



# Rediscovering Energy

## Accessing the Sector's Evolution



## Introduction

### **The energy sector held a prominent position among growth-oriented investors**

in the years leading up to 2020. Following a period marked by volatility, shifting market dynamics, and global disruption, some market participants may view the sector's potential as diminished.

However, the current environment reflects a markedly different landscape—characterized by improved capital discipline, enhanced profitability, and an increasingly critical role in supporting economic and infrastructure development.

This ebook provides an overview of the sector's transition from capital-intensive growth to disciplined capital allocation. It is intended to assist financial advisors in evaluating the current risk-return profile of the energy sector within the context of a diversified portfolio.



# From Boom to Balance— The Sector’s Structural Shift

## Then: Shale Boom & Capital Excess

Prior to 2020, the U.S. energy sector experienced rapid expansion driven by shale discoveries. Production growth often exceeded 20% annually, and IPO activity was robust.

However, this phase was accompanied by high capital expenditures, balance sheet strain, and dependence on external financing. The resulting inefficiencies and volatility underscored the need for a structural reset.

## Now: Capital Discipline & Free Cash Flow

In recent years, energy companies have prioritized free cash flow over production growth. The sector now demonstrates improved capital discipline, with free cash flow yields among the highest in the S&P 500.

Many firms fund dividends and share repurchases from operations, reducing reliance on capital markets.

Energy infrastructure companies have also adopted this approach. Leverage ratios have declined (from ~5x to ~3.0–3.5x debt Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA), and capital markets activity has been largely replaced by strategic mergers and consolidations, supporting a more resilient business model. Additionally, the energy value chain has expanded significantly—now encompassing not just oil producers, but also natural gas, natural gas liquids (NGLs), liquefied natural gas (LNG) terminals, pipelines, utilities, and export infrastructure.

## Capital Discipline and Its Investment Implications

The sector’s emphasis on free cash flow has improved the predictability of shareholder returns and reduced financial risk. Many energy subsectors currently (as of June 30, 2025) offer free cash flow yields in the 8–10% range, which compares favorably with broader market benchmarks.

**8%-10%**

Free cash flow yields of 8%-10%—among the highest in the S&P 500.

Capital is increasingly directed toward shareholder distributions rather than expansion. Dividend payments are generally covered by cash flow, and buybacks are executed within disciplined financial frameworks. For financial advisors, this trend supports a more stable profile for income-oriented allocations.

These shifts also align the sector more closely with characteristics of mature industries—characterized by reduced volatility, lower reinvestment risk, and an emphasis on sustainable returns.



Any property shown is for illustrative purposes only and does not imply an actual property held in the Fund.

# Common Misconceptions About Energy Investing

## Misconception 1

### "Energy = Oil = Volatility"

While oil remains a significant component, natural gas is gaining importance due to its lower emissions profile and reliability.

The sector includes infrastructure, processing, and export functions, many of which generate fee-based revenue through long-term contracts.

## Misconception 2

### "Energy is just about transportation"

Approximately 96% of manufactured goods rely on oil or natural gas.

Beyond transportation, hydrocarbons support sectors ranging from healthcare and construction to consumer goods, emphasizing their foundational role in the global economy.

## Misconception 3

### "The future is fully renewable"

Although renewable energy is growing, hydrocarbons continue to provide over 80% of global energy supply—a proportion expected to remain substantial through 2050.

Meeting future demand likely requires a combination of energy sources, particularly those that ensure reliability and scalability.

## U.S. Energy Leadership

### Shale Revolution

Technological advances in horizontal drilling and hydraulic fracturing have made the U.S. the leading global producer of oil and natural gas. This has contributed to improved energy security, trade balances, and cost competitiveness.

### Energy Exports

Over the past decade, the U.S. has emerged as the world's largest exporter of LNG. This development has broadened global supply options and enhanced energy security for import-dependent nations. Infrastructure expansion continues to support long-term export capacity.

The shift began in earnest after the crude oil export ban was lifted in 2015. Additionally, the repurposing of LNG import terminals into export hubs enabled U.S. producers and infrastructure operators to meet rising global demand for cleaner fuels.

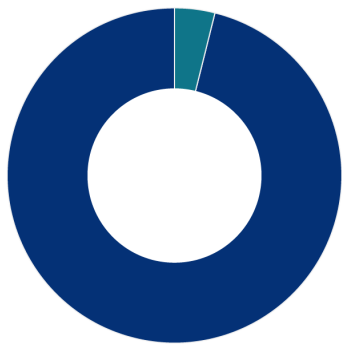


# Valuation and Income Characteristics

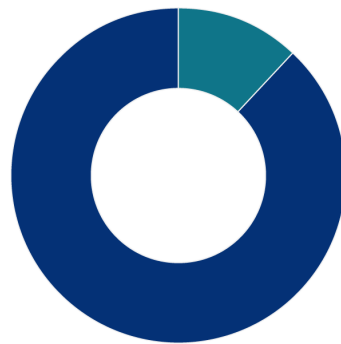
Despite strong cash flow performance and earnings contributions, the energy sector represents just 3%–4% of the S&P 500 Index, down from historical levels of 7%–8%.

At the same time, it contributes approximately 12% of the index's earnings.

**S&P 500 Sector Weighting**



**S&P 500 Earnings Contribution**



- 3%-4% Energy sector
- 96%-97% Rest of S&P
- 12% Energy sector
- 88% Rest of S&P

Source: S&P as of June 30, 2025.

Valuation multiples remain below historical averages.

Sector participants often trade at EV/EBITDA multiples around 10x. Dividend yields generally exceed those of the broader market and are supported by cash flow rather than debt issuance.

In a normalized interest rate environment, the sector's income profile may be of interest to investors seeking yield and moderate equity exposure.



Any property shown is for illustrative purposes only and does not imply an actual property held in the Fund.

# Demand Outlook and Structural Tailwinds

## Electricity Demand and AI Infrastructure

Electricity demand in the U.S. is expected to rise significantly after two decades of stagnation. Factors include AI-driven data center expansion, electrification trends, and onshoring of industrial operations. Natural gas is expected to remain a key contributor to reliable baseload power during this transition.

## Projected Growth of Data Center Electricity Use



According to data from the Energy Information Administration, electricity generated for data centers alone is expected to account for approximately 12% of total U.S. power consumption by 2030, up from under 2% in 2018.

**2024 Report on U.S. Data Center Energy Use** (Lawrence Berkeley National Laboratory, released December 19, 2024)

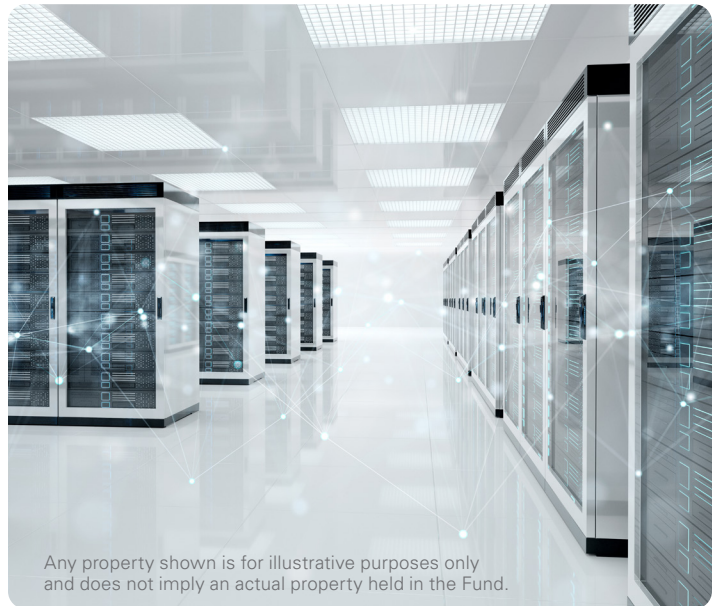
## Global Energy Access

An estimated one billion people globally still lack access to electricity. Expanding access in developing economies will likely contribute to long-term demand growth. Energy access is positively correlated with economic and social development indicators.

## Domestic Policy and Industrial Competitiveness

Federal incentives and supply chain strategies have supported a resurgence in U.S. manufacturing. Reliable, cost-effective energy is a critical input in sectors such as semiconductors, infrastructure, and advanced manufacturing.

Additionally, the U.S. is exporting record levels of energy—including LNG, NGLs, oil, and refined products—demonstrating its strategic role in meeting international demand for reliable and cleaner fuel sources.



## • Conclusion

The evolution of the energy sector has improved the quality of cash flows and capital allocation. As global energy demand continues to expand and technological applications evolve, the sector's foundational role remains significant.

Financial advisors may find value in re-evaluating the sector's current fundamentals, particularly as they relate to income, valuation, and diversification. This assessment is especially relevant in light of changing macroeconomic conditions and evolving portfolio construction goals.

### **Next Steps: Learn More About TNGY**

Ready to see how TNGY might fit into your income or infrastructure allocation strategy?  
Schedule a call with our Tortoise Capital team.



## About Tortoise Capital

With approximately \$9.1 billion in assets under management as of July 31, 2025, Tortoise Capital's record of investment experience and research dates back more than 20 years. As an early investor in midstream energy, Tortoise Capital believes it is well-positioned to be at the forefront of the global energy evolution that is under way. Based in Overland Park, Kansas, Tortoise Capital Advisors, L.L.C. is an SEC-registered investment adviser who manages funds that invest primarily in publicly traded companies in the energy and power infrastructure sectors—from production to transportation to distribution. For more information about Tortoise Capital, visit [www.tortoisecapital.com](http://www.tortoisecapital.com).

## Important Information

Tortoise Capital Advisors, LLC. (TCA) is the adviser to the Tortoise Energy Fund. TCA is an investment manager specializing in listed energy investments and is experienced in managing portfolios of MLP securities and other energy companies for individual, institutional and closed-end fund investors.

**The fund's investment objective, risks, charges and expenses must be considered carefully before investing. The summary and statutory prospectus contains this and other important information about the fund and may be obtained by calling (855) 994-4437 or visiting [etp.tortoisecapital.com/funds/tortoise-essentialenergy-fund](http://etp.tortoisecapital.com/funds/tortoise-essentialenergy-fund). Read it carefully before investing.**

Shares of exchange-traded funds (ETFs) are not individually redeemable and owners of the shares may acquire those shares from the ETF and tender those shares for redemption to the ETF in Creation Units only, see the ETF prospectus for additional information regarding Creation Units. Investors may purchase or sell ETF shares throughout the day through any brokerage account, which will result in typical brokerage commissions. Shares may trade at prices different than net asset value per share.

Investing involves risk. Principal loss is possible. The fund is registered as a non-diversified, open-end management investment company under the 1940 Act.

Accordingly, there are no regulatory limits under the 1940 Act on the number or size of securities that we hold, and we may invest more assets in fewer issuers compared to a diversified fund. An investment in MLP securities involves some risks that differ from the risks involved in an investment in the common stock of a corporation, including risks relating to the ownership structure of MLPs, the risk that MLPs might lose their partnership status for tax purposes and the risk that MLPs will not make distributions to holders (including us) at anticipated levels or with the expected tax character.

We may invest a portion of our assets in fixed income securities rated "investment grade" by nationally recognized statistical rating organizations ("NRSROs") or judged by our investment adviser, Tortoise Capital Advisors, L.L.C. (the "Adviser"), to be of comparable credit quality. Non-investment grade securities are rated Ba1 or lower by Moody's, BB+ or lower by S&P or BB or lower by Fitch or, if unrated, are determined by our Adviser to be of comparable credit quality. Investments in the securities of non U.S. issuers may involve risks not ordinarily associated with investments in securities and instruments of U.S. issuers, including different accounting, auditing and financial standards, less government supervision and regulation, additional tax withholding and taxes, difficulty enforcing rights in foreign countries, less publicly available information, difficulty effecting transactions, higher expenses, and exchange rate risk.

Restricted securities (including Rule 144A securities) are less liquid than freely tradable securities because of statutory and contractual restrictions on resale. This lack of liquidity creates special risks for us. Rule 144A provides an exemption from the registration requirements of the Securities Act of 1933 (the "1933 Act"), for the resale of certain restricted securities to qualified institutional buyers, such as the Fund. We cannot guarantee that our covered call option strategy will be effective. There are several risks associated with transactions in options on securities. For example, the significant differences between the securities and options markets could result in an imperfect correlation between these markets. Certain securities may trade less frequently than those of larger companies that have larger market capitalizations. 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. Returns include reinvested dividends. A master limited partnership (MLP) is a limited partnership investment vehicle that is traded on public exchanges. MLPs are traded in units rather than shares and consist of a general partner and limited partners. There are certain tax advantages as well as opportunity for more liquidity. Active share is a measure of the percentage of stock holdings in a manager's portfolio that differs from the benchmark index.

Risks include, but are not limited to, risks associated with companies owning and/or operating energy pipelines, as well as master limited partnerships (MLPs), MLP affiliates, capital markets, terrorism, natural disasters, climate change, operating, regulatory, environmental, supply and demand, and price volatility risks. The tax benefits received by an investor investing in the fund differ from that of a direct investment in an MLP by an investor. The value of the fund's investment in an MLP will depend largely on the MLP's treatment as a partnership for U.S. federal income tax purposes. If the MLP is deemed to be a corporation then its income would be subject to federal taxation, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value. Investments in non-U.S. companies (including Canadian issuers) involve risk not ordinarily associated with investments in securities and instruments of U.S. issuers, including risks related to political, social and economic developments abroad, differences between U.S. and foreign regulatory and accounting requirements, tax risk and market practices, as well as fluctuations in foreign currencies. The fund invests in small and mid-cap companies, which involve additional risks such as limited liquidity and greater volatility than larger companies. A master limited partnership (MLP) is a limited partnership investment vehicle that is traded on public exchanges. MLPs are traded in units rather than shares and consist of a general partner and limited partners. There are certain tax advantages as well as opportunity for more liquidity.

Diversification does not assure a profit or protect against a loss in a declining market. Projections are based on estimates and subject to change.

Nothing on this brochure should be considered a solicitation to buy or an offer to sell any shares of the portfolio in any jurisdiction where the offer or solicitation would be unlawful under the securities laws of such jurisdiction. Nothing contained in this communication constitutes tax, legal or investment advice. Investors must consult their tax advisor or legal counsel for advice and information concerning their particular situation.

Free cash flow is the cash a company produces through its operations, less the cost of total capital expenditures (growth and maintenance). Free cash flow (FCF) yield is a financial metric used to evaluate a company's investment potential by comparing its cash generation to its market valuation. Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA) is a non-GAAP measure used to provide an approximation of a company's profitability. This measure excludes the potential distortion that accounting and financing rules have on a company's earnings; therefore, EBITDA is a useful tool when comparing companies that incur large amounts of depreciation expense because it excludes these non-cash items which could understate the company's true performance. The S&P 500® Index is an unmanaged, market-value weighted index of stocks that is widely regarded as the standard for measuring large-cap U.S. stock market performance. Registration with the SEC does not guarantee the success of an investment nor provide insurance of any assets.

Quasar Distributors, LLC, distributor

• NOT FDIC INSURED • NO BANK GUARANTEE • MAY LOSE VALUE