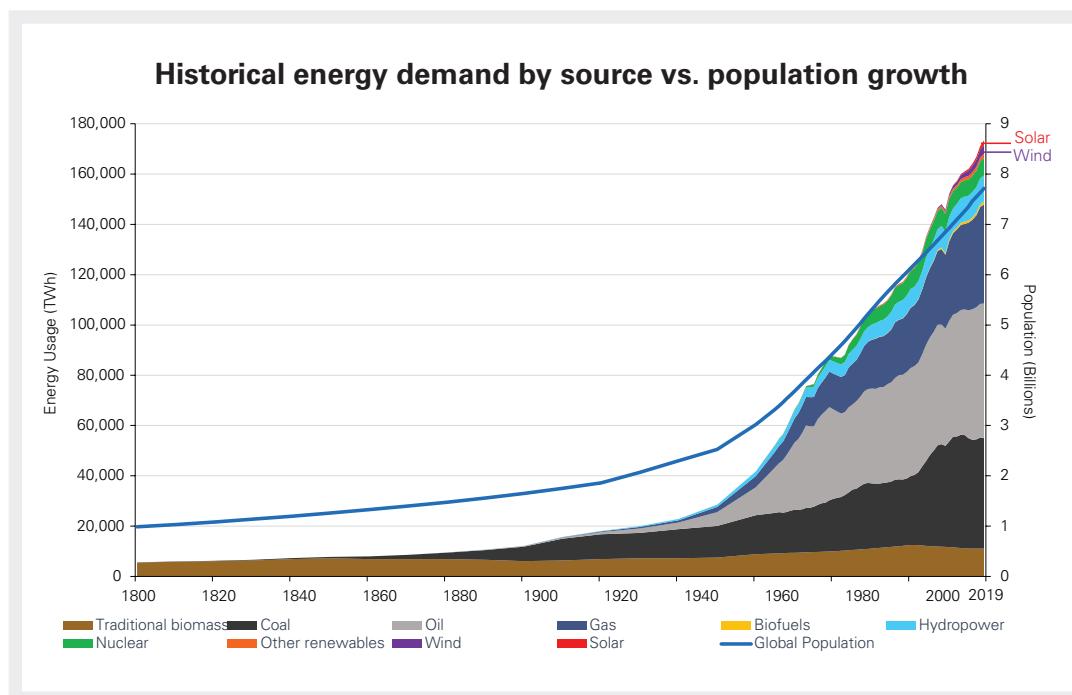


# Notable Numbers: The Case for U.S. Energy Infrastructure

**82% of global energy came from fossil fuels in 2022**



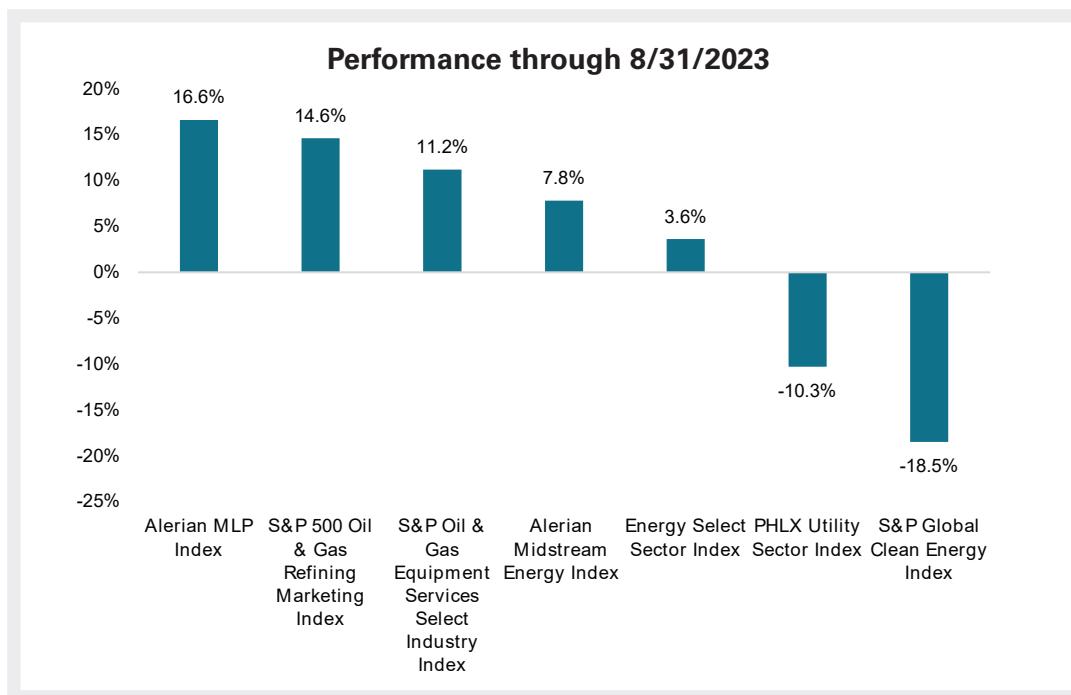
Source: Our World in Data

**Why is this still the case?** Fossil fuels continue to provide more reliable and low-cost energy than renewable sources, which is critical to global energy security.

**What about future energy demand?** Global energy demand has increased 38% of the last 40 years, and we expect that trend to continue. *Currently renewable sources are not reliable or cost effective enough to meet this growing demand.*

**How does this align with the energy transition?** Natural gas is a critical component to global decarbonization - replacing coal with natural gas has had, and will continue to have, a positive impact on reducing global carbon dioxide emissions. We expect natural gas demand to rise as it continues to play an important role in global decarbonization.

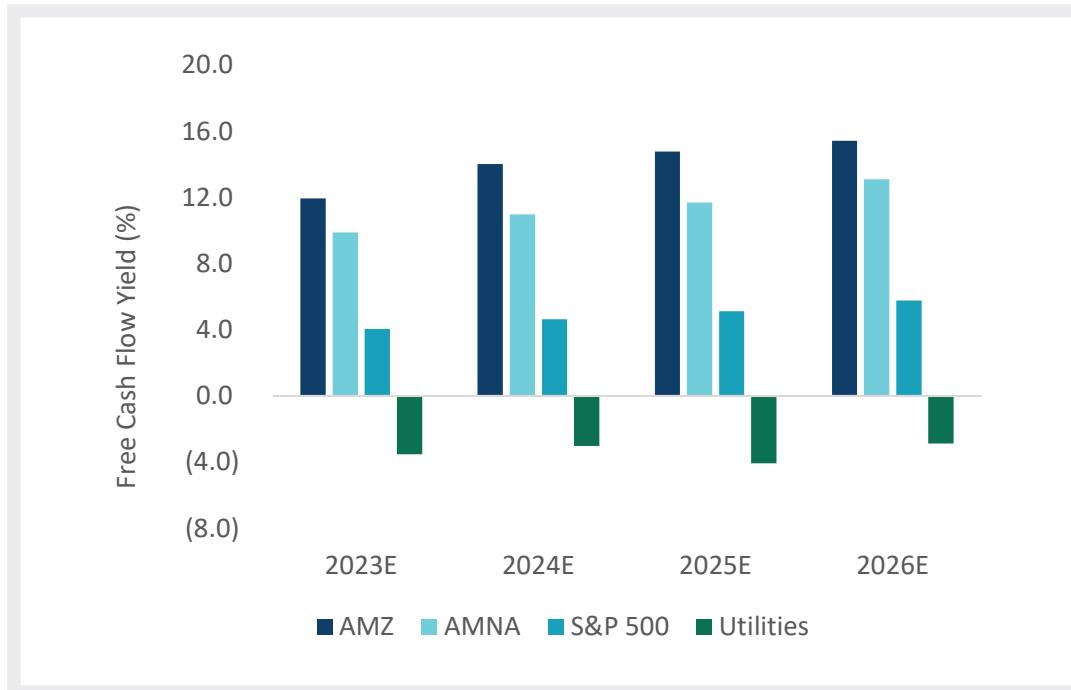
## **16% return YTD for MLPs and relative outperformance of the midstream energy sector versus the broader energy sector in 2023**



Source: Bloomberg, TCA. As of 8/31/2023

- With mixed commodity prices during the first half of 2023, the midstream sector proved to be defensive, outperforming exploration and production companies (E&Ps) and other energy subsectors.
- We believe that midstream will continue to be defensive in either an inflationary or rising rate environment.
- On May 15th, ONEOK (OKE) and Magellan Midstream Partners (MMP) agreed to a deal merging the Tulsa-based firms. A shareholder vote is expected in the back half of 2023 and would create one of the largest pro-forma energy infrastructure entities. We believe the current deal spread based on ONEOK and Magellan Midstream Partners stock prices implies that the deal is more likely than not to be approved and close in 2023.

## 11% is the expected 2024 free cash flow yield of the energy infrastructure sector



As of 6/30/2023. Source: Bloomberg, TCA, UBS, Goldman Sachs, Morgan Stanley, Wells Fargo.  
Projections are no guarantee of future results.

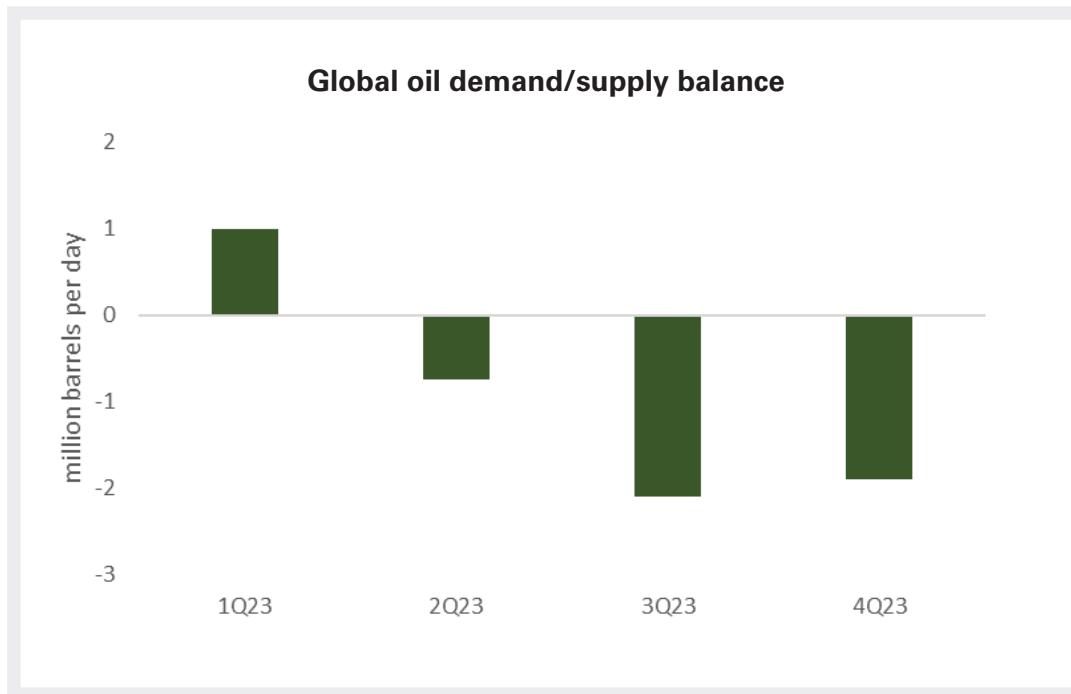
Midstream equities are expected to produce double digit free cash flow yields from 2023-2026.

### How do we predict this being allocated back to shareholders?

1. Since 2020, many companies have been focused on deleveraging; leverage has decreased from 4.9x to 3.7x\*.
2. Healthy dividends are paid, along with a growing distribution of 5-7% compounded annual growth rate between 2023 and 2027\*.
3. Share buybacks

\*Source: TCA

## 360 million barrels is the expected global oil inventory draws for H2 2023, as demand continues to grow



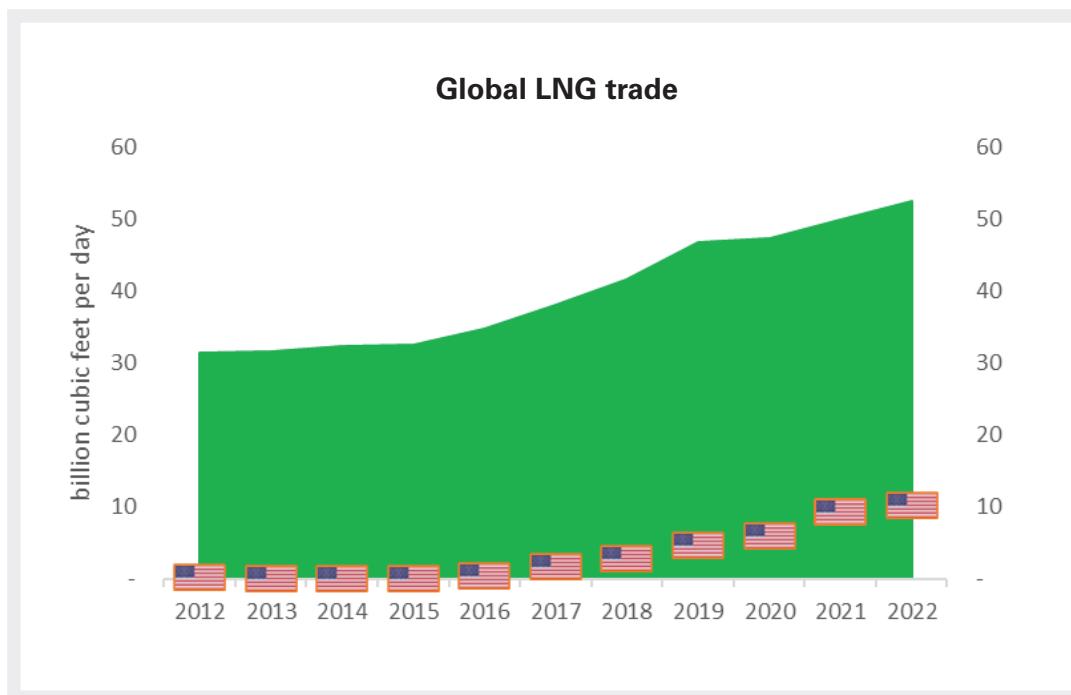
Source: IEA Oil Market Report  
As of 6/30/2023

**Production is declining:** The Organization of the Petroleum Exporting Countries Plus (OPEC+) has announced the plan for production decreases in the 2H23 to account for an oversupply of oil in the 1H23. In addition, U.S. production will decline due to a lower rig count.

**Demand is rising:** Global oil demand levels are expected to reach record levels in the 2H23, with an expected record-breaking demand in 2024.

**What does this mean for crude oil prices?** We think crude oil prices will likely rise into the 90s. At Tortoise, we do not think energy infrastructure prices should correlate heavily to oil prices due to the more fee-based nature of energy infrastructure cash flows, but we know this isn't always the case in the broader market.

## 52 billion cubic feet per day of global liquefied natural gas (LNG) is traded daily



Source: <https://www.eia.gov/todayinenergy/detail.php?id=57000>  
As of 7/05/2023

**Demand:** Global LNG demand has grown 5% year-over-year for the past decade, and we expect that to continue, due in large part to India and China relying on natural gas to grow their economies and reduce emissions.

**Supply:** The U.S. is the largest supplier of LNG in the world, supplying almost 20% of the daily LNG volume due to technologies that discovered significant, low-cost shale natural gas in the U.S.

**What does this mean for the U.S. pipeline infrastructure?** The infrastructure will continue to be crucial to global energy supply and will support global decarbonization efforts.

*To further explore the opportunity in energy infrastructure, visit our website at: <https://tortoiseecofin.com/expertise/energy/> or email us at [info@tortoiseadvisors.com](mailto:info@tortoiseadvisors.com).*

## Disclosures

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**Past performance is no guarantee of future results. It is not possible to invest directly in an index.**

Liquefied Natural Gas (LNG) is a natural gas that has been cooled to a liquid state for shipping and storage - the volume in this state is about 600 times smaller than in its gaseous state, able to transport for much longer distances when pipeline transport is not feasible. Free Cash Flow is the cash a company produces through its operations, less the cost of total capital expenditures (growth and maintenance).

MLPs = Tortoise MLP Index®, a float-adjusted, capitalization-weighted index of energy MLPs. To be eligible for inclusion in the Tortoise MLP Index®, a company must be publicly traded, organized as a limited partnership or a limited liability company (LLC), and be classified as an "energy MLP" by the Master Limited Partnership Association (MLPA). Pipelines = Tortoise North American Pipeline Index<sup>SM</sup>, a float-adjusted, capitalization-weighted index of pipeline companies domiciled in the U.S. and Canada. The index includes pipeline companies structured as corporations, LLCs and MLPs. Tortoise MLP Index® and Tortoise North American Pipeline Index<sup>SM</sup> (the "Indices") are the exclusive property of Tortoise Index Solutions, LLC, which has contracted with S&P Opcos, LLC (a subsidiary of S&P Dow Jones Indices LLC) to calculate and maintain the Indices. The Indices are not sponsored by S&P Dow Jones Indices or its affiliates or its third party licensors (collectively, "S&P Dow Jones Indices"). S&P Dow Jones Indices will not be liable for any errors or omission in calculating the Indices. "Calculated by S&P Dow Jones Indices" and its related stylized mark(s) are service marks of S&P Dow Jones Indices and have been licensed for use by Tortoise Index Solutions, LLC and its affiliates. S&P® is a registered trademark of Standard & Poor's Financial Services LLC ("SPFS"), and Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"). The Alerian Midstream Energy Index is a broad-based composite of North American energy infrastructure companies. The capped, float-adjusted, capitalization-weighted index, whose constituents earn the majority of their cash flow from midstream activities involving energy commodities, is disseminated real-time on a price-return basis (AMNA) and on a total-return basis (AMNAX). The Alerian MLP Index is the leading gauge of energy infrastructure master limited partnerships (MLPs). The capped, float-adjusted, capitalization-weighted index, whose constituents earn the majority of their cash flow from midstream activities involving energy commodities, is disseminated real-time on a price-return basis (AMZ) and on a total-return basis (AMZX). The Alerian Midstream Energy Select Index is a composite of North American energy infrastructure companies. The capped, float-adjusted, capitalization-weighted index, whose constituents are engaged in midstream activities involving energy commodities, is disseminated real-time on a price-return basis (AMEI) and on a total-return basis (AMEIX). The S&P 500® Index is an unmanaged market-value weighted index of stocks, which is widely regarded as the standard for measuring large-cap U.S. stock market performance. The S&P Oil & Gas Equipment & Services Select Industry Index comprises stocks in the S&P Total Market Index that are classified in the GICS oil & gas equipment & services sub-industry. The S&P 500 Oil & Gas Refining & Marketing Index is a capitalization-weighted index. The index was developed with a base level of 10 for the 1941-1943 base period. The parent index is SPX. This is a GICS Level 4 Sub-Industry group. Intraday values are calculated by Bloomberg and not supported by S&P DJI, however the close price is the official close price calculated by S&P DJI. The Philadelphia Stock Exchange PHLX Utility Sector Index (UTY) is a market capitalization-weighted index composed of geographically diverse public utility stocks. The S&P Global Clean Energy Index is designed to measure the performance of companies in global clean energy-related businesses from both developed and emerging markets, with a target constituent count of 100.