

Energy crossroads: Market uncertainty and AI are transforming the industry

Artificial intelligence, resilience, and capital discipline are reshaping the energy landscape in 2026

Key takeaways

1. AI and electrification are driving a surge in power demand, testing the limits of the grid and supply chains.
2. Market volatility, policy shifts, and rising costs are reshaping capital allocation, requiring companies to prioritize efficiency and resilient portfolios.
3. AI and digital technologies are moving from pilot to core operations, becoming indispensable for grid reliability, asset optimization, and supply chain resilience.

As 2026 draws closer, the US energy industry is on the brink of an important transformation. The powerful combination of artificial intelligence, innovation, and surging energy demand is driving rapid change across the industry. Add in a volatile macroeconomic environment, shifting policies, and ongoing supply chain hurdles, and it's clear that energy companies are facing both new opportunities and challenges.

AI is rewiring power demand

AI is no longer just increasing energy demand; it's also shaping it. Peak power demand could increase 26% by 2035,¹ propelled by the rapid growth of data centers and electrification. But this isn't a gradual evolution. It has been the most rapid increase we've seen in the power sector in the last 30 years,² and added substantial new load to a grid that is already stretched thin.

But AI can also be a solution to the strain it creates. Some utilities are deploying AI to forecast, balance, and harden the grid in real time. Operators are using it to optimize production, reduce downtime, and monitor assets.

The result? A new, interconnected energy ecosystem in which intelligence itself—and the efficiency and flexibility that it can create—becomes a virtual supply of power.

Capital finds its discipline

The energy industry is likely entering a new phase. Investment is abundant, but focused on *stability*, *scalability*, and *return discipline*.

Tariffs, policy swings, and financing costs are driving companies to revisit their investment strategies. Companies are analyzing every dollar of spending, measuring resilience as carefully as growth. Power and renewable companies face compressed timelines and increased compliance needs following changes the new tax law—commonly known as the One Big Beautiful Bill Act—makes to clean-energy provisions.³ Oil and gas companies face rising costs and lower oil prices, both of which are challenging profitability.⁴

Amid uncertainty, discipline is proving to be a new form of resilience. In the power sector, developers are prioritizing efficiency improvements, with investors focusing on mature assets, scalable platforms, and hybrid portfolios that can deliver better returns and optionality.⁵ In the oil and gas sector, companies have prioritized operational efficiency and shareholder returns.⁶ Capital efficiency is being redefined.

For many leaders across the energy industry, the question isn't whether to spend—it's *where* efficiency and innovation can make the biggest impact.

Operations get smarter, leaner, faster

Digital transformation is progressing from pilot projects to a part of core operations. Across the energy landscape, AI and automation are scaling efficiency and redefining productivity.

Event-based, predictive maintenance is reducing downtime across power grids, pipelines, and plants.⁷ Many companies are adopting digital tools for supply chain visibility, asset management, and customer engagement, with sectorwide collaboration on best practices and governance.⁸

The oil and gas industry is poised to spend half of its IT spending on AI and gen AI by 2029, focusing on process digitization, optimization, asset performance, and operation integration.⁹

Efficiency has become existential. Companies that fail to integrate digital speed into physical operations while sharpening business fundamentals risk being outpaced—not by competitors, but by their own systems.

Resilience as a strategy

Resilience is now a strategic differentiator. The last few years exposed structural fragilities across the energy value chain: equipment lead times stretching from months to years, policy shifts impacting project pipelines, and geopolitical uncertainties redrawing trade routes.¹⁰ The most adaptive companies aren't waiting for stability; they're designing for volatility.

Many companies are enhancing their supply chain resilience by securing inventory, dual-sourcing suppliers, optimizing trade routes, reshoring manufacturing, and forming vertical and public-private partnerships. They

are also increasingly adopting digital technologies to strengthen supply chain visibility and agility.¹¹

Resilience is becoming measurable, quantified not in downtime avoided, but in opportunity captured. Those who plan for disruption as a certainty, not a scenario, often gain market share and investor confidence.

At the crossroads of innovation and resilience

In 2026, success will depend on striking a balance between innovation and risk, growth and discipline, and automation and human judgment. Across the energy industry, leaders are discovering that the boundaries between sectors often no longer hold.

The future of energy will likely not be defined by who generates the most electrons or molecules, but by who drives the most value through intelligence and efficiency.

Those who act early, building digital foundations, reinforcing resilient capital strategies, and forging alliances across the value chain, will likely not just navigate the transition—they'll lead it.

For deeper sector-specific insights, read our individual outlooks below:

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ENDNOTES

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