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The Alberta Energy Regulator's Planned Timelines for Orphan, Inactive, and Decommissioned Oil and Gas Infrastructure

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Regulatory Memo Commented On: [Orphan Well Association Annual Report 2023/2024](#) and [AER Bulletin 2024-19, Industry-Wide Closure Spend Requirement for 2025](#)

In the past few weeks, the Orphan Well Association (OWA) released their [2023/2024 annual report](#) and the Alberta Energy Regulator (AER) announced the [2025 closure spend requirement](#). This post assesses the OWA's plan for the closure of the orphan inventory and the AER's plan for closure of inactive and decommissioned infrastructure. When does the AER plan for the OWA to complete the closure of the orphan inventory and when does the AER plan for industry to finish decommissioning and reclaiming (or posting security for) Alberta's inactive and decommissioned oil and gas infrastructure? Target closure dates can be determined by extrapolating from the current orphan fund levy and the closure spend requirement and the estimated total costs of closure.

[Past posts](#) have noted that information and planning about target closure dates was missing, but the OWA 2023/2024 annual report, the 2025 closure spend requirement, and records obtained using the *Freedom of Information and Protection of Privacy Act*, [RSA 2000, c F-25](#) provide a reasonably clear view of the AER and OWA's target closure date for the orphan inventory and a vague and troubling answer for the AER's target closure date for the inactive inventory.

The target closure date for the orphan inventory is 2036, anticipating stability in the conventional oil and gas field for the next decade. The AER has not clearly established a target closure date for inactive and decommissioned infrastructure, basing their planning on a target date for the total amount of inactive liabilities to begin to fall. Extrapolating from the AER's partial plan indicates a target closure date beyond 2038, with most of the costs for inactive closure remaining to be paid after 2034. This target closure date assumes that Alberta's conventional oil and gas industry will have a massively increased ability to pay for closure work in the mid 2030s. This expectation of a late 2030's oil boom is doomed to fail.

Background

Returning the site of oil and gas infrastructure to an equivalent land capability can involve many steps, including decommissioning (abandonment), remediation, reclamation, and revegetation. '[Closure](#)' is a term the AER has begun using for the entire process – previously the terms 'Abandonment and Reclamation Obligations' or 'ARO' were used.

For [more than a decade](#), ABlawg posts by Nigel Bankes, Shaun Fluker, Martin Olysznski, myself, and others have discussed the problems with Alberta's regulatory approach to conventional oil and

gas closure liabilities. As a summary for readers not familiar with the oil and gas closure liability problem: a catastrophically poorly designed liability management system failed to require oil and gas companies to perform closure and failed to collect financial security for closure costs, so that oil and gas companies accumulated massive inventories of inactive infrastructure and the AER holds little security for security for their closure. The AER [internally recognized the scale of the problem in 2018](#), and the Alberta government gave the AER [vague general instructions to replace its approach to the problem in July 2020](#). As of August 2024, the ‘new’ liability management system is still in flux, key decisions have not been made, and [major parts are still missing](#).

Although media reports often use the shorthand ‘orphan wells’ and ‘inactive wells’, the term ‘infrastructure’ is more accurate since the problem includes things attached to those wells: [facilities](#) (such as batteries, gas plants, meter stations) and pipelines. [Conventional oil and gas infrastructure](#) excludes the closure liabilities of the oilsands mines, which are handled by a different but [equally poorly designed liability management system](#).

I will discuss two separate closure targets in turn: one for the orphan inventory and one for the inactive inventory.

The Target Closure Date for the Orphan Inventory is 2036

The orphan inventory consists of oil and gas infrastructure that has no solvent licensee and which the AER has designated an ‘orphan’ under section 70(2) of the *Oil and Gas Conservation Act*, [RSA 2000, c O-6 \(OGCA\)](#). In practice, the infrastructure licensed to a corporation is not usually designated an ‘orphan’ when a company enters bankruptcy, but only later when the bankruptcy process is completed with the bankrupt estate lacking the funds to pay for closure and the trustee unable to find any viable purchasers for the infrastructure. There is therefore a delay between a corporation entering a bankruptcy process and its infrastructure going to the OWA. The OWA is aware of this delay and accounts for it in its planning.

Although the OWA conducts planning for the orphan fund, the amount of money in the fund is dependent on the annual orphan fund levy set by the AER (*OGCA*, s 73) and the AER is responsible for supervising the OWA’s planning. Notably, in March 2023 the Auditor General reported that prior to 2022 the AER had not been scrutinizing the orphan fund levy proposed by the OWA to ensure the long-term sustainability of the Orphan Fund (see the Auditor General’s 2023 report [here](#) at 24-27 and a summary post [here](#)).

Following the Auditor General’s recommendations, the AER and OWA set a target closure date of 2036, meaning that the AER plans to set the orphan fund levy at an amount that the AER expects will be sufficient for the OWA to repay its loans from the provincial and federal governments and complete closure of both the OWA’s current inventory and its anticipated new inventory from ongoing bankruptcy processes by 2036. Another way to understand this is that 2036 is the scheduled end of the orphan oil and gas infrastructure crisis that began around 2015. If the plan works and the schedule is kept, the OWA would enter 2037 with either no inventory, or a small and manageable inventory of new orphans from 2036.

The plan is for the OWA’s expenditures and revenues to balance out by 2036. From 2025 to 2036, the OWA expects to have expenditures of around \$1.5 billion for closure work, loan repayment, and administrative and legal costs. The OWA estimates the total remaining closure cost of the orphan inventory to be \$862 million. (OWA 2023/2024 Annual Report, at 5). As the Sequoia bankruptcy concludes, \$300 million or so in new closure costs will be added to that, less the [\\$30 million settlement payment](#) from the Perpetual Group. The OWA also has \$390 million in government loans, consisting of two loans from the Alberta provincial government and one from the federal government, to be repaid sequentially. The OWA’s loan repayment schedule for each year is as follows:

Year	Amount	Level of Government
2024	30,198,413.00	Provincial Loan 1
2025	30,198,413.00	Provincial Loan 1
2026	30,198,413.00	Provincial Loan 1
2027	7,549,600.25	Provincial Loan 1
2028	25,000,000.00	Provincial Loan 2
2029	25,000,000.00	Provincial Loan 2
2030	25,000,000.00	Provincial Loan 2
2031	25,000,000.00	Provincial Loan 2
2032	50,000,000.00	Federal Loan
2033	50,000,000.00	Federal Loan
2034	50,000,000.00	Federal Loan
2035	50,000,000.00	Federal Loan

(OWA 2023/2024 Annual Report, at 35. Note that actual payments are scheduled quarterly)

On the revenue side, the OWA plans on a relatively stable \$135 million orphan fund levy until 2036, recognizing some increases or decreases may be necessary with a significant source of uncertainty being the total amount of infrastructure that will be orphaned by the Sequoia bankruptcy. The OWA budget is also impacted by administrative costs, funds from security collected by the AER, salvage sales, and other smaller issues (see the OWA 2023/2024 Annual Report, at 28).

The anticipated revenues and expenses roughly balance out around 2036. In order to work, the plan requires (1) stability in the conventional oil and gas industry’s ability to pay the orphan fund levy until 2036; and (2) that the AER’s new liability management framework will be effective at preventing large numbers of unsecured infrastructure being orphaned. The best thing about the target closure date for the orphan inventory is that it exists, meaning the forward planning the Auditor General noted was missing now exists. Opinions on the adequacy of the 2036 target closure date for the orphan inventory will vary depending on your expectations on the impact of the transition away from hydrocarbons and future climate change policy on oil and gas prices and the Alberta industry’s ability to attract sufficient investment.

I consider the 2036 target closure date for the orphan inventory to be far too optimistic and to place too much risk on Albertans. I do not think it is reasonable to expect Alberta’s conventional oil and gas industry to be stable and profitable from 2026-2036 given the increasing competitiveness of low carbon alternative energy sources and the urgency of a transition away from hydrocarbons to

reduce the devastation of climate change. I also have no faith in the AER's liability management system to avoid any major surges in new orphans until 2036. There are good reasons to doubt industry's ability to consistently pay the orphan fund levy to 2036. The orphan fund levy should be set higher while oil prices are strong. Shifting to a closer 2030 target closure date would be more protective of the polluter pays principle.

The Target Closure Date for the Inactive and Decommissioned Inventory is 2038 or Beyond

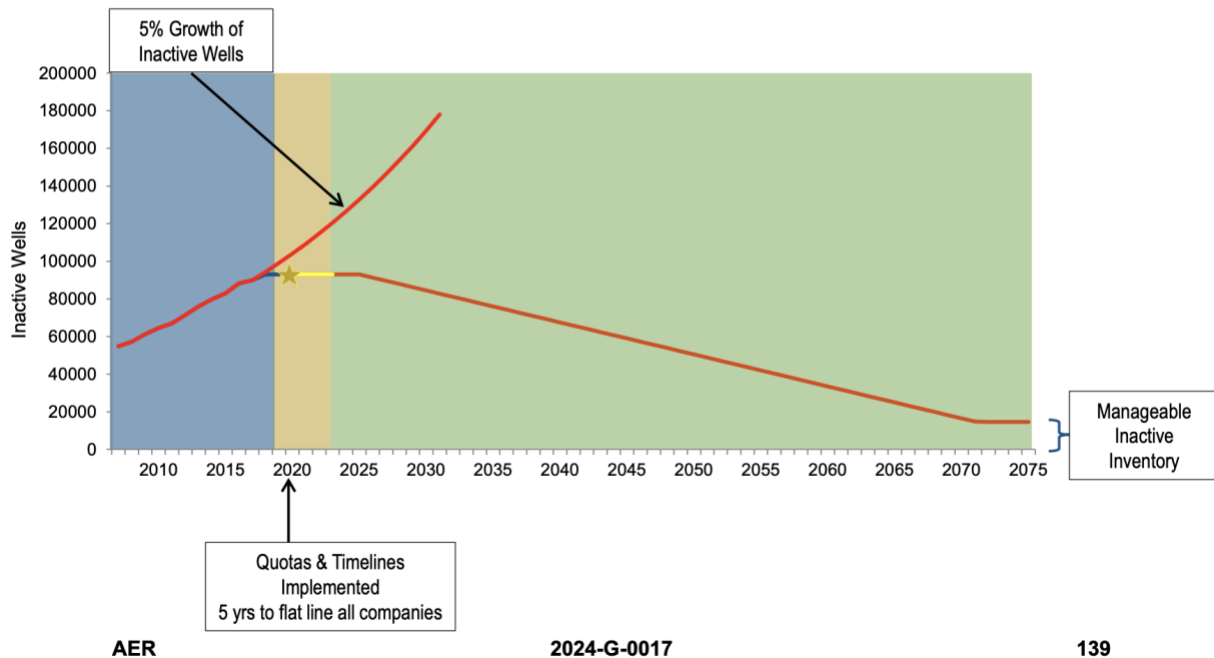
The inactive and decommissioned inventory consists of: (a) inactive oil and gas infrastructure, meaning infrastructure that has not been in use for 6 or 12 months, depending on the type of infrastructure, and (b) infrastructure sites that have been decommissioned but not yet reclaimed. (I note that the term 'inactive' is sometimes used as a narrow category excluding decommissioned sites, and sometimes including them.) Most of the inactive and decommissioned inventory has no chance of profitable reactivation. Closure of all inactive and decommissioned infrastructure would not shrink Alberta oil and gas production.

Starting in 2022, the AER introduced a closure spend requirement mandating the oil and gas industry to spend a certain amount of money on closure each year. There has been confusion around the name of the program. The AER initially called it the "mandatory closure spend target", now calls it the "industry-wide closure spend requirement", and it is called a "closure quota" in its enabling regulation, section 3.014 of the *Oil and Gas Conservation Rules*, Alta Reg 151/1971. AER Bulletin 2024-19 set the closure spend requirement for 2025 at \$750 million. The target closure date for the inactive and decommissioned inventory can be calculated by comparing the planned closure spend requirements to the estimated closure costs for inactive and decommissioned infrastructure.

The initial 2022 closure spend requirement was set as an estimate of past annual spending. Because the AER was aware past annual spending was insufficient, this method did not fit any plan. Three slides from internal PowerPoints obtained by *FOI* requests show the evolving AER planning about the amount of the closure spend requirement and target closure date for the inactive and decommissioned inventory.

Slide 1 is from 2018, when the closure spend requirement was being developed, and it shows a plan to reduce the number of inactive wells to a manageable level by 2070. Slide 1 shows the AER was considering timelines out to 2075 to manage the problem.

Closure Requirements Needed Next 5, 10 yrs and beyond

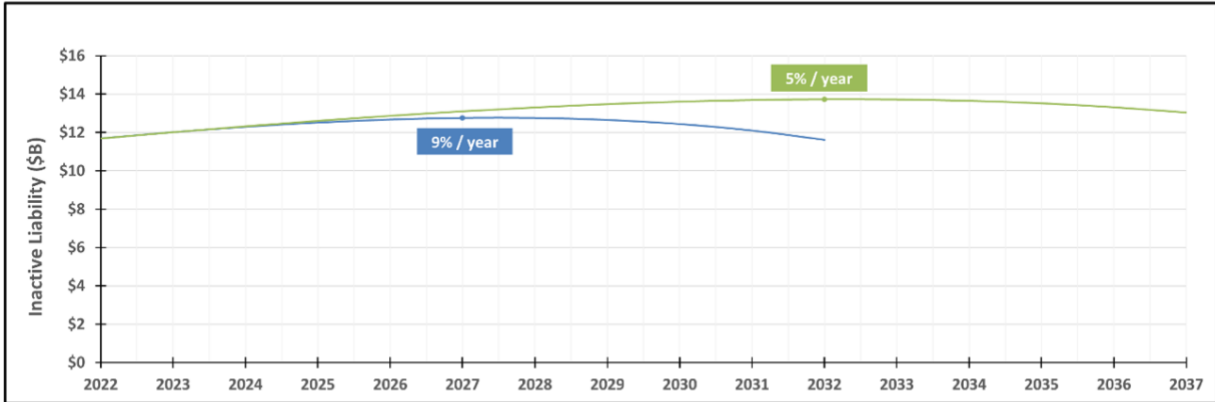


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Slide 2 is from an April 2022 presentation the AER gave to the Canadian Association of Petroleum Producers and the Explorers and Producers Association of Canada showing estimates inactive liability out to 2037. Slide 2 shows Scenario #2, where the closure spend requirement raised to \$700 million for 2023. (Scenario #1, not included, shows an option not taken where the closure spend requirement would not be increased to \$700 million for 2023.)

Bending the Curve

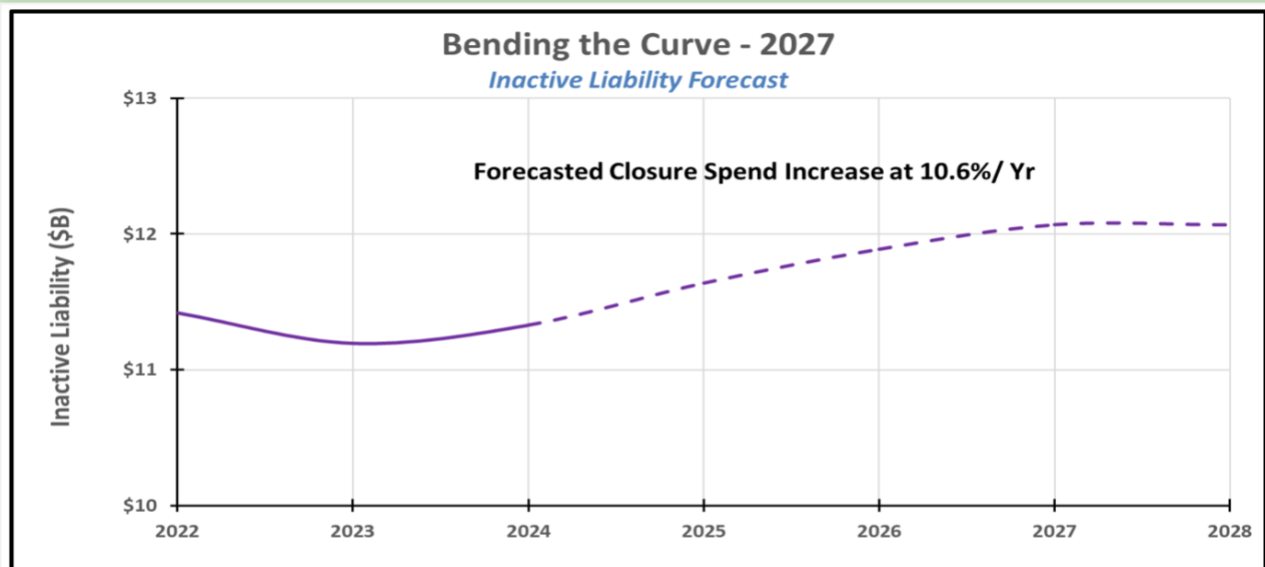
Scenario #2 – Increase target to \$700M in 2023



Closure Spend (\$MM)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Bend in 5 Years	\$442	\$700	\$764	\$833	\$909	\$992	\$1,082	\$1,180	\$1,288	\$1,405	\$1,533					
Bend in 10 Years	\$442	\$700	\$735	\$772	\$810	\$851	\$893	\$938	\$985	\$1,034	\$1,086	\$1,140	\$1,197	\$1,257	\$1,320	\$1,386

AER 5

Slide 3 is from a May 2024 presentation to the board of the AER that shows estimated future forecasted inactive liability until 2028. The dip in liabilities from 2022 to 2023 was caused by the federal government subsidizing \$863 million in closure work with public money. It was initially a [billion dollar grant](#) to close inactive sites, but [\\$137 million](#) was not spent by the end of the program and was returned.



Year	2022	2023	2024	2025	2026	2027
Industry Quota (\$MM)	\$422	\$700	\$700 2024-G-0012	\$774	\$856	\$947 7

Security Classification: Protected A

AER 7

Actual annual closure spend requirements so far have been:

2022	2023	2024	2025
\$422 million	\$700 million	\$700 million	\$750 million

All three slides reflect the AER’s expectation of 5% annual increase in inactive infrastructure each year, which the AER estimates to be \$700 million in newly inactive liabilities each year. This means a \$700 million closure spend requirement is trading water – it maintains the size of the inactive and decommissioned inventory without decreasing it.

Slides 2 and 3 both graph “bending the curve” – something the AER appears to have repurposed from COVID management. This is not a useful idea for closure liability management. Closure liabilities are not infectious. The AER should be planning out to the target closure date, and the AER should be embarrassed that they are setting the closure spend requirements so low that inactive liabilities are still *continuing to rise*. The correct time to have inactive and decommissioned liability amounts decrease is immediately. Both 2027 and 2032 are ridiculous approaches. The AER’s decision to only graph “bending the curve” is insupportable.

The AER’s official estimate of Alberta’s inactive closure liabilities is around \$12.3 billion. The official estimate increased by \$854 million in June 2024 when AER [Bulletin 2024-16](#) updated the cost estimates for well abandonments (see [the video](#) released by the AER at 16:30). The estimate will significantly increase when the AER updates the other parts of their estimate of conventional oil and gas liabilities: closure costs for pipelines, facilities, and well reclamation are all currently underestimated. The AER is doing their planning on estimates they know are incorrect, which defeats the purpose of planning.

Considering the June 2024 increase to the inactive liability estimate and comparing the actual closure spend requirements to the proposed annual closure spend requirements shown on slides 2 and 3, it is clear the AER is not setting the closure spend requirements high enough for inactive liabilities to consistently decrease starting in 2027. The AER is also repeatedly cancelling or reducing the planned increases the AER’s internal planning indicates are required.

Following the current plan, the AER can expect conventional oil and gas inactive liability to begin to decrease sometime after 2027. The lower row on slide 2 shows that the AER is clearly aware the closure spend requirement will need to rise above \$1.3 billion even to fit a very distant target closure date. If the forecasted annual 10.6% increase to the closure spend requirement is extrapolated, the closure of the inactive and decommissioned inventory will be paid for in 2038, but that would require a closure spend requirements of \$2.8 billion. The AER must: (a) believe that the conventional oil and gas industry will have an ability and willingness to pay for closure four times greater in 2038 than it does in 2024, (b) that the inactive and decommissioned inventory closure problem should be allowed to extend out beyond 2040, or (c) have not considered the problem enough to realize those problems. But I do not find possibility (c) credible. The AER’s switch from planning and graphing to the end of the problem to only planning to “bend the curve”

is willful blindness. At least some within the AER must be aware the current approach to the annual closure spend requirements is not a credible solution.

Conclusion

The planning for the orphan inventory predicts stability in the oil and gas industry until 2036, while the planning for the inactive and decommissioned inventory assumes fantastic growth in the oil and gas industry through 2038 or longer. The 2036 target closure date for the orphan inventory is unrealistically overconfident about the stability of Alberta's conventional oil and gas industry, but it still compares favourably to the AER's completely irrational approach to the inactive oil and gas inventory that expects the oil and gas industry to be flush with cash in the late 2030s, when the conventional industry is almost certain to be in financial trouble. This plan will end with the AER enforcing regulatory obligations against industry after industry is no longer able to pay, defeating the polluter pays principle. To fit a 2030 target closure date, the annual spend requirement would need to be at least \$2.7 billion. The AER has been aware of the inactive inventory problem since 2018 (as evidenced by slide 1) and has squandered the last six years with an approach so slow that the inactive problem is growing, and only briefly shrank because of the federal government's \$863 million subsidy to the oil and gas industry. If you pay taxes in Canada, you are already paying for this problem.

This post may be cited as: Drew Yewchuk, "The Alberta Energy Regulator's Planned Timelines for Orphan, Inactive, and Decommissioned Oil and Gas Infrastructure" (16 Aug 2024), online: ABlawg, http://ablawg.ca/wp-content/uploads/2024/08/Blog_DY_AER_Closure.pdf

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