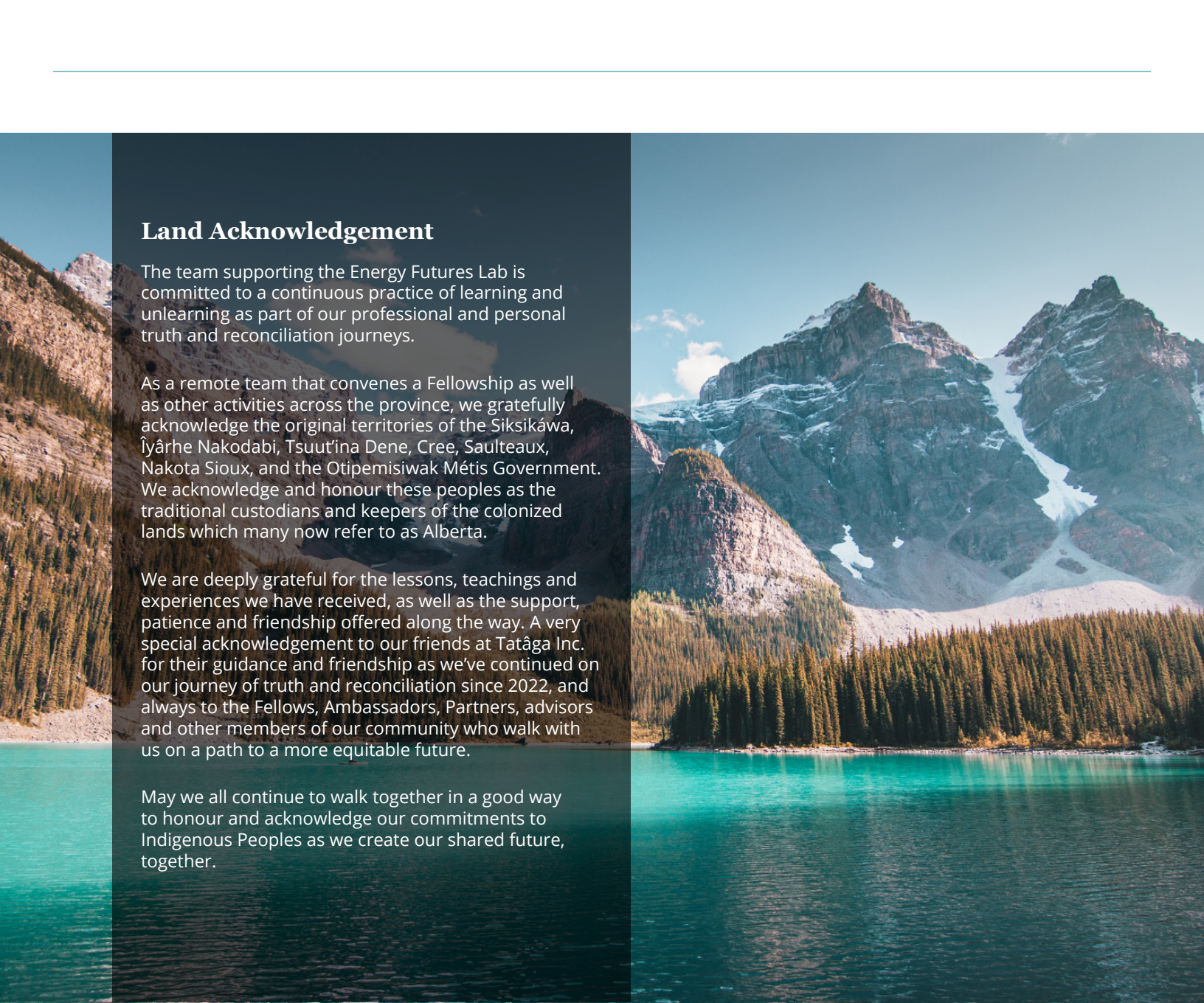




Walking the Talk: How Alberta's Industry Outliers are Defining the Energy Transition



Land Acknowledgement

The team supporting the Energy Futures Lab is committed to a continuous practice of learning and unlearning as part of our professional and personal truth and reconciliation journeys.

As a remote team that convenes a Fellowship as well as other activities across the province, we gratefully acknowledge the original territories of the Siksikáwa, Îyârhe Nakodabi, Tsuut'ina Dene, Cree, Saulteaux, Nakota Sioux, and the Otipemisiwak Métis Government. We acknowledge and honour these peoples as the traditional custodians and keepers of the colonized lands which many now refer to as Alberta.

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At a Glance

The study provides a moment-in-time analysis of Alberta-headquartered, Canadian Oil & Gas (including midstream/transportation) and Power & Utilities companies examining how firms are advancing energy transition efforts towards their publicly-stated climate commitments.

The study introduces the concept of Companies-in-Transition (CiT) with the intent to examine the challenges facing corporate transition activity, and to understand where incremental gains are taking place that can form the foundation for further progress. Through analyzing corporate commitments, strategies, disclosures, and interviews, the study further highlights examples of firms going beyond ‘talking the talk’ and taking steps to start ‘walking the walk’.

It focuses on these guiding questions:

What strategies are Alberta-based companies adopting to advance decarbonization in an increasingly uncertain policy and economic environment?

What factors are enabling some firms to make tangible progress? And what can be done to support this activity more broadly?

What to Expect

While a set of ideal corporate characteristics are introduced to define a CiT, the study zooms in on emissions reduction as a starting point.

Three distinct corporate archetypes are introduced with recognition that a spectrum of activity can exist within each archetype, and that mobility between archetypes is possible as transition strategies evolve:

- Hydrocarbon Actor
- Integrated Energy Actor
- Low-Carbon Actor

The analysis surfaced a handful of ‘outlier’ companies taking action towards meeting their stated commitments, and this report provides summary profiles of these firms as illustrative examples of the type of steps being taken.

The report identifies key areas of focus for policy with the intent to strengthen the enabling environment for industry to meet commitments, improve disclosure readiness, and bridge capacity gaps so firms can start walking the talk.

About the Energy Futures Lab

The Energy Futures Lab was created to address a growing sense of polarization in Canada. Since its inception in 2015, the EFL has brought together stakeholders from across the energy system to collaboratively develop solutions for a low-emissions energy future. This approach has highlighted the importance of drawing on diverse perspectives to address complex system-level challenges.



Introduction

The Energy Shifts

In recent years, the global landscape has seen a proliferation of climate and net-zero commitments, but few have drawn more attention, or scrutiny, than those made by the oil and gas (O&G) industry. As a sector, it is deeply tied to many global and regional economies, but it is also one of the highest-emitting and most challenging to decarbonize. Given their weight, these pledges have fueled skepticism from some corners raising the question: will companies act on these pledges, or is this a case of talking the talk without walking the walk?

Several challenges pose barriers to making good on these stated industry commitments. For most Alberta-based companies, fossil fuels remain central to their portfolios, and many net-zero pledges have yet to be integrated into long-term corporate strategy, often missing clear interim targets or actionable transition plans. A reliance on unregulated or unverified carbon offsets continues to raise concerns about the integrity of emissions targets. Yet, perhaps the most significant challenge is organizational hesitation in pivoting towards low-carbon alternatives.

Even in today's complex energy landscape, both low-carbon and traditional hydrocarbon energy markets are experiencing growth. Alberta's energy sector, as a whole, [contributes \\$119 billion in GDP](#). Canada's O&G sector remains a large contributor to the national economy, yet accounts for 30% of the country's greenhouse gas emissions (GHGs).

Sectoral efforts in industrial emissions reduction have been underway for some time, and at the corporate level a number of firms have made net-zero commitments, including upstream O&G producers, midstream O&G transporters, and Power & Utilities (P&U) companies (many of which rely on fossil fuel feedstock).

However, momentum behind the wave of net-zero commitments shows signs of slowing. This shift is playing out against a backdrop of changes in the investment and policy landscape, and the drivers for change are shifting from climate commitments and ESG performance toward energy security and managing risk. This shift has also signaled a softening of sustainability reporting requirements of regulators and changes in investor sentiments in some regions, exacerbated by heightened geopolitical tensions and subsequent market volatility.

Why focus on Alberta?

As the backbone of Canada's O&G production, Alberta has long been shaped by global energy market forces. How the province's O&G sector responds to these shifts can influence the nature and pace of Canada's energy transition, and not just through industry rhetoric but through tangible corporate actions. With over 80% of Toronto Stock Exchange (TSX) listed Canadian energy firms headquartered in the province, Alberta plays an outsized role in shaping Canada's climate credibility on the world stage.

Achieving meaningful emissions reduction across companies from both the O&G and P&U (OGPU) sectors will require fundamental shifts across deeply interconnected value chains. Investors, policymakers, and the public increasingly demand greater transparency and measurable progress. However, recent high commodity prices and geopolitical upheaval has prompted some oil & gas actors to refocus their business strategies on core operations, slowing investment and exploration in low-carbon lines of business. This pivot raises concerns about the sector's ability to fulfill their stated commitments. This creates a tension: companies must balance near-term economic pressures and uncertainties with longer-term competitiveness, all while managing a suite of emerging risks.

Moving Beyond Commitments

Despite operating in this complex environment, some Alberta-based companies have begun to move beyond commitments and are making strategic decisions leading to transition progress. Even without clear policy signals or strong investment incentives, these outliers or "first movers" are choosing to take important, incremental steps that demonstrate what's possible and lay the groundwork for broader adoption.

In this context, the Energy Futures Lab set out to better understand how the sector is navigating the risks and opportunities of an evolving energy system. We sought to identify and learn from the Alberta-based companies shifting from talking the talk, to actually walking the walk. We also further explored the strategies being adopted by actors in key energy sector segments and the factors motivating meaningful progress on reducing emissions.

By understanding what drives these strategies, we aim to shed light on how these instances of ['positive deviance'](#) can be supported, scaled, and replicated across the sector more broadly.



Future-Proofing

In recent years, the adoption of global climate disclosure and sustainability reporting frameworks was positioned to drive corporate climate action by providing objectivity, reducing uncertainty, and enhancing accountability. However, the certainty of their influence has weakened. The European Union's [Corporate Sustainability Reporting Directives](#) are being simplified [to improve clarity](#). In the U.S, the [Securities and Exchange Climate-Related Disclosure Mandate](#) initially added weight to the movement before its abrupt [reversal](#), a move that was closely mirrored by [Canada's securities regulators](#). These regulatory pivots signal a move away from mandatory disclosure as a primary driver of corporate climate action in North America. Despite this, global momentum remains. Global sustainability reporting frameworks such as the [IFRS Sustainability Disclosure Standards](#) and the [Global Reporting Initiative](#) continue to shape corporate transparency expectations. Closer to home, 2024 saw the [Canadian Sustainability Standards Board](#) issue reporting standards for corporate disclosure to standardize and provide consistency in sustainability reporting although these remain voluntary for now. While Canada's regulators have paused on mandating climate-related disclosures, it has left the door open for future measures.

In this evolving landscape, emerging transition guidance and voluntary frameworks have become important tools for companies seeking to maintain credibility, align with investor expectations, and position themselves competitively. Canada's 2024 introduction of the [Sustainable Finance Taxonomy Roadmap](#), while voluntary, provides a tool to close integrity gaps in company activities in the absence of formal regulations. 2024 also saw amendments to the Competition Act that further expanded corporate accountability for environmental claims. While corporate disclosures alone won't motivate decarbonization within the sector, the adoption of voluntary disclosure in Canada reflects a broader global shift in how risks are acknowledged and managed, and how future competitiveness may be defined.

In parallel, corporate transition plans have emerged as a vital tool for both companies and investors, detailing concrete actions, interim targets, and investment strategies that align with net-zero commitments, helping assess resilience and risk exposure. Transition plans are increasingly seen not only as emissions management tools but as essential components of capital allocation, market positioning, and long-term risk mitigation.

A recent [Forbes](#) article by Mary Johnstone-Louis highlighted a stark credibility gap: while 92% of global GDP was covered by a net-zero pledge by the end of 2024, fewer than 30% met basic robustness criteria. Nearly half lacked interim targets, reporting mechanisms, or a public plan altogether.

These trends hold true in Alberta as well. Many OGPU companies adopted net-zero targets in line with industry norms, but follow through has been uneven. While some were driven by genuine commitment and strategic foresight, others have yet to demonstrate follow through actions, leading to perceptions that some pledges were little more than a move to stay aligned with industry peers.

In this new era, strategic leaders understand that adaptation, while essential to any business, can also be an advantage. As Alberta's energy companies aim to remain competitive and expand into new markets, it's increasingly clear that emissions performance is becoming a differentiator. In at least some of those target markets, buyers are prioritizing low-carbon or low-emitting energy sources signaling that serious emissions reductions and transition action can help secure long-term market access.

In Alberta, companies that move beyond compliance and demonstrate tangible action are signaling how transition-aligned strategies can be good for business. Understanding how Alberta-based OGPU companies are operationalizing their transition commitments — and what motivates them — will be key to scaling effective transition practices across the sector.

The real challenge is in moving from symbolic pledges to implementing industry-leading strategies that drive impactful, measurable action.

“Positive deviance focuses on those extreme cases of excellence when organizations and their members break free from the constraints of norms”

– Gretchen Spreitzer, Professor of Management and Organizations
University of Michigan

Finding the Outliers

To better understand how Alberta's energy sector is navigating climate disclosure and transition planning, the Energy Futures Lab commissioned a study examining how Alberta-based OGPU companies are responding to these emerging challenges.

We set out to answer these questions:

What strategies are Alberta-based OGPU companies adopting to advance decarbonization in an uncertain policy and economic environment?

What enables some firms to make tangible progress — and how can this be supported more broadly?

This report evaluates how commitments made by Alberta-based energy producers, transporters, and generators align with emerging standards and spotlights the ‘first movers’ – companies moving beyond compliance to invest in low-carbon technologies, diversify their operations, and set new benchmarks for emissions reduction and disclosure. And with emissions playing a key role in transition discussions and planning, the report also introduces three corporate archetypes as a useful way to characterize related activities; a closer look at the archetypes and examples of companies that fit them is presented further on.

By highlighting these industry disruptors and instances of [positive deviance](#), this study explores leading corporate strategies that can act as catalysts for a broader industry shift.

A Snapshot

This study offers a moment-in-time analysis of Alberta-based OGPU companies from 2020-2025, assessing corporate commitments, strategies, and disclosure practices. It highlights emerging trends and first movers making incremental progress in corporate transition efforts. The research draws from publicly available data from 2020-2023, with analysis conducted in 2024 and interviews between December 2024 and February 2025.

Mid-way through 2024 marked the introduction of Bill C-59, Amendments to the Competition Act. While the amendments aimed to enhance corporate accountability, they inadvertently triggered a phenomenon known as “greenhushing,” with many OGPU companies withdrawing climate-related disclosures from public view. This shift occurred during the data collection phase of the study. To address this, researchers used archival internet searches and historical databases to recover previously available disclosures.

“Greenwashing” is the exaggeration or misrepresentation of environmental, climate, and / or sustainability efforts, and “greenhushing” refers to companies withholding disclosures to avoid scrutiny or legal risk.

The introduction of the “greenwashing” amendment to the Competition Act under Bill C-59, while meant to enhance accountability, led some companies to completely remove environmental and climate-related disclosure and ESG reporting from public view.

What is a Company-in-Transition?

Defining a Company-in-Transition

As market dynamics and investor expectations evolve, this study introduces the concept of a “Company-in-Transition” (CiT) – an organization that is actively positioning itself for long-term success in a shifting energy landscape. CiTs exist along a broad spectrum: some are starting to address operational emissions, others are exploring new business areas beyond hydrocarbons, and many are navigating a mix of actions in between. Using a common analogy that the energy transition is a marathon, not a sprint, it’s important to note that companies may have entered the race but are running at different paces and on different tracks.

The definition builds on insights from transition planning, technological pathways for emissions reduction, and the inextricable link between resource development in Canada and Indigenous Rights and Title. It outlines the ideal demonstration of a CiT as one that embodies all of the organizational characteristics below.

Adapting business strategy to align with the low-carbon economy.

Balancing existing hydrocarbon assets with increased low-emission investments.

Setting transparent, science-based net-zero targets with interim milestones.

Integrating sustainability into governance and decision-making.

Reporting Scope 1 & 2 emissions progress while publicly disclosing Scope 3.

Engaging with Indigenous Nations and economies.

Demonstrating accountability through consistent stakeholder engagement.

For the purposes of this study, we focus on OGPUs embracing some of these characteristics that are showing incremental, tangible transition progress in this direction as part of their transition journey.

Building on this definition, the EFL has outlined a framework that distinguishes CiTs from those lagging behind, offering a lens to evaluate transition leadership and determine instances of [positive deviance](#) within the sector.

Technological Pathways

For companies that engage in transition planning, many actively explore complementary technological pathways or low-carbon opportunities. The following are some examples identified as complementary to OGPU companies, including:

Renewable energy (e.g. solar, wind, geothermal)

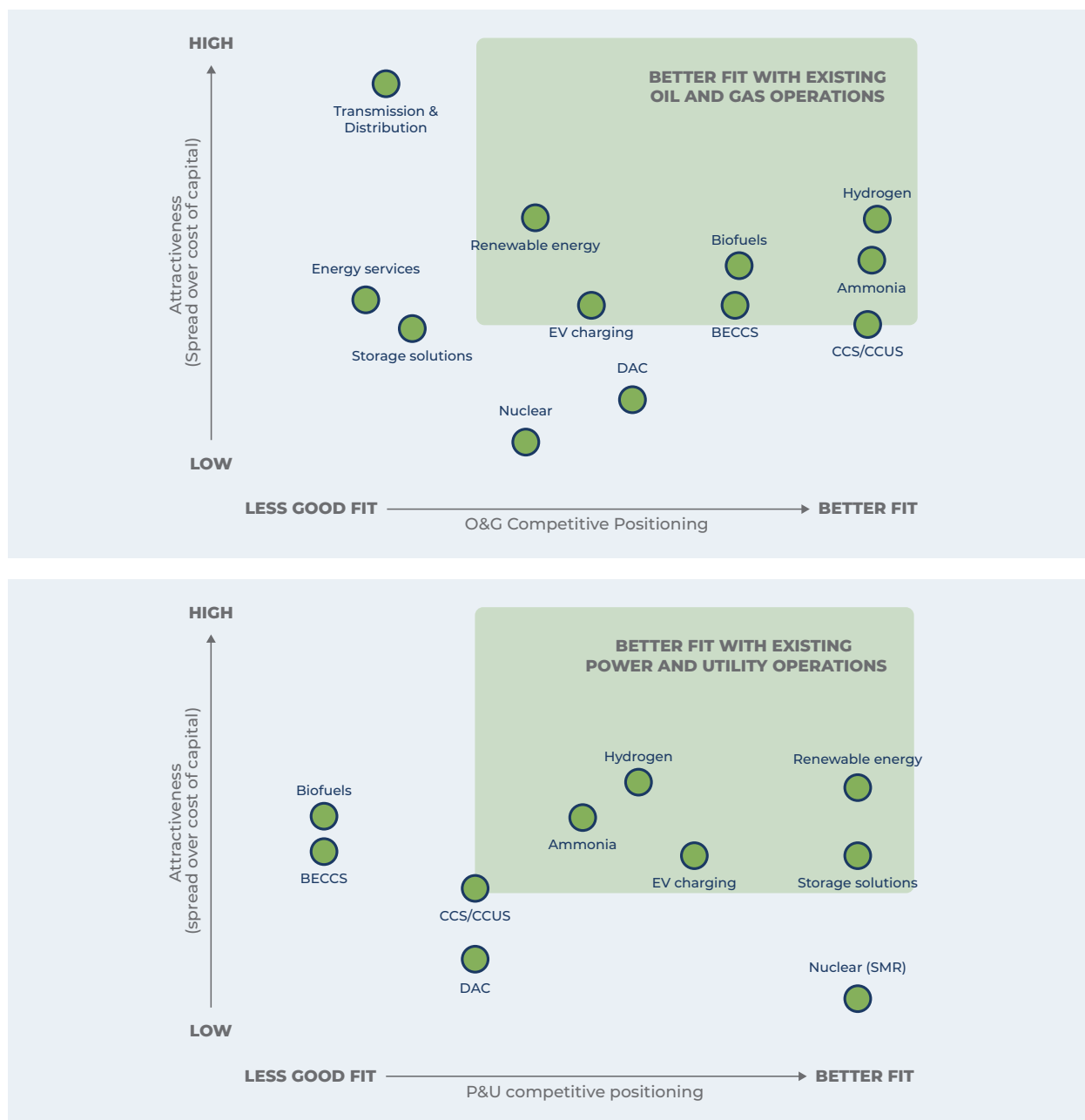
Low-carbon hydrogen production and transport

EV charging infrastructure

Liquid biofuels

Carbon capture and storage (CCS)

Renewables are a common entry point for OGPU companies, but they face intense competition, regulatory uncertainty, and high costs. Meanwhile, low-carbon hydrogen and electrification (such as EV charging) emerged as particularly promising opportunities. The following charts depict a number of investment options.



Indigenous Peoples' Rights & Interests

A solid transition strategy in Canada must respect and integrate Indigenous Peoples' rights, ensuring resource decisions align with cultural, environmental, and economic priorities. Respecting the inherent rights of Indigenous Peoples, as highlighted by the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), is particularly important for companies operating in Canada where these rights are confirmed in section 35 of the Constitution.

Indigenous Knowledge systems are rooted in millennia of stewardship and reciprocal relationships with the land, water, and air, offering vital insights for managing natural resources sustainably. International bodies, including the International Labour Organization (ILO) and the World Bank,

emphasize the importance of Indigenous-led approaches, and Canada's Truth and Reconciliation Commission's Calls to Action emphasize the responsibility of businesses to include Indigenous voices in decision-making.

While Indigenous Peoples' rights and interests were not assessment factors for determining a CiT for this study, there is a growing imperative for companies to integrate them within corporate strategies more broadly. By embedding Indigenous perspectives into governance and operations, companies will build trust, strengthen accountability, and foster shared economic opportunities that may assist them in executing on their transition plans.

Research Design

Defining what it means for a company to be in transition is no small feat. It requires navigating the gap that exists between alignment with emerging international standards and operating within the unique realities of Alberta's OGPU companies – realities that are shaped by the sector's economic significance, ties to energy markets beyond provincial borders, and the increasing imperative to accelerate energy transition efforts.

To better understand how companies are navigating this shift, we developed a robust, evidence-based approach grounded in research and practical insight. The CiT framework was designed to distinguish companies demonstrating meaningful progress from those that have yet to take action on stated commitments. It offers a lens to evaluate transition leadership and identify instances of positive deviance.

The study summarized in this report is a snapshot in time of companies that passed through an initial screening based on publicly available data, exemplified select characteristics of a CiT, and either were or continue to demonstrate incremental progress towards stated commitments.

The proprietary CiT framework piloted in this study will aid in further development of a comprehensive academic study of all Alberta OGPU companies.

A Multi-Phased Approach



1. LITERATURE REVIEW:

a review of existing transition planning frameworks, disclosure standards, guidance documents and thought leadership to establish a baseline understanding of companies in transition (35+ sources).



4. CIT DEFINITION AND ARCHETYPES:

performed an initial, high-level screening of all publicly listed, Alberta-headquartered OGPU companies to identify those who met at least one of the six CiT criteria and had a public facing net-zero commitment or sustainability report. Several qualitative and quantitative factors were employed to further distill companies into three archetypes.



2. SCREENING TOOL:

defined evaluation framework and developed a robust tool to screen companies against a set of CiT criteria. Tested the framework on a sample of companies in Canada and internationally to test framework robustness.



5. DEEP DIVE ANALYSIS:

Following this initial screening, performed a more detailed assessment of the company's sustainability reports, financial statements, corporate websites, and information in the S&P Capital IQ database.



3. VALIDATION:

Consultation and validation of the framework and assessment approach with six independent sources (three investors, two academic, one industry).



6. INSIGHT INTERVIEWS:

held a series of interviews with senior representatives from five identified outlier companies to gain further insights into corporate strategies, decision-making, and industry sentiments on low-carbon investment and risk mitigation.

Framework and Screening Criteria

The study employed a robust Company-in-Transition (CiT) assessment framework, designed specifically for Alberta's energy sector. In the initial screening, 64 TSX-listed OGPU companies headquartered in Alberta were identified and further screened for disclosure of a corporate net-zero commitment and availability of public-facing sustainability reports.

From this initial screening, the list narrowed to 16 companies for deeper evaluation – providing the basis for a moment-in-time analysis. The portfolios of these OGPU companies were sufficiently accessible to allow for meaningful comparative assessment, and these firms stood out for their strong public commitments to emissions reduction (including those with interim targets) and for disclosure of Scope 1 & 2 emissions, with some also addressing Scope 3.

From there, the research team applied a structured methodology that combined both primary and secondary factors to further categorize companies into archetypes. The factors included:

Growth Strategy: Differentiating between companies who were balancing growth by investing in low-carbon assets with continued investment in hydrocarbon assets.

Low-Emitting Approach: Assessment of whether a company focused solely on reducing existing Scope 1 & 2 emissions, or was also investing in low-emitting assets.

Hydrocarbon Portfolios: Evaluating capital investments in hydrocarbons, distinguishing the companies who were reducing the proportion of investments in such assets from those who were increasing them.

Low-Emitting Portfolios: Examining sustained investments in low-emitting assets over time, assessing their share within the overall business portfolio.

Net-Zero & Interim Targets: Analyzing companies' public commitments to net-zero targets and interim emission reduction goals.

Scope 1, 2 & 3 Emissions: Measuring absolute reductions in corporate emissions and engagement with value chain emissions (Scope 3).

From the application of these criteria, early indicators of industry outliers began to emerge, with hints at instances of positive deviance – companies employing innovative practices ahead of their peers.



The Use of Archetypes

To complement the broader CiT definition, and in addition to the above factors, the study introduces three distinct corporate archetypes that reflect how OGPU companies are acting on their stated commitments.

While the CiT definition encompasses a range of organizational characteristics including Indigenous Rights Holder and stakeholder engagement, archetypes narrow the focus further. Since emissions have been front and center of transition discussion in recent years, this offers a practical starting point for assessing transition-oriented activity.

The full archetype assessment framework can be found in Appendix A.



Hydrocarbon Actor (HA):

Prioritizes market share expansion and hydrocarbon asset optimization, often with a focus on operational emissions reduction but minimal transition into low-emitting markets.



Integrated Energy Actor (IEA):

Balances hydrocarbon core investments with emerging low-carbon opportunities, strategically adopting clean technologies as they reach commercial maturity.



Low-Carbon Actor (LCA):

Actively shifts business models toward low-emitting assets, divesting from hydrocarbons and leading sustainability-driven transformations.

These archetypes, in combination with the factors listed in the previous section, enabled further exploration of the nuances and unique characteristics of companies within the three categories, and the research aimed to identify areas of emerging alignment on transition activities. This helps to pinpoint strategic progress against commitments, and consider policy areas that can support both near- and long-term progress among OGPU companies.



A Note on Power & Utilities

For P&U companies focused solely on power generation, the analysis focused on revenues tied to the electric power output from fossil-fuel fired production plants (i.e. natural gas fired generation). Where P&U companies also operated utility lines of business, the primary analysis focused on its natural gas assets and associated revenue streams.

Unpacking Companies in Transition

Inside the Insights

The screening of Alberta-based companies using the CiT framework revealed patterns in transition strategies, shaped by factors such as company size, shareholder/investor diversity, portfolio offerings, the company's global footprint, and the financial heft of a company – all of which influence individual corporate approaches. Among the companies screened, ten O&G producers, two pipeline companies, and four P&U companies were identified as having public net-zero commitments and available transition-related disclosures.

Unsurprisingly, most O&G companies were identified as Hydrocarbon Actors, maintaining core business lines while decarbonizing operational Scope 1 & 2 emissions through adoption or integration of low-emitting technologies and efficiency measures.

Despite all companies having pledged to be net-zero by 2050, only a few have publicly set interim targets for all-scope emissions.

- Ten O&G companies were identified, and only two have demonstrated reductions in operational emissions.
- Only one company demonstrated a decrease in Scope 3 emissions.

While the results of this screening may not look promising at first glance, there's an upside.

- Three companies were identified as Integrated Energy Actors (IEA) in the archetype analysis – organizations investing in clean power generation as their primary low-emitting business offering.
- Of the three, one O&G company and both pipeline companies are IEAs.

In the P&U segment:

- Most companies were found to be IEAs – prioritizing expansion of low-emitting portfolios while simultaneously decarbonizing existing hydrocarbon assets.
- One company emerged as a Low-Carbon Actor (LCA) – maintaining a predominantly low-carbon business model and demonstrating that reducing emissions can make smart business sense.

Of the 16 screened for further analysis, a smaller subset of companies were identified as industry outliers – exemplifying instances of positive deviance. These firms demonstrate innovative, forward-looking approaches that move beyond regulatory compliance and interestingly, these were found across all three corporate archetypes.

While much of the activity remains incremental relative to their stated commitments, their actions reflect deliberate, strategic choices that align with emissions reduction targets and broader net-zero commitments. By creating sustainable value tailored to their unique contexts, these companies provide tangible proof points for what leadership can look like. Casting light on these examples can offer inspiration to other industry actors, reinforcing that ambitious action is not only possible within Alberta's energy sector but is already underway.





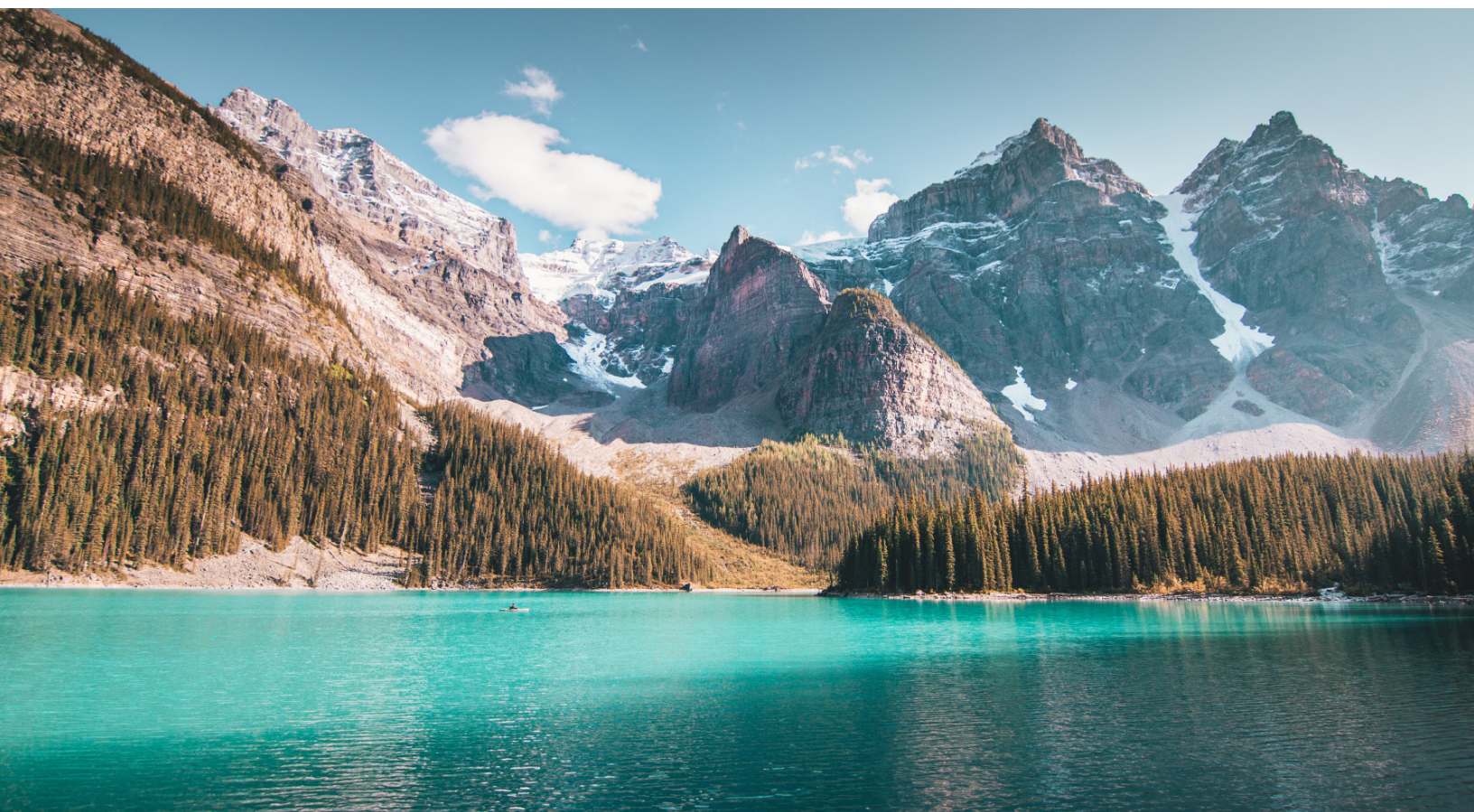
Industry Alignments, Sectoral Divergence

Business models play a large role in how different companies approach transition planning and efforts. Corporate strategies of OGPU companies reflect some areas of alignment but also encompass distinct approaches to energy transition activities, shaped by the unique characteristics and factors at play within their respective industries.

Below are some of the high-level findings on how actors are responding to energy transition pressures and differentiators within their sector segments.

Areas of Alignment

Factors	Oil & Gas (Includes Upstream & Midstream)	Power & Utilities
Growth Strategy	• Adopting low-emitting technologies to optimize efficiency • Decarbonizing existing or operational emissions	• Investing in emissions- reducing technologies and infrastructure for utility-scale power generation • Entering the renewables market
Hydrocarbon/ Low-emitting Portfolio	• Shifting towards lower-emitting feedstock/fuels (e.g. crude oil to natural gas) • Leveraging internal processes, standards and requirements to guide decision-making for investments in low-emitting projects	• Increasing capital investment and continuing to grow low-emitting businesses • Exploring and developing energy storage solutions
Target Setting/ Scope Emissions	• Net zero target setting for Scope 1 & 2 • Disclosure of operational emissions	• Demonstrating a stable or decreasing Scope 1 & 2 emissions profile



Outliers: Insights Into Strategic Leadership

The findings ultimately identified seven companies that met the CiT criteria during the analysis period and these are profiled below. Six of these companies are highlighted as outliers due to their industry-leading practices, attitudes to strategic investment, transparent reporting, and instances of positive deviance: ATCO, TransAlta, Enbridge, TC Energy, Shell Canada, and Vermilion Energy. During the analysis period, Suncor went from meeting IEA criteria to a HA profile; it is therefore included but is not considered a CiT or outlier.

These companies represent a mix of archetypes, demonstrating that even those not classified as Low-Carbon Actors are making notable, albeit incremental, progress. Their actions highlight 'bright spots' of innovation in Alberta and show how both incremental steps and sustained strategic action can be woven into energy transition efforts.

The following case studies offer a snapshot of what makes each company noteworthy. Some are based solely on the analytical findings, while others combine the research with insights gleaned from interviews with senior company representatives.

Hydrocarbon Actors (HA)

Out of the companies assessed, only Vermilion Energy was characterized as an outlier within the HA profile, while both Vermilion and Suncor met the CiT criteria within the snapshot window.

Suncor: From First Mover to Former Outlier

As far back as a decade ago, Suncor was a ‘first mover’ taking note of the energy transition and was one of the earliest O&G companies in Alberta to have a climate risk strategy.

At the outset of the study, Suncor was considered an IEA and the company met some of the CiT criteria. However, a renewed focus on its core hydrocarbon business and recent strategic shifts—including the 2023 sale of [its renewable energy business](#) and the disbanding of its low-emissions business unit—signal a pivot away from transition activity, putting them squarely into the HA archetype.

Today, Suncor’s climate strategy emphasizes risk management over new low-carbon assets. *“Emissions is the principal risk. The company feels there’s value in being progressive in our space, because it proactively manages a risk”.*

No Longer an Outlier	Had Suncor maintained its previous transition momentum, it might still hold an industry-leading role and be considered an IEA. Instead its reversion to pure Hydrocarbon Actor has cost the company its earlier status as an industry outlier.
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Vermilion Energy: Diversified Strategy Yields Results

While still categorized as a Hydrocarbon Actor (HA), Vermilion – a Canadian oil and gas producer with operations across Europe and North America – is emerging as an outlier among O&G firms for its proactive approach to emissions reduction. One of the few players in the industry publicly disclosing Scope 3 emissions, Vermilion states that its executive leadership has embedded transition thinking into its core strategy.

Investments	The company's investment strategy centres on deploying proven low-carbon technologies like geothermal, biogas, and CCS. Vermilion has taken a pragmatic approach in directing capital toward innovative projects that repurpose O&G infrastructure. Notable examples include geothermal district heating projects in France developed from deep subsurface reservoirs originally tapped for hydrocarbon extraction, and biogas production in the Netherlands on a reclaimed gas site – leveraging existing port and pipeline infrastructure. Vermilion leverages the expertise of strategic partners and applies internal investment criteria that—in the case of geothermal heating projects—give equal weight to economic viability and social value, ensuring projects align with market opportunity and have a broader community benefit.
Targets	Vermilion has set Scope 1 & 2 emissions reduction targets at 15–20% by 2025 and 25–30% by 2030. While no formal Scope 3 reduction target exists (due to limited control over end-use), they do report on Scope 3 with a focus on what it can influence, such as emissions related to drilling and completions. The company describes its operational emissions reduction efforts as setting a foundation for more ambitious, future-facing projects.
Building Indigenous Partnerships	Vermilion's approach to Indigenous relations has also evolved. What began as a compliance activity has shifted over time toward more meaningful engagement with Indigenous Rights Holders – integrated within a corporate strategy that considers community investment and inclusion of Indigenous-owned businesses in procurement processes.
What Makes Them An Outlier	• Low-carbon, innovative investments in geothermal district heating, biogas, and CCS • Obtaining responsible gas certification • One of a handful of analyzed companies reporting on Scope 3 • A Hydrocarbon Actor seeking to balance economic and social value

Vermilion Energy is repurposing its existing O&G infrastructure to harness geothermal energy for district heating, demonstrating a strategic shift toward sustainable energy solutions.

Integrated Energy Actors (IEA)

Outliers characterized as IEAs span the full range of OGPU companies, from O&G actors like Shell Canada, to midstream companies like Enbridge and TC Energy, and finally to TransAlta – a major P&U player.

Of particular note, midstream companies with strong interlinkages to O&G such as TC Energy and Enbridge are demonstrating instances of positive deviance, exhibiting an appetite for developing low-emitting portfolios. Furthermore, these companies highlight an increasingly consistent approach toward annual Scope 3 emissions reporting.

Enbridge:
An Early Adopter of a Lower-Emitting Portfolio

Enbridge is an Alberta-headquartered pipeline and midstream company that has long embraced a portfolio approach to the energy transition. Enbridge has been investing in utility-scale renewables since 2002, with expansion to onshore and offshore wind and developing clean energy offerings across operations in North America and Europe.

The company is a proponent of hydrogen blending in natural gas and was an early adopter of the practice. They recently acquired seven renewable natural gas (RNG) facilities, further diversifying their low-emitting energy offerings.

Scoping it Out For Over a Decade	Enbridge stands out for their longstanding approach to disclosing and enhancing transparency of Scope 3 emissions – working with customers and suppliers on this front since 2009. They continue to use offsets to address Scope 1 & 2 emissions. Like TC Energy, Enbridge has reduced investment in hydrocarbon assets and increased capital expenditures in low-emitting assets. Unlike TC Energy however, it maintains natural gas and liquid pipeline operations and recently announced plans to support increased heavy oil exports to the U.S. which impacts its overall scope emissions. While the company’s reporting was publicly available, Enbridge was not available to engage for further insight within the study timeframes.
What Makes Them An Outlier	• Ongoing use of offsets to address Scope 1 & 2 emissions • Longstanding efforts to engage suppliers and customers to disclose and address Scope 3 emissions • Shifting investment toward low-emitting assets • Aiming to balance a reliable delivery model with taking steps towards meeting climate commitments

Shell Canada: Seeking A Balanced Energy Transition

Shell Canada's energy transition strategy is deeply integrated with Shell Global's overall approach of prioritizing the decarbonization of existing hydrocarbon assets while expanding into low-carbon business lines, making them a quintessential Integrated Energy Actor.

"We support a balanced energy transition – recognizing the need for low-carbon energy solutions while maintaining secure and affordable energy supplies."

Investments	Investment strategy is shaped by both its global shareholder structure and by localized market demands. <i>"There's a strong expectation that we're looking to the future to deliver the energy system for tomorrow, but with a clear, defined strategy and framework."</i> Some early investments, such as hydrogen stations in Vancouver, faced challenges due to weak market demand, but by testing these solutions Shell was able to refine its approach to new investments and pivot focus to areas where it holds a competitive advantage such as low-carbon fuels and CCS.
Strategy, Scenarios, and Standards	Shell regularly undertakes scenario planning and makes these publicly available. Scenarios help to shape corporate discussions and guide strategic direction. Managing climate-related risks remains a core business consideration. Shell's emissions targets are set globally and adapted to align with Canadian regulations. Notably, Shell reports on Scope 3 emissions and states that helping customers achieve their emissions reduction efforts also helps the company with their own efforts.
What Makes Them An Outlier	• Integration of global strategy with local execution • Approach to scenario planning • Investments in exploring low-carbon business lines • Publicly reporting all scope emissions.



TC Energy: Shifting Towards A Low-Carbon Business

TC Energy is navigating the energy transition through strategic investments and leveraging its existing infrastructure. In 2024, the company spun off its liquids pipeline business, making a pointed shift towards emissions reduction efforts for natural gas transmission and expanding its low-emitting energy portfolio, with a focus on nuclear, emerging technologies like CCS and hydrogen, and investing in cleantech pilot projects.

Innovation

The company uses an innovative approach to incentivize energy transition leadership at the executive level, embedding incentives such as performance share units into its climate strategy to further drive emission reductions. In 2024, they introduced a 10% methane intensity reduction metric into this model. According to the company, *"This alignment of executive incentives with our climate strategy underscores our commitment to reducing GHG emissions and actively drives GHG emissions reduction performance"*.

A dedicated energy solutions team assesses relevant technologies and opportunities to support business and climate resiliency across future scenarios, including testing against a 1.5°C pathway.



"While we believe in the long-term demand for natural gas, we continuously monitor the evolving energy mix ... developing expertise in lower-carbon solutions that ensure we are well prepared to respond to market shifts and deliver repeatable performance for shareholders over time".

Looking Ahead

While 90% of its portfolio is still in natural gas transmission, 10% is power and energy and 7% of which is in nuclear solutions with an annual investment of nearly \$1 billion to enhance nuclear capacity. The company holds a 48% stake in the world's largest operating nuclear plant with a power purchase agreement through 2064.

A number of factors are assessed internally when considering low-carbon investment. These include: investment in infrastructure and logistics, social acceptance and community engagement, public/private collaboration, and strategic cost recovery – collecting tolls for services – which the company feels is key to maintaining credibility with investors, partners, regulators and customers.

Despite taking steps to be a low-carbon business, challenges remain. In gaining further insights, the company flagged that *"harmonizing North American regulatory policies and improving cross-border cooperation are pivotal to the collective effort of decarbonizing our economies, while maintaining our pledge to deliver affordable, and reliable energy"*.

What Makes Them An Outlier

- Instituting executive financial incentives tied to climate strategy
- Employing and leveraging transition scenarios
- Investing in emissions reduction and low-emitting infrastructure
- Placing value on social license to operate

TransAlta: Leveraging Legacy Assets to Fund the Transition

Like many Canadian P&U companies, TransAlta has phased out nearly all of their coal-powered assets or converted them to natural gas-fired operation and leverages cash flow from legacy coal and gas assets to invest in lower-emitting sources. This approach has led them to increase capital investment in a low-carbon energy mix that includes wind, solar and hydrogen generation without heavy reliance on external capital – all while still experiencing revenue growth.

Per their 2023 Integrated Report, TransAlta's renewable generation fleet accounts for about 45% of its total generation capacity. Renewables and efforts in methane reduction generate carbon credits for the company; rather than applying them to its own scope emissions these are then offered to customers to assist in their emissions reduction efforts. TransAlta states plans to continue monitoring new technologies such as storage, hydrogen and CCUS for future deployment.

What Makes Them An Outlier

- Ability to self-fund and scale clean energy investments and transition efforts, reinvesting capital in low-emitting energy sources
- Renewable portfolio accounting for approximately 45% of generation capacity
- Demonstrated revenue growth potential through low-carbon diversification
- Market-based approach to generation, use, and distribution of carbon credits



Low-Carbon Actors (LCA)

ATCO: On A Journey to Sustainability

Of all of the companies screened to meet CiT criteria, ATCO is the most advanced toward being categorized as a LCA. Employing a holistic strategy with corporate-level targets for all divisions, the company engages in internal target setting and also references international scenarios.

ATCO's transition toward low-carbon leadership began in earnest between 2018 and 2020, when it divested from thermal generation and announced company-wide sustainability and ESG targets for 2030. Spanning emissions reductions, DEI, Indigenous partnerships, and customer emissions, the company affirms that these targets helped to align the entire organization under a shared vision. Evolving its business strategy beyond simply aligning with government policy-driven mandates, ATCO took a proactive approach to shaping its sustainability direction.

The launch of ATCO EnPower, with a stated purpose to create “inspired energy solutions for a sustainable world,” marked a turning point in defining its clean energy future.

Investment	A transition-oriented portfolio has yielded investment in low-emitting businesses, particularly in renewable energy. ATCO's growth strategy focuses on three pillars: renewables and power, clean fuels (especially hydrogen), and natural gas storage. The company has expanded its investment in renewables through acquisitions (such as Suncor's renewables portfolio), launched hydrogen-blending pilots, and is actively exploring sustainable aviation fuels and RNG opportunities within different jurisdictions. They're also focused on CCS initiatives including participation in the Alberta Carbon Trunk Line. According to the company, every major investment at ATCO is assessed against two key criteria in particular. <i>“Emissions reductions and Indigenous partnerships are the two things that are always asked or are inherently part of the investments that come forward”</i>. The company states that these values have been embedded in its decision-making framework, shaping both project design and regional engagement.
Leveraging Market Tools	By leveraging their existing energy infrastructure, ATCO helps customers reduce their emissions throughout the value chain, offering low-emitting solutions to customers and helping reduce Scope 3 emissions. Per the company, they participate in voluntary carbon markets and view carbon credits and offsets as an interim transitional tool for addressing residual portfolio emissions. ATCO also purchases carbon credits on behalf of its customers.
What Makes Them An Outlier	• Aligned, strategic company-wide internal sustainability and ESG targets spanning emissions reductions, DEI, Indigenous partnerships, and customer emissions • Leveraging existing infrastructure and investing in a low-emitting portfolio • Participation in voluntary carbon markets and use of offsets • Striving to balance near-term realities with long-term ambition • A systems-level approach to the energy transition

What's Needed Next?

Even as the landscape for transition planning and disclosure standards continues to evolve, government policies and regulations remain pivotal in shaping company trajectories. Companies identified government policy and regulatory stability as essential in shaping strategic direction. This theme emerged time and again across the broader study and was echoed in interviews with senior company representatives. Several persistent messages offer direction for how government can strengthen the enabling environment for emerging areas of opportunity including: clarity on and harmonization of regulatory frameworks, incentive programs, and upfront capital investment in projects.

A supportive system of incentives for companies considering transition-oriented activities is part of the puzzle to reduce the uncertainty and hesitancy that persists in making business investments and scaling low-emitting technologies. And beyond innovation, it's about managing the risks companies face as global markets shift and emissions performance is under scrutiny.

Drawing from the findings of the study and the insights gleaned from further exploring the strategies of OGPU outliers, the following policy considerations are proposed to provide clarity, build confidence, and support broader uptake of transition-oriented activity within the sector.

Policy Focus:

Clarity to enhance investor and stakeholder confidence

Direction:

Promote alignment and harmonization among standards and frameworks for Scope 1 & 2 emissions reporting to improve consistency

To build investor and stakeholder confidence, companies need clearer and more consistent rules for reporting their carbon emissions (Scope 1 & 2). There is a lack of consistency in emissions reporting methods, and companies employ different standards depending on their size, industry, and goals. Smaller companies might use simpler standards like the Global Reporting Initiative (GRI), while larger companies may use more comprehensive standards like those of the Carbon Disclosure Project (CDP).

Discrepancies also exist between equity-based and market-based reporting preferences. Equity-based reporting allocates emissions based on ownership and assets, while market-based reporting reflects purchasing options such as carbon credits or renewable energy certificates to offset emissions.

The latter is problematic if credits or certificates lack "additionality" and don't result in actual and verifiable emissions reduction or renewable energy generation – a practice that looks good on paper but can be misleading.

To address these issues, policies should focus on establishing clear, harmonized guidelines for emissions reporting alongside clear guidance on the use and integrity of offsets. This can ensure companies take genuine steps to cut actual emissions, which would build trust with investors and stakeholders and reinforce accountability.

Policy Focus:

Scope 3 for Strategic Planning

Direction:

Anticipate and begin planning for the impact of Scope 3 to engage value chain emission reductions

Many Alberta-based OGPU companies don't report Scope 3 emissions due to their limited influence and control over the use of sold products. However, global standards see reporting Scope 3 as a key indication of transition efforts.

Investors, ESG rating agencies, and global buyers have elevated the importance of Scope 3 disclosures, which over time could affect corporate access to future capital and impact stock performance.

While prioritizing Scope 1 & 2 disclosure should continue, companies would benefit from proactively building internal capacity to assess Scope 3 impacts. This includes developing the ability to anticipate and mitigate risks related to market exposure, stranded assets, and shifting buyer preferences, while identifying competitive advantages in emerging low-carbon value chains. A proactive, collaborative approach to helping the business community identify data and capacity gaps and build internal capability needed for reporting can aid in aligning with future expectations.

As such, both companies and government should enhance internal analysis surrounding the impact of Scope 3 on business priorities and policies. Governments should support companies in adopting reporting standards on Scope 3 emissions and improving accuracy in emissions reporting towards a smoother transition as disclosure expectations evolve.

Policy Focus:

Non-financial incentives for value chain reporting

Direction:

Provide incentives for energy companies to build capacity amongst their suppliers in disclosing supplier's scope emissions.

Tracking full Scope 3 emissions remains a challenge for OGPU companies, where few if any are reporting comprehensive Scope 3 data. A barrier lies in the capacity of value chain partners providing offerings and services for OGPUs, many of which are small and medium-sized enterprises (SMEs) and lack internal capacity for sustainability reporting. These SMEs may be hesitant to engage in sustainability or ESG disclosure, or view it as having no direct impact on their business.

This gap makes it difficult for medium and large energy companies to assess full value chain emissions, and could preclude SMEs from contracts if disclosure becomes a procurement requirement. As alluded to within this [IIGCC Discussion Paper](#), this could hinder SMEs from securing investment, unlocking new opportunities, and mitigating business risks.

To address this gap, governments should provide targeted support to SMEs in developing capacity to disclose scope emissions, or offer incentives to energy companies to help their suppliers develop this capacity. This would accelerate value chain transparency.

Policy Focus:

Federal and Provincial infrastructure funding

Direction:

Moving from reporting emission (reductions) to supporting low-carbon economic infrastructure development

Aligning federal and provincial policies on low-carbon infrastructure will provide clear, consistent signals to investors, businesses, and the public, reducing uncertainty, and improving market stability. When funding programs and incentives are aligned across provinces they are more effective, especially for cross-border infrastructure and transportation corridors.

As governments across Canada set out priorities for infrastructure to help stimulate the economy, this can help to mitigate risks associated with market fragmentation, the uneven distribution of opportunities across the country, and secure participation in new and emerging clean energy value chains. Key priorities should include support for grid modernization and improving product transportation networks towards a low-carbon economy.

Policy Focus:

Transition planning for managing risk

Direction:

Support the long-term durability of transition planning by reframing it as a strategic business tool

Companies often adopt transition plans in response to external pressures such as regulations or investor expectations, but these efforts can fade if those pressures change. To ensure long-term commitment, policies should emphasize the business value of transition planning, helping companies manage risks, seize new market opportunities, and stay competitive.

Governments and industry leaders should promote this through case studies, capacity-building initiatives, and strategic guidance, shifting the focus from compliance to corporate resilience and value creation. This will reduce the likelihood of companies abandoning such efforts when political, investor, or public attention shifts, and strengthen Canada's credibility in the energy transition.

What Does This Mean Going Forward?

In uncertain times, everyone is searching for certainty. Alberta's OGPU companies are operating within an evolving energy landscape that presents both challenges to navigate and opportunities to be seized.

This report looked at a set of companies moving beyond the status quo, making strategic decisions that not only position them for long-term competitiveness and resilience but also signal a serious commitment to navigating the future of energy. It's our hope that other companies can take note of these industry-leading examples and be inspired by the first-movers starting to walk the walk.

The examples – whether it's exploring Scope 3 emissions reporting, leveraging business and climate risk scenarios, or creating low-carbon business opportunities through strategic partnerships – may not yet be mainstream, they offer signals of what a transition journey can look like. Industry outliers are demonstrating that moving from ambition to action is possible, and their efforts are creating proof points that can inspire others.

While we don't have a crystal ball into the future, companies that start to walk the talk today are likely to gain an edge as the pendulum swings back and forth.

This study provides a snapshot in time but also captures responses and trends in industry sentiment, highlighting the complexity and the immense potential for companies willing to embrace strategic transition planning. Grounded in incremental progress and informed by pragmatic, forward-thinking strategies, these early signs of transition leadership are laying the groundwork for what real transition action looks like in practice.

Ultimately, this report underscores the importance of clear, integrated, and actionable transition strategies. The path forward may be complex and uncertain, but it is also brimming with opportunities for those willing to make the leap.

“Somewhere in your organization, groups of people are already doing things differently and better. To create lasting change, find these areas of positive deviance and fan the flames”

– Richard Pascale & Jerry Sternin



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Appendix A

Additional Methodologies and Assessment Factors

Archetype Assessment Factors

Primary and Secondary Factors

Low-Emitting Approach

- Focusing on decarbonizing operational emission (Scope 1 & 2)
- Seeking opportunities and / or investing in low-emitting assets
 - ▷ Qualitative factors to assess whether the company focuses on decarbonizing Scope 1 & 2 emissions only or they are also seeking opportunities and / or investing in low-emitting assets

These factors play as the initial screening criteria to filter out HA from IEA and LCA.

Growth Strategy

- Increasing market share in low-emitting business with the board's oversight on overall corporate sustainability and climate disclosure
 - ▷ Qualitative factor to assess whether the company invests in low-emitting technologies not only to decarbonize operational emissions (Scope 1 & 2) but also building more low-emitting assets to gain market share in low-carbon business, such as renewable energy, selling low-emitting hydrogen fuel etc.
- Gaining more hydrocarbon business market shares through asset Merger & Acquisition (M&A) and / or consolidation
 - ▷ Qualitative factor to assess whether the company remains committed to hydrocarbons without seeking opportunities and / or to invest in low-emitting technologies, growing their hydrocarbon business through asset acquisition and / or consolidation, and even expanding their natural gas business lines and market share

These factors further distinguish HA from IEA and LCA at a qualitative level.

Hydrocarbon Portfolios

- Increase in total hydrocarbon portfolios in absolute dollar value
- New investment in hydrocarbon assets
- Moving away from crude oil , oil products, and gas production / hydrocarbon business
 - ▷ Quantitative factors to assess whether the company is reducing capital investment in hydrocarbon portfolios and moving away from hydrocarbon business

These factors further assess HA away from IEA and LCA at quantitative level.

Low-Emitting Portfolios

- Continued annual capital expenditure / investment into low-emitting business
- New investment aligns with corporate emissions reduction pathway
- Having a low-emitting asset portfolio as part of the business offerings to customers
 - ▷ Mixed with quantitative and qualitative factors to assess whether the company continues to invest in low-emitting assets / business and the percentage of total low-emitting assets
 - ▷ If a company has more than 40% of its total asset portfolios is in low-emitting, then the company is by default a LCA

These factors play as the initial screening to filter out IEA away from LCA.

Net-Zero / Interim Targets

- Pledged net-zero target by 2050
- Set out interim targets on GHG emission reductions
- Developed an internal net-zero scenario and compared to other credible sources

It is observed that both IEA and LCA do pledge net-zero targets by 2050 and set out interim targets on at least Scope 1 & 2 emissions. These qualitative factors also provide a way to assess the degree of HA's commitment to net-zero.

Historical Corporate Emissions (Scope 1 & 2)

- Scope 1 & 2 emissions declining (absolute emissions)
- Meeting the interim targets or on track

These are quantitative measures to assess IEA and LCA Scope 1 & 2 emission reductions performance, also it is an additional further assessment on that of HA.

Value Chain Emissions (Scope 3)

- Engage with suppliers and end-users on addressing emission boundary and reductions
- Using credible carbon credits for hard-to-offset aspects within Scope 3
- Continuous Scope 3 reporting and emissions declining
 - The factor of value chain emissions is a significant indicator in assessing companies' efforts in transitioning into net-zero by 2050

These quantitative and qualitative factors play as the last screening criteria to filter out LCA away from IEA, especially the factor of Scope 3 emissions declining.



Assessment Approach Used For Archetype Analysis

The study assessed companies based on sector-specific factors. The study evaluates companies based on sector-specific factors to capture the unique nature of their operations.

Table 1. Hydrocarbon portfolio of Alberta-headquartered energy companies and assessment approach.

Industry	Main Hydrocarbon Portfolio	Assessment Approach
O&G Companies	Hydrocarbon products	Total hydrocarbon assets, CAPEX and production
Pipeline/Midstream Companies	- Hydrocarbon products distribution, storage, & transmission - Electricity generation & distribution	Total hydrocarbon assets, CAPEX and production
P&U Companies	- Non-renewable power generation/distribution/transmission - Natural Gas (NG) transmission and distribution	- Total revenue and income from non-renewable electricity generation assets, CAPEX, generation capacity - Total NG assets, CAPEX, revenue and income



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