

Natural Gas Tailwinds: Data Centers, US Manufacturing, Electrification, and LNG Exports

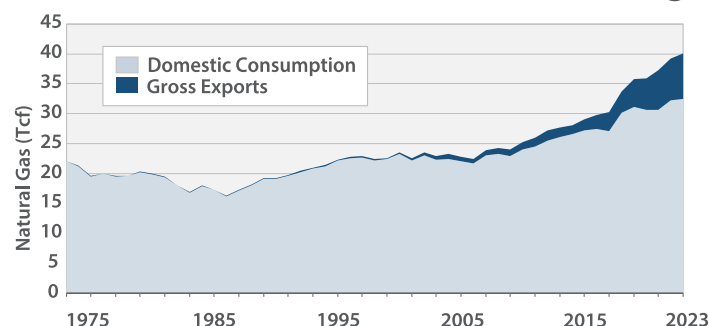
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Monday, December 2, 2024

 Miller/Howard Investments

A confluence of factors has drawn the market's attention to natural gas demand. An inflection in electricity demand and a wave of liquefied natural gas (LNG) exports are set to further accelerate already solid natural gas demand trends. We believe US infrastructure is poised to answer the call.

US Natural Gas Demand Reached Record High



As of December 31, 2023. Sources: LSEG; Miller/Howard Research & Analysis.

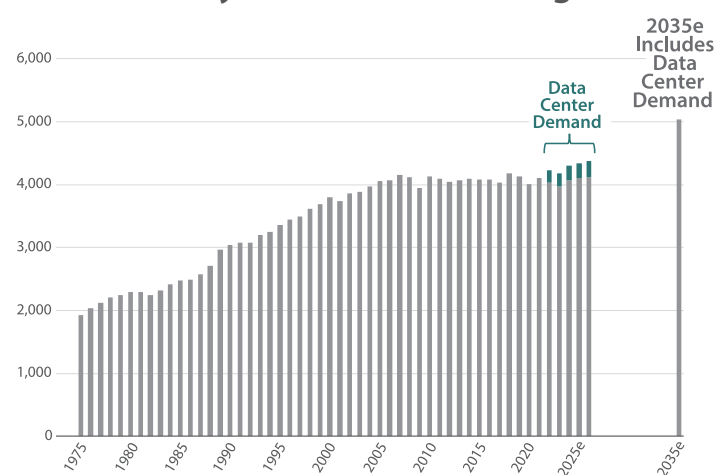
US electricity demand—which has been flat for 20 years due in large part to efficiency gains—is expected to return to growth driven by data center, reshoring of US manufacturing, and electrification trends. According to a report by Grid Strategies, FERC filings show grid planners now expect US electricity demand to grow 4.7% over the next five years (up from estimates of 2.6% last year). Since these filings, many utilities have further increased demand forecasts. PJM Interconnect, which oversees the nation's largest regional grid (spanning from IL to NJ) is expecting an additional 10,000 megawatts of demand by 2030 that was not included in their previous forecast last year. That would be like adding another New York City to the grid. Other industry forecasts suggest growth of upwards of 20% by 2030-2035.

Data center proliferation is expected to be the largest source of electricity demand growth. The nation's 2,700 data centers used more than 4% of the country's total electricity in 2022 according to the International Energy

Agency (IEA), and by 2026 are expected to consume 6%. Data center forecasts continue to be revised upward. In September 2024, McKinsey raised their expected data center demand growth by 2030 to 55 GW—from their prior forecast of 35 GW earlier in the year.

How do growing electricity needs drive natural gas dynamics? Natural gas currently accounts for over 40% of US electricity generation. And natural gas will be used to meet a material portion of the incremental demand—as intermittent renewable additions will have to be supplemented with dispatchable generation (that is, natural gas power generation can be turned up or turned down to fill the gap between power demand and production). We feel that this should add another leg to the natural gas growth story which had previously been driven by replacing coal generation with natural gas fired power. As natural gas replaced coal, electric power became a larger piece of natural gas demand, rising from 23% to 40% of consumption from 2003 to 2023.

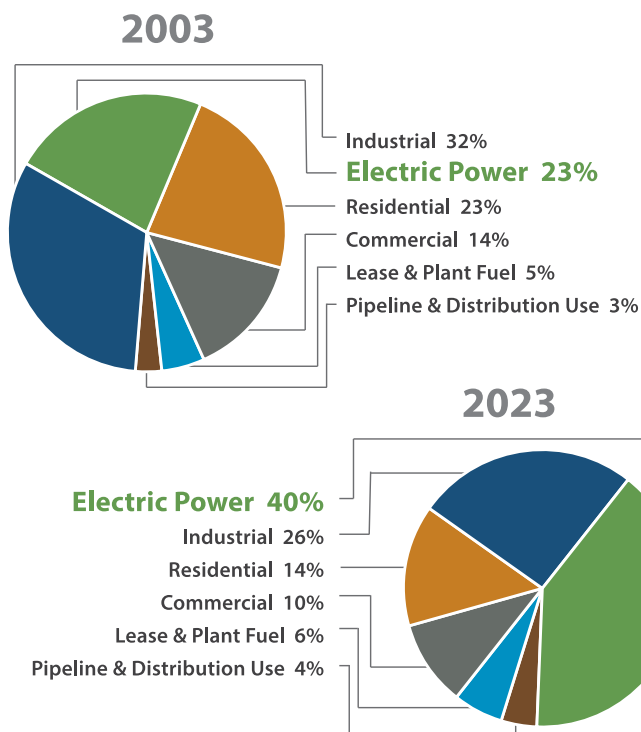
US Electricity Demand 1975 through 2035e



Source: US Energy Information Administration (EIA), International Energy Agency, Rhodium Group, Empirical Research Partners Analysis. Republished with permission from Empirical Research Partners. 2022-2026e estimates from the EIA; 2035e estimate from Rhodium group. Used with the permission of Empirical Research Partners.

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US Natural Gas Consumption by End Use

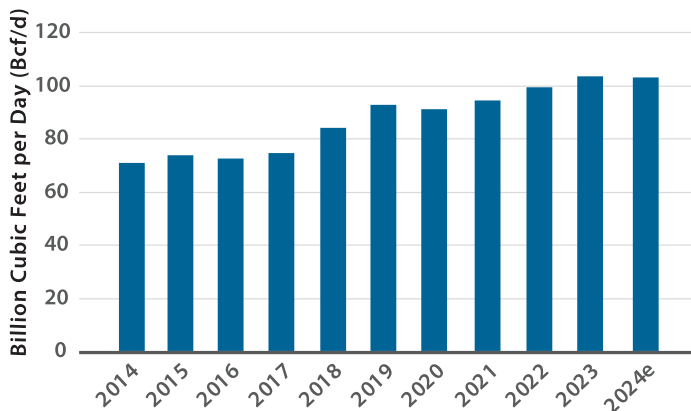


As of December 31, 2023. Sources: EIA; Miller/Howard Research & Analysis.

Outside of increasing domestic consumption, LNG exports create a final growth driver. After exporting its first cargo in 2016, the US became the world's largest exporter of LNG in 2023. LNG export facilities under construction in North America are expected to double LNG export capacity over the next three years.

Overall, we believe these tailwinds will require another 20 Bcf/d of natural gas (data centers +7 Bcf/d, reshoring +3 Bcf/d, and LNG +12 Bcf/d). This equates to growth of nearly 20% as the US currently produces ~103 Bcf/d of natural gas.

US Natural Gas Production



Sources: US Energy Information Administration, Short-Term Energy Outlook, September 2024; Miller/Howard Research & Analysis.

Who will be the beneficiaries of these tailwinds?

We see beneficiaries of these tailwinds throughout the energy value chain. We believe that upstream exploration and production (E&P) companies that produce natural gas, midstream energy companies who transport natural gas, and utilities that provide the power to the data centers are positioned to reap most of the benefits.

How is Miller/Howard positioned?

Our **North American Energy** portfolio is a highly diversified way to gain exposure across the entirety of the North American natural gas value chain, from wellhead production of natural gas to gathering, processing, transportation, distribution, export and related services. Portfolio companies offer exposure to both the volume and price of the commodity. We believe our producers possess decades of low-cost inventories of North American-sourced natural gas and the means to get it to growing electrification, data center, and overseas export markets.

Our **MLP & Midstream Energy Income** portfolio is 100% midstream, with the majority of the portfolio's income derived from companies that transport and store natural gas. The companies we invest in are volume-driven (versus being highly commodity-price sensitive), and we believe that these thematic tailwinds should have a positive impact on midstream gathering, transportation, and storage volumes—ultimately reinforcing midstream as a source of high and growing income for investors.

Our **Infrastructure** portfolio is well positioned to take advantage of these opportunities with broad-based exposure across multiple sectors. We expect utilities to benefit from regulated power generation and transmission projects, independent power producers to benefit from tighter power markets (and the resulting higher power prices), and midstream to benefit from higher throughput volumes. Overall, we feel that these growth drivers should bolster the Infrastructure portfolio's ability to provide a high and rising-income stream for investors.

Our **Utilities Plus** portfolio provides concentrated utility exposure. We expect increasing electricity demand to provide additional opportunities to deploy capital into power generation and transmission projects. Within the regulated business model, we believe this should bolster earnings growth, reinforcing utilities' ability to pay high and rising dividends.

As always, Miller/Howard is dedicated to providing high and rising income to our clients. We expect our portfolios' dividends to be well supported over the next several years as our holdings are poised to participate in these burgeoning tailwinds. ■

ABOUT THE AUTHORS



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Adam Fackler, CFA, focuses on infrastructure companies including utilities, telecommunications, and midstream energy/master limited partnerships (MLPs). Prior to joining Miller/Howard in 2016, Adam spent 10 years in equity research, including five years at Rodman & Redshaw and KLR Group, focusing on MLPs, and at MLV & Co., covering exploration & production companies and MLPs. Adam holds a BS in Business Administration with a minor in Economics from Bucknell University.



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Portfolio Manager

John Cusick, CFA, focuses on midstream energy including master limited partnerships (MLPs) and infrastructure companies. Before joining Miller/Howard in 2013, he was a senior vice president and research analyst at Wunderlich Securities Inc. in New York, covering energy including partnerships focused on natural gas, liquids, and exploration & production. Prior to that, John spent more than a decade at Oppenheimer & Co. beginning his career as a junior analyst on the energy team covering major oil companies, refiners, and exploration and production companies and then as a senior research analyst specializing in the midstream sector. He earned his BA in Finance and Marketing from Temple University, and an MBA in Finance from Fordham University School of Business in New York City.

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