

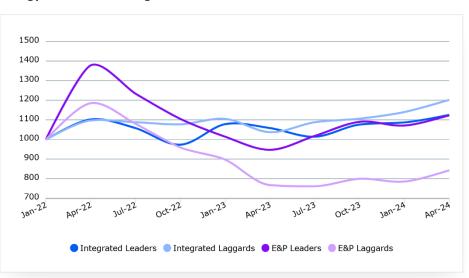
Summary

- Demand for clean energy like solar, wind and EVs will grow significantly over time replacing fossil fuels as costs decline
- Energy Transition Trackers help investors to analyze the degree to which markets are pricing in the transition strategies of oil and gas companies
- For integrated oil and gas companies, Leaders taking more ambitious transition steps have under-performed the Laggards recently
- Markets appear to currently reward Laggards prioritizing capital returns over Leaders' long-term low-carbon investments
- For E&P companies, Leaders weighted towards natural gas has out-performed Laggards focused on oil
- Overall transition readiness does not yet seem priced in, but trends may shift as the energy transition accelerates

Thesis

Our long-term thesis for the energy transition is straightforward. The expected growth in electricity demand – driven by data centers, electrification of transportation, new manufacturing and more – will create a near-term increase in energy demand for all sources.

However, over the intermediate and long-term, global pressure to reduce emissions and improving product economics will create significant demand for clean energy over fossil fuels.



Clean technologies – such as solar, wind, storage, and EVs – will continue to scale up, and costs will continue to decline, making them more competitive with, and ultimately faster, cheaper, and better than their fossil fuel counterparts. The question is no longer "if" the energy transition will happen, but "when".

In our view, this demand backdrop provides the energy industry with a perfect opportunity to pivot – earning returns on past investment in fossil fuels while simultaneously investing to meet the future needs of their clients in cleaner ways and at the same time reducing carbon emissions. To date, this does not appear to be happening. Some oil and gas companies are taking initial steps to transition their businesses, and many large integrated companies have made net zero commitments. But investments in low-carbon solutions have been a small percentage of overall capex, as companies favor capital return now, over future growth.

Investors have reacted in various ways. Some clearly seek to avoid the sector altogether, either for financial reasons or a belief that these companies are "bad actors" given the disinformation campaigns that have prevented society from acting sooner. Others will invest in the sector to engage with high-emitting companies to lower global emissions and unlock shareholder value. For the most part, though, institutional investors remain invested in the sector, perhaps selectively, to generate yield via capital return or alpha opportunities through security selection – the recent focus on M&A is a prime example. The expectations of this latter group appear aligned with the sector's short-term focus on monetizing and maximizing existing resources and favoring capital return over investment. The key consideration is when, and not if, their expectations will evolve to align with the megatrend of the energy transition.

Our hypotheses are that:

Transition plans of oil and gas companies are not currently priced into the market.

Energy Transition Intelligence Trackers



- Over time, security prices of these companies will begin to incorporate a company's transition readiness.
- Companies with a clear strategy and concrete steps to align their business models with a world that will eventually

demand clean energy and fewer fossil fuels will be rewarded.¹

FFI Solutions' Energy Transition Intelligence Trackers indicate that the financial markets don't appear to be signaling a strong pivot to investing in the future, but recent trends may provide encouragement.

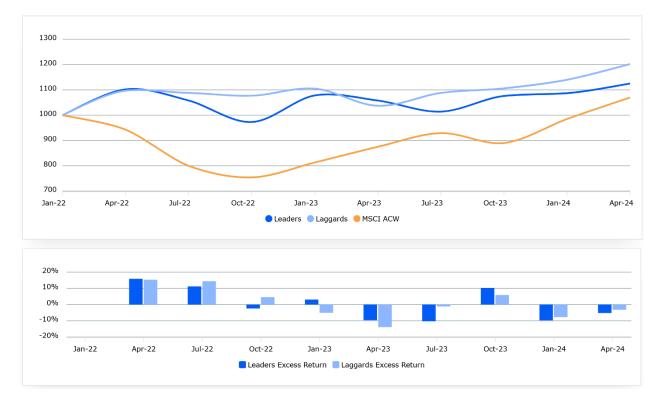
Integrated Oil & Gas Tracker

The Integrated Leaders comprise 9 companies including many large European companies such as BP, Shell and Total. These companies have generally set the most ambitious emissions targets and have been more active investors in renewable energy, clean energy infrastructure, and carbon capture.

The Integrated Laggards also comprise 9 companies and include, among others, Suncor, Imperial Oil and Cenovus, which are producing oil from Canadian oil sands. These companies, while committing to net zero, have less ambitious targets, and their investments in the low carbon solutions have lagged their peers.

A comparison of the cumulative performance of Integrated Leaders and Laggards over the past two years demonstrates a difference in performance between the two cohorts.

The Integrated Leaders portfolio performed worse than the Laggards portfolio, returning +5.3% versus +8.5% (annualized)) since inception (January 2022).



Integrated Oil & Gas

A closer look at the results provides for some interesting observations:

- During 2022, the stock performance of Integrated Leaders underperformed Laggards by 100 basis points in the first three quarters before narrowing the gap to 27 basis points for the year.
- In 2023 and through the first quarter of 2024, that gap has widened again despite stocks of Shell and BP getting a boost after both announced they were pulling back on their transition commitments during 2023. BP backtracked on previously



announced production cuts, and Shell backtracked on both production cuts and their future investments in clean energy. The out-performance in the days after the announcements indicate that the market may be rewarding a renewed emphasis on traditional hydrocarbon businesses rather than investment in low carbon solutions.

In general, the European majors have been recognized as sector leaders in transition activity but have yet to experience financial out-performance among their integrated peers. If anything, it appears that the market has punished those companies for investing in projects for long-term benefits while reducing the amount available for capital return via dividends and share buybacks. However, should the speed and scale of the transition shift more quickly towards renewables, and as the electrification of transportation continues to gain momentum, these companies should see their investments in climate solutions rewarded (on a relative basis) versus peers.

Exploration & Production Tracker

E&P companies as a group tend to be lagging on transition activity relative to integrated companies, as most have not set ambitious emissions targets or made meaningful investments into renewable energy, though some have started to deploy carbon capture and storage (CCS).

Rather, the E&P Leaders tend to be companies whose reserves and production balances (the percentage composed of natural gas versus oil) tilt more heavily toward natural gas. We utilize comparisons of natural gas versus oil as transition metrics insofar as some policymakers and capital market participants consider natural gas a "bridge fuel" and therefore has a longer lifespan than oil. Some even consider natural gas "clean" if used to replace coal in power generation.

Companies whose businesses focus more on natural gas production should, on a relative basis, see a lower risk of asset stranding as the world transitions to renewables while continuing to utilize natural gas.

That positioning played out in the stock performance since the beginning of 2022, as the E&P Leaders portfolio outperformed E&P Laggards by 12.6% on a cumulative basis. Given that many independent E&P companies are based in North America, gas producers' access to better prices in addition to the rise of the United States as the world's largest liquified natural gas (LNG) exporter might have contributed to better results on a macroeconomic level.



Exploration & Production



Going forward it makes sense to us that E&P companies with a greater focus on gas production will outperform companies with a greater focus on oil. However, it will also be instructive to monitor whether E&P companies that strengthen emissions targets or make investments in either enhanced geothermal (e.g., Devon Energy) or CCS will see their valuations impacted positively.

Takeaways

Thus far, outside of the outperformance of natural gas-heavy producers, it is not evident that transition risks or activities are being priced into the market. These results are consistent with the work of others, including Anthropocene Fixed Income, who concluded in 2023 that transition activities were not priced into credit default swap spreads or bond yields of selected oil and gas companies.²

We recognize that simply evaluating the returns of companies grouped by their transition scores does not prove causation. Other factors, such as company size, geography, and other market dynamics, can significantly influence stock prices. These elements introduce additional layers of complexity when attempting to isolate the impact of transition activities on financial performance. In the future, we will continue to study and try to account for these multifaceted influences.

We plan to extend our analysis beyond mere stock returns to include a broader set of financial indicators such as credit spreads and volatility, which may offer further insights into the economic realities facing these companies. By enhancing our methodology to incorporate these factors, we aim to provide a more comprehensive understanding of how transition activities influence market valuation and investor sentiment. This holistic approach will better equip investors to assess the inherent risks and opportunities as the energy sector evolves.

That said, the current state of the oil and gas sector, and the different strategies being pursued by individual companies, present long-term investors with an opportunity to take advantage of the energy transition theme through outright long positions, shorts, or relative value strategies in equity, credit and derivative markets.