning, looking at their nature, location and timeline. It also began to surface some of the gaps in port infrastructure, waste and recycling capacity across Australia.
- 2024 – release of two reports;
 - Western Australia Decommissioning Hub Location Study⁵. Working with the support of the WA government, this report looked at the state's port infrastructure to determine the opportunities for existing ports to accommodate anticipated decommissioning needs
 - Skills Review for the Australian Oil & Gas Decommissioning Industry⁶. Undertaken to begin to identify gaps and opportunities in skills for the decommissioning industry, this report, which was built on a significant consultation process, identified key skills gaps that need to be filled for Australia to deliver its decommissioning works effectively.
- 2025 – release of two reports:
 - Decommissioning Waste Disposal Pathways Report⁷. Accompanied by a waste facilities database⁸, this report looked at the status and capacity of the nation's waste management and receival facilities needed to underpin decommissioning. The Waste Facilities Database is an interactive online platform that enables users to explore facilities' locations, capabilities, and licenses. It specifically focuses on facilities and businesses that can process decommissioning waste streams, such as hydrocarbons, mercury, NORMS, and PFAS-contaminated materials. The database consolidates data from public domain sources and surveys of waste facilities, making it the most comprehensive resource for the Australian decommissioning sector.

³ <https://www.decommissioning.org.au/work/development-of-a-decommissioning-innovation-and-technology-roadmap/>

⁴ <https://www.decommissioning.org.au/work/understanding-the-opportunity-for-local-disposal-and-recycling-pathways/>

⁵ <https://www.decommissioning.org.au/work/wa-hub-study/>

⁶ <https://www.decommissioning.org.au/work/australian-skills-review/>

⁷ <https://www.decommissioning.org.au/work/waste-disposal-pathways/>

⁸ <https://www.decommissioning.org.au/work/waste-facilities/>

- Northern Territory Decommissioning Location Study⁹. Supported by the NT government, this report explored the status and capacity of the NT ports and their ability to accommodate anticipated decommissioning activity in the region.

Outlook database

Building on the high level and heavily aggregated data in the original 2020 liability study, commencing in 2023 CODA built a new, dynamic, offshore decommissioning forward outlook¹⁰. This Outlook captures all of Australia's active offshore oil and gas infrastructure, including wells, structures, pipelines and subsea equipment, and presents them in an easy to use, filterable and sortable dashboard. This dashboard allows all parties in the decommissioning industry to understand upcoming work, plan for future campaigns and determine how they may want to engage with the Australian industry.

Each of these reports and databases are made available in two versions, a public version accessible via the front of CODA's website and a partner version available exclusively to CODA's partners.

Training

Beginning in 2023 CODA has developed and delivered an Introduction to decommissioning short course. Delivered in person over two days with a list of industry recognised subject matter experts, this course has seen over 180 attendees complete the two-day course in the six times it has been run.

CODA is now extending the course into accessible online training modules, commencing with an introduction to well decommissioning due to be released in late 2025.

Conferences and other engagement mechanisms

Recognising that growing a new industry from a very low base level required a significant level of communications and community building, CODA also supports or delivers several different platforms to share the stories of decommissioning and bring the industry together.

- **Decommissioning and abandonment (D&A) conference** – held annually in Perth this conference has grown from 70 delegates in its first year in 2022 to over 400 delegates in the most recent edition in 2025. This conference is now recognised as the prime decommissioning conference on the Australian calendar and brings together the entire decommissioning ecosystem to learn and share.

⁹ <https://www.decommissioning.org.au/work/nt-decom-location-study/>

¹⁰ <https://www.decommissioning.org.au/work/forward-outlook/>

- **Webinars** – CODA has offered webinars to all its partners for several years and typically will deliver around 12 per year. These webinars are free and open to attend and are recorded then made available on CODA's YouTube channel for later viewing.
- **Podcast** – CODA's "Plugging away" podcast is possibly the only decommissioning focussed podcast globally and across its episodes released to date has included interviews with scientists, conference delegates and international operators, all discussing topics related to decommissioning.

National Decommissioning Research Initiative (NDRI)

CODA manages the National Decommissioning Research Initiative (NDRI) on behalf of industry. NDRI was established in 2019 to commission independent, peer reviewed research designed to understand critical matters associated with decommissioning in the marine environment. NDRI has an independent scientific advisory board and publishes all its work in full on its website www.ndriaustralia.org. NDRI is working to ensure decisions associated with decommissioning in Australian waters can be supported by the best available science.

Responses to the themes of the inquiry

The following sections address CODA's responses to the themes identified in the terms of the inquiry. While CODA cannot provide responses to all points, we have endeavoured below to address those where we are appropriately equipped.

Scale and nature of offshore oil and gas infrastructure requiring decommissioning over the coming decades

The waters off Victoria, in both the Bass and Gippsland basins, are home to some of the oldest oil and gas production infrastructure in Australia. These facilities have been producing oil and gas for decades and many of them have now reached the end of their productive life. As facilities cease production, they begin their journey to decommissioning, whereby the producing wells will be plugged, production infrastructure will be flushed, de energised and either removed to shore or, where approval is received from the appropriate authorities, allowed to remain in situ. Removed materials are then landed into appropriately prepared port facilities, cleaned, processed, disassembled and sorted for either recycling/reuse or for disposal in appropriate waste facilities.

The infrastructure remaining in waters off Victoria comprises the following (accurate to the best of our knowledge as of 1 January 2025).

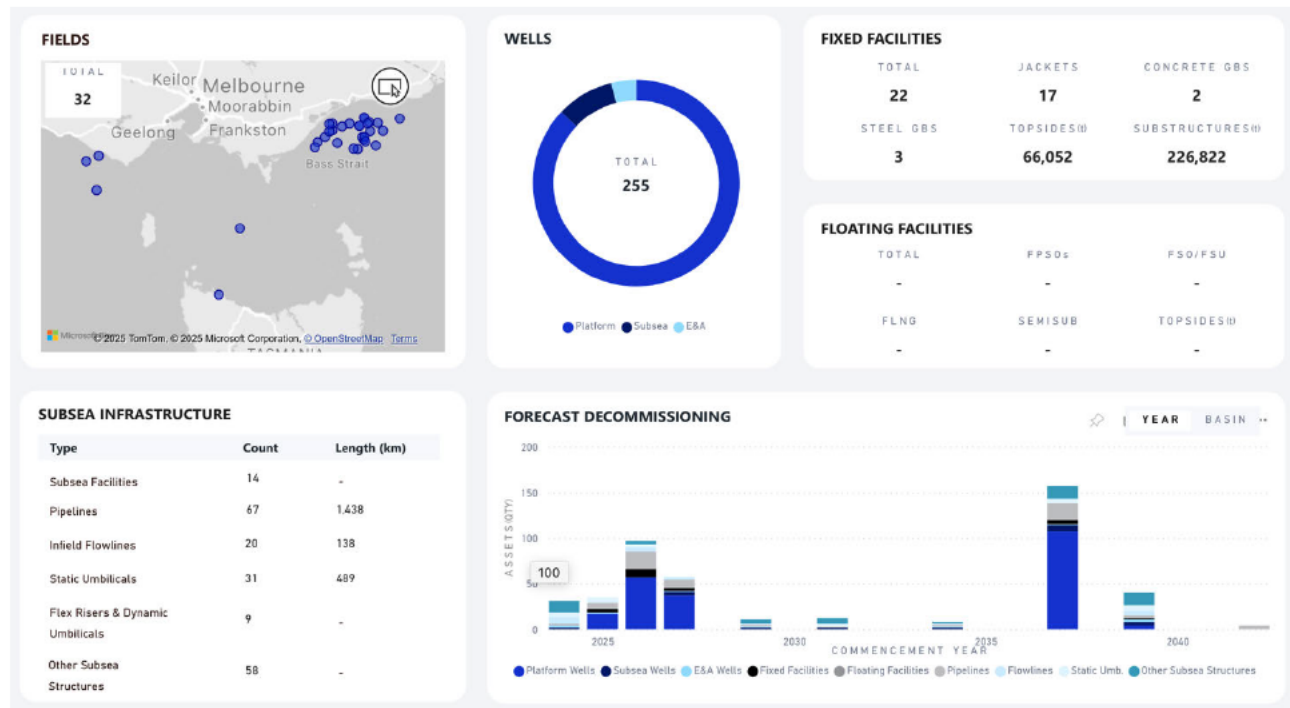


Figure 1: Screen shot from CODA outlook showing Victoria's offshore oil and gas infrastructure

255 oil and gas wells

22 fixed platforms (including 2 concrete gravity structures)

1437km of pipelines

138km of infield lines

489km of static umbilicals

58 other subsea structures

Of this, a large decommissioning campaign is currently underway by Esso, beginning with well plug and abandonment activities. As of August 2025, more than 200 wells have been plugged and abandoned, with this work continuing through to 2027¹¹. The next major phase is Campaign #1 Bass Strait facilities removal, which includes the removal of the topsides of up to 13 offshore platforms, the removal of the upper jacket sections of up to 10 steel piled jacket facilities and the full removal to seabed of two monotowers. Removal of the facilities will be completed by a heavy lift vessel - the Allseas Pioneering Spirit, supported by one or more construction support vessels. Whilst plug and abandonment works are already under way, the facilities campaign 1 is expected to commence in the third quarter of 2026 and conclude during the first quarter of 2028.¹² Further work is under planning to address associated pipelines and subsea equipment.

¹² [https://info.nopsema.gov.au/environment_plans/714/show_public#:~:text=Description,\(HTV\)%20for%20onward%20transit](https://info.nopsema.gov.au/environment_plans/714/show_public#:~:text=Description,(HTV)%20for%20onward%20transit).

The balance of the decommissioning, including the plugging of wells and removal of platforms etc. is currently anticipated to commence late in the next decade, with the final current facilities all anticipated to be decommissioned by early in the 2040's. Alongside Esso there are several other operators producing from Victorian waters, each with their own decommissioning commitments and timelines.

Regulatory powers

"Regulatory powers of the Victorian Government to ensure oil and gas companies deliver planned and timely infrastructure decommissioning"

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) regulates all offshore areas in Commonwealth waters, which comprise those areas beyond the first three nautical miles (approximately 5.5 kilometres) of the territorial sea. NOPSEMA also regulates all offshore areas in coastal waters where a state or the Northern Territory has conferred regulatory powers and functions. Victoria continues to be the only jurisdiction to have conferred its functions for the regulation of health and safety and structural integrity to NOPSEMA.¹³ Victoria maintains its regulatory powers for the environment in coastal waters. Onshore the regulation of decommissioning will fall entirely to the Victorian government.

From CODA's discussions with state and territory regulators, there is a varied approach across the country to the control of onshore decommissioning, with each jurisdiction's regulations having evolved in parallel but differently. The foundations of all decommissioning remain very similar however, to plug all wells such that they will never flow in the future and to remove all infrastructure, with an option to leave some infrastructure in situ with the approval of the appropriate regulators and ministers.

However, each state and territory approaches these base requirements differently. Some jurisdictions have fees and levies in place which, among other functions, help to both encourage timely decommissioning as well as provide the government with access to monies that can be used to fund decommissioning should the title holder be unable to.

In Commonwealth waters, NOPSEMA, the federal regulator, have issued recommendations around decommissioning timelines and have used their general directions to instruct operators to execute their decommissioning works within a specified timeline. While general directions are generally seen as an enforcement mechanism that is rarely used, the broad changes in regulator posture in respect to decommissioning timelines is seeing a significant increase in the volume of decommissioning occurring in Australian waters.

¹³ <https://www.nopsema.gov.au/about/legislation-regulation-and-compliance>

Additionally, NOPSEMA has a cost recovery model that ensures regulatory fees and levies recover the costs expended by NOPSEMA in delivering regulatory functions for offshore petroleum and greenhouse gas industries.¹⁴

Financial assurance for decommissioning in Victoria

“Actions the Victorian Government can take to ensure oil and gas companies provide sufficiently to cover decommissioning costs”

Decommissioning is a complex and involved process with many unknown variables. As such, accurately estimating the cost of the work is challenging and imprecise. During this decade, as the pace of decommissioning has increased, there have been a number of learnings across industry that are making cost estimating more robust. Balancing estimating for decommissioning against a fluid regulatory position and a global market that is seeing increased pressure on the supply chain in the past few years has made establishing a financial assurance model challenging. Scope of work for decommissioning is impacted by both the regulatory requirements as well as access to skills and technologies, with very significant additional factors such as access to appropriate disposal facilities and a relatively low skill and experience base for the work.

CODA believes that at the federal government level the DISR decommissioning directorate are working toward a financial assurance methodology that could be applied across offshore operations to ensure a consistent approach to estimating and provisioning. However, such a process is by its nature time consuming to develop and once in place will continue to be imprecise due to the complex and unpredictable nature of decommissioning.

From CODA’s work and discussions on Australia’s regulatory frameworks where CODA is working toward a report that identifies all regulations applying to decommissioning, we would recommend that the Victorian government regulatory agencies open discussions with other state and territory regulators, most particularly SA, WA Qld and NT. Each of these jurisdictions is similarly navigating their regulatory frameworks to ensure financial coverage for decommissioning.

Balancing financial assurance provisions to cover costs for decommissioning state infrastructure with ensuring the ongoing financial viability of the companies operating the facilities is an important consideration alongside ensuring technical and environmental compliance and vigilance.

As the volume of decommissioning increases in Victoria, we would recommend that the state government ensure the regulatory agencies are fully resourced and staffed to deal with processing applications and managing work in a timely and technically sound manner.

Opportunities for employment in decommissioning

CODA’s work in exploring employment opportunities in decommissioning indicates that a significant number of the roles involved are trade skill level and often local to the facilities being

¹⁴ <https://www.nopsema.gov.au/sites/default/files/documents/Cost%20Recovery%20Policy.pdf>

decommissioned. As such, many of these rolls are highly applicable to regional workforces. Personnel can have opportunities to work in their local communities on regionally significant projects.

It is important to note however that decommissioning is not a large scale employer. Unlike major construction projects that employ thousands, typical onshore works in the dismantling of facilities will employ small numbers of personnel. Offshore is a similar situation, where vessel crews are relatively small.

Traditional owner involvement

“Opportunities for Traditional Owner acknowledgement, consultation and employment where oil and gas infrastructure exists on their ancestral lands and/or Sea Country”

CODA believes that there are real and meaningful opportunities for Traditional Owner involvement in the consultation in decommissioning. Decommissioning is in many ways part of the restoration of land and sea and the views of traditional owners of these locations should be considered in decisions.

Employment in decommissioning should likewise provide opportunities for traditional owner personnel to participate, much of the onshore oil and gas infrastructure across Australia is in remote locations where there are often only small communities. Personnel from these communities are ideally situated to form part of the decommissioning workforce.

Current and potential leakage solutions

“Identifying current and potential leaked greenhouse gases from Victoria’s existing and retired oil and gas infrastructure, including relevant projects in Commonwealth waters and the quantity of leaks”

Technologies and techniques to plug disused oil and gas wells have evolved significantly since the early days of exploration. The complexity of the global oil and gas industry and historic methods to install, operate, maintain and eventually close wells mean that historic leakage data associated with wells is often vague. Modern techniques have been proven to be effective over thousands of operations around the world, with very few plugging projects resulting in leaks post abandonment and those leaks are generally extremely small.

Generally, if a plugged well is going to leak, the leakage will be seen immediately, giving the company doing the work the opportunity to re-enter the well and undertake additional work to seal it.

Monitoring of onshore emissions is now relatively easy, with satellite overwatch and the use of handheld monitors enabling fast and accurate identification of leaking wells. Offshore this is a more complex situation since wells sit tens to hundreds of metres under the surface of the sea and are expensive to survey. Similarly, should a leak be detected, deciding the best solution to manage such

a leak can take a significant period of time while the actual source of the leak is identified, i.e. whether the leak is from the well or is a long-term seepage from a formation as well as the scale of the leak.

Technologies are now available to monitor individual wells once they have been plugged but statistically the likelihood of monitoring a well which is then found to be leaking makes such monitoring processes very complex and delivering little final value.

Actions to protect the Victorian population

“Actions the Victorian Government can take to cap and otherwise protect the population from leaked greenhouse gases across Victoria’s existing and retired oil and gas infrastructure”

As discussed above, the instances of post abandonment leakage from production well is extremely infrequent, with very low leakage rates when such leaks are detected. This situation is the result of a significant investment of time and resources in previous decades to develop robust and proven standards, technologies, work processes and regulations. While no system is perfect, ensuring that work is carefully planned and executed, with the resultant work checked and verified provides significant confidence that well closure is a proven and robust exercise.

At the state level, the key to safe and effective decommissioning is ensuring Victoria has a contemporary regulatory system, with fit for purpose laws and regulations managed by fully resourced and trained personnel, where all involved have the appropriate skills and clear understandings of the work they are managing. Additionally, working closely with commonwealth regulators NOPSEMA and NOPTA to ensure a seamless and comprehensive application of the regulations will ensure a consistent approach to the plugging of wells.

While NOPSEMA and NOPTA provide a robust framework for offshore activity, any onshore wells must also be carefully monitored and any non-producing wells should be plugged in a timely manner, including any orphan wells which may sit with the Victorian government. Internationally, orphan wells, wells drilled by companies who may no longer exist and as such have lapsed back to the state to manage, are often one of the highest sources of emissions since they can be poorly maintained and lack records, and the state who own them may not be appropriately funded to undertake their closure.



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