

# Top 10 trends for upstream in 2024

Under pressure, but in demand



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**S&P Global**

Commodity Insights



# 1. US shale keeps going and growing.

**Despite pundits decrying US shale as being past its prime, the sector saw record production in 2023 and will continue to grow, albeit more slowly, in 2024.**

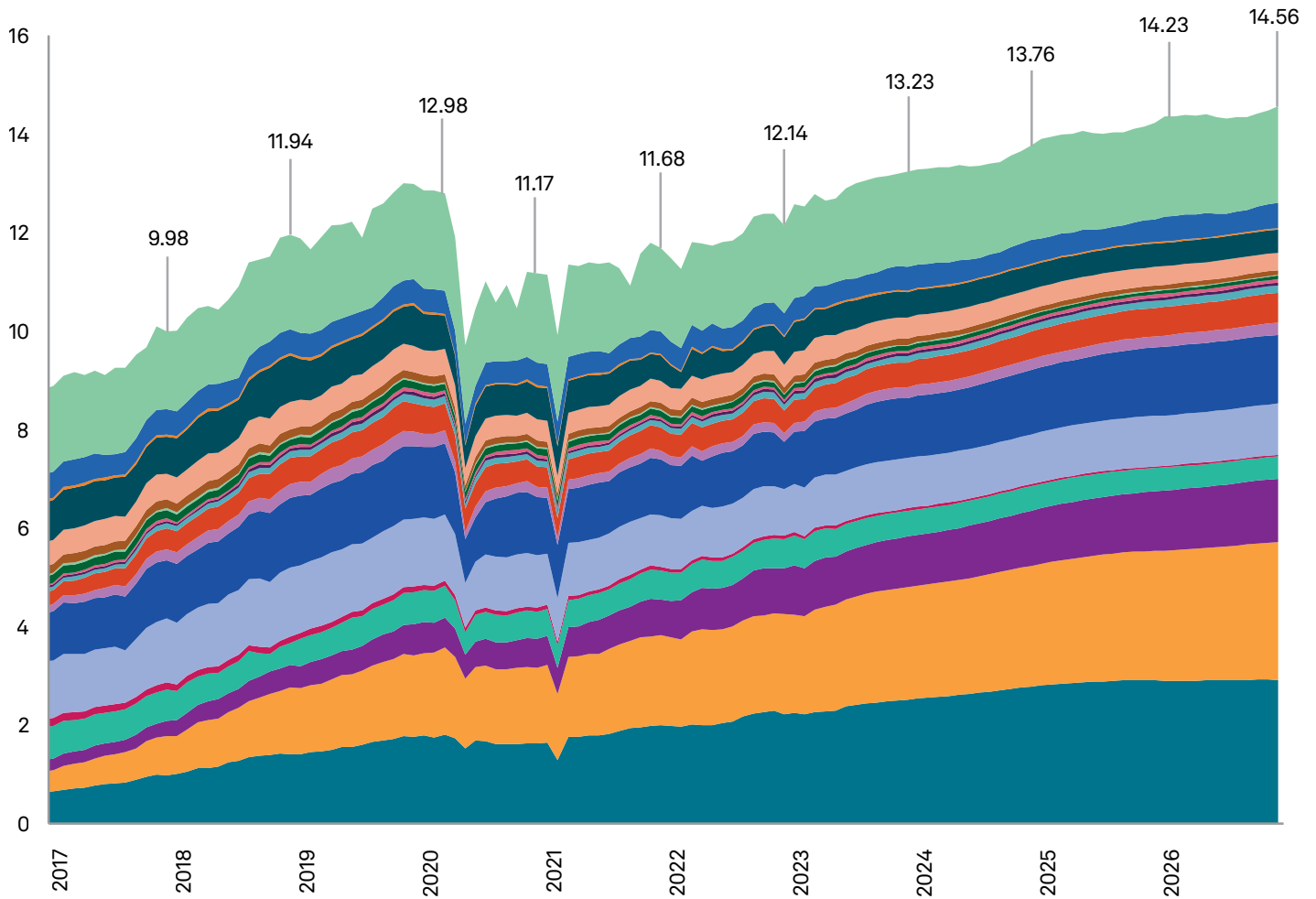
Due in large part to strong oil prices, US oil and gas production surged to new record levels in 2023, with liquids production setting a global record for the highest monthly national output anywhere – ever – in the history of upstream! **The country's oil production grew by approximately 800,000 barrels per day (b/d) from January to December 2023, the fastest expansion since the pandemic.** The US now produces around 20 million barrels per day (b/d) of total liquids (including natural gas liquids (NGLs)) – production grew by 1.3 million b/d in 2023 alone. Even assuming weaker oil prices and a slowdown in new drilling going forward, there is sufficient momentum already in place to see nearly 1 million b/d of growth in 2024 due to increased rig efficiency and longer laterals.

- **With Canadian liquids expanding by nearly 0.4 million b/d, North American liquids supply growth is expected – on its own – to meet more than 85% of global demand growth in 2024.** Despite low Henry Hub gas prices in 2023, and a pullback in gas-oriented drilling, lower-48 natural gas production will reach 103.4 billion cubic feet per day (Bcf/d) in 2024, up by 4.3 Bcf/d due to strong oil prices stimulating associated-gas production.
- **S&P Global Commodity Insights forecasts growth in US liquids production to slow in 2024 to roughly 500,000 b/d annually, as the onshore base-decline rate re-accelerates, and offshore production stabilizes.** While production surprised the market with its upside growth, this performance is still below the speed at which production grew in 2017-2018, despite prices being almost \$20/barrel higher! This reinforces the message of “slower growth at any price,” when compared to the hyper-elasticity of the boom years.

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## US oil production in million b/d

(December volumes noted)



Source: S&P Global Commodity Insights, 2024.

## 2. Decarbonizing the future: Evolving from promise to progress

**At the United Nations Conference of Parties 28th Climate Conference (COP28) in late 2023, historic language on fossil fuels was agreed, but little movement was made on target setting. Methane reduction and CCUS will accelerate in 2024.**

- **The COP28 in Abu Dhabi was notable in that it marked the first-time fossil fuels were acknowledged in an official document from the COP process.** The final COP28 Global Stock Take agreement, however, stopped short of calling for phaseout of all unabated fossil fuels, instead calling on countries to contribute to global efforts to “transition away from fossil fuels in energy systems.”
- **At COP28, the upstream sector made more wide-reaching public commitments toward decarbonizing its operations to align with net-zero goals.** These commitments extend from aiming for the ultimate elimination of Scope 1 and 2 emissions relating to production and field activity, to broader investment in carbon capture and sequestration.
- **COP28 saw progress on regulatory initiatives and finance for reducing methane, as oil and gas companies agreed to end routine flaring and achieve “near-zero” upstream emissions by 2030.** Several large emitters released new methane-related regulations in the lead up to and at COP28. The UAE leveraged its relationships with fellow producers to lead the launch of a new *Oil and Gas Decarbonization Charter* in which 53 oil and gas companies agreed to end routine flaring and achieve “near-zero” Upstream emissions by 2030.
- **2024 will be the year of renewed efforts to reduce methane.** Global pledges to reduce methane emissions (Scope 1 and 2) will begin to kick in, requiring acceleration by some companies to hit milestones. Methane regulation during the next two years may trigger some US company bankruptcies and consolidation. Smaller players, in particular those operating stripper wells, could face major existential challenges in 2024, since legislation concerning emission reduction and abatement may cause serious issues over the commerciality of operations.
- **In 2024, carbon capture, utilization and storage (CCUS) projects will be a key focus area for operators to both offset emissions and enhance oil recovery (EOR).** For some EOR projects, CCUS may be a crucial element to achieving investment decision and approval. While the EIA has stated there is no path to net-zero that does not include capture and removal of historical emissions through CCUS, the CCUS technology that exists still lacks economic viability for widescale adoption. Identifying best-in-class technologies for direct air capture (DAC) and other processes, as well as understanding the economics and carbon-trading mechanisms associated with the investments, will be key to accelerating CCUS projects.
- **Boosted by the Inflation Reduction Act (IRA), in the US in 2024, CCUS will make the greatest headway toward more widespread commercial operations.** The first class-6 wells will gain approval and be drilled, representing the initial step for development of saline aquifers and depleted fields for carbon storage.

- **Many projects that incorporate existing CCUS and/or DAC technology still lack economic viability for widescale adoption but will move closer to start-up status.**

The bar for carbon capture is set very high – in theory around 5,000 CCUS and DAC projects need to be operational by 2050 for industry, and society in general, to get anywhere near to achieving net-zero targets.

- **Internationally, more joint ventures (JVs) for CCUS projects continue to be signed, but still have hurdles to cross before pilots are converted into commercial projects.**

The long-awaited Norwegian North Sea Northern Lights offshore CCUS project will finally be operational in 2024. Most large, global integrated oil companies (GIOCs) and national oil companies (NOCs) have scaled their CCS teams and are integrating above ground and subsurface workflows, just as they would do for conventional E&P projects. However commercial viability currently only exists in EOR projects.

### 3. Following US megadeals, expect European GIOCs to take stealth, upstream-growth approach in 2024 to stay under radar

- **After pledging to limit upstream expansion, European companies will focus on relatively smaller acquisitions in 2024, hoping to mitigate anti-upstream backlash at home from European governments, regulators, financiers, and lobbyists.** We expect

European GIOCs to target acquisitions more selectively in their key existing basins and regions compared to their North American peers. They will likely focus on the Eastern Mediterranean, Brazil, Norway, Southeast Asia and potentially Australia.

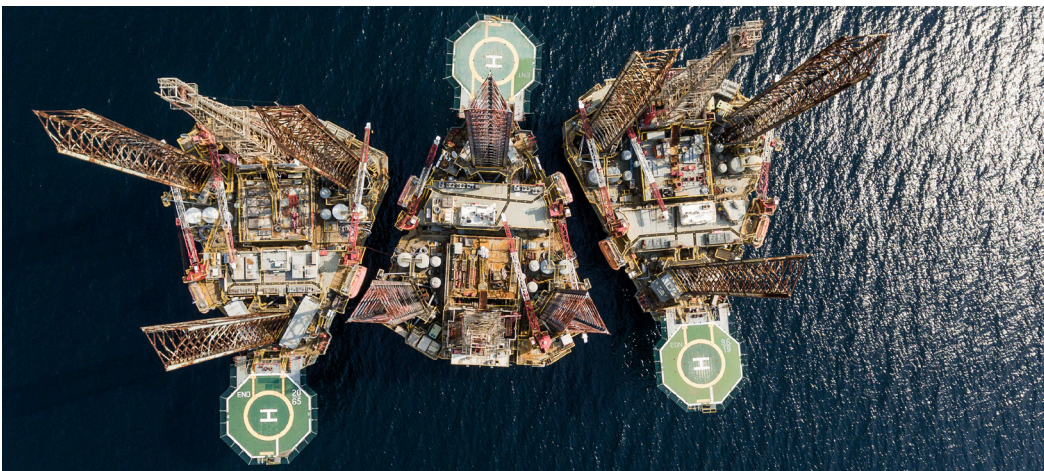
- **European companies are rethinking the future pace of the energy transition, and in 2024 they will continue to rebalance portfolios by adding more oil and gas investments, while remaining more gas-focused than their American peers.**
- **In purchasing substantial portfolios of low-cost, “advantaged” assets, ExxonMobil and Chevron have secured their respective positions as the dominant publicly listed upstream powerhouses, converting the valuation gap they enjoy—versus their European counterparts—into a looming production, revenue, and operational capacity chasm.**
- **In the US, arbitrage of valuation multiples does not exist down the line.** Other companies will still do deals for their own purposes, but we do not believe that these megadeals will necessarily set off a wave of consolidation.
- **North American companies have telegraphed they expect oil demand will be long and strong and that the US Gulf Coast will be an advantaged region long-term.** Targeted acquisitions in key basins will be their play for the next couple of years. Consolidation will continue with focus on scale, inventory, and cost. Several large private companies in the Haynesville and Permian are in play.
- **US operators will continue to favor shareholder returns in 2024, which will provide them with 60%-70% free cashflow.** Companies are signaling they will re-invest just 30%-40% into operations. Growth will remain in the single digits.

- Deflation will drop US cost increases in 2024 to 3%-5%, mostly in rigs and labor.

## 4. Exploration is starting to make commercial sense — again — for some.

Global exploration is set to gain some momentum in 2024, especially from GIOCs and NOCs.

- Global exploration drilling activity has been on an increasingly steep decline globally for more than two decades, but New Field Wildcat (NFW) drilling (exploration in its purest form) has leveled off in the 2020s at around 500-600 NFWs per year.
- Upstream companies are straining to replenish and high-grade their portfolios with advantaged or resilient barrels, and those barrels have a greater chance of being sold into potentially flat or declining hydrocarbon product markets in future decades.
- As the US merger and acquisition (M&A) market finally bursts back to life, 2024 may be the right time for upstream companies to consider organic expansion through exploration, once again.
- Recent deals by ExxonMobil and Chevron, which made 2023 the most active year by value in international M&A since 2003, could mark an upward paradigm change in the market pricing for assets of the best quality. Determining the 1P (proven reserves) price-per-barrel paid (\$/bbl) could lead to a reality check for some potential transactions.
- The independents are missing from this M&A rebirth, but they are signaling a willingness to return. However, many will need to engage in serious rebuilding of capacity to explore, and to manage the associated risk and time frames.
- Funding continues to remain a fundamental existential challenge for smaller exploration players in 2024. Investors continue to have little appetite for “frontier-style” exploration linked to longer-cycle developments, despite the annual publication of many scenarios predicting increasing demand for hydrocarbons into the next decade.



## 5. Some NOCs will headline the international stage in 2024, while others will struggle to remain competitive.

- **In 2024, we expect to see additional strategic entries into international energy by more NOCs; while others will accelerate investment into their own domestic production to finance their future domestic and international energy plans.**
- **Some national oil companies look more like global majors than traditional NOCs.**  
The Abu Dhabi National Oil Company's (ADNOC) international expansion strategy reads as if straight out of the Majors play book. ADNOC has taken steps ranging from future proofing itself against the energy transition by entering sectors like wind and hydrogen, to forming geopolitically driven strategic partnerships in key regions in Central Asia, Europe, or other parts of the world.
- **Other cash-rich NOCs are investing overseas, though not on such a broad front.**  
QatarEnergies has been a successful international explorer for years, but only as a non-operator.
- **Life can be tough as a resource-rich, but cash-strapped NOC.** Surging capital-efficient production from non-OPEC countries continues to box OPEC in and reduce its options to control the market. Many member-OPEC states require up to \$80/bbl to produce hydrocarbons profitably; and so, many NOCs that are facing declining resources and production are additionally hamstrung by ever-more-stringent OPEC quotas. As painful as quotas are, a “good sweating” in 2024 (initiated by Saudi Arabia and other Gulf states opening the taps) would likely be a far worse outcome for the less endowed NOCs; and we see this outcome as unlikely.
- **In 2024, OPEC will seek to replace weaker, underperforming members with new, stronger members who can boast plans for material production growth, such as Brazil, Guyana and Namibia.**
- **NOCs that cannot self-finance their way to prosperity face an uphill battle to secure capital for upstream and upstream/low carbon “hybrid” projects.** In 2024, these NOCs are expected to publicly search for international financing and JV arrangements with upstream financiers and operators. In addition, these NOCs may well pass more favorable legislation and loosen fiscal terms to attract investment. NOCs from countries that boast substantial remaining petroleum resources and related prospectivity may host licensing rounds or country-entry “beauty parades” to attract capital.



## 6. License to operate: Litigations, bans, restrictions and moratoria. A slow-burning fuse targeting fossil-fuel production set to accelerate in 2024 in Western Hemisphere.

- **Increasingly, the courts are being used to litigate the battle for fossil-fuel development, with many cases being deferred through challenges and appeal processes, which could take years to be resolved.** At present, California has put forth litigation which aims to classify all fossil-fuel production in the state as an illegal activity.
- **UK's opposition Labour Party may gain power in 2024 and has pledged to end all new oil and gas licensing, in common with several EU countries in Western Europe.**
- **A check on the global map of bans, restrictions and moratoria at the beginning of 2024 shows that the Eastern Hemisphere, and most of Africa, is unfettered in its license to operate and execute E&P operations.**

## 7. Upstream financing: US stays disciplined, while cash is needed elsewhere for a “Just Transition.”

- **The US producers have succeeded in making the industry boring – in all the right ways.** With the focus on returning cash from a mature sector, onshore upstream activity has not fluctuated much despite massive volatility in the last few years. This means the industry has become more stable, and markets like stability.
- **Due to inflation, we forecast capital expenditures for North American players in 2024 to rise by 5% versus 2023.** Well count for new wells brought onstream in 2024 edges downward in our outlook.
- **Internationally, countries wishing to develop and produce their own hydrocarbon resources will continue to be hamstrung in 2024 by the lack of available financing.** Even “hybrid projects,” projects that contain substantial investment into synergistic, low-carbon developments designed to lower overall emissions, are being tarred with the same brush of “being unfinanceable.” In 2024, these countries, and the companies operating within them, may resort to more esoteric financing methods, sourced from any corner of the globe where financing may be available.
- **The “We must carbonize before we decarbonize” mantra gains credence.** As US producers focus on maturation strategies, developing countries are bringing an “all of the above” strategy to energy, debating “Energy Addition” as the central theme instead of “Energy Transition.” The financial, employment, and investment benefits that accrue from oil and gas development remain a powerful lure.

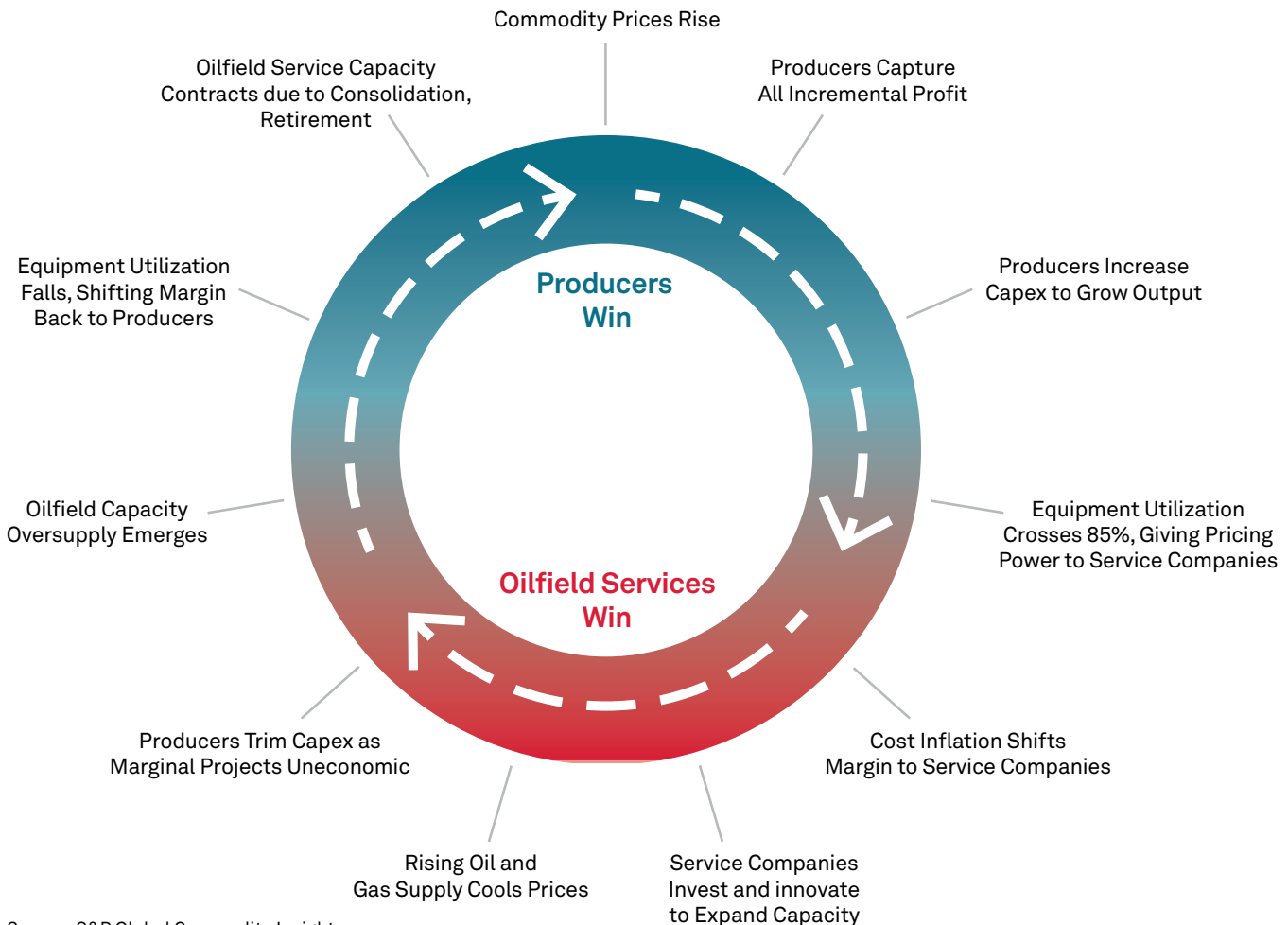


- The debate on international upstream centers on Africa, where the working-age population will be the world's largest by 2045. While a lack of financing is hamstringing hydrocarbon development and challenges abound, there is a real sense of pan-African collaboration to overcome hurdles facing these emerging developments and meet energy demands.

## 8. Costs and supply in 2024: A continued standoff between OFS and E&Ps

- In the US, the standoff between oilfield services (OFS) and E&P companies continues, breaking the “normal” cycle in the sector (see figure below). Oil companies hesitate to increase activity in an inflationary environment and in response, global OFS capacity continues to rationalize. Existing OFS players are unwilling to invest much in building new, durable capacity dedicated to the oil and gas business while profitability on these assets remains elusive. With no new firms entering the stage, this will likely leave E&P operators dissatisfied and dealing with older equipment and fewer choices.

### Upstream Margin Migration



Source: S&P Global Commodity Insights

- **We expect both sides to continue to believe their own discipline will win.** Ironically, they can both win by remaining locked in this standoff if the game evolves from a zero-sum reality to an expanding pie. That is, the refusal of both industries to invest heavily should lead to rising incremental well costs, which then transmits into upward pressure on commodity prices. In effect, this is already happening: both OFS and E&P company margins have returned to health. The consumer is the loser.
- **Elsewhere, international upstream service-sector capacity continues to be rationalized in 2024, with further mergers set to reduce options for innovation and competition.** The chance of new players entering on the international stage appears limited, and like in the US, this will leave operators concerned and dissatisfied with their existing choices. Global engineering, procurement, and construction (EPC) contractors are stretched, which means we will likely see shades of the past. Operators will rush to get projects online within the currently favorable window of opportunity across the globe.

## 9. Gas/LNG: Players old and new are looking for a piece of the global LNG bonanza in 2024

- **Companies of all stripes will continue to jump into the liquified natural gas (LNG) business in 2024.** Demand for natural gas in Europe and Asia will drive increasing investment in new LNG capacity in the US, particularly along the US Gulf Coast in Texas and Louisiana. In this region, stakeholders and regulators are more receptive to these investments, and basins are more advantageously positioned to sustain export capacity.
- **US gas producers will continue to pin hopes for a brighter future in 2024 on the upcoming LNG buildout.** We forecast that gas dedicated to LNG will explode from the current level of approximately 14 bcf/d, first rising to 20.2 bcf/d by 2027 and then to more than 25 bcf/d by 2030.
- **Some newcomers in LNG are proving to be disruptors to accepted business models across the global value chain.** Larger, established players will fight back, potentially pursuing sector consolidation to gain more scale, or using litigation processes to challenge actions of the new entrants.
- **In 2024, the European gas system continues to gradually disentangle itself from Russian supply dependency but remains highly vulnerable to unplanned outages on key pipelines or import terminals.** More European import capacity will be sought in 2024 to improve system robustness.

# 10. North American gas: Hurry up and wait

- **After a sustained rally during 2022, gas prices fell to depressed levels seen before the pandemic and remain so in 2024.** US supply has been more than adequate, despite a very hot 2023 summer that saw record power usage. In fact, on one day, gas provided more than 50% of power for the first time in history.
- **Futures markets are currently in contango (in contrast to the oil market), with the Henry Hub forward-strip rising and remaining above US\$4.50 per MMBtu.**
- Our own math confirms the notion that the US\$2.50 per MMBtu Henry Hub prices that fueled the US after the 2010 decade can continue into the medium-term:
  - **The two sources of ultra-cheap gas for the past decade have been associated gas and the Appalachian juggernaut (the Marcellus and Utica plays).** Both plays will be boxed in during the coming years—the former due to plateauing oil output, and the latter due to inability to construct new pipelines.
  - **The industry has not de-risked a single new gas play in more than a decade. Given the meager rewards for success, it would have been insane to take those risks, and companies have not done so.** However, as the industry advances the LNG projects in the second half of the decade, the booked resources become insufficient. The Haynesville has long been a gas-production powerhouse, and we predict strong growth for the play to feed the first wave of Gulf Coast LNG. However, even the mighty Haynesville (including the **overlying Bossier** sands) simply cannot deliver enough gas to satisfy the global thirst for US gas through the end of this decade.
  - **Our analysis suggests there is technically plenty of US shale gas remaining to be produced, but sector must rediscover its risk appetite.** The problem, we would argue, is that the shale sector has generally forgotten, if not lost, its “mojo” for finding and rapidly maturing a major new source of gas. So high prices will be necessary to induce companies to assume risks and find that marginal molecule.
  - **Compounding the problem is the difficulty in new pipeline construction, which will probably limit the area for the exploratory activity to the Gulf Coast.** Prospective areas include the south Eagle Ford, East Texas tight gas, and Central Oklahoma, but higher prices may even induce activity in very mature conventional areas operated by small producers.

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