

## What's Market: US Oil & Gas Sector 2023 in Review

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A review of the US oil & gas sector in 2023, including a discussion of pricing, production, export trends, and recent legal and regulatory developments. This Article also discusses key trends and developments in upstream oil & gas financing, especially reserve-based loans. Finally, this Article includes a discussion of trends and developments that may affect the US oil & gas sector in 2024.

The US oil & gas sector was relatively stable in 2023 despite some headwinds amid record production and healthy cashflows. Although the skyrocketing oil prices seen in the immediate aftermath of the conflict between Russia and Ukraine have subsided and natural gas prices fell because of high inventory levels and reduced demand, US oil & gas producers' revenues remained robust, buttressed by OPEC+ production cuts and relatively low average break-even costs.

Upstream companies' strong financial condition and the stability of the sector more generally have also been helped by their efforts in recent years to improve the efficiency of their operations, reduce their drilling and operating costs (sometimes at the expense of oilfield services companies), and strengthen their balance sheets by paying down debt. Producers have also engaged in acquisitions and dispositions to consolidate their operations, achieve operational synergies, offload non-core properties, and increase cash flows.

These initiatives are helping vertically integrated and independent exploration and production (E&P) companies to better withstand macroeconomic changes, commodities market volatility, and other external pressures. These initiatives are also allowing these producers to continue to prioritize shareholder dividends to attract investors.

But challenges remain. Geopolitical tensions are high and appear to be escalating. The ongoing repercussions of Russia's invasion of Ukraine remain a top concern. Hostilities between Israel and Hamas, which may spill into other regions of the Middle East, have weighed on prices threatening global energy security.

While higher oil & gas revenues in recent years have allowed many producers to use their cash flow to fund operations and reduce their external funding needs, some producers still need third party financing. This is especially the case for smaller producers, producers whose break-even costs may be higher, or those that may be seeking to finance development or more exploratory costs. However, accessing the credit and capital markets remain challenging for some of these companies.

Despite the record profits in recent years, many financial institutions remain wary of the oil & gas sector. There is significant stakeholder pressure for these institutions to reduce their financed emissions and increase their investments in renewable and other low carbon energy sources.

In response to these and internal strategy shifts, many financial institutions have made net zero pledges or adopted policies under which they have committed to decarbonizing their loan portfolios. Even in the absence of these pledges and commitments, some financial institutions are unwilling to finance more exploratory oil & gas projects because of their higher risk. Some institutions are also concerned about their long term exposure to the oil & gas sector and stranded asset risk and are taking steps to de-risk their loan portfolios. This has created a funding gap, leading many producers to turn to non-traditional or alternative lenders for capital or to securitize some of their oil and gas assets.

E&P companies are also facing conflicting pressure from investors. Some investors advocate that they pivot away from shareholder payouts and share buybacks in favor of

allocating more money to climate change initiatives and the energy transition while other significant shareholders are advocating for the return to traditional oil and gas. Some of the E&P companies that invested most heavily in alternative energy experienced returns significantly below those of companies that remained focused on oil and gas, leading many of those companies to back away from their clean energy goals.

Despite the general push to net zero and the announced commitments by some larger publicly-traded E&P companies, many industry leaders and market observers accept that the energy transition will be more gradual and patchy. Climate policies are increasingly focusing on carbon management and emission reduction initiatives, including the increased use of carbon capture and clean hydrogen technologies, as companies and regulators try to balance energy security, energy reliability and affordability, and their sustainability goals (the energy trilemma), rather than the elimination of fossil fuels. Private and smaller producers are generally less focused on these issues, but that may change as some lenders ramp up their efforts to reduce their financed emissions.

Producers are also being pushed to increase their capital expenditures to increase production, but the sector is firmly committed to managing their debt levels and increasing production through operational and drilling efficiencies. With capital discipline remaining a priority, there is little appetite to revert to the "drill at all costs" mentality that led to the sector collapse in 2014-2016.

M&A dealmaking was muted in the first half of 2023 in many sectors, including oil & gas, due to higher interest rates and inflationary pressures. But oil & gas M&A activity was up significantly for the year, buoyed by a few megadeals in the final months of 2023 as producers looked to expand their footprint in certain basins (most notably the Permian) and grow their cash flow.

This Article examines these developments and challenges in the US upstream oil & gas segment in 2023, including:

- Crude oil and natural gas pricing trends.
- US oil & gas production trends.
- US oil & gas export trends.
- Financing trends, including changes in loan terms in reserve-based loans (RBLs), the continued evolution of the sustainable financing market, and the rise of alternative financing sources.

- Key legislative and regulatory developments, including actions taken by the Biden administration to reduce methane and other greenhouse gas (GHG) emissions.

This Article also considers the outlook for the sector in the near and medium terms and discusses how certain geopolitical developments, new regulations, and policy initiatives may impact oil & gas investment and development in 2024 (see Looking Ahead).

### 2023 Overview

Despite a choppy geopolitical environment and other economic uncertainties, the US oil & gas sector had a relatively strong 2023. While commodity prices fell from the highs seen in 2022, they were still elevated compared to several years ago (see Pricing Trends). Bolstered by high revenues, oil & gas companies continued to announce buyback programs and reward shareholders with generous dividend payouts. For example, Chevron **increased** its quarterly dividend by 8% (up from 6% the year before), Occidental Petroleum **pushed** its annual dividend to \$0.88 per share (an increase of 22%), and both ExxonMobil and Marathon Petroleum announced share repurchase plans. ExxonMobil **pledged** to increase its annual program to \$20 billion through 2025 (up from \$17.5 billion in 2023), and Marathon Petroleum **boosted** its program to \$5 billion, along with raising its quarterly dividend by 10%.

US oil & gas production reached an all-time high in 2023, delivering both financial benefits and putting the US in a stronger position to weather the persistent cuts from OPEC+ (see Production Trends). While US consumption remained high, it was still able to export record amounts of oil and natural gas, resulting in the US becoming the leading exporter of liquefied natural gas (LNG) in 2023 (see Export Trends).

The end of 2023 witnessed a surge in megamergers, which looks set to transform the oil & gas landscape (see M&A Activity). Although mostly focused on oil, there were a few gas-focused transactions. This activity was centered on transactions intended to boost production, increase operational synergies and cash flows, and allow the payment of higher shareholder dividends.

Investors and other stakeholders continue to put pressure on oil & gas companies to invest in renewable energy and low carbon technologies to reduce emissions

in their value chains, but companies are making limited progress in this area. While some of the larger E&P companies have announced commitments to reduce their scope 1 and scope 2 emissions, there has been little headway in reducing their scope 3 emissions (GHG emissions from upstream and downstream activities in their value chains, which make up the bulk of the sector's total emissions). However, independent and smaller producers are not feeling the same pressure, even though some of the larger independents have taken steps to reduce emissions by plugging leaks and reducing venting and flaring (see [Article, Managing the Energy Transition: The Response of Oil and Gas Companies and Private Equity Sponsors](#)).

The financing of oil & gas is continuing to evolve. Faced with challenging capital and credit markets, many oil & gas companies are turning to alternative financing sources in place of RBLs. They are increasingly tapping into the private credit market and using asset-backed securitizations to finance their operations (see [Oil & Gas Financing](#)).

Sustainable lending, already a very small part of oil & gas lending, was even less relevant in 2023. The tightening of the requirements for these loans to be classified as a sustainability-linked loan (SLL), coupled with political backlash and greenwashing concerns, have resulted in lower volumes across the board, with these loans virtually disappearing from the oil & gas sector (see [Sustainable Financing](#)).

The sector is also facing legal and regulatory pressure. The Biden administration continues to issue regulations to reduce GHG emissions from the oil & gas sector and restrict drilling in environmentally vulnerable areas. While the administration was forced to restart oil & gas lease auctions, the number of auctions is still lower than the industry would like (see [Energy and Environmental Legislative and Regulatory Developments](#)).

## Pricing Trends

### Crude Oil

Although still elevated when compared to previous years, oil prices in 2023 were notably lower than in 2022, when prices spiked in the aftermath of Russia's invasion of Ukraine. According to data from the Energy Information Administration (EIA), the price of Brent crude oil (the global benchmark) averaged almost

\$83 per barrel (p/b) in 2023, a drop of approximately \$19 from 2022 when the average price exceeded \$100/b (see [EIA: Brent crude oil prices averaged \\$19 per barrel less in 2023 than 2022](#)).

Oil prices were heavily influenced by several factors, including OPEC+ production cuts, decisions by Saudi Arabia and Russia to voluntarily slash their crude oil production, tensions in the Middle East, as well as demand constraints. While global oil demand increased to 101 million barrels per day in 2023, up from 99.6 million in 2022, this was a smaller uptick than had been expected (see [Statista: Demand for crude oil worldwide from 2005 to 2022, with a forecast for 2023](#)).

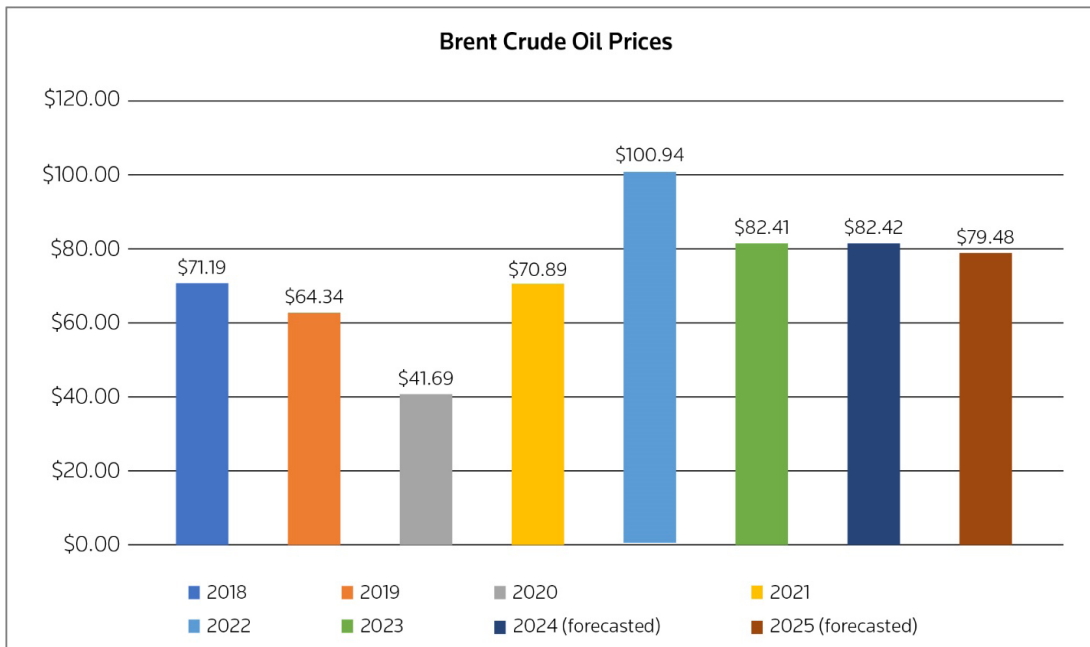
According to data from the EIA, crude oil prices fluctuated significantly in the first six months of 2023, finishing at around \$75 p/b at the half-way mark, as the market continued to grapple with the EU import ban on Russian oil and general economic challenges, including higher interest rates and inflation. Prices peaked in September at around \$98 p/b as the market weighed potentially tighter inventories and supply constraints before falling to \$84 p/b by early October (see [IEA: Oil Market Report – October 2023](#)). Although prices once again pushed past \$90 p/b when hostilities began between Israel and Hamas, they fell back down over the next two months, reaching \$74 p/b in mid-December as immediate concerns surrounding the conflict eased.

The EIA does not expect crude oil prices to change much in 2024, forecasting an average of \$82 p/b. Prices will likely fall in 2025, however, with the EIA predicting an average of \$79 p/b as production growth outpaces demand (see [EIA: Short-Term Energy Outlook \(February 2024\)](#)). But market watchers are keeping a close eye on developments in the Middle East. Recent attacks on shipping vessels in the Red Sea and other potential conflicts may put pressure on supply and cause prices to spike.

For more information on these issues, see:

- [Practice Note, US Oil & Gas Industry: Overview](#).
- [Practice Note, Oil and Gas Price Fundamentals](#).
- [Practice Note, LNG Market Fundamentals](#).
- [Article, Geopolitical Outlook for Investors in 2024: Managing and Protecting Foreign Investments](#).

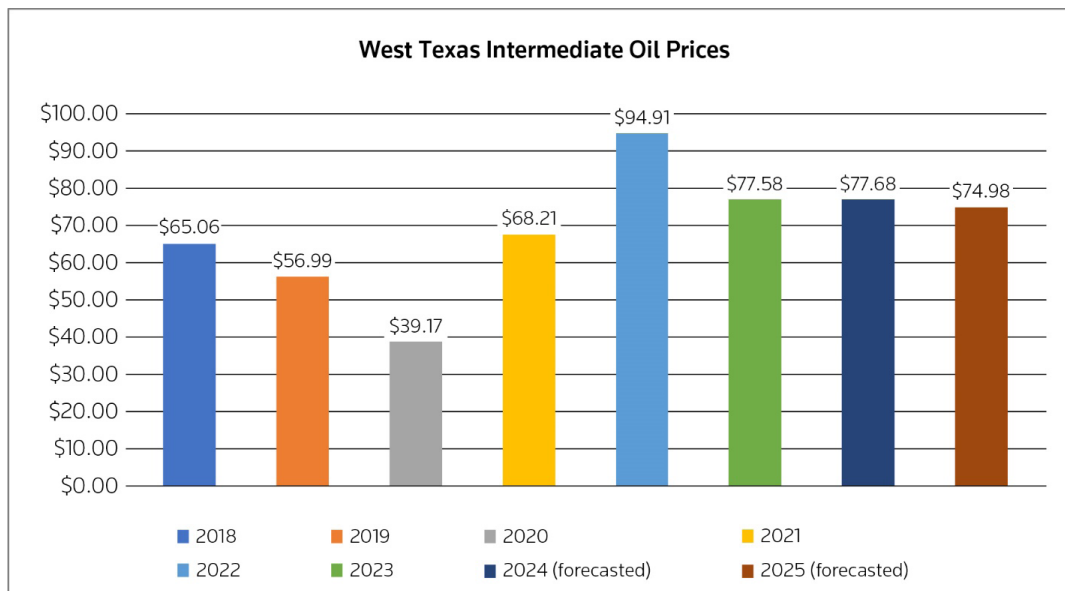
For a chart depicting Brent crude oil prices during the past five years (and estimates as of February 2024), see:



**Figure 1:** Price (dollars per barrel) of North Sea Brent crude oil, the international benchmark, since 2018 (Data from the Energy Information Administration as of February 2024).

The US benchmark, West Texas Intermediate (WTI), was also lower in 2023, with prices averaging about \$78 p/b. According to the EIA, WTI prices will likely drop over the next two years as well.

For a chart depicting WTI crude oil prices during the past five years (and estimates as of February 2024), see:



**Figure 2:** Price (dollars per barrel) of West Texas Intermediate oil, the US benchmark, since 2018 (Data from the Energy Information Administration as of February 2024).

### Natural Gas Prices

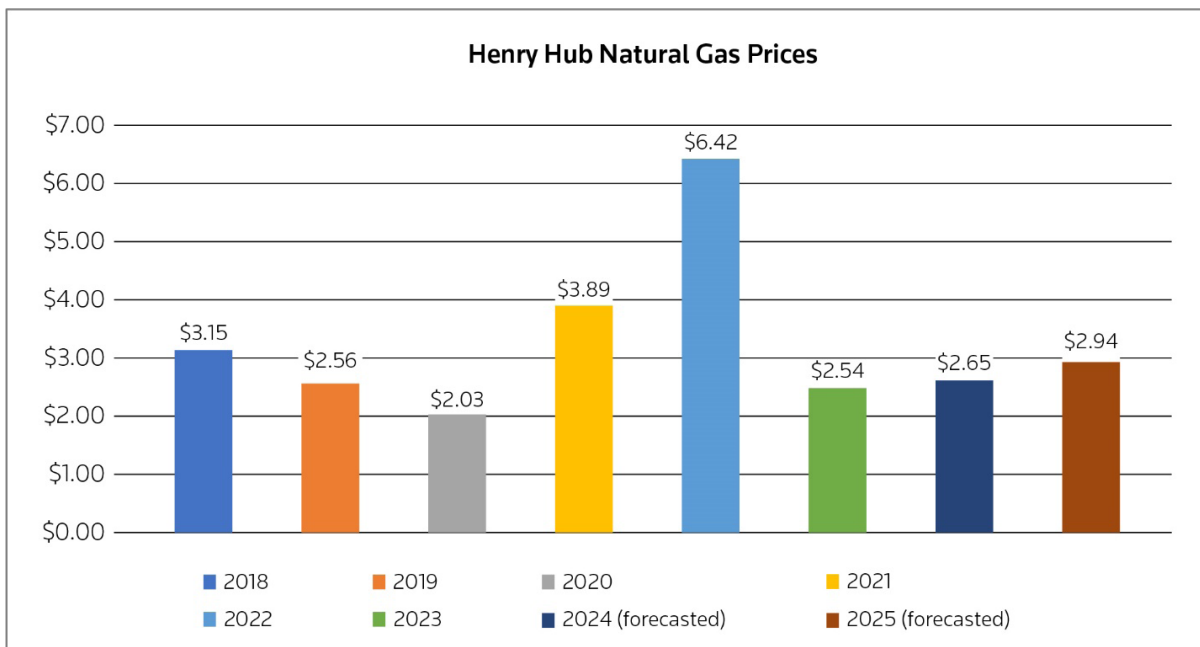
Natural gas prices at the national benchmark Henry Hub averaged approximately \$2.54 per MMBtu in 2023, a decrease of about 62% from the 2022 average, according to [data](#) from the EIA. Gas prices had skyrocketed in 2022 as European buyers sought to quickly replace Russian pipeline gas after its invasion of Ukraine. But prices fell in 2023 amid reduced European demand, record production, and good weather. The high 2022 prices also depressed gas demand in many Asian countries, causing them to turn to other energy sources including coal. For more information on factors affecting gas prices, see [Practice Note, Oil and Gas Price Fundamentals: Natural Gas Market Fundamentals](#).

Prices stayed below \$3.00 for most of the year; according to the EIA, the only time prices exceeded \$3.00/MMBtu

was in January 2023. The lowest monthly average was in May, when prices averaged roughly \$2.19/MMBtu. Historic natural gas production and relatively flat consumption levels due to mild temperatures during the winter months were significant factors in pushing prices down.

The EIA forecasts that Henry Hub natural gas spot prices will increase only slightly over the next two years, averaging \$2.65/MMBtu in 2024 and \$2.94/MMBtu in 2025 (see [EIA: Short-Term Energy Outlook \(February 2024\)](#)). This forecast is significantly lower than the prediction from this time last year when the EIA estimated an average price of \$4.04/MMBtu for 2024. So far in 2024, prices have been much lower than the EIA forecast, averaging as low as \$1.56/MMBtu for the week of February 23, 2024.

For a chart depicting Henry Hub prices over the past five years (and estimates as of February 2024), see:



**Figure 3:** Price (dollars per million British thermal units) at Henry Hub (the national benchmark) since 2018 (Data from the Energy Information Administration as of February 2024).

### Production Trends

#### Crude Oil Production

Overall crude oil production set records in 2023 despite OPEC+ production cuts and increased pressure from the Biden administration and other international communities to cut down on fossil fuels.

#### OPEC+ Production

OPEC, which includes countries with some of the world's largest oil reserves and accounts for about 40% of total world crude oil production, often cuts production to reduce supply and increase prices.

OPEC+ production cuts have been in place since 2022 to prop up oil prices amid uncertain demand. In December

2023, OPEC+ announced an agreement for more voluntary cuts totaling about 2.2 million barrels per day (bpd) for the first quarter of 2024. Coupled with prior agreements, these cuts bring the total pledged cuts to 5.86 million bpd, equal to about 5.7% of daily world demand (see [Reuters: What new OPEC+ oil output cuts are in place after Thursday deal \(December 5, 2023\)](#)).

According to the EIA, OPEC+ crude oil production averaged 37.1 million b/d in 2023, down from 39.6 million b/d in 2022 (see [EIA: Short-Term Energy Outlooks \(December 2023\)](#) and [\(February 2024\)](#)). Although production is expected to drop to an average of 36.5 million b/d in 2024, the EIA anticipates levels will pick up slightly in 2025, forecasting an average of 37.2 million b/d for the year (see [EIA: Short-Term Energy Outlook \(February 2024\)](#)).

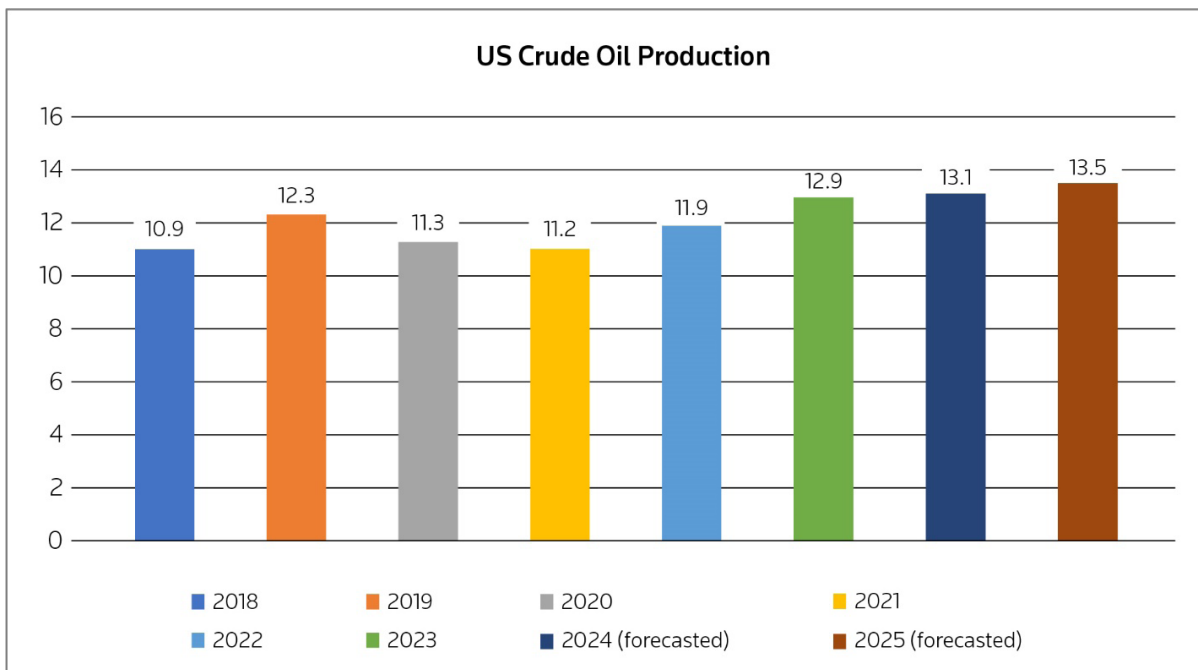
For more information on OPEC+'s efforts to manage global oil prices, see [Practice Notes, US Oil & Gas Industry: Overview](#) and [Oil and Gas Price Fundamentals](#).

### US Production

Despite a decrease in the number of active drilling rigs (according to Baker Hughes, rig counts fell about 20% in 2023 (see [Reuters: US oil and gas rig count drops in 2023 after rising in 2021 and 2022 -Baker Hughes \(December 29, 2023\)](#)), US crude oil production soared in 2023, averaging a record 12.9 million b/d (see [EIA: Short-Term Energy Outlook \(February 2024\)](#)). Producers have been successful in generating more production from their wells by employing more efficient drilling techniques and technologies.

Production over the next two years is expected to further increase, with the EIA estimating levels to reach approximately 13.1 million b/d in 2024 and 13.5 million b/d in 2025. However, growth will be at a slower pace due to the continued reduction in rig activity (see [EIA: Short-Term Energy Outlook \(February 2024\)](#)).

For a chart depicting US production trends over the past five years (and estimates as of February 2024), see:



**Figure 4:** US crude oil production (million barrels per day) since 2018 (Data from the Energy Information Administration as of February 2024).

### Natural Gas Production

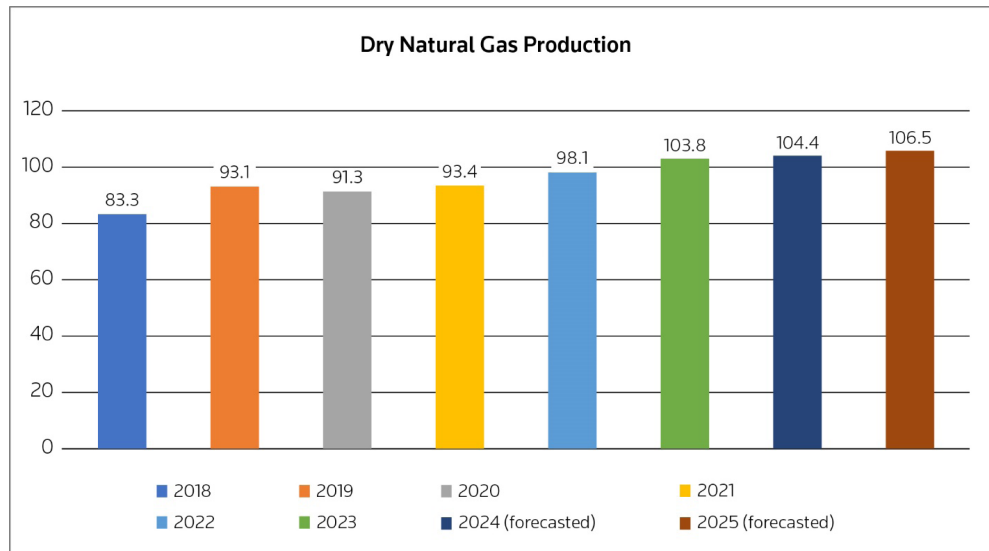
US dry natural gas production also broke records in 2023, averaging roughly 103.8 billion cubic feet per day (Bcf/d) compared to about 98.0 Bcf/d in 2022.

Production was especially high in the Permian basin, as well as the Haynesville region of northeastern Texas and northwestern Louisiana and Appalachia (see [EIA: U.S. Henry Hub natural gas prices in 2023 were the lowest since mid-2020](#)).

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The EIA estimates production will continue to increase over the next two years, averaging 104.4 Bcf/d in 2024 and 106.5 Bcf/d in 2025 (see [EIA: Short-Term Energy Outlook \(February 2024\)](#)).

For a chart depicting US natural gas production over the past five years (and estimates as of February 2024), see:



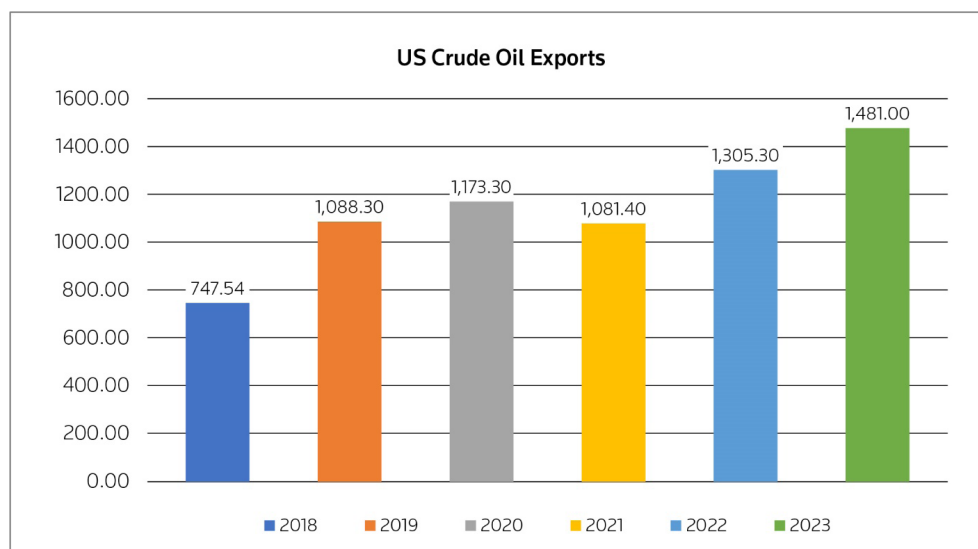
**Figure 5:** Dry natural gas production (billion cubic feet per day) since 2018 (Data from the Energy Information Administration as of February 2024).

## Export Trends

### Crude Oil Exports

US crude oil exports have increased significantly since the ban on these exports was lifted in 2014 (see [Legal Update](#),

[Congress Ends 40-Year Ban on US Crude Oil Exports](#)), driven by higher US crude oil production and demand for alternatives to Russia's crude oil supplies.



**Figure 6:** US crude oil exports (thousand barrels) since 2018 (Data from the Energy Information Administration).

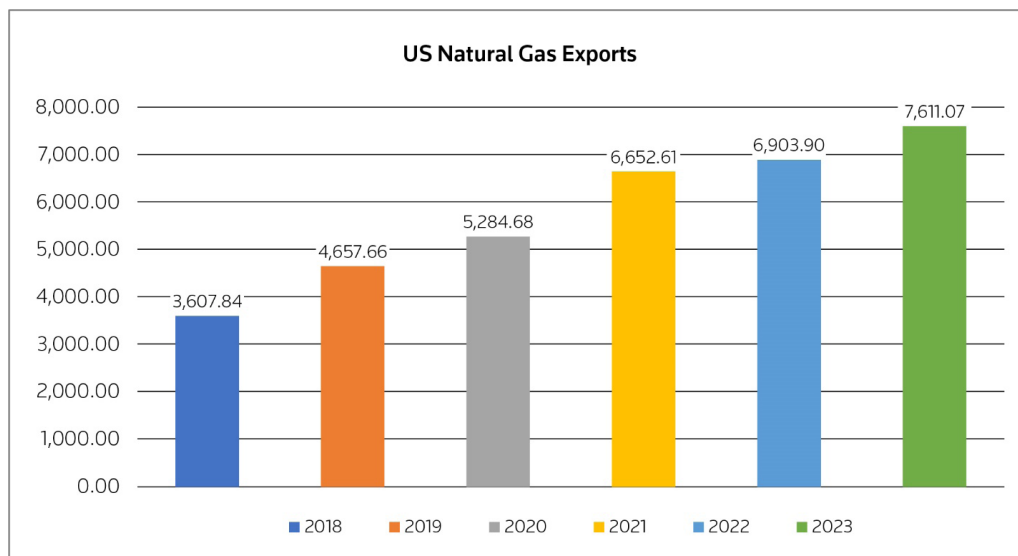
While Russian crude oil continues to flow in the market, the market dynamics for this product have changed. The combination of sanctions and price caps have shifted Russian crude oil to India and China. European buyers are turning to non-Russian suppliers to make up the differences, presenting an opportunity for US exporters.

For more information on these issues, see [Article, Biden Administration Energy and Climate Change Policies and Regulations: 2023 Tracker: Price Caps on Russian](#)

[Crude Oil and Petroleum Products](#) and [Practice Note, US Sanctions and Export Controls on Russia: Tracker](#).

### Natural Gas Exports

US gas exports (both pipeline and in the form of LNG) reached record levels in 2023. With seven LNG projects in commercial operation, US LNG exports (through November 2023) increased by 11% (see [DOE: US Natural Gas Imports and Exports Monthly \(November 2023\)](#)).



**Figure 7:** US natural gas exports (million cubic feet) via pipeline and in the form of LNG since 2018 (Data from the Energy Information Administration).

There are several LNG projects under construction, with several more expected to start commercial operations over the next 24 to 36 months (see [Approved US Liquefied Natural Gas Export Projects Chart](#)).

There are concerns that the volume of US LNG exports may fall in the coming years because of regulatory issues. In January 2024, the US Department of Energy (DOE) announced it is pausing LNG project reviews to reassess its public interest analysis, which was already a slow process. According to a recent Reuters report, the average time for issuing an export license for supplying LNG to countries with which the US does not have a free trade agreement (non-FTA) has increased to more than 330 days under the Biden administration, up from 49 days under the Trump administration and 155 days under the Obama administration (see [Reuters: US reviews of gas-export permits slow under Biden administration \(October 30, 2023\)](#)). The DOE pause is not expected to impact the Federal Energy Regulatory Commission's (FERC) review

of these projects, however (see [FERC: U.S. LNG Export Terminals Existing, Approved not Yet Built, and Proposed](#)).

For more information on the DOE pause, see [Practice Note, Biden Administration Energy and Climate Change Policies and Regulations: 2024 Tracker: LNG Project Approval Review and Pause](#).

### Oil & Gas Financing

Banks have been evaluating their oil & gas financing commitments for some time amid the push to decarbonize and reduce their scope 3 financed emissions and efforts to de-risk their loan portfolios. This has led to many producers turning to alternative financing sources and other structures to gain additional traction in 2023.

In Europe, enthusiasm for fossil-fuel financing has been waning for some time, and several banks have announced plans to suspend funding of new oil & gas projects in an



effort to reduce their carbon footprint and comply with their sustainability and environmental, social, and governance (ESG) policies. For example, France's largest lender, BNP Paribas, announced in May 2023 that it would stop funneling money focused on the development of new oil and gas fields (see [Reuters, BNP Paribas: will no longer finance development of new oil and gas fields \(May 11, 2023\)](#)).

Another French bank, Credit Agricole, also announced that it will reduce its financed emissions linked to the oil & gas sector by 75% by 2030 versus 2020 levels (30% reduction target), and that it will cease all corporate financing of independent producers dedicated exclusively to the exploration or production of oil and gas (see [Press Release: Crédit Agricole Accelerates Its Climate Commitments \(Dec. 14, 2023\)](#)). British bank NatWest also announced plans to completely exit the RBL market before the end of 2025 (see [Reuters, NatWest to stop reserve-based lending for oil, gas projects \(February 8, 2023\)](#)).

Even in the case of banks that have not announced exits from or reduced commitments to certain segments of the oil & gas sector, stricter emissions requirements in Europe may still limit their ability to provide financing to certain borrowers. Many European banks have committed to reducing their absolute emissions (the total GHG emissions of an asset class or portfolio). Continuing to finance carbon intensive industries and activities will make it difficult to achieve this goal.

By contrast, some financial institutions, including many US lenders, have only committed to reducing the emissions intensity of their operations. In many cases, the calculation of whether this target is being met is based

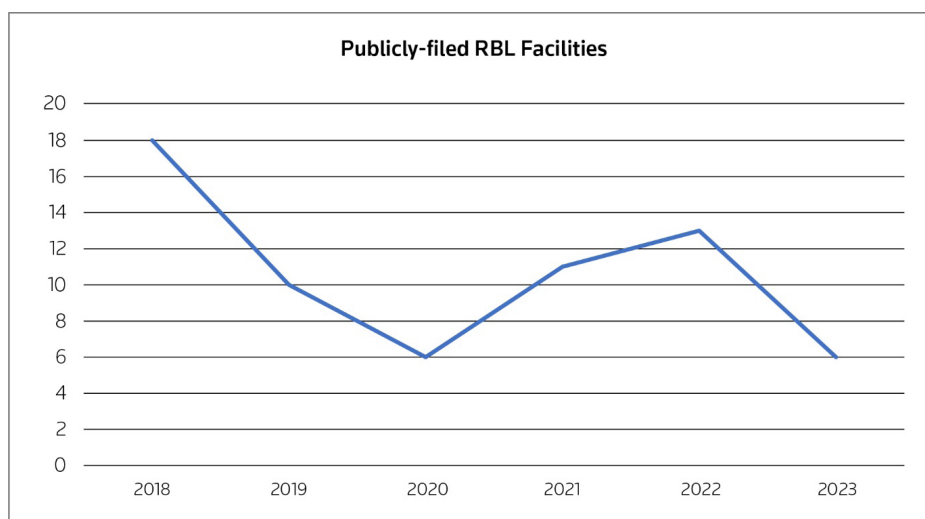
on the institution's overall loan portfolio. This allows banks to meet their targets while extending financing to companies that may not be reducing their emissions, if larger companies in their portfolios are reducing their emissions. But that situation may change as banks come under more pressure from investors, regulators, and other stakeholders. For more information on these targets and calculation methodology, see [Partnership for Carbon Financials: The Global GHG Accounting and Reporting Standard for Financed Emissions \(Second Edition, 2022\)](#).

It is worth noting that while few US banks have made public commitments or announcements about their intentions to reduce fossil fuel investments, some are limiting their exposure to the sector, even if they are not seeking to reduce their financed emissions. While the oil & gas sector is a long way from the decimation in 2014-2016 when investors and financial institutions sustained significant losses amid a record number of bankruptcies, the inherent volatility of the sector is a challenge for some banks as they seek to better manage their portfolios amid stricter capital requirements (see [Practice Note, Bank Regulatory Capital \(Introduction\)](#) and [Article, Basel III: Overview and Implementation in the US](#)).

Upstream companies that cannot self-fund are turning to alternative financing sources, such as private credit and securitizations, as a way to finance their operations (see [Alternative Sources of Funding](#)).

### Reserve-Based Lending

RBLs are a major source of financing for E&Ps. See below a diagram of RBLs filed in the past five years.



**Figure 8:** Publicly-filed RBL Facilities from 2018 to 2023 (based on data from the What's Market, Credit Agreements: Comprehensive Deal Database)

RBLs entitle a company to borrow based on the value of its oil and gas reserves, as determined from time to time (see [Practice Note, Reserve Based Loans: Issues and Considerations](#)). The borrowing base is typically redetermined every six months during the term of the facility, but this may occur more frequently. In sizing these loans, banks consider several factors, including prevailing commodities prices and their assessment of how these prices will move, risks to production, and their risk tolerance. Despite oil prices averaging about \$80 per barrel for most of 2023, banks generally took a conservative approach and reaffirmed borrowing bases or made modest changes. This is consistent with the Haynes Boone Spring and Fall Borrowing Base Surveys.

### Borrowing Base

According to the results of the Haynes Boone Borrowing Base Spring 2023 [survey](#), respondents were less optimistic about borrowing base redetermination activity, with most forecasting a small decrease in borrowing capacity amid uncertainty in the banking sector, commodity price fluctuations, and the voluntary production cuts from several OPEC members. Although this cautious outlook remained in the fall, [survey](#) participants had a slightly more positive forecast, with most predicting no change or a modest increase.

For examples of borrowing base redeterminations in both spring and fall 2023, see:

- Gulfport Energy Operating Corporation, which had its borrowing base increased from \$1 billion to \$1.1 billion (10%) and reaffirmed in the [fall](#).
- Sitio Royalties Operating Partnership, LP, which had its borrowing base increased from \$750 million to \$850 million (around 13%) in the [fall](#).
- Berry Petroleum Company, LLC, which had its borrowing base reaffirmed at \$200 million in the [fall](#).
- Ring Energy, Inc., which had its borrowing base reaffirmed at \$600 million in both the [spring](#) and [fall](#).
- Vitesse Energy, Inc., which had its borrowing base decreased from \$265 million to \$245 million (around 7%) in the [spring](#).
- Antero Resources Corporation, which had its borrowing base reaffirmed at \$3.5 billion in the [spring](#).

### Hedging

Hedging was once again a key area of focus for the oil & gas sector. Companies typically enter into hedging arrangements to reduce the impact of commodity price uncertainty and increase cash flow predictability. Many

RBL credit agreements require borrowers to hedge a certain percentage of their production to ensure the borrower has sufficient revenue to meet their obligations under the loan. Depending on the type of hedge arrangement, the hedge may:

- Lock in a fixed price for a significant percentage of its oil and gas production.
- Establish a minimum price the E&P company will receive for some percentage of its future production.
- Establish a minimum and maximum price the E&P company will receive for some percentage of its future production.

For additional information on hedging, see [Practice Note, Hedging Oil and Gas Production: Issues and Considerations](#).

But with higher prices in recent years, many companies reduced the volume of their hydrocarbon production they hedged as they sought to benefit from the higher prices. For example, Civitas Resources, Inc. announced in its October 10 [8-K](#) that the company had removed the minimum hedging affirmative covenant in the [fifth amendment](#) to its amended and restated credit agreement.

Other companies maintained or increased their hedging programs (although the average volume of production was lower than in previous years). The decision as to the volume of production to hedge depends on several factors including:

- The borrowers' and lenders' appetites for risk.
- The borrowers' and lenders' assessments of price movements.
- The borrower's financial condition.

For example:

- Vitesse Energy announced in its October 9 [press release](#) that it boosted its oil hedges for both 2023 and 2024, adding an additional 75,000 barrels of oil swaps for 2023 and 695,000 barrels of oil swaps for 2024. Vitesse has approximately 51% of its estimated fourth quarter 2023 oil production hedged and 41% of its preliminary 2024 oil production hedged.
- SilverBow Resources announced in its November 1 [press release](#) that roughly 79% of its total production was hedged for the rest of 2023.
- Mach Natural Resources LP announced in its December 6 [press release](#) that the company was adding to its existing hedges, anticipating 2024 and 2025 oil and natural gas production hedges to be 50% and 25%,

respectively (see [Mach Natural Resources LP credit agreement](#) (Section 5.11)).

- HighPeak Energy referenced its minimum hedging requirement in a recent term loan facility, which had minimum hedging requirements in place for 24 months (see [HighPeak Energy, Inc. credit agreement](#) (Section 5.11)).

### Anti-Hoarding

Anti-hoarding provisions first emerged after the 2014-2016 price decline to prevent defensive drawdowns by borrowers in advance of bankruptcy filings. While their use has mostly fallen since that time (although use increased slightly during the pandemic as lenders sought to limit their exposure), lenders remain concerned about borrowers' ability to hoard cash and their solvency when they make a borrowing request under the RBL facility. As a result, many of these agreements require borrowers to represent and warrant that they are solvent at the time of the request or to deliver a solvency certificate.

Though not as common as before, an increasing number of credit agreements have continued to include this provision in light of economic and geopolitical uncertainty. If market tensions and uncertainty ease significantly, these provisions may fall out of favor once again.

The language of the anti-hoarding provisions is also changing. For example, in the 2014-2016 period, anti-hoarding provisions were often drafted to require a prepayment if the consolidated cash balance exceeded a certain specified dollar amount on a specified day for a specified time period. By contrast, in some recently filed RBLs, the anti-cash hoarding provision is tied to the borrowing base. Under these provisions, the borrower is expected to make a payment if its cash balance is the greater of a fixed dollar amount and a percentage of the borrowing base. For examples, see Riley Exploration-Permian, LLC [fourteenth amendment](#) to credit agreement (definition of Consolidated Cash Balance Limit) and Denbury Inc. [fourth amendment](#) to credit agreement (definition of Consolidated Cash Balance Threshold).

For more information on anti-hoarding provisions, see [Practice Note, What's Market: Anti-Hoarding Provisions in Reserve-Based Loans](#).

### Mortgage Requirements

RBL facilities typically require borrowers to grant the lenders a security interest in a certain percentage of their oil & gas assets. This is typically 85%, but some lenders have been increasing this percentage to as high as 90 to 95% of the total proved value. For examples, see:

- [Civitas Resources, Inc.](#), security interest on at least 90% of the total proved value (Section 6.1).
- [Earthstone Energy Holdings, LLC](#), security interest on at least 85% of the total proved value (Section 5).
- [Northern Oil and Gas, Inc.](#), security interest on at least 90% of the total proved value (Section 8.14(a)).
- [Vitesse Energy, Inc.](#), security interest on at least 85% of the total proved value (Section 8.13).

For more information on these RBL provisions, see [Practice Note, What's Market: Credit Agreements in the Oil & Gas Industry](#).

### Alternative Sources of Financing

Oil & gas companies still need capital to finance their exploration and development projects, and with more of the traditional bank lenders seeming to gravitate away from RBLs in order to limit their exposure to the sector, producers have needed to look elsewhere. While the capital debt markets remain a popular source of financing, they are not always the best option, and many oil & gas producers are increasingly turning to alternative sources of funding.

Many developers have turned to private credit providers to fill this gap. Also known as direct lending, private credit is financing provided by a lender other than a bank (for example, an investment fund or credit fund). These lenders raise capital from investors and make loans to borrowers without an intermediary, such as an investment bank or broker, providing greater flexibility. For more information on private credit, see:

- [Article, Expert Q&A on Direct Lending](#).
- [Practice Note, Middle Market Lending: Overview](#).
- [Practice Note, Business Development Companies](#).
- [Practice Note, Finance Fundamentals: Broadly Syndicated Loans v. Middle Market Loans](#).

Oil & gas producers are also increasingly turning to securitizations to secure the capital they need. According to [estimates](#) from S&P Global, almost \$6 billion in proceeds has been raised by private oil & gas companies since 2021. A securitization is a complex financing structure that involves the producer transferring proved, developed, and producing (PDP) wellbores with long production histories and low decline rates to a bankruptcy remote special purpose vehicle, which uses them to collateralize and generate principal and interest payments on publicly or privately offered debt securities that are issued to investors. These transactions may be structured as a Section 4(a)(2) private placement or a Rule144A

offering. While there were not many public oil & gas PDP securitizations in 2023, there were many private placement transactions, including by [Raisa Energy](#).

For more information on this structure, see [Practice Note, Oil & Gas Asset-Backed Securitizations](#) and [Summary of Key Differences Among PDP Securitizations, RBLs, VPPs, and High Yield Debt](#). For more information on alternative sources of oil & gas financing, see [Practice Note, Upstream Oil & Gas Sources of Capital: Alternatives to RBLs](#).

## Other Market Developments

### M&A Activity

Multibillion dollar megamergers between several key oil & gas powerhouses defined M&A activity in the upstream sector in 2023, in what many believe could be the beginnings of a new consolidation wave in the industry. The relative stability of crude oil prices has given parties more certainty regarding valuations. Most of the activity was oil-focused, although there were a few gas-focused transactions (see [Reuters: Tokyo Gas Unit to buy U.S. natgas producer Rockcliff Energy for \\$2.7 bln \(December 15, 2023\)](#)).

Much of this activity was financed with stock instead of cash, helping to bolster these companies' liquidity and put them in a better position to weather future disruptions or market volatility. Geopolitical and political risk issues are also causing some US supermajors and many independents to divest their foreign assets and instead tap into markets closer to home, such as the Permian basin and the Bakken shale.

Although upstream M&A had a slow start to 2023, dropping to \$8.6 billion in the [first quarter](#), activity levels rebounded towards the middle of the year to reach \$24 billion in the [second quarter](#) and \$14 billion in the [third quarter](#), according to data from Enverus Intelligence Research. However, it was in the fourth quarter that dealmaking in the sector truly took off, leading to high total volumes for the year. According to Enverus Intelligence Research, US upstream M&A posted a record \$144 billion in the [fourth quarter](#), contributing to a full-year 2023 value of over \$190 billion. Exxon (at \$64.5 billion) and Chevron (at \$60 billion) accounted for roughly \$125 billion of this total.

US public M&A activity in the top five industry sectors totaled \$414 billion, with the oil & gas industry sector yielding three of the year's five largest deals (see [What's](#)

[Market: 2023 Year-End Public M&A Wrap-Up](#)). Examples of significant oil & gas mergers in 2023 include:

- Exxon Mobil Corporation/Pioneer Natural Resources. Exxon Mobil started the oil & gas shopping frenzy in October with its all-stock acquisition of shale competitor Pioneer Natural Resources Company (see [What's Market, Exxon Mobil Corporation and Pioneer Natural Resources Company Merger Summary](#)). The purchase was the upstream sector's third-largest deal ever by enterprise value and expanded ExxonMobil's footprint in the coveted Permian Basin.
- Chevron Corporation/Hess Corporation. Chevron jumped on the bandwagon later that month, announcing an all-stock merger with Hess Corporation (see [What's Market, Chevron Corporation and Hess Corporation Merger Summary](#)). The transaction introduced Chevron to the Bakken region, an area in which it does not currently operate.
- Occidental Petroleum Corporation/CrownRock, L.P. Occidental Petroleum bought privately held CrownRock, L.P. for \$12 billion in December (see [What's Market, Occidental Petroleum Corporation Acquisition of Equity Interests of CrownRock, L.P. Summary](#)), bolstering its scale in the Permian.

Market observers expect that oil & gas players will continue to look for opportunities to consolidate scale in 2024, and that higher valued transactions will become more commonplace. According to the Federal Reserve Bank of Dallas' December [survey](#), more than 75% of energy executives sampled expect to see more oil deals north of \$50 billion over the next two years.

Gas-focused activity is also expected to increase in 2024 (see, for example, [What's Market, Chesapeake Energy Corporation and Southwestern Energy Company Merger Agreement Summary](#)). Smaller oil & gas companies are also expected to play a role in the consolidation wave. Market observers expect to see many smaller and mid-sized companies join forces to gain scale, improve efficiencies, and rein in costs. The management teams from several of the companies which were sold last year are backed by new private equity firms and are actively pursuing new opportunities.

Emissions reduction remains a goal for a small number of upstream companies, with many looking for ways to demonstrate their commitment to this goal by investing in renewable and clean energy sources or acquiring players active in the space. For example, Exxon spent billions to acquire Denbury, Inc., a key developer of carbon capture sequestration (CCS) solutions (see [What's Market, Exxon](#)

[Mobil Corporation and Denbury Inc. Merger Summary](#)). According to its [press release](#), Exxon's goal of increasing its low carbon solutions business was a motivator for the acquisition.

Chevron also invested in Bayou Bend CCS LLC, taking a majority stake (78%) in ACES Delta, LLC, an advanced clean energy storage hydrogen project in Delta, Utah. According to Chevron's [press release](#), the Delta project aims to convert renewable energy into hydrogen through electrolysis and will use solution-mined salt caverns for storage.

While these technologies are still in the nascent stage, in part because of their high project-development costs (for example, as of September 2023, the US had only 15 CCS facilities in commercial operation, with a cumulative capacity to capture about 22 million metric tons of CO<sub>2</sub> per year, or 0.4 percent of the US total annual emissions), almost all of those facilities provide the captured CO<sub>2</sub> to oil companies for use in enhanced oil recovery (see [Practice Note, Understanding the Carbon Capture, Utilization, and Sequestration \(CCUS\) Value Chain and Congressional Budget Office: Carbon Capture and Storage in the United States \(Dec. 2023\)](#)).

Clean hydrogen is also a long way away from large-scale commercialization. But in the case of both CCS and clean hydrogen, investment from the private sector and support from the federal government in the form of tax credits (Sections 45Q and 45V of the Internal Revenue Code) and other incentives are expected to facilitate the growth of these projects (see [Article, Biden Administration Energy and Climate Change Policies and Regulations: 2023 Tracker](#) and [Legal Update, IRS Issues Proposed Rules Regarding Clean Hydrogen Tax Credits](#)).

### Energy and Environmental Legislative and Regulatory Developments

Biden administration energy policy and environmental regulations continue to be an issue for the oil & gas sector. The administration awarded the lowest number of offshore oil and gas lease sales in history and sought to limit drilling in the arctic and outer continental shelf. Although the majority of US oil and gas production is on privately owned land, and it would take years before production from these leases reaches the market, fewer leases may impact production and prices in the long term.

The EPA also finalized a rule to, among other things, add more control requirements for certain oil and gas emissions sources, set new fugitive emissions monitoring requirements for well sites and other emissions sources, and eliminate routine flaring of natural gas (see [Legal](#)

[Update, EPA Adopts New Methane Emissions Regulations for the Oil and Gas Industry](#)). The new rule is expected to substantially reduce methane emissions from the US oil & gas industry.

For more information on other significant Biden administration actions and initiatives on climate, energy, and environmental issues in 2023, see [Article, Biden Administration Energy and Climate Change Policies and Regulations: 2023 Tracker](#). For information on steps taken so far this year, see [Practice Note, Biden Administration Energy and Climate Change Policies and Regulations: 2024 Tracker](#).

But while the White House remains committed to its goal of achieving net zero GHG emissions in the US by mid-century, ExxonMobil and other oil and gas companies have recently stated that they consider the possibility of achieving net zero remote and will not be evaluated in its financial statements (see [Reuters, Exxon rebuts proxy advisor, says net zero emissions scenario 'unlikely' \(May 19, 2023\)](#)).

### Sustainable Financing

Oil & gas companies have been under pressure from investors, banks, and other stakeholders to prioritize ESG, but oil & gas is still only a small part of the sustainable financing market. In 2023, companies took a step back from sustainable financing products (for example, green loans, SLLs, social loans) amid greenwashing, political criticisms and pushback, and other concerns. SLL volumes also fell because of tighter requirements for a loan to be classified as an SLL that went into effect in March 2023 (see [Practice Notes, Understanding Sustainability-Linked Loans](#) and [What's Market: Sustainability-Linked Loans](#)).

While SLLs were never widely used in the oil & gas sector, and were virtually non-existent in the upstream segment, there were a few across all oil & gas segments. These few SLLs that were entered into in the oil & gas sector did not incorporate any significant GHG emissions, focusing mostly on Scope 1 and Scope 2 emissions. Market watchers are hoping more clarity will encourage these companies to pursue sustainable financing products and incorporate more ambitious targets.

The upstream sector, including independents and smaller producers, may take steps to reduce their emissions to comply with EPA regulations, reduce the methane fees they may be required to pay, and help their buyers monitor and manage their emissions (see [Legal Updates, EPA Proposes Excess Methane Fee Regulations for the Oil and Gas Industry](#) and [EU Reaches Provisional Agreement to](#)

[Limit Methane Emissions in Energy Imports](#)). But it may take longer for these issues to be incorporated in their loan agreements.

Whether the industry takes more steps to reduce their emissions and decarbonize depends in large part on the political and regulatory environment. A win by Donald Trump in November's Presidential election would likely result in a loosening of environmental regulations and a deemphasis on the energy transition.

### Looking Ahead

President Biden will likely be running for reelection in 2024 against President Trump (subject to any court rulings about his qualification). A shift from a Biden to a Trump administration could have a significant impact on the oil & gas sector. President Trump has campaigned on bolstering US energy independence and will most likely take steps to implement this goal. He may also loosen or repeal methane reduction regulations, expand oil & gas drilling, and develop both offshore and on federal land. He would also like to withdraw the SEC's emissions disclosure rule, the Enhancement and Standardization of Climate-Related Disclosures for Investors (see [Legal Update, SEC Proposes Mandatory Climate Disclosure Rules](#)).

But even if federal climate-related regulations are weakened, the US oil & gas industry and their lenders must still contend with state and international regulations regarding disclosure, carbon monitoring, and reduction (see [Legal Updates, California Legislature Passes Climate Disclosure Bills](#) and [EU Reaches Provisional Agreement to Limit Methane Emissions in Energy Imports](#) and [Practice Note, Key Developments in ESG and Climate Disclosure Tracker](#)). Additionally, although investment in clean energy technologies is expected to continue in the coming year, if President Trump is re-elected, priorities will likely shift, with investment allocated elsewhere.

Geopolitical issues are likely to remain a major issue as investors continue to weigh developments in the Middle East. The Israel-Hamas conflict, which remains a concern in and of itself, has also had an impact on other regions. Yemen's Iran-backed Houthi militias have been attacking commercial vessels in the Red Sea region for several months, forcing these vessels to re-route their shipping to go around the Cape of Good Hope, increasing costs and transport times and putting pressure on trade.

In response to these attacks, the US and Great Britain launched air and sea strikes on Houthi targets in early 2024. Market watchers are concerned that escalations

could intensify, which may lead to further trade disruptions and higher prices. In addition, groups and governments sympathetic to Hamas could engage in their own hostilities, leading to further trouble. Iran also recently confiscated an Iraqi tanker on its way to Turkey, a move likely to exacerbate already heightened tensions and one met with swift condemnation from the Biden administration.

Drought conditions in Panama have resulted in low water levels, making it more difficult for some ships to pass through, leading to the lowest gasoline export prices since 2021. The Panama Canal is the shortest route tankers can take to get from the US Gulf Coast to the Pacific coast and Asia. These transit interruptions have already caused a significant drop in the number of US gas cargoes passing through the canal. Continued restrictions may force exporters to pursue alternative shipping routes, leading to increased shipping costs. US exports may also fall. Chile, one of the biggest buyers of US gas via the canal, has already slashed its imports levels from the Gulf Coast (see [Reuters, Fuel tankers face long slog as Panama Canal drought reroutes flows \(December 13, 2023\)](#)).

The tension between the oil & gas sector and certain banks' sustainability goals are expected to continue. Already in 2024, several banks have announced their intention to reduce financing oil & gas activities (see [Reuters, Barclays to adopt fresh curbs on oil and gas financing \(February 9, 2024\)](#) and [Danske Bank Quits New Fossil Fuel Financing, The Energy Mix, \(January 23, 2023\)](#) (Danske is Denmark's largest bank)). Additionally, three banks (BNP Paribas, Societe Generale, and Credit Agricole) exited the [Occidental Petroleum SLL](#), one of the few upstream SLLs in the market, citing their climate commitments. These tensions present a tremendous opportunity for alternative financing sources, including private equity.

Alternative financing is expected to remain a major part of oil & gas lending, with more securitizations and direct lending transactions. But RBLs, which are based on the value of a company's oil & gas assets and reflect market expectations on commodity prices, are expected to remain a significant part of the market. While the redeterminations do add some measure of uncertainty in a company's cash availability, these transactions are typically larger. The borrower's relationship with RBL lenders also allow for terms that better reflect the borrower's business and operations.

The oil & gas consolidation wave is expected to continue into 2024. So far this year, several transactions have been announced, including the merger between Chesapeake

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Energy and Southwestern Energy, which would create one of the largest natural gas producers in the country (see [What's Market, Chesapeake Energy Corporation and Southwestern Energy Company Merger Agreement Summary](#)) and Diamondback Energy's \$26 billion acquisition of Endeavor Energy Partners (see [Reuters: Diamondback in \\$26 billion deal to buy Endeavor Energy in growing Permian push \(February 12, 2024\)](#)). Endeavor is the largest privately held oil and gas producer in the Permian, and the combination with Diamondback would create the third largest oil and gas company in the region, behind Exxon and Chevron. However, antitrust action on the part of the federal government could slow things down. Tensions with Exxon could also derail Chevron's acquisition of Hess. According to Exxon, it has a right of first refusal of any sale of the Stabroek block in Guyana (see [Reuters: Chevron, Exxon in dispute over Hess stake in Guyana oil block \(February 27, 2024\)](#)).

Generative AI in the oil & gas sector is also something to keep an eye on. Market observers have touted its potential benefits in fossil fuel extraction, increasing speed and improving efficiencies, and several companies look set to invest in this technology. For example, Shell announced plans to use AI-based technology from SparkCognition to improve its deep-sea exploration, with the hopes to bolster output levels. According to Reuters, SparkCognition's AI algorithms "will process and analyze large amounts of seismic data in the hunt for new oil reservoirs by Shell, the largest oil producer in the U.S. Gulf of Mexico." (see [Reuters: Shell to use new AI technology in deep sea oil exploration \(May 17, 2023\)](#)).

Practical Law is continuing to monitor these developments and produce content where appropriate.

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