

# **LEGISLATIVE COUNCIL ENVIRONMENT AND PLANNING COMMITTEE**

## **Inquiry into Decommissioning Oil and Gas Infrastructure**

Melbourne – Wednesday 10 December 2025

### **MEMBERS**

Ryan Batchelor – Chair	Wendy Lovell
David Ettershank – Deputy Chair	Sarah Mansfield
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Tom McIntosh	Richard Welch
Evan Mulholland	

## WITNESSES

Fern Cadman, Fossil Fuel Industry Campaigner, Wilderness Society; and

Stanley Woodhouse, Offshore Fossil Fuel Campaigner, Friends of the Earth Melbourne.

**The CHAIR:** Welcome back to the Legislative Council Environment and Planning Committee's Inquiry into Decommissioning Oil and Gas Infrastructure here in Victoria. We have got witnesses from the Wilderness Society and Friends of the Earth Melbourne joining us.

All evidence we take is protected by parliamentary privilege, as provided by the *Constitution Act 1975* and the Legislative Council's standing orders. Therefore the information you provide during the hearing is protected by law. You are protected against any action for what you say during the hearing, but if you go elsewhere and repeat those same things, those comments may not be protected by this privilege. Any deliberately false evidence or misleading of the committee may be considered a contempt of Parliament.

All evidence is being recorded, and you will be provided with a proof version of the transcript. Following the hearings, transcripts will ultimately be made public and posted on the committee's website.

Welcome. My name is Ryan Batchelor. I am the Chair of the committee and Member for Southern Metropolitan Region. I would ask committee members to introduce themselves, starting with Sarah.

**Sarah MANSFIELD:** Sarah Mansfield, Member for Western Victoria.

**Tom McINTOSH:** Tom McIntosh, Eastern Victoria.

**Gaelle BROAD:** Hi. I am Gaelle Broad, Member for Northern Victoria.

**The CHAIR:** Wendy Lovell will join us shortly. It is pretty simple: a couple of minutes in an opening statement from you guys, then we will get into questions and take it in turns. It is all pretty straightforward.

**Fern CADMAN:** I will go first.

**The CHAIR:** If you want to introduce yourself – your name and who you are appearing on behalf of – for the Hansard record, that would be great. So if you do that individually and then we will get you to start.

**Fern CADMAN:** Sure. Fern Cadman for the Wilderness Society, and I am a Fossil Fuel Industry Campaigner.

**Stanley WOODHOUSE:** Stan Woodhouse for Friends of the Earth Melbourne, Offshore Fossil Fuel Campaigner.

**Fern CADMAN:** Well, good morning, and thank you for the opportunity to provide evidence to this important inquiry. As I said, my name is Fern Cadman. I am a Fossil Fuel Campaigner with the Wilderness Society. I would like to acknowledge the traditional owners of Naarm / Melbourne, the Wurundjeri Woi Wurrung people, and pay my respects to elders past and present.

The Wilderness Society is an environmental advocacy organisation with a long history of campaigning to protect and conserve nature, including the marine environment. My comments today will focus on decommissioning the offshore oil and gas sector. Australia's offshore oil and gas industry has been operating for more than 60 years. Over time, the industry has received large subsidies from governments, paid minimal tax, made huge profits and installed vast volumes of infrastructure in the marine environment. Victoria's own Gippsland Basin is home to the oldest offshore oil and gas operations in this country, and now it is home to some of the industry's oldest, most decrepit and toxin laden industrial junk. The Gippsland offshore region has around 800 kilometres of contaminant-filled subsea pipelines. So for context, that is about the distance between Melbourne and Sydney. This region also hosts 13 out-of-commission platforms and literally hundreds of wells, and a number of these platforms have been sitting not in use for over a decade.

From the inception of the oil and gas industry in Australia, the legal expectation on companies has been clear: have the play date in Australia's oceans, but you kids are responsible for cleaning up the mess after yourselves.

But unfortunately that is not what we have seen happen. The *Northern Endeavour* is Australia's cautionary tale in decommissioning failure. Woodside sold a giant rusting oil ship off the coast of Western Australia for a pittance to a company without the financial means to maintain it, let alone pay for its retirement. The purchasing company went broke, and the Commonwealth government has since been dealing with this multibillion-dollar clean-up task. The *Northern Endeavour* unfortunately repeats a global pattern of oil and gas companies. They make the money and then they dodge on the decommissioning. In New Zealand in 2019 Tamarind Taranaki went into voluntary administration, defaulting on its massive decommissioning liability and leaving the New Zealand taxpayers to cover that bill. In Alberta, Canada, Perpetual Energy sold a large portfolio of aged infrastructure for \$1. That company then went broke, leaving almost 2000 abandoned wells for others, including the state, to clean up. In Nigeria's Niger Delta, Shell and ExxonMobil have abandoned their decommissioning liabilities, leaving communities and the government to pursue long legal battles for compensation and clean-up, and there are many, many more examples like this from around the world.

The Wilderness Society does not want to see this pattern repeated in Australia. While it is true the Commonwealth government does have the greatest responsibility in relation to offshore oil and gas clean-up, Victoria also plays a critical role. The Victorian government regulates the environmental activities of the oil and gas industry in state waters. The state government needs to do this well to safeguard the environment. Victoria's resources minister is also jointly responsible, along with the Commonwealth minister, for making the call that a company can hand back a title at the end of an operation. This applies to titles in state waters and Commonwealth waters near Victoria. The Victorian minister should only be agreeing that companies can hand back these titles if they are genuinely convinced that the industry has actually done the clean-up afterwards.

The other reason that Victoria really needs to be proactive on decommissioning – and I think Tina Soliman-Hunter said this well in her comments – is that when things go wrong, it is Victorian oceans, coast and communities that bear the consequences. Last year there were three separate spills from Esso's Bass Strait infrastructure. This year Woodside's failed Minerva decommissioning resulted in hundreds of kilograms of pipeline plastics being washed up on beaches, so I am not sure how the gentleman from Australian Energy Producers defines world's best decommissioning happening in Victoria, because to me these kinds of examples do not suggest that.

The Wilderness Society would welcome the following from the Victorian government in response to this inquiry. Historically, Victoria's legislation mirrored the Commonwealth legislation, but over time the Commonwealth has made reforms that Victoria has not replicated and one of these is trailing liabilities. Victoria should introduce this to make sure that if one company goes broke, the government can reclaim clean-up costs from the previous owner. Secondly, we think there should be the introduction of bonds on oil and gas companies to ensure that money actually exists for clean-up. This has already been put in place for the new offshore wind sector, and it is really a travesty that it never existed from the get-go for the oil and gas industry but now is better than later. Thirdly, on enforcement, Victoria's oil and gas regulator in relation to state waters needs to get serious on compliance and ensure that, when infrastructure is no longer in use, the decommissioning happens well and quickly. Finally, on transparency, Victoria should require public reporting of all oil and gas infrastructure in state waters so that communities, governments and others know what is out there and when it will be cleaned up.

Victoria is staring down \$7 billion worth of offshore decommissioning over the next decade. What happens in this state matters, and I thank you for the opportunity and look forward to answering your questions.

**The CHAIR:** Thanks very much, Fern. Stanley.

**Stanley WOODHOUSE:** As said, I am Stan Woodhouse. I am a campaigner at Friends of the Earth Melbourne. I would like to thank the committee for the opportunity to speak today on beautiful Wurundjeri country. Just for context, Friends of the Earth is an international federation of grassroots organisations with chapters all across Australia, and Friends of the Earth Melbourne has been campaigning on social justice and environmental issues for over 50 years now. Some of what I have to say has already been covered by my colleague Fern. Regarding the terms of reference for this inquiry, Friends of the Earth Melbourne takes the position that: (a) fossil fuel companies bear full legal responsibility for the complete rehabilitation of tidal areas, so that means the removal of all infrastructure; (b) the fossil fuel sector has a long history of poor environmental practice, particularly in cases of decommissioning; (c) the Victorian government has significant

regulatory power to pursue complete removal in both state and Commonwealth waters, and failing to do so would represent both a risk to Victorians and a lost economic opportunity for Victoria.

To the first point, both state and federal OPGGS Acts are clear that the title holder must remove all infrastructure from the tidal area and any direction given otherwise, either by NOPSEMA or a relevant minister, would be irresponsible, and I will address that argument shortly.

To the second point, that of the sector's poor environmental record, I refer to Fern Cadman's previous examples. Companies like ExxonMobil and Woodside are highly successful corporate entities making billions of dollars in profit every year and relentlessly pursuing shareholder value at the expense of the environment and communities. I feel it would be naive to assume that now, when they are on the hook for a very costly clean up that offers no return on investment, they will suddenly choose to just do the right thing and clean up their mess without tight regulation and rigorous government oversight.

To the final point, and to reiterate Fern's argument, the Victorian resources minister is a member of the joint authority with significant regulatory power regarding the approval, surrender, transfer and variation of titles. Friends of the Earth Melbourne encourages this committee to recommend that the minister use this position to refuse the surrender of any titles in state or Commonwealth waters where infrastructure has not been completely removed and to block the approval, transfer or variation of any title for which adequate financing for decommissioning cannot be independently assured.

The Bass Strait is a wild, biodiverse region with a truly remarkable rate of endemism, and the industry regularly makes the argument that their pipelines and rigs have become artificial reefs which should be protected. Firstly, artificial reefing is a tightly regulated scientific practice. It is not a means by which global polluters should be allowed to dump their waste in the sea. Secondly, we must remember that this is industrial waste, and as such it has a significant list of associated contaminants. These range from radioactive materials through to residual hydrocarbons and heavy metals. We do not have the time for long-term studies on environmental impacts of things like methylmercury or radium or vast amounts of iron oxide. We do know these things are toxins, we do know our coastlines do not have an endless capacity to absorb pollution and we do know some of these contaminants can bioaccumulate and move through the food chain. If we leave it on the seabed, it will end up on our dinner plates.

Lastly, we are talking about a large quantity of steel and a significant amount of work required to remove and recycle it, and I imagine that titleholders are going to use that as an argument for in situ abandonment. But I think our responsibility here today is not to the titleholders. This is steel for Victorian projects. It is jobs for Victorian workers. I know this committee has received submissions from the Australian Steel Institute saying they are ready to receive that steel, from the Maritime Union of Australia saying they are eager to pull that steel up and from the Victorian Trades Hall saying that we need real vision for a decommissioning industry here in Australia. Recycling steel produces significantly fewer emissions than processing virgin ore and recycling it domestically produces more value and employs over three times more Victorians than exporting it. So, with all that considered, it is the position of Friends of the Earth Melbourne that complete removal and domestic recycling of all infrastructure is the right decision for Victoria, environmentally and economically.

I have faith that this committee, in drafting the recommendations to the Victorian government, will reflect the desires of Victorian communities and the needs of the Victorian environment, not those of corporate powers. I thank you very much for your time.

**The CHAIR:** Thank you. We will just start with some questions. Fern, you talked in your opening statement about dodging – you cited some international examples of how companies have been dodging their responsibilities. What do you think enabled that behaviour and those poor outcomes, and how would you suggest that Victoria take action to guard against them happening here?

**Fern CADMAN:** Yes, it is a good question. The pattern we see globally has some good alliteration: divest – so the first option is try and sell out. If you are a big company, sell to a small company, and then if they go broke it is not your problem. Dodge – which is look at ways that you can minimise your clean-up by maybe repurposing for CCS. Delay – as Stan was saying, it is really a commercial consideration for these companies. They do not make any money from decommissioning, so why on earth would they want to spend money on it? So if they can delay that work and push the costs out into the never-never, we are seeing them do that. And

then, finally, the last strategy is dump. If all else fails, try and leave as much of it as you can behind, because it reduces the cost.

To your question, I think the reason the industry has got away with this is they have always been good at making an argument that they are different, that countries or states rely on them so much that they should be given special treatment. I mean, the fact that this industry was never made to pay bonds, given the scale of industrialisation they do in the environment, is pretty shocking. Onshore mines mostly pay bonds now. The new wind sector is being made to pay bonds. So we have got this legacy problem of the oil and gas industry being treated differently and specially, which is a hard task for you now to address. But the Commonwealth government is, to its credit, trying to address some of that. They are looking at introducing financial assurance, which is basically a mechanism to make sure the companies will have the money, and one of our recommendations is that Victoria look at doing something similar. There was maybe another part to your question that I have forgotten about.

**The CHAIR:** No, that was it. On this question of Victorian jurisdiction and Commonwealth jurisdiction – and obviously it is a complicated regulatory environment –

**Fern CADMAN:** It sure is, yes.

**The CHAIR:** One of the beauties of Federation. What do you think Victoria needs to think about? What do you think this committee needs to think about in terms of how Victoria relates to the Commonwealth's jurisdiction here?

**Fern CADMAN:** I could start, and then Stan can add.

**Stanley WOODHOUSE:** Sure.

**Fern CADMAN:** I think there are a few relatively simple things that Victoria could do in the first instance, so mirror trailing liability, like the Commonwealth has done. That protects you against the companies going broke to a degree. You can replicate whatever financial assurance the Commonwealth does. So again, you have got the safeguard that there is going to be some money. Then there is the regulatory activity. One of the things that we have been pushing NOPSEMA for for years now is to actually enforce the obligations on these companies. There are examples, like Exxon, where infrastructure has been sitting there for 10 years, essentially falling apart over that time, when it should have been cleaned up 10 years ago. So we are saying to the Commonwealth government, 'You actually need to make that happen', and all the Commonwealth is doing is issuing a direction to say, 'You do that' to the companies, but then when they do not do it, there is no further enforcement. We are not seeing fines, we are not seeing penalties and we are not seeing director responsibility. Really that just enables the companies to keep delaying. That is a Commonwealth issue, but the same thing exists at the state level. When there is infrastructure in state waters, there needs to be a regulatory posture from regulators at all levels that noncompliance is not acceptable and there will be consequences when you do not do what is already required of you under the legislation.

**The CHAIR:** Stan, I just want to ask you on a separate topic. Your submission raises concerns about a proposal to demolish the rigs at the Barry Beach facility, citing environmental and occupational safety standards. Given there is a brownfield site there – we have had evidence that is probably a type of place you would want to do it – if not there, where do you think we should be looking at this decommissioning work occurring?

**Stanley WOODHOUSE:** I think there has been significant community opposition to it happening in Barry Beach. I feel like at this point in time, in the interests of quick decommissioning and doing this in a timely way, because a lot of these rigs did finish producing a decade ago and they have been sitting there – nothing happened until NOPSEMA issued a general direction in 2021, so it is something that we want to see happen swiftly. Esso has already been granted onshore reception works permits to build their onshore reception site there, so I would imagine that that is just where the decommissioning is going to happen. I would urge the committee to recommend that the EPA be fully involved in overseeing this and testing. We already know that a clean-up notice has been issued to Esso for contamination of soil and groundwater all around the Barry Beach marine site from burning pits and things like that. It is most likely going ahead at Barry Beach. We can see that happening. There are concerns about proper industry agreements with workers there. There are concerns about

proper environmental oversight, and these are all things that we would like this committee to be recommending to the Victorian government as things that need careful attention.

**The CHAIR:** Mrs Broad.

**Gaelle BROAD:** Thank you very much, both Fern and Stanley, for your appearance before us today. You talked earlier, Fern, just about the Commonwealth and their work. I am interested in your thoughts on the national decommissioning road map. Do you feel that it is important for Victoria to align with the approach being taken by the Commonwealth? What are your thoughts?

**Fern CADMAN:** I will comment briefly on this. Industry development is not my main area of expertise, it is environment, and I am sure you will have people that can comment more fully. It is great that the Commonwealth government has produced a decommissioning industry road map. Honestly, it is a good 10 or 20 years too late, like we are already behind the eight ball in dealing with decommissioning in this country. The other problem with it is it is not clear what is going to happen when. It sends a general signal that decommissioning is important and a thing that needs to happen. But a lot of the practical changes or developments, like having suitable port facilities to manage the infrastructure coming onshore, having a qualified workforce with the right training in the right places to do this work – they are all things that the Commonwealth government could be playing a more active role in facilitating. We are not saying governments should pay for the development of port facilities or training – industry should be paying for that; that is their responsibility. But we would really welcome the jurisdictions, including Victoria, the Commonwealth and WA particularly, to actually work more closely together so that we can realise this industry and not see what is happening – which is the steel is going offshore to be recycled, the floating production gas-ship things are being sent to Denmark and Asia. All of that work is work that should and could be happening in Australia, and right now it is not. It is a big, missed opportunity.

**Gaelle BROAD:** Stanley, did you have any comment?

**Stanley WOODHOUSE:** Industry development is again not my strong suit. I am here more to speak to environmental issues. I think that in terms of the Commonwealth–state crossover, there has been some talk about full delegation of responsibility to NOPSEMA in Victorian waters. While health and safety has been delegated to NOPSEMA, Victoria still has environmental oversight of regulation, and I think that is probably worth mentioning at this point.

**Gaelle BROAD:** Yes, just the lack of decommissioning facilities – we heard earlier the professor of Macquarie University talking about it hampering decommissioning progress. What is your view on the facilities available at the moment and the timeframes?

**Stanley WOODHOUSE:** Facilities available for decommissioning?

**Gaelle BROAD:** Yes.

**Stanley WOODHOUSE:** I feel, and this is a sentiment that I feel is shared by a lot of people, that there was a lost opportunity to get ahead of the ball here and establish social licence for decommissioning industry and really build a dedicated port facility that could handle large-scale decommissioning instead of this being the sort of piecemeal approach, this industry-led approach, where we have got ExxonMobil doing their own thing at Barry Beach now. That is not going to be catering for any other infrastructure anywhere else, because there has been significant community opposition to that development. It means it is going to be difficult for people like Amplitude or other operators to decommission at that site. There does need to be foresight in terms of developing this industry before it loses social licence. I would not be able to comment on which port would be more appropriate, because again, I cannot sort of develop an industry. I would say that there has been a lost opportunity here, and hopefully some of it can be clawed back, I do not know. What would you say, Fern?

**Fern CADMAN:** I guess we are at the beginning of this industry now, so I do not want you to feel disheartened, like we have already missed the boat. There is going to be oil and gas decommissioning happening in this country until probably 2060, 2070, so there is still a lot that we can make of the opportunity. And in Victoria, it is at least going to be over the next 10 to 20 years.

**Gaelle BROAD:** I am interested too, Stanley, just in your submission where it talks about the complete removal of structures. Other evidence has been submitted about the new marine environments potentially around infrastructure. What are your thoughts in relation to that?

**Stanley WOODHOUSE:** Well, I would say that these novel ecosystems that have been created by pipeline, they do not replicate a natural reef, for one thing. That artificial reefing is very tightly regulated, and under the guidelines for artificial reefing here in Australia you need to have a permit for artificial reefing and the reef needs to be intended for a very specific thing, and one of those is very much not dumping of waste, and these permits are designed to avoid the dumping of waste. At the moment the guidelines also say that any oil and gas infrastructure that is to be used for reefing needs to be first removed, cleaned and then placed somewhere appropriate. Out on the continental shelf you have this ecosystem that we are not as interested in as we are in things like sponges and soft corals and things like that. It is mud and polychaete worms and isopods. As a marine ecologist I think that stuff is awesome, but I understand that it is not super charismatic and people do not get that excited about polychaete worms. Just for the record, they are very cool. So I think that the idea that this is creating novel ecosystems is misdirection, and it is really a cynical attempt by the industry to leave these things behind. This is valuable steel that we could use. These are sponges; that is fine. There are some fish around there. The evidence is very ambiguous as to whether it bolsters fish stocks or not. I think realistically we should be focusing conservation efforts on natural reefs, not on waste that people have left behind in the sea, would be my position.

**Gaelle BROAD:** Thank you.

**The CHAIR:** Thanks, Ms Broad. Dr Mansfield.

**Sarah MANSFIELD:** Thank you. Thank you for appearing today and for your submission. Fern, earlier you mentioned a number of tactics that are used by industry to delay or avoid the decommissioning work. What are you concerned about in terms of environmental impacts of those tactics?

**Fern CADMAN:** Thank you. That is a good question. I guess the first concern we have is that the longer clean-up is delayed, the greater risk there is that the company who is responsible does not exist anymore. Insolvencies in the oil and gas sector are reasonably common, so that creates a risk that taxpayers end up with a bill or the environment ends up having to deal with all this toxic infrastructure. The other big concern we have, which we are already starting to see play out around Australia, is that as this infrastructure has been sitting in somewhere as wild and exciting as the Bass Strait for 50 years, it really does start to degrade, and that means it is more prone to fail. And we have seen several failures with gas leaks and oil spills contaminating and polluting the marine environment. We just do not want to see that continue to happen, and at a potentially worsening scale.

The other thing we are seeing is more and more examples of methane leaking from wells. There is actually just a new one I discovered in Commonwealth – but Victorian Commonwealth – waters from a company that should have properly plugged and abandoned the well over 10 years ago, and NOPSEMA has just identified that as another leaking well. They are the environmental reasons. And then as Professor Soliman-Hunter was saying earlier, after a significant time period maybe it becomes actually unsafe or impossible to decommission infrastructure, and the cynic in me sees that this delay is an industry tactic so that they can then make that argument, and obviously we do not want to see workers put in unsafe positions. So to sum up, the best way to deal with all of these risks is just that the regulators make sure the decommissioning happens as soon as the facilities cease operating.

**Sarah MANSFIELD:** I do not know, Stanley, if you have any comments on that.

**Stanley WOODHOUSE:** I can echo that sentiment that timely removal is something that we need to avoid environmental and health and safety problems. I know that in the AEP submission they were talking about how titleholders are actively meeting their obligations, but like Fern was saying, these rigs are falling apart, particularly the Esso rigs. There is a serious list of general directions that have been issued by NOPSEMA over the last several years for corroded walkways and these structures corroding and falling apart, which could be viewed as possibly being a means by which these things are going to be in a state where they cannot be removed. I also think it really definitely pushes back on the AEP position that the obligations are being met,

because they are legally required to keep these things in good condition; the federal Act says they must maintain them in a condition, and they are not.

These things are made of steel and that is corroding, and there are big questions about what that amount of iron oxide would do to ecosystems, let alone all of the other concerns we have, like naturally occurring radioactive materials that have concentrated in pipelines, polychlorinated biphenyls, which can bioaccumulate through the food chain – all these different things that we know are generally associated with infrastructure. We have got the precautionary principle right, which basically says any lack of scientific evidence or any holes in scientific evidence about the potential dangers of something should not be used as an excuse to not mitigate that problem. There are environmental issues here and there are toxins here; the precautionary principle, which is in our environmental protection legislation, says we have just got to bring it out regardless. We cannot do long-term studies on whether this iron oxide is going to be a problem in 150, 200 years time; it just comes out now.

**Sarah MANSFIELD:** One of the things that we have heard is that companies are looking to use the environment as a reason to – you mentioned before the so-called artificial reefs as a reason to leave their infrastructure. They do cite a lack of research but that they are looking at sourcing that research. Do you have any concerns about industry-provided research around some of these things?

**Fern CADMAN:** Yes, is the short answer. The Wilderness Society has actually undertaken a literature review which we are hoping to publish in the new year, and we will be happy to share it with the committee when we do. But I will give you the spoiler: essentially, the vast amount of research on oil and gas decommissioning approaches is funded by industry, and industry controls access to this infrastructure, so independent scientists actually cannot just go out there and start doing studies around it. What our review found is not only is the industry funding the research but that the research agenda they are funding is one that supports their arguments for leaving infrastructure in situ. One of the things they are researching is the quantum of fish swimming around a rig, and then they use that to say, ‘Look, the fish love swimming around this rig, so therefore we should get to leave it behind.’ The research they are not funding is the research that says, ‘Hm, we know there is mercury in these pipelines. What is the risk of that ending up in the food chain and how it bioaccumulates in the food chain?’ So what we are seeing is an industry agenda driving the research. The other thing I would say is we are concerned that when the industry says, ‘Oh, if we just do some more research to find out whether there are contaminants or not,’ that research might take 10 to 20 years, and that is 10 to 20 years that those rigs are still sitting there degrading and then becoming harder to ultimately remove.

I also just wanted to say something about the AEP speakers before indicating that the legislative framework around decommissioning has changed since 1989; it actually has not. The requirement for full removal has been in place since the very beginning of this industry, even in the predecessor to the OPGGS Act, and so it seems very disingenuous of industry at the time that they started to say, ‘Oh, of course we will remove everything at the end of operations,’ and now when the bill comes due, they are saying, ‘Oh, you should maybe just let us bury those pipelines. That’s going to be okay.’ There is a moral argument that they made a commitment to Australia that they would clean up, and now they are looking for ways to avoid that to save money.

**The CHAIR:** Thank you. Mr McIntosh.

**Tom McINTOSH:** I would like to pick up and continue on from there if I can. Thanks for being here. So obviously we are talking platforms and pipelines – there are different parts to the infrastructure and different way things can be removed, so we will just sort of pick through a bit of it. So with things that are under the seabed, like pipelines, you talked before about their ability to corrode and break down: for those that are buried, what are the trade-offs or what are the risks associated with those that are buried staying buried and not being removed, in your view, particularly those that are no longer operating and are getting older, and what are some of the risks of removing them, at the same time, because you hear both sides of that line. I am just interested in your thoughts on that.

**Fern CADMAN:** Shall I start?

**Stanley WOODHOUSE:** Go for it, yes.

**Fern CADMAN:** I guess the first thing is with pipelines in particular a lot of them do contain contaminants, especially pipelines that have had oil and gas going through them. There are mercury, radioactive materials and

other heavy metals. A lot of pipelines also have plastic in them. The first concern is that even if they were to be buried over however long, eventually they are going to degrade, and all that is going to end up in the environment. To the argument that industry makes that it is too hard to remove them, I have the pleasure of going to Australia's decommissioning industry conference once a year, which brings out all the engineers and experts in this work from all around the world, and when you talk to the engineers that do decommissioning, they say almost anything can be done, you just have to be prepared to pay for it and use the right tools. I have seen the videos of them: there are things called deburiall tools, there are new fancy pipeline removal tools. If you give an engineer a technology problem to solve, they will solve it. The problem for industry is that it is expensive. That is why they are making the arguments, I would say most of the time, to leave the infrastructure behind.

**Stanley WOODHOUSE:** I would agree that largely it is a financial argument. When you have got these trenched or buried pipelines, my feeling would be with these pipelines, where you are going to find things like naturally occurring radioactive materials scaling up, that there is a limit to how much they can be cleaned while they are still sitting down there. Pulling them out might disturb the sediment in that area for a while. It might result in some turbidity. A few of my beloved polychaete worms might get squashed, and that would be tragic. But I feel like that removal is going to be far better for the environment than this pipeline remaining and degrading under the sediment line and leaving whatever is in it behind, plus the iron oxide itself of that just rusting away and remaining in the environment. I think even with a trenched pipeline it is preferable it all comes out.

**Fern CADMAN:** There is one more thing, actually, I wanted to add on this, which is there have been examples from around the world where extreme weather events, which we are getting more of with climate change, cause infrastructure that has been left behind to either be resurfaced if it is buried, or if it is, say, the lower sections of rigs that have been left in the environment, to cause them to topple over. There was a hurricane in the Gulf of Mexico which caused a whole lot of abandoned infrastructure to then scatter and cause environmental issues for recreational and commercial fishing. We have to think about what else might come in the future; leaving it behind could have implications. Again, the industry said they were going to take it out – they should just take it out and manage it.

**Tom McINTOSH:** Are there times, do you think, where there is environmental risk to taking those pipes out, or do you think generally – and this probably goes back to what you were saying about the conferences you attend – it can be done basically in all circumstances safely from an environmental risk perspective?

**Stanley WOODHOUSE:** I have heard arguments come from industry for things like: if you are going to chop the pipe off and then pull it up, if there is something in the pipe and you chop it off, it is going to get out. I think it is a pretty logical argument therefore to say that if you leave it there and it degrades, it is also going to come out. I cannot personally see any reason why anything should be left behind. I mean, digging them up – they are 400 mil pipes. We are not talking about digging a 100-metre-wide trench to get this thing out. It seems like a logical conclusion that all of this stuff comes out.

**Tom McINTOSH:** I have got a really random question for you. When you talk reefs and biodiversity and whatnot, is there only a certain amount of nutrients available in the ocean for X amount of fish or whatnot to grow? Or if you put more artificial reefs in, can you just continue to go and go? This is a little bit left of centre.

**Stanley WOODHOUSE:** I mean, it is like what they say: 'Nature abhors a vacuum.' If you stand in the ocean long enough, something will grow on you. There is all of that. We are obviously wiping out all of our natural reefs constantly, so putting more artificial reefs in is not – I guess in answer to your question: there are finite nutrients, but we need to be focusing those all around our beautiful natural coastlines, not on artificial reefing in random parts of the continental shelf where there already exists infrastructure for oil and gas.

**Tom McINTOSH:** Thank you.

**The CHAIR:** We might move on from your random questions. Ms Lovell.

**Wendy LOVELL:** Thanks. Fern, you talked about public reporting and the need for public reporting. Can you just tell us what that looks like? And can you give us any examples of where that has happened in other jurisdictions and what the benefits are to the public?

**Fern CADMAN:** Yes, absolutely. Believe it or not, the US in some places does a better job of this than Australia. So one of the things that is made public in the US is how much revenue will be made from a particular field, and then how much cleaning up that field will cost. What that enables a regulator, a government, with oversight, is to see, 'Oh, there is X amount of money left to be made from this field, and their clean-up is going to cost that amount of money. That means every cent that they're making now really needs to be kept to pay for the clean-up.' At the moment in Australia we do not have that kind of visibility; there is not public information. So it could be that the amount that, say, cleaning up the Bass Strait is going to cost is more than the money to be made from the Bass Strait. That is probably the case right now. Without having visibility of that, you do not know how hard you need to regulate the industry, I guess. So that is one thing.

The other thing is, I think, partly because of the federation and the Commonwealth having some responsibility and Victoria having others, there is not one place that a community member or an environment group like us can go to and say, 'Here is all the oil and gas infrastructure out there. Here's when it was installed. Here's when it's due to cease production, and here's the plan for pulling it out.' Even that level of visibility would give communities and others more confidence that the industry is actually planning for and preparing to do its decommissioning. It would also give visibility to investors in these companies about the scale of the liabilities of the people that they have got their money with.

**Wendy LOVELL:** That is something that needs to happen at the beginning of a project rather than at the decommissioning stage. It should have been happening all along, and it is not going to help us with decommissioning now.

**Stanley WOODHOUSE:** Yes. As with offshore renewable projects right now, decommissioning is factored in from the very beginning of the project. But it is hard for this committee, because it is sort of playing catch-up a little bit, where the bonds were never taken and the plans were never expected at the very beginning of the fossil fuel projects. So a lot of this transparency has not been built in.

**Wendy LOVELL:** So should this be happening now for the renewable projects as well? You know, we hear a lot from the farming communities about, for instance, the concrete blocks that are put into the ground to secure either the wind turbines or the solar panels et cetera not being removed once they are decommissioned and things like that. Should we be having public reporting for renewables?

**Stanley WOODHOUSE:** I would say so.

**Fern CADMAN:** Absolutely. No industry should get special treatment.

**Stanley WOODHOUSE:** Yes.

**Fern CADMAN:** But it is interesting that offshore wind is already being made to provide a guarantee that there is the money for that clean-up and that offshore oil and gas does not have that same obligation.

**Wendy LOVELL:** Yes. Now, we know that Victoria has ceded their responsibility to NOPSEMA. I am just wondering, I am assuming –

**Fern CADMAN:** Can I just clarify?

**Wendy LOVELL:** Go.

**Fern CADMAN:** Victoria has handed over its responsibility for the management of safety aspects of offshore oil and gas operations in state water but not for environmental aspects, so Victoria still regulates environment plans in state waters.

**Wendy LOVELL:** Yes. Thanks. I am assuming that NOPSEMA is funded by the federal government, is it? Where does their funding come from, and how independent are they truly?

**Stanley WOODHOUSE:** How independent from the government are they?

**Wendy LOVELL:** Well, yes. Independent from both government and from the industry.

**Stanley WOODHOUSE:** That is a really good question.

**Fern CADMAN:** NOPSEMA is partly funded by cost recovery from industry, so industry pays for things like titles and work plans. Every year there is a renegotiation or a re-updating of that cost recovery arrangement. I do not know for sure, but I think the federal budget probably also provides a degree of NOPSEMA's funding.

**Wendy LOVELL:** Have you found them to be independent in their dealings and that they are not capitulating to industry pressure or to government pressure?

**Fern CADMAN:** Until five years ago, NOPSEMA was not regulating decommissioning at all. It was an area of their regulatory responsibility that they were nowhere on. It was not until the *Northern Endeavour* bankruptcy, which I spoke of in my opening statement, that NOPSEMA got a huge wake-up call and said, 'We're actually meant to be regulating that.' To their credit, they have improved their regulation since then, but what we are not seeing is enforcement, so we are not seeing any consequences when companies do not do what is required of them.

**Wendy LOVELL:** Thank you. We have talked about the pipes being left and if they were to degrade and if there was anything in them to leak, they would leak. Are there any benefits to actually filling those pipes? I am not talking about a liquid solution that would leak, but some sort of solid solution, so you can either pump concrete through it or you can pump a foam substance into it to ensure that there are no liquids left behind that might leak.

**Stanley WOODHOUSE:** You have got 840-plus kilometres worth of pipeline just in ExxonMobil's stable alone. It would be such an immense amount of material that you would be pumping through these pipes. You would still have the radioactive scale. Everything that would still seep into the ocean would still do so, and then you would be left with big tubes of concrete, and you would also miss out on the economic opportunity of recycling all of that steel. When we have got projects like Victoria's Big Build and stuff going on, I feel like all of that steel is highly valuable to the state.

**The CHAIR:** Thanks very much. Thank you both for your time today. It has been really informative, the evidence you have given. We will be providing you with a copy of the transcript in the coming week to review before it is published online.

With that, the committee will take a short break.

**Witnesses withdrew.**