Kayne Anderson

NextGen Energy & Infrastructure, Inc.



KMF Annual Letter & Q4 2022 Performance Data

December 22, 2022

Dear Fellow Stockholders:

We hope that you and your families are well and enjoying the holiday season.

This year's annual letter is designed to provide a concise summary of KMF's performance, portfolio, and outlook. As discussed in this letter, we are very excited about the Fund's prospects. While we readily acknowledge that the near-term economic outlook is uncertain, we believe that the multi-decade tailwinds for KMF's investments outweigh any short-term challenges.

KMF generated very strong returns over the last 12 months – most energy infrastructure companies performed well, with stock price returns far in excess of the S&P 500 index. Active portfolio management played a role in KMF's excellent year, as performance benefited from our decision to "overweight" the midstream subsector and reduce the Fund's exposure to the renewable infrastructure subsector (in particular, companies with significant exposure to international markets). Active management of the Fund's balance sheet also influenced performance. In the face of heightened volatility in financial markets and rising interest rates, we reduced leverage during fiscal 2022. We made this decision to enable the Fund to better navigate "choppy" market conditions, which seem to be the one constant in the financial markets these days. Higher marginal borrowing costs also played a role in this decision. While KMF's returns would have been modestly higher had we not reduced leverage, we believe lower leverage levels are in the long-term best interest of the Fund's stockholders.

Importantly, what happened during fiscal 2022 is only a portion of the story for KMF. It has been approximately 2.5 years since we announced a strategic shift in the Fund's portfolio, which – in our opinion – has been a success. As we discussed at that time, our goal was to better position the Fund to take advantage of a "megatrend" in the energy industry, the energy transition. As a result of this portfolio repositioning, KMF currently holds a diverse mix of energy infrastructure investments, including midstream companies, utilities, and renewable infrastructure companies. We are very pleased with KMF's performance thus far – the Fund's Net Asset Return is 90.7% since we made these changes. The energy transition continues to gain traction as one of the most attractive macro investment themes within the investment community. Importantly, the Fund's flexible investment mandate enables it to capitalize on another key theme in the energy industry – energy security. KMF is a nimble investment vehicle that can dynamically capitalize on industry trends, and we believe this flexibility will continue to benefit the Fund's stockholders.

Fiscal 2022 was a very eventful year for the energy industry. Throughout the year topics such as high commodity prices, growing usage of renewable energy, carbon capture & sequestration, and liquefied natural gas ("LNG") exports frequented the front pages of mainstream news sources across the globe. While this renewed interest in the energy markets is partially attributable to market disruptions resulting from the war in Ukraine, it is our view that energy literacy among global citizens and policymakers will result in constructive energy policies over the longer term. A key global challenge today is the acute need for *more* sources of lower carbon energy. We believe the companies in the Fund's portfolio will be at the forefront of helping to solve this problem.

Why Invest in KMF?

We routinely try to put ourselves "in the shoes" of our investors and ask: What is KMF's value proposition for investors? In our opinion, KMF — with its flexible investment mandate, permanent capital base, and expertise providing capital solutions to both public and private companies — is a very attractive vehicle for investors seeking exposure to the energy infrastructure industry in an income-producing vehicle. The outlook for these types of companies is compelling for many reasons, including:

- Access to affordable and reliable energy is critical to the global economy, as evidenced by international developments throughout 2022. Energy infrastructure plays a vital role in facilitating this access by connecting producers and end users;
- To align with and achieve global net zero targets, annual energy transition related investments

must increase sixfold from \$755 billion in 2021 to approximately \$4.5 trillion by the end of the decade⁽⁵⁾:

- European nations' pursuit of reliable, alternative sources of energy has created a new frontier of commercial opportunities for energy infrastructure companies;
- Policy developments supporting the energy transition namely, the Inflation Reduction Act in the U.S. – create decades-long visibility on cash flows and an attractive runway for long-term growth;
- Global demand for energy (with a premium on cleaner sources of energy) is expected to steadily increase over the next several decades — driven primarily by growth in developing economies; and
- Energy infrastructure companies have stable cash flows, operate businesses with increasingly high barriers to entry, and, in many cases, have contractual protections to offset higher levels of inflation.

In short, KMF provides investors exposure to the durable megatrends of global decarbonization and energy security. The Fund is a unique way to capitalize on the sector's favorable outlook. Further, KMF provides this exposure to investors in a very easy-to-own structure – daily liquidity via the NYSE listing, an attractive quarterly distribution, and the tax simplicity of a single Form 1099.

Performance and Distributions

KMF generated a total Net Asset Return of 20.9% in fiscal 2022.⁽⁴⁾ We were pleased with this performance on the heels of a 33.7% return in fiscal 2021. KMF outperformed its benchmark by 830 basis points in fiscal 2022.⁽⁶⁾ As you can see in the table below, midstream companies were the best performing energy infrastructure subsector for the second consecutive year. Renewable infrastructure companies performed the weakest during fiscal 2022, with higher interest rates (and inflation), supply chain pressure, and concerns about the outlook for European and Asian economies weighing on equity price performance.

Comparison of Returns in Fiscal 2022

KMF Net Asset Return ⁽⁴⁾	20.9%
KMF Benchmark ⁽⁷⁾	12.6%
Midstream ⁽⁸⁾	30.8%
Renewable Infrastructure ⁽⁹⁾	-13.0%
U.S. Utilities(10)	11.8%

KMF's Market Return, which is based on stock price performance rather than Net Asset Value, was 21.8% for fiscal 2022. (11) This exceeded our Net Asset Return as our stock price traded at a 18.2% discount to NAV at fiscal year-end compared to a 18.9% discount at the beginning of the year.

We are disappointed in KMF's current trading relationship relative to NAV, and we continue to assess options to narrow this discount. In the short term, narrowing this discount can be an elusive goal. We will not hesitate to consider actions that we expect to have a sustained impact, but we do not anticipate utilizing strategies that are unlikely to result in a lasting solution. While we will carefully consider all actions suggested by our stockholders, our decisions will be guided by what we believe is in the best interests of all of our investors. To that end, one of our most important long-term goals is to provide investors with an attractive distribution because we continue to believe that consistent performance, along with a substantial return of cash to shareholders through quarterly distributions, will be rewarded over time in the form of a narrowing discount.

KMF's current quarterly distribution rate is 16¢ per share, a level that we believe is sustainable based on

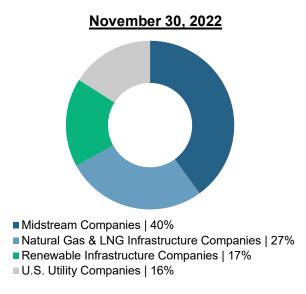
our current outlook. Our goal is to steadily increase KMF's distribution over time, as supported by the Fund's operating results.

In determining KMF's distribution, the Fund's board of directors considers both the income we receive from our investments as well as capital appreciation in the portfolio. We take a long-term view when making this determination and are not overly influenced by fluctuations in quarterly operating results. We expect that the returns generated by our portfolio companies over the next few years will accrue to the Fund in a balanced combination of income and capital appreciation.

Portfolio Positioning and Outlook

In many ways, fiscal 2022 ushered in a "long forgotten" era for financial markets. Inflation rose to levels not seen since the early 1980s and remains stubbornly high. The Federal Reserve has engaged in a very aggressive tightening cycle and short-term interest rates rose to levels not seen in decades. As investors digested the potential for a global recession, SPACs and NFTs ceded market share to "old economy" stocks like Exxon Mobil and Berkshire Hathaway. Unsettled capital markets and heightened geopolitical risk drove a flight to investments with defensive attributes, and many of KMF's portfolio investments have benefited from this shift in investor sentiment.

As part of the strategic shift during fiscal 2020, we meaningfully increased the Fund's holdings of U.S. utilities and renewable infrastructure companies to capitalize on the accelerating transition to lower carbon energy. At the end of that year, those two subsectors comprised approximately one-half of KMF's portfolio. We have since reduced our holdings in renewable infrastructure companies as we believed the midstream sector offered a better near-term value proposition. While we continue to have conviction on the intermediate to longer-term outlook for the renewable sector, we tactically position the portfolio in the short term for the most attractive risk-adjusted returns. The pie chart below summarizes KMF's allocations to key energy infrastructure subsectors at the end of fiscal 2022. At year end, combined investments in NextGen companies, which includes most of our investments in the renewable infrastructure, U.S. utilities, and natural gas & LNG subsectors, represents approximately 60% of the portfolio.⁽¹²⁾ The Fund's Benchmark for fiscal 2023 has similar subsector allocations as were used in fiscal 2022. (13) Importantly, this benchmark should be seen as a directional target for subsector allocations over the intermediate term – we do not believe rigid portfolio allocation guidelines are in stockholders' best interests.



As we contemplate the outlook for the next few years, we believe energy infrastructure companies are positioned for success – business fundamentals for the companies in our portfolio are excellent, corporate governance is greatly improved, and balance sheets are as healthy as any time in the past decade. Furthermore, the defensive attributes of these businesses compare favorably in the current

economic environment. Importantly, fundamentals in the broader energy markets remain constructive. Global energy demand is poised to exceed pre-COVID levels and is set to grow consistently over the next decade. North American energy companies remain steadfastly committed to generating free cash flow, returning capital to shareholders, and growing production at a responsible pace. Collective adherence to this "new" business model bodes well for the stability of the domestic midstream and natural gas & LNG subsectors over the next decade.

Additionally, we are witnessing a permanent, seismic shift in the nature of global energy supply and demand: an understanding that not all molecules and electrons are created equal. Unfortunately, we are also witnessing how disruptive it is when energy is not readily available. The megatrends of decarbonization and energy security have collided to create a durable, global "bid" on low-carbon, responsibly produced, secure sources of energy. More than 70 countries (including China, the U.S., and the European Union) and 3,000 corporations have set net zero targets, and consistent progress towards these goals create enormous near-term and long-term economic opportunities for KMF's renewable infrastructure and utility investments.⁽¹⁴⁾

Higher interest rates are naturally a headwind for companies with deep project backlogs (including certain companies in KMF's portfolio), but this is a manageable situation in our view. Between the strong balance sheets of best-in-class companies, billions of dollars in non-dilutive government funding available for energy transition projects, and significant appetite for renewable infrastructure investment in the public and private markets, the sector is positioned to navigate the current market backdrop. At the Fund level, KMF's balance sheet is positioned for the current interest rate environment. Our decision to utilize fixed-rate leverage (as opposed to floating-rate leverage) should benefit the Fund over the next few years. While approximately one-half of the Fund's fixed-rate leverage matures during fiscal 2023, leverage expense will not be nearly as high as it otherwise would have been. We have always believed limiting the Fund's exposure to higher interest rates was the prudent way to operate the business. Further, KMF's leverage level is conservative, and we have ample downside cushion to dampen the impact of any potential market dislocations.⁽¹⁵⁾

Domestic legislation like the landmark Inflation Reduction Act and the European Commission's REPowerEU plan – replete with tax credit extensions, regional incentives, and other policy support mechanisms – create an extremely attractive commercial backdrop for new renewable infrastructure and other energy transition related investments. Commercial traction in emerging energy subsectors continues to accelerate, and we believe energy infrastructure companies are just beginning to capitalize on the multi-decade global decarbonization megatrend.

The energy infrastructure industry today – in its themes, corporate structure, and even its jargon – is fundamentally different than a decade ago. Our diverse team of industry experts embraces this evolution and is well-positioned to capitalize on opportunities emerging from this new landscape. We do this with decades of experience and a deep appreciation for, and understanding of, business cycles and the dangers of chasing investment fads.

We appreciate the trust you have placed in us, and we take this responsibility very seriously. We are very optimistic about the Fund's prospects moving forward and look forward to executing on our investment objective of achieving high total returns with an emphasis on making cash distributions to our stockholders. Please do not hesitate to contact us with any questions or comments.

Sincerely,

James C. Baker, Jr.

you Bec

Chairman of the Board
President and Chief Executive Officer

Endnotes can be found on page 5.

- (1) Whenever we reference "midstream companies", the "midstream sector" or the "midstream industry" it includes both traditional midstream companies and natural gas & LNG infrastructure companies. Traditional midstream companies are defined as midstream companies that own and/or operate midstream assets related to crude oil, refined products, natural gas liquids or water. Natural gas & LNG infrastructure companies are defined as midstream companies that primarily own and/or operate midstream assets related to natural gas or liquefied natural gas. "Overweight" relative to KMF's Benchmark detailed in footnote 7
- (2) Energy transition refers to the global energy sector's transition to a more sustainable mix of lower carbon and renewable energy sources that results in reduced emissions of carbon dioxide and other greenhouse gases over the next 20 to 30 years.
- (3) Measurement period of May 31, 2020 through November 30, 2022.
- (4) Net Asset Return is defined as the change in net asset value per share plus cash distributions paid during the period (assuming reinvestment through our dividend reinvestment plan).
- (5) Source: BloombergNEF 2022 New Energy Outlook scenarios. BloombergNEF's modeled scenarios indicate that achieving "net zero" global carbon emissions by 2050 corresponds with 1.75 degrees Celsius of warming.
- (6) Based on the difference between the Fund's Net Asset Return and the total return of KMF's Benchmark.
- (7) KMF's Benchmark is a composite of energy infrastructure companies. For fiscal 2022, this composite is comprised of an 50% weighting to the midstream sector, a 35% weighting to the renewable infrastructure sector and a 15% weighting to the U.S. utility sector. The subsector allocations for this composite were established by Kayne Anderson at the beginning of fiscal 2022 based on the estimated target subsector allocations of the Fund's assets over the intermediate term. KMF's portfolio holdings and/or subsector allocations may change at any time. Returns for each period are total returns (assuming reinvestment of dividends).
- (8) The benchmark for the midstream sector is the Alerian Midstream Energy Index (AMNA).
- (9) The benchmark for the renewable infrastructure sector is a composite total return of 41 domestic and international renewable infrastructure and utility companies (calculated on a market-cap weighted basis with individual constituents capped at a 10% weighting).
- (10) The benchmark for the U.S. utility sector is the Utilities Select Sector SPDR (XLU), which is an exchange-traded fund ("ETF") linked to the Utilities Select Sector Index (IXU), a sub-set of the S&P 500.
- (11) Market Return is defined as the change in share price plus cash distributions paid during the period (assuming reinvestment through our dividend reinvestment program).
- (12) We consider NextGen companies to be energy companies and infrastructure companies that are meaningfully participating in, or benefiting from, the energy transition. For these purposes, we include renewable infrastructure companies, natural gas & LNG infrastructure companies, and certain utility companies.
- (13) For fiscal 2023, KMF's Benchmark is a composite that is comprised of an 50% weighting to the midstream sector, a 30% weighting to the renewable infrastructure sector and a 20% weighting to the U.S. utility sector. The subsector allocations for this composite were established by Kayne Anderson based on the estimated target subsector allocations of the Fund's assets over the intermediate term. KMF's portfolio holdings and/or sector allocations may change at any time.
- (14) Source: United Nations Net Zero Coalition.
- (15) Downside cushion reflects the decrease in total asset value that could be sustained while maintaining compliance with 1940 Act leverage levels and KMF's financial covenants.

KMF Total Returns					
	Fiscal Q4'22	Fiscal 2022			
Net Asset Return ⁽¹⁾	(1.2%)	20.9%			
Market Return ⁽²⁾	(2.3%)	21.8%			
KMF Benchmark ⁽³⁾	0.2%	12.6%			

KMF Portfolio Sector Returns						
	Fiscal Q4'22		Fiscal 2022			
Sector Returns ⁽⁴⁾	KMF ⁽⁵⁾	Benchmark ⁽⁶⁾	KMF ⁽⁵⁾	Benchmark ⁽⁶⁾		
Midstream ⁽⁷⁾	5.8%	4.0%	32.2%	30.8%		
Renewable Infrastructure	(10.4%)	(3.8%)	(9.0%)	(13.0%)		
U.S. Utilities ⁽⁸⁾	(6.3%)	(3.2%)	5.5%	11.8%		

Note: Performance as of November 30, 2022.

- (1) Net Asset Return is defined as the change in net asset value per share plus cash distributions paid during the period (assuming reinvestment through our dividend reinvestment plan).
- (2) Market Return is defined as the change in share price plus cash distributions paid during the period (assuming reinvestment through our dividend reinvestment plan).
- (3) KMF's Benchmark is a composite of energy infrastructure companies. For fiscal 2022, this composite is comprised of an 50% weighting to the midstream sector, a 35% weighting to the renewable infrastructure sector and a 15% weighting to the U.S. utility sector. The subsector allocations for this composite were established by Kayne Anderson at the beginning of fiscal 2022 based on the estimated target subsector allocations of the Fund's assets over the intermediate term. For fiscal 2023, KMF's Benchmark is a composite that is comprised of an 50% weighting to the midstream sector, a 30% weighting to the renewable infrastructure sector and a 20% weighting to the U.S. utility sector. KMF's portfolio holdings and/or subsector allocations may change at any time. Please see footnote 6 for a description of the benchmarks used for each subsector.
- (4) Excludes preferred and credit investments.
- (5) Portfolio returns reflect KMF's asset level returns for each subsector based on KMF's portfolio holdings. Asset level return is calculated as the total return (before leverage and expenses) of KMF's portfolio holdings for each subsector.
- (6) Benchmark returns are total returns. The benchmark for the midstream sector is the Alerian Midstream Energy Index (AMNA). The benchmark for the renewable infrastructure sector is a composite total return for 41 domestic and international renewable infrastructure and utility companies (calculated on a market-cap weighted basis with individual constituents capped at a 10% weighting). The benchmark for the U.S. utility sector is the Utilities Select Sector SPDR Fund (XLU), which is an ETF linked to the Utilities Select Sector Index (IXU), a subset of the S&P 500.
- (7) Includes traditional midstream companies and natural gas & LNG infrastructure companies.
- (8) Includes TransAlta Corporation (TA CN).

DISCLAIMER & RISK CONSIDERATIONS

All investments involve risk, including possible loss of principal. An investment in the fund could suffer loss. Closed-end funds, unlike open-end funds, are not continuously offered. After the initial public offering, shares are sold on the open market through a stock exchange. As with any other stock, total return and market value will fluctuate so that an investment, when sold, may be worth more or less than its original cost. Shares of closed-end funds frequently trade at a market price that is below their net asset value.

Kayne Anderson NextGen Energy & Infrastructure, Inc. (NYSE: KMF) is a non-diversified, closed-end management investment company registered under the Investment Company Act of 1940, as amended, whose common stock is traded on the NYSE. The fund's investment objective is to provide a high level of total return with an emphasis on making cash distributions to its stockholders. The fund seeks to achieve its investment objective by investing at least 80% of its total assets in securities of Energy Companies and Infrastructure Companies. The fund anticipates that the majority of its investments will consist of investments in "NextGen" companies, which we define as Energy Companies and Infrastructure Companies that are meaningfully participating in, or benefiting from, the Energy Transition. See Glossary of Key Terms in the fund's most recent quarterly report for a description of these investment categories and the meaning of capitalized terms.

This communication contains statements reflecting assumptions, expectations, projections, intentions, or beliefs about future events. These and other statements not relating strictly to historical or current facts constitute forward-looking statements as defined under the U.S. federal securities laws. Forward-looking statements involve a variety of risks and uncertainties. These risks include, but are not limited to, changes in economic and political conditions; regulatory and legal changes; energy industry risk; leverage risk; valuation risk; interest rate risk; tax risk; and other risks discussed in detail in the Company's filings with the Securities and Exchange Commission ("SEC"), available at www.kaynefunds.com or www.sec.gov. Actual events could differ materially from these statements or from our present expectations or projections. You should not place undue reliance on forward-looking statements, which speak only as of the date they are made. Kayne Anderson undertakes no obligation to publicly update or revise any forward-looking statements made herein. There is no assurance that the Company's investment objectives will be attained.

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