ENERGY

# US Natural Gas Strategies

## Executive Summary

US natural gas is entering a tighter environment shaped by two significant and durable demand engines:

LNG exports and data-center-driven electricity load growth. A&M's supply-demand model for US natural gas through 2040 leverages proprietary data, insights, and public information. US LNG gas demand rises by 13 Bcf/d by 2030 (vs. 2025) and draws a total of 34 Bcf/d by 2040. Data center gas demand rises by 3 Bcf/d by 2030 and draws a total of 8 Bcf/d by 2040. As a result, steeper cost curve and supply tightness from the early 2030s boost margins for low-cost producers and favor midstream platforms that can reliably supply LNG and data centers.

The US Gulf Coast remains the world's most advantaged LNG export platform, with 70% incremental capacity (vs. today) scheduled to come online by 2029. After a period of slight global oversupply through 2030, new projects will be required, further tightening the US gas balances. On the power side, data center and industrial loads are expected to account for 80% of electricity demand growth through 2040, with the Top-10 states' data center demand growing at a significant 7% annually. Today's concentration in Virginia gives way to rising Texas share as permitting and gas availability align. Gas-fueled generation is expected to be the primary bridge resource for decades, complementing renewables due to gas's flexible dispatchability and low cost.

> **The US Gulf Coast remains the world's most advantaged LNG export platform.**

Strategically, rising demand and tighter supply favor scale, connectivity, and long-term optionality (vs. short-term volumes). Consolidation (incl. vertical integration) across upstream, midstream, LNG, and power will help winners control the molecules from resource to the end-user. Basin dynamics differ: Utica is relatively consolidated with strong Tier-1 economics; Marcellus faces sharper declines in remaining-acreage quality; and Haynesville is best placed to serve Gulf Coast LNG and could see another consolidation wave.

# US Natural Gas Supply–Demand (2025–2040)

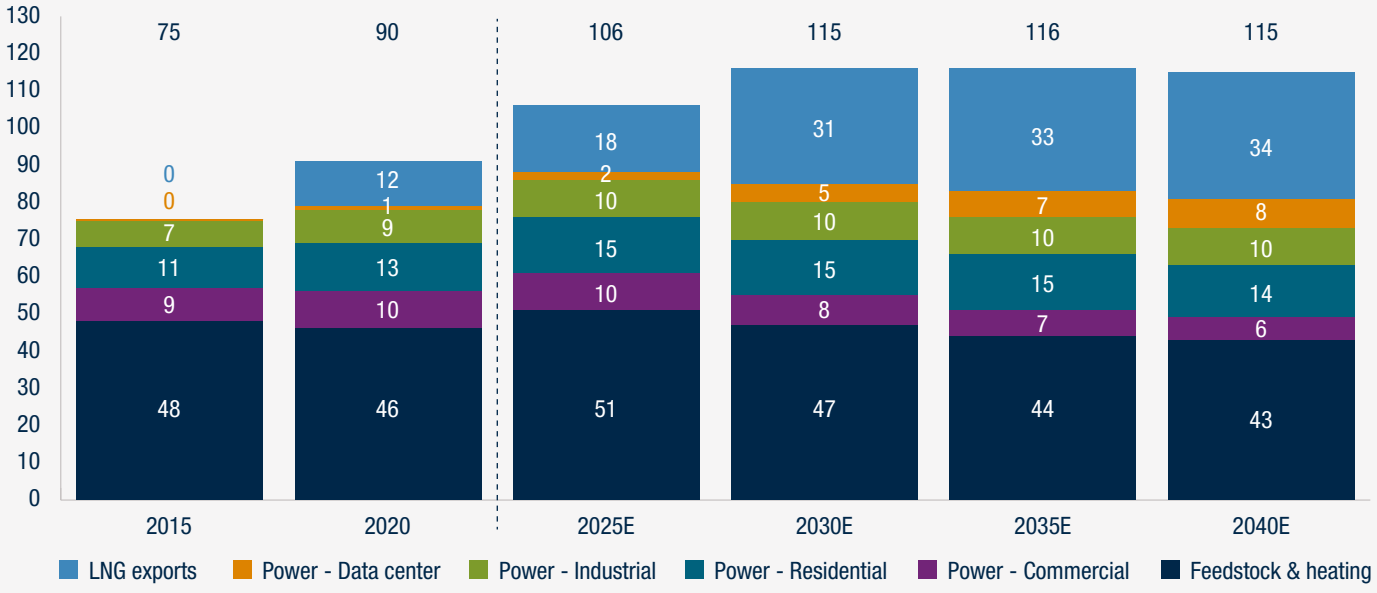
## US gas demand shifts structurally higher as LNG feed gas and data centers drive significant growth.

The mid-2030s usher in tight supply, pipeline bottlenecks (especially for Marcellus and Utica), and steeper cost curves as easy barrels decline (i.e., associated gas and Tier-1 acreage). For producers, this argues for exercising option value over pure volume growth: pace development to protect inventory quality, keep balance sheets resilient, and lock in high-quality takeaway. For midstream, tightening balances elevate the value of systems that reliably bridge basins to the Gulf Coast and to fast-growing load pockets (e.g., data centers in Dallas area). In associated-gas basins, commingled infrastructure near major loads is needed to mitigate volume variability risk.

- **Two durable demand engines.** LNG exports and data center electricity demand drive the majority of US gas growth, favoring producers and midstream systems positioned to serve Gulf Coast liquefaction and top data center states (Figure 1).
- **A steeper cost curve from the early 2030s.** As associated gas and Tier-1 rock continue being depleted, supply tightens. Even more significant than the looming higher prices is the future steeper cost curve. The differentiation between the price-setting high-cost producers and the low-cost producers will become more significant, significantly improving margins for low-cost producers and raising the premium for midstream connectivity.
- **Inventories and quality matter.** Remaining inventories are thinning for several top-producing operators (Figure 2). Marcellus's remaining-acreage quality deteriorates faster than Utica or Haynesville (Figure 3). Consequently, thinning inventories and declining acreage quality are steepening cost curves and increasing basin differentiation.
- **Volatility is the new baseline.** Henry Hub has hovered near $3/MMBtu since 2015. Rising price volatility from global LNG dynamics and geopolitical shocks highlights the importance of storage and trading strategies to manage / monetize this price volatility.

Figure 1

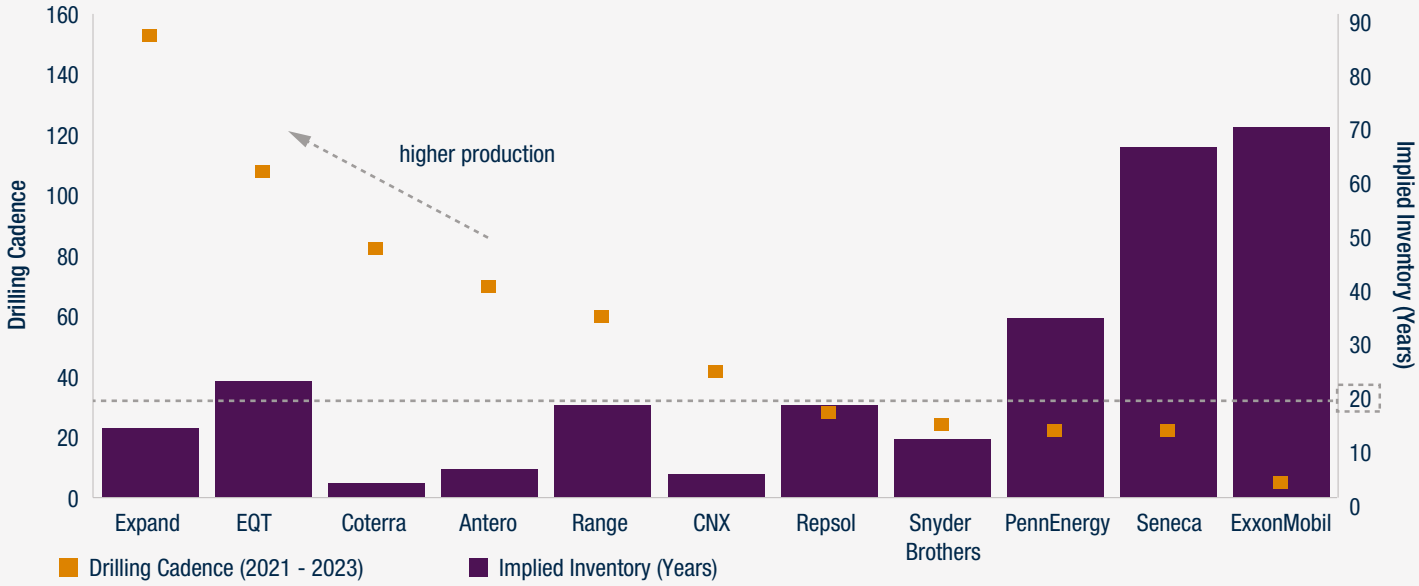
### US gas demand (Bcf/d, annual average, Mid case)




**Source:** A&M analysis, EIA, DOE, state regulatory entities, utilities

Figure 2

## Marcellus drilling activity and remaining inventories




**Source:** A&M analysis, Novi Labs

Figure 3

## Marcellus evolution of supply quality (Bcf/d)


**Source:** A&M analysis, Novi Labs

# LNG Exports: Global Balance and US Outlook

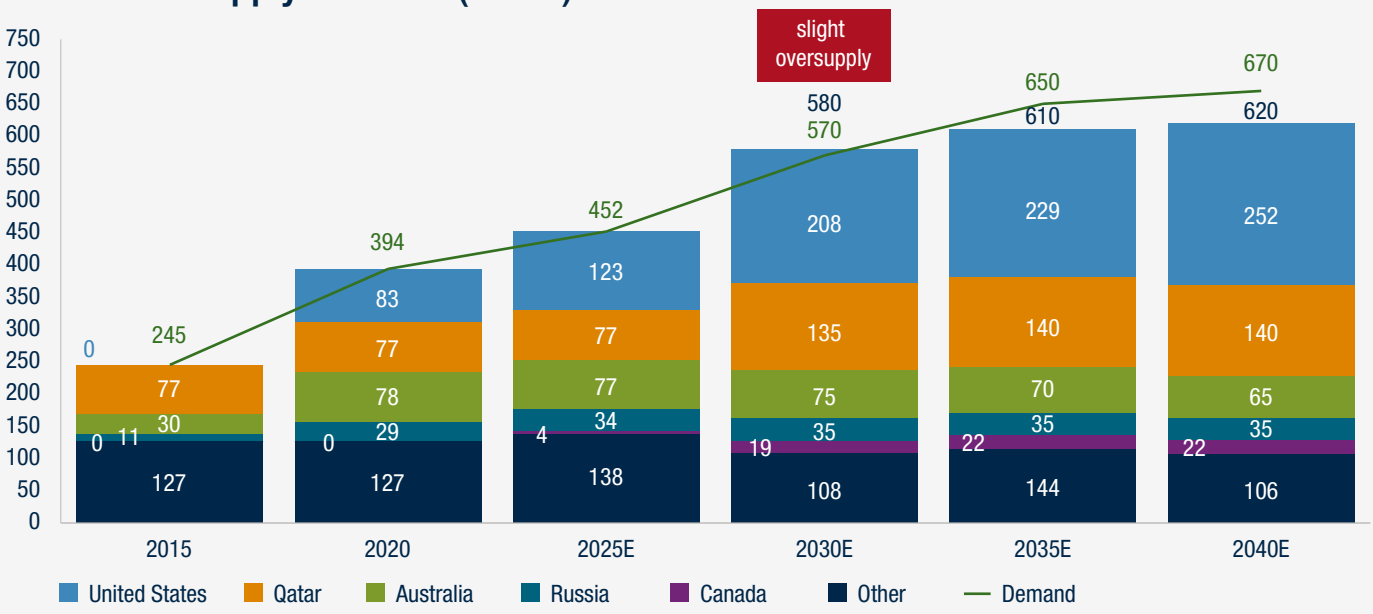
As the global LNG market works through near-term additions, low prices stimulate demand until new liquefaction is again required post-2030. US projects remain cost-competitive and scalable, supporting continued global leadership.

- **Slight global oversupply, then tightening.** A slight global LNG oversupply lasts into the early 2030s before shifting to undersupply, driving the need for new projects and straining the US gas supply (Figure 4).
- **US retains a structural advantage.** The US leads global LNG and is set for an incremental 70% capacity to come online by 2029, underpinned by low-cost gas, transparent pricing (Henry Hub), fit-for-purpose infrastructure, and advantageous financing and regulatory.
- **Signposts to watch.** Russian pipeline gas flows and US trade / tariff policy can influence project FIDs, cargo flows, and netbacks.

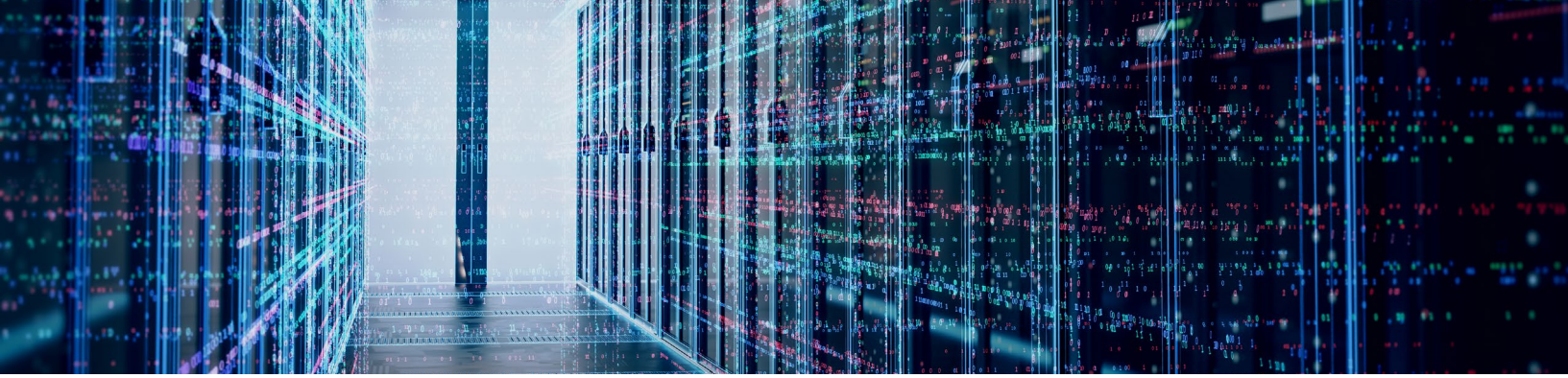
**US LNG is set for an incremental 70% capacity to come online by 2029.**

Figure 4

## Global LNG supply-demand (MTPA)




**Source:** A&M analysis, EIA, DOE, Reuters, company press releases



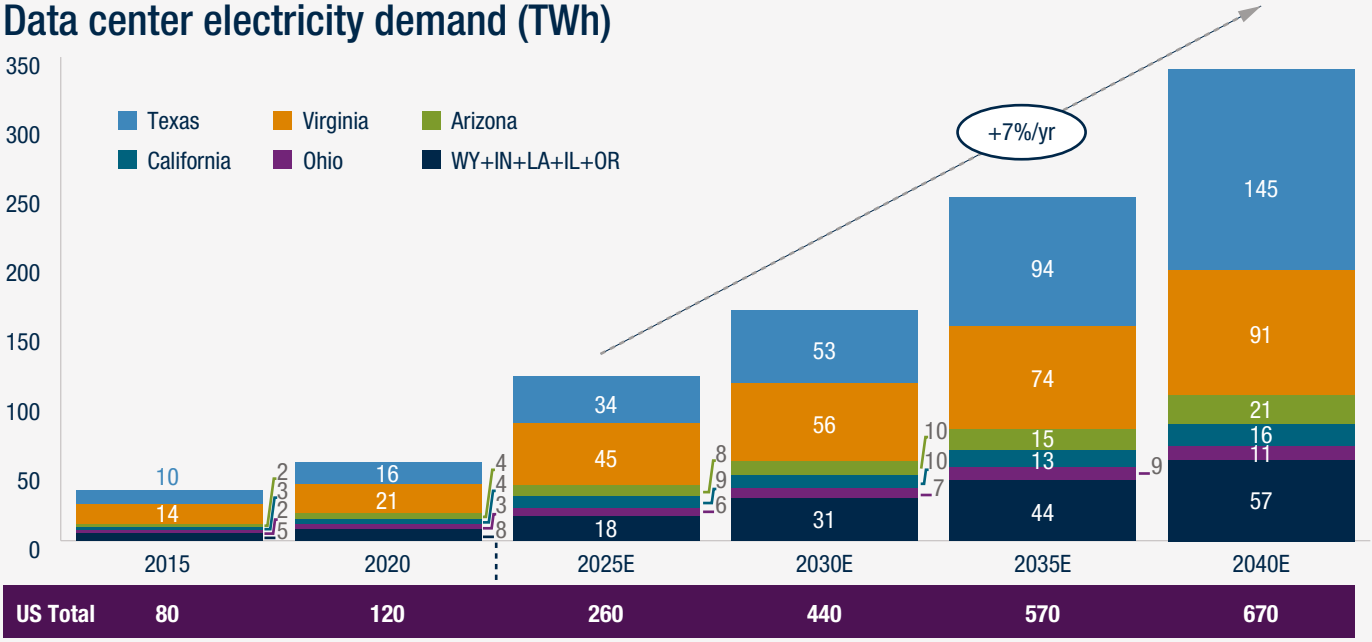
## Power Generation (incl. Data Centers)

AI growth, cloud expansion, and manufacturing onshoring tilt the grid toward firm and flexible capacity near major population hubs. Many announced data center projects await Transmission and Distribution (T&D) upgrades. Some pursue behind-the-meter gas solutions to de-risk timelines despite higher unit costs. Midstream adjacency to load (plus rights-of-way and interconnect options) becomes an M&A valuation lever, especially in Texas / Louisiana where intrastate builds can progress without FERC.

- **Load mix shifts.** Data center and industrial loads account for 80% of US electricity demand growth 2025-2040. Interconnection queues and T&D constraints are critical-path signposts.
- **Where growth concentrates.** Top-10 states' data center demand grows 7%/year in our Mid case (12% in High case), with Texas gaining share versus Virginia, propelled by regulatory support and gas availability (Figure 5).
- **Gas remains the bridge.** Given dispatchability, overall costs, and compatibility with storage, carbon capture, and hydrogen blending, gas-fired generation is expected to anchor data center reliability for decades, complementing renewables. Behind-the-meter gas options are gaining ground where T&D queues are long.

Figure 5

### Data center electricity demand (TWh)




**Source:** A&M analysis, EIA, DOE, IEA, NREL, EPRI, state regulatory entities, utilities

## Consolidation (incl. Vertical Integration)

Scale and integration increasingly determine who can secure long-dated sales to LNG trains and hyperscale data centers. In Appalachia, acreage quality degradation (Marcellus) and infrastructure limits elevate the role of selective acquisitions and offtake commitments near local data center loads. In Haynesville, LNG adjacency and permissive intrastate pipeline jurisdictions amplify the prize for strategically knitted systems. Herfindahl-Hirschman Index (HHI) trends reinforce that M&A theses must be basin-specific due to unique remaining inventories and acreage quality, infrastructure outlook, and nearby-demand outlooks (Figure 6).

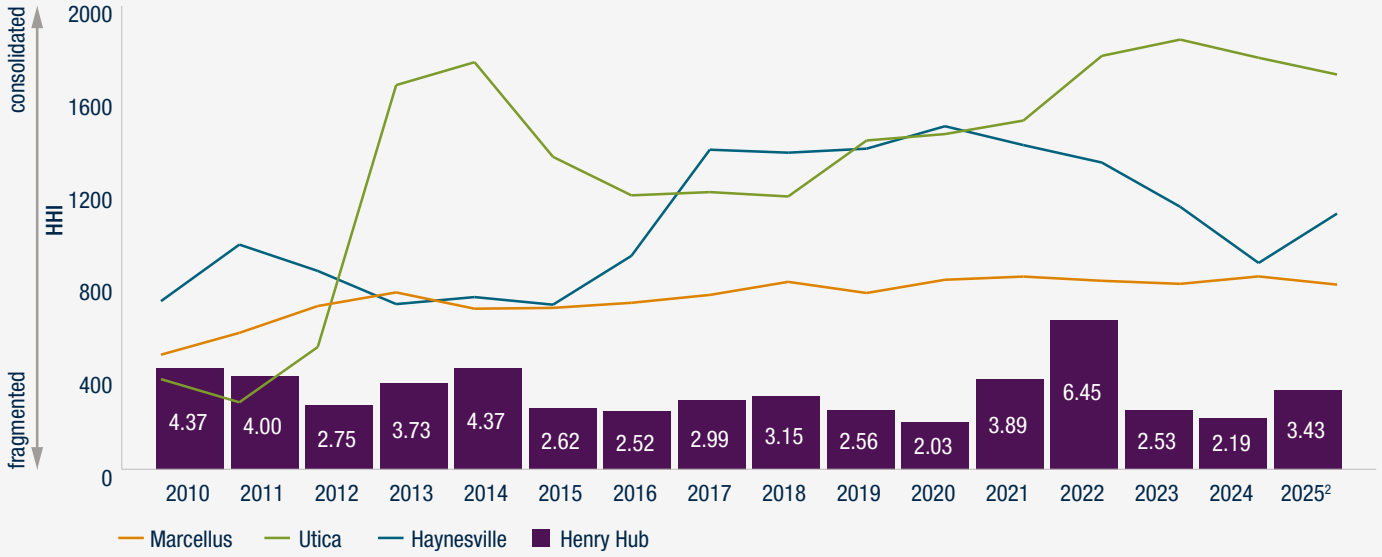
- **Vertical Integration as a risk-value tool.** Vertical integration across the gas value chain manages supply risk for LNG and data center customers and unlocks commercial / operational synergies in upstream, gathering, processing, transport, and marketing.

**In Appalachia, acreage quality degradation (Marcellus) and infrastructure limits elevate the role of selective acquisitions.**

- **Basin M&A patterns:**
  - **Marcellus:** Large scale, competitive economics, acreage-quality pressure; M&A relatively quiet aside from moves by EQT, Equinor, and Expand.
  - **Utica:** Most consolidated (highest HHI), favorable IRRs and break-evens; roll-ups by large public E&Ps absorbing smaller operators.
  - **Haynesville:** More fragmented with new entrants positioning for LNG demand; prone to another wave of consolidation.

Figure 6

### Herfindahl-Hirschman Index (HHI) trends




**Source:** A&M analysis, Novi Labs

# Strategic Implications

Specific strategies to enhance portfolio positioning and operational performance vary by position in the value chain.

## Upstream

- **Protect Tier-1 runway.** Prioritize longer-term value over near-term volume; pace development to avoid pushing into higher-cost benches prematurely.
- **Build durable egress and commercial agility.** Secure (multi-basin) takeaway and firm transport to Gulf Coast LNG and data centers; co-locate with storage to manage / monetize volatility.
- **Optimize portfolio.** Pursue tuck-ins where remaining-acreage quality is high (e.g., selected Utica positions) and rationalize fringe inventory via swaps / JVs. Refine basin-specific M&A theses.

## Midstream

- **Be demand-driven.** Secure corridors and interconnect options into fast-growing LNG facilities and data center clusters; leverage intrastate flexibility in TX/LA, especially for LNG.
- **Provide feedgas reliability.** Package supply assurance (firm contracts, storage, and pipeline redundancy) for LNG trains and behind-the-meter data center projects.
- **Optimize / expand portfolio through M&A and Joint Ventures.** Expand your through acquisitions, Joint Ventures and other sharing arrangements. Grow exposure to the growth markets through inorganic means to create a footprint for further expansion as gas demand grows.

## LNG Sellers / Marketers / Buyers

- **Lock in the molecules.** Secure long-dated, quality-adjusted feedgas portfolios with diversified basin exposure; pair with transportation and storage to manage price and consumption volatility. If buying LNG in sufficient volumes, consider buying and potentially operating acreage as a structural hedge on LNG prices.
- **Use a flexible commercial model.** Keep a mix of tolling and integrated exposures; maintain route and destination flexibility to arbitrage basins and seasons.
- **Consider carbon intensity.** Depending on buyers' and end users' interest, invest in methane measurement and credible offsets; be prepared for potential regulatory requirements and price premiums through scenario planning.

## Data Centers

- **Design and implement a resilient power supply portfolio.** Develop a robust generation portfolio supported by a fuels strategy and infrastructure that includes redundant supply lines, near or on-site storage, sufficient back-up generation to support outages and battery or other reactive power systems to handle the power modulation requirements. Incorporate firm gas supply agreements with specificity on performance, penalties and force majeure definitions.
- **Employ effective power and gas trading.** Move beyond standard Power Purchase Agreements in order to capture the value of the redundant assets and market volatility to help defray the cost of generation assets and fuels.
- **Use Behind-the-Meter selectively.** Use Behind-the-Meter only where T&D queues are binding or reliability premiums justify higher levelized costs; anchor with multi-year fuel assurance.
- **Conduct Scope 1–3 planning.** Depending on company commitments and end-user appetite, adopt certified natural gas and pursue CCS, waste-heat recovery, and hydrogen-ready designs where economic.

## Investors and Boards

- **Allocate capital to favor optionality.** Focus on projects that enhance optionality (storage, interconnects, flexible infrastructure) and long-term value (better producer margins due to expected steeper cost curve).
- **Carry out M&A with discipline.** Underwrite all-remaining-acreage quality (i.e., not just the shorter-term Proved Developed Producing, PDP); use Herfindahl-Hirschman Index (HHI) M&A trends, infrastructure proximity, and nearby demand outlook as valuation lenses.
- **Improve risk management.** Expand basis and shape hedging (trading); build liquidity to mitigate / monetize disruptions (e.g., FID delays, geopolitical shocks).

## AUTHORS


**Jay Campbell**
Managing Director

jcampbell@alvarezandmarsal.com

**Burak Powers**
Senior Director

bpowers@alvarezandmarsal.com

**John Corrigan**
Managing Director

jcorrigan@alvarezandmarsal.com


Follow A&M on:



476152-54997/November 25
9894_FINAL


## ABOUT ALVAREZ & MARSAL

Founded in 1983, Alvarez & Marsal is a leading global professional services firm. Renowned for its leadership, action and results, Alvarez & Marsal provides advisory, business performance improvement and turnaround management services, delivering practical solutions to address clients' unique challenges. With a world-wide network of experienced operators, world-class consultants, former regulators and industry authorities, Alvarez & Marsal helps corporates, boards, private equity firms, law firms and government agencies drive transformation, mitigate risk and unlock value at every stage of growth.

To learn more, visit: AlvarezandMarsal.com