Kayne Anderson

NextGen Energy & Infrastructure, Inc.

KMF Quarterly Commentary & Performance Data: Q4'21

December 22, 2021

Kayne Anderson NextGen Energy & Infrastructure, Inc.
Letter to Stockholders

December 22, 2021

Dear Fellow Stockholders:

Season's greetings and best wishes for the New Year. We hope that you and your families have been able to remain safe and healthy during this pandemic. We remain hopeful the worst is behind us in the United States, but we acknowledge that the global battle against COVID-19 is far from over.

As economic activity recovered in 2021, demand for energy-related commodities also rebounded, which set the stage for a strong rally in energy infrastructure equities. KMF participated in this recovery, generating exceptional returns over the last 12 months. While our outlook for the new year is optimistic, there will almost undoubtedly be challenges in 2022 – be it from new COVID variants, the knock-on effects of this pandemic on the global economy, or other factors. We believe KMF is well-positioned to withstand periods of heightened market volatility with its diversified portfolio of investments and leverage that is intentionally lower than pre-pandemic levels.

Over the past few years, we've transformed KMF's portfolio to focus on the next generation of energy infrastructure companies. We find these "NextGen" companies particularly attractive because they are participating in, or benefiting from, the transition of our global energy system away from traditional carbon-based fuels to a more sustainable mix of lower carbon fuels and renewable energy sources. This is commonly referred to as the "Energy Transition," and we expect this megatrend will be KMF's primary investment thesis for quite some time. Notwithstanding our conviction on the merits of this push to reduce emissions of carbon dioxide and other greenhouse gasses, the spikes in energy prices and shortages in commodities experienced during 2021 serve as a powerful reminder that fossil fuels will play an essential role in satisfying global energy demand for decades to come. For that reason, KMF also has meaningful equity exposure to high-quality, midstream companies – a sector that is undervalued in our opinion.(1)

This letter is designed to provide a concise summary of KMF's performance, portfolio, and outlook. We hope that you find it insightful; in addition, we highly encourage investors to visit our website (kaynefunds.com/kmf) for additional information about the Fund and its investments. For example, we recently posted a podcast that discusses many of the topics covered in this letter in greater detail.

Why Invest in KMF?

Before reviewing KMF's results during fiscal 2021, we wanted to answer the following question: why invest in KMF? In our opinion, KMF – with its thematic focus on NextGen companies, tax-efficient structure, and permanent capital base – is a very attractive vehicle for investors seeking exposure to the Energy Transition via the infrastructure sector. We believe the Energy Transition investment thesis is compelling for many reasons, including:

- There is a growing global consensus on the need to reduce greenhouse gas emissions;
- Countries are creating powerful incentives to invest in renewable energy and emissions reduction technologies;
- New infrastructure investments are needed to facilitate the displacement of higher carbon fuels with natural gas and LNG, which is a critical component of the Energy Transition; and

Footnotes can be found on page 5.

- Investments supporting the deployment of carbon capture, hydrogen, renewable natural gas, and renewable diesel are in the early stages of accelerating.

We believe energy infrastructure is an attractive asset class for the following reasons:

- Energy infrastructure is critical to the global economy;
- Global demand for 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 high barriers to entry, and, in many cases, have contractual protections to higher levels of inflation.

Performance Review

KMF generated a total Net Asset Return of 33.7% in fiscal 2021.(2) We were pleased with this performance given KMF's mix of investments in the energy infrastructure industry, and it was a solid recovery after the challenges experienced during fiscal 2020. KMF outperformed its Composite Energy Infrastructure Index benchmark by 1190 basis points in fiscal 2021.(3) As you can see in the table below, midstream companies were the best performing energy infrastructure subsector in 2021, while renewable infrastructure and U.S. utilities generated more modest returns. The podcast referenced earlier in this letter provides more detail on the factors driving performance for each energy infrastructure subsector.

Comparison of Returns in Fiscal 2021

KMF Net Asset Return(2)	33.7%
KMF Composite Energy Infrastructure Index(4)	21.8%
Midstream(5)	37.6%
Renewable Infrastructure(6)	5.1%
U.S. Utilities(7)	8.0%

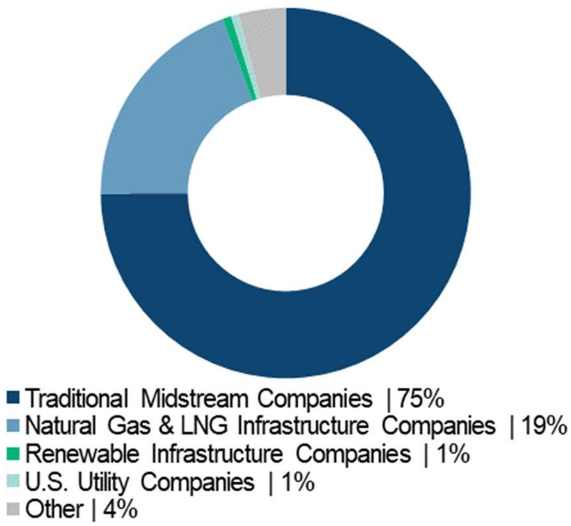
KMF's Market Return, which is based on stock price performance rather than Net Asset Value, was 45.1% for fiscal 2021.(8) This exceeded our Net Asset Return as our stock price traded at an 18.9% discount to NAV at fiscal year-end compared to a 25.2% discount at the beginning of the year. We are pleased to see our discount contract over the last 12 months, but it remains at a wider-than-normal level. While we believe investors have begun to appreciate the changes we announced last summer to KMF's distribution philosophy, we believe they have yet to give KMF full credit for its higher distribution rate. In our opinion, the most effective way to have a sustainable impact on the Fund's stock price discount to its NAV is for KMF to pay an attractive distribution and generate consistent returns. We delivered on these objectives during fiscal 2021, and our team is working hard to build on last year's success.

Portfolio

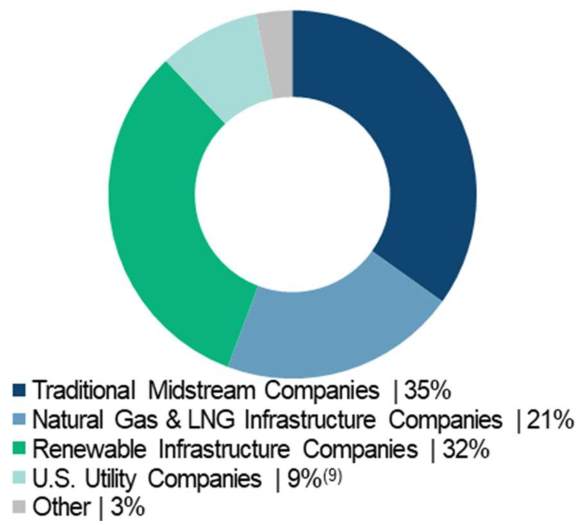
Over the last few years, we have transformed KMF's portfolio to focus on the Energy Transition thesis. Today, KMF's portfolio is a diversified mix of infrastructure investments in four areas of the energy industry: renewable infrastructure, U.S. utilities, natural gas & LNG infrastructure and traditional midstream.

Footnotes can be found on page 5.

November 30, 2018



November 30, 2021



The transition in our portfolio is apparent in the chart above. At the end of fiscal 2021, combined investments in NextGen companies, which includes most of our investments in the renewable infrastructure, U.S. utilities and natural gas & LNG infrastructure sectors, represents 61% of the portfolio.[10] This is slightly below the target provided in our summer 2020 strategic update (65%) and compares to only 21% exposure to NextGen companies as of the end of fiscal 2018. For fiscal 2022, the subsector weightings in KMF's Composite Energy Infrastructure Index are unchanged versus our weightings during 2021. However, we will likely rotate more of our traditional midstream investments into natural gas & LNG infrastructure during fiscal 2022, which will increase KMF's exposure to NextGen companies. Looking beyond 2022, we expect our target allocations for U.S. utilities and renewable infrastructure to increase as the global Energy Transition progresses. Notwithstanding these directional targets, the Fund's investment objective provides us the flexibility to invest in the most attractive areas within the energy infrastructure industry. Our goal is to generate attractive risk-adjusted returns, and we do not believe rigid portfolio allocation guidelines are in stockholders' best interests.

Distributions

We understand how important distributions are to our investors, and one of our most important long-term goals is to provide investors with an attractive distribution. We believe that the returns generated by our portfolio companies will accrue to us through a more balanced combination of dividends and capital appreciation compared to historical periods – when most of KMF's holdings employed a high dividend payout model. Midstream companies, in particular, have pivoted to a lower payout model where free cash flow (in excess of dividends and capital expenditures) is used primarily to buy back stock or reduce debt. Renewable infrastructure companies also tend to pay lower dividends as cash flow is used to fund growth. Utilities, which often fund their growth projects with external financing, typically pay dividends based on a target payout ratio of earnings. Recognizing the fundamental change in the character of KMF's expected portfolio returns alongside our desire to pay KMF's shareholders an attractive distribution, we announced an increase in KMF's quarterly distribution to 14¢ per share (a 56% increase) in June 2021. We believe this distribution is sustainable based on our outlook and is consistent with our philosophy of considering the income we receive from our investments and capital appreciation in the portfolio in determining KMF's distribution.

Footnotes can be found on page 5.

Outlook

As nations across the globe dedicate significant resources to tackle climate change, we are extremely bullish about 4%prospects for investing in infrastructure supporting the Energy Transition. The tailwinds supporting growth in lower carbon fuels, renewables, electrification, and technologies to reduce emissions are undeniable and gaining momentum. These initiatives support multi-decade growth profiles for our renewable infrastructure and utility investments. Incentives in the proposed Build Back Better plan are one powerful example. Commitments by countries at the recent COP26 Conference are another good example. Yet, despite these initiatives, we are also pragmatic about how quickly the world can pivot. A transition to a low carbon (or "net zero") energy system will take multiple decades, and in the interim, fossil fuels help provide stability and redundancy that is critical to a society reliant on energy in its day-to-day activities. Natural gas and LNG will play a particularly important long-term role in our view. For those reasons, we remain bullish about the prospects and longevity of midstream infrastructure.

As we look into 2022, the fundamentals in the energy markets are very constructive. Global energy demand has recovered to near pre-COVID levels and is set to grow consistently over the next decade. This bodes well for our investments in the midstream sector. The backdrop for our renewable infrastructure and utility holdings is also very robust. We continue to see record development of new renewable assets and solid guidance updates for 2022 from companies in KMF's portfolio. Looking beyond next year, growth in renewable infrastructure and increased electrification will support these companies' growth profiles for the next 10-20 years – we believe both sectors are in the early stages of a period of outsized investment and growth. Given the current income, growth, and capital appreciation potential of KMF's holdings, our team is particularly excited about the Fund's total return prospects.

We have little doubt that the next ten years will bring meaningful changes in the energy infrastructure industry, but our diverse team of industry experts is well-positioned to capitalize on these opportunities. We appreciate your investment in the Fund and look forward to executing on our investment objective of achieving a high level of total returns with an emphasis on making quarterly cash distributions. Please do not hesitate to contact us with any questions or comments.

Sincerely,

James C. Baker, Jr.
Chairman of the Board
President and Chief Executive Officer

Footnotes 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 liquified natural gas.

(2) 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).

(3) Based on the difference between the Fund's Net Asset Return and the total return of KMF's Composite Energy Infrastructure Index.

(4) KMF's Composite Energy Infrastructure Index is comprised of a 50% weighting to the midstream sector, a 35% weighting to the renewable infrastructure sector, and a 15% weighting to the U.S. utility sector. Returns for each period are total returns (assuming reinvestment of dividends). The sub-sector allocations for this composite index were established by Kayne Anderson at the beginning of fiscal 2021 and are expected to change on an annual basis.

(5) The benchmark for the midstream sector is the Alerian Midstream Energy Total Return Index (AMNAX).

(6) The benchmark for the renewable infrastructure sector is a composite total return for 39 domestic and international renewable infrastructure and utility companies (calculated on a market-cap weighted basis with individual constituents capped at a 10% weighting).

(7) The benchmark for the U.S. utilities sector is the Utilities Select Sector SPDR (XLU), which is an ETF linked to the Utilities Select Sector Index (IXU), a sub-set of the S&P 500.

(8) Market Return is defined as the change in share price plus cash distributions paid during the period (assuming reinvestment through our dividend reinvestment program).

(9) Excludes Engie (reclassified as other) and Public Power Corp (reclassified as renewable infrastructure). Includes TransAlta Corporation.

(10) 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.

KMF Quarterly Performance

Kayne Anderson

KMF Total Returns

KMF Total Returns	Fiscal Q4 2021	Fiscal 2021
Net Asset Return[1]	2.1%	33.7%
Market Return[2]	0.4%	45.1%
KMF Composite Energy Infrastructure Index[3]	(1.4%)	21.8%

KMF Portfolio Returns[4]

	Fiscal Q4 2021		Fiscal 2021	
Portfolio Returns[6]	KMF	Benchmark[5]	KMF	Benchmark[5]
Midstream	5.4%	2.6%	44.6%	37.6%
Renewable Infrastructure[7]	0.8%	(6.4%)	10.0%	5.1%
U.S. Utility Companies	(5.6%)	(3.3%)	2.9%	8.0%

Note: Performance as of November 30, 2021.

(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 Composite Energy Infrastructure Index is comprised of a 50% weighting to the midstream sector, a 35% weighting to the renewable infrastructure sector and a 15% weighting to the utility sector. Returns for each period are total returns (assuming reinvestment of dividends). The sub-sector allocations for this composite index were established by Kayne Anderson at the beginning of fiscal 2021 and are expected to change on an annual basis. Please see footnote 5 for a description of the benchmarks used for each energy infrastructure sub-sector.

(4) Portfolio returns reflect KMF's asset level returns for each sub-sector 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 sub-sector.

(5) The benchmark for the midstream sector is the Alerian Midstream Energy Total Return Index (AMNAX). The benchmark for the renewable infrastructure sector is a composite total return for 39 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. utilities sector is the Utilities Select Sector SPDR (XLU), which is an ETF linked to the Utilities Select Sector Index (IXU), a sub-set of the S&P 500.

(6) Excludes preferred and credit investments.

(7) Excludes Engie (reclassified as other) and Public Power Corp (reclassified as renewable infrastructure). Includes TransAlta Corporation.

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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