4 actions for oil and gas in 2024

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Moving forward, resilient companies will maximize operations, amplify capital, manage emissions and innovate new low-carbon markets.

In brief:

01 Discipline has enabled oil and gas to increase production, boost efficiency and maintain returns even as prices cooled.

02 The sector has progressed future businesses and its decarbonization goals with expansion into carbon capture, hydrogen and other carbon-efficient technologies.

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The energy transition will require both significant new investments in low-carbon energies and continued use of traditional hydrocarbons to meet the expected energy demand of an expanding global economy. Fortunately, the past two years of oil and gas outlook have demonstrated the sector has the capability to lead in both facets of the new energy economy.

Most immediately, responding to strong global expansion and supply disruptions around geopolitical unrest, companies operating in the US oil and gas sector have steadily increased production of oil and natural gas. They have done so while still driving greater efficiency and amid market uncertainties, continuing to return value to shareholders even as oil prices cooled. This continued discipline positions the sector well for the increasing likelihood of much slower economic growth, or even the possibility of a recession in the US or other major markets in 2024.

US oil and gas companies have committed billions of dollars to develop future businesses around carbon capture, use and storage (CCUS) and hydrogen, aimed at abating the climate impact of hydrocarbon fuels and providing decarbonized energy solutions for those industrial emissions not easily decarbonized through electrification. By some estimates, committed CCUS projects will reduce carbon emissions at a scale equal to those mitigated by the rapid adoption of electric vehicles (EVs).

Importantly, these companies are doing so while continuing to deliver value to shareholders, basing their strategic turn into the energy transition on solid footing with their investors. To continue this strong performance in 2024, oil and gas companies should focus on four main levers.

Transact to transform through strategic sector M&A

While high interest rates and inflationary pressures cooled dealmaking in many sectors, the sector has seen a surge in announced oil and gas mergers and acquisitions (M&A) activity last year, driven by strong cash flows, renewed investor confidence and increasing recognition that oil and gas will continue to play an important role in the energy landscape.

While deals have grown again, including more enterprise-level transactions than seen in the recent past, companies are executing transactions in areas that meet well-defined strategic rationales, in both the traditional oil and gas space, as well as in new low-carbon businesses. "Ultimately, the industry wants to match the best operator with each asset, to drive performance across operations, and optimize capital and carbon management. This has set the stage for a wave of consolidations, with integrated oil companies and large E&Ps (exploration and production companies) looking to secure acreage, enhance their cash flow and maximize returns via acquisition, rather than traditional exploration," says Bruce On, EY US-West Region Strategy and Transactions Energy Leader, Ernst & Young LLP.

One indication of this disciplined approach is the lower premiums paid for in many of these deals, compared with similar deals in the recent history of the sector. Identifying a target, completing your due diligence, and announcing the deal is only the beginning of the hard work. Oil and gas companies need to attack post-close integration with the same vigor to realize the full value of these deals. Integrating the best of both organizations, across their front- and back-office operations, enables success.

Maximize operations across the front and back office

The influx of oil and gas M&A also creates a case for companies to improve business fundamentals, such as driving down operating costs, leveraging scale, jumping the curve on differentiated capabilities and strategically thinking about talent management.

Maximizing operations is not a new description for simply doing "more with less." Rather, it is operating by exception and problem-solving using technology at speed, innovation at scale with humans at the center. "To drive immediate results and limited disruption, we are collaborating with teams responsible for performance in the field, subsurface, production-operations, facilities, maintenance and supply chain," says Swapnil Bhadauria, EY US Oil & Gas Digital Operations Leader. "We take a people-led approach in our business or technology transformation implementations. In every project, people are critical and the change champions that ultimately drive success."

Real-time data and emerging technology are essential to enable better, faster, and more strategic decisions. This is true holistically across the entire value chain – in both the front office and back office, but also specifically in subsurface prediction, drilling and completions, asset surveillance and optimization, maintenance, and materials management.

Considering different operating models, such as managed services, is particularly important when companies develop new business areas. For example, the front- and back-office functions for low carbon will be different from traditional oil and gas. As low-carbon business areas begin to scale, companies should consider multiple operating models before committing to specific processes and technologies. This will allow them to find synergies by integrating traditional business areas or pivot to innovative and emerging ecosystem models.

Lastly, oil and gas companies that are able to integrate artificial intelligence (AI) and generative AI (GenAI) capabilities in their everyday decision-making will jump the curve on business value. This shift will require companies to establish a strong foundation of trusted data while also implementing AI and GenAI engineering best practices, robust governance and risk management. The adoption curve for AI is faster than for any other technology so far, so companies must act quickly.

By 2025, the 10% of enterprises that establish AI engineering best practices will generate at least three times more value from their AI efforts than the 90% of enterprises that do not.[1]

"With confident and responsible adoption of AI, oil and gas companies will unlock the full potential of their workforce, have a greater impact on daily operations, accelerate real-time decision-making, and positively impact the bottom line," Bhadauria explains.

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Manage emissions with proactive, strategic planning, and embrace operational decarbonization

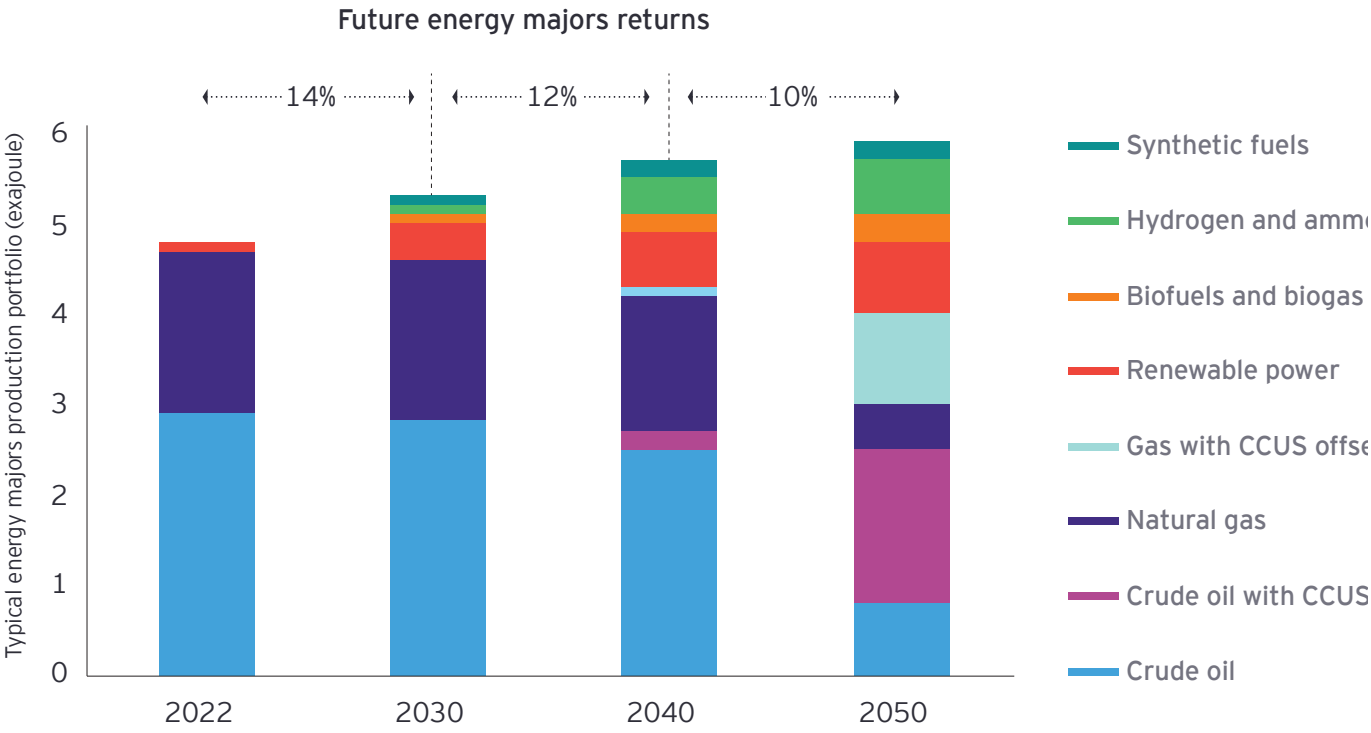
New operating models and the introduction of low-carbon businesses both underscores the ways oil and gas companies can accelerate the net zero journeys of their customers and places a premium on having a more strategic perspective around their own greenhouse gas (GHG) footprint. In 2023, the state of California and the European Union finalized and provided clarity around reporting requirements for affected companies – some of these impacts could occur in 2024 with reporting in 2025, the SEC has proposed rules that it has yet to finalize but finalization is expected in the near term. This regulatory uptick led petroleum companies in the US to accelerate efforts to reliably monitor and report Scope 1 and 2 and at least some Scope 3 emissions. Uncertainty around the timing and fullest scope of the proposed SEC rule – and the lack of uniform standards for GHG emissions reporting more generally – has been a complicating factor; there is also an opportunity for companies to move to an approach that treats emissions data almost on par with production data.

"Ultimately, understanding their emissions footprint in near real time will be critical for the strategic planning and operational decarbonization of energy companies," says Ryan Bogner, EY Americas Digital Sustainability Leader. "Shifting thinking from compliance to operational intervention helps companies make real strides in reducing emissions as a part of overall operational optimization. It also prepares companies for future commercial opportunities in carbon-differentiated product markets."

Fortunately, US oil and gas fields are comparatively some of the best, from an emissions perspective, in part owing to the high quality of crude produced from unconventional formations. But other factors are under company control. Drilling multiple laterals from the same well bore and other measures that increase overall efficiency and lower costs pay dividends in terms of emissions performance as well.

Develop new decarbonized markets for carbon capture and hydrogen beyond traditional use cases

Oil and gas portfolio evolution (illustrative)



Source: EY analysis of ERTA model data and O&G majors strategies.

Once oil and gas companies have an enterprise view of the emissions impact of their product, they also unlock the opportunity to rethink their product portfolios. Skepticism may argue against the viability of fuel differentiation based on carbon content, but plastics perhaps offers an illustration of an alternative path. Consumer preferences for reduced plastic waste have not been translated directly, but rather through bottling companies and others, seeking greater circularity in their operations. And petchems manufacturers, including the integrated oil and gas companies, have been able to differentiate their product offerings by helping these manufacturers meet consumer demand. Demand for lower carbon content in fuels could follow in a similar path.

Carbon exists not only as an attribute for a company's existing products, but also as a future stand-alone product. Oil and gas companies have already responded dramatically to changing investment conditions for decarbonized energy technologies, especially CCUS and hydrogen. The federal government has offered generous support via tax credits in the Inflation Reduction Act (IRA) for hydrogen production and CCUS and a further $7 billion from the Infrastructure Investment and Jobs Act (IIJA) to establish seven hydrogen hubs around the country.

But the commitment from a range of oil and gas companies also reflects the technical expertise, financial wherewithal, and ability to manage and operate projects at scale that give them not only a competitive advantage in this space, but also allow them to significantly advance the decarbonization agenda through their participation.

Government support for these low-carbon solutions has not been met with similar subsidies or tax credit for downstream CCUS of hydrogen markets. And adoption of a federal carbon tax – a straight-forward means of fostering these markets – is not politically viable in the short term.

Architects of the IRA believed the support for hydrogen production and CCUS would incentivize the market to create its own demand. And the real winners of the IRA and IIJA will be those companies that can best innovate new commercial approaches to these novel business areas.

To accelerate decarbonized development, oil and gas companies will need to adopt both more holistic views of their ecosystem, and more collaborative ways of working with their value chain, from suppliers through the customers of their customers.

References

1 Gartner Identifies the Top Strategic Technology Trends for 2022

A shorter version of this article was originally published by Hart Energy on January 10, 2024.

Summary

Oil and gas companies that seize opportunities to maximize their operations, proactively manage emissions, transform via transactions and embrace new energies will thrive in the decades to come.

About this article

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