Oil & Gas in 2025

Emerging Trends & Predictions

Akin®

Contents

Introduction

As we enter 2025 with a new president in the White House and Republicans in control of both the House and the Senate, we can look forward to a significant shift in the landscape for oil & gas transactions. The second Trump administration has made clear its intent to repeal most, if not all, of the Biden era clean energy actions and instead urge the industry to "drill, baby, drill" in an effort to radically increase production.

The likely end to the United States federal regulatory pursuit of climate change and environmental justice will have global impact, unlocking certain deal blockers while also creating new areas of policy uncertainty that may take time to play out.

There is no doubt that the Trump administration will take a very different antitrust posture on oil & gas M&A. A new Republican chair of the Federal Trade Commission (FTC) is expected to herald a return to more traditional antitrust enforcement principles and reduce unpredictability regarding M&A outcomes in the sector.

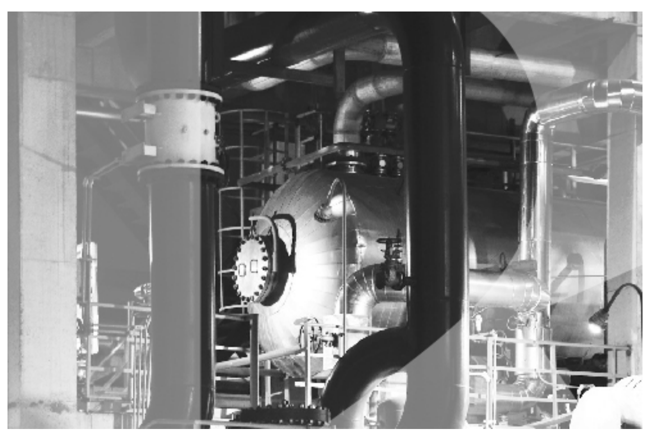
The second Trump administration and Republican-controlled Congress will likely repeal some or all of the Inflation Reduction Act (IRA) related to energy tax credits and reallocate funds toward new tax cuts. While this aligns with broader Republican priorities, some party members, especially those from red-leaning districts where the IRA has spurred job growth and attracted multibillion-dollar investments, may resist its complete repeal. Likewise, we anticipate the repeal of many of the Environmental Protection Agency's new rules and do not yet know what will come in their place.

What is striking, however, is that the shake-up in policy direction in the world's largest producer of oil and natural gas comes when the global industry is well positioned to navigate such an evolution.

With interest rates stabilizing and some institutional investors easing back into the hydrocarbon space after a period of retrenchment, 2025 is shaping up to be a year of strengthening capital availability and more deal activity. Private equity is raising capital and embracing strategic opportunities, private credit and hybrid capital are stepping into the gap left by traditional lenders, and the U.S. equity capital markets remain receptive to strong performing energy companies even if Europe is more hesitant.

On the deal side, we expect transaction volumes to increase as a wave of post-consolidation asset sales and portfolio diversification drives activity. Private equity exits will gather pace and sponsors will snap up strategic divestments, while joint ventures will be a growing feature of the industry.

There is much to navigate as the prevailing political mood changes. As oil & gas demand continues to grow globally, we do not expect the largest oil & gas companies to change course on their efforts to reduce their carbon footprints and invest in new energy technologies, so there will be much to watch in the months and years ahead.



Regulatory, Political and Policy Issues

Trump Brings Sweeping Change

Incoming U.S. President Donald Trump has been outspoken about his intention to reverse many of the Biden administration's clean energy initiatives, in addition to signaling a shift in the approach to international trade and oil & gas regulation. We expect the second Trump presidency to see the repeal of many of Biden's actions on climate change and the environment, including policies related to environmental justice. This will coincide with a change of leadership also at the FTC, which will impact antitrust enforcement and competition.

The decision to pause authorizations of LNG exports to non-Free Trade Agreement countries will be lifted straight away under Trump.

Public Policy: A Potential End to the All-of-Government Focus on Climate Change and Environmental Justice

First 100 Days

The first weeks of the new administration will inevitably include Executive Orders on expanding oil & gas development on public lands and offshore through new lease and auction processes. There also will be efforts to repeal and replace Environmental Protection Agency (EPA) final rules governing power plants to remove a requirement that carbon capture, utilization & storage (CCUS) be used on new natural gas-fired power plants.

The U.S. Department of Energy's decision to pause authorizations of liquefied natural gas (LNG) exports to non-Free Trade Agreement countries, a controversial decision directed by President Biden in January 2024, will be lifted straight away. However, holdovers from the Biden administration, including new studies on the environmental and domestic economic impacts of greater LNG exports to be published imminently prior to President-elect Trump taking office, could make full repeal of the policy more complicated in the wake of new climate change and environmental justice data.

IRA Repeal

With narrow control of both chambers of Congress, the new government also will be able to prioritize taxes in the budget reconciliation process. Requiring only a simple majority to support a budget reconciliation resolution, we can expect that Congress will attempt to repeal the tax credits enacted in the IRA and renew the tax provisions that were passed in the 2017 Tax Cuts and Jobs Act. We think it unlikely that a full repeal of the IRA will occur and that significant elements will survive. We could also see Congress add domestic content rules similar to the section 30D provision rules to other IRA provisions.

The electric vehicle industry may be most at risk while tax credits tied to hydrocarbons, such as CCUS and 45V clean hydrogen, are most likely to remain.

The electric vehicle industry may be most at risk while tax credits tied to hydrocarbons, such as CCUS and 45V clean hydrogen, are most likely to remain. The statute's so-called "methane fee," which directs EPA to collect a Waste Emissions Charge on methane released from certain oil and gas facilities at a rate to increase to $1,500 per metric ton, could be repealed. At the agency level, new leadership at the U.S. Department of Treasury could amend guidance for tax credits to permit natural gas-derived hydrogen to be eligible for the 45V tax credit, assuming the credit is not repealed.

Natural Gas as a Solution

Natural gas will be highlighted more under Trump as the best solution to fuel the rapid growth in load demand from data centers and to fuel U.S. competition with China on artificial intelligence, and also as a mechanism to control and reduce greenhouse gas emissions. The new administration will likely continue the Biden White House's focus on the massive load demand growth anticipated in the near future. The new White House, however, will shift focus from renewable energy and transmission planning to firm power production from natural gas and coal.

We anticipate the Trump energy team will call for a slowing of retirements at fossil fuel-power generation facilities, consistent with its approach in President Trump's first term.

International Relations

In some of her first comments following President Trump's electoral victory, European Commission (EC) President Ursula von der Leyen noted to potential for discussing replacing Russian gas with U.S. LNG in Europe. As such, there will be a renewed LNG diplomacy with Europe. Energy will also provide a potential platform for closer work between the Trump administration and European leaders on Ukrainian support issues, as well as China-related issues.

International Relations & Trade: Revisiting Sanctions Regimes, Imposing Tariffs

Expect More Tariffs

Trump has made clear an intention to lower America's trade deficit, arguing for a renegotiation of trade deals and new tariffs. Tariffs under the new administration will likely hit steel, aluminium, concrete and other products critical to energy infrastructure and hydrocarbon production.

Russia

Although the incoming Trump administration has generally signaled less appetite to provide military funding to Ukraine, it seems unlikely that the new government will seek to lift or substantially ease the current sanctions on Russia without first negotiating something significant in return through Russia-Ukraine peace treaty negotiations. In other words, the Trump administration may seek to use the sanctions as bargaining chips in furtherance of the President's stated goal of bringing a swift end to the war.

Further, even if the Trump administration were to attempt to lift or substantially ease Russian sanctions, there would likely be substantial opposition in Congress. During the prior Trump administration, Congress overwhelmingly enacted the Countering America's Adversaries Through Sanctions Act (which codified certain Russia sanctions and imposed certain mandatory secondary sanctions on Russia) in part as a rebuke to the Trump administration's perceived unwillingness to sanction the Russian government for the array of malign acts Russia commits against the U.S., United Kingdom (U.K.), European Union (EU) member states and other U.S. partners and allies. If Congress feels compelled to enact similar legislation during this Trump administration, it seems likely that it will have the supermajority necessary to override any presidential vetoes, which will limit Trump's ability to take unilateral executive actions to materially weaken the Russia-related sanctions program.

Maroš Šefĉoviĉ was appointed as the new European Commissioner for Trade and Economic Security in September 2024 and could potentially pursue a more aggressive approach to sanctions against Russia than seen to date.

Middle East

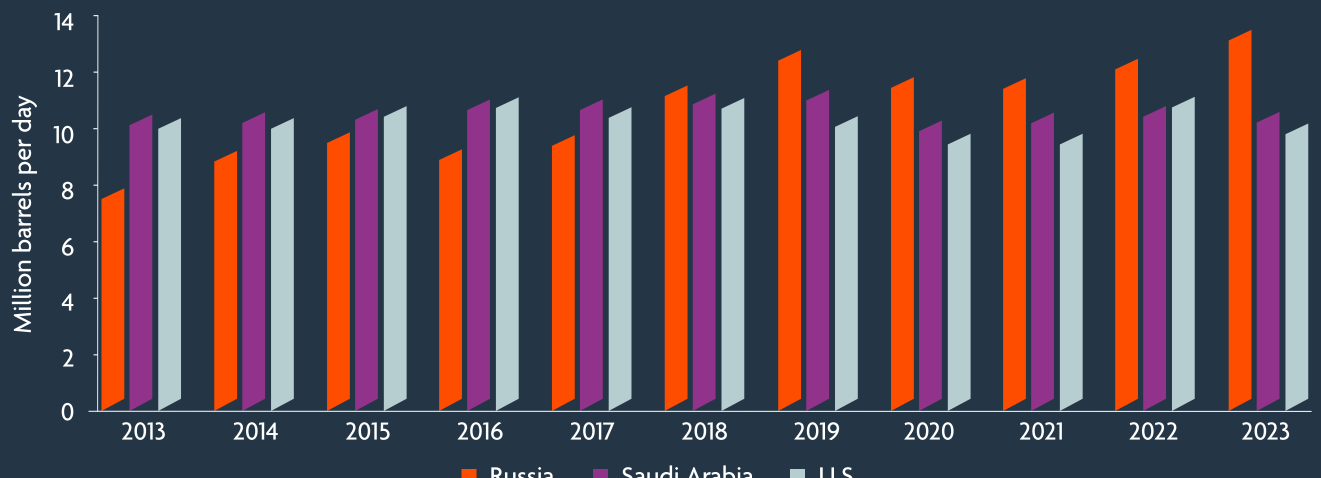
The major oil & gas companies of the Middle East continue to prioritize energy transition, with state-owned entities making investments to shift their focus from national oil companies into globally integrated energy giants. Gulf leaders broadly favored Trump as the next U.S. president, appreciating his support for traditional hydrocarbons while recognizing his promises to ramp up U.S. oil & gas production will likely impact the revenues of governments in the Middle East.

With respect to Iran, the Trump administration will almost certainly resume its "maximum pressure" campaign against Iran and its proxies, including the Houthi rebels, Hezbollah and Hamas. That said, given the significant number and array of sanctions already in place against Iran and its proxies, these sanctions are unlikely to have a significant real-world impact.

The bigger question will be the extent to which the Trump administration will impose sanctions on Chinese companies that support Iran's oil trade, which could have a broader impact on global energy markets. Congress overwhelmingly supports such sanctions, increasing the likelihood that they will go ahead.

Average Annual Crude Oil and Condensate Production From Top Three Global Producers

(2013–2023)



Data as of 01/10/25 Source: U.S. Energy Information Administration

Venezuela

If the Trump administration resumes its prior "maximum pressure" campaign against the Maduro regime in Venezuela, one aspect of that re-escalation could be the revocation of recently issued Office of Foreign Assets Control specific licenses. The Biden administration has issued to certain U.S. and non-U.S. energy companies specific licenses to encourage the flow of Venezuelan oil into global markets to offset instability arising from the Russia-related sanctions and other factors.

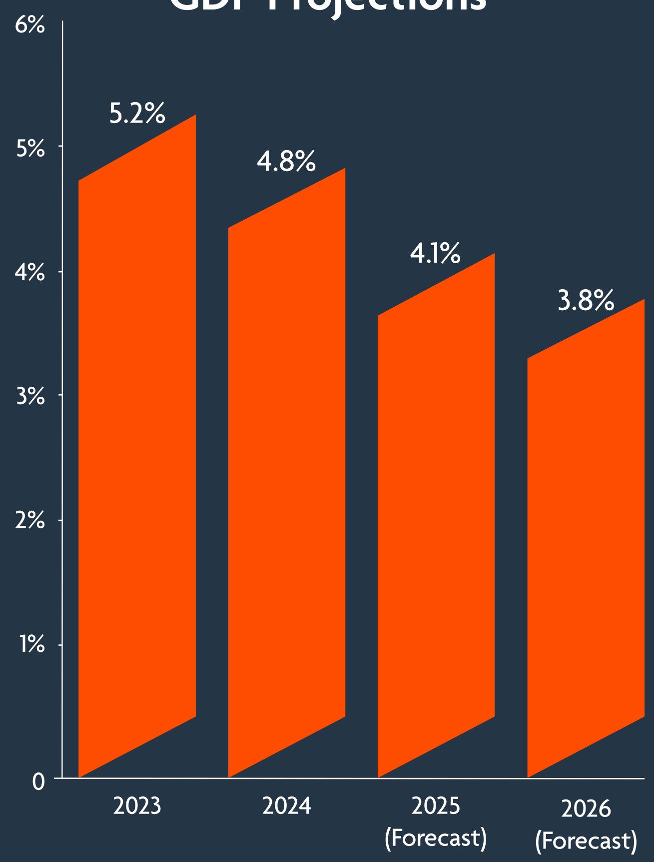
China

The prior Trump administration did not hesitate to impose sanctions on major Chinese companies, even if those actions involved litigation risk and/or ultimately resulted in court defeats. This administration will likely resume its aggressive approach to sanctions on Chinese companies and might even consider imposing full-blocking sanctions—the most potent tool in the President's sanctions toolkit—on major Chinese companies operating in the energy sector.

Europe

So far, they have taken a different approach than the U.S. on China, particularly as it relates to the German automotive industry and the dependency of many European supply chains on Chinese imports. As such, given Trump has also indicated his appetite for sanctions that will impact Europe, it will be interesting to see how unilateral the new administration in Washington, D.C. will be in its approach.

Tariffs' Impact on China's GDP Projections



Data as of 01/10/25
Source: U.S. Energy Information Administration

Antitrust: Return to Traditional Antitrust

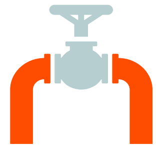
We expect that a second Trump administration will signal a major shift in the antitrust environment for oil & gas M&A. Current FTC Chair Lina Khan has taken an aggressive approach towards antitrust issues in the sector since her appointment in 2021. Her Republican successor will change that dynamic, likely returning to traditional antitrust enforcement principles thereby reducing the uncertainty regarding M&A in the sector and spurring further consolidation in the wake of Exxon/Pioneer and Chevron/Hess.

- **Reduced Scrutiny of E&P Transactions:** The FTC under Khan closely scrutinized large, high-profile transactions in exploration and production. While the FTC did not seek to block any of these transactions, a rise in Second Request responses triggered increased transaction costs and lengthened the timeline to a deal's closure.

$155bn

In 2023, U.S. domestic E&P deals hit a record of nearly $155 billion, including mega consolidations such as Exxon/Pioneer and Chevron/Hess.

- **Returned Focus to Core Antitrust Issues:** Khan's FTC obtained consent decrees on ancillary issues in three oil & gas mergers despite concluding that the underlying transactions did not raise competitive concerns. A Trump administration will likely return to a traditional antitrust approach.
- **Deals That Raise Antitrust Concerns Will Still Face Scrutiny:** For example, we expect the FTC to continue to scrutinize midstream transactions that increase concentration or create bottlenecks in the supply chain. Likewise, oilfield services and equipment and retail fuel outlets are also areas that both Democrat and Republican administrations have consistently scrutinized in the past. So, while we expect to see reduced interest in the oil & gas industry overall, parties to transactions that may raise antitrust concerns can still expect scrutiny.



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In Europe, the Commission has a new slate of Commissioners, including a new Executive Vice President for a Clean, Just and Competitive Transition, Teresa Ribera. This is the first time that the EC has folded the competition portfolio alongside energy, suggesting a clear interlinkage in European thinking around using enforcement pressure to promote a clean transition.

The last few years have seen a greater focus on sustainability when reviewing commercial agreements, partnerships and acquisitions, both within and outside of the traditional energy arena, in markets such as plastics and fast-moving consumer/household goods. This policy is set to continue, such that arrangements and transactions that might previously have been considered anticompetitive in one or more markets may now be easier to justify (including with commitments) on the grounds of sustainability or other relevant customer benefits.

2040

The European Climate Law requires the Commission to propose emissions reduction targets for 2040, which will sit under Ribera's role.

Energy Regulation: FERC Will Get a New Chair

Federal Energy Regulatory Commission (FERC) Makeup

The FERC chairmanship will pass to a Republican, from current Chairman Willie Phillips, on January 20, 2025. While policy preferences, including direction from the agency's Office of General Counsel, will change, FERC may continue to have a 3-2 Democratic majority until Phillips' term expires in June 2026. While Phillips could choose to resign and open the seat for President-elect Trump to fill, there is precedent for former agency chairs to remain in place rather than give the President the opportunity to appoint a new Commissioner. Were he to resign to open the seat, with three of the agency's five commissioners joining in 2024, FERC would lose some of the institutional overlap that traditionally knits the agency across presidential administrations.

Will Bipartisan Reign?

Under Chairman Phillips, the agency has taken a more bipartisan approach and voted out more unanimous orders than prior commissions. Whether that continues in the short-term will depend on who President Trump appoints to lead the agency and whether Chairman Phillips resigns his seat or continues to serve. If the composition remains, expect continued support for infrastructure development, including pipeline and LNG terminal projects, with the caveat that the agency's reviews seem to be becoming more susceptible to reversal in the D.C. Circuit following the Supreme Court's decision in *Loper Bright Enterprises v. Raimondo*. The agency, aware of this trend, has also adapted the orders it writes.

Environmental Justice

Chairman Phillips has stated that he hopes the new chairman will continue to support the agency's efforts on outreach to environmental justice communities even after the expected repeal of Biden administration Executive Orders calling for a government-wide approach. While FERC was expected to update its regulations implementing the National Environmental Policy Act (NEPA) to align with new Council on Environmental Quality (CEQ) regulations codifying environmental justice concepts, a recent D.C. Circuit decision calls the CEQ regulations into question.

Regardless, these changes will not lessen FERC's statutory obligations to consult with Indian Tribes, and many of the environmental justice community issues may fall into the Tribal consultation space. As was the case during the first Trump administration, we can also expect an increase in environmental activism as a result.

In the summer of 2024, FERC lost three cases before the D.C. Circuit in the span of three weeks.

Chairman Willie L. Phillips

Sworn in: December 2021
Term expires: June 2026

Commissioner Mark C. Christie

Sworn in: January 2021
Term expires: June 2025

Commissioner David Rosner

Sworn in: June 2024
Term expires: June 2027

Commissioner Lindsay S. See

Sworn in: June 2024
Term expires: June 2028

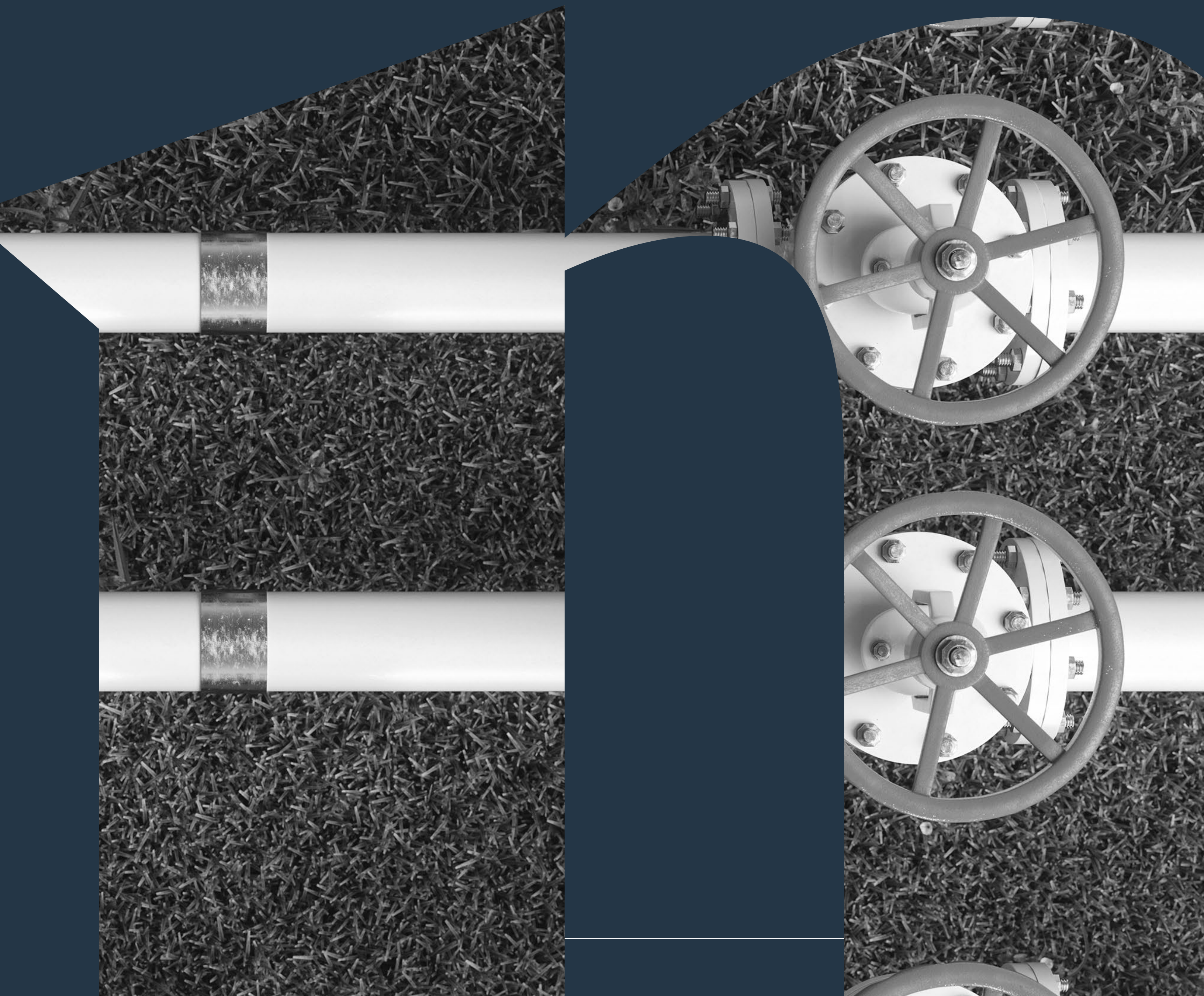
Commissioner Judy W. Chang

Sworn in: July 2024
Term expires: June 2029

Conclusion: Change Is the Only Certainty in Year Ahead

As the new U.S. government settles in, there will be a markedly different approach to trade policy and oil & gas regulation through 2025. Alongside a rolling back of policies that support clean energy, we can expect more tariffs to support the domestic U.S. industry, a revisiting of sanctions regimes, reduced antitrust scrutiny and a shift in tone when it comes to international relations.

Governments in Europe and the Middle East will be paying close attention to U.S. energy policy as it pertains to Russia and the Gulf states in particular. It remains to be seen how Trump's aspiration to unleash significantly more oil & gas domestically will impact global markets in the years ahead.



Pursuing Capital for Growth

Capitalizing on Energy and Capital Evolution

While 2024 was characterized by some relaxation of the liquidity crunch that stymied capital markets activity in the previous year, access to capital remained somewhat challenging for many oil & gas companies. With interest rates stabilizing and some institutional investors easing back into the hydrocarbon space after a period of retrenchment, we expect 2025 to see a further strengthening of capital availability for, as well as raising and deployment by, the industry from both traditional and alternative sources of funding.

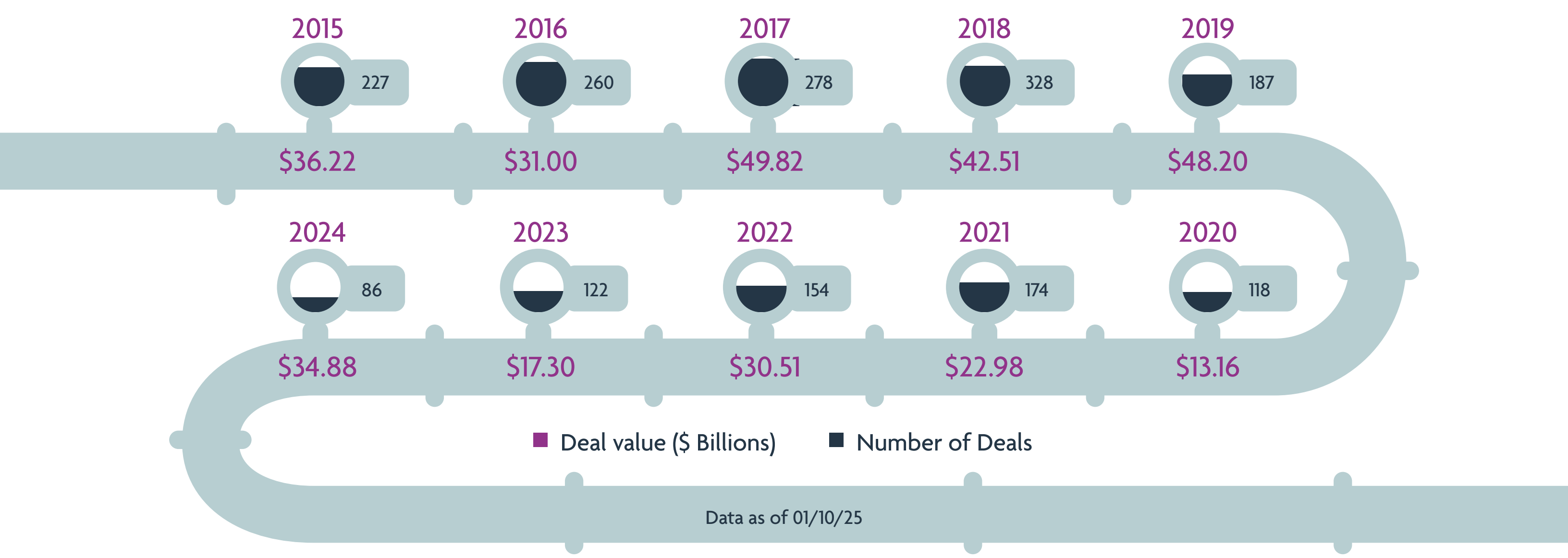
Private Equity: Embracing Strategic Opportunities in the U.S. Energy Landscape

Following a dramatic drop in private equity (PE) oil & gas deal activity from $48.2 billion in 2019 to $17.3 billion in 2023, the U.S. private equity market is experiencing a resurgence of interest in energy, presenting a compelling opportunity for both financial sponsors and energy companies seeking growth capital. The trend, driven by consolidation and strategic divestitures among majors, has spurred an uptick in institutional fundraising for energy-focused private equity funds, as investors recognize the potential for attractive returns in a sector poised for growth.

$6.4bn

EnCap Investments successfully closed its twelfth fund with $6.4 billion of commitments in October, exceeding its initial target and hard cap.

U.S. Oil & Gas PE Deal Activity



Source: PitchBook

U.S. PE Market

The universe of investors putting money into oil & gas funds has undoubtedly shrunk from the previous "boom" period, with a number of pension funds and university endowments pulling out completely. However, we see some Silicon Valley foundations, tech giants and family offices expressing more interest in hydrocarbons and supporting co-investment opportunities, and a lot of money continues to flow into the industry from the Middle East.

Still, the fundraising climate continues to drive a consolidation of private equity sponsors such that the largest funds are increasingly snapping up the majority of investment capital. For example, EnCap Investments successfully closed its twelfth fund with $6.4 billion of commitments in October 2024, exceeding its initial target and hard cap, in an announcement that was swiftly followed by Quantum Capital Group's obtaining capital commitments of more than $10 billion for its diversified energy investment platform.

European PE Market

While deal volume is down, there have been a number of substantial deals closed in Europe through 2024, and we see strategics moving back in to compete with private equity for targets. Both Shell and BP have slowed down their divestment programs of late, creating a more competitive deal climate, though it remains challenging for sponsors to price oil & gas assets in Europe in a regulatory environment where it is hard to know how the energy levies impacting those assets will play out.

Deployment Dynamics

While we are not seeing a great deal of sponsor appetite for new management team funding, sponsors appear to be bullish on backing established teams with strong and proven track records.

Consolidation and Divestitures

There remains a steady flow of transactional opportunities for private equity sponsors, with a lot of midstream activity in the Permian Basin and elsewhere. Large energy companies are increasingly divesting noncore assets, generating a robust pipeline of investment opportunities for private equity firms.

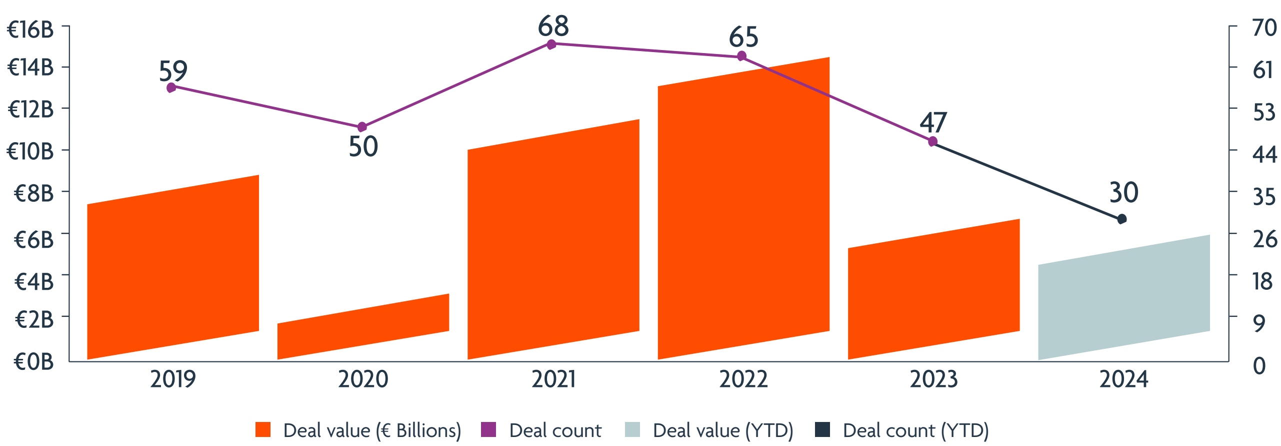
Middle Market Strength

The middle market remains particularly attractive for private equity investment, as companies in this segment are often less reliant on debt financing and can present compelling growth prospects.

Focus on Cash Flow Generation

In today's market, private equity investors are prioritizing companies with strong free cash flow generation and a clear path to profitability, seeking investments that can deliver returns without relying solely on exit events.

European PE Deals in Oil & Gas



Data as of 01/10/25

Source: PitchBook

Actionable Insight
Energy companies seeking private equity investment should focus on articulating a compelling growth strategy that highlights strong cash flow generation potential and a clear path to profitability.

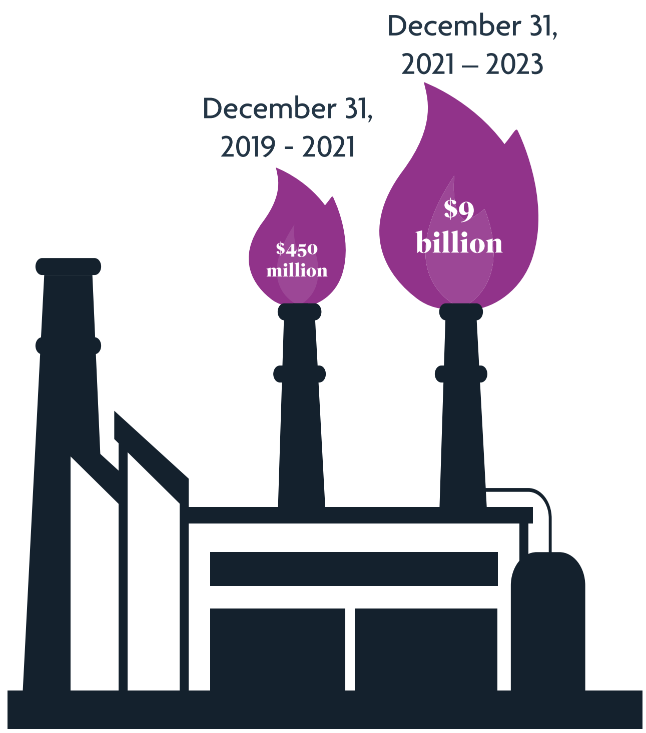
Private Credit: Filling the Void in Traditional Energy Finance

Private credit has emerged as an important force in the energy finance landscape, particularly for companies operating in the traditional oil & gas sector. The pullback of traditional lenders, coupled with the energy sector's inherent capital intensity, has created a significant demand for alternative financing solutions.

As traditional banks continue to retreat from reserve-based, fossil fuel lending, private credit has been increasingly moving into and increasing its market share.

Private credit funds have emerged as a reliable source of capital, providing companies with the financial resources necessary to pursue growth initiatives, refinance existing debt and navigate market volatility. As traditional banks continue to retreat from reserve-based, fossil fuel lending, private credit has been increasingly moving into and increasing its market share in the specialty finance space (including the oil & gas sector) and is expected to further solidify its position as a key player in the energy finance landscape.

The Value of Oil & Gas Private Credit Deals Is Soaring



Source: Preqin

Rapid Growth

With bank lenders retrenching from funding the oil & gas market as a result of climate and other regulatory concerns, private credit fund managers have increased their exposure to the industry in recent years. Data from Preqin reveals a dramatic increase in private credit deals in the oil & gas industry, with deal value soaring to over $9 billion in the two-year period ending December 31, 2023, up from a meager $450 million in the prior two-year period. The retreat by traditional lenders has been particularly pronounced in Europe, where the pressure on banks to move out of hydrocarbon-based lending has been strongest and compounded by regulatory pressure.

Higher Costs, Increased Flexibility

While private credit provides access to much-needed capital, it sometimes comes at a higher cost than traditional bank financing. However, private credit funds often offer faster execution and greater flexibility in terms of deal structuring and covenants, making them an attractive option for companies seeking customized financing solutions.

In addition, given the amount of new private credit funds that have launched, and the massive amounts of capital raised by private credit funds over the past several years, check sizes have increased to levels that, in many cases, exceed what traditional banks have been able to provide.

Strategic Opportunities

Private credit investors are actively seeking opportunities to provide acquisition financing, supporting private equity-backed acquisitions of oil & gas assets from larger producers, and have also become increasingly interested in providing capital in the asset-based and project-based lending spaces.

Actionable Insight

Energy companies should proactively explore the potential of private credit as a viable financing option, especially in light of the evolving landscape of traditional lending; and leverage the flexible structuring capabilities of private credit funds to tailor financing solutions that align with specific business objectives and risk profiles.

Ryan Dunfield, CEO of SAF Group, one of Canada's largest alternative lenders in the energy sector, predicts that the shift from banks to private credit will continue to accelerate:

> The expectation is that some banks 'will just exit' the loans market for coal, oil and even gas.[1]

Rob Horn, head of the sustainable resources group at Blackstone, highlights the crucial role of private capital in driving the energy transition:

> Private capital is essential to fund this transformation in our economy...Increasingly, we are seeing larger companies, including investment grade companies, turn to private markets for [transition] funding.[2]

Hybrid Capital: Balancing Risk and Reward

Hybrid capital instruments—such as preferred equity, convertible debt and other bespoke capital solutions—offer a compelling solution for energy companies seeking to bridge the gap between pure debt and equity financing. Even borrowers with strong underlying balance sheets have been squeezed by higher borrower costs and impending debt maturities, fueling demand for solutions that avoid excessive dilution or unsustainable leverage.

The hybrid approach allows companies to secure capital without incurring excessive debt or diluting existing equity holders. Hybrids remain a powerful tool for oil & gas companies seeking funding—particularly in a volatile market environment—striking a balance between risk and reward, making it an increasingly popular option in the energy sector.

- **Preferred Equity's Appeal:** Preferred equity sits between common equity and debt in the capital structure, providing investors with a higher claim on assets than common equity but with lower risk than traditional debt.
- **Flexible Applications:** Hybrid capital can be deployed for a variety of purposes, including funding growth initiatives, deleveraging balance sheets, and closing distributions to paid-in capital (DPI) ratio gaps for liquidity-hungry LPs. In particular, in the new energy ecosystem, hybrid capital has been deployed to provide financial resources to companies investing in new technologies, expanding existing operations and capitalizing on emerging market opportunities.
- **Favorable Pricing Environment:** Despite market volatility, pricing for hybrid capital solutions remains attractive for both companies and investors.

Actionable Insight

Energy companies should consider the potential benefits of hybrid capital instruments, particularly in a dynamic market where traditional financing options may be limited or expensive; strategically utilize hybrid capital to enhance capital structure flexibility, balancing debt and equity components to achieve optimal financial stability and growth; and work with experienced legal advisors to structure hybrid capital instruments that align with the parties' specific business needs and risk tolerance.

Family Offices: Emerging as Key Players

As private equity funds focus on restarting the engines, family offices have also stepped in to fill the funding gap and have emerged as key players, bringing much-needed capital, flexibility and expertise.

Investment Horizon

Oftentimes, family offices are not saddled with set investment timelines or exit strategies, and, instead, have the flexibility to invest with a longer-term perspective—many can hold assets indefinitely. This aligns well with the energy industry's long development cycles and capital-intensive nature. Family offices can ride out commodity price cycles and focus on stable cash flows and long-term value creation, rather than feeling pressure from limited partners to exit investments at a sub-optimal time.

Speed and Agility

Many family offices are smaller and more nimble than large institutional investors, allowing for faster decision-making and greater agility in pursuing opportunities. This streamlined decision-making process is helpful in the current market, where speed and flexibility are crucial for winning the best opportunities.

Investment Structure

Family offices are not limited to traditional fund structures and can invest at various levels, including direct investments, co-investments and partnerships. This flexibility allows them to tailor their investment approach to specific opportunities and partner with management teams in a way that best suits their needs. Family offices may invest in corporate equity, at the asset level, or even partner with other funds and firms on deals.

Customization and Control

Family offices can customize their investment strategies to align with their values and long-term goals, which are often multigenerational. This personalized approach sets them apart from institutional investors with more standardized investment mandates.

Broad Mandate

While the primary focus for many family offices remains on traditional energy sources, there is growing interest in new energy technologies. This is driven by a combination of factors, including the desire to diversify portfolios and a growing awareness of the importance of sustainability. Family offices can leverage their expertise in traditional energy to identify and invest in promising new energy technologies, such as carbon capture, hydrogen and advanced geothermal.

Family offices can leverage their expertise in traditional energy to identify and invest in promising new energy technologies, such as carbon capture.

John Nelson of Stephens Capital Partners highlights the difference between standard private equity funds and family offices, pointing out that they have,

> "investments we've made in the '50s that the Stephens family still holds."[3]

Actionable Insight

Smaller family offices can leverage the "club" nature of their community and partner with other family offices to access larger and more complex deals.

Traditional Lending and Debt Capital Markets: Navigating a Changing Landscape

While private credit and hybrid capital have gained significant traction, traditional lending and debt capital markets remain essential for energy companies with strong credit profiles and a demonstrated commitment to profitability.

Investment Grade Debt Availability

Investment grade debt remains available for companies with strong credit ratings. This type of debt capital is being used primarily for refinancing existing debt and, to some extent, for financing acquisitions.

High-Yield Challenges

Access to capital has become more limited and expensive for high-yield issuers in the energy space, reflecting investor caution and a greater emphasis on credit quality and strong profitability.

Challenges and Opportunities Ahead

Over $250 billion of investment grade and speculative grade debt maturities are expected to come due in the oil & gas sector globally over the next three years, according to S&P Global. That will present both refinancing challenges and potential opportunities for creative refinancings.

Over $250 billion of investment grade and speculative grade debt maturities are expected in the oil & gas sector globally over the next three years.

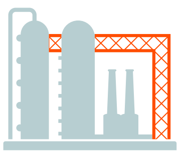
Investment Grade and Speculative Grade Debt Issuance in EMEA Oil & Gas

Data as of 01/10/25

Source: Pitchbook

Equity Capital Markets: A Tale of Two Markets

The equity capital markets present a divergent landscape for energy companies, with the U.S. and Europe exhibiting starkly different investor appetites.



European equity capital markets remain largely closed for significant IPOs of oil & gas companies, reflecting heightened ESG concerns and stricter regulatory pressures.

U.S. Receptivity and Activity

As has been the theme for the past five years, the U.S. equity capital markets remain somewhat receptive to energy companies that demonstrate strong financial performance, with a clear focus on profitability and cash flow generation. There was more oil & gas capital markets activity last year than has been the case in the years post-pandemic, but deal volumes remain steady and predictions of a meaningful upswing in debt and equity offerings have so far failed to materialize. The most high-profile U.S. energy IPOs of 2024 included Denver-based natural gas producer BKV's $270 million IPO in September and Five Point Energy-backed LandBridge's $270.9 million IPO in June, both on the New York Stock Exchange. Appalachian-focused Infinity Natural Resources and oil field services firm HMH also filed to go public in the last quarter of 2024.

European Challenges

In contrast, the European equity capital markets remain largely closed for significant IPOs of oil & gas companies, reflecting heightened ESG concerns and stricter regulatory pressures.

Looking Forward

Geopolitical factors tied to the change of U.S. political regime and ongoing tensions in Europe and the Middle East will have some bearing on capital markets activity in 2025, though we expect the industry headwinds to lessen as investors appreciate the opportunities presented by energy security as a pressing concern.

Key U.S. Energy IPOs in 2024

Landbirdge Company LLC
Value: $270.9 million
Closed: July 1, 2024

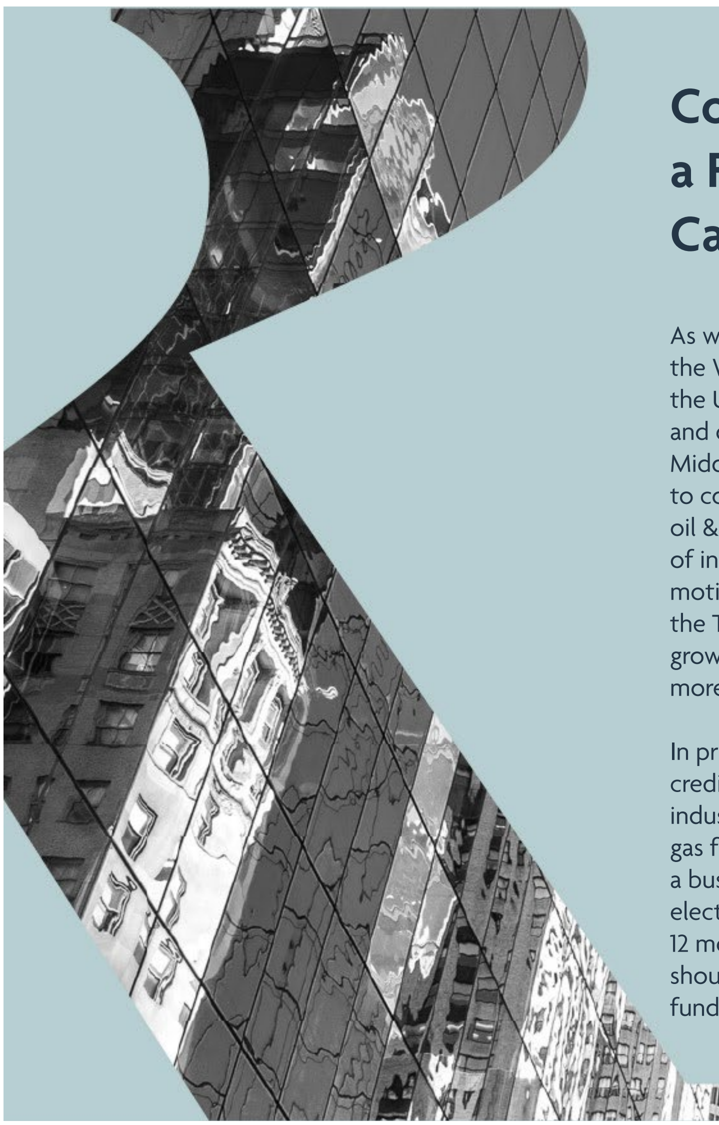
BKV Corporation
Value: $270 million
Closed: September 27, 2024

Infinity Natural Resources, Inc.
Target Value: est. $100 million
Filed: October 4, 2024

HMH Holding B.V.
Target Value: est. $100 million
Filed: August 12, 2024

Source: PitchBook

Actionable Insight
Energy companies considering accessing the equity capital markets will need to carefully assess investor sentiment and regulatory dynamics in their target markets.



Conclusion: Embracing a Future of Energy and Capital Abundance

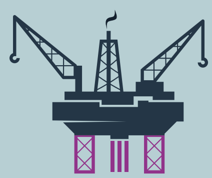
As we move into 2025 with a new president in the White House, Republican majority in both the U.S. House of Representatives and Senate, and ongoing geopolitical conflict in Ukraine, the Middle East and elsewhere, we expect capital to continue to become more available to the oil & gas industry. With some strengthening of investor appetite for hydrocarbons being motivated by energy security concerns, and the Trump administration prioritizing industry growth, we expect the capital markets to be more active.

In private markets, the opportunity for private credit funds to escalate their lending into the industry and for private equity to deploy oil & gas funds as strategics shed assets should herald a busy year. With elevated interest rates and election uncertainty key features of the past 12 months, a more certain forward trajectory should further strengthen the availability of funding for growth.

M&A and Joint Venture Activity

Volume Strengthens in the Wake of Mega-deals

If 2023 was characterized by a small number of mega-deals that reshaped the top end of the U.S. oil & gas industry, 2024 was about post-consolidation deal flow and a steady uptick in activity across the market. In the run-up to the U.S. election in November, we saw a lot of transactions being discussed but not executed, foretelling what we expect to be a busy year for our clients in 2025.



2024 looks set to close out in line with the two prior years, with around 550 oil & gas deals taking place globally.

Strategic M&A: Divestments Fuel Volume Pickup Going into 2025

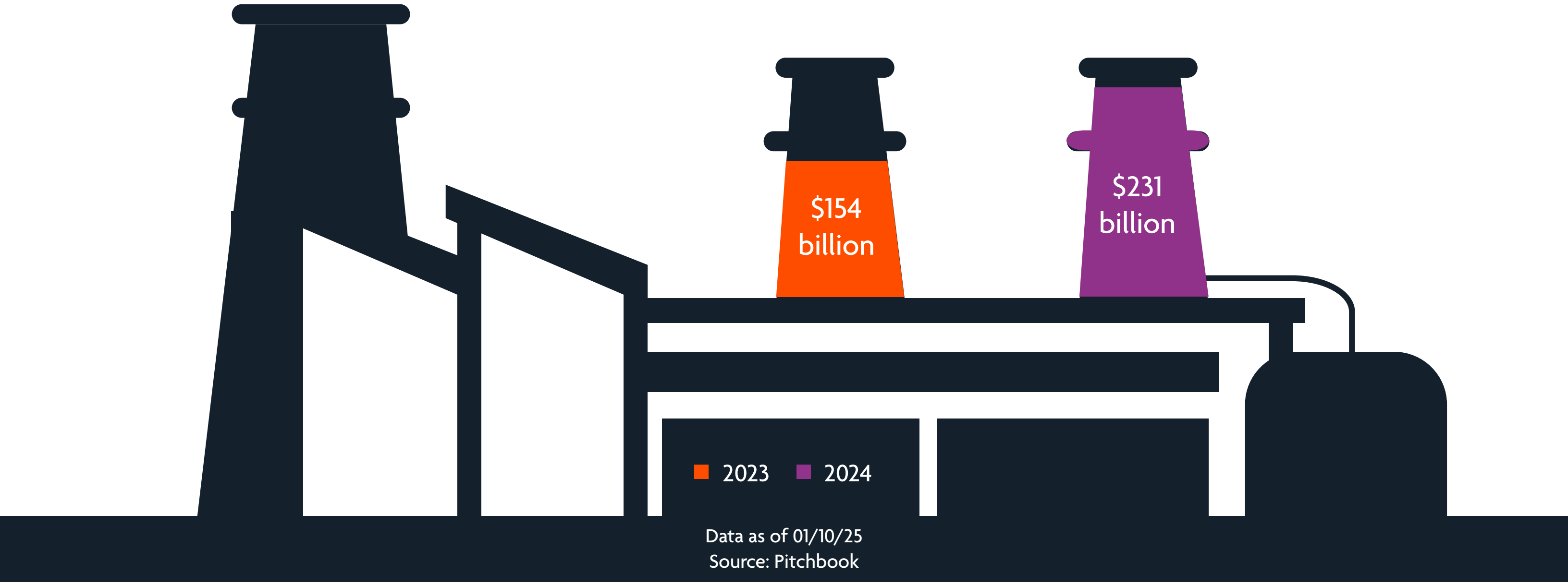
M&A activity looks set to take on a different tone this year as major consolidation plays bed down.

Global M&A Value Up Following Mega-Deals

As 2023 came to a close, the U.S. oil & gas markets were shaken by two big deals that would go on to define that year: ExxonMobil, the largest U.S. oil producer, announced its agreement to buy Pioneer Natural Resources for $59.5 billion in October to create the biggest producer in the Permian Basin, and soon after we saw Chevron reveal plans to acquire rival Hess for $53 billion.

In the aftermath of those transactions, 2024 has seen fewer headline-grabbing combinations but a more consistent uptick in activity as interest rates have stabilized and access to capital has eased. PitchBook data records 2024 topping both 2022 and 2023 by capital invested, with total deal value of $231 billion up 50% on the $154 billion spent in the previous year (noting that the Exxon/Pioneer transaction was consummated in 2024 and therefore fell into that year's numbers).

M&A: Capital Invested in U.S. Oil & Gas



Post-Merger Rationalization Drives Asset Sales

Just two transactions valued north of $10 billion were announced through 2024 globally, with Diamondback Energy paying $26 billion for Endeavor Energy Resources to create a leading operator focused on the Permian Basin and ConocoPhillips winning shareholder approval in August for its all-stock $22.5 billion takeover of Marathon Oil. Both transactions are primarily focused on the U.S. unconventional asset market.

From a deal volume perspective, 2024 looks set to close out in line with the two prior years with around 550 oil & gas deals taking place globally. On the strategic side, much of the M&A taking place now are consolidation plays or post-consolidation asset rationalizations, as public companies look to shed what they view as noncore assets. We expect a number of the larger oil & gas players to start marketing noncore businesses in 2025.

Midstream Players Seek Their Own Tie-Ups

The massive consolidation that has taken place amongst the upstream oil & gas companies has also trickled into the midstream space, as strategics in that market look to put themselves in a similar position to scale across customers. While there have been some large public mergers as those players pursue wellhead-to-water strategies, many have opted to buy up smaller private equity-backed systems (or to acquire midstream assets from upstream companies) in order to plug gaps. Public companies are buying rather than building and looking to integrate across geographies and operations, creating a hot market for private equity owners that have midstream assets coming up to exit.

We are also entering a period during which well-funded majors are looking to make strategic investments into midstream assets and as such, we expect that to drive some deal flow in the coming year.

Michael Casey, head of midstream and downstream at Wells Fargo, says: "Some of the deals we've started to see are midsize public companies where the management teams are realizing they have carried the ball as far as they can on their own." Greater scale will allow midstream players to deliver more, he adds:

> "The more I can touch the molecule, the more margin I can realize. People are looking at ways to further their opportunities to do that.[4]"

2023's Big Oil & Gas Deals

Company:	Chevron
Target:	Hess
Value:	$54 billion
Announcement Date:	October 23, 2023
Completion Date:	May 28, 2024

Company:	ExxonMobil
Target:	Pioneer Natural Resources
Value:	$59.5 billion
Announcement Date:	October 11, 2023
Completion Date:	May 3, 2024

Portfolio Diversification as a Deal Driver

In addition to rationalization plays, supermajors have continued to diversify their portfolios of energy assets, pursuing energy transition targets to help them achieve aggressive net zero goals. It is unclear whether this will continue to be the case, given the questionable profitability of many nonhydrocarbon assets thus far. If supermajors continue down this path, then the conventional assets that they retain in their portfolios will need to be even more profitable, driving divestment of more marginal, less profitable businesses. We therefore anticipate one of two paths: either a doubling down on key assets alongside appetite for energy transition targets, or a recalculation of whether those targets are necessary or feasible.

Cash-Rich European Majors Look To Diversify

Alongside an anticipated uptick in U.S. domestic onshore M&A activity, we continue to see a fair amount of deal flow in Europe and elsewhere. Both the European majors and trading houses still have a lot of cash available to spend and national oil & gas companies continue to look for routes to diversification outside of their home markets. That has not necessarily resulted in huge deals yet, but we see the state-owned players on lots of deals chasing overseas assets and we expect them to be more acquisitive moving forward.

Larry Fink, CEO of BlackRock, says:

"The energy market isn't divided the way some people think, with a hard split between oil & gas producers on one side and new clean power and climate tech firms on the other. Many companies do both, which is a major reason BlackRock has never supported divesting from traditional energy firms. They're pioneers of decarbonization, too.[5]"

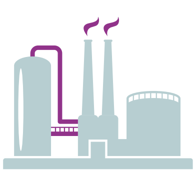
We anticipate either a doubling down on key assets alongside appetite for energy transition targets, or a recalculation of whether those targets are necessary or feasible.

Gulf Producers Pursue Acquisition Strategies

In the Middle East, too, the established regional oil & gas companies are looking to expand globally and shift their focus from being traditional domestic upstream producers into more globally integrated energy conglomerates spanning multiple verticals. These players are looking to lead deals rather than participate as co-investors and will only consider minority stakes where there is a path to control in order to drive global operational efficiencies. Given their appetite for transformation is considered time-critical, that deal activity has proved fairly resilient to market forces of late and we expect it to remain buoyant going into 2025.

U.S. Antitrust and National Security Paradigms Set to Move

Through the past 12 months, antitrust has proven to be a major variable in oil & gas M&A. There seems little doubt that the Trump administration will take a different antitrust approach, which will result in increased deal volume. For overseas investors looking to U.S. targets, strategic investments could face increased risk under Committee on Foreign Investment in the United States (CFIUS) if the administration moves to a more protectionist direction.



There seems little doubt that the Trump administration will take a different antitrust approach, which will result in increased deal volume.

Private Equity: Carve-out Opportunities as Exits Tick Up

While the well-capitalized oil & gas companies continue to dominate M&A activity, we see growing opportunities for private capital to do deals.

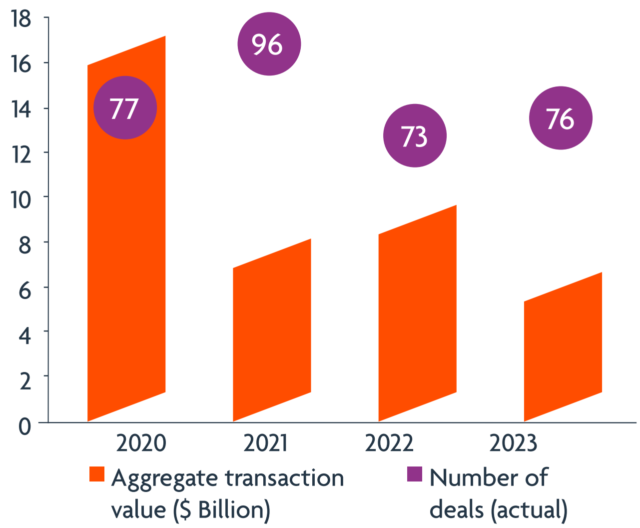
Divestments Create Dealflow for Private Equity

Many private equity players have raised sizeable pools of capital for energy transition in recent years, but their core hydrocarbon-focused funds were at least as busy, if not busier, during 2024. With divestments a key theme for the majors going into this year, we should see PE buyers pick up traditional assets being divested by strategics looking to rationalize.

Sponsors Line Up More Exits

On the buyside, we see an increased willingness from sponsors to take on public company equity as a proportion of the consideration for assets being sold, which is helping to get deals over the line. Across the market, private equity funds have struggled with the tough exit environment over the past 12 to 18 months and as such it feels like they are more likely to be sellers than buyers at least for the first part of 2025.

Worldwide Private Equity and Venture Capital Backed Oil & Gas Investments



Data as of 01/10/25
Source: S&P Global

Joint Ventures: Energy Transition Drives Collaboration Plays

We continue to see joint ventures being discussed in the midstream and downstream parts of the market, as well as in energy transition where industry players are looking to get involved in various ways. So far, there is a lot more joint venture activity being discussed than actually getting done, and they accounted for just 32 of the 392 oil & gas deals recorded by PitchBook globally in 2024.

Joint ventures accounted for just 32 of the 392 oil & gas deals recorded globally in 2024.

Partnerships Find Favor as Energy Transition Play

We are seeing a growing number of joint ventures entered into in the new energy space for large-scale hydrogen and ammonia projects, for example, where there are few single players with the scale and capabilities to move forward alone.

As we move into a new year, we anticipate more three- or four-way joint ventures being signed to bring together traditional oil & gas players on the supply side, renewables developers and off-takers in order to get projects off the ground. A case in point is the NEOM Green Hydrogen Project in Saudi Arabia, which is the world's largest utility scale, commercially based hydrogen facility powered entirely by renewable energy, structured as an equal joint venture between NEOM, Air Products and ACWA Power.

Joint Ventures Will Likely Connect Hydrocarbon and Power Players As Well

A number of power generators and large-scale power users (e.g., data centers and other technology players) have seen the coming need for reliable power and are exploring the use of the large U.S. supply of natural gas to this end, as well as potential use of smaller modular nuclear reactors. We expect to see a number of joint ventures or other strategic arrangements in these spaces in the Permian Basin and elsewhere in North America.

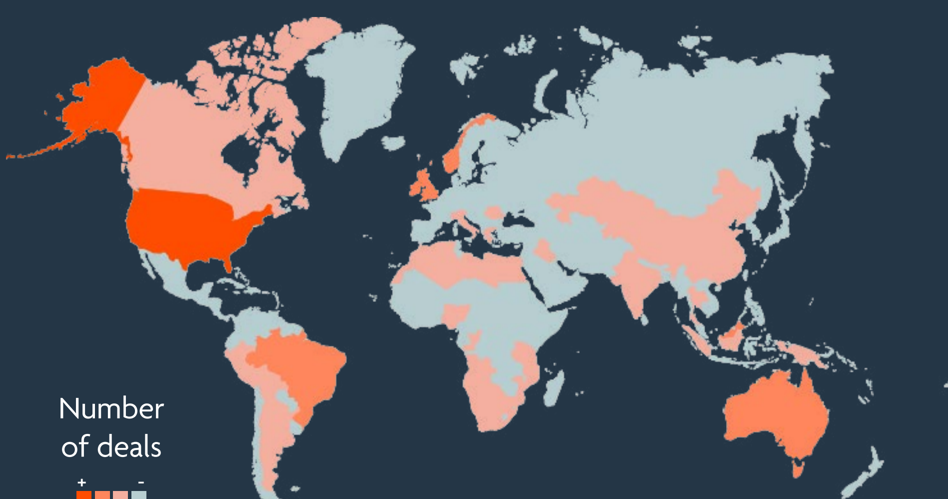
More Combinations in the Gulf To Fuel Domestic Growth

In the Middle East, a flurry of domestically focused joint ventures has been driven by a desire to bring in strategic international partners in order to drive domestic growth. While those deals have been far outpaced by an appetite for international investment, we have sometimes seen them in conjunction with an equity investment where there will be a domestic component driven by the target establishing a local joint venture.

Joint Ventures Work for Midstream Strategies

We also expect to see more joint ventures entered into among midstream businesses as those look to collaborate in order to provide that wellhead-to-water solution for their customers.

Oil & Gas M&A by Region
(Q2 2024)



Number of deals

+ -

240
Announced Deals

QoQ -4%
YoY 2%

$67bn
Global Disclosed Value

QoQ -34%
YoY -7%

Source: Kroll

Conclusion: Fewer Mega-deals But a Busy Year Ahead

While 2025 is expected to be an active year for M&A, it will be a little different than the last year of heightened M&A activity.

With a new president in the White House and elections settled in major countries around the globe last year, more stable interest rates and greater visibility should strengthen deal flow in the year ahead, but we expect an uptick in volume of mid-market deals to replace the mega-transactions of a year ago.

As the industry continues to navigate a shift in oil demand that is pushing the majors to rationalize and hone in on their most profitable business lines, 2025 activity will be characterized by opportunistic acquisitions of noncore assets coming off the back of a consolidation wave.

Energy Transition Opportunities

Reducing Carbon Intesity with an Energy Security Focus

The reelection of U.S. President Donald Trump, combined with the Republicans assuming control of both the House and the Senate, will likely lead to a shift in energy transition policy that could have far-reaching impacts. Trump has been outspoken about his intention to reverse many of the Biden era clean energy legislative actions, and he is likely to evaluate repealing many of the previous administration's actions on climate change. The extent of that repeal still remains unknown.

A key target will be the IRA, which Republicans will target for repeal or revision through the budget reconciliation process, an arcane Senate process that allows for passage of privileged resolution by simple majority (and the same process by which the Democratic-controlled Congress enacted the IRA).

The IRA expanded and extended federal tax credits for the deployment of clean energy technologies and manufacturing, creating or enhancing credits available for energy storage, carbon capture, hydrogen, clean fuels and the manufacturing of qualifying solar, wind and battery components as well as the production of critical minerals. It also established a right to transfer or sell tax credits for cash and otherwise made the tax credit market more accessible. We anticipate Congress will act on the IRA tax credits in the first 100 days of the new session and the Trump administration will likely revise Treasury guidance for certain credits left in place.

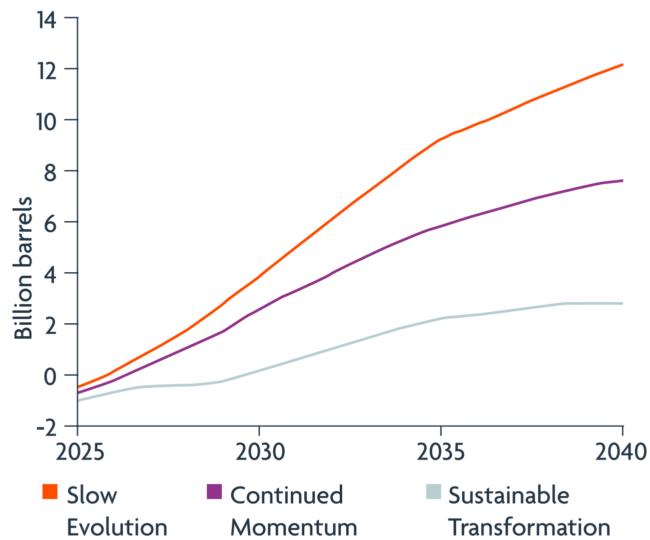
On the regulatory front, we anticipate a repeal of the Environmental Protection Agency's power plant rule, new source performance standards for oil & gas, and emissions standards for greenhouse gas and criteria pollutants from mobile sources, which will lessen the regulatory oversight of these sectors. Open questions remain as to what would be proposed in their place.

Energy security, which has been a driver of energy policy since the outbreak of war, will continue to displace anti-oil & gas sentiments, continuing to restore investor confidence in the energy industry.

There continues to be a mismatch in narratives at the global versus regional levels, with fossil fuels expected to account for 40-60% of total energy demand in 2050[6] despite sizeable constituencies like the United Kingdom (U.K.) and European Union (EU) planning to be free of the direct use of fossil fuels for transportation and power generation entirely by that date.

Global energy consumption is expected to remain at approximately 50% oil & gas by 2050.

Cumulative Global Supply Gap If No New Supply of Oil Is Introduced



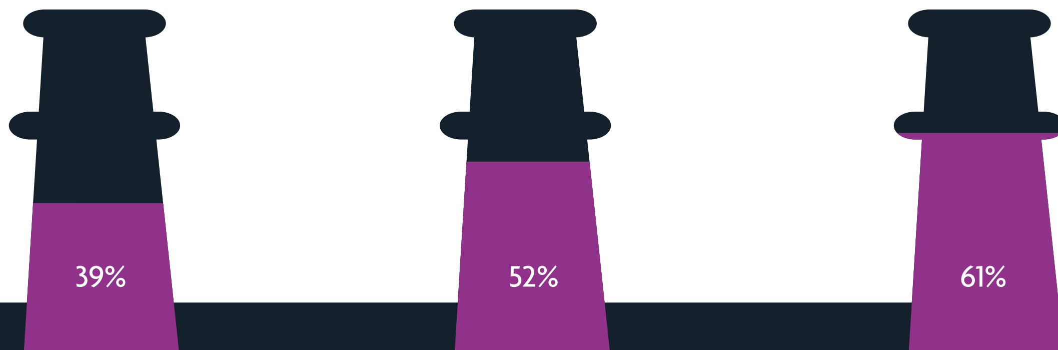
Source: McKinsey

In the U.K., the new Labour government announced it will not grant new oil & gas licenses for drilling in the North Sea, with taxes on oil & gas companies also increasing as it prioritizes doubling onshore wind, tripling solar power and quadrupling offshore wind by 2030. It also has a clear policy agenda to advance and foster investments in carbon capture and storage, hydrogen, marine energy and long-term energy storage.

Right now, we continue to see high demand for oil & gas globally as governments balance the need to reduce emissions with the requirement to "keep the lights on" and keep commodity prices at a reasonable level. French oil & gas giant TotalEnergies has predicted that global oil demand will peak just after 2030 and only then begin to taper down toward 2050 targets.

Global Primary Energy Demand

(Oil, Natural Gas and Coal) by 2050



Sustainable Transformation

A scenario where nations intensify their commitment to sustainability, but momentum is limited by the pace of clean energy adoption. Outcome = fewer social, environmental and economic effects.

Continued Momentum

A scenario where nations' focus on sustainability is balanced by a focus on affordability and security of energy supply. Outcome = negative social, environmental and economic effects.

Slow Evolution

A scenario where energy affordability and supply security are prioritized over sustainability. Outcome = severe social, environmental and economic effects.

Source: McKinsey

Aurelien Hamelle, sustainability and strategy director at TotalEnergies, says:

> "There are around 4.5 billion people today with insufficient access to energy in the so-called global south... If you add to that the expected growth in population to 2050, you would need to multiply current energy production by four to pull them out of energy poverty.[7]"

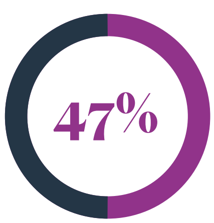
Decarbonization: Biofuels, Refining and Carbon Markets in Focus

A Change in Tone

In line with the rolling back of anti-oil & gas sentiment that we have seen from governments, there has been a shift in tone among oil & gas majors as they move to finesse their energy transition strategies. While many were redirecting investments into electricity and battery storage businesses, that has now in many cases reversed in favor of a focus on investments and advancements in areas adjacent to traditional energy business lines, such as the advancement of renewable fuels particularly for hard-to-abate sectors like shipping and aviation.

Reducing the Carbon Intensity of Refining

We see biofuels as an increasing area of emphasis among some of the larger traditional energy companies, along with a move towards lowering the carbon intensity of refining. The new EU Emissions Trading System will see refiners charged a levy for each ton of carbon emitted, and it therefore is becoming attractive to these companies to build hydrogen facilities to serve refineries either to support blending with natural gas or as an eventual replacement fuel, particularly given the economic value in receiving green hydrogen to avoid carbon taxes.



The EU Emissions Trading System has helped bring down emissions from European power and industry plants by approximately 47%, compared to 2005 levels.

Carbon Tax Credits Gain Momentum

There are signs of the larger traditional energy companies evaluating voluntary carbon markets more than ever before, with companies snapping up clean-energy tax credits and seeking to take advantage of those initiatives as they work towards achieving their stated carbon goals.

ExxonMobil Chair and CEO Darren Woods said shortly after the election of President Trump:

> "I don't think the challenge or the need to address global emissions is going to go away. Anything that happens in the short term would just make the longer term that much more challenging.[8]"

Investment in New Technologies: Mixed Outlook

Carbon Capture, Sequestration and Storage

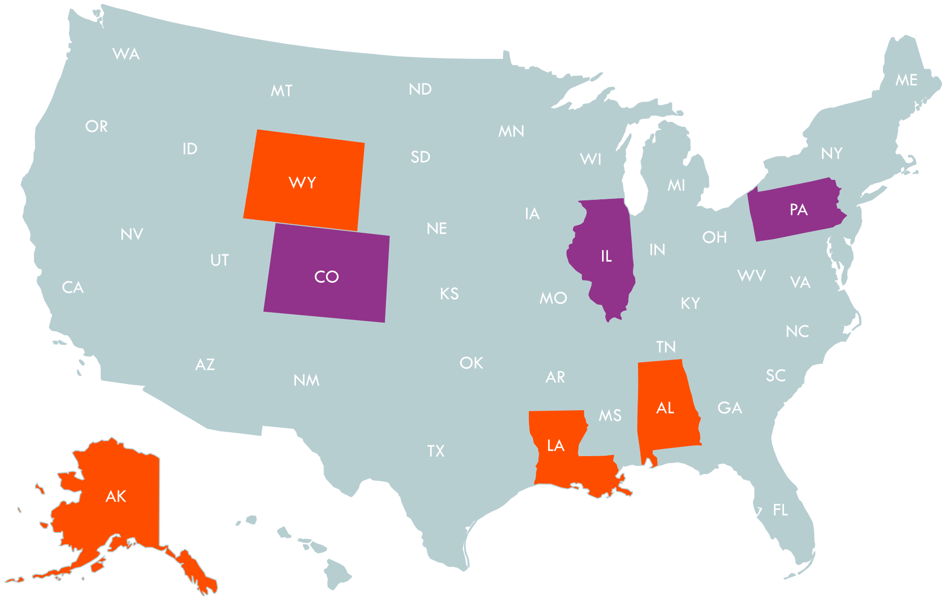
Despite a great deal of interest and effort, few carbon capture projects have come to fruition in the U.S. It has proved challenging to get projects off the ground—with questions around who bears the risk of carbon dioxide leaks and associated liability for lost tax credits as well as uncertainty around economic subsidies given the shifting political landscape.

In addition to several large infrastructure companies and private equity-backed carbon capture & storage (CCS) companies determined to stay the course, we have also seen a bright spot in certain oil & gas companies remaining dedicated to furthering CCS projects in an effort to satisfy their ESG goals. That being said, initial indications from the incoming administration and Congress are that CCS is an area with one of the highest levels of support to continue to receive benefits from the IRA.

Geological carbon sequestration is a key element of CCS projects and a swathe of recent legislation has sought to help it move forward safely. Additionally, failure to obtain necessary rights-of-way and lack of clear eminent domain authority in certain states have been challenging hurdles for several CCS projects. Geological carbon storage projects often hinge on questions of pore space ownership and at least seven U.S. states passed amendments in 2024 to address property rights questions. Four states—Illinois, Colorado, Pennsylvania and Alabama—all tied pore ownership to surface estate rights, with the amendments passed by Louisiana, Alaska, Alabama and Wyoming specifically aiming to promote unitization of pore space for carbon sequestration.

Another issue that has proved central to the regulation of carbon sequestration is the survival period or shifting of liability for the sequestered substance, with states also passing laws to clarify how parties responsible for accidents will be held accountable. We anticipate that the next two years will bring clarity as to whether these moves helped to facilitate CCS investments.

U.S. States Which Passed Pore Space Ownership Amendments in 2024



■ Pore ownership tied to surface estate rights ■ Promotes unitization of pore space for carbon sequestration

In 2024, the Louisiana legislature passed five CCS bills, creating a comprehensive legal framework for projects that included clarifying eminent domain authority for CO2 pipelines and establishing unitization procedures for CCS reservoirs. Illinois also passed the SAFE CCS Act in July 2024, which lays down a set of standard features essential for the regulation of CCS projects and established unitization procedures similar to those adopted in Louisiana.

Efforts and initiatives like this, should they be followed by others, should help to ease the uncertainty of CCS investments. It remains to be seen how regulators and legislators in key states like Texas will address these issues, although it appears likely that efforts in such states will mirror those of states like North Dakota and Louisiana. Nonetheless, gaps and gray areas in legal regimes will remain as constant factors in need of attention when advancing the growth of CCS.

There is significant policy support in the EU and Germany for clean hydrogen and green ammonia production and imports, and strong and growing demand for byproducts of hydrogen from Asian markets.

Hydrogen

The U.S. Treasury was poised to finalize its long-awaited green hydrogen production tax credit guidance before the end of 2024, in an effort to solidify the incentives for green hydrogen production set out in the IRA. Those tax credits are now firmly in the spotlight for the new administration, which may yet look to modify some or all of the efficacy of the clean hydrogen tax credit.

How the change in administration and recent rulings will impact the hydrogen market in the U.S. remains to be seen as we move through 2025, but, given the natural overlap between hydrogen and the traditional energy industry, there is a lot of conversation around the case for green hydrogen and its derivatives. There is also significant policy support in the EU and Germany for clean hydrogen and green ammonia production and imports.

Both the EU Carbon Border Adjustment Mechanism and the EU Emissions Trading System should unlock capital for development of projects. Additionally, there is a strong and growing demand for byproducts of hydrogen production (such as ammonia) from Asian markets.

Renewable Natural Gas

We have seen a flood of renewable natural gas projects getting off the ground in 2024, capturing biogas from sources such as food waste, landfill, farms and wastewater treatment plants for use in electricity generation, heat and transportation fuel.

These projects often qualify for meaningful tax incentives, with the focus here once again on the biogas investment tax credits set out in the IRA and how the new administration might manage those moving forward. The IRS also created a production tax credit that was expected to benefit renewable natural gas projects during 2025-2027 for which there has yet to be promulgated any rules, creating an opportunity for the new administration to leave its mark.

Sustainable Aviation Fuel & Renewable Diesel

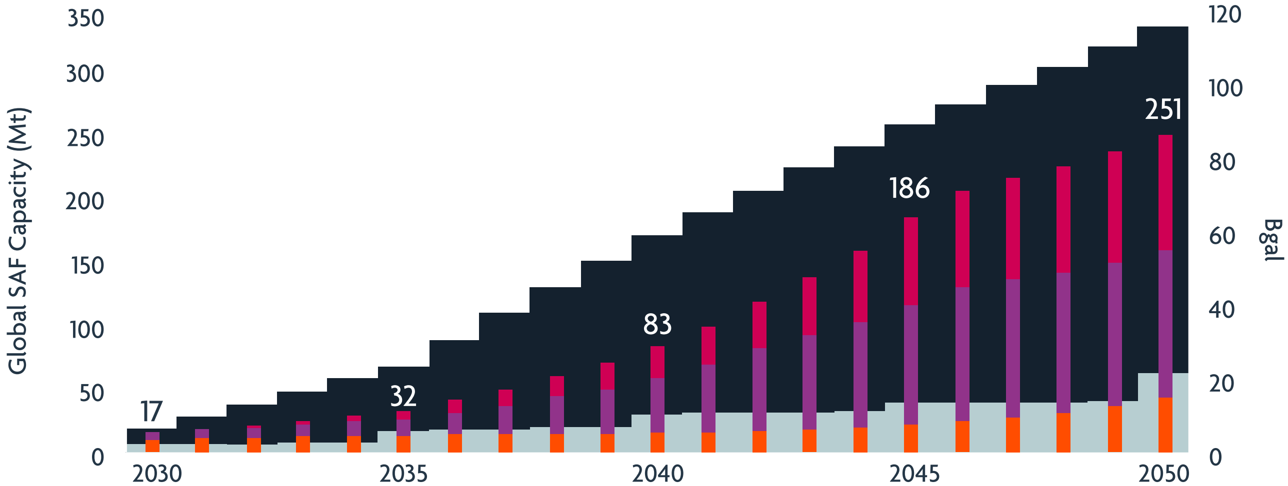
Hard-to-abate sectors like shipping and aviation have become a focus for oil & gas companies pursuing energy diversification efforts and a number are building sustainable aviation fuel (SAF) capabilities. These facilities typically blend SAF with fossil fuels to reduce their overall carbon footprint and obtain compliance with one or more regulatory regimes while moving towards the decarbonization goals set by the aviation sector.

New regulations are appearing all the time to encourage the growth of SAF. The EU's Refuel EU policy requires aviation fuel suppliers to ensure that all fuel made available to aircraft operators at EU airports contains a minimum share of SAF from 2025 and, from 2030, a minimum share of synthetic fuels. Those minimums will increase gradually until 2050. Elsewhere, Singapore is now requiring flights departing its airspace to be at least partially fueled by SAF starting in 2026.

Whether greenfield or refurbishment of existing facilities, building new SAF facilities requires capital and as a result, we are seeing a growing number of partnerships being entered into between producers, airlines, feedstock companies and refiners.

A theme that is growing in popularity is the conversion of refineries to produce SAF and other biofuel products. One case in point is the Neste joint venture with Marathon Petroleum for the production of renewable diesel via a conversion project at Marathon's refinery in Martinez, California. In another, Phillips 66 announced last year that its San Francisco refinery has now fully transformed into one of the world's largest renewable fuels facilities, processing only renewable feedstocks and producing 30,000 barrels per day of renewable diesel.

Global SAF Supply and Demand Projections
(2030-2050)



SAF supply
- Hydrotreated Vegetable Oil/Hydrogenated Esters and Fatty Acids
- Bio-Fischer-Tropsch/Alcohol to Jet Fuel
- e-SAF-Fischer-Tropsch

SAF demand
- European Union + United Kingdom
- Rest of the world incl. U.S. (International Air Transport Association Case)

Source: eFuel Alliance SAF Market Outlook 2024

Battery Value Chain

Critical minerals such as lithium, nickel and cobalt have a central role to play in energy transition given they sit at the heart of battery storage. We see oil majors in the Middle East and elsewhere now entering the race for critical minerals with a number of deals focused on either the acquisition of mineral rights or involvement in refinery projects. The IRA manufacturing tax credits include the production of many critical minerals in the U.S., which has driven significant interest and a number of publicly announced investments.

For example, in 2023, ExxonMobil purchased drilling rights in Arkansas in an area believed to be rich in lithium deposits. Lithium demand is expected to increase by almost 90% over the next two decades, according to the International Energy Agency.

Lithium demand is expected to increase by almost 90% over the next two decades, according to the International Energy Agency.

Mike Wirth, chairman and CEO at Chevron, says:

> "We need to reduce the emissions from traditional energy, which we're doing by reducing our carbon intensity of oil & gas that we produce today. At the same time, we're investing in new technologies to grow new sources of supply as demand for all forms of energy continues to grow.[9]"

Infrastructure: Repurposing Assets for Transition

Across the world, oil & gas companies continue to look for opportunities to adapt their infrastructure in order to more actively participate in energy transition, with the use of pipelines to transport hydrogen mixed with natural gas as a good example.

Europe Invests in Hydrogen Networks

In Europe, the Hydrogen and Decarbonized Gas Market Package was adopted by the EU in May 2024 and aims to shift the gas system to low-carbon and renewable gases with a framework for repurposing obsolete gas networks. Germany, in particular, is investing a lot in repurposing existing gas infrastructure, with construction beginning on a core hydrogen pipeline network that will ultimately comprise 9,000 km of pipelines by 2032, 60% made up of repurposed gas pipelines. In the U.K., oil & gas wells coming to end of life are being repurposed for geothermal energy rather than being decommissioned.

Energy Transition Hubs Emerge

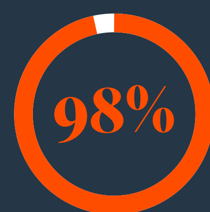
Supermajors are also developing energy transition technologies alongside their refining and petrochemical hubs using carbon capture and leveraging existing infrastructure. ExxonMobil's project in Baytown, Texas will produce up to one billion cubic feet per day of low-carbon hydrogen at its existing refining and petrochemical facility, capturing over 98% of the associated CO2 emissions and storing those underground. By the time it is completed in 2028, the site aims to be the largest low-carbon hydrogen project in the world.

Germany is building a core hydrogen pipeline network that will be comprised of 60% repurposed gas pipelines.

Elsewhere, Tallgrass is developing a first-of-its-kind hydrogen-to-power project in Wyoming, converting a retired coal-fired power plant to a clean hydrogen driven power generation facility.

Challenges for Midstream Players

While only the largest public midstream companies have balance sheets strong enough to pursue meaningful energy transition investments, those that do are looking for fee-based contracts and commonalities to their core business of pipelines and terminals.



ExxonMobil's Baytown project will produce up to one billion cubic feet per day of hydrogen at its existing refinery, capturing and sequestering over 98% of emissions.

Andreas Busch, professor of earth sciences at Heriot-Watt University, says repurposing existing North Sea oil & gas infrastructure for geothermal energy offers a multitude of benefits:

> "It's a cost-effective approach that avoids the environmental impact and substantial expense of drilling new wells. After decades of production, these reservoirs are well understood, significantly reducing the risk of drilling new wells that potentially fail. This strategy can potentially extend the life of existing assets and provide new opportunities for the existing skilled workforce.[10]"

Conclusion: Policy Shifts but Direction Remains Evident

Oil & gas companies continue to identify and capitalize on countless opportunities related to the deployment of new energy technologies to advance the energy transition, with their approaches broadly maturing and coalescing around maximizing synergies, leveraging available subsidies and responding to regulatory drivers. As we enter 2025 with a new administration in the White House and newly elected governments in place in other major states around the world, the fundamental dependence of many of these strategies on government support will be in sharp focus.

The last two years have seen the acknowledgement that oil & gas demand continues to grow globally as well as a greater recognition of the need to balance climate goals with the imperative need to maintain energy security. We continue to see a rise in shareholder activism across the board, while the risks of reputational damage associated with greenwashing are also increasing. There is little doubt, therefore, that regardless of the prevailing U.S. administration, oil & gas majors remain committed to evaluating decarbonization strategies and possible investments in clean energy technologies in the years ahead.

Key Contacts

Please do not hesitate to get in touch if there is anything you would like to discuss in more depth.

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Endnotes

1- *See* **https://www.investmentnews.com/industry-news/private-credit-is-filling-fossil-fuels-void-left-by-banks/251422**

2- *See* **https://www.newprivatemarkets.com/blackstone-closes-7-1bn-credit-fund-to-balance-transition-and-energy-access/**

3- *See* **https://finance.yahoo.com/news/investing-generationally-family-office-view-044500486.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAJzASGPBm239NDOUot2FLVMhgJ0up6qnNlGXz6pH0m2dO89V4O3pbssVZml8t-0FlW-MRB2Biv-T6ZHlR3HpBF3DbGEWAMnXaSQFTyxkgygLeYaCI2fltPRO37Ovk7HQia4Nwf94SGxXOojNc50gdY8FJmFfZ-A7O9XwOtyWv_KT**

4- *See* **https://www.reuters.com/business/energy/ceraweek-us-pipeline-firms-poised-follow-biggest-customers-into-ma-2024-03-21/**

5- *See* **https://www.blackrock.com/corporate/investor-relations/larry-fink-annual-chairmans-letter**

6- *See* **Global Energy Perspective 2024, McKinsey & Company, September 2024.**

7- *See* **https://www.reuters.com/business/energy/global-oil-demand-track-peak-2035-totalenergies-says-2024-11-04/.**

8- *See* **https://newrepublic.com/post/188307/trumps-climate-plans-disaster-even-exxon-worried.**

9- *See* **https://www.chevron.com/newsroom/2024/q1/chevron-ceo-on-energy-in-coming-years.**

10- *See* **https://www.msn.com/en-us/money/markets/repurposing-oil-and-gas-infrastructure-a-geothermal-revolution-in-the-north-sea/ar-AA1rQdt9#.**

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