NOVEMBER 2025

ACCOUNTING FOR THE CANADIAN OIL & GAS LIABILITIES GAP

INVESTORS *for* PARIS COMPLIANCE

CONTENTS

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ABOUT INVESTORS FOR PARIS COMPLIANCE

Investors for Paris Compliance (I4PC) is a shareholder advocacy organization that works to hold Canadian publicly-listed companies accountable to their net zero commitments. More information can be found here.

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EXECUTIVE SUMMARY

Canadian oil and gas investors face significant uncertainty regarding the decommissioning liabilities that appear on the financial statements of major companies. Both the overall scale of those liabilities and how they are portrayed on balance sheets are subject to differences in interpretation that have significant impacts on shareholder equity. The industry has a financial incentive to downplay such liabilities. Auditors are supposed to stress test significant material assumptions on behalf of investors, but there is no evidence they do so on this matter.

Here we examine the 15 largest Canadian oil and gas producers regarding how they portray their decommissioning liabilities on their financial statements. We find significant variation in practices – itself a concern for investors – but also systematic underplaying of costs via their accounting judgements. In particular we find:

- A widespread failure to disclose material factors, such as timelines for cleanup and sensitivity analyses of key factors such as estimated costs, inflation, and discount rates.
- Accounting judgments that minimize liabilities in their financials, such as overly-long timelines for remediation, high discount rates, and rosy assumptions regarding future commodity prices that ignore the energy transition.
- A potential massive overall liability gap based on a leaked Alberta Energy Regulator (AER) estimate of liabilities. The 15 companies report about $67 billion of liabilities in today's market prices vs. their share of the AER estimate of $180 billion, a $113 billion gap, or 2.7 times what appears in their financials.
- An across the board failure of auditors to publicly assess decommissioning liabilities assumptions, despite this significant impact on shareholder equity. The AER estimate of $180 billion is more than half the total market capitalization of the 15 companies.

As the energy transition takes hold and the markets for fossil fuels plateau or begin to contract, the retirement of decommissioning liabilities comes into sharper focus since this is predicated on future cash flow. Investors therefore have a growing interest in an accurate portrayal of such liabilities on financial statements so that they feel secure about company valuations.

INTRODUCTION

In this report, dollar values are reported in Canadian dollars unless specified otherwise. The term "decommissioning obligations" is used throughout the report to refer to the costs that companies legally owe to pay for closure activity of energy assets and infrastructure, including decommissioning, remediation, and reclamation activities. The term "decommissioning liabilities" refers to these costs as they are accounted for by companies in their financial reporting. Decommissioning liabilities are also commonly referred to as "asset retirement obligations" in accounting and financial reporting contexts.

The global cost of decommissioning energy, power, mining, industrial, and shipping assets could reach almost USD $8 trillion in the coming decades, according to BNP Paribas Asset Management.[1] Based on regional and industry estimates, oil and gas decommissioning costs in North America could reach nearly USD $500 billion.[2] And yet, accounting data from annual reports and other official financial statements produced by North American oil and gas companies shows that they are currently accounting for only up to USD $248 billion in liabilities.[3] This means that actual costs to decommission oil and gas assets could be at least double the values currently listed on company balance sheets.

1 BNP Paribas, Decommissioning Stranded Energy Assets – A USD 8 Trillion Challenge (2023).
2 Ibid. Breakdown between Canada and the United States not available from this specific report by BNP Paribas.
3 BNP Paribas, The USD 586 Billion Clean-Up Bill: How Decommissioning Liabilities Threaten Corporate Balance Sheets (2025).

Oil sands mines in Canada are already reaching the end of their reserves and operators must begin paying for closure costs, with little warning to investors. In late 2025, Alberta's Mine Financial Security Program (MFSP), which ensures the closure of oilsands mines when they stop operating, collected payment from an oilsands operator for the first time in ten years.[4] Syncrude was required to post $869 million in security for its Mildred Lake-Aurora North mines due to depletion of reserves.[5] It is estimated that the MFSP will collect $10.7 billion for this site over the coming years.[6] While it is unclear whether Syncrude and its owners (Suncor and Imperial are majority owners)[7] were given much warning by the MFSP that they would have to start paying in 2025, it was not noted in either Suncor or Imperial's annual financial reporting that payments were expected for Syncrude.[8]

This is just one story reinforcing the overall narrative that the oil and gas industry has, at a minimum, a decommissioning liabilities transparency problem. Billions of dollars in company valuations are at stake depending on the scale of liabilities acknowledged, the proposed timing of dealing with those liabilities, and the estimated timing/discount rate used by company management.

With so much money in play, investors expect auditors, as well as accounting and auditing regulators, to require robust disclosure and stress testing of assumptions, but this hasn't happened.

Independent analysts have identified major regulatory gaps in upstream oil and gas decommissioning oversight.[9] Carbon Tracker, a London-based think tank, has scrutinized the financial disclosures of carbon-intensive companies – including three of Canada's largest oil and gas producers – to assess whether they appear to account for material climate risks.[10] Oil and gas companies consistently score poorly in relation to accounting for their decommissioning liabilities.[11]

4 Yewchuk, D. The 2025 Mine Financial Security Program Update: Security Collected for Aging Syncrude Mine Offers a First Estimate of Mine Closure Costs. ABLawg. (2025).

5 Yewchuk, D. The 2025 Mine Financial Security Program Update: Security Collected for Aging Syncrude Mine Offers a First Estimate of Mine Closure Costs. ABLawg. (2025).

6 Ibid.

7 Suncor reports it has a 58.74% operated working interest in Syncrude's two producing oil sands mines, Mildred Lake and Aurora North. Imperial Oil reports that it holds a 25% participating interest in Syncrude. See: Suncor, Annual Report (2024) at 21; Imperial Oil, 2024 annual financial statements and management discussion and analysis (2024) at 13.

8 Suncor reported that it expected $436 million in decommissioning and restoration costs in 2025, for all of its operations. Imperial Oil reported that it expected asset retirement obligations to be $231 million in 2025, for all of its operations. It is likely that actual expenditures in 2025 will be higher than expected due to the securities collected by the MFSP for Syncrude. See: Suncor, Annual Report (2024) at 40; Imperial Oil, 2024 annual financial statements and management discussion and analysis (2024) at 94.

9 See for Example: Olszynski, Leach & Yewchuck, Not Fit for Purpose: Oil Sands Mines and Alberta's Mine Financial Security Program (University of Calgary, School of Public Policy, Volume 16:36, December 2023); Yewchuk, D. Fluker, S., Olszynski, M. A Made-in-Alberta Failure: Unfunded Oil and Gas Closure Liability. (2023); Pembina Institute, Unfinished Business: Addressing the emissions and environmental risks of Canada's non-producing oil and gas wells (2025).

10 Carbon Tracker, Flying Blind: Accounting and Auditing Regulation (2025); Flying Blind: In a Holding Pattern (2024); Flying Blind: The glaring absence of climate risks in financial reporting (2021).

11 Climate Action 100+, Key Findings: Net Zero Company Benchmark, (2024); Climate Engagement Canada, Climate Engagement Canada Publishes New Alignment Assessments of Focus List Companies (2025).

In theory, oil and gas company shareholders have another line of defence to ensure that all costs have been properly assessed and presented – the auditors they vote to appoint at AGMs. Audit committees, made up of company board directors, are also responsible to shareholders in their role of ensuring audit integrity.[12] Yet, most audit reports don't appear to stress test the judgments that oil and gas companies make regarding their liabilities. At least they don't say so.

Neither do North American auditors publicly indicate that they challenge or test assumptions made regarding the energy transition. Carbon Tracker also evaluates auditor reports on this issue and finds them broadly deficient.[13] Auditors for eight of the 15 companies included in this analysis have not passed the criteria for the Climate Accounting and Audit Assessment, developed by Carbon Tracker, which assesses whether auditors provide evidence of consideration of energy transition risks.[14] To address this industry accounting shortcoming, international accounting and auditing bodies have issued guidance to support the integration of this type of climate-related financial risks into standard practices.[15] Major auditing firms have also produced pieces on evolving best practices for climate-related accounting.[16] Yet the implementation of such best practices in their actual audit reports is lacking.

BCG RECOMMENDS OIL & GAS COMPANIES REVISIT LIABILITIES ESTIMATES

Boston Consulting Group (BCG) summarizes lessons learned about oil and gas decommissioning liabilities in areas where significant production has already occurred, also known as 'mature basins.'[17] In these areas, it notes estimated decommissioning expenditures are significant and "true cost estimates can vastly exceed published liabilities."[18] BCG highlights how the energy transition has triggered moving decommissioning timelines, new liability owners, increased cost risk, and higher scrutiny on environmental impact. It offers six key recommendations for oil and gas companies to improve their management of these issues, including revisiting their decommissioning estimates. "Our recent analysis warns that cost estimates could increase by 30% or more if market rates were to return to their highest levels," it cautions.[19]

Earlier this year, we reviewed the financial statements and audit reports of Canada's two largest upstream oil and gas companies. We found minimal reference to consideration of the energy transition and the inclusion of its potential impact on asset lifespans, future commodity prices, or the timing and cost of decommissioning obligations.

12 Norton Rose Fulbright, Audit Committees - What, How and Why (2016).
13 Carbon Tracker, Flying Blind: Disabling Autopilot for Audit Reports (2025).
14 Climate Action 100+, Key Findings: Net Zero Company Benchmark, (2024); Climate Engagement Canada, Climate Engagement Canada Publishes New Alignment Assessments of Focus List Companies (2025).
15 IFRS, IFRS Foundation publishes near-final examples on reporting uncertainties in the financial statements using climate-related examples, (2025); International Auditing and Assurance Standards Board (IAASB), The Consideration of Climate-Related Risks in an Audit of Financial Statement, (2025).
16 See for Example: KPMG, Climate risk in the financial statements: Handbook, (2024); PwC, Weathering The Storm of Reporting: Climate Risks in Audited Financial Statements, (2022).
17 Boston Consulting Group, Oil and Gas Decommissioning: Lessons from Mature Basins, (2024).
18 Ibid at 1.
19 Ibid at 11.

This report assesses whether the audited financial statements of the top 15 upstream oil and gas companies in Canada[20] appear to properly account for their decommissioning liabilities, particularly in light of the energy transition. We focus our analysis on Canada's upstream oil and gas sector because the oilsands represent the largest single source of oil and gas sector decommissioning obligations in the country.[21]

Together, these 15 companies represent over 60% of oil and gas production in Alberta in 2024.[22] By revenue, they represent over 75% of the Canadian oil and gas exploration and production market.[23] This sample was selected to be representative of the upstream oil and gas industry (see Table 2 for the list of companies by name).

While each of these energy companies reported decommissioning liabilities, the scale of those amounts is in question given the Alberta Energy Regulator's (AER) leaked assessment of the overall liabilities price tag. Also, there are significant inconsistencies and gaps in the ways that the companies report them and no apparent consideration of the impact of the energy transition on the timing of clean-up and ability to pay.

Again, at stake are billions in company valuations, as well as taxpayer money. Investors are at significant risk without improvements in disclosure and without auditors doing their work in a transparent manner.

BNP PARIBAS LIABILITIES GAP RESEARCH

This is not an endorsement of the service, but its existence is telling. European asset manager BNP Paribas Asset Management markets a service to oil and gas companies focused on the prefunding of decommissioning liabilities and the long-term management of decommissioning reserve funds. These funds are dedicated to ensuring that corporations face their environmental liabilities without credit rating and default risks.[24] The prefunding can rely on decommissioning bonds issued by the companies with liabilities, with proceeds solely used to prefund decommissioning.

BNP Paribas Asset Management states: "Measurement remains relatively uncertain and often subjective, which can lead to significant under- or overstatement of liabilities. The timing of settlement is often unclear, affecting present value calculations and financial reporting accuracy. Some environmental liabilities may not be recognised until they become probable and measurable, which can delay recognition and misrepresent true risk exposure."[25]

20 According to S&P Capital IQ market capitalization data, as of July 2025.
21 Alberta Energy Regulator, Mine Financial Security Program – Security and Liability (2025).
22 Alberta Energy Regulator Alberta Production Summary 2024 - Companies (2024).
23 Revenue data comes from companies' 2024 audited financial statements. Total revenue for the exploration & production industry in Canada comes from Statistics Canada Table 33-10-0226-01.
24 BNP Paribas, Decommissioning stranded energy assets (2025).
25 BNP Paribas Asset Management, How Decommissioning Liabilities Threaten Corporate Balance Sheets (June 2025) at 5; Decommissioning: A $ 3.6 Trillion Challenge (May 2020).


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1. FAILURE TO DISCLOSE MATERIAL INFORMATION & KEY SENSITIVITIES

The International Accounting Standards Board (IASB) – which governs the International Financial Reporting Standards (IFRS), the accounting standards followed by the assessed companies[26] – will soon release new guidance illustrating how companies with even "immaterial" decommissioning liabilities should consider including a description of the obligations, the timing of expected payment of the liabilities, and an indication of any uncertainties about the amount or timing of the liabilities.[27] This guidance clarifies standards that already existed under the IFRS, but are not being consistently applied.

However, while all 15 assessed companies report the present value of their decommissioning liabilities and the discount rate used in their estimate (both defined in Table 1), only some report other material information, like the timeline over which these costs are spread. None provide energy transition-related sensitivities around key inputs like estimated decommissioning costs, timelines, inflation rates and the discount rate. This means that investors cannot assess the credibility of, or effectively stress test, this major balance sheet liability.

Table 1 illustrates the inconsistencies in upstream Canadian oil and gas company disclosures of decommissioning liabilities.


Stock.com / Tanya Davison

26 Except for Imperial Oil, which follows US GAAP.

27 IASB, Disclosures about Uncertainties in the Financial Statements Illustrated using Climate-related Examples Illustrative Examples, Near-final staff draft (July, 2025).

TABLE 1. Decommissioning liability disclosure gaps among Canadian upstream oil & gas companies.

DECOMMISSIONING LIABILITIES: FINANCIALLY MATERIAL INFORMATION	% OF COMPANIES DISCLOSING
Energy Transition-related sensitivities	0%
Undiscounted future cash flows estimate: Total decommissioning costs when paid for in future, accounting for inflation, per expected timing of payments of liabilities (see below)	40%
Current costs estimate: Total estimated decommissioning costs if paid for today (without inflation or discount rate applied)	46%
Timing of payments of liabilities: when decommissioning costs are expected to become due	87% (from 40 to 60 years)
Inflation rate: The rate used to calculate the value of money in the future	87% (companies use rates around 2%)
Discount rate: The rate used to reduce (or "discount") future costs or cash flows to reflect their value in today's terms, accounting for the time value of money and asset risk	100% (companies use rates ranging from 3.3% to 10%)
Present value of liabilities: Future costs to decommission assets are discounted so they reflect today's prices and the time value of money. This value is shown on a company's balance sheet as a liability (provision) in accordance with accounting requirements.	100%

The above gaps are an issue for a number of reasons, most importantly because financially material information is not being disclosed that could influence investment decision-making. Additionally, it means that comparisons cannot be drawn across similar companies. A lack of standardized accounting practices across the selected companies renders disclosures ineffective for creating independent company valuations. Table 2 outlines the companies that were analyzed and the identified gaps in their 2024 reporting.

TABLE 2. Company Disclosures of Financially Material Information Related to Decommissioning Liabilities.

Notes: N.D. stands for "Not Disclosed". All figures are in Canadian dollars.

DECOMMISSIONING LIABILITIES: FINANCIALLY MATERIAL INFORMATION	SUNCOR	CENOVUS	CNRL	IMPERIAL OIL	TOURMALINE OIL	ARC RESOURCES	WHITECAP RESOURCES	STRATHCONA RESOURES
Energy transition-related sensitivity analysis	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Current costs estimate	$21.5bn	$7.68bn	N.D.	N.D.	N.D.	$0.599 bn	N.D.	$1.041bn
Future costs estimate - Undiscounted cash flows	N.D.	$15.6 bn	N.D.	N.D.	$2.8 bn	N.D.	$2.6 bn	N.D.
Timing of payments of liabilities	Over asset lives which can exceed 50 years	Provides detail only for the next 5 years	Up to 60 years	N.D.	N.D.	Payments evenly over 57 years	Timing of payment of cash flows is up to 54 years	Timing of payment over 58 years, "substantially expected to be incurred between 2025 and 2083"
Inflation rate	N.D.	2%	Up to 2%	N.D.	1.82%	2%	2%	2%
Discount rate	4.8%	5.2%	4.8%	6%	3.33%	3.3%	3.3%	10%
Present value of liabilities	$12.3bn	$4.534 bn	$4.783bn (for North America)	$2.833 bn	$1.010 bn	$0.431 bn	$1.091bn	$0.291 bn
Additional disclosures								
Sensitivity analysis	Sensitivity analysis of discount rate increase/ decrease by 1%	Sensitivity analysis of discount rate increase/ decrease by 1%	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Auditor	KPMG	PwC	PwC	PwC	KPMG	PwC	PwC	Deloitte
Reporting standards	IFRS	IFRS	IFRS	US GAAP	IFRS	IFRS	IFRS	IFRS
Auditing standards	PCAOB	PCAOB	PCAOB	PCAOB	Canadian GAAS	Canadian GAAS	Canadian GAAS	Canadian GAAS
Auditor included decommissioning liabilities in key/critical audit matters	No	No	No	No	No	No	No	No

TABLE 2, CONT'D. Company Disclosures of Financially Material Information Related to Decommissioning Liabilities.

Notes: N.D. stands for "Not Disclosed". All figures are in Canadian dollars.

DECOMMISSIONING LIABILITIES: FINANCIALLY MATERIAL INFORMATION	MEG ENERGY	PEYTO EXPLORATION & DEVELOPMENT	PARAMOUNT RESOURCES	ATHABASCA OIL	NUVISTA ENERGY	TAMARACK VALLEY ENERGY	BAYTEX ENERGY
Energy transition-related sensitivity analysis	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Current costs estimate	N.D.	N.D.	N.D.	N.D.	$0.155 bn	$0.268 bn	$0.845 bn
Future costs estimate - Undiscounted cash flows	$0.898 bn	$0.971 bn	N.D.	$0.392 bn	N.D.	N.D.	N.D.
Timing of payments of liabilities	41 years, "provision estimated to be settled in periods up to the year 2066"	50 years, majority of payments being made in years 2045 to 2071	Expected over the next 51 years	Expected over the next 50 years	47% expected to be settled within the next 10 years	Expected over the next 40 years	Expected over the next 55 years
Inflation rate	2.1%	2%	2%	2%	1.8%	2%	1.8%
Discount rate	8.5%	3.33%	7%	7% to 8%	3.3%	3.3%	3.3%
Present value of liabilities	$0.161 bn	$0.366 bn	$0.370 bn	$0.122 bn	$0.122 bn	$0.195 bn	$0.641 bn
Additional disclosures							
Sensitivity analysis	N.D.	N.D.	N.D.	Sensitivity analysis of discount rate increase/ decrease by 1%	N.D.	N.D.	N.D.
Auditor	PwC	Deloitte	EY	EY	KPMG	KPMG	KPMG
Reporting standards	IFRS	IFRS	IFRS	IFRS	IFRS	IFRS	IFRS
Auditing standards	Canadian GAAS	Canadian GAAS	Canadian GAAS	Canadian GAAS	Canadian GAAS	Canadian GAAS	PCAOB
Auditor included decommissioning liabilities in key/critical audit matters	No	No	No	No	No	No	No

2. HOW ACCOUNTING JUDGMENTS CAN ALTER LIABILITY AMOUNTS

A. TIMING

The 15 assessed companies indicate that the timing of payments for their decommissioning liabilities will follow in accordance with asset lifespans that range from 40 to over 60 years, taking us to 2085 (see Table 3). It is not clear how the energy transition and companies' own targets or decarbonisation strategies are reflected in these projected lifespans. For example, BloombergNEF estimates that upfront price parity between electric vehicles and internal combustion vehicles will be achieved over the next few years,[28] adding to already lower fuel and servicing costs.[29] Unless oil and gas infrastructure can be repurposed (e.g. for geothermal or renewable energy storage or as refineries for biofuels), obsolescence will force many oil and gas assets into early retirement around the world, including in Canada, thereby accelerating decommissioning liability maturities.[30]

Delaying the projected payout of decommissioning liabilities leads to more attractive financials because the time value of money principle holds that money available today is worth more than the same amount in the future due to its potential earning capacity. Debt ratios appear smaller, resulting in higher credit ratings, which companies are likely concerned about — for example, Suncor was downgraded to 'BBB-' (a low to medium credit rating, "just above junk" according to Bloomberg) by S&P Global Ratings in December 2024.[31]

The assessed companies do not provide sensitivity analysis for these payment timelines. Ideally, upstream oil and gas companies would provide a sensitivity analysis to impacts of the energy transition, on both timing of payments and timing of decommissioning activities. For example, in its 2024 financial reporting, Shell provides an analysis of how climate change and the energy transition may impact the estimated useful lives of its assets, the discount rate it uses, and its decommissioning liabilities.[32]

28 The Driven, Graph of the Day: EVs are nearing price parity with petrol and diesel cars (July 2025).

29 The Driven, To EV or not to EV? A clear cost analysis between electric vehicles and ICE cars (February 2023).

30 Carbon Tracker, Overlooked: Why oil and gas decommissioning liabilities pose overlooked financial stability risk (2023) at 4.

31 S&P Global, Suncor Energy Inc. Ratings Lowered To 'BBB-' On Weak Midcycle Credit Ratios; Outlook Stable; ST Ratings Revised To 'A-3' (December 2024); Bloomberg, S&P Downgrades Suncor to Just Above Junk as Oil Prices Weaken (December 2024).

32 Shell, Annual Report and Accounts 2024, at 258, 264.

B. DISCOUNT RATES

Applying a discount rate to future cash flows is a standard accounting practice, especially when measuring long-term liabilities. It reflects current market assessments of the time value of money and the risks specific to the liabilities. Along with a reduction for estimated inflation over the estimated time period, this produces the present value of a future liability, which appears on the balance sheet. A higher discount rate used when accounting for liabilities results in a smaller present value on the balance sheet.

The discount rates used by the 15 assessed companies vary significantly. While the average discount rate used is 5%, one uses a discount rate as high as 10%. The resulting impact on the balance sheet is that the higher discount rates and asset life assumptions can lead to reported liabilities more than five times smaller than when lower discount and life spans are applied. It is important that companies disclose how they determined the discount rate used.

To demonstrate, the tables below show how the assumptions and estimates used can provide a range of potential decommissioning liabilities. The examples include a company with estimated future costs to settle obligations of $10 billion and $40 billion. Since timing also significantly impacts how liabilities are reported, the tables demonstrate the difference between assuming that the relevant obligations will be settled in approximately 50 years (e.g. related assets will have a 50-year asset lifespan), which is typical amongst this group of 15 companies, and in approximately 25 years (e.g. related assets will have a 25-year asset lifespan), which is more consistent with global trends for the energy transition.

TABLE 3: Example of how different discount rates and time periods impact the present value of liabilities, which appear on the balance sheet

		PRESENT VALUE	
	DISCOUNT RATES	50-YEAR ASSET LIFE	25-YEAR ASSET LIFE
ESTIMATED COSTS: **$10 billion**	3.33%	$1.944 billion	$4.409 billion
	5%	$872 million	$2.953 billion
	10%	$85 million	$923 million

		PRESENT VALUE	
	DISCOUNT RATES	50-YEAR ASSET LIFE	25-YEAR ASSET LIFE
ESTIMATED COSTS: **$40 billion**	3.33%	$7.776 billion	$17.636 billion
	5%	$3.488 billion	$11.812 billion
	10%	$341 million	$3.692 billion

Most of the 15 companies disclose using a type of discount rate known as a "credit-adjusted" rate. This type of discount rate tends to be higher because it includes adjustments for a company's credit risk,[33] due to the potential of the company to default ahead of the liability coming due, which would mean being able to avoid the liability altogether.

As a result, companies that use this to determine the discount rate end up with smaller provisions for decommissioning liabilities on their balance sheets than companies that don't. The IASB is considering specifying that companies must use a risk-free discount rate when accounting for decommissioning liabilities under the IFRS.[34] This will help streamline discount rate usage and improve comparability of liabilities.

Deeply discounted decommissioning provisions, particularly those that are estimated to be settled over an extended time period, can leave investors in the dark about the corresponding cost amounts that will inevitably need to be funded through future revenues.

C. UNREALISTIC COMMODITY PRICE ASSUMPTIONS

Central to the assumptions made in the audited financial statements of oil and gas companies are the projections of future oil and gas prices. The projected price of the raw commodities sold by oil and gas companies are key inputs to future revenue projections used for forecasted cash flows in impairment tests, which impact the presumed discount rates used to derive the present value of decommissioning liabilities and the ability of those companies to make those payments.

Of the 15 assessed companies, only five disclose their commodity price assumptions, and all of these are optimistic. Figure 1 provides a visual comparison of commodity price projections from companies against the International Energy Agency's (IEA) oil and gas price projections in various future energy transition scenarios. Higher commodity price projections generally mean higher forecasted oil and gas revenues. Figure 1 shows that all assessed Canadian upstream oil producers apply the most positive commodity price projections which do not appear to account for energy transition risk. Notably, none of the companies provide a sensitivity analysis of this key input to IEA scenarios.

Climate Engagement Canada (CEC), an investor-led initiative that engages with Canada's top emitters, notes that three assessed oil and gas companies do not disclose a maximum price in their commodity price forecasts used in impairment testing, or the year it was reached.[35] While CEC does not specify which companies it deemed as having missed that metric, it aligns with findings here which suggest there is a lack of discipline regarding forward-looking price assumptions in capital planning at most major Canadian oil and gas companies.

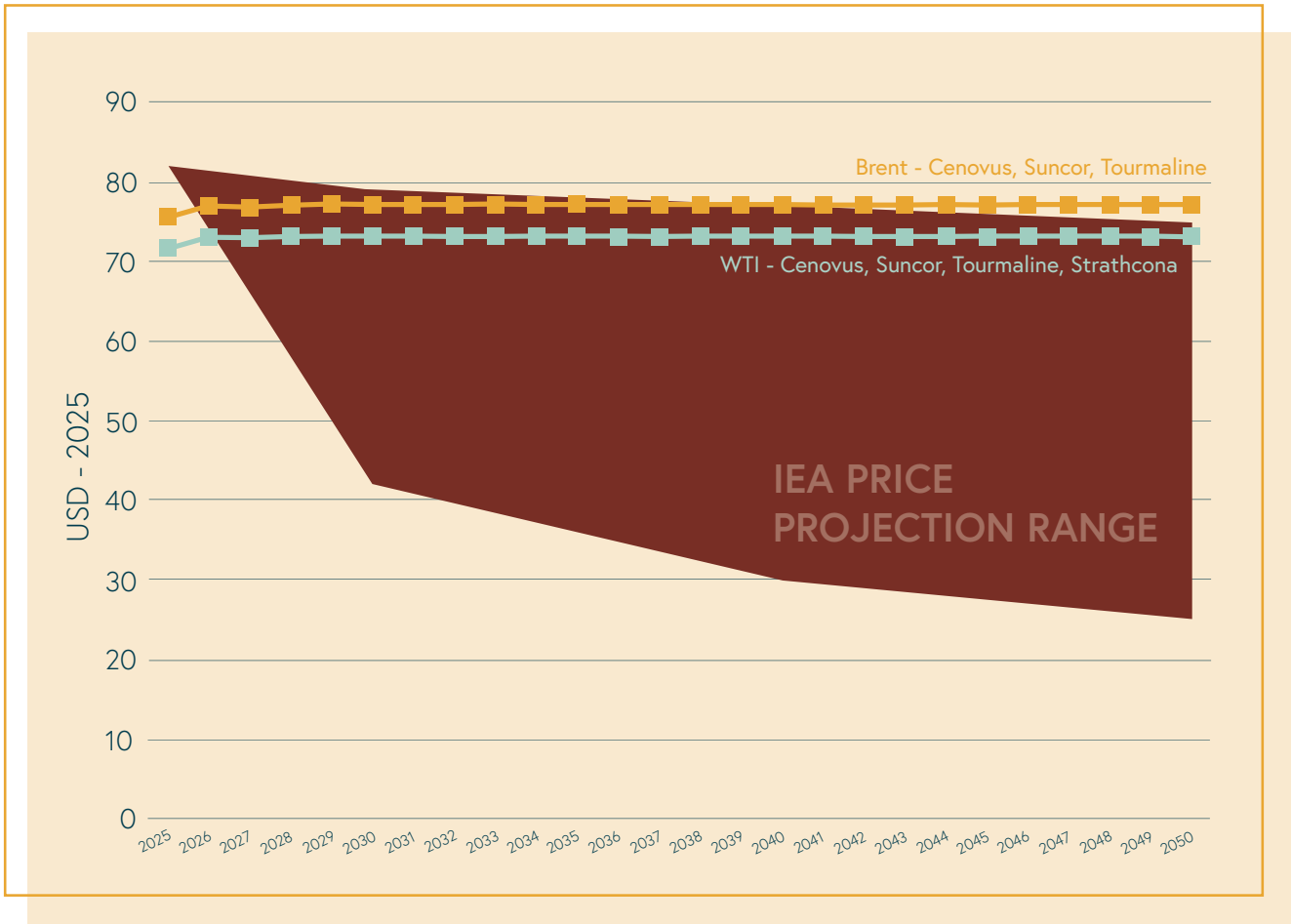
33 IASB, Exposure Draft: Provisions—Targeted Improvements—Proposed amendments to IAS 37 (November 2024).

34 IASB, Exposure Draft: Provisions—Targeted Improvements—Proposed amendments to IAS 37, (2024) at 6.

35 Climate Engagement Canada, Alignment Assessments of Focus List Companies (2025).

While all five companies with some disclosure note that volatile commodity pricing may adversely affect revenues and shareholder returns, none appear to integrate this consideration – or explicitly the risk posed by shifts away from fossil fuel consumption – into their pricing assumptions used for asset impairment tests. A sensitivity analysis that considers revenue outcomes through different transition scenarios would allow oil and gas companies to better prepare for the expected shifts to energy consumption patterns, while better disclosing risk to their investors. For example, Shell integrates the IEA's net zero emissions scenario into its sensitivity analysis.[36]

FIGURE 1: Crude Oil Price Estimates - IEA vs Canadian Oilsands Companies



The five companies use the same projections for the two most standard crude types, WTI and Brent crude. Figure 2 visualizes what these look like. Their price projections begin below the IEA's model, due to oil price changes between the publication of the IEA's 2024 outlook and the publication of the companies' financial statements.

36 Shell, Financial Statements and Supplements, (2024) at 227.

Up to 2050 they are similar to the IEA's STEPS (stated policies) model, which presumes no policy progress towards the energy transition. By 2026, both the WTI and Brent Crude pricing projections fall above that of the IEA's NZE (net zero emissions) scenario which models an economic scenario in which warming does not exceed 1.5°C. By 2028, the companies' projection for Brent Crude pricing lands above that of the IEA's APS (announced pledges) scenario, which models an economic scenario in which countries advance policies to achieve their stated commitments. By 2030, the companies' projections for pricing of both WTI and Brent Crude fall above all but that of the highest price point IEA model. By 2040, the companies' Brent Crude pricing projection outpaces every IEA scenario. By 2050, commodity price projections are about 25% higher than the IEA's APS scenario, and 200% higher than IEA's NZE scenario.

Throughout the length of this graphic, the pricing projections of the included companies fell well above the mean of the IEA's range of outcomes.

This graph demonstrates that the five companies assume that no progress will be made on global climate policies which disincentivize the consumption of high-emitting fuel sources.

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3. A POTENTIALLY MASSIVE LIABILITIES GAP

How do we know whether the overall scale of decommissioning liabilities the companies are reporting is accurate? In sum, we don't, particularly given the public record.

In 2018 an internal estimate by the AER was leaked to the media,[37] which stated that total industry liabilities for oil and gas operations in Alberta were approximately $260 billion – including $100 billion for conventional oil and gas wells and facilities, $130 billion for oil sands mines, and $30 billion for pipelines.[38] In 2025 dollars, this amounts to $320 billion.[39] This is an estimate of total costs in current prices, so is not a discounted or inflated amount.

There is debate around this estimate. Based on a model developed by the AER's former Vice President of Closure and Liability, it was significantly higher than any figure the AER had previously stated publicly.[40] To verify this estimate, the model used to develop it was obtained by the media through a Freedom of Information request as part of a media investigation.[41]

In its own internal presentation of the model, the AER critiqued its previous lower estimates, stating that the way the Liability Management Ratio was being calculated was ineffective, and it explained that this higher estimate was "calculated internally by SMEs [subject matter experts] based on best available data."[42]

In addition to the rationale provided in the internal AER presentation, the Auditor General of Alberta and legal experts at the University of Calgary have critiqued other frameworks that the AER has provided for estimating total oil and gas liabilities in Alberta.[43] Concerns have been raised that the $260 billion figure – $320 billion in 2025 dollars – is still an underestimation of total liabilities.[44]

37 Alberta Energy Regulator, Liability Management Programs (2025); Global News, Cleaning up Alberta's oilpatch could cost $260 billion, internal documents warn (November, 2018).

38 Alberta Energy Regulator, Liability Challenges Presentation (2018).

39 $260 billion was inflated to 2025 dollars using the Bank of Canada's Inflation Calculator.

40 CBC News, $260B liability figure for abandoned energy infrastructure an 'error in judgment': AER (November, 2018).

41 Global News, Cleaning up Alberta's oilpatch could cost $260 billion, internal documents warn (November, 2018).

42 Alberta Energy Regulator, Liability Challenges Presentation (2018).

43 Report of the Auditor General, Liability Management of (Non-Oil Sands) Oil and Gas Infrastructure - Alberta Energy Regulator (2023); Yewchuk, D. Fluker, S., Olszynski, M. A Made-in-Alberta Failure: Unfunded Oil and Gas Closure Liability (2023); Olszynski, M., Leach, A., Yewchuk, D. Not Fit for Purpose: Oil Sands Mines and Alberta's Mine Financial Security Program (2023).

44 Olszynski, M., Leach, A., Yewchuk, D. Not Fit for Purpose: Oil Sands Mines and Alberta's Mine Financial Security Program (2023).

Other estimates of total upstream oil and gas industry liabilities range from $89.4 billion to $282.4 billion. Currently, the official AER estimate for total industry liabilities is $89.4 billion in 2025 dollars, including $36 billion for wells and facilities[45] as of June 2024, and $52.7 billion for oil sands and coal mines as of June 2025.[46]

A March 2023 report by the Auditor General of Alberta highlighted issues with the AER's current liability management system, estimating total liabilities for wells and facilities at closer to $60 billion – but did not estimate costs related to the oil sands.[47] A report from Environmental Defence and Parkland Institute estimated total liabilities in 2023 at $123 billion.[48] Their estimate includes costs associated with oil sands mines and tailings clean-up based on the conservative upper bound AER public estimate for reclamation.

The leaked AER estimate from 2018 included totals for wells and facilities, mines, and pipelines. For the upstream oil and gas sector – excluding pipelines – it is $282.4 billion in 2025 dollars. Table 4 outlines the various AER and independent estimates.

In addition to the liabilities owed on active and inactive infrastructure, there are additional costs associated with 'orphan' wells – which do not have a legally or financially responsible party, predominantly due to oil and gas companies becoming insolvent and no longer being able to pay for their liabilities.[49] Currently, all existing upstream companies are required to pay an annual levy to the Orphan Well Association, which manages the clean-up of these wells. The total cost to remediate the orphan wells is provided in Table 4.[50]

45 Alberta Energy Regulator, Estimated Liability and Licensee Capability (2024).
46 Alberta Energy Regulator, Mine Financial Security Program – Security and Liability (2025).
47 Auditor General of Alberta, Liability Management of (Non-Oil Sands) Oil and Gas Infrastructure. (2023).
48 Environmental Defence, Past Due: Tallying the Costs of Oil and Gas Cleanup in Canada, (2023).
49 CBC News, Cost to clean up orphan wells in Alberta reaches all-time high (2025).
50 Orphan Well Association, Annual Report (2024/25).

TABLE 4: Independent estimates of total industry decommissioning liabilities

TOTAL INDUSTRY LIABILITIES ESTIMATES	SCOPE OF ESTIMATE: Wells, facilities, mines Pipelines not included	YEAR PUBLISHED	PUBLISHED ESTIMATE, $M	ESTIMATE IN 2025 DOLLARS, $M
Official AER Estimates				
AER Estimate - Liability Management Performance Report	Wells, Facilities	2024	36,000	36,700
AER Estimate - Mine Financial Security Program	Mines	2025	52,700	52,700
Total	Wells, Facilities, Mines		88,700	89,400
Leaked AER Estimate				
AER Estimate - Leaked	Wells, Facilities	2018	100,000	122,800
	Mines	2018	130,000	159,600
Total	Wells, Facilities, Mines	2018	230,000	282,400
Alternate Estimates				
Auditor General of Alberta	Wells, Facilities	2023	60,000	62,300
Environmental Defence and Parkland Institute	Wells, Facilities, Mines	2023	123,000	127,700
Orphan Wells				
Orphan Well Association	Cost to remediate orphan wells	2025	1,100	1,100

A. CALCULATING THE POTENTIAL LIABILITIES GAP

With potentially billions of dollars in company valuations at stake, a sensitivity analysis regarding the potential gap in estimated total liabilities for Canadian oil and gas companies is warranted. Here we compare what the 15 analysed companies collectively disclose regarding the scale of their liabilities with the leaked 2018 AER estimate, adjusted for 2025 dollars, to show the potential scale of the gap.

Note that since 2018, a portion of estimated liabilities at that time have been cleaned up which, if industry stood still, would reduce that number. But, industry has not only continued since that time, but significantly accelerated production and creation of new liabilities.[51] For the sake of this sensitivity analysis, however, we have been conservative and kept the figure constant, adjusted to 2025 dollars.

51 Historic data from companies' annual reports shows that decommissioning liabilities are growing at an average of 9% annually.

To arrive at the collective figure for what the 15 companies are including in their financials, we began with companies that reported current cost estimates and added those together. But, other companies do not report their total decommissioning liabilities in today's market prices (e.g. estimated costs to settle the obligations at the balance sheet date).

Eight of the 15 companies do not disclose their decommissioning liabilities in today's market prices, but it should be noted that all report their liabilities in present value and six provide an undiscounted future cash flows estimate of their liabilities, which is an estimate of total decommissioning costs when paid for in the future, e.g. adjusted for inflation and expected settlement dates. To make comparisons with independent estimates, which are in today's market prices, we need to know companies' total decommissioning liabilities in today's dollars.

For the companies that did not disclose their current decommissioning costs (today's market prices), we used an estimate. To arrive at an estimate of current decommissioning costs for companies that did not disclose, we used an average costs to revenue ratio.[52] This ratio is based on the revenue and decommissioning costs data for the companies that did disclose their current cost estimates. The average ratio of current decommissioning costs to revenue for companies that did disclose was 0.38. For the remaining companies that did not disclose their current decommissioning costs, we multiplied their 2024 Canadian revenue by the current decommissioning costs to revenue ratio to fill in the blanks for their decommissioning costs as outlined in Table 5.[53]

The total of the reported costs plus the estimates for the others, in today's market prices, is about $67 billion.

52 Revenue may have an inverse relationship with decommissioning liabilities over time, as revenue will drop as assets age and corresponding liabilities will increase. A ratio of companies' disclosed current decommissioning costs to their present value disclosures of decommissioning liabilities could also have been used for this analysis. However, the resulting total would have been $17 billion lower than the results from using the ratio outlined in the text. We tried to take a conservative approach in each step of the analysis and avoided over-estimating the potential liabilities accounting gap wherever possible. Therefore, we chose the ratio that resulted in the higher total to represent company disclosures.

53 Canadian revenue data comes from companies' annual reports and S&P Capital IQ. Total revenue for the industry comes from Statistics Canada, Table 33-10-0226-01.

TABLE 5: Estimating current decommissioning costs when not disclosed by companies

COMPANIES	CURRENT COSTS - Estimated total costs at balance sheet date, $M		
	DISCLOSED	ESTIMATED	TOTAL
		Did not disclose - estimated using costs : revenue ratio	Calculated using disclosures/ estimates
Suncor	21,500		21,500
Cenovus	7,680		7,680
CNRL		12,675	12,675
Imperial Oil		15,483	15,483
Tourmaline Oil		2,025	2,025
ARC Resources	599		599
Whitecap Resources		1,259	1,259
Strathcona Resources	1,041		1,041
MEG Energy		1,942	1,942
Peyto Exploration & Development		323	323
Paramount Resources		699	699
Athabasca Oil		516	516
Nuvista Energy	155		155
Tamarack Valley Energy	268		268
Baytex Energy	845		845
TOTAL:			**67,010**

To arrive at the potential gap, we estimated the share of the AER $282.4 billion estimate that the 15 companies represent. We also reduced the total by $1.1 billion, the total cost to remediate the orphan wells as presented in Table 4,[54] to reflect that this amount is not treated as an obligation for companies. The resulting $281.3 billion figure is for total industry liabilities, whereas the 15 companies represent something less than 100% of the industry.

The 15 companies selected for this report represented 64% of total production in Alberta in 2024,[55] and 81% of total revenue for the oil and gas exploration and production industry in Canada in 2024.[56] By applying these shares to the total industry estimate of $281.3 billion, it is estimated that these companies should therefore be reporting somewhere between $180 billion (64% of $281.3B) and $227 billion (81% of $281.3B) in total decommissioning costs, according to the AER estimate. For the purposes of this analysis, we used the lower end of the range ($180B) to take a conservative approach and avoid over-estimation.

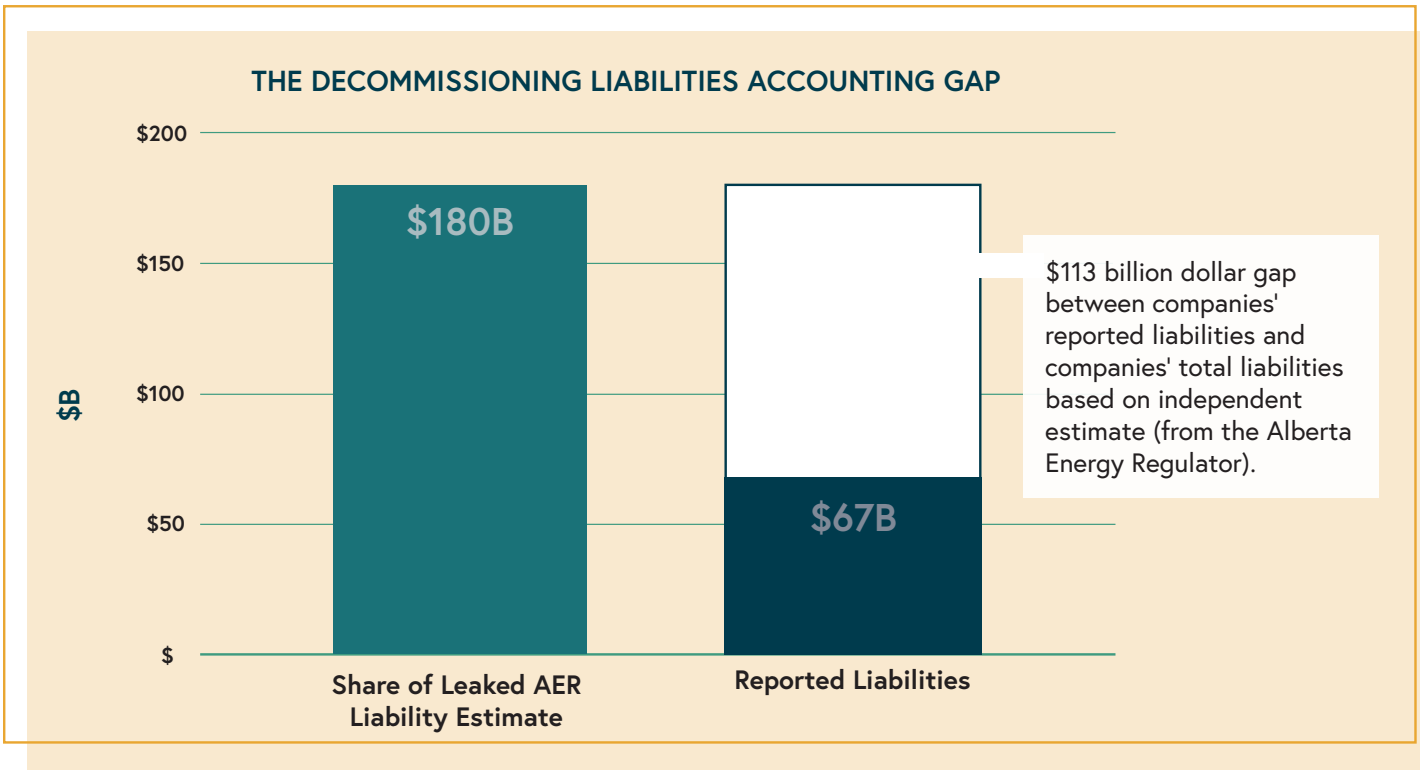
The gap, then, between the $67 billion that companies disclose and the $180 billion share of the AER estimate is $113 billion. Put another way, liabilities could be 2.7 times bigger than what is currently being reported.

54 Orphan Well Association, Annual Report (2024/25).

55 Alberta Energy Regulator, Alberta Production Summary 2024 - Companies. (2024).

56 Revenue data comes from companies' 2024 audited financial statements. Total revenue for the exploration & production industry in Canada comes from Statistics Canada Table 33-10-0226-01.

FIGURE 2: Potential gap between companies' reported liabilities and estimates of actual liabilities.



B. POTENTIAL IMPACTS OF THE GAP ON SHAREHOLDER'S EQUITY

Tables 6 and 7 show the impact on shareholder's equity for two Canadian oil and gas companies if their decommissioning liabilities were two times or three times higher. If decommissioning liabilities are currently under-reported at the scale outlined in Figure 2 , and if asset life span and discount rates could be deflating liabilities by a much greater ratio (see Table 3), impacts on shareholder equity value would be significant. While these figures represent rough estimates, it is not possible for investors to derive more accurate values without clear and precise disclosures and relevant sensitivity analysis from the assessed companies, and credible and public stress testing by their auditors. The tables are not a definitive calculation but represent a scenario where companies' decommissioning liabilities come due in the near future, rather than being paid off over timelines spanning 40 to 60 years. Financial reporting does not require that long-term liabilities be calculated in this way.

TABLE 6: Impact on example Canadian oil and gas company number 1 shareholders' equity if decommissioning liabilities are 2x or 3x higher.

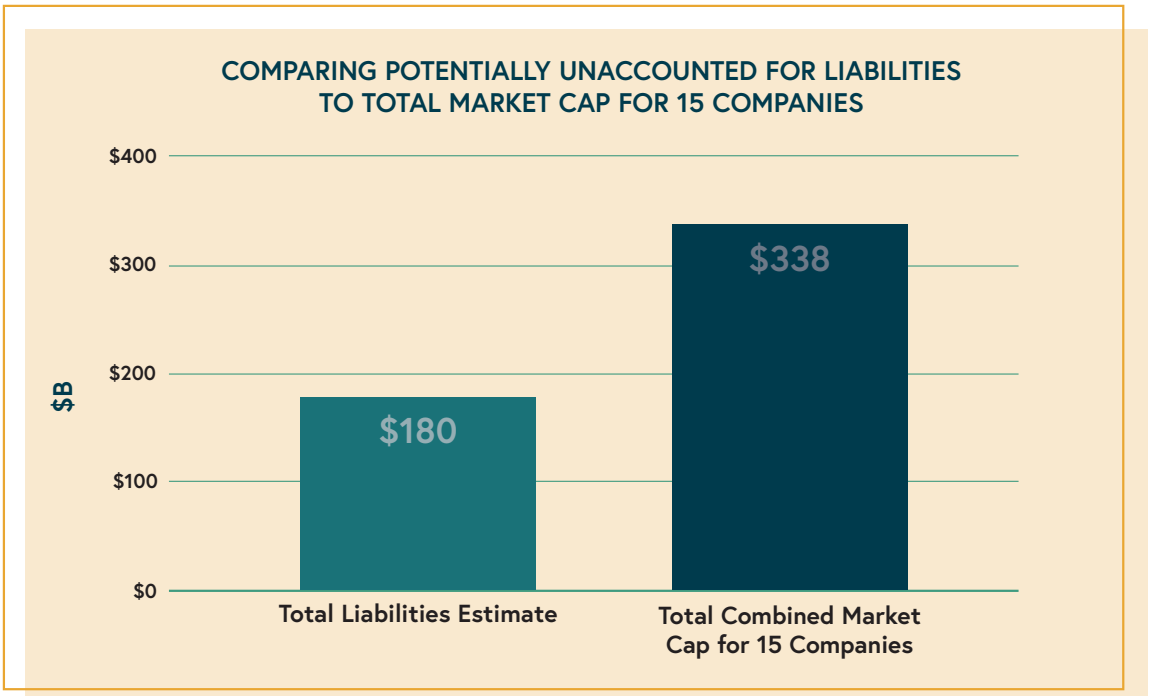
$M	REPORTED: FY 2024	2X	3X
Assets:			
Total	89,784	89,784	89,784
Liabilities:			
Current	10,747	10,747	10,747
Long-term debt	9,348	9,348	9,348
Long-term lease liabilities	3,745	3,745	3,745
Other long-term liabilities	1,502	1,502	1,502
Provisions	11,931	23,862	35,793
Deferred income taxes	7,997	7,997	7,997
Total	45,270	57,201	69,132
Shareholder's Equity	44,514	32,583	20,652

TABLE 7: Impact on example Canadian oil and gas company number 2 shareholders' equity if decommissioning liabilities are 2x or 3x higher.

$M	REPORTED: FY 2024	2X	3X
Assets:			
Total	56,539	56,539	56,539
Liabilities:			
Current	7,362	7,362	7,362
Long-term debt	7,342	7,342	7,342
Lease Liabilities	2,568	2,568	2,568
Decommissioning Liabilities	4,534	9,068	13,602
Other Liabilities	919	919	919
Deferred Income Taxes	4,045	4,045	4,045
Total	26,770	31,304	35,838
Non-Controlling Interest	15	15	15
Shareholder's Equity	29,754	25,220	20,686

Figure 3 shows how the potentially unaccounted for liabilities, that could be missing from companies' balance sheets, compare against the total combined market capitalization for all 15 companies ($338 billion).[57] Total decommissioning liabilities may be equivalent to more than half of total combined market capitalization for the 15 companies. This shows the scale of risk associated with estimating liabilities, with implications for the ability of the companies to carry those costs in the face of transition pressures.

FIGURE 3. Comparing Potentially Unaccounted for Liabilities to Total Combined Market Cap for the 15 Assessed Companies



57 According to S&P Capital IQ market capitalization data, as of July 2025.

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4. AUDIT REPORTS DON'T ADDRESS LIABILITY UNCERTAINTIES

By providing an independent check on companies' financial reporting, auditors ensure that companies' financial statements are free from material misstatement.[58] The election of the auditor at a company's annual general meeting is therefore an important decision for shareholders.

Auditors are responsible for ensuring all material risks have been considered in the preparation of the financial statements. Auditors provide an independent report that is included with companies' financial statements, which communicates two important messages to shareholders: that the financial statements fairly present the financial position of the company, and if there any financially material matters that required especially challenging, subjective, or complex judgments from the auditor — referred to as key or critical audit matters.

For the 15 companies, none of the auditors state whether they addressed the significant uncertainties related to decommissioning liabilities in their auditor reports. Company management is telling us that the actual costs to decommission assets are highly uncertain, and are sensitive to factors such as regulatory changes, reserve estimates, and market conditions. Most companies note in their annual reports that the energy transition could shorten the expected useful lives of oil and gas assets, and thereby accelerate decommissioning obligations.

Given these admitted uncertainties, sensitivity analysis by the auditors are warranted. For example, outside of Canada, Deloitte tested the reasonableness of Enquest's stated decommissioning liabilities in its 2023 audit.[59] It assessed the validity of cost reduction factors that Enquest applies to its total decommissioning liabilities, including:

- Challenging management's assumptions within the decommissioning liability cost estimate by referencing available third-party data and benchmarking to peer and market rates; and
- Considering potentially contradictory evidence from actual decommissioning spend, changes in market rates, and industry publications.

58 IAASB, The Consideration of Climate-Related Risks in an Audit of Financial Statement. (October 2020).

59 Independent auditor's report to the members of EnQuest PLC (2023).

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APPENDIX

APPENDIX A: COMMODITY PRICE PROJECTION ANALYSIS METHODOLOGY

Having assessed 15 of Canada's largest oil companies – including CNRL, Cenovus, ConocoPhillips Canada, Imperial, MEG, Suncor, Tourmaline, ARC, Whitecap, and Strathcona – we found that six provided estimated commodity pricing projections in their financial statements.

This excluded CNRL, ConocoPhillips Canada, and Whitecap Resources who did not provide any pricing projections, and Imperial Oil, whose demand projections relied on Exxon Mobil's models which did not provide price assumptions. We selected the oil companies which provide pricing projections for WTI or Brent Crude benchmarks, until 2050. We selected those two benchmarks due to their relative proximity to the global average price of crude oil. This excluded MEG, who only provided estimates until 2035.

We then graphed each of their pricing projections (pegged to 2025 USD) out to 2050, and compared them to the IEA's global average crude oil price projections from its 2024 World Energy Outlook. As the IEA only provided figures for 2025, 2030, 2040, and 2050, we assumed a linear annual change between each plotted year.