



Natural gas power surge

Prepare for the tax and accounting implications of reviving natural gas plants to meet soaring energy demand



Innovation is power hungry

Heavy energy users such as technology companies and data center operators are major forces behind the shift toward more natural gas power.

Just one query using generative artificial intelligence (GenAI) requires up to 10 times the electricity of a traditional search engine request. A residential electric vehicle charger increases a household's energy usage by 25-35 percent. And the annual consumption of electricity to mine Bitcoin in the United States is enough to power more than five million homes for a year.¹

Digitalization and electrification across every industry, from transportation to manufacturing, will remain a driving force behind the need for a diverse energy mix. Even as technologies may become more efficient (as DeepSeek recently claimed about its GenAI platform, for example),² accelerating usage will require much more power. The United States has made significant strides expanding renewable energy and improving battery technology, but renewables with their intermittent nature cannot yet guarantee the reliable 24/7 power supply these innovations need.

57% of global technology companies, data center developers and energy providers don't believe the current pace of U.S. energy deployment can meet increased demand from AI.

52% expect to significantly increase their usage of **natural gas with carbon capture, utilization and storage** over the next 3-5 years, while **40%** intend to significantly decrease their use of natural gas *without* carbon capture.³



¹ Electric Power Research Institute, "Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption" (2024). Based on calculations of 2.9 watt-hours per ChatGPT request compared to traditional Google queries of 0.3 watt-hours each; EnergyNow, "Electricity Use Comparison: EV vs. Home" (June 23, 2023); BestBrokers, "Bitcoin Power Dynamics: The ridiculous amounts of electrical energy used to mine 1 Bitcoin in 2024 just doubled recently" (July 29, 2024)

² AP, "DeepSeek says it built its chatbot cheap. What does that mean for AI's energy needs and the climate?" (January 28, 2025)

³ KPMG, "Fueling the Future: Bridging the Energy Demand Gap in the AI Era," December 3, 2024

Natural gas is a natural fit

Natural gas has increasingly replaced coal and recorded its highest-ever share of U.S. power generation in 2023, 43 percent, per the latest data from the U.S. Environmental Protection Agency (EPA).⁴ Natural gas is domestically sourced with abundant supply throughout the United States, and natural gas-fired power emits less CO₂ than coal-fired plants.

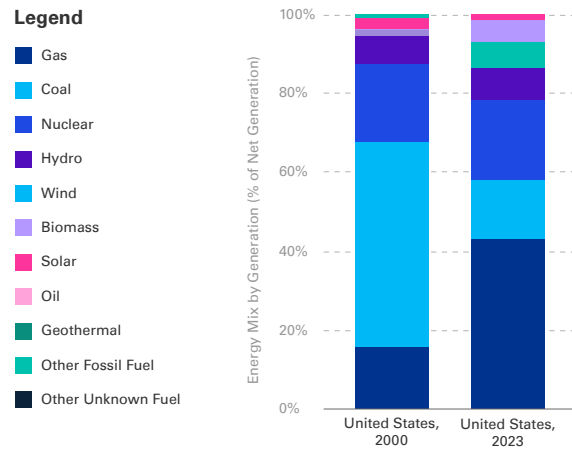
In the near term, natural gas power is a natural partner to the intermittent supply of power from solar and wind to meet the increasing demand for energy. In addition to providing baseload power, natural gas plants are flexible and can ramp up or down as needed to support variable supply. They also can come online quickly relative to emerging energies that are expected to scale over time to meet long-term growth in power demand.⁵

The customer is in the driver's seat

As we discussed in our recent [survey of companies in the U.S. renewable energy industry](#), market demand drove renewables uptake as much as—if not more than—stakeholder pressure to reduce emissions. The market is now influencing the demand curve for more natural gas-generated power to fill the gaps driven by accelerating energy needs.

The data centers industry is among the fastest growing in the world with the proliferation of load-intensive AI and GenAI.⁶ Companies like Chevron and Exxon Mobil are setting their sights on providing natural gas-generated electricity directly to data center customers. Chevron's announcement stated plans for flexible design that would allow the integration of carbon capture and storage technology in addition to renewable energy resources.⁷

Change in primary resource used for electricity generation, 2000–2023



EPA, Power Sector Evolution



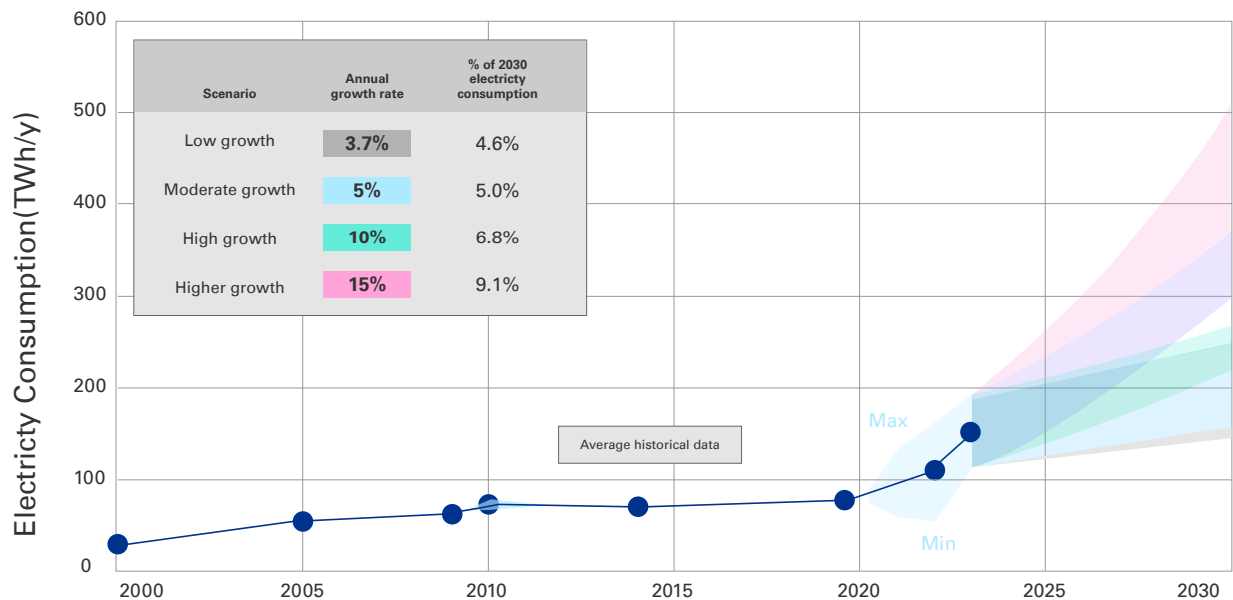
⁴ IEA, Electricity 2024 Executive Summary

⁵ Utility Dive, "2025 could be a banner year for natural gas plant acquisitions: Enverus" (January 13, 2025)

⁶ Electric Power Research Institute, "Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption" (2024). Based on calculations of 2.9 watt-hours per ChatGPT request compared to traditional Google queries of 0.3 watt-hours each.

⁷ Chevron, "Engine no. 1, Chevron and GE Vernova to power U.S. data centers" (January 28, 2025); Barron's, "Exxon Enters the Electricity Business, Takes a Swipe at Nuclear" (February 3, 2025)

Forecast of U.S. data center load growth and impact on electricity consumption through 2030



Electric Power Research Institute, “Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption” 2024

Political winds in the sails of natural gas resurgence

The US public policy environment following the 2024 national election will likely add momentum to natural gas through revised energy policies and tax legislation.

The new administration has set goals to establish the United States as a leader in AI and a dominant energy producer, and the intersection of these two sectors adds to the push for both energy production and energy demand. The administration has signaled significant changes including a roll back of restrictions on the fossil fuels industry, emissions standards, and promotion of renewable energy. Expect changes to be set into motion through executive orders, including “Declaring a National Energy Emergency” and “Unleashing American Energy,” as well as agency directives and leadership nominations.⁸

Regions with abundant natural gas and existing infrastructure will see more projects come on line and attract data centers and other companies looking to take advantage of the resource, although relaxed permitting could allow for new infrastructure, including the extension of pipelines.

Other impacts could come through changes to tax policy floated by the new administration, including the repeal of green energy tax credits and permanent expensing for machinery, equipment, and research and development.⁹ The energy industry is waiting to see what, if anything, will be written into a new tax bill that could impact the supply side by changing tax liabilities, incentives to repower existing plants, or investment strategies.

⁸ KPMG, “Data Centers, AI and Energy Confluences: Expected Regulatory Shifts in the New Administration” (January 2025); KPMG, “New Administration: New Energy Signals to Watch” (February 18, 2025)

⁹ Tax Foundation, “Donald Trump Tax Plan Ideas: Details and Analysis” (October 14, 2024)

Six considerations for companies participating in the latest rise in natural gas power demand

By understanding the tax and accounting implications of the return to higher natural gas demand for electricity production, companies can more effectively manage their operations, make informed decisions, and position themselves to capitalize on opportunities.



Rebounding valuations

With the push toward renewables over the last decade, many legacy power plants were decommissioned or repurposed. But with increased demand for reliable 24/7 power, historical valuation models and approaches may no longer be relevant for natural gas and should be challenged as devaluation suddenly whiplashes to significant appreciation. A recent deal that included natural gas in the acquired portfolio saw the value of the individual gas plants roughly double compared to 2020.¹⁰

Higher valuations positively impact balance sheets and financial ratios, enhancing the financial health of companies and reducing the risk of plant impairment (including triggers). Many organizations could simplify the qualitative assessment process and potentially bypass the need for extensive quantitative analyses.

However, those companies considering or involved in transactions may wrestle with the variability and uncertainty of valuations and how that could impact goodwill or result in bargain purchase gains.



Projections and forecasting

The variability in solar and wind that makes it difficult to predict the need for supplementary power from natural gas-fired plants historically led to uncertainty in forecasting the long-term cash flows and operational costs of such projects. Given their flexibility to quickly ramp up and down, natural gas-fired plants present unique opportunities to leverage advanced forecasting techniques for better integration of renewables and greater efficiency.

With innovations in data analytics and AI, companies can achieve more accurate and dynamic forecasts in weather and consumer demand to understand when to switch gas on and off, maximizing their energy mix. These data-driven insights can also optimize plant operations, such as when to schedule maintenance, and improve cost management to reduce unnecessary capital expenditures (CapEx).

From a strategic perspective, dynamic forecasting provides a clearer picture of future cashflows, supporting decisions about whether to build, expand, or sell assets. Companies also can get a better sense of when to time their market entries and exits, maximizing returns. Improving and extending the useful life of natural gas plants can require adjustments to financial planning and depreciation and amortization schedules.



¹⁰ Utility Dive, “2025 could be a banner year for natural gas plant acquisitions: Enverus” (January 13, 2025)



Bonus depreciation

Whether building new natural gas assets or reviving existing plants, one often-overlooked but highly beneficial tool is bonus depreciation. Because bonus depreciation allows companies to claim a larger portion of the cost of new assets as a deduction in the first year they are placed in service, it can be leveraged to enhance the economic return of plant operations.

For instance, while a gas-fired power plant would typically depreciate over 15 years, bonus depreciation allows for 60 percent of the asset's cost to be deducted in the first year, with the remaining 40 percent spread over the next 15 years. If a company cannot fully utilize the bonus depreciation in the current year, the unused portion can carry forward as a deferred tax asset, which can be particularly useful for companies with fluctuating income or those in the early stages of operations.

Furthermore, taking a significant portion of the asset's cost as a deduction in the first year can reduce current tax liability, and companies can use the immediate cash flow benefit to reinvest in the business or fund other strategic initiatives.



Environmental considerations

Companies can manage the financial impact of environmental liabilities and earn environmental credits to enhance their financial and operational performance. (Note that these are not tax credits, but rather, financial instruments that can be traded or used to offset emissions.)

To benefit, the company needs to be fully aware of what the regulations and emissions schemes are where they operate. For example, under the Regional Greenhouse Gas Initiative (RGGI) emissions trading program that includes Pennsylvania, New York, and New Jersey, companies acquire credits for emissions. The ability to buy and sell the credits in the market creates both a financial liability and a potential revenue stream.

The Financial Accounting Standards Board (FASB) is reviewing a new accounting standard for environmental credits designed to provide guidance on how to account for these credits.¹¹ Key points for companies could include recording a liability for the environmental credits they must acquire, and guidance on how to value and report these credits on financial statements to ensure transparency and consistency.



Discount rates and risk premiums

Historically, the uncertainty surrounding traditional natural gas plants—including fluctuating prices, regulatory changes, environmental concerns, and competition from alternative energy sources—warranted higher risk premiums.

However, with a higher demand curve for natural gas leading to greater predictability in earnings and cash flow, a reduction in perceived risks is influencing discounted cash flow valuations and overall investment attractiveness. Companies may need to revise discount rates and risk premium calculations, making it easier to attract investors and secure financing for new projects or facilities expansion.



Leases and contracts

As the operational life of natural gas plants extends, existing leases for equipment and land need renegotiation. Lease modifications demand meticulous accounting and disclosures to ensure transparency and compliance with financial reporting standards, particularly ASC 842 governing lease accounting as assets and liabilities.

Other contracts may also require renegotiation to align with extended plant lifecycles, including transportation, asset management, and operations and maintenance contracts. Certain contracts, or modifications to them, can also have tax implications, such as those that include hedges or calls on financing instruments.

Changes in contract terms could affect financial reporting and disclosure involving financial projections, cost structures, and liabilities. These renegotiations necessitate careful review to assess accounting impacts according to new terms and conditions.



¹¹ FASB, "Accounting for Environmental Credit Programs" (December 18, 2024)

The big picture: Strategic implications for companies

Natural gas is poised to play a crucial role in powering advanced technologies, thanks to its reliability, availability, scalability, and cost-effectiveness. Much is shifting day by day, but natural gas players have multiple opportunities to manage and thrive through that change. Asset owners can update their valuation models to reflect the increased demand and value of natural gas. By leveraging bonus depreciation, managing environmental liabilities, and adjusting financial metrics, companies can boost cash flow and open up financing opportunities. Finally, they can enhance efficiency and better integrate by using advanced data analytics and AI for better forecasting and ensuring leases and contracts align with extended plant lifecycles and new operational needs.

Companies that understand these approaches can strategically position themselves to capitalize on the market dynamics and rise along with the resurgence of natural gas.

How KPMG can help

KPMG LLP is at the forefront of helping organizations navigate the global energy transition, whether they are developing the newest technologies that can reshape the industry or the largest, most well-established energy companies. We bring together dynamic, multi-disciplinary teams focused on where companies are along the business lifecycle, staffed by professionals who have the precise skill sets needed to serve the sector as it evolves, grows, and matures. This approach gives us an ability to be laser-responsive to the unique challenges and opportunities of our clients, taking into account variables like evolving customer energy demands, shifting asset valuations, geopolitical and regulatory impacts, digital innovation, and much more. We look forward to speaking with you about the future of the energy industry and your important role in it.

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